

4. The decentralization reform in Ukraine as a factor and institutional component of the sustainable development of territorial communities

During the time of the imperial power, the system of public power in Ukraine was built on the principles of centralization - the concentration of management functions in the center. After gaining independence, Ukraine took a course towards the decentralization of power - the transfer of power functions, according to the principle of subsidiarity, to the level (regional or local) at which they can be most effectively implemented.

In 2005 the Ukrainian authorities came quite close to the implementation of the decentralization reform (local self-government and territorial organization). Its main initiator was the then Vice-Prime Minister of Ukraine R. Bezsmertnyi. However, the reform did not take place then, because a critical mass of prerequisites for its implementation had not matured yet. The impetus for the reform was the signing of the Association Agreement between Ukraine and the European Union (EU) in 2014. In the context of the European integration vector, the Concept of Reform [79] was developed, and the reform itself was mentioned among the most prioritized in the Strategy for Sustainable Development «Ukraine - 2020».

The reform was supposed to be based on the European Charter of Local Self-Government and the experience of EU countries in the field of decentralization of power. In Ukraine, the decentralization reform involved five steps: 1st – to determine the territorial basis of local self-government bodies (LGUs) and executive power; 2nd – to demarcate powers between LGUs of different levels; 3rd – to demarcate commission between LGUs and executive power; 4th - to determine how many resources are needed at each level; 5th – to make LGUs accountable to voters and the state. It was expected that the reform would contribute to the sustainable development of newly formed territorial communities (TC), namely, their economic growth, raising the standard of living of community residents, greening production and improving the ecological situation in communities.

In 2020, the reform was mainly completed. In terms of the sustainable development of TC it was effective and successful not in all, but at least in some ways. Therefore, the

search for the strengths and weaknesses of the reform regarding the development of the TC, the possibilities of its activation and neutralization of possible threats on the way to their implementation becomes not only important scientific, but also a practically significant contemporary problem, especially in the conditions of martial law.

Both Ukrainian and foreign scientists have paid a lot of attention to the problem of sustainable development of the TC. The following scientists considered separate issues of the sustainable development of TC: institutional principles – E. Bleikli, O. Berdanova, H. Vasylchenko, Yu. Hanushchak, I. Zablodska, H. Kaletnik, A. Melnyk, A. Mokii, H. Monastyrskyi, S. Romaniuk, V. Symonenko, A. Tkachuk and others; economic (including financial) component – L. Benovska, V. Borshchevskyi, I. Honcharuk, I. Vakhovych, H. Vozniak, B. Danylyshyn, M. Melnyk, H. Oleksiuk, L. Pronko, Z. Siryk, Dzh. Treller, Kh. Patytska and others; social component – S. Bereziuk, I. Hukalova, T. Zaiats, H. Kraievska and others; ecological component – S. Lisovskyi, S. Lutkovska, Ye. Khlobystov and others.

The peculiarities of functional zoning, spatial planning and development of the TC were reflected in the scientific works of such researchers as M. Averkyna, I. Bystriakov, D. Bokeman, Z. Herasymchuk, M. Dnistrianskyi, T. Kolesnyk, T. Nishchuk, Ye. Maruniak, K. Mezentsev, A. Mozghovyi, V. Nahirna, Ya. Oliinyk, N. Pavlikha, Pidhrushnyi, L. Rudenko, S. Shults, S. Shchehliuk and others.

A comprehensive approach to solving problems for the sustainable development of TC can be traced in the works of S. Bila, M. Butko, Ya. Zhalil, V. Kravtsiv, I. Storonianska and others.

The specifics of the sustainable development of the TC in the conditions of martial law were investigated by Yu. Ivanov, O. Ivanova, V. Laptiev, V. Potapenko and others.

Despite the significant study of the problems of sustainable development of the TC, the problem of comprehensive assessment of the effectiveness of the decentralization reform in terms of their solution remains relevant, in particular in the conditions of martial law.

According to the Law of Ukraine «On Local Self-Government», a territorial community is the inhabitants united by permanent residence within the boundaries of a

village, settlement, city, which are independent administrative-territorial units (ATU), or a voluntary association of residents of several villages, settlements, cities that have a single administrative center [80].

It is more difficult to define the essence of the sustainable development of TC, primarily because it must be considered at the lowest of the spatial levels, namely, local (below regional, national and global). But even at this level, not to mention the global level, the imperative of sustainable development, as defined by the Brundtland Commission, is to ensure balance in the triad «nature - society - economy», and in the interests of not only current, but also future generations.

According to this imperative, the Sustainable Development Summit held in September 2015 during the 70th session of the UN General Assembly adopted «Transforming our world: the 2030 Agenda for Sustainable Development» (abbreviated as «2030 Goals»). Among the 17 «2030 Goals», which include 169 tasks, the goal 11 «Sustainable development of cities and communities» is the most related to the sustainable development of TC. The fact was reflected in the relevant National Report [81] and in the Decree of the President of Ukraine dated September 30, 2019 No. 722/2019 «On the Goals of the Sustainable Development of Ukraine for the Period Until 2030».

It is generally accepted to distinguish three components of sustainable development - economic, social and ecological. However, if the decentralization reform is considered as a factor of sustainable development of the TC, then it makes sense to highlight the fourth (institutional) component as well.

Each component of sustainability is characterized by certain indicators, in particular in the EU, such as: socio-economic development; balanced consumption and production; social integration; demographic changes; public health; climate change and energy; balanced transport; natural resources; global partnership; effective management [82]. If these indicators are broadcast in Ukraine to the local level, then it is possible to single out the relevant indicators of the sustainable development of TC in terms of its four components (Figure 1).

We will try to give the author's expert assessments of the level of sustainable development of TC in Ukraine in terms of the given indicators, relying on the methods of

strategic and spatial analysis. Among the methods of strategic analysis of sustainable development of TC, the main one is SWOT analysis. It shows which way is better to use the strengths (S - Strengths) of the TC and how to reduce the negative impact on their weaknesses (W - Weaknesses), optimally using the available opportunities (O - Opportunities) and eliminating threats (T - Threats). In our modified version of the SWOT analysis, we will associate the strengths and weaknesses of the TC not with their internal state (as in the traditional version), but with the current state, and opportunities and threats – not with the external environment, but with their future (predicted) condition. Spatial analysis of the sustainable development of TC involves the study of topological, geometric and geographical properties of communities as a result of the interaction of all components of such development. It is important that this analysis creates the ground for the implementation of the principle «think globally, act locally», it defines the solution of specific problems of TC, including their spatial development.

