

DIVERSIFICATION AS A MECHANISM OF MANAGING THE MULTIFUNCTIONAL DEVELOPMENT OF SOCIO-ECONOMIC SYSTEMS

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Abstract. *Diversification as a mechanism of managing the multifunctional development of socio-economic systems. Oleksiy Buluy, Maria Plotnikova, Oksana Prysiashniuk. The article reveals the evolution of development, considers the directions of diversification of the local and national economy with an emphasis on ensuring the well-being of people and preserving the environment. At the local level, one of the promising areas of business diversification in rural areas is rural tourism. We believe that its development is a key factor that can cause a synergistic effect in combination with other types of entrepreneurial activity in rural areas. The proposed perspective model of the development of society is based on the conditions of self-development and self-realization. The success of the proposed model is based on coordinated cooperation between the state, public organizations and business. The conducted research made it possible to systematize factors influencing diversification on the development of agriculture on the basis of ensuring efficient use of resources. It has been proven that diversification maximizes the effect of synergy, which leads to increased coordination and the creation of an integrated management system to achieve the desired effects.*

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Introduction. Under the influence of the mainstream of the current decade, there has been a fundamental change in the focus of socio-economic development from a production-industry vector to an approach focused on nature-centrism and Humanity. This approach demonstrated the transition from exclusive models and proactive strategies to inclusive models of sustainable development in all aspects of life and management of society. Increasing the level and quality of life of the population and multiplying the natural resource potential of the environment has not been achieved so far not only by countries with developing economies, but also by developed states. At the same time, the issue of determining the amount of costs necessary for this remained ambiguous (Arovuori et al., 2005; Zinchuk, Skydan et al., 2021). The implementation of a nature-friendly approach through the harmonization of the relationship between Human and Nature, inclusion and participation is the primary image of the noospheric society of the future (Goncharenko et al., 2021; Zinchuk, Kutsmus, et al., 2021). Under such conditions, prevention and health care turn into investments in human capital and socio-economic development. Only those target communities that are spatially integrated, people-oriented (Khodakovsky et al., 2020; Prysiashniuk et al., 2018) and able to provide sufficient funding through close and transparent partnership, involving civil society and the private sector in the practice of sustainable development have proven to be sustainable and functional from the point of view of producing values and providing incentives for innovation (Dema et al., 2019, Rashchenko et al., 2020).

The rapid diversification and interdisciplinary integration of modern socio-economic systems, their biotechnological tools, the implementation of environmental conservation practices, the

multiplication of sustainability, individual, family, public, regional, national and supranational integrity, stipulate the development of local systems designed to become the new leader of post-pandemic recovery and economic growth. They are focused on anticipatory growth of human capital and new knowledge. In turn, this involves the evolution of educational institutions into the "University 4.0" network (Seniuk, 2018). As a response to modern challenges, it creates prerequisites for innovative changes and new opportunities for the regional economy, science and production. Therefore, the purpose of the research is to develop and deepen the theoretical and methodological foundations and applied provisions of the multifunctional development of socio-economic systems under the condition of diversification of activities, resource provision, sources of their formation and means of activation.

Materials and methods. The research method used in the article is literature analysis and conclusions. The necessary information was obtained by analyzing publications, scientific articles, open data of the State Statistics Committee, the Ministry of Regional Development, Construction and Housing and Communal Affairs of Ukraine, the Ministry of Economy of Ukraine, regional state authorities, the system of local self-government, and associations of the entrepreneurs.

Results and discussion. The national socio-economic system is multifunctional in its structure. It is not limited to a single function - the production of goods, works and services, but also performs technological, distributive, unifying, political, ecological, worldview and other functions, having a system-forming social character (Arovuori et al., 2005). The priority is stimulating the development of depressed regions, overcoming social inequality, ensuring welfare and employment. Its formation took place for a long time (Fig. 1) and is focused on the ability to prepare the necessary personnel for the future, to be a catalyst, accumulator and capitalizer of social and resource potential, as well as a developer of national and regional inclusive development.

