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Research

Management Tourism Culture

STUDIES AND REFLECTIONS ON TOURISM MANAGEMENT

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Introduction

We offer the Readers the monograph entitled *Management – Tourism – Culture: Studies and Reflections on Tourism Management*. The authors of the papers collected in this volume are economists, historians, cultural experts, as well as specialists in management, marketing, and tourism from various scientific centres, these being Lithuania, Bulgaria, Kyrgyzstan, Kazakhstan, Portugal, the Czech Republic, Poland, Italy, Georgia, Ukraine, Hungary, and Spain.

The editors are aware of a wide scope of the subject matter discussed in the volume, which does not exhaust all the issues indicated by the title. Nevertheless, these areas inspired the authors and editors to undertake a scientific discussion, which will result in the next volume devoted to tourism management.

On behalf of the editorial office, we would like to thank all authors and collaborators who have contributed to the enrichment of this publication with their valuable studies. The realization of this project would not be possible without the commitment and kindness of the Dean of the Faculty of Philosophy, Professor Tomasz Homa SJ, habilitated doctor. This monograph was published thanks to his support and engagement. At this point, we would also like to express our gratitude to the reviewer of this volume, Prof. Artur Jacek Kożuch and Prof. Zbigniew Widera, for the effort of reviewing such extensive material, and for all the valuable remarks concerning particular texts.

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Recreational and Tourist Use of Forestlands: Management Benchmarks for the System Evaluation in the Territorial and Spatial Format

Abstract: The current state of spatial and territorial development of recreational and tourist nature management in Ukraine is characterised by the fact that the country has significant natural resource potential, unique recreational resources, as well as a valuable natural reserve fund. The main principles of forestry management in natural recreational forests and the key forestry activities in recreational forests have been considered in this paper. It should be noted that the problem of an integrated system assessment of forest capital is relevant for the recreational use of forest lands, since it is necessary to evaluate, as far as possible, and more fully, all of its components, for the formation of effective decisions in the management mechanism. The scheme of the system of assessment of the Recreational Forestland Management has been developed and represented. The main objectives of ecosystem management of forest areas in the context of providing balanced recreational forestland management have been determined. It was concluded that comprehensive and systematic assessment of recreational forestland management based on the application of the natural capital methodology and the concept of total economic value (value) should become an effective lever in the market-oriented mechanism of forest management in the spatial and territorial format.

Keywords: tourist, management, Ukraine, main principles, forestlands, Recreational Forestland Management

The spatial and territorial development of the recreational and tourist sphere is ensured by the quantity and quality of natural resources. The regional set, unusual connections, and unique landscape complexes of forest resources are an important element of attractiveness for tourists, as well as the factor determining the direction of tourist flows (Mishulina, 2008).

The influence of forest on the biosphere is higher than the one of other ecosystems, due to a variety of contributing factors. The major function is the ability of the forest to produce oxygen and absorb carbon. Other functions are: recreation, sanitary-hygienic and health-resort-balneological aspects; protection of rivers from silting and shoaling; fastening off sands on arena and stony scattering; decreasing the floods, mountain tortes and snow avalanche; collecting and preserving moisture; protecting fields from drought; air ionisation, and defending cities from soiling. These functions include wood and non-wood sources.

From an ecological and economic point of view, Ukrainian forests are divided into two groups. Each group is set up according to its purpose, forest location, and its functions (Forestry, 2001).

The first group includes forests with nature protection functions. Forests from this group are meant to fulfil the following protective activities:

- water protection (the forests near riverbanks, around lakes, reservoirs and other water objects, forest stripes protecting spawning-grounds of valuable game-fish, and also wood plantations along channels);
- soil protection (anti-erosion forests, shelter belts along railways, roads of international, state and regional use, especially valuable are wood massifs, state forest shelter belts, oak-steppe forests, steppe and other forests of mountain regions important in natural environment protection);
- hygienic and sanitary (forests and green zones around settlements and industrial enterprises, forests of first and second zones belts of sanitary water-supply sources protection, and district zones forests of sanitary protection of sanitary territories);
- forests on the territories of nature protective funds such as: reserves, national natural parks, nature museums, protected areas, regional landscape parks that have scientific or historical value, including genetic reservations, forest-fruit plantations and sub-alpine tree and shrub communities.

