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TERRITORIAL PLANNING OF LVIV-VOLYN COALFIELD: HISTORY AND PROSPECTS

Purpose. Determination of the peculiarities of territorial planning of the coal mining regions by the example of the Lviv-Volyn coal basin. Definition of the main factors of influence on the formation of urbanized settlement systems, their centers with an appropriate presentation of them in district planning and general plans of cities and settlements.

Methodology. The method of retrospective analysis of urban planning documentation based on materials of district planning and general plans of cities and settlements on coal mining areas of the Lviv-Volyn coal basin was applied, which allowed establishing phases of the formation of urbanized areas of the mining industry from the time of its establishment to the present time. The planning of the Volyn and Chervonohrad industrial districts is described: the first one as a separate industrial territory of the Volyn region, and the second one – in the conditions of the Chervonohrad-Sokal agglomeration. The circumstances of restructuring of enterprises in the mining industry of the region and environmental problems are considered.

Findings. Factors influencing the territorial planning in the current socio-economic conditions of the crisis phenomenon in the coal industry due to the non-profitability of the mines, their closure, the growth of unemployment, as well as the critical ecological status of the mining territory are determined. The role of the economic base, a priority component of the coal industry, which determines the future development of the area, is emphasized. A complex approach to solving the problems of prospective development of territories and settlements, as well as the formation of a powerful fuel and energy complex based on the mines of the Lviv-Volyn coal basin and Dobrotvir ThEC is proposed. This will facilitate the restructuring and investment attractiveness of the enterprises of the coal industry, technological modernization of the mines, as well as stimulate the transformation of this region into a polyfunctional one with the formation of different enterprises and new activities.

Originality. New approaches to territorial planning within the administrative districts, agglomerations, cities and settlements based on strategic plans of enterprise restructuring, integrated planning, ecological rehabilitation of territories, land use structure and social basis of planning are determined.

Practical value. The directions of optimal prospective development of territories and settlements are designated through reorganization of prospective coal enterprises in the context of their competitiveness on the basis of cooperation of coal and energy industries, formation of enterprises of other industries, promotion of medium and small businesses, solving of environmental problems, and improvement of living conditions and activities of people.

Keywords: *territorial planning, general plan, mining industry region, fuel and energy complex*

Introduction. The Lviv-Volyn coal basin, on which the fuel and energy complex of the region is based, is considered the most promising in the western region of Ukraine, especially in the current socio-economic conditions, when the control over a part of the coal mining territory of Donbas is lost. The current political and economic situation in the conditions of mass closure of mines, critical ecological state requires new approaches to the development of the Lviv-Volyn Basin in terms of planning of its territory. This problem is extremely topical and important as it is closely related to the economic basis, further activities of the enterprises of the basic coal industry and with the social task of improving the living conditions of people.

At the same time, the territorial planning of coal mining areas has its own specifics, depending on the reserves and mining and geological conditions. This is reflected in the dismembered structure of cities and towns, the widespread distribution of old low-rise construction of mining settlements, the assignation of large areas for mine enterprises, access roads to them, etc.

The problem of territorial planning of the region of the Lviv-Volyn basin in theoretical works and investigations is insufficient and requires generalization of the experience of domestic practice in this problem with the involvement of research in related disciplines.

Literature review. The Lviv-Volyn coal basin is the subject of research of Ukrainian and Polish scientists. The main area of these studies is geology. Only in relatively recent times Dr. F. D. Zastavnyj, professor of Lviv National University named

after Ivan Franko, initiated the geographic aspect of this subject in the work “Investigation of the Lviv-Volyn Coal Basin in the pre-Soviet period”. Geological and geographical orientation of research is reflected in the work by A. M. Manko “Lviv-Volyn Basin as an Industrial Area” (2008). Further research studies pay increasing attention to the ecological situation of the region, related to the transformation of the relief, soil, pollution of air and water, etc., which directly affects the territorial planning of the district. The dangerous ecological situation as a result of the activity of the enterprises of the coal industry led to research works on elimination of negative phenomena and improvement of the environment. Among these works, special attention is paid to those devoted to the methodological foundations of geological and environmental research using GIS-technologies [1].