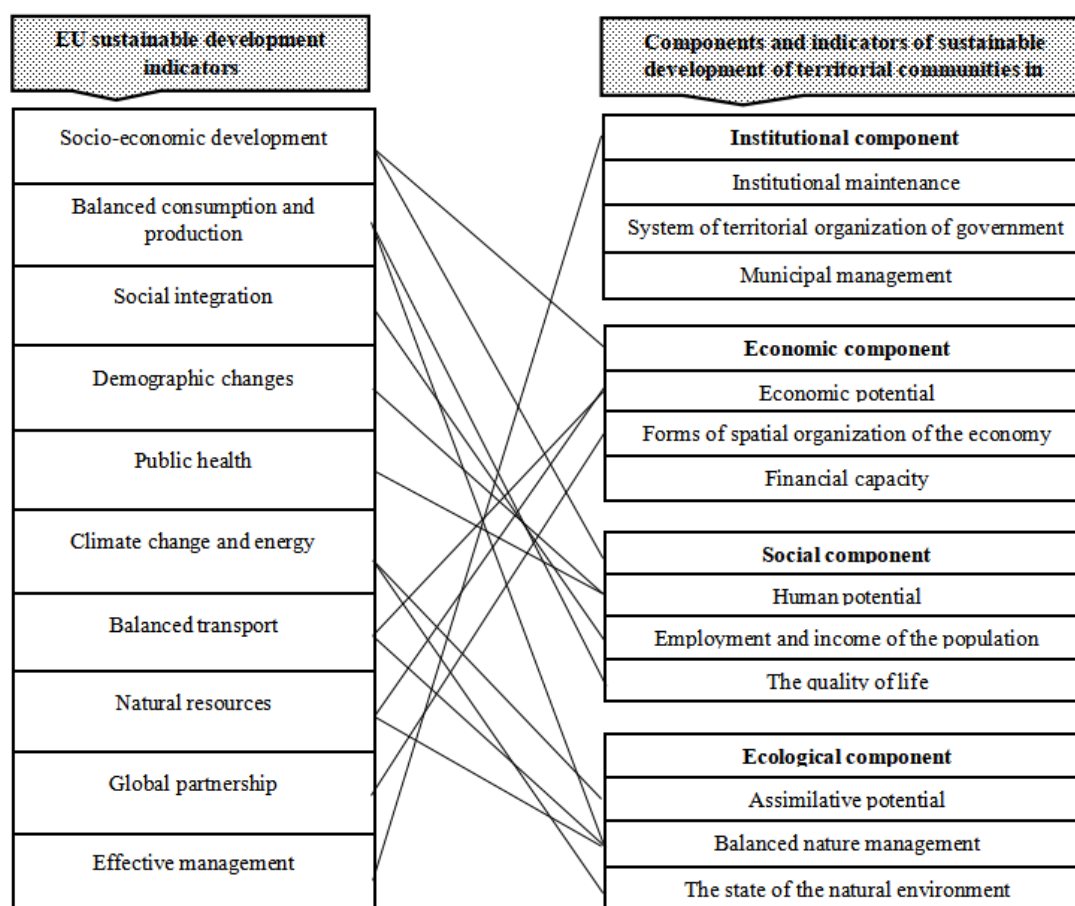


Fig. 1. Superposition of sustainable development indicators of the EU and territorial communities in Ukraine

The analysis of the institutional component of sustainable development of the TC of Ukraine focuses on the adequacy of its institutional support, optimization of the territorial organization of government (LLC), and the transparency and efficiency of municipal management.

Implementation of the decentralization reform, like any other, required proper institutional support - both legislative and organizational. As a strength of this provision, we note that the Basic Law «On Voluntary Unification of Territorial Communities» was adopted (February 5, 2015 No. 157-VIII) [83]. This law, which was based on the Concept of Decentralization Reform, initiated the process of unification of small TCs, primarily village councils, within the framework of unified TCs (UTCs). It is also important that various institutions began to «work» on the reform: state (including the newly created - the National Council of Reforms and the Office of Reforms), public (Association of Cities, etc.) and foreign (as part of the Ukrainian-Swiss DESPRO project and «U-LEAD with Europe» programs from the European Commission and USAID DOBRE from the US Agency for International Development).

Weaknesses of the institutional support of the decentralization reform include, first of all, the fact that the provisions of Law No. 157-VIII are almost not consistent with the relevant articles of the Constitution of Ukraine, since the draft law No. 2217a «On the introduction of amendments to the Constitution of Ukraine (regarding the decentralization of **government**)» was never adopted by the constitutional majority of deputies. It is also not entirely clear to what extent the activities of international organizations are involved in the implementation of the decentralization reform correspondingly to the national interests of Ukraine.

Additional opportunities for legislative confirmation of the legality of the reform and strengthening of the institutional foundations of the sustainable development of TCs appeared in October 2020 - after the first local elections were held in 936 newly created TCs. This gave reasons for asserting that even the Constitutional Court of Ukraine will not be able to cancel the results of the reform and it served as an argument in favor of the fact that the decentralization reform can and must be introduced into the legal channel.

It is obvious that the proper legislative consolidation of the results of the decentralization reform at the present time (during the period of martial law, and in fact - war) is opposed by certain restrictions and prohibitions on the activities of political parties, public associations, etc.

An important result of the decentralization reform was the reformed **system of territorial organization of government**. The necessity to reform the LLC system was dictated by the expediency of bringing the existing system of administrative-territorial units (ATU) to the European standard NUTS (Nomenclature of Units Administrative Statistic) - territorial units of four levels with the following number of inhabitants: NUTS-1 (from 3 million to 7 million); NUTS-2 (from 800 thousand to 3 million); NUTS-3 (from 150 thousand to 800 thousand); LAU (up to 150 thousand). It should be noted, however, that in many countries, for example in Poland, units of the LAU-2 (communes) and LAU-1 (counties) levels are distinguished as administrative-territorial units. In Ukraine, as a result of the decentralization reform, by the beginning of 2023, 1,439 LAU-level TCs and 490 NUTS-3 level ATUs (districts) were formed. There was no need to reform the ATU of the NUTS-2 level, and the creation of the ATU of the NUTS-1 level in the conditions of the neighborhood with a hostile Russia is impractical.

We consider a very weak point of the decentralization reform, in particular the reform of the administrative and territorial system of the country, which was carried out within its framework, that the optimal size of the ATU levels LAU-2 and LAU-1 was not created. It will be recalled that according to the theory of central places of V. Kristaller, ATU level LAU-2 should be formed according to the « $k = 7$ network» model. It assumes that the central place (a large village, settlement or city) should not only provide the necessary administrative control over the six other settlements of the Kristaller grid, but also be a center for employment of the residents of the TG and providing them with frequent services. Accordingly, LAU-1 level ATUs should include 7 LAU-2 level ATUs. Unfortunately, as a result of the administrative and territorial reform, the ATU in Ukraine did not differentiate at the grassroots level. In some cases, they corresponded more to LAU-2 level ATU, and in others - to LAU-2 level ATU. This is clearly visible on the example of the Prospective Plan for the

formation of the UTC network on the territory of the former Chudniv district of the Zhytomyr region [84].