The second group of forests includes forests with ecological and exploitative purposes that are not limited by forest use and protection.

Depending on the groups and categories of forests, various regimes of legislative and normative management modes exist for forest renewal, growth, and use. The division of Ukrainian forests into two groups does not have any special background, because all forests have water-protective, sanitary-hygienic, protective, and sanitary functions, whilst also having a limited exploitation meaning. As was mentioned before, the predominance of forest functions should not be taken as a base for forest division (because sometimes it is difficult to define the dominant functions), but rather different management systems according to the forest's functions.

Actually, recreational forests are a special category of forest lands, in which the function of recreational forest use is basic. Recreational and tourist functions partially fulfil the following categories of forests: recreational forests, forests of nature protection, scientific, historical and cultural purposes (Forest Code, 1994).

The current state of spatial and territorial development of recreational and tourist nature management in Ukraine is characterised by the fact that the country has significant natural resource potential, unique recreational resources, as well as valuable natural reserve fund. Thus, according to the State Land Cadastre of Ukraine as of 01.01.2012, the area used for recreation was 745.4 thousand hectares, i.e. 1.2 % of the total area of the country. At the same time, the area of potential recreational territories in Ukraine (without radiation pollution) is 12.8 % of its area. These areas are concentrated mainly in the Carpathian, Podolsky, Polisian and Black Sea regions of the country (Polykova, 2013). The National Nature Reserve Fund is considered an integral part of the world system of natural territories and objects under special protection, and includes 6100 territories and objects with a land area of 1412.8 thousand hectares (2,34 % of the territory of Ukraine) (Karbivnichy, 2014).

This proves that the possibility of further development and use of forestland for recreational purposes, and the formation of spatial-territorial recreational systems with the involvement of forestland can be widely developed. At the same time, this is a prerequisite for the active development of market relations in the field of recreational and tourist management, since the diversity and uniqueness of forest resource potential creates the opportunity to gain competitive advantages in using separate recreational resources that will provide high demand and prices for them (Cherchik, 2006). It should be taken into account that, at present, the methods of economic (cost) estimation of certain types of natural resources, which are involved in economic activity and recreational activities, are well-developed and widely used.

Organisation, management, and trade of forestry in each state has its own specific meaning and way of implementation. It is impossible to make general recommendations, because different natural and social conditions require different silvicultural methods. Therefore, it is important to implement such forest systems that are able to satisfy various social needs within an unlimited period of time, while considering natural possibilities, necessities and environmental changes. Each state has its own history and traditions regarding forestry organisation and its management system. Ukraine has had its own forestry organisation and management system for more than 50 years. This system to a great extent resembles the systems operating in many European countries.

The increased anthropogenic impact on forest ecosystems and on the environment, underestimation of the importance of natural forest areas, little areas of woodland, low growth rates of wood production, and the establishment of new economic relations in the state of the transitional period, all lead to the urgent need for improvement of the forestry management system. Such modernization should be conducted gradually and within each element (subsystem).

The main principles of forestry management in natural recreational forests are:

- multi-functional meaning of green zones of natural forests;
- protective functions, improvement and a wise use of suburban forest landscapes guaranteeing necessary conditions for relaxation;
- maintenance of forest environment for recreation and relaxation;
- sustainable management of recreational forests with multiple functions.

It is necessary to choose and to explain arrangements providing a maximal increase in the recreational value and biological stability augmented by the increase in suburban forests' productivity and quality.

The optimization of recreational forests should be conducted in accordance with the following directions:

- extent and improvement of the population's environmental education level;
- enhancement of the organisation of the recreational forest use aimed at dispersing visitors over the entire area of green zones;
- increase in the ecological stability of plantation;
- adequate extension of green zones, relative to the growth of city populations and industrial centres.

The main direction in landscape planning, wood-farming, forest-protective and organisational arrangements is the conservation of biological ecosystems

and renovation of its components with the help of existing methods, also by allowing individual transport to use forest roads to reach remote forest allotments. In addition, it is important to familiarise the population with the location of attractive resting points, parking places, and other sites using appropriate plans and schemes, while creating and indicating sport, medical, sanitarian and tourist itineraries.