Crisis phenomena in the coal industry in recent years have aggravated the problem of restructuring of enterprises in this sector. Domestic scientists have highlighted this problem using the analysis of foreign experience: O. I. Amosha, L. L. Starychenko, I. I. Pavlenko, D. Yu. Cherevatskyi, A. M. Manko, P. V. Zhuk, I. S. Poshtaruk [2, 3]. Today, the necessity of an integrated approach to the prospects of the further functioning of the Lviv-Volyn coal basin, which takes place through the closure of unprofitable mines, modernization of prospective coal enterprises in the context of their competitiveness, has become acute. On the basis of such approach, cooperation between the coal and energy sectors is proposed [4].

All these circumstances are reflected in the territorial planning of this area conducted by Lviv Project Institute “Mistoproekt” with the help of the Department of Urban Development of NU “Lviv Polytechnic” These institutions have gained

experience in regional planning of master plans of cities and villages within the Lviv-Volyn coal basin, which allowed the use of these materials to highlight the problem of this article.

Purpose. The work aims to determine the factors and trends that affect the future development of the Lviv-Volyn coal basin, as well as to identify the features of territorial planning in this region basing on a comprehensive analysis of hazardous natural and human induced processes and land use structure.

For this purpose, the cognitive method, the comparative analysis, the statistical analysis method and the mapping method are used.

Results. The Lviv-Volyn Coal basin (L-VCB) is territorially divided into three areas: the Volyn mining region, Chervonohrad mining region and the South-West coal region. The industrial area of the basin is approximately 2500 km² [5].

The main part of the Lviv-Volyn coal basin is the Chervonohrad mining-industrial district (CH MID) on the territory of the Sokal administrative district of Lviv region, where the Mezhyrichchia and Zabuzsk deposits are exploited. Sokal, Tyahliv and Kariv (Lyubel) deposits were prospected in the Lviv region. The most promising ones are the Tyahliv and Lyubel deposits. Placement of coal deposits is shown in Fig. 1.

The history of the opening of the Lviv-Volyn coal basin is associated with the discovery of deposits of coal by Russian scientist M. Tetyayev in 1912 and later confirmed by the Polish scientist Y. Samsonovych. Exploratory drilling within the Lviv voivodeship began in 1938 and was interrupted by the Second World War. Geological exploration works, which began in the Soviet times after incorporation of the Western Ukrainian lands into the Ukrainian SSR, were continued in the first post-war years. The Lviv-Volyn coal basin originated in the context of the Soviet Union's economic policy as a fuel and energy base of the western region of the country.

The largest city of L-VCB is Chervonohrad (in the past – Crystynopil, which until December 1951 belonged to Poland). According to the Soviet-Polish agreement on the exchange of certain border territories, Crystynopil was included into the Ukrainian SSR as Zabuzhsk district of Lviv region, and was renamed Chervonohrad. The further history of Chervonohrad is inextricably linked with the industrial development of the Lviv-Volyn coal basin. In 1952 Mine No. 1 “Velykomostivska” was laid, in 1953–1954 there were constructed 3 more mines, and in 1955 the construction of 8 coal-mining enterprises began. At the beginning of the 2000s, mines No. 2–10 “Velykomostivskas” were renamed: No. 2 – “Benduzhska”, No. 3 – “Mezhyrichanska”, No. 4 – “Vidrodzhennia”, No. 6 – “Lisova”, No. 7 – “Zarichna”, No. 8 – “Vizeyska”, No. 9 – “Nadiya”, No. 10 – “Stepova”. The location of active and closed mines is shown in the diagram (Fig. 2).

The construction of mines in Volyn began in 1950 and mines No. 1, No. 2, No. 3 were located near villages of Dorohynychi, Rusovychi and Budyatychi. During 1951–1954, mine No. 4 was laid near the village of Dorohynych, mines No. 5 and No. 6 – near the village of Hrybovychi, mine No. 7 – not far from the village of Bilychi and mine No. 8 – near the village of Khreniv. In 1956, the construction of mine No. 9 began.