If the Ivanopil and Krasnopil UTCs in fig. 2 mostly meet the criteria of LAU-2, Velikokorovynetska is more likely not to do it, because the village of Vakulenchuk (formerly a closed military town) and the village of Pyatka (the former district center), and Chudnivska is not at all, because the central places in it can be, in addition to Chudnov, the village of Drigliv, Tyutyunniki, Karpivtsi and Krasnohirka.

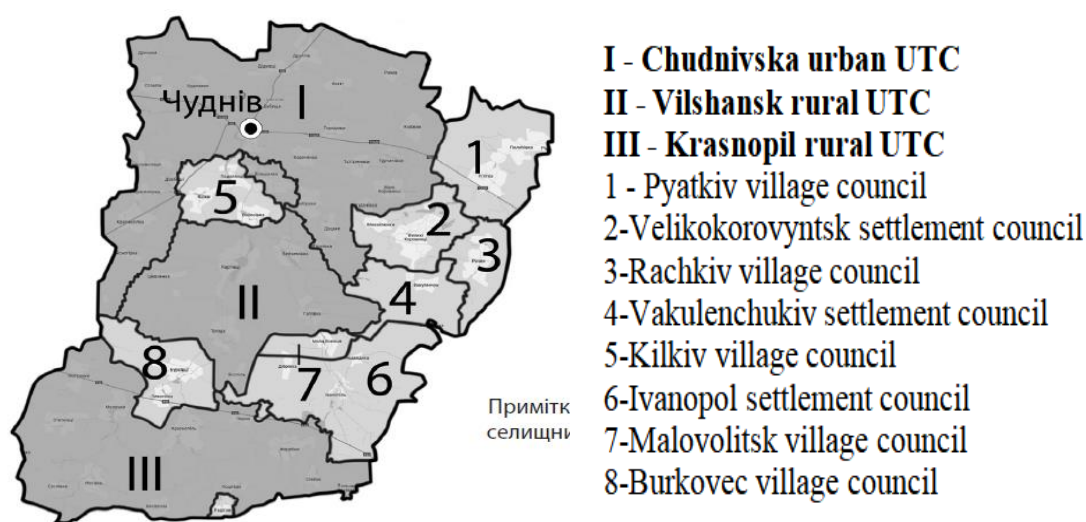
In our opinion, the main reasons for the fact that Ukraine has not clearly formed the ATU of LAU-2 and LAU-1 levels are the following:

1) the transition to market relations destroyed the LAU-2 level ATU system (which was not defined de jure, but existed de facto), because there was a massive disintegration of collective farms and state farms, which ensured their economic consolidation;

2) The method of formation of capable LC [85] provided for the formation of only UTC (as ATU of the LAU level), and based on the mechanistic criterion of 30-minute availability of emergency services to a community settlement instead of using the «network $k = 7$ » model;

3) the principle of voluntariness in the formation of UTC, provided for by Law No. 157-VIII, contributed to the formation of the so-called «tricky communities», which included mostly able-bodied settlements, for example, Vilshansk community, in addition to Vilshanka (Chudniv-Volynsky railway station), Galiivka (oil factory) and Karpivtsi (Hopsteiner Ukraine, an enterprise with German investments, which grows and processes hops). This principle could not lead to the formation of optimal communities in all parameters. If the scientific principle (formation of ATU based on the « $k = 7$ network» model) was adhered to, then there would be no need to create this community at all, because v. Vilshanka should be included in the Chudnivska LC of LAU-2 level and LAU-1 level (because territorially it has already almost merged with Chudnov), v. Galiivka - to Ivanopolska LC level LAU-2 (and possibly also level LAU-1, as a former district center), and village Karpivtsi itself should be the central place in the LAU-2 level community;

4) the principle of forced assignment of settlements, village and village councils, which have not decided whether to belong to the UTC, to already established communities, applied in a series of orders of the Cabinet of Ministers dated June 12, 2020, added to the UTC network (and from now on - simply LC) even more "weak places". Thus, in the former Chudnivsky district (Fig. 2), the territories of the Ivanopol settlement council were included in the Krasnopil LC. Therefore, now residents of the village of Ivanopol (former district center) with a population of 3,476 people has to apply for administrative and other services in the village. Krasnopil with a population of 1,226 people, which does not have the necessary infrastructure;



Note: on June 12, 2020, the following additions of village and settlement councils to the already existing regional administrative units were carried out: 1-4 - to I; 5 – to II; 6-8 - to III.

Fig. 2. The network of territorial communities of the former Chudniv district of Zhytomyr region as of June 12, 2020.

Source: formed by the authors, based on [86]

5) formation of LAU-2 level ATU requires painstaking practical work, for which the current managers are either not oriented or incapable. In order to restore and develop, for example, Tyutyunykyivska LC of this level as part of the villages of the

former collective farm (Tyutyunniki - the central place, Knyazhyn, Turchynivka, Mali Korovyntsi, Sudachivka, Korochenki and Horodyshche), large-scale organizational and financial support from the state is necessary;

6) the disbandment of the former districts, as ATU level, did not bring Ukraine closer, but on the contrary, distanced Ukraine from the formation of the optimal LAU-1 system. In addition, it led to the liquidation of many social infrastructure facilities in the former district centers, primarily district hospitals. And this greatly distanced specialized (secondary) medical care from the patient, because it moved to the centers of new districts - ATU of NUTS-3 level. We believe that some institutions that provide infrequent services, such as criminal courts or tertiary care hospitals, should be located in the centers of districts (territorial units of the NUTS-3 level). But at the same time, following the example of Poland, they should be the centers of sectoral units, such as medical districts, and not administrative centers. Therefore, in Ukraine, the ATU network of the LAU-1 level (former districts) should be restored and optimized, as it was done in 1966 after the failed reform of the district level in 1962.

Of course, there are certain opportunities for reformatting the administrative-territorial system of Ukraine on a scientific basis - with the selection of LAU-2 and LAU-1 level ATUs optimal in terms of size and functions, as well as territorial units of the NUTS-3 level as sectoral ones. True, neither the Ukrainian authorities nor the specialists of international organizations involved in the implementation of the decentralization reform are particularly interested in this. One gets the impression that they are directing this reform, like others, especially privatization, land, medical and educational reforms, in the direction of depopulation of the territory of Ukraine. Moreover, in the conditions of the war, the process of «clearing» the territory of Ukraine from Ukrainians intensified many times, and it carries a serious threat to Ukrainian statehood.