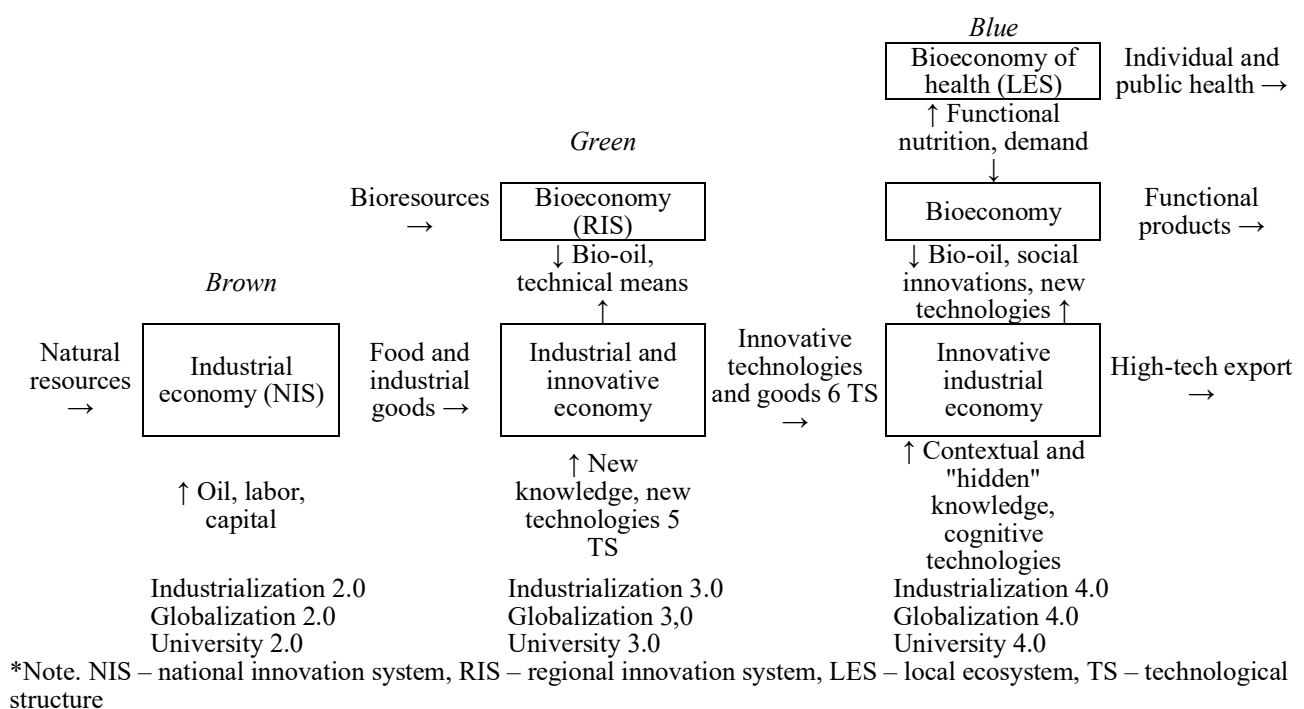


Fig. 1. Conceptual scheme of the evolution of development

Source: author's research.

The multifunctionality of development has a natural character due to the integration of social-natural, political-technological and other factors, as well as their implementation in social-production processes and their separate spheres. For example, such features characterize agriculture as an integrator of the economy, natural and social environment (Fig. 2). The concept of multifunctional is dominant in the EU, particularly in matters of rural development. It is formed on the basis of a subsidy approach and provides for the simultaneous establishment of agricultural production with the gradual increase of measures to improve the quality of life, provision of public goods, in particular through the strengthening of traditional spheres (education, culture, health care, social, landscape preservation) and new ones (tourism, recreation, ecology, restoration of biological diversity, use of renewable energy sources, formation of a holistic worldview) (Shvets et al., 2019; Skydan, et al., 2019). The restraining factors of development in Ukraine are the decrease in the income of the population (the average monthly salary is 300 USD).

