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## **FEATURES OF FORMATION OF RECREATIONAL LAND USE IN THE SUBURBAN AREA OF MEGACITY**

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**Abstract.** The article covers the scientific principles of environmental land use formation in Ukraine. There were studied components of suburban areas of megacities and the process of their development nowadays. The article reflects the impact of urban development and expansion on land use and the environment. Emphasis is placed on the fact that the acceleration of urbanization is accompanied by the disappearance of valuable natural and recreational complexes, the loss of cultural and historical heritage, as well as causes high tension in society.

In the article were analyzed statistical and analytical data of the Ministry of Environmental Protection and Natural Resources of Ukraine, the State Geocadaastre of Ukraine, the State Statistics Service of Ukraine, the Ministry of Economy of Ukraine, materials of scientific and practical conferences, seminars, and the author's calculations.

The need to create a restoration of land use in the suburban area of the megacity has been identified. The author carried out the analysis of opinions of various authors concerning the definitions: "recreational territories", "recreational land use", "lands of recreational purpose". In the article, there is a

review of the peculiarities of the formation, use, and preservation of recreational areas.

It was investigated that the formation of a system of orderly development of recreational theories allows the implementation and existence of the system "man - society - environment", and in general, allows the realization of national interests of almost every country in the world.

The article reflects the main issues of recreational land use in Ukraine, as well as mechanisms to solve them so that in the recreational sphere there are terrains that meet the needs of the citizens in recreation.

**Keywords:** recreational land use, suburban area of the megacity, recreational areas, lands for recreational purposes.

**Formulation of the problem.** The issue of preserving lands and their properties, preserving the suitability of land for the organization of a particular area of recreational activities is one of the key places in the formation of any settlement and creating a favorable atmosphere for its proper functioning.

In the context of today's deteriorating conditions for sustainable development of nature, the widespread predominance of economic priorities over the principles of sustainable development, and public interests in Ukraine as a whole, it is necessary to make important decisions at the state level to expand recreational areas and their use.

Many tasks, including providing green cities with greenery or providing citizens with places for recreation and development, which are submitted to the authorities every year, have not been completed yet, and cities are only expanding and became more populated over the years.

Given the above, further study requires theoretical, methodological, and practical principles of the formation of recreational land use in suburban areas of cities.

### **Analysis of recent research and publications.**

Problems of general use of recreational areas were studied by I. Rozhko, O. Beidyk, I. Kostyashkin, R. Panas, L. Kholod, and many other scientists. The definition and content of activities in the field of recreation in the scientific literature have many different interpretations. For example, the definition of "recreation" is given by Mironenko N.S. and Tverdokhlebov I.T., who understand this concept as a set of relationships and phenomena that arise in the use of free time for health, cognitive, sports, and cultural and entertainment activities in specialized areas. [1] But other scientists, Nikolaenko D.V. and Nikolaenko T.V. define rest (rest) as any activity or its absence directed on restoration of human forces which can be carried out both in the territory of permanent residence and outside it. [2]

**The aim of the study** –to analyze the principles of formation and functional use of recreational areas in the suburbs of the megacity.

**Results of research and discussion.** Megacities can no longer be imagined without the suburbs. Suburban areas are an extremely interesting object of study, as this area offers many proposals for the protection of economic, communication, social, and environmental problems of the population of megacities. After analyzing modern and domestic literature, I concluded that the area around the city has many definitions. Every scientist, researcher interprets the term "suburban area", here are some of them:

1. "Suburban area - an area outside the city, which includes forests, forest parks, and other greenery, establishments, and institutions for mass recreation, agricultural land, industrial and municipal enterprises that receive the needs of the city, and highways." [3]

2. "Suburban area - the area around the city center, functionally connected with it in terms of supply of goods and services, employment. The suburban area is often defined as the sphere of influence of the city. " [4]