The main forestry activities in recreational forests are the following: nursing felling, landscape forming felling, sanitary felling, forest regeneration and reconstruction felling. Forest regeneration arrangements are carried out to create forest landscapes (forest cultures), which include the planting of groups, solitaires, small groves of one breed, creating avenues and soil-protected plantations and stripes. Ecological paths are organised to foster ecological education and increase the level of knowledge about city green zones and other places for relaxation. The purpose is to provide information and knowledge about nature diversity in the particular forest massif. This shapes personal interest in forest conservation and promotes the understanding of one's own responsibility for nature's destiny (Forestry, 2001).

Taking into consideration the intensity of use, recreational forests are divided into four categories (zones): year, season, week and day: 1 – all-year functioning; 2 – seasonal; 3 – moment; 4 – moment seasonal recreational forest use (Forestry, 2001).

Forests of the first category are used all year round, and that is why the visitors are allocated evenly during the season, week, and even day. For 9 months there is no unsystematic momentary recreational use. The renovation of the forest environment is continuous.

Forests of the second category are characterised by seasonal recreational periods of use (mainly in summer): approximately 100 days. Recreational use takes place in the most active vegetation months, and environmental renewal starts after this period of intensive use.

Forests of the third category are more frequently visited during the holidays and are characterised by the most unfavourable conditions for environmental renewal because of short periods between visits – only 5 days.

Forests of the fourth category differ because environmental disturbance may occur only during a period of picking up mushrooms, nuts, berries etc. Recreational purposes of these forests are determined by forest resources of secondary use and do not disturb the stand.

Within the framework of the above listed forests categories (zones) of recreational use, there are subzones divided according to the intensity of visits

(anthropogenic impact), the stage of use of recreational potential, the level of digressive changes of separate forest elements, and the conditions of its restoring. In suburban forests three sub zones are distinguished: 1 – for public visiting, 2 – for private relaxation, and 3 – reserves.

But it should be noted that not all forest recreational resources have market prices (free, public environmental benefits), even though they are used in the field of recreational and tourist use of nature and affect the health of the person, aesthetic experiences, and a recreation-rehabilitation balance. Moreover, no type of recreational resources exists on its own, in separation from other components of the natural environment (land, water, forest, wetlands, etc.), and its use is reflected, in varying degrees, in the state of the whole aggregate of resources (including those that do not have market prices). The value of recreational natural capital (and, in particular, forest) varies as a whole. It is necessary to evaluate all components of the forest capital of the recreational areas. The conservation and improvement of nature is a key component of forestry management in recreational forests (Mishenin, 2016).

Thus, it should be noted that the problem of integrated system assessment of forest capital is relevant for the recreational use of forest lands, since it is necessary to evaluate, as far as possible, and more fully, all of its components for the formation of effective decisions in the management mechanism. The following – contradictory but interconnected – tasks in the field of recreational forestry development can be listed: the ability to meet the needs and requirements of recreational services of different kinds; the possibility of protecting the environment from eco-destructive factors, and the possibility of ensuring a dynamic balance between man-made and natural elements to provide the best conditions and opportunities for recreation of population in the forest environment. From these perspectives, forest areas must be evaluated in terms of the regional and market efficiency of the "production" of forest recreational services before becoming the subject of recreational forestland use.

The structure of the systematic assessment of recreational forestry management implies and involves economic, social, and environmental assessments and their various combinations (aggregate estimations). Such aggregate assessments simultaneously determine the connections of the regional natural and economic system (Pakhomov, 1989): *socio-economic* – direct links in the field of social production; *economic and ecological* – the impact of natural resources on the conditions of social production; *ecological and economic* – nature management and other types of influence of economic activity on the

environment; *ecological and social* – the direct impact of the population on the natural environment. In this case, the direct links are ecological, economic and environmental-social, and they reflect the impact on the natural environment. The inverse relationships (economic-ecological and socio-ecological) characterise the impact of changes in the parameters of the state of the forest environment on social production and population (in particular, recreants) (Blauberg, 1973).

It is necessary to emphasise that the formation and development of protected areas is the main direction of the state ecological policy in the field of protection and preservation of forest resource capital.

The main objectives of ecosystem management of forest areas in the context of providing balanced recreational forestland management include:

- preservation in the natural state of unique and typical forest-resource complexes (systems) in a certain geographical zone, as well as natural dynamics of their development (