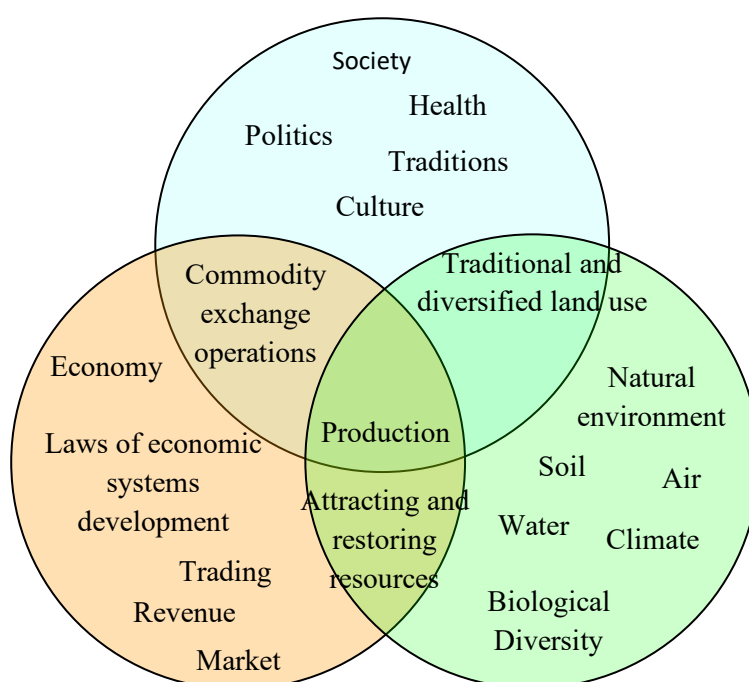


Fig. 2. Integrative role and functions of agriculture

Source: author's research.

According to experts, the length of life and quality of life are deteriorating (70% of household income is spent on food), the level of unemployment has increased, particularly among peasants (up to 40% of the population aged 15 to 70 is economically inactive), and the availability of public goods is decreasing. Supporting the multifunctional of agriculture should become a strategic direction of national policy, the main component of which is the support of the domestic producer, preservation of biodiversity, protection of the natural environment, landscapes and high quality of products, goods, works and services (Sandal, et al., 2019; Semenets, et al., 2018). We can talk about the diversification of the way of life as a strategy of economic and social growth against the background of understanding the priority of sustainable development in the conditions of the formation of a global and national strategy. Demonstrating the multifunctional of elections, we connect the diversification of the local

and national economy with concern for the well-being of people and the restoration of the environment. Therefore, the model of the future society is related to the formation of sustainable communities capable of self-sufficiency and self-development (Fig. 3).