For the resettlement of miners and mine-builders in 1950 a plan for the development of a new settlement (the future city of Novovolynsk) was developed for 10–15 thousand inhabitants in the Ivanychi district, in the southwestern part of which the Novovolynsk coal deposit was developed. In 1953, in the territory of the area near Novovolynsk, another mining settlement for 3 thousand inhabitants – the settlement of Zhovtneve (later Blahodatne) was designed.

Novovolynsk, having received the status of a town of regional subordination in 1958, acquired the features of a developed and industrial city with a housing stock of 120 thousand square meters, a powerful infrastructure, and a number of subsidiary enterprises. The economic basis for the development of

the city of Novovolynsk – the center of the Volyn mining and processing area – was coal mining with a high level of mechanization. There were nine working mines with the daily capacity of each amounting to 1.5 thousand tons of coal.

The commissioning of mines can be considered as the period of formation of the Lviv-Volyn basin, which was accompanied by the first phase of its territorial planning with developing of urban plans for each city and town. Thus, in 1953, “Ukrhiproshakht” institute developed a general plan of the city of Chervonohrad with its prospective development of up to 35 thousand inhabitants on the territory of 282.5 hectares. Simultaneously, the development of residential neighborhoods and objects of cultural and domestic purposes in the old and new parts of the city was carried out.

In 1954 near Chervonohrad, a new mining settlement Hriada was founded, which gained the status of a settlement of a town type in 1956 and was renamed into Hirnyk. In the spring



Fig. 1. Scheme of placement of coal deposits of Lviv-Volyn coal basin

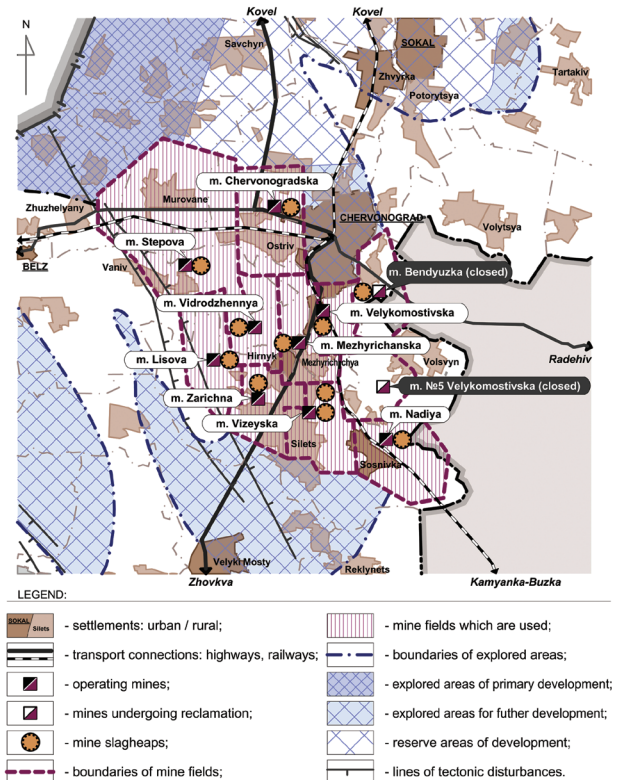


Fig. 2. Scheme of placement of mines of the Chervonohrad mining area

of 1955 a new mining settlement Kirov was founded, renamed in 1957 into the village of Sosnivka, which in 1968 was classified as a town of district subordination.

Adjusting the general plan of Chervonohrad in 1959, "Ukrhiproshakht" institute provided the development of the city up to 100 thousand people (taking into account the settlements of Hirnyk and Sosnivka) on the territory of 1391 hectares.

The subsequent phase of territorial planning, which began in the 1960s, coincided with the period of active industrial development of the coal basin, which was accompanied by a significant increase in the population and expansion of the housing. Mining settlements were formed compactly according to methods of urban development of the Soviet period. Building blocks in the 1950s and 1960s were formed by 1–4-storey houses, in the 1970s and 1980s – mostly by 5–9-storey buildings. Chervonohrad and Sosnivka are arranged now with wide streets, spacious squares, boulevards and parks.

