

Peculiarities of Tourism and Recreational Activities in Ukraine: Economic and Managerial Aspects



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1 Introduction

In Ukraine, the number of people engaged in tourist activities has been growing recently, which increases the proportion of natural areas covered by tourist activities. In this regard, there is an increase in recreational pressure on the nature reserve fund (natural complexes and objects characterized by special environmental, scientific, aesthetic, recreational and other values [1]). Mentioned activities lead to the degradation of the nature reserve fund, which creates a problem in preserving natural complexes and their landscape. Among the various aspects of scientific and practical research related to the management of recreational activities, a special place is occupied by the study of ecological and geographical problems arising due to this, in particular, the determination of permissible loads on the natural environment. It is worth noting that different natural complexes and their constituent elements differ significantly in their potential resistance to recreational loads. The above-mentioned aspect creates the need for more in-depth research into the issue of recreational activities in tourism and the determination of recreational load standards (critical ratios) in order to develop tourist destinations and preserve the nature reserve fund of Ukraine.

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2 Literature Review

Various aspects of recreational activities have been described in the works of domestic and foreign scholars. Thus, the authors Kozhukhivska R., Sakovska O., Maliuga L. and Maslovata S. note that «The tourism industry and the sphere of recreation are constantly developing, acquiring greater importance for the economic development of Ukraine. The development of tourist and recreational zones has a positive impact on the economic growth of regions, in particular, the activities of health and cultural institutions are improving, the percentage of small and medium-sized enterprises in regions with rich tourist potential is increasing» [2, p. 5285]. Bavrovska N. and Butenko Ye. believe that «the development of the recreational sphere at the present stage is being realised by increasing the recreational potential, creating multifunctional territories of the nature reserve fund and involving them into recreational use» [3, p. 5]. Viun V. and Ivanov A. specify that «Recreational resource potential of the territory is the cumulative productivity of its recreational resources. A certain recreational area can provide recreational services only to a certain number of recreationists who are able to meet their own recreational demands. It depends upon many factors, the main of which is the availability of recreational resources» [4, p. 84]. Brusak V. notes that «The study of the impact of recreation on the microrelief of tourist routes is relatively poorly elaborated; the list of indicators that will qualitatively and quantitatively characterise the features of microrelief changes at certain stages of recreational digression remains problematic» [5, p. 112]. Hanych N., Skabara R., and Stetskyj V. point out that «Increasing of recreational and tourist activity in natural national parks has led to an expansion of the spectrum of issues related to the planning of ecological and educational trails in methodological developments, the introduction of regulatory measures to reduce the anthropogenic impact on natural systems, the introduction of a regime of recreational use of certain territories, the establishment of paid services» [6, p. 518]. Given the analysis of studies and publications about the development of the potential of territories and the use of the recreational resource base of territories, it is worth pointing out the significant importance of the analysed works. However, in our opinion, insufficient attention has been paid to the study of the impact of recreational activities on the development of tourist destinations, both in theoretical and methodological and practical aspects, so we consider it advisable to conduct a more thorough study in this regard.

3 Purpose of the Research

Purpose of the research is to analyse the impact of recreational activities on the development of tourist destinations.

The objectives of the research are: to determine the fundamental aspects of recreational and tourism activities in the territories of nature reserves and destinations; to

provide proposals, the implementation of which will help reduce the level of negative impact of recreational and tourist activities on the objects of the nature reserve fund.

4 Methodology

The basis of the research methodology is an analysis of the works of domestic scholars in the field of tourism and generalization of foreign practices in the development of tourism and recreation; the personal judgment of the authors of this article was also used. In the course of the theoretical analysis used analytical and abstract-logical research methods. The use of analytical approaches made it possible to determine the to identify the main directions of recreational and tourist activities within recreational areas. The application of the methodology of empirical analysis made it possible to assess recreational activities at one of the objects of the nature reserve fund; and to develop practical proposals, the implementation of which will help reduce the negative impact of recreational activities on the objects of the nature reserve fund located on the territory of certain tourist destinations.

