ECOLOGICAL AND ECONOMIC SUBSTANTIATION FOR THE DEVELOPMENT OF TERRITORIAL COMMUNITIES IN UKRAINE

Abstract. The article reveals the approaches to the implementation of ecological and economic justification of the development of territorial communities. It was found out that the formation of territorial communities in Ukraine involves the creation of innovative facilities that are mixed and characterized by a combination of economic and man-made and natural objects, which leads to a new spatial basis for studying current environmental and economic issues and identifying priorities. It is established that the assessment of spatial aspects in the analysis of environmental and economic factors of territorial communities consists of the following analytical components: identifying the prevalence of environmental and economic trends in the community, as well as the consumption of certain resources per unit area (productivity per unit area). It was found out that the development of the territorial community should include a balanced combination of financial and economic, cultural, social and natural and environmental objectives: agriculture, forestry, fisheries, etc.), in combination with the development of green tourism and ecological infrastructure, as well as improving the quality characteristics of ecosystem services.

Keywords: ecological and economic efficiency, ecological safety, ecological assessment, ecological analysis, ecological damage.

INTRODUCTION

Ecological and economic substantiation of decisions on the development of newly formed territorial communities in Ukraine on topical issues requires scientific research in both theoretical and practical aspects.

Formalization of links between different states of the socio-natural complex of a certain area involves: implementation of comparable indicators and analysis of
their dynamics, taking into account territorial specifics, based on differences in environmental, economic and cultural factors that affect the development of a particular area.

In solving the problems of formation of a certain territorial community as a structure of local self-government, the ecological and economic capacity of the region is important, as well as the "response" of the ecosystem of this territory to anthropogenic impacts.

When assessing the ecological and economic indicators of a particular territorial community, the mechanism of ecological expertise is used. This mechanism provides for a preliminary check of compliance of socio-economic activities with environmental requirements in order to prevent the harmful effects of these activities on the environment and health of residents of local communities.

Given the above definition of environmental and economic priorities and the formation of policies to address relevant issues should be included in the development strategy of each local community, as well as (preferably) in a separate environmental action plan.

**MATERIAL AND METHODS**

The study takes into account the Concept of reforming local self-government and territorial organization of state power in Ukraine (2014) [13], which provides a set of measures within decentralization to create appropriate financial, material and organizational conditions to ensure the implementation of local governments and their own delegated powers [9, p. 22].

Ensuring the ecological and economic justification of the development of territorial communities in Ukraine should be carried out within the concept of sustainable development, ie the informal paradigm of socio-economic change in strengthening the existing and future potential of united territorial communities. This should be done by coordinating the exploitation of natural resources on the one hand and managerial organizational and institutional changes in socio-economic development - on the other. The application of the concept of sustainable development in the course of ecological and economic substantiation of the development of territorial communities should include:
– formation of a new type of economy, which is based on innovative technologies and minimization of not only production, but also socio-environmental and other costs;

– orientation of the economy of territorial communities on the formation of products and services of high added value;

– ability to continuously develop the intellectual potential of the inhabitants of the region;

– observance of a high level of ecological safety of territories in the context of protection of an ecosystem organism from superfluous anthropogenic activity.

Kharazishvili Yu. analyzes the concept of ecological and economic development of the region and states that it is an integral characteristic of the state of the economic system in the set of subsystems:

– macroeconomic (consisting of structural, formal and informal, as well as infrastructural components);

– investment and financial (investment and financial components);

– innovative;

– socio-demographic (actually social and demographic components);

– ecological-recreational (recreational-tourist and ecological component).

This list is usually not a dogma and can be expanded in view of the number of components and indicators [15].

Summarizing this and other definitions, socio-ecological and economic development of united territorial communities can be considered as a process of harmonious growth of socio-economic, demographic, cultural and environmental spheres, in which the use of natural resources should be optimized and anthropogenic impact minimized. Of course, this reduction of the burden on nature must be accompanied by the formation of an innovative structure of the UTC’s (united territorial community) economy and the creation of appropriate conditions for the development of small and medium-sized businesses.

It is interesting to note that today the new government management is applied in many countries around the world and is mainly associated with the industrialized countries of the Organization for Economic Cooperation and Development (OECD),
including the United States. In this context, citizens are seen as "clients" and civil servants as managers. There is also a parallel coordination of relations between the heads of public services and their political leaders; there is a system of incentives based on incentives for public sector managers, such as remuneration, and clear benchmarks are often set, which are assessed through performance appraisal systems; there is relatively more discretion and freedom for public sector leaders in how they achieve their goals; Finally, this model contrasts significantly with the traditional model of public administration, where the former is largely guided by legislation, administrative procedures and rules for policy-making, institutional decision-making and the provision of public services. [17, p.124].