In the early 70s territorial planning of Chervonohrad was carried out by "KyivNDPI mistobuduvannia" Institute (Kyiv Research Project Institute of Urban Planning), where the Master plan of the city was developed, designed for 105 thousand inhabitants, with the expansion of the territory for development without access to arable land.

A characteristic feature of the territorial planning of this period is the development of settlement schemes, agglomerations, planning of administrative districts caused by the necessity of economic development of large territories. Urban settlements of Chervonohrad industrial district are combined into groups with close industrial, labor and cultural-domestic links. In accordance with the scheme of district planning of Lviv region ("Dipromisto", Kyiv, 1974), the city of Chervonohrad belongs to the local Chervonohrad-Sokal settlement system, which includes Sokal district, a greater part of Radekhiv district and a smaller part of Kamiianko-Buzk district. The issue of the development of enterprises of the coal industry and related industries, residential and civil engineering, and agro-industrial complex is reflected in the district planning of Sokal district (Lviv branch of "Dipromisto", 1980), according to which the core of the Chervonohrad-Sokal system is formed on the basis of the territorial-production complex of the Lviv-Volyn coal basin and includes the cities of Chervonohrad, Sokal, Sosnivka, Velyki Mosty and urban settlements of Zhvirka and Hirnyk.

The role of the inter-district service center for the population of the Chervonohrad city council and Sokal administrative district was assigned to Chervonohrad by the "Scheme of planning of the territory of Lviv region" ((RI "Dipromisto", 2009). The prospective development of the city envisages structural and technological reorganization of the production base with the elimination of harmful production, optimization of the land use structure, environmental rehabilitation of urban areas and the formation of socio-cultural infrastructure of inter-district significance.

The city of Novovolynsk – the center of the northern part of the Lviv-Volyn coal basin – since its foundation, has been developing and expanding in line with short-term development plans. In 1963 a group of architects of the Ukrainian Research Institute for the Coal Industry developed a plan for the development of Novovolynsk for the period of 1965–1980. The creation of a number of auxiliary enterprises: ore-repair plant, construction industry, light industry and food industry enterprises was of great importance for further development of the coal industry. The number of educational, sporting, cultural and educative activities increased. In 1981, the city received a master plan, developed by the research institute "KyivNDPI mistobuduvannia", which was designed for fulfillment until 2000. The project envisaged further development of the city as a center of the Novovolynsk subsystem of resettlement, whose zone of influence included Ivanychi administrative district and, in part, Volodymyr-Volynsk and Lokachiv adminis-

trative districts. In the development of the national economy complex of Novovolynsk, the dominant role was given to industry (first of all, to mechanical engineering, metalworking, construction industry, etc.), taking into account the prospect of the gradual closure of coal mining enterprises (at that time 9 mines operated), the reduction of employees in this field and the need to use released labor resources (mainly miners).

Thus, the period of active development of the Lviv-Volyn basin influenced its territorial planning, which was based on factors the main of which are:

- favorable geographic location on the main communication axis – the Zhovkva-Chervonohrad-Kovel highway and the availability of the Lviv-Kovel railway;

- industrial development of coal reserves for the supply of thermal power plants in the Western region: Burshtyn and Dobrotvir ThECs;

- interconnection of two main branches of a single energy cycle: coal mining and thermal one;

- formation of urban-developed centers of the settlement system of mining regions: the cities of Chervonohrad and Novovolynsk.

With the proclamation of the independence of Ukraine, a new stage begins in territorial planning when complex processes are taking place in a society in conditions of a market economy. The period of growth of the industry is shifted by the reduction of coal production, the reorganization of enterprises with the transition of some of them into private ownership, the closure of unprofitable mines and the corresponding socio-demographic consequences. The situation is complicated by the technogenic transformation of the natural environment – the ecological danger.

Taking into account these circumstances in territorial planning provides for application of an integrated approach to solving problems of perspective development of the region on the basis of new factors, the main of which are:

- development of territories and settlements in close connection with the growth of coal production, reorganization of enterprises and the creation of new industries;

- environmental rehabilitation of the region with the elimination or reduction of technological load on the territory;

- improvement of the socio-demographic situation due to the closure of mines.