3. "A suburban area is an area adjacent to the outer boundary of a city and having stable social, labor, production, economic and infrastructural ties with it; is a reserve of territorial development of the city, location of facilities necessary for its normal functioning, providing residents of the city and surrounding areas with land plots for individual and collective housing, subsidiary agriculture, horticulture and gardening, organization of recreation areas using local recreational opportunities and performs protective and sanitary-hygienic functions. " [5]

Of all the above meanings of this concept, one is clear, the suburban area - is the area around the city, which ensures the functioning of the city, has a diverse economic significance, and is used to improve the health of the urban residents. The metropolis and the suburban area form a single whole in functional, economic, social, and environmental order. Historically, the development of suburban areas has been associated with an increase in the urban population. This process is necessary under certain conditions for the appropriate level of development of suburban agriculture, a sharp increase in the production of low-transport food for the population, which marked the beginning of the creation and formation of suburban areas near large cities and industrial centers. The needs of the city in the suburban area at different stages of its development were different as well as the functional purpose of the suburban areas. Until recently, the main responsibility of the suburban area was to provide the city with everything it needed. At the moment, the suburban area is characterized by a large number of connections: economic, cultural, administrative, managerial, integration of suburban areas with the city, which

makes it possible to argue about a new round of development of the system "city - suburban area".

Recreational activities are organized as a result of functional zoning and development projects of state nature parks and provincial landscape parks, preservation, restoration, and use of their natural complexes and objects, projects of organization of biosphere reserves and preservation of their natural complexes, as well as conservation and reconstruction projects - pieces of garden and park art, projects of organization of the territory of zoos, arboretums, etc.

There are several trends in the formation of recreational areas:

1) the flourishing of recreational areas such as urban cities based on resort settlements or large resort associations (resorts and resort areas, coastal recreation areas, etc.);

2) raising the importance of recreation in the areas between villages through the development of recreation parks; in Ukraine, they can be created based on natural national and landscape parks.

The main classification of recreational areas is as follows:

- urban, intercity, intermediate (in rural areas);
- for short-term and long-term rest;
- constant, seasonal, temporary;
- natural-recreational, agrarian-recreational, industrial-recreational, mixed.

However, not all recreational areas are restorative systems.

They acquire the status of a recreational system only when they begin to meet the requirements of the standard model of the recreational system. As an object of recreation research, it has a social character and is a complex managed system.

*Urbanized recreational areas* are based in resort settlements or large resort agglomerations. The most developed in this type of recreational area are coastal recreation areas because of many vacationers, they are second only to the world capitals which are intensively visited by tourists. The urgent development of the sea coast gave rise to a tourist boom that led to the introduction of industrial construction methods. In the recreational sphere, it causes the fact that the spatial planning of resorts is almost no different from ordinary cities, thus were created urban recreational complexes in Italy, France, Spain, and other countries.

A nature park is a unit, the interests of nature protection and the interests of recreation are different. This is a place with little developed nature or a place with intriguing natural and cultural values.

Short-term places of recreation - forest parks and forest trees, it is a short-term recreation area. Combining leisure functions with architectural-artistic, sanitary-hygienic, cognitive, and forest functions. In forest parks and suburban forests, free recreation is possible - weekend tourism, excursions, and walks, outdoor activities, spending time on beaches and water stations, skiing and water skiing, picking berries and mushrooms, and other activities, depending on the local characteristics of forest parks.

*At the current stage of development, the main links between the city and the city are the following conditions:*

- *Production (near the city with market and service water, some transportable agricultural products, local building materials, firewood);*
- *Culture and housing (depending on the management of the state administration in the social sphere, for example: educational, trade, health care, etc.);*

- *Agriculture (based on the supply of food from the city center at the expense of the city and its environs);*
- *Infrastructure (drainage and service systems, power plants, power lines, communication systems and canals, main gas and oil pipelines, water pipelines, gas and oil appliances, cooling devices and chimneys);*
- *Recreational areas (already existing areas of the population of a large city) in short-term and long-term care, health care;*
- *Work (here are the most important and sorting stations, resorts, warehouses, youth, and transport complexes).*