Ecological and economic substantiation of the development of territorial communities should be carried out within the framework of ecological and economic zoning. Its principles were broadly laid in the 70s of the last century, ie in the days of planned economic and environmental policy. One of the key tasks of geographical science was to develop integrated models of territorial systems, where along with natural data should take into account the general concept of socio-economic development of the region, as well as actual and planned technical and economic indicators of economic systems. At the same time, in recent decades there has been both a need and objective preconditions for filling the new content of landscape zoning. This content should reflect the territorial specificity in the interaction of society and nature [14].

The basic types of zoning under the conditions of decentralization in Ukraine are: administrative-territorial distribution, as well as simple and problematic economic zoning. The study of the structure of this zoning should be carried out in the following approaches:

– socio-ecological, focused on the study not so much of changes in nature and society, as the interaction between them;

– systemic, in which there is a combination of analysis of anthropogenic impact on the natural complex and the impact of nature on the population and economy of a particular area (carried out by identifying direct, feedback and indirect links);

– modeling, which should be based on synthetic spatial information [16, p. 45].
The following types of territorial zoning are distinguished, taking into account the natural factor:

– natural and economic zoning (basic criterion - natural resource potential);
– ecological zoning (criterion - an indicator of environmental pollution);
– ecological and economic zoning (criterion - the level of impact that is correlated with the potential for environmental sustainability) [1, 2, etc.].

At present, the basis of ecological and economic zoning should be the consideration of territorial heterogeneity of relations in the system "impact - environment - consequences". If purely ecological zoning is characterized by a larger average and large scale of research, then for ecological and economic zoning a relatively smaller scale should be taken as a basis. In recent decades, these issues have found their normative and legal consolidation at the supranational level, in particular in such international documents as "Agenda for the XXI century." (1992) [9] and "Transforming our world: The 2030 Agenda for Sustainable Development" (2015) [13]).

In particular, in the "Agenda for the XXI century" adopted in 1992, it was suggested that governments and international organizations together with the non-governmental sector "develop criteria and methodology for assessing the resource intensity and environmental impact of products and processes throughout their life cycle" [12, paragraph 4.20]. The Procedure also emphasized that the results of such assessments should be presented in the form of clear and understandable indicators that allow to adequately inform both consumers and decision-makers [11]. At the same time, the document emphasizes the need to "take into account the value systems specific to each country and the possibility of applying the standards that apply in most developed countries" [9, paragraph 6.39]. At the same time, it is emphasized that it is expedient to do so "without prejudice to such criteria as may be agreed by the international community or for standards that will need to be set at the national level" [11].

In 2015, a document entitled "Transforming our world: An agenda for sustainable development until 2030" was adopted. [13] It states the need to use a set of generally accepted indicators that "will be developed by an inter-institutional
expert group on indicators of achieving goals in the field of sustainable development ..."). In addition, it was envisaged that "indicators will be complemented by indicators at the regional and national levels to be developed by Member States, as well as the results of the work done to determine baseline values for those tasks for which no results are available at the national and global levels" [12, n. 83].

The developments of international organizations (UN, World Bank, OECD, European institutions) and individual countries emphasize the need for a radical change in approaches to measuring economic and social progress, adequate consideration of the environmental factor. A fundamental component of the new approaches is to take into account the depletion of natural capital and the damage caused by environmental pollution, as well as the damage caused to human health. A number of studies have proposed an environmental and economic index, which allows us to assess the extent to which the authorities (both central and local governments) efforts to eliminate the environmentally unfavorable legacy of previous stages of development of the region [1].

For Ukraine, in addition to these international acts, the Association Agreement with the EU is important in the context of the development of territorial communities. Its implementation gives our state the opportunity to receive for rural areas from grant funding and soft loans from European donors. This becomes especially important in the context of decentralization, when UTCs have gained the opportunity without the mediation of central government to ensure the solution of such problems at the local level [3, p. 4-5]:

- modernization and repair of infrastructure (transport, municipal);
- construction and repair of social facilities;
- introduction of innovative energy saving technologies;
- stimulation of small business development and self-employment.