The changed indicators related to the prospects for the development of the national economic complex, the projected quantity of population, housing and development of the territories were taken into account in the new general plan of the city of Chervonohrad (SE SIPC "Mistoproekt", Lviv, 2006). The working out of this new general plan was necessary for adjusting of the master plan, developed in 1992 by the Institute of "KyivNDPI mistobuduvannia", to new socio-economic conditions. The reduction of coal production halted the increase in population in this city. Instead of the estimated number of residents of 95 thousand people, according to the general plan for 2010, only 69.5 thousand people lived in it at that period (2004) and continued to decrease. The spatial development of Chervonohrad is limited because of territories destroyed by mining, which make up to 37.8 % of the total area of the city, and the development of coal beds in the southern and southwest parts of the city excludes these areas from the construction of multi-storey buildings. By the project of "The complex program for the development of the mines of the state company "Lvivuhillia" the construction of 4 mines (No. 1 "Tyahliv", No. 2 and No. 5 "Lyubel" and No. 3 "Chervonohrad") was planned" by the year of 2010 with a total number of more than 5.6 thousand employees. At the same time, the "Program" provided for the elimination of "Bendyuha" and "Nadiya" mines. At the same time, the basis of the economic complex of the city of Chervonohrad at the beginning of the 2000s was the industry, the structure of which was multidisciplinary. Branches of industry of the city consisted of fuel and light industry, mechanical engineering and metalworking in-

dustry, industry of building materials, parts and constructions, food industry and other branches. In the period from 2000–2020 years construction of new industrial facilities in the city was not foreseen.

In the context of new economic realities, on the basis of a comprehensive assessment of environmental and socio-economic preconditions, masterplans of settlements were worked out by the Chervonohrad city council, the town of Sosnivka (2014), the urban area of Hirnyk (2014) and adjacent settlements: the town of Velyki Mosty (2015), the village of Mezhyrichchia (2015), the village of Silets (2017), and the village of Bendyuha (2017). These masterplans were developed by the SE SIPC “Mistoproekt” (State Institute for Projecting of Cities) with the purpose of determining the optimal parameters for further urban development, taking into account that mine coal production will remain the main type of activity of the local population in the long run.

Today, eight coal mines in Lviv region are operating, seven of which are part of Lviv coal state enterprise “Lvivuhillia”, and one mine “Nadiya” works under the direct subordination of the Ministry of Coal Industry of Ukraine, as well as the concentrating factory of PJSC “Lviv Coal Company”. Mine “Bendyuha” was closed in 2005, mine “Viseyska” is in the stage of closure (it stopped production in 2009).

The region plans to close some unprofitable mines and open new ones. Not far from Novovolynsk (near the village of Poromiv, Ivanychiv district), construction of mine No. 10 “Novovolynska” has been carried out since 1989, with a planned capacity of 900 thousand tons of coal per year. The opening of this mine was planned for 2012, but it was not realized due to lack of financing. The completion of the construction of this mine and its commissioning may be carried out in the coming years under the condition of financial support.

The prospective development of the Lviv-Volyn coal basin is associated today with the Tyahliv and Lyubel coal fields. The balance reserves of coal in these two places make almost 1.1 billion tons [6]. There, it is planned to build four mines with raising of foreign investments.

Further development of the mining complex is impossible without solving ecological problems, which are an integral part of territorial planning. Technogenic transformation of the environment on the territory of the Lviv-Volyn coal basin is also exacerbated by unfavorable natural factors: significant amount of precipitation, low evaporation, flatness of relief, and shallow bedding of ground waters, which, together with anthropogenic loading, forms an environmental hazard.

Measures for environmental rehabilitation are determined on the basis of constant monitoring, comprehensive information about specific environmental problems caused by various sources. Among them, the existence of dumps and waste heaps, pond sedimentation sites of the concentrating factory, which distort the natural landscapes, release into the air products of combustion as a result of spontaneous self-ignition of coal-friable species. The activity of mining enterprises caused changes in the relief as a result of the subsidence of the earth surface, sometimes up to 3 m, with flooding of the territories, which led to the pollution of the soils that lost their fertility. The hydrogeological state of the territories suffers from mine water which pollutes the underground aquifers, as well as natural reservoirs – the rivers Rata, Solo-kiya, Zakhidnyy Buh.