5 Results

During the severe economic crisis, the issue of rational use of tourism resources has become quite acute for society. Almost all of them are used spontaneously, unplanned, unregulated, without taking into account permissible capacities. As a result, under the influence of anthropogenic impacts and natural conditions, tourist sites and areas are gradually losing their original attractiveness and valuable recreational properties. In order to preserve and restore them, a set of measures is required, which is impossible without identifying the recreational capabilities of individual resources, the pressure on the territory so as not to harm it, the maximum and minimum number of tourists that the relevant territory is able to accommodate, etc. [4, c. 82].

The definition of «tourist and recreational activity» should be understood as a complex of actions based on the integrated use of raw materials, equipment, labour, technological processes, etc. The resource base for the implementation of tourism services and recreational activities is the natural, historical and cultural sites of a particular territory/destination. One of such sites might be the territory of a national nature reserve fund. On the territory of the nature reserve fund, educational development is carried out in specific areas defined by individual regulations on natural reserves, taking into account the special protection regime, size, landscape and environmental specifics of the territories. The main types of recreational and tourist activities on the territory of the nature reserve fund may include: health improvement; recreation; excursions; amateur and sport fishing; various types of tourism: children's, youth, family, social inclusive, educational, sports, religious, ecological, rural (green), extreme, etc. Recreational activities on the territory of the nature reserve

fund (NRF) of Ukraine are regulated by the following main documents: The Law of Ukraine «On Tourism» [7], the Law of Ukraine «About the Nature Reserve Fund of Ukraine», the Regulation on Recreational Activities within the Territories and Objects of the Nature Reserve Fund of Ukraine, which ensures the proper organisation of recreation and tourism within the NRF [8] and other regulatory documents. For example, the Law of Ukraine «On Tourism» defines the principles of organising tourism as a socio-economic activity and helps to interact with tourists and the tourism business accordingly [7, 9]; the Law of Ukraine «About the Nature Reserve Fund of Ukraine» defines the possibilities and restrictions on the organisation of recreation and tourism depending on the categories of protected areas and objects [3]. For example, tourism is prohibited in nature reserves and protected areas of national nature reserves, biosphere reserves and regional landscape parks [9]. The Law of Ukraine «About the Nature Reserve Fund of Ukraine» defines that «The Nature Reserve Fund consists of land and water areas, natural complexes and objects of which have special environmental, scientific, aesthetic, recreational and other value and are allocated for the purpose of preserving the natural diversity of landscapes, the gene pool of flora and fauna, maintaining the overall ecological balance and ensuring background monitoring of the environment» [10]. According to the Law of Ukraine «About the Nature Reserve Fund of Ukraine», the territories and objects of the nature reserve fund (NRF) are divided into natural territories and objects, namely: nature reserves, biosphere reserves, national nature parks, regional landscape parks, reserves, natural monuments, protected tracts; artificially created objects—botanical gardens, dendrological parks, zoological parks, parks-monuments of landscape art [10, 11].

The main directions of recreational and tourist activities within the boundaries of recreational areas and objects of NRFs (Nature Reserve Funds) are: creation of conditions for carrying out these activities in compliance with the regime of the NRF territories and objects; organisation and arrangement of information and tourist centres, eco-educational trails, tourist routes, observation platforms, recreational areas, campsites, and recreation camps; dissemination of advertising and informational information (publication in the media and on web pages of information about recreational resources and services, as well as about subjects of recreational activities within the NRF and/or near them); study, generalisation and implementation of the best national and foreign experience and practices in the organisation of recreational and tourist activities; formation of a culture of health improvement, recreation and outdoor tourism among recreationists and local residents, as well as a careful and humane attitude to natural and cultural heritage [9].

Among the main conditions for the development of recreation and tourism in the nature reserve fund (NRF) is minimisation of the negative impact of tourists on natural complexes and historical and cultural sites. Recreational and tourist use of NRF territories and objects is possible under the condition of developing an appropriate system of management and economic measures, taking into account the regime of protection and use of resources located in these territories and objects established for these territories and objects [9]. Usually, during the development of management decisions and tourism development projects, the main factor is demand, which is the

basis for plans to increase the recreational capacity of the territory and regulatory acts. However, in the territories of the nature reserve fund, the leading role is given to environmental protection tasks. Therefore, the main condition for ensuring a balance between social and environmental interests is the regulation of the recreational load.