The sustainable development of the LC strongly depends on the efficiency of the **municipal management** system, especially since in the conditions of decentralization, the organizational structure and functions of local government have changed radically, and the entire management system of the LC is more oriented to the principles of self-

organization. The LC has already created its own executive bodies, endowed with broad rights, which are defined in Chapter II of the Law of Ukraine «On Local Self-Government in Ukraine». Currently, intervention in the activities of local government bodies is possible only for the purpose of monitoring the legality of their activities and in the cases and forms provided for by current regulations. It is also important that LGUs, in particular local councils, have gained significant autonomy in terms of strategizing and planning the sustainable development of TG and adopting the local budget. Structural and logical diagrams and maps of changes are used to display the relationships between actions and specific results of the implementation of the Sustainable Development Strategies of LGUs. The experience of building such maps has already been gained in the LC of the city of Toretsk and the village of Novoaidar in the Donetsk region [87, p. 46-47]. Spatial Development Plans of Territories of Territories are also an important document of strategic management of local development. Within the territory of a specific TG, they allow to solve the issues of their functional zoning, provision of objects with infrastructure, formation of a favorable environment for living, attraction of investments, business development, etc.

Weaknesses of municipal management, especially in the conditions of martial law, include the incompleteness of the organizational design of the local government system, the inconsistency of powers between them and the executive authorities, and the low quality of the personnel of LC, especially rural ones. Therefore, currently approved Sustainable Development Strategies have a little more than half of LC, and Spatial Development Plans of LC territories - even less. Unfortunately, most of the Strategies do not have proper scientific justification, are loosely connected with the State Regional Development Strategy for 2021-2027 and regional strategies, and sometimes have a frankly declarative character [88]. As for the Spatial Development Plans of the LC territories, their weakest point is the inconsistency with the general plans of the cities, in particular between the land management and urban planning documentation.

In order to correct the situation, the Ministry of Economy established that without proper planning of the development of territories there will be no support from the state. In particular, it will not finance projects from the State Regional Development Fund

(SRDF) [89]. But an even more radical step is that the Procedure for the Formation of the Concept of Integrated Development of the Territory of the Territorial Community [90] and the draft law on reforming the sphere of urban development activity dated June 11, 2021 No. 5655 (voted in the Verkhovna Rada and sent to the President for signature on December 19, 2022 of Ukraine) requires a mandatory combination of economic (strategic) and spatial approaches when planning the development of the LC territory. This, in particular, will be facilitated by the integration of land management and urban planning documentation (according to Article 25 of the Land Code of Ukraine, regulated by the relevant law of Ukraine dated June 17, 2020 No. 711-IX).

Unfortunately, in the conditions of martial law, the system of municipal management acquires clearly expressed risk-oriented features. therefore, the long-term (7-year) Sustainable Development Strategy of LC recedes into the background. Instead, a more flexible system of strategic planning and programming of the development of the LC comes to the fore, in particular, local programs of assistance to the army and refugees are approved. Accordingly, in the Strategic Plans, an important place is given to the analysis of those threats that appeared due to the introduction of a state of emergency, for example, due to the acute shortage of qualified personnel in the field of communal economy management, especially in front-line LCs. In order to react as adequately as possible to emerging threats, it is necessary to strengthen state and public control over local authorities, which is too weak, in particular, regarding the incomes of LC officials.

Analysis of the economic component sustainable development of LC is reduced to the assessment of their economic potential, the use of various forms of spatial organization of the economy (FSOE) and establishing the level of financial capacity of communities.

Economic potential LC is formed on the basis of their assets (resources) and production capacities of business entities. According to art. 142 of the Constitution of Ukraine, the material and financial basis of the LC are the following assets: movable and immovable property, revenues of local budgets, other funds, land, natural resources that are in their possession, as well as objects of joint ownership that are under the

management of district and regional councils. As a result of the decentralization reform, LGUs receive more powers as participants, organizers and coordinators of economic activity in the LC, this strengthens their interest in increasing the economic potential of communities, in particular due to the activation of entrepreneurial activity, especially since as a result of the land reform they received additional assets - lands outside the boundaries of settlements. The introduction of amendments to the Law of Ukraine «On the transfer of objects of state and communal ownership» regarding the free transfer of water utilities into communal ownership contributed to the growth of the economic potential of LC. The economic potential of LC is also growing due to the creation of new enterprises, in particular utility enterprises - in the fields of local transport, municipal energy, etc. This contributes to the creation of new jobs, modernization of energy and heat generating capacities, improvement of the quality of housing and communal services, etc.

The weak sides of the economic potential of LCs are connected with the fact that, firstly, in most of them the transformational decline caused by market transformations has not been overcome, secondly, the concentration of economic potential in LC Kyiv is increasing (it gives almost a quarter of the country's gross added value), of the Kyiv agglomeration and, to a lesser extent, in the communities of regional centers against the background of the economic decline of many LCs based on small and medium-sized cities; thirdly, the consequences of Russia's full-scale aggression are strongly felt - through the liquidation of production facilities, their relocation, mobilization of workers, disruption of logistics, etc. As for the economic potential in the LC captured by the Russian aggressor, as well as in the front and near-front zones, it is either completely destroyed or significantly undermined.

The economy of the majority of the LC of Ukraine will receive a «second wind» after the end of hostilities on the territory of Ukraine. To a large extent, the restoration and strengthening of the economic potential of the LC will depend on the implementation of national restoration programs at the local level with a significant innovative component, in particular on the basis of brownfields (previously existing production sites) due to state and international support [91]. The Association of Cities

of Ukraine has already turned to the Government with a proposal to make decisions regarding the resumption of (suspended during the war) processes for the development and selection of local development projects [92]. However, the restoration and growth of the economic potential of most LCs is hindered not only by the war, but also by traditional (even before the war) problems of economic development related to total corruption, inefficient functioning of the judicial system, «investment hunger» and so on.