Analysis of the spectrum of geological and environmental problems, reflected in many studies of recent years, makes it possible to use them in territorial planning. Particular attention of researchers is attracted to Chervonohrad industrial region, in particular to its central part between the river Rata and the West Buh, where the area of more than 60 km² bears the most man-made load caused by the mines and the concentrating factory. Such circumstances have led to a reduction in the area of the built-up territories to 0.4 % of the total area of the district [7].

The same area is the subject of studies of the land use structure using GIS-technologies. According to the results of research studies in the work by scientists of Lviv National University named after Ivan Franko Ivanov Ye., Kovalchuk I., Lobanska N., Tereshchuk O. “Analysis of the structure of land use and manifestation of dangerous natural and man-made processes within the Lviv-Volyn Coal Basin using GIS-technologies” (2010), mapping schemes of zoning of the territory were developed: the forests reduced to 16.99 %, agricultural lands – up to 31.53 %, as well as lands unsuitable for economic use due to flood and waterlogging, which occupy 20.35 % of the mining territory. Materials of research are the basis of geological and ecological reasoning for the definition of lands of different functional purpose and, first of all, rural development.

In areas of coal mining, the built-up territories have a dismembered structure due to the location, partly, over cultivated waste rocks, and partly in the conditions of high level of groundwaters, the threat of flood, low load bearing capacity of soils. Therefore, for the territorial reserve of development of cities and settlements, the differentiation of land by the degree of favorability for a particular type of economic development is carried out. At the same time the defective areas that are subjected to reclamation and environmental rehabilitation are identified with priority of problem solving. Indicative in this respect is the city of Novovolynsk where the reclamation of industrial sites and waste heaps of the three liquidated mines (mines No. 2, No. 3 and No. 4) was carried out, and the territories were transferred to the land fund of the city. Only at mine No. 4 “Novovolynska” the reclamation of waste heaps is at the completion stage.

Works on the reclamation of disturbed territories are closely related to the policy of restructuring of enterprises of the mining industry. In the Western region of Ukraine, they are reduced mainly to the closure of mines, which has negative environmental consequences: flooding, emissions of flammable methane, pollution of aquifers. Elimination of these effects on the released industrial sites gives fixed positive results: the deformation of the surface of the earth disappears, and the area of flooded lands gradually decreases.

In practice of recultivation of disturbed territories considerable experience was accumulated. First of all, it refers to slagheaps for the use of rocks of dumps in order to fill the empty areas, turning their conical shapes flat, which reduces the risk of self-ignition and provides planting conditions for vegetation [8].

To prevent soil subsidence, new technologies are utilized with the use of waste rocks for filling of underground spaces. To eliminate pollution of the water basin, there are technologies for demineralization of mine waters. The solution of the environmental problems of the Lviv-Volyn coal basin must be linked to the National Program for Environmental Rehabilitation of the Ukrainian Coal Mining Regions, with economic mechanisms for their implementation and sources of financing.

It is expedient to introduce a biological stage of recultivation of slagheaps i. e. special artificial landscaping in accordance with natural processes characteristic of the region in order to reduce the harmful effect from fading waste heaps of coal mines after the termination of their operation in the conditions of insufficient financing of reclamation works [9].

The development of new deposits of the coal basin should take place on the basis of the integrated assessment of the area, taking into account the impact of mining on the engineering and geological transformation of the territory, interruption of the relief, the state of surface and groundwater, geomechanical processes, etc. [10]. In addition, at the stage of designing of an object of the mining complex, it is necessary to determine the directions of reclamation and revitalization of works for improvement of the ecological condition of the territories, as well as the restoration of the fertility of the land for use in agriculture or forestry.

The economic basis for territorial planning of the region is the strategic plans for the development of the coal industry, restructuring of enterprises, which can take place in several directions. One of such directions involves the closure of mines caused by their loss-making as a result of a significant excess of the cost over the sale price, old technical equipment, etc. The economic inexpediency of such an approach is proved, especially in the current realities of the energy deficit and in view of the socio-demographic consequences: employment and social tension.