The recreational load should be understood as a certain number of tourists visiting a unit area of a natural complex in a certain period of time. The unit of measurement for recreational pressure is person-hours/hectare or person-day/hectare. The latter is somewhat more convenient for practical use and means that during the entire comfortable period, one person or a certain number of people rests on a 1-hectare plot for 8 h daily (accepted daylight hours) [5, p. 109]. Natural complexes and their constituent elements differ significantly in their potential resistance to recreational pressure. The resilience of a natural complex to recreational loads is its ability to withstand these loads up to a certain limit. A distinction is being made between critical (causing irreversible changes in the natural complex) and maximum permissible load (determined by the number of recreationists that does not lead to irreversible changes in the natural complex) [12, p. 56]. Thus, the edge of the recreational load of the natural complex, namely the edge after which irreversible changes occur, takes place at the stage of maximum permissible norms. At the pre-critical level, the maximum permissible load is that which does not cause irreversible changes in the natural complex. Recreational load is an indicator that reflects the overall impact of recreational activities on natural complexes. The following features should be noted with regard to the existing experience of recreational load regulation:

1. The number of vacationers (recreationists) is considered as a source of impact that needs to be regulated. At the same time, such factors of recreational impact as recreationists' vehicles and the construction of various infrastructure facilities are not taken into account. In fact, it is not the recreational load that is being rationed, but the flow of recreationists, tourists and excursionists.
2. The following indicators are taken as a unit of measurement of recreational load: (a) the number of people who can simultaneously remain on a unit area of the territory throughout the year; (b) the number of people who can simultaneously remain on a unit area of the territory during a certain period of its exploitation; (c) the number of recreationists staying per day at recreational facilities during the season; (d) the number of tourists passing through a unit area per unit time; (e) a one-time number of vacationers per unit area, considering the total time of the type of recreation for the accounting period.
3. Recreational load standards are set differently for: (1) different types of one of the landscape components; (2) different types of landscape complexes; (3) certain types of recreational activities; (4) different functional and landscape systems; (5) different combined options.
4. For the same object, recreational load standards may differ depending on the criterion for their determination—functional, psychological or ecological. The practical application of load standards in such cases is complicated. In accordance with the first principle, the permissible recreational load is determined separately for each tourist route, based on particular natural and organisational conditions.

According to the second principle, the load is determined at the beginning and the end of the season of functioning of tourist routes. In accordance with the third principle, the load is determined by the size of each group, which is optimal in terms of psychological comfort, but not more than ten tourists and two accompanying persons.

According to the fourth principle, new tourist routes should be launched with a small load—one tourist group for two weeks. After a year of exploitation of the natural complex in such a regime, a decision can be made regarding the preservation of the recreational load or its adjustment. Currently, the most commonly used methodology for determining the impact of recreational activities on the development of tourist destinations is the methodology for determining the maximum recreational load on natural complexes ($\sum rc$) during the organisation of tourism, excursions, and mass daily recreation activities, where the main indicators are: the permissible recreational load on the plot (persons/ha), the area of the recreational plot (ha), and the recreational potential coefficient.

$$\sum rc = Rc * Sa * Erp, \quad (1)$$

where, Rc —permissible recreational load on the plot, *persons/ha*; S_a —square of the recreational area, *ha*; E_{rp} —coefficient of recreational potential.

To conduct a study to determine the impact of recreational activities on the development of tourist destinations, we selected the Nizhniosulsky National Nature Park. The park was established in 2010 and is an object of the Nature Reserve Fund of Ukraine of national importance. The park is located on the territory of Hlobyn, Orzhytsia and Semenivka districts of Poltava region, Chornobaiv district of Cherkasy region [13]. Recreational activities in the park comply with the Regulation on Recreational Activities within the Territories and Objects of the Nature Reserve Fund of Ukraine, approved by the Order of the Ministry of Environmental Protection of 22.06.2009 No. 330, registered with the Ministry of Justice of Ukraine on 22.07.2009 under No. 679/16695 with amendments and additions [8, 13].