In order to «breathe» new (innovative) life into the LC of Ukraine, to promote the accelerated capitalization of their resources, it is very important to fully use the potential of effective forms of spatial organization of the economy [93]. Some of the most promising FSOEs contributing to the consolidation of the economic space of LC are:

- innovation parks, which are usually divided into three types (industrial, technological and scientific). The first two types were most widespread. In total, more than 60 industrial and 16 technological parks have been created and registered in Ukraine. For example, in Vinnytsia, the Vinnytsia Industrial Park (furniture production, repair and installation of machinery), the Vinnytsia Cluster of Refrigeration Engineering and «WINTER SPORT» were created. The fourth «WinIndustry» park is being created, the main profile of which is the processing industry. The most famous technoparks include the E. O. Paton Institute of Electric Welding in Kyiv and the Institute of Single Crystals in Kharkiv;

- poles of growth (in the interpretation of F. Perru), which must necessarily have one or more enterprises of propulsive (locomotive, in particular innovative) sectors of the economy. Such a pole in LC usually acts as a central place, which in the conditions of the modern network economy can also act as an important node in global chains of added value. The role of growth poles in the development of LC, in particular on the basis of urban agglomerations (Kyivska, etc.), is revealed in the publications of H. Pidgrushnyi and his colleagues [94, etc.];

- smart communities, in which modern information technologies are used, integrated into municipal structures. According to the European «Smart City» model

[95], smart communities, like smart cities, must meet six main criteria: 1) smart economy (Smart economy); 2) smart mobility (Smart mobility); 3) smart environment (Smart environment); 4) smart people / population (Smart people); 5) good life / living (Smart living); 6) smart governance (Smart governance). In 2015, the concept of smart cities, and therefore smart communities, began to be implemented in Ukraine. Today, it works in one form or another in Kyiv, Ivano-Frankivsk, Lviv, Vinnytsia, Mukachevo, Drohobych, Zaporizhzhia, Poltava, Ternopil, Kharkiv and Mariupol (before the full-scale invasion of Russia). By the way, Kyiv took 82nd place in the world Smart City Index ranking for 2021 [96];

- municipal clusters, which are created under the auspices of local government for the purpose of cooperative interaction of many participants of the LC (small and medium-sized businesses, communal enterprises, research, educational, public and other organizations) to increase the competitiveness of each of them, the cluster itself and the community as a whole. In Ukraine, there is already some experience in creating such clusters, for example, in LC Lviv – tourism, Kharkiv – power engineering, Dnipro – transport and logistics;

- municipal corporations as joint-stock business associations. Actually, the very idea of territorial corporate structures (communal syndicates) is not new, it was substantiated by Norbert Bézard and Le Corbusier back in the 1930s. It is characteristic that municipal corporations can have different organizational forms. In Ukraine, before independence and market transformations, such syndicates (only with state and collective farm-cooperative forms of ownership) were collective farms and state farms. Moreover, they quite effectively performed the function of economic consolidation of LC of the LAU-2 level, for example, Tyunnikivska in the former Chudniv district. With the liquidation of state farms and collective farms, thousands of such low-level LCs will also be degraded. Even where their assets were shared within corporate structures, LCs are still thriving. It's a pity that these are isolated cases. A classic example can be Bobrovytska LC in Chernihiv region, the economic basis of which is LLC "Land and Will" (general director - L. G. Yakovyshyn), which was created in 2000 on the basis of the former Mainiv state farm-technical school.

The effect of cooperative interaction in LC is also provided by various forms of cooperation, namely:

- municipal-private partnership, within the framework of which private owners as shareholders can cooperate with LGUs. An example of such a partnership is the construction and maintenance of social infrastructure facilities, local roads, as well as the creation of local transport companies in LC;

- public-private partnership at the local level. The projects of such a partnership are mainly implemented in such areas of economic activity as: collection, purification and distribution of water (47% of the total number of contracts); production, transportation and supply of heat (12.1%); waste processing (10.6%); road construction and road operation (10.6%); real estate management (6.1%); production, distribution and supply of electric energy (4.5%) [97, p. 104];

- inter-municipal cooperation, primarily regarding issues that are quite difficult to solve independently by the LC; this is, for example, collection, disposal and processing of garbage, provision of high-quality centralized water supply and drainage, repair and cleaning of roads, organization of passenger transportation, maintenance of fire protection and former district hospitals. There are quite a few forms of this cooperation, all of them are regulated by the Law of Ukraine «On Cooperation of Territorial Communities». LCs can cooperate even within the framework of cluster structures. Thus, Severynivska and Barska LC in Vinnytsia region cooperate within the framework of the «Apple Way» cluster. However, the level of LC cooperation within the framework of inter-municipal cooperation, although it is supported by the state through the SRDF, is still low;

- state-municipal cooperation, especially regarding the joint financing of expensive, but very important for individual LC projects, for example, construction of metro stations, bridges over large rivers. The cooperation of individual state enterprises, institutions and organizations with local government is quite common. Thus, the All-Ukrainian Scientific and Educational Consortium, created on the basis of the Vinnytsia National Agrarian University, successfully cooperates with the LC on the training and retraining of personnel and the transfer of innovative technologies for the selection of

bioenergy crops and sugar beets, biofuel production, etc.;

- international cooperation of the LC, which is provided, in particular, in the Association Agreement of Ukraine with the EU. First of all, we are talking about cooperation within the framework of Euroregions, the Program of the European Neighborhood Instrument and joint business projects of border LCs. But an empirical study conducted by Anna Pintsh in 2019 revealed that the international cooperation of Ukrainian LCs, in particular with EU communities, remains underdeveloped [98].

In general, FSOE, especially innovative ones, as well as forms of LC cooperation, have not received sufficient development, although there are opportunities for this even in wartime conditions.

We believe that it is quite possible to create municipal industrial clusters in LCs, in which both urban and rural settlements are combined, even in difficult conditions. In terms of structure and functions, they should resemble similar regional clusters, the structure and functional features of which we have already highlighted [99]. For many rural LCs, it is optimal to create clusters of agricultural specialization.

A significant obstacle on the way to the creation of effective FSOE at the local level and economic consolidation on this basis of the LC level LAU-2 and LAU-1 is that after the liquidation of the Ministry of Development of Communities and Territories, no institution deals with these issues, in particular with regard to the development of the appropriate organizational and economic mechanism.

The economic potential of LC and the possibility of capitalization of local resources on the basis of effective FSOE significantly affect their financial capacity, which as a result of the decentralization reform, in particular the financial one, has significantly increased (after amendments to the Tax and Budget Codes) due to the transition to direct relations with the state budget, the transformation of inter-budgetary relations and the consolidation of permanent sources of income for local budgets. The key was the legislative fixation of 60% (from 2020 – 64%) personal income tax (PIT) in the budgets of the FSOE. Accordingly, this tax became the main part of the income structure of the general and special funds of local budgets (272.2 billion UAH or 49% in 2022). Other sources of filling local budgets are: subventions from the state budget

(21% - for the implementation of delegated powers in the fields of education, health care, etc.), a single tax. (9%), property tax, including land plots (7%), subsidies from the state budget (4%), other taxes and revenues (10%) [100].