European assistance should contribute not only to financial but also to technical support of territorial communities through [4, p. 4-5]:

- providing information support, dissemination of the best experience of local self-government of the EU countries;
- providing advisory assistance, including in the context of possible entry of
regional Ukrainian producers into the markets of the European Union;

– organization of trainings aimed at training and retraining of officials of united territorial communities.

During the deepening of market reforms and decentralization, the territorial community is built under the conditions of a diversified economy, new forms of ownership, as well as the ability of small and medium-sized businesses to conduct foreign economic activity independently. The effectiveness of management directly depends on the ratio of state and non-state methods of environmental, economic and organizational regulation.

At the heart of the mechanism of ecological and economic substantiation of development of territorial communities there is an ecological examination which is carried out by inventory of all sources of anthropogenic influence and the analysis of their specificity. In the future, the boundaries and areas of influence are identified and the use of these data and their combinations as the primary territorial nest for a comprehensive assessment of the level of impact within each of them. Implementation of the project within the territorial community is impossible without a positive conclusion of the ecological examination [8, p. 80]. Selection of specialists for examination should be carried out from among competent specialists not related to customers and project executors at the level of territorial communities.

The purpose of the ecological examination and assessment is to collect, process and present all information about the ecological and economic situation of the local community in a form that will conclude that the proposed options for the development of UTC are environmentally friendly, and any adverse effects on the environment were identified and taken into account in a timely manner.

During the national project "Decentralization" the Ministry of Regional Development, Construction and Housing of Ukraine monitors the process of decentralization of power and reform of local self-government, which resulted in the publication of the rating of regions for the formation of UTC and their economic development.

During the monitoring, 14 key indicators were identified, which include:

– prospective plans approved by the Government on the map of Ukraine;
– dynamics of UTC formation;
– rating of regions for the creation of UTC;
– institute of elders in united communities;
– cooperation of territorial communities;
– results of financial decentralization;
– state financial support;
– decentralization in the field of health care;
– decentralization in the field of education;
– decentralization of powers in the field of architectural and construction control;
– decentralization in the provision of administrative services;
– decentralization in the field of social policy;
– decentralization in the field of youth policy;
– decentralization in the field of land relations.

This rating is based on integrated territorial communities that contain rural and urban areas, so it is impossible to separate data on rural integrated territorial communities, as some UTCs, in addition to rural areas, also contain urban settlements. Zhytomyr, Khmelnytsky, Chernihiv, Volyn, Zaporizhia and Chernivtsi regions showed the best results in the overall ranking of Ukrainian regions in terms of UTC formation, and Kirovohrad, Lviv, Kyiv, Vinnytsia and Zakarpattia regions showed the lowest. The main parameters of this overall rating are: the number of UTC; UTC coverage of the area; the number of territorial communities united; the number of UTCs with a number of less than 5 thousand people; the percentage of the area covered by the long-term plan; percentage of UTC population to the total population.

Today, the Government pays considerable attention to promoting and supporting the development of rural and urban territorial communities, which are paramount in the total number of united communities. For example, in 2019, the distribution of infrastructure subsidies was carried out according to the formula based on the area of the community and the number of rural population. [10, p. 128].

Speaking of certain economic projects within territorial communities, it should
be noted that the procedure of environmental and economic assessment should primarily include the classification of projects and their components according to the degree of potential impact on the environment. In the classification proposed by the World Bank, there are 4 categories of projects depending on the nature, scale and significance of their impact on the environment [8, p. 81-83].

Category A: projects and their components that can have a negative and significant impact on the environment. Their ecological assessment is necessary.

Category B: projects and their components that can have a specific impact on the environment. Under such conditions, environmental analysis may be limited.

Category C: projects and their components, which, as a rule, do not cause significant impact on the environment. Environmental analysis is usually not required.

Category D: projects aimed at improving the environment or related to the elimination of damage caused by natural disasters. Given the high dynamics of these projects, they do not require a full environmental assessment.

After determining the category to which the considered project can be attributed, which is carried out within the territorial communities, its ecological analysis is carried out, which should include:

– identification and assessment of the initial environmental conditions and potential types of direct and indirect impact, including opportunities to improve the state of the environment;

– development of measures to prevent, reduce and compensate for losses, which should be formulated in the form of a specific action plan;

– elaboration of issues of organization of nature protection measures and monitoring of the state of the environment.