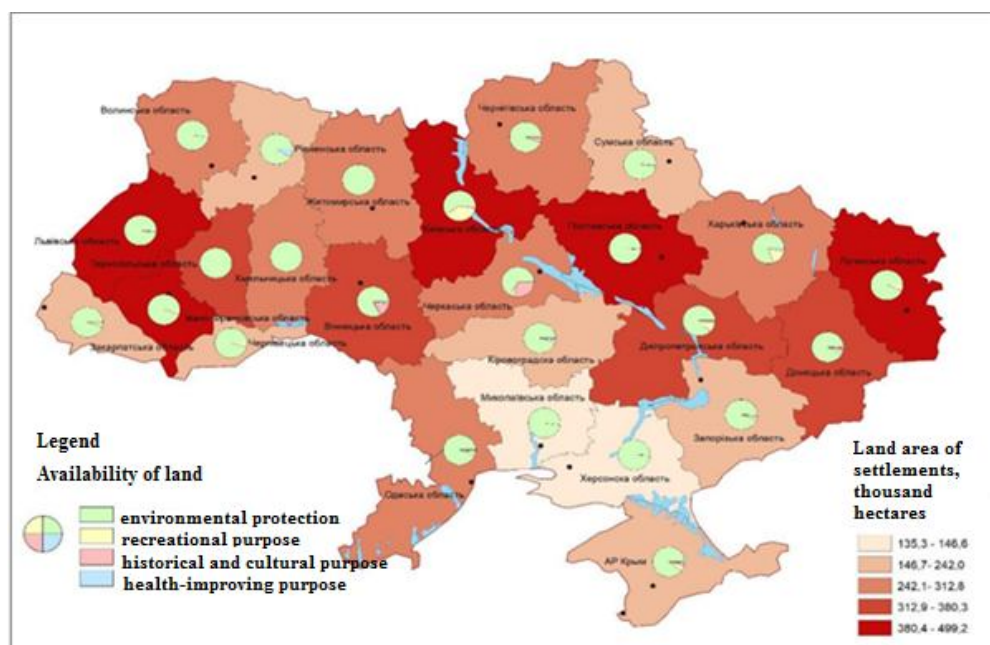
All these functions are important for the city and practically unpredictable: they cannot "disperse" or "reset", they cannot "confuse". It is important to understand the features in addition to compatibility with one or another area, and how they are combined. Some of them are well compatible and combine in the area: landscaping and recreation, greenery and resorting, etc.

However, we focus on the recreational land use in the suburbs, which is the topic of the article. In my opinion, the recreational value and this type of interaction between the city and the surrounding area is the most important for the residents. Rest and recovery are necessary as well as leisure, and work, connected with culture. So, suburban residents often work in megacities and their everyday route touches several suburb areas, not like the urban population.

The current Land Code of Ukraine provides a "Definition of recreational lands", i.e. "recreational lands include lands that are used for recreation, tourism, and sporting events." Article 51 of the LCU establishes the "Composition of recreational lands". Therefore, recreation areas include areas with greenery and greenery in cities and other settlements, educational, tourist, and ecological trails, marked hiking trails, areas occupied by rest homes, pensions, facilities of physical culture and sports, tourist bases, campsites, yacht

clubs, stationary and tent tourist and health camps, houses of fishermen and hunters, children's tourist stations, children's and sports camps, other similar objects, and also the lands, intended for agriculture and construction of other objects for stationary rest. [6] So, we can conclude that recreational land use is a kind of "brother" of tourism, which is actively developing in our country.

The total land area of Ukraine is 60,354.9 thousand hectares. The land area of cities is 1342.7 thousand hectares, settlements - 565.6 thousand hectares, rural settlements - 5671.3 thousand hectares, where the entire population lives. The largest areas of settlements are concentrated in Kyiv, Lviv, Ivano-Frankivsk, and Poltava regions (Pic. 1).