True, the current system of personal income tax crediting to local budgets, when the tax is paid at the place of company registration, is not fair. In most developed countries, this tax is calculated based on the place of residence of the employees. In Ukraine, it is proposed to count it according to the location of separate structural subdivisions) [101]. However, this is also not entirely justified, because enterprises and their subdivisions, especially in large cities, where the land tax is large enough, often register them not at the place of actual location. Thus, the Vinnytsia manufacturing company "Panda" had a legal address there for a long time (before the village of Stryzhavka joined the Vinnytsia Municipal LC). But even with the transition to the international system of personal income tax registration, the financial capacity of most LCs will not change significantly and will remain low. This is indicated by such important indicators as the tax capacity index (the ratio of the average Ukrainian personal income tax per person to the amount of personal income tax per person in the community: 0.3 – low, 0.3–0.9 – medium, from 0.9 – high) and the share of own revenues in the local budget (up to 10% – low, 10–20% – medium, from 20% – high). In Ukraine, these indicators are low in most LCs. This means that they do not have sufficient funds for development budgets, and also need significant subsidies from the state budget (which is very difficult in wartime conditions) for the maintenance of social facilities. Particularly problematic from a financial point of view are those LCs, in which the share of expenses for the maintenance of social security is about a third of the total (in 2022, it was on average at the level of 12.9%) [100].

The only radical means of increasing the financial capacity of LCs is the activation of their self-development potential, which can ensure the growth of their own incomes in a short period of time. This can be achieved by: creating or expanding the capacities of utility companies (on the basis of attracting funds - placement of municipal bonds, use of loans, etc.); implementation of projects of local importance (mainly at the expense of budget funds); participatory budgeting (with the participation of citizens on

a competitive basis), which is especially widespread in the cities of the Dnipropetrovsk region; stimulation of entrepreneurial activity and creation of new jobs, including for internally displaced people (IDP); improvement of the tax administration system, including local taxes; transfer of part of community property for rent.

The main threats on the way to increasing the financial capacity of LC are related to the war, with a sharp decrease or even the cessation of revenues to their budgets from communal enterprises. Factors such as the reduction of subventions and subsidies, the shadow sector of the local economy, corruption, the irregularity of the incomes of heads of LC, as well as the transfer from October 1, 2023 of the military personal income tax (for the period of martial law) to the state budget significantly affect the lack of funds from local budgets .

Analysis of the social component sustainable development of LC is mainly reduced to the assessment of their human potential, employment and income of the population and quality of life.

Human potential The LC of Ukraine includes all their available population, including the unemployed and those unable to work (before the full-scale invasion of Russia - as of January 1, 2022 - the population of Ukraine, excluding the occupied territories of Crimea and the Donetsk region, was 41.2 million people). This potential reflects the ability of the LC population to carry out economic activity (as a carrier of labor force), as well as to act as a consumer of material and immaterial goods. As a result of the capitalization of human potential, the potential of human capital of LC is formed. Its main characteristics in the post-industrial era are the level of education and the qualifications of the workforce. **Based on these characteristics, it should be noted that** most LCs in Ukraine, especially urban ones, have significant human capital potential.

But in general, the human potential of most LCs, with the exception of communities of the capital, large cities and some rural areas of the Volyn and Carpathian regions, has a long-term downward trend. This is evidenced by the fact that the total population of Ukraine has significantly decreased by 11 million people, because as of January 1, 1993, it was 52.2 million people. The number of villages (by

almost 500) and the number of the rural population (by almost 3 million people), and the average population of villages (from 600 to 490 people) also decreased [102, p. 64]. Negative trends should also include the outflow of young people from LC, which are far from centers with a high level of economic activity. The human potential of the LC decreased the most after the full-scale invasion of Russia, especially in the occupied and front-line communities. In total, more than 13 million people left temporary residences. As of June 21, 2023, there were 8 million 177 thousand Ukrainians abroad, and 4 million 872 thousand people were registered as IDP (as of June 9, 2023) [103].

To ensure sustainable development of LC during the reconstruction period, it is very important to restore their human potential to the maximum extent. For this, first of all, it is necessary to create favorable conditions for the return of people from abroad and labor migration within the country (for the reconstruction of destroyed objects). Therefore, it is necessary to launch economically attractive mechanisms for stimulating the relocation and labor migration of the population to the most affected and socially and economically backward LCs. True, this may be hindered by the inflexible state social policy and the long continuation of hostilities on the territory of Ukraine.

Employment and incomes of the population of the LC should become the key orientations of the state social policy. Before the full-scale invasion of Russia, the situation with employment and incomes of the population, especially LC based on large and industrial cities, was more or less stable; this is if you do not count its catastrophic deterioration after the failed privatization reform, which destroyed thousands of industrial facilities and, accordingly, millions of jobs.

In rural LCs, the reduction in the number of jobs was strongly influenced (since 1999) by the agro-holding of agricultural activity. This is due to the fact that the specialization of agricultural holdings in the cultivation of grain and industrial crops does not require the creation of a significant number of employees. For example, at «Traygon Farming Kharkiv» LLC, the number of employees (per 1,000 hectares of agricultural land) decreased to 5 compared to 150 in personal peasant farms [104, p. 40]. Even more radically, the reduction of the number of jobs in LC (approximately half), as well as the level of income, was influenced by full-scale Russian military

aggression. As a result, a large part of people do not currently have sufficient means of subsistence. In total, about 17 million people need assistance from the state and local government [105]. And such help, indeed, is provided. Thus, the Vinnytsia City LC supports IDP and also provides quarterly cash assistance to pensioners whose monthly income does not exceed UAH 2,700.

In the reconstruction period, it is very important to ensure the creation of new jobs with a high level of wages not only on the basis of traditional, but also on the basis of new forms of employment - on the basis of outsourcing, freelancing, leasing of workers, including within the framework of the Recovery Plan of Ukraine [91]. The spread of innovative forms of employment at the LC level requires a review of approaches in the field of social dialogue - between employers and employees with the mediation of local government and the support of the state authorities. By the way, even under martial law, the state partially compensates entrepreneurs for the creation of new jobs. More than 5,700 entrepreneurs have already received them (in the amount of UAH 95 million) [105]. In addition, through the State Employment Center, the state allocates funds for public works that can support the employment of LC residents. In Ukraine, each LC also has the opportunity to create about 50 jobs (mainly for rural youth) only thanks to the creation of a system of procurement, production and service cooperatives [106, p. 11, 13]. Of course, the newly created jobs must provide an adequate level of remuneration.

The growth of employment and incomes of the population of LC may be hindered by the further continuation of military operations and delays in the restoration of jobs due to various reasons.

Employment and income of the population, although it is one of the key conditions for a high quality of life for LC residents, is far from being exhausted by it. An important role is also played by providing residents of communities with the necessary public services (administrative and social) based on relevant infrastructure facilities. Indeed, many LCs in Ukraine, especially on the basis of large cities and agglomerations, in particular Kyiv (which, by the way, were also noted by the Russian occupiers), have achieved a high quality of life. Kyiv is generally included in the Economist Intelligence

Unit's ranking of the most convenient cities in the world (although it ranks only 165th among 173 cities [107]). Among other cities, Lviv, Kharkiv, Odesa, Vinnytsia, Ivano-Frankivsk, etc. stand out as centers of urban LCs in terms of quality of life. [108, p. 24]. The decentralization reform gave an impetus to the improvement of the quality of life in rural LCs as well, in particular by bringing administrative services closer to their residents (through the creation of Centers for the provision of administrative services in each community).