To stimulate the formation of united communities, norms on financial decentralization have been added to the legislation, which has allowed UTC to obtain additional resources for the implementation of delegated powers. In particular, UTCs received powers and resources that were previously provided exclusively to cities of regional significance, in particular - crediting to the local budget 60% of personal income tax. Also, territorial communities receive 100% of
the single tax, corporate income tax and financial institutions of communal property and property tax (real estate, land, transport); 75% of the funds from compensation for losses of agricultural production; 50% of monetary penalties for damage caused by violations of environmental legislation through economic and other activities, as well as 25% of environmental tax. At the same time, UTCs received the right to state transfers for the exercise of powers: grants, educational and medical subventions, subventions for infrastructure development, etc.

The concept of economic damage from environmental violations allows us to translate the negative impact of projects within local communities on the environment from the category of environmental characteristics of the project in the category of its economic characteristics [2, p. 209]. It is important that the current procedure of ecological expertise is the only barrier to the implementation of environmentally hazardous projects in UTC. Therefore, when deciding on the feasibility of implementing an innovative regional project should take into account the economic damage from environmental violations caused by their implementation. In this case, not only environmental but also economic expertise will stimulate project developers to green production [5]. Thus, the transition to environmental and economic evaluation of project effectiveness could be a real motivation for the introduction of environmentally friendly technologies in local communities. Environmental security is one of the most important guidelines for sustainable development of both individual territorial entities and the region as a whole. It ensures the sustainability of the spatial system, determines the optimal level of load on the ecological component of the united territorial communities. According to the concept of sustainable development, the socio-economic development of the region should ensure the environmental safety of people's lives. Although any impact of economic development on the environment is negative in relation to its quality, as there is an increase in man-made load. At the same time, the opportunities for the introduction of resource-saving and environmentally friendly technologies are growing, the level of ecological culture of the population is growing. These changes and transformations are typical for all developed countries, gradual changes should take place in Ukraine as well. Implementation of
the administrative-territorial reform on the model of the EU member states presupposes imitation of ecological standards of management and monitoring of the state of anthropogenic load on the environment of the united territorial communities. [7, p. 335].

**RESULTS AND DISCUSSIONS**

Taking into account these international standards and requirements for environmental analysis and expertise, as well as the needs of united territorial communities, it is appropriate to deepen the decentralization reform in our country to implement the principles of environmental and economic development of UTC, focusing state support of communities on such directions: In the environmental field:

– creation of a system of environmental education of community residents, aimed at forming a high level of responsibility for the environment in the UTC;
– ensuring the rational arrangement of agricultural landscapes;
– implementation of works to prevent erosion and landslides;
– development and implementation of agro-ecological projects for UTC development.

In the economic sphere:

– formation of conditions for attracting investment funds;
– providing state aid to small and medium-sized businesses;
– diversification of agricultural and non-agricultural production;
– improvement of production, market and transport types of infrastructure;
– assistance to agricultural producers by optimizing the preservation, processing, trade in products, as well as supporting the formation and development of cooperatives. It is expedient to consider the foreign experience of the complex ecological and economic analysis of the development of territorial communities, which has been accumulated, for example, in Poland. The data of this analysis should be reflected in the analytical document, which is called the report on the situation of the commune [4, p. 134]. The standard report consists of 6 sections, the third of which is entitled "Environment" and contains 2 items:

1) "resources and attractiveness of the environment": environmental measures in the specified area, tourist potential in view of the possibility of recreation and
health, as well as the convenience of living and resources suitable for use in the economy;

2) "anthropogenic threats to the external environment and ways to counter these threats": there is a systematization on a sectorial basis of threats to the elements of the natural environment (water, air, land surface).

In addition, measures to counter threats are proposed [4, p. 158-161]. Speaking about the perspective model of ecological substantiation of development of territorial communities, it is necessary to give an example of Slavutych territorial community of Vyshhorod district of Kyiv region (with the center in Slavutych). Speaking about the economic factor of the city development, it should be noted that the revenues of the general fund of the budget of the Slavutych territorial community for 2020 amounted to 321,025.0 thousand UAH. (12% more than in 2019), of which (Fig. 1):

- own and fixed revenues - UAH 194,676.6 thousand (19% more than in 2019);
- subventions from the state and local budgets - UAH 109,147.9 thousand;
- the amount of subsidies from the state and local budgets - 17,200.5 thousand UAH. [6, p. 5]

Fig. 1. The structure of revenues of the general fund of the budget of Slavutych territorial community for 2020, thousand UAH

The volume of transfers from the state budget of Ukraine for the community budget (general fund) for 2020 is 126,348.4 thousand UAH. Compared to 2019, their volume increased by 2%, ie by UAH 2,918.4 thousand. (Fig. 2).
Revenues of the special fund for 2020 amount to UAH 35,130.9 thousand. (by 0.3% more than revenues in 2019), of which: development budget revenues - UAH 433.3 thousand. (72% more income in 2019) (Fig. 3) [6, p. 5].