The most likely trends in terms of cessation or reduction of coal production are the introduction of a regime of investment activity in order to create jobs for the redundant workers. Functioning of the territories of priority development was justified in Novovolynsk. The same policy should be applied in the Sokal-Chervonohrad agglomeration, where the settlements are connected by close industrial relations.

Examples of changes in the economy and social policy of problem regions demonstrate the countries of Europe. In addition to the numerous programs of social protection of the population and promotion of new types of business, the activity of coal industry enterprises in the conditions of the market economy of the EU is regulated by law [3].

The restructuring of the enterprises of the coal industry of the Lviv-Volyn coal basin involves their consolidation in one state company in conjunction with the energy industry, which will ensure their competitive ability in the domestic market. Creation of auxiliary branches of medium and small businesses will lead to the transformation of a single-branch district into a multi-sectoral economy that stimulates further development of cities and settlements. The reason for this is the advantageous geographic position with the possibility of cross-border cooperation, developed infrastructure, agglomeration communication between settlements.

Conclusions. As the retrospective analysis shows, the territorial planning of the Lviv-Volyn coal basin began its history from the 1950s to the 60s and corresponded to different stages of development of the main industry – coal mining.

At the new stage in the existence of independent Ukraine with market economy levers, territorial planning is based on strategic plans for restructuring changes in the coal industry at the state level and levels of separate regions. This requires the creation of schemes and projects of district planning of integral territorial associations in the frame of the administrative region, administrative districts, in coordination with which masterplans of cities and settlements are developed.

The formation of a powerful fuel and energy complex based on the mines of the Lviv-Volyn coal basin and the Dobrotvirsk Thermal Power Plant will contribute to the restructuring and investment attractiveness of the coal industry, technological modernization of the mines, and will encourage the transformation of this region into polyfunctional one with the formation of various enterprises and new activities. Recently, industrial tourism is gaining momentum – an opportunity for those who wish to look into the production process, get acquainted with the history of production, see the objects of industrial heritage and technogenic landscapes. It is an opportunity for such enterprises to present their activities, to improve the image of the company and the industry as a whole, to establish new partnership, etc. [11].

The prospective development of the Lviv-Volyn basin is aimed at preserving of the existing production potential of the coal industry, provided that it is upgraded and efficiently functioning, and, at the same time, the development of new deposits, Lyubelia and Tyahliv mines. This process, which is accompanied by the closure of unprofitable mines, raises social problems whose solutions must be offset by new types of activities that are capable of providing employment for the population.

Urban development of settlements solves numerous multi-dimensional tasks: efficient use of territories with the placement of residential and public buildings, industrial and warehouse facilities, optimization of land use structure, environ-

mental rehabilitation with the introduction of effective environmental technologies, etc. The solution of these tasks requires an integrated approach with the coordination of various disciplines, concerning the territorial planning, having different parameters of design areas. It is an important planning and project document, where the priority of the set tasks is defined, the territories of priority development and investment activity are determined.

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Територіальне планування Львівсько-Волинського вугільного басейну: історія та перспективи

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Мета. Розкриття особливостей територіального планування районів вугледобувної промисловості на при-

кладі Львівсько-Волинського вугільного басейну. Визначення основних чинників впливу на формування урбанізованих систем розселення, їх центрів з відповідним відображенням у районному плануванні й генеральних планах міст і поселень.

Методика. Застосовано метод ретроспективного аналізу містобудівної документації за матеріалами районного планування й генеральних планів міст і поселень на територіях вуглевидобутку Львівсько-Волинського вугільного басейну, що дозволив встановити фази формування урбанізованих територій гірничопромислового району від часів його заснування до сьогодення. Охарактеризовано планування Волинського та Червоноградського промислових районів: першого як окремого промислового району Волинської області, а другого – в умовах Червоноградсько-Сокальської агломерації. Розглянуто обставини реструктуризації підприємств гірничопромислового району та екологічні проблеми.