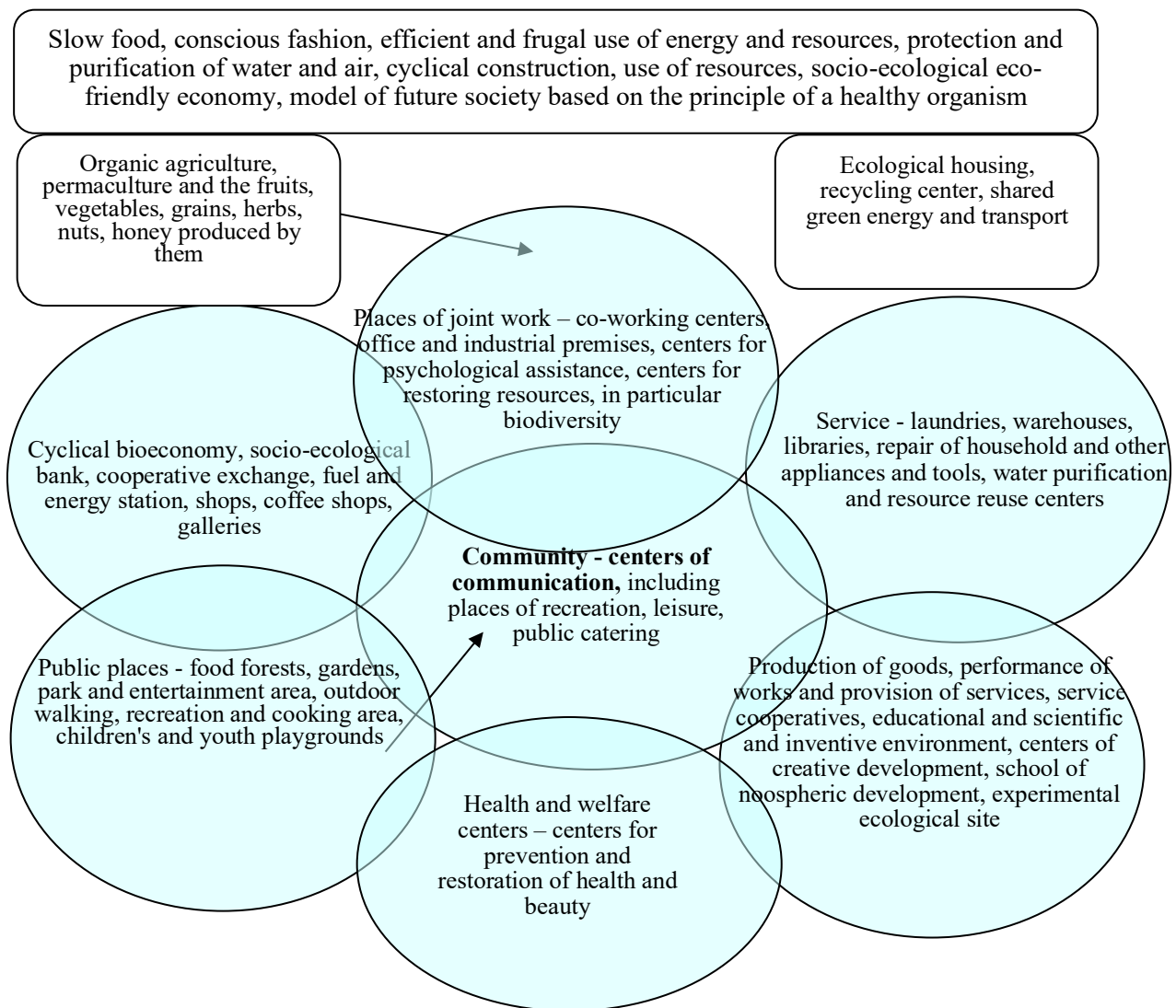


Fig. 3. Model of the regenerative socio-economic system of the settlement

Source: author's research.

In other words, even in rural areas, agricultural production ceases to be the dominant form of management in favour of people-centeredness, bioeconomy of health, orientation to unique resources, in particular natural and human capital, their identification with the area, the ability to develop the nature protection function and ensure the preservation of historical and cultural heritage while simultaneously multiplying creative potential. One of the most promising areas of creative diversification of entrepreneurship in rural areas is rural green tourism. The delayed industrialization of the Ukrainian countryside turned out to be a positive phenomenon from this point of view, as it contributed to the preservation of natural landscapes. According to the results of the survey, the sphere of tourism is on average 10% of the economy of territorial communities of Ukraine and provides up to 16% of employment in the region, which allows it to be classified as a strategic segment of the

public sector. It is because of rural tourism and the low industrialization of the village that it has great tourist potential. Tourism as a source of additional income due to its close connection with other branches of the public sector allows to obtain a multiplier synergistic effect from cooperation. For example, when hotels, cafes and other establishments will buy products from local producers or use local craftsmen, contributing to the growth of their production capacity, sales volume of souvenir products, etc.