Expenditures of the general fund of the city budget for 2020 make 309 244.3 thousand UAH. (4% more expenditures in 2019), of which the reverse subsidy - 40 700.0 thousand UAH (2019 - 30 929.2 thousand UAH) (Fig. 4) [6, p. 5].

The model of ecological and economic development of the community of Slavutych is based on the following principles: integral town-planning complexes
quarters), which include objects of social and cultural life, engineering infrastructure and external improvement; maximum preservation of existing forest plantations, further landscaping of the city and improvement of the adjacent green zone; divided pedestrian and car traffic based on the dominance of pedestrian traffic and the allocation of pedestrian zones; a developed network for bicycle traffic has been created, automobile traffic has been localized along the perimeter of residential areas, and vehicles have been stored on the outskirts of the city's residential area.

![Expenditures of the general fund of the budget of Slavutych community, thousand UAH](image)

**Fig. 4. Expenditures of the general fund of the budget of Slavutych community, thousand UAH**

To implement this model, SEZ "Slavutych" should be created with the attraction of investments to create conditions for socio-economic rehabilitation of the territories of the north of Kyiv region. The purpose of this model is to create new jobs in the city of Slavutych and ensure the employment of employees of the Chernobyl NPP, who are laid off in connection with the early decommissioning of its power units, increase production of goods (works) and services, supplies to the domestic market of high quality products and services, as well as the introduction of new technologies, market management methods and infrastructure development of SEZ "Slavutych", improving the use of natural and labor resources. Speaking about the ecological and economic model of development of the Slavutych territorial community, it should be noted that it should include the following components: industrial-ecological, social-ecological and transport-logistic (Fig. 5).
Fig. 5. Ecological and economic model of perspective development of Slavutych territorial community

Source: own development

CONCLUSIONS

The study concluded the following:

– the formation of UTC in Ukraine leads to the creation of innovative facilities that are mixed in nature and characterized by a combination of economic and man-made and natural objects, which leads to a new spatial basis for studying current environmental and economic issues and selecting those in need of priority;

– assessment of spatial aspects in the analysis of environmental and economic
factors of UTC development consists of the following analytical components: identification of the level of environmental and economic trends in the community, as well as the consumption of certain resources per unit area (productivity per unit area);

– the development of the territorial community should include a balanced combination of financial and economic, cultural, social and natural and environmental objectives. In the event that this balance is disturbed, the environmental potential will be spent on the economic and social development of UTC without any restoration activities;

– local self-government structures of Ukraine should strive to combine positive financial and economic, social, cultural and environmental effects. This combination can be characterized as a "profitable ecology", which in highly developed countries involves the greening of economic development trends at the local level;

– The concept of "profitable ecology" for rural and urban communities involves taking into account the environmental component in the development of the agricultural sector (agriculture, forestry, fisheries, etc.) in combination with the development of green tourism and environmental infrastructure, as well as improving the quality of ecosystem services. In this context, it is important for urban UTCs to involve environmentally friendly and energy-efficient know-how in industrial production, communal infrastructure, landscaping and greening, transport, as well as modernization of facilities and waste disposal;

Speaking about the perspective model of ecological and economic substantiation of development of territorial communities, it is necessary to give an example of Slavutych territorial community of Vyshhorod district of Kyiv region (with the center in Slavutych). The economy of the Slavutych community is represented by a wide range of industries: industry (production of industrial products and consumer goods), wholesale and retail trade, construction, transport and communications and other non-financial services. The model of ecological and economic substantiation within the Slavutych community can be called the model of small mono-functional cities, which are satellites of large industrial centers, where agglomeration conditions with mandatory observance of ecological
biodiversity allow us to use the developed sphere of services and urgent demand.

This topic, undoubtedly, has significant prospects for further research, the most important of which is, in our opinion, the implementation of environmental and economic justification for the development of individual territorial communities in our country. Both urban and rural UTCs are of interest, as economic development is interlinked in both categories of communities. In particular, it would be productive to consider individual united communities of Kyiv region (both near and far from Kyiv - that is, for example, Bilohorodska / near / and Borodyanska / remote /) and a comparative analysis of strategies for their environmental and economic development. At the same time, the models of these strategies should be focused on a great approach, and the more urbanized the community, the more attention should be paid to the environment.

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