The main areas of recreational activity on the territory of the Nizhniosulsky National Nature Park are: creating conditions for organised and effective tourism, recreation and other types of recreational activities in natural conditions in compliance with the regime of protection of natural complexes and objects; ensuring the demand of recreationists for general health-improving, cultural and educational recreation, tourism, recreational and sport fishing, in accordance with the regime of the park territory, etc.; rationale and establishment of the permissible level of anthropogenic load, including that caused by recreational activities, on the territory, natural complexes and objects of the park; organisation of advertising, publishing and information activities, environmental enlightenment among vacationers and tourists within the park; promoting the formation of an ecological culture among recreationalists and local residents, a careful and humane attitude to the national natural heritage [13]. Recreational activities are implemented by the management of the park, including: creation and functioning of recreational infrastructure; organisation

and infrastructure arrangement of tourist and excursion routes, ecological and educational paths; coordination of the park's activities of recreational entities regardless of ownership and subordination in terms of the use of natural, historical and cultural resources within the park's territories and facilities; creation and maintenance of an information bank of data on recreational facilities located within the park; participation in national and international scientific and practical conferences, congresses, seminars devoted to the development of recreation; study, generalisation and implementation of domestic and foreign experience in the organisation of recreational activities.

In accordance with the environmental legislation, the following zones are distinguished on the territory of the Nizhnysulsky National Nature Park a protected zone; a zone of regulated recreation (within its boundaries, short-term recreation and health improvement, inspection of especially picturesque and memorable places, visiting the ecological trail «Journey to Lake Sudevske» and the tourist trail «Along the Sula» are being carried out); a zone of stationary recreation (intended for accommodation of hotels, motels, campsites, and other visitor service facilities); and an economic zone [13]. Let's estimate the permissible recreational load for the Nizhnysulsky National Nature Park. It should be noted that the determination of the permissible recreational load is based on a visual assessment of the paths' digression. Based on a visual assessment of path digression, the optimal load is determined to avoid irreversible changes in the ecosystem.

To assess the impact of recreational activities on the Reserve's natural complexes, the most popular tourist ecological path, the Journey to Lake Sudevske, is monitored annually. As a rule, the ecological path is assessed twice a year—at the beginning and at the end of the season. However, it is worth noting that in 2023, due to the martial law in Ukraine and insufficient funding for the park's economic needs (in particular, three times less funds were allocated for environmental monitoring studies), the condition of a part of the route was not assessed at the beginning of the season. The level of path digression is determined by visual assessment and assignment of a digression stage (from 0 to V). Using the GPS navigator Garmin GPS MAP 65 and the Garmin Explore™¹ app, the length of path sections with varying degrees of digression is measured. The data is processed within Google Earth, where the percentage of path digression stages is calculated.

An analysis of the level of path digression conducted in early 2022 showed that by the beginning of the season the path had partially recovered from the previous tourist season, but the level of digression had increased significantly compared to the beginning of the 2021 season. For example, the share of plots with level II digression increased from 28 to 59% compared to 2021, and level 3 was assigned to 31% of the path (in 2021, it was 19%). In 2022, the share of areas with the lowest digression (Stage I) decreased from 28 to 2%. There are now plots with Stage IV, which were not present at the beginning of the 2021 season, and their share is 1.5%. The deterioration of the path was probably caused not only by an increase in anthropogenic pressure, but also by a large amount of precipitation at the beginning of the 2022 season, which led to waterlogging of the area, and, as a result, reduced the stability of the path and its ability to recover. According to the statistical and analytical documentation of

the Nizhniosulsky National Nature Park, the permissible recreational load of the territory is 30 persons per day. However, this value was estimated in 2015, when the actual load was 900 people per season, so the anthropogenic impact on the territory was lower. The permissible recreational load in 2022 was 2280 people—30 persons per day * 76 days (the length of the season in 2022). The actual load was 3865 people, which exceeds the permissible load by 1.7 times. Despite the fact that in 2020–2021, the actual daily recreational load did not exceed the permissible daily limit, the condition of the ecological path «Journey to Lake Sudevske» continues to deteriorate. This is due to the temporal heterogeneity of the load distribution. For example, the most massive visits of the routes are observed on average during 2 months—July and August, which account for 80–90% of the total recreational flow. During the peak tourist season, the actual load may exceed 60 persons/day, which causes more damage than if it were more equally distributed throughout the season with the same number of visitors. Under such conditions, it is advisable to calculate the recreational capacity of the park territory based on the determination of the average between the permissible recreational load and the ecological impact coefficient in accordance with the formula:

$$\sum r_{tc} = \frac{R_c}{E_{ek}}, \quad (2)$$

where, R_c —permissible recreational load on the plot; E_{ek} —Ecological impact coefficient.