It is the local economy that is currently becoming a producer of a public product, having a higher level of capacity (due to the flexibility of the local system, the degree of its capacity is 27% higher than the global one), social capital (due to personal ties with consumers) and the main donor of the local budget, which is directed to restore the infrastructure, meet the needs of residents. As a direction of multifunctional sustainable development, the diversification of agricultural producers through the introduction of ecological rural tourism reduces the impact of seasonality and contributes to the restoration of local ecology. The creation of regional service cooperatives with the aim of supporting local initiatives as a format of social entrepreneurship allows expanding the range of services provided. At the same time, the establishment of enterprises on cooperative principles for the purpose of producing a variety of traditional products, such as homemade pasta, cakes, jams, sealed fruit jars, cookies and cakes, can significantly increase the income of commodity producers.

In order to obtain the maximum benefit and increase multifunctional opportunities, a wider cooperation between state structures, local self-government bodies, public organizations and business entities is necessary. In the future, in order to obtain competitive advantages, it is not enough for regional enterprises to have the most modern means of production - it is necessary to possess modern management technologies and constantly increase labour efficiency. Objectively, the process of resource provision administration of both business entities and the management system is becoming more complicated. Diversification is considered by us as a mandatory element of a new business and an attribute of scaling an existing one. A methodological toolkit supplemented by diversification as a mechanism for managing the range of goods, resource areas of business, strategic partners, financial capital management, human resources, investment areas, market geography, sales channels, etc. allows to minimize the risks of the main activity and more intensively attract resource potential. Undoubtedly, diversification, especially in terms of multifunctional and sustainable development, stabilizes business and the public sphere, makes them less vulnerable to external and internal challenges. Thanks to this, diversified structures are more stable and business more competitive than highly specialized ones, including due to greater flexibility and ability to repurpose, delineate processes in space, time and by participants, which contributes to the rationalization of the use of fixed assets. However, in such a case, questions may arise about the limits of diversification, i.e., the optimal ratio between the processes of specialization and diversification (since diversification, along with its positive consequences, creates dispersion of forces, as well as management problems, while in the production segment, the criterion of efficiency is often the reduction of operating costs, for example, due to horizontal diversification - provision of new types of services unrelated to the existing technology, and vertical - through joining the existing activities of previous or subsequent stages and, as a result, optimizing the use of resources). Portfolio analysis of the situation and development of projects of individual processes within the project management program focuses attention on ensuring economic sustainability, in particular, business structures. An important role of management in this case belongs to the logistics approach, which involves coordination of processes related to the movement of material flows, production and marketing.

Multidisciplinary and specialized enterprises differ significantly in the completeness and uniformity of the use of enterprise resources during the year. Diversification, in contrast to specialization, makes it possible to mitigate the disadvantages of seasonality of production due to the expansion of the range of products at the expense of goods for which the main costs of labour and material resources fall in different periods. Redistributing in this way material, technical, financial and labor resources between different types of business during the year, the organization ensures their effective use. In addition, the specialization of the enterprise often makes it impossible to rationally use by-products. In addition, the results of numerous studies confirm that the bottleneck of diversification and specialization is the limitation of human resources in relation to adaptation to new management concepts and tools, which determines the need for the growth of human and social capital. Economic-mathematical modelling makes it possible to obtain a socio-economic structure that is balanced according to the available resource potential. From a mathematical point of view, the modelling of the diversification problem is based on optimization algorithms for the distribution of resources. The task requires taking into account information about the current structure of the socio-economic system and the interrelationship of its individual elements, whether a by-product or waste of one industry is a raw material for another (for example, the grain industry can be considered as the sphere of formation of final products that are sold to various consumers outside the enterprise and as a concentrated feed intended for use in livestock industries). We can come to similar conclusions by considering other processes, considering the optimization of one goal and the release of resources that could be used for the optimization of other areas). Therefore, current goals may conflict with strategic goals, flexibility – with both at the same time.