Pic. 1. Spatial distribution of land areas of settlements and the availability of land for environmental, recreational, historical, cultural, and health purposes

*Source: data from the State Statistics Service of Ukraine*

Satisfactory climatic conditions, the existence of many reservoirs determine the role of Kyiv Oblast, as an important recreational region, where were built sanatoriums, houses and recreation centers, children's camps. The



main resorts include: BilaTserkva, Vorzel, Irpin, KonchaZaspa, Myronivka. There are also health resorts: Lyutizh, Klavdiyevo-Tarasove, Bucha. The largest of these properties is the Irpin region. There are about two dozen sanatoriums and pharmacies in the region, as well as more than ten recreation camps.

Bucha has the following types of recreational areas:

- recreation area of natural landscapes (forests and coastal areas along the rivers Rokach and Bucha);

- recreation area for outdoor activities (public areas - the city beach of Bucha and beach areas with many necessary facilities);

- recreation area with public greenery (Bucha city park, squares, boulevards, and other greenery);

- recreation and entertainment area (buffer zones of public green areas).

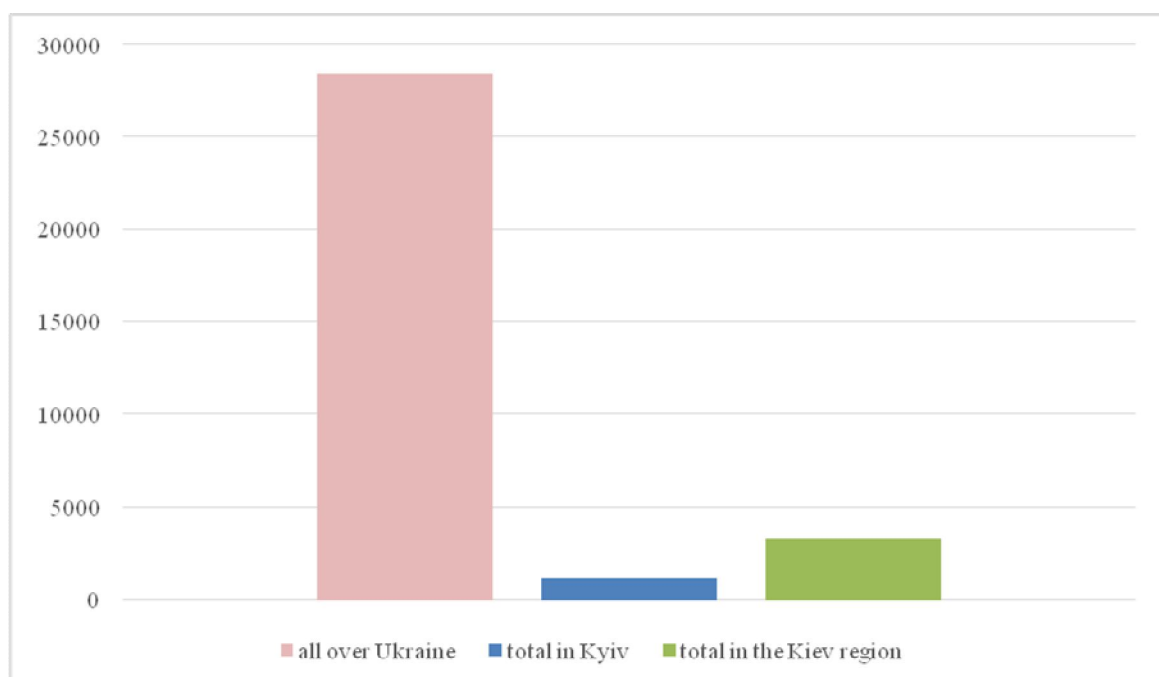
Ecological tourism is a pivotal direction in Kyiv Oblast. The main purpose of ecotourism is environmental protection. In Kyiv Oblast there are many pine, oak-pine, hornbeam-pine-oak forests with an admixture of birch, linden, maple with hazel and cranberry, as well as: deciduous forests; alder forests; oak forests; sawmills; willow forests; alder forests with maple and birch; shrubs; grassy meadows; meadow areas. Kyiv Oblast is a new region of green agricultural tourism. It is reflected in folk crafts, tourist routes, agriculture, and the manufacture of natural products. Thus, Kyiv Oblast has a strong natural potential for leisure and tourism development.

By the Strategy of Regional Development of Kyiv for 2021-2027, in 2014-2018 the region took measures to effectively use the tourist potential based on almost 6,000 objects of historical and cultural heritage, including 2,060 archaeological sites, 1,175 historical monuments, and 316 architectural monuments of Ukraine. These are ancient settlements, settlements, cemeteries,

hills, serpentine walls, battlefields and places of historical events, archeological monuments included in the register of immovable monuments, monuments of national importance, most of which are religious buildings of the XVI-XIX centuries. In addition, there are 18 monuments of landscape art and 20 monuments of science and technology in the region.

Over the past 5 years, the flow of tourists to the region has increased by 39.0 percent. However, due to the slow launch of new hotels and the reconstruction of existing recreation and tourist bases, almost 25,000 tourists are not able to use their services, especially those who visit Chernobyl and other Chernobyl sites.

According to the State Service of Ukraine for Geodesy, Cartography, and Cadastre, information on recreational lands registered in the state land cadastre on the territory of Ukraine is the total area of recreational lands - 28,434.0 hectares in Kyiv - 1,162.2 hectares, on the territory of Kyiv region - 3 306.8 hectares (Fig. 2). The provision of land for recreation per person in Kyiv Oblast is 0.0019 hectares.



Pic. 2. Land resources for recreational purposes are placed in the State  
Land Cadastre

*Source: data of the State Service of Ukraine for Geodesy, Cartography, and Cadastre*

The tourist potential of Kyiv Oblast is based on a network of tourist routes and mobile tourist sites with detailed information about the tourist attractions of the region.

The use of landscape design methods in land management makes it possible to correctly assess the recreational potential of lands and zone them, divide recreational lands by types and areas of recreational activities, taking into account recreational assessment of natural resources, resistance to anthropogenic pressures, current land use. The purpose of zoning recreational land use is to take into account the intra-zonal features of the territories, which results should be used to justify measures to improve land use, taking into account natural and territorial features, expressed in a combination of landscape and ecological conditions. In terms of land use as a means for recreational activities, zoning will allow finding evidence-based solutions for the organization of recreational land use.

In my opinion, the process of scientific and methodological support of ecological and economic zoning of recreational land use in urban areas means to determine the priority aimed at the thoughtful use and protection of land, cautious use of recreational resources in urban areas, as well as meeting the needs of the population and vacationers in recreation, health, and recovery.

**Conclusion.** Thus, taking into account the research, recreational areas should be considered as a spatial system of interconnected components of ecology, economy, and society, which work is aimed at maximizing the satisfaction of renewable demand. Full control over the way of the exploitation of recreational land use areas, and ensuring effective interaction with other

management entities, guided by the basics of the laws of supply and demand - will ensure a balanced recreational land use.

It was found in Kyiv, that tourist and recreational activities are characterized by high profitability, rapid return on investment, social orientation. It is one of the conditions for stabilizing the economy and is also a promising independent direction of economic development. The level of security, socio-economic, political, and managerial factors are obstacles to the tourism development and recreation of our country; this industry is trying to develop and prosper, expand its capabilities and reveal the potential of Ukraine.

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## **ОСОБЛИВОСТІ ФОРМУВАННЯ РЕКРЕАЦІЙНОГО ЗЕМЛЕКОРИСТУВАННЯ У ПРИМІСЬКІЙ ЗОНІ МЕГАПОЛІСУ**

*Анотація.* У статті висвітлені наукові засади формування природоохоронних землекористувань в Україні. Досліджено складові приміських зон мегаполісів та процес їх розвитку сьогодні. У статті відображається вплив розвитку та розширення міст на користування землею та навколишнє середовище. Акцентовано увагу на те, що пришвидшення темпів урбанізації, супроводжує собою зникнення цінних природних і рекреаційних комплексів, втрату культурного й історичного надбання, а також викликає підвищення напруги у соціумі.

Проаналізовано статистичні та аналітичні дані Міністерства захисту довкілля та природних ресурсів України, Держгеокадастру України, Державної служби статистики України, Міністерства економіки України, матеріалів науково-практичних конференцій, семінарів, власні розрахунки автора.

Визначено необхідність створення відновного користування землею у приміській зоні мегаполісу. Проведено аналіз думок різних авторів, щодо визначення понять «рекреаційні території», «рекреаційне землекористування», «землі рекреаційного призначення». Здійснено огляд особливостей формування, використання та збереження рекреаційних територій.

Досліджено, що сформування системи упорядкованого розвитку рекреаційних теорій дає можливість реалізації та існування системи «людина – суспільство – довкілля», і в цілому, дає можливість реалізації національних інтересів майже кожної країни в світі.

*У статті відображені найголовніші проблеми рекреаційного землекористування в Україні, а також механізми боротьби з ними, для того щоб в рекреаційній сфері залишилася ландшафтів, які забезпечують потребу населення у відпочинку.*

**Ключові слова:** *рекреаційне землекористування, приміська зона мегаполісу, рекреаційні території, землі рекреаційного призначення.*

**Е.В. Бутенко, А.С. Винцелевич**

### **ОСОБЕННОСТИ ФОРМИРОВАНИЯ РЕКРЕАЦИОННОГО ЗЕМЛЕПОЛЬЗОВАНИЯ В ПРИГОРОДНОЙ ЗОНЕ МЕГАПОЛИСА**

**Аннотация.** *В статье освещены научные основы формирования природоохранных землепользования в Украине. Исследовано составляющие пригородных зон крупных городов и процесс их развития в современном обществе. В статье отражается влияние урбанизации на землепользование и окружающей среды. Акцентировано внимание на том, что развитие урбанизации сопровождается исчезновением ценных природных и рекреационных комплексов, потерей культурного и исторического наследия, повышением социальной напряженности.*

*Исследование осуществлялось на основе статистических и аналитических данных Министерства защиты окружающей среды и природных ресурсов Украины, Госгеокадастру Украины, Государственной службы статистики Украины, Министерства экономики Украины, материалов научно-практических конференций, семинаров, собственные расчеты автора.*

*В статье обоснована необходимость создания рекреационного землепользования в пригородной зоне мегаполиса. Исследован понятийный аппарат в части трактовки понятий «рекреационные территории», «рекреационное землепользования», «земли рекреационного*

назначения». Осуществлена оценка особенностей создания, использования и поддержания рекреационного землепользования в пригородной зоне мегаполиса. Раскрыто процедуру формирования земель рекреационного назначения, значимость этих территорий.

В результате установлено, что важнейшими проблемами рекреационного землепользования в Украине является обеспечение высокого качества отдыха, расширение многообразия возможностей использования рекреационных земель и ресурсов, тесно связанные с ними, удовлетворение потребности людей в общении с природой и восстановления здоровья населения. Однако коренное преобразование ландшафтов и широкомасштабное развитие урбанизации привели к снижению рекреационной ценности ландшафтов и тем самым к формированию рекреационных зон на землях, малопригодных для других видов хозяйственного использования. Все это негативно сказывается на качестве отдыха, разнообразия рекреационной деятельности и на способности оставаться в рекреационной сфере ландшафтов, которые обеспечивают потребность населения в отдыхе.

**Ключевые слова:** рекреационное землепользования, пригородная зона мегаполиса, рекреационные территории, земли рекреационного назначения.