As for the provision of social services to LC residents, especially medical services, there have been no positive changes in many of them, even in urban communities. In rural LCs, especially big problems are noted with prompt provision of high-quality medical care and the absence of pharmacies in many villages. Even in relatively large villages, for example in Sozonivka of the Velikoseverinivska LC of the Kropyvnytskyi district of the Kirovohrad region, where 1990 people live, there is no pharmacy and there is also a problem related to the absence of a family doctor [109, p. 167]. The policy of creating the so-called supporting schools. Also, in many rural LCs, low provision of high-speed Internet for their organizations and residents is noted. In some communities, low quality or even the absence of services is associated with the transfer of communal enterprises to business structures. A parable in tongues became the story of the transfer of the utility enterprise for heat supply to a private structure (LLC «Smila Energoinvest»), which for a long time deprived the residents of the city of Smila of heat supply. And although foreign experience, as noted by some authors (V. Borshchevskyi [110, p. 21, etc.], shows that private companies in conditions of fierce competition ensure the provision of higher quality services to community residents than communal enterprises, however, Ukrainian practice refutes. In Vinnytsia, for example, a communal transport company provides better quality and less expensive services than most private carriers. Moreover, a similar situation is observed in Kyiv and many other cities of Ukraine.

Possibilities for improving the quality of life in the LC of Ukraine are primarily related to the development of communal infrastructure facilities. Thus, in the field of housing and communal services of LC, in particular rural, the creation of universal

utility companies that provide transport services, water supply, drainage, energy modernization of the housing stock, garbage removal, etc., is quite promising. In the conditions of the reduction of state financing of health care facilities, the development of communal medical institutions, in particular on the basis of former district hospitals, is becoming more and more relevant. The implementation of the intention of the management of PJSC «Ukrtelecom» to provide high-speed Internet to 95% of the rural population will be important for the digitalization of rural LCs [111]. And the best opportunities for ensuring a high quality of life can be created by smart cities and smart communities. The problem, however, is that «smart cities» and corresponding LCs are still «gaining momentum», and most LCs are focused on solving more «down-to-earth problems» related to overcoming the consequences of a terrible war and ensuring the efficient operation of communal infrastructure facilities.

Analysis of the environmental component LC includes an assessment of their assimilation potential, the balance of nature use and the state of the natural environment (SNE).

Assimilative potential LC is the ability of their ecosystems in the mode of homeostasis (resistance to self-destruction) to decompose natural and anthropogenic substances (emissions, discharges, waste) and neutralize their negative impact in the cycles of the biotic circulation. This potential has an economic meaning, because its use allows you to save on the costs of decontamination of SNE pollutants. It is «activated» to the greatest extent in the LC from the zone of ecological disaster or close to them (for example, the Chernobyl zone, the zone of military operations) and the LC of Donbass and the industrial Prydniprovye region, the city of Kalush, etc. Due to its exhaustion, for example, the Ladyzhynska TPS was placed in the Vinnytsia region, and not in the Donbass, although it would be much cheaper to deliver electric energy by transmission lines than coal by rail.

It should be noted, however, that nowadays in many LCs, especially rural ones, insufficient use of the assimilation potential is noted, primarily due to the decrease in the population in them, the closing of farms, etc. Instead, in large cities and urban agglomerations, it is largely exhausted and replaced by the work of environmental

infrastructure facilities. Although from the standpoint of Paul Krugman's new economic geography, the accelerated development of cities and agglomerations (as a result of the predominance of centripetal forces over centrifugal ones) is an objective process that, under conditions of imperfect (monopolistic) competition, is associated with savings on transport costs and the action of the agglomeration effect, however, these benefits should be compared with the costs of creating and operating infrastructure facilities, including environmental ones.

Therefore, it is better to place objects (enterprises) of those types of economic activity that do not require a very high level of qualification of the workforce throughout the territory (with an emphasis on the development of backward LC), that is, to «smear» economic activity across the territory, which will allow, especially in rural communities, to use their assimilation potential as fully as possible, especially since households in the countryside need mandatory collection of only scrap metal and broken glass and porcelain. After the end of hostilities, opportunities for its fuller use will increase in the LC in the de-occupied territories and in those communities where economic activity is intensified based on the use of natural resources.

Obstacles on the way to its fuller use, which limit these possibilities, are associated with the duration of hostilities and the growth of natural resource production volumes.

Of course, the assimilation potential is sparingly used in those LCs in which balanced nature use is ensured. In the conditions of decentralization, it foresees the transition of LC to the principles of a «green» economy, which is based on a careful attitude to «own» natural objects and an interested overcoming of ripe environmental problems by industrial and tax-budgetary means. Its core is the circular economy, in which natural resources are extracted, transformed into products, and then become waste products that are reused. For this, it is necessary in LC organize the collection, sorting (ideally - separate) and processing and disposal of garbage. By the way, Ukraine has one of the largest absolute volumes of waste generation and accumulation in Europe. About 17 million tons of industrial and household waste are generated every year. Each resident of Ukraine produces up to 300 kilograms of garbage every year. Moreover, the further the village is from the city (and therefore from the equipped

landfills), the more spontaneous dumpsters are on its territory. Work on their elimination is still in the initial stage, but there are already positive examples. Thus, in Teterivska LC, in Zhytomyr Region, the territory was cleared of spontaneous landfills and garbage sorting was carried out. About 300,000 hryvnias from the LC budget were spent on this, which is 45 hryvnias per inhabitant [112].

But in general, work on security in Ukraine balanced nature management at the LC level is at an initial stage. Comprehensive schemes for sorting and processing waste, in particular solid household waste, are being tested. Thus, in the Illinetska LC of the Vinnytsia region, the municipal enterprise «Dobrobut» after sorting waste, about 14% of its total mass is used on site for the production of paving slabs. Organic waste is processed into organic fertilizers (using composting technology), and the rest is burned for heat, although, in our opinion, it would be more rational to use it for biogas production.

Therefore, in most LCs, there are sufficient opportunities to increase the level of balanced nature management at the local level. For this purpose, local authorities have to conduct an inventory of the natural resources of the territory of communities, recording their current state, the level of anthropogenic load, etc. It is also important to develop economically justified tariff rates for the exploitation of natural resources and pollution of natural resources, with the introduction of a 25% environmental tax to the budgets of the LC. And a specific promising direction of waste processing can be their conversion into biogas, which will contribute to the development of renewable energy in LC. According to the calculations of TIS Eco, one ton of household waste can produce 140–280 cubic meters of biogas. However, so far no LC has shown interest in such a project [97, p. 106]. Therefore, the inertia of unbalanced nature use still remains the main obstacle on the way to the development of the «green» economy of the LC, which also affects the state of the SNE.

The state of the natural environment in many LCs, in particular on the basis of industrial cities and agglomerations, significantly improved in the 1990s, however, not because of «a good life», but due to the closure or reduction of capacities of thousands of industrial enterprises. But even now, the anthropogenic load on SNE in Ukraine due

to emissions from enterprises of the fuel and energy sector, mining and quarrying, metallurgical and chemical industry is several times higher than the similar indicators of the developed countries of the world. In addition, the threat of ecologically dangerous man-made accidents and catastrophes has significantly increased in many LCs of Ukraine, where mining is or was previously conducted, as, for example, in the Kaluska City LC. A strong anthropogenic load on the SNE is also noted in the LC of megacities, because they account for 2/3 of energy consumption and 70-80% of greenhouse gas emissions [113, p. 133]. Air pollution in Ukraine is the cause of the largest number of premature deaths among all European countries. In Ukraine, water pollution is also increasing strongly, in particular underground water in rural LCs, where people use water from wells en masse. One of the reasons for this is the spontaneous growth of landfills and the uncontrolled construction of cesspools. Therefore, it is very important to provide the rural population with a centralized water supply (only 23% of Ukrainian villages have it in Ukraine) [112]. Chemical pollution and degradation of lands, especially those cultivated by agricultural holdings, are a significant problem of rural LCs. Unfortunately, after the full-scale invasion of Russia, a multiple deterioration of the state of the SNE is noted in the LC in the combat zone and the front-line zone.

In order to improve the condition of the SNE in the combat zone, it is necessary to demine the territory and carry out large-scale reclamation, which requires significant funds. In large cities and urban agglomerations, it is necessary to lay down funds for the purchase and maintenance of new automated stationary air quality monitoring stations. It is also necessary to review and make changes to the State Monitoring Programs in the field of atmospheric air protection of zones and agglomerations. In addition to the development of a system for monitoring the quality of the environment, one of the powerful mechanisms for improving the state of natural resources, in particular air, is environmental budgeting and taxation at the level of all, without exception, LC. The construction of water pipes (ideally with a purification system) may become a priority in rural LCs under conditions of decentralization.

The main threats that exist or may arise on the way to improving the state of the

SNE in communities are the following: continuation of hostilities; limited financial resources, including because of the symbolic size of environmental taxes (1.6 billion UAH or 0.3% of local budget revenues for 2021 [100]); weakness and imperfection of software and hardware for environmental monitoring of air, water and land, low level of environmental education and ecological nihilism of managers at all levels, including LC.

If we formalize the qualitative assessments given above, we will get a matrix of quantitative SWOT analysis of sustainable development of the Technical University of Ukraine (Table 1).

Table 1. Quantitative SWOT analysis of sustainable development of territorial communities of Ukraine

Constituents sustainable development	Indicators of sustainable development	Ratings on a 10-point scale				In total	Together
		strong parties	weak sides	opportunities	threats		
Institutional	institutional support	+5	-7	+4	-5	-3	-5
	territorial organization of power	+6	-8	+3	-5	-4	
	municipal management	+7	-6	+5	-4	+2	
Economical	economic potential	+4	-8	+5	-6	-5	-2
	forms of spatial organization of the economy	+5	-4	+3	-3	+1	
	financial capacity	+6	-5	+4	-3	+2	
Social	human potential	+4	-7	+3	-6	-6	-10
	employment and income of the population	+4	-6	+4	-3	-1	
	quality of life	+5	-6	+3	-5	-3	
Ecological	assimilation potential	+4	-5	+6	-4	+1	-6
	balanced nature management	+3	-6	+4	-5	-4	
	the state of the natural environment	+4	-6	+3	-4	-3	
Integral evaluation		+60	-74	+47	-53	-23	-23

As evidenced by the integral assessment of the effectiveness of the decentralization reform, according to the conducted SWOT analysis, the repeated reports of the Ukrainian government about the decentralization reform as the most successful, as the management mainstream, are, to put it mildly, far from the truth. Of course, Russia's

full-scale aggression added negativity to the assessments, especially regarding economic and human potential. But some characteristics of sustainable development of LC even without war, especially those related to institutional support and LLCs, would still be low. And this indicates that the decentralization reform itself needs reformation.

The conducted research indicates that in order to increase the effectiveness of the decentralization reform, it is very important:

- to conduct the reform in a legislative direction, to harmonize its basic laws with the Constitution of Ukraine;

- by the efforts of scientists of the Institute of Geography of the National Academy of Sciences of Ukraine, the Institute of Regional Studies of the National Academy of Sciences of Ukraine, departments of geography and administrative management of universities to carry out micro-zoning of the territory of Ukraine to establish scientifically based borders and form ATU, first of the LAU-2 level (based on their economic consolidation), then LAU-1 and, finally, territorial units of the NUTS-3 level as sectoral (following the example of Poland), for example, hospital districts;

- to concentrate the main forces of municipal management in the ATU of the LAU-1 level, increasing the professional level of their employees, which will allow to develop strategies and plans for the spatial development of the LC at a high professional level;

- recovery and expansion of the economic potential of the LC to be carried out with a focus on the national recovery programs and the State Strategy for the Regional Development of Ukraine for 2021-2027;

- when creating FSOE, give preference to structures that will contribute to the economic consolidation of ATU of LAU-2 level (for example, municipal corporations) and «innovative pollination» of the LC economy (technology parks, innovation clusters, etc.);

- the main direction of increasing the financial capacity of the LC should be the development of the local economy on the basis of budget-forming enterprises, and not the inter-budgetary redistribution of income;

- in order to preserve the human potential of LC, especially those most affected by the war, an adequate social policy should be implemented regarding the return of their residents to their places of permanent residence;

- in order to ensure the quality of life in LC, first of all in depressed ones, the state must implement such a regional policy that guarantees it for all citizens regardless of their place of residence;

- to rationally use the assimilation potential of LCs, for which state regulation of the processes of territorial concentration of population and production is necessary: in LCs based on large cities - to slow down, and in rural ones - to speed up;

- to develop a «green» economy in the LC, friendly to people, with an emphasis on its core - a circular economy, which, based on the use of various waste, will contribute to the strengthening of the resource base of the LC and the improvement of their SNE;

- to improve the state of the SNE in the majority of LCs, especially in communities that have fallen into the war zone or adjacent to them, starting from land reclamation to the introduction of administrative and economic mechanisms for improving the environment;

- restore the activities of the Ministry of Development of Communities and Territories, because one or several specialized departments within the Ministry of Infrastructure objectively cannot cover the large-scale complex of unresolved issues of the decentralization reform.