Typical goals of diversification are economic growth, profitability of the enterprise, reduction of strategic vulnerability from the point of view of technical and market factors, when the goal of diversification is to maximize the efficiency of using resource potential. Then the formulation of the task of diversifying agricultural production can be formulated as follows: achieving the maximum possible result (economic, social, ecological, technological or other effect) under the condition of full use of available resources in the most efficient way at the level of the enterprise, settlement, community, region, country, etc.:

$$K_p \rightarrow \max ;$$

subject to the following restrictions:

$$\sum_{i=1}^n b_{Mi} x_i \leq B_M \quad M = \overline{1, m};$$

$$\sum_{i=1}^n b_{Ti} x_i \leq B_T \quad T = \overline{1, t};$$

$$x_i \geq 0 \quad i = \overline{1, n}.$$

where: K_p – effect, final result (UAH);

b_{Mi} , b_{Ti} – expenses, in accordance with material and labour resources, necessary to obtain a unit of the result of the corresponding i type ;

x_i – volume of the obtained result of the corresponding i type;

B_M , B_T – the amount of available material and labour resources of the corresponding type (table 1).

Table 1.

**Diversification modelling of the Bronikivska territorial community
sustainable development with Family Homestead Settlements**

Indicator	2020 p. (actually)	Forecast (year)			2025 p. to 2021, %
		2023	2024	2025	
Population, thousands of people	7,99	10,78	10,81	10,82	135,4
Population density, persons / km ²	18,00	24,22	24,24	24,27	134,8
Birth rate (per 1000 people)	5,7	6,1	7,6	8,0	140,4
Mortality rate (per 1000 people)	46,4	43,5	34,9	32,1	69,2
Natural growth rate (per 1000 people)	-40,7	-37,4	-27,3	-24,1	16.6 points
Working-age population-total, thousand people	4,16	6,83	7,15	7,23	173,8
including: working age	2,90	5,30	5,66	5,76	198,7
The need of enterprises for employees to fill vacant jobs, vacancies	1	20	21	22	22 times
Average income per person per month, thousand UAH	10,25	22,4	26,6	28,1	2.7 times
Production of gross output in current year prices, millions of UAH	68,24	73,7	92,1	98,9	144,9
Attracting investments, thousands of UAH	6,4	406	1575	1954	

Source: author's research.

Globalization, the influence of international markets, the need to increase agricultural productivity, fundamentally affected the social life of rural residents. To solve this problem, it is advisable to comprehensively develop entrepreneurship in agriculture to develop farms and increase their income. In the conditions of market competition, the creation of new products (goods, services) and processes must be organized as a continuous process. The task may provide for the involvement of additional resources in the event of the impossibility of ensuring the growth of activity efficiency. A new business can cause a synergistic effect, for example due to better use of equipment, raw materials, etc. Undoubtedly, the ultimate goal of diversification remains the stabilization of financial income in the long term, the formation of a normal profit at the enterprise and the reduction of risks, but the diversification of activities, in addition to economic ones, also has a number of social advantages, which are manifested in the management of labour resources: ensuring greater employment of the population, the implementation of a wider range of social and material needs of villagers, new qualified employees can be involved or the potential of existing managers can be better used. The potential for synergy in diversification leads to a reduction in costs when combining different types of business due to a single system of management, control and coordination, as well as due to the acceleration of the turnover of assets and thus, all other conditions being equal, increases the efficiency of production. In addition, it is possible to achieve technological successes thanks to the exchange of technologies and the joint conduct of scientific and research works.

Conclusions. Summarizing the research, we note that the main motives for diversification are the desire to load production capacities, find alternative options for the use of raw materials and materials, master the latest technologies, as well as ensure employment and full use of all types of resources. In general, the achievement of higher business results is possible thanks to the

improvement of the organizational structure, the balancing of the production potential, the introduction of new technologies, and the implementation of a scientifically based diversification strategy will open up new directions for the effective use of production factors and ensure obtaining not only an economic effect, but also a social and ecological one.

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