Результати. Визначені чинники впливу на територіальне планування в сучасних соціально-економічних умовах кризового явища у вугільній промисловості внаслідок нерентабельності шахт, їх закриття, зростання безробіття, а також критичного екологічного стану території гірничопромислового району. Підкреслюється роль економічної бази – пріоритетної складової галузі вугільної промисловості, що визначає перспективний розвиток району. Запропоновано комплексний підхід до вирішення проблем перспективного розвитку територій і населених пунктів, а також формування потужного паливно-енергетичного комплексу на базі шахт Львівсько-Волинського вугільного басейну та Добротвірської ТЕС. Це сприятиме структурній перебудові та інвестиційній привабливості підприємств вугільної галузі, технологічній модернізації шахт, а також стимулюватиме перетворення цього регіону до поліфункціональності із формуванням різних підприємств і нових видів діяльності.

Наукова новизна. Встановлені нові підходи до територіального планування в межах адміністративних районів, агломерацій, міст і поселень, що базуються на стратегічних планах реструктуризаційних змін підприємств, комплексності проектування, екологічної реабілітації територій, структурі землекористування та соціальній основі планування.

Практична значимість. Намічені напрями оптимального перспективного розвитку територій і поселень шляхом реорганізації перспективних вугільних підприємств у контексті їх конкурентоспроможності на основі співпраці вугільної та енергетичної галузей, формування підприємств інших галузей, сприяння середньому й малому бізнесу, вирішення екологічних проблем, покращення умов проживання та діяльності людей.

Ключові слова: територіальне планування, генеральний план, гірничопромисловий район, паливно-енергетичний комплекс

Территориальное планирование Львовско-Волынского угольного бассейна: история и перспективы

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Цель. Раскрытие особенностей территориального планирования районов угледобывающей промышленности на примере Львовско-Волынского угольного бассейна. Определение основных факторов влияния на формирование урбанизированных систем расселения, их центров с соответствующим отражением в районном планировании и генеральных планах городов и поселений.

Методика. Применен метод ретроспективного анализа градостроительной документации по материалам районной планировки и генеральных планов городов и поселений на территориях угледобычи Львовско-Волынского угольного бассейна, что позволило установить фазы формирования урбанизированных территорий горнопромышленного района со времени его основания до сегодняшнего дня. Охарактеризовано планирование Волынского и Червоноградского промышленных районов: первого как отдельного промышленного района Волынской области, а второго – в условиях Червоноградско-Сокальской агломерации. Рассмотрены обстоятельства реструктуризации предприятий горнопромышленного района и экологические проблемы.

Результаты. Определены факторы влияния на территориальное планирование в современных социально-экономических условиях кризисного явления в угольной промышленности вследствие нерентабельности шахт, их закрытия, роста безработицы, а также критического экологического состояния территорий горнопромышленного района. Подчеркивается роль экономической базы – приоритетной составляющей отрасли угольной промышленности, которая определяет перспективное развитие района. Предложен комплексный подход к решению проблем перспективного развития территорий и населенных пунктов, а также формирование мощного топливно-энергетического комплекса на базе шахт Львовско-Волынского угольного бассейна и Добротворской ТЭС. Это будет способствовать структурной перестройке и инвестиционной привлекательности предприятий угольной отрасли, технологической модернизации шахт, а также будет стимулировать преобразование этого региона в полифункциональный с формированием различных предприятий и новых видов деятельности.

Научная новизна. Установлены новые подходы к территориальному планированию в границах административных районов, агломераций, городов и поселений, базирующиеся на стратегических планах реструктуризационных изменений предприятий, комплексности проектирования, экологической реабилитации территорий, структуре землепользования и социальной основе планирования.

Практическая значимость. Намечены направления оптимального перспективного развития территорий и поселений путем реорганизации перспективных угольных предприятий в контексте их конкурентоспособности на основе сотрудничества угольной и энергетической отраслей, формирования предприятий других отраслей, содействия среднему и малому бизнесу, решения экологических проблем, улучшения условий проживания и деятельности людей.

Ключевые слова: территориальное планирование, генеральный план, горнопромышленный район, топливно-энергетический комплекс

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