The coefficient of ecological impact is determined on the basis of the type of recreational environmental use: 0.01—for road recreation, 1—for off-road recreation, 2—for extractive industry recreation, 5—for biovac recreation, 7—for transport and off-road recreation, 13—for infrastructural recreation [12, p. 57, 14]. Therefore, for the Nizhnysulsky National Nature Park, the coefficient is taken as 1, and the recreational capacity is equal to the value of the permissible recreational load—2280 people. However, the presence of certain sectors of the ecological path «Journey to Lake Sudevske» with a maximum permissible degree of damage that are not being restored by the beginning of the next season indicates the need to reduce the permissible recreational load. Considering the fact that at the beginning of the 2024 season, the part of the path with the maximum permissible degree of digression will be only 1.2%, we have made an assumption that the maximum permissible load should be reduced by 10%.

Taking into account that the actual load on the recreational territory of the Nizhniosulsky National Nature Park significantly exceeds the maximum permissible, we propose to implement the following measures: restrict access to the territory during the autumn and winter periods; allocate evenly throughout the season the daily recreational load on the territory; build wooden flooring in waterlogged areas of the paths; in order to reduce the anthropogenic impact, it is advisable to reduce the maximum number of tourists in a group; perform monitoring of the condition of the paths during the season, and if necessary, restrict visitation to the park.

6 Conclusions

At present, there is a significant impact of recreational activities on the development of tourist destinations, in particular on the territory of which there are objects of the Nature Reserve Fund, particularly wildlife sanctuaries and parks. Since national parks are an important component of the natural resource potential of the territory, they not only ensure the fulfilment of environmental protection functions, but also perform a major role in the development of recreational activities and tourism in Ukraine. Recreational activities in the nature reserve fund have a specific structure based on a balance of ecological and economical interests. At the same time, properly organised recreational and tourism activities can become an important component of environmental protection and socio-economic development of a destination and will contribute to the growth of ecological awareness of citizens through their involvement in natural and cultural values. Therefore, in order to develop tourist destinations and preserve the nature reserve fund of Ukraine, it is important to conduct continuous monitoring of the objects of the nature reserve fund, including determining the norms of recreational load on the territory, analysis of the anthropogenic load, assessment of the infrastructure development and the development of an effective territory management strategy.

Based on the conducted study, in order to reduce the level of negative impact of recreational activities on the natural environment of tourist destinations, we propose the following measures: development of a set of excursion programmes for different categories of visitors, including the organisation of demonstrations of wild animals in the natural environment; arrangement (including informational) of excursion environmental paths and tourist routes, lookout platforms, places for observation of wild animals; creation of new and modernisation of existing museums and informational centres for visitors; assessment of maximum permissible loads and identification of ways to minimise the negative impact on natural ecosystems; creating an infrastructure to ensure customer service for visitors; development and implementation of a voluntary certification system of excursion ecological paths and tourist routes in the territories of of the nature reserve fund; development of rules that regulate the behaviour of visitors in the territories of the nature reserve fund in order to ensure the safety of people and prevent damage to natural complexes and objects.

In our opinion, the main steps to reduce the negative impact of recreational activities on the objects of the nature reserve fund located on the territory of certain tourist destinations should be innovative ways and special events, in particular: conservation of biological and landscape diversity; implementation of eco- and ecological and environmental education among the population; organisation and implementation of ecotourism as a new type of tourist activity that does not harm the environment and promotes its authenticity; implementation of ecological monitoring of territories; renovation of disturbed natural objects.

Considering the results of the article, it is worth mentioning that *future research* should be aimed at identifying the main directions of development of recreational activities in Ukraine and implementing of a systematic approach to the development of tourist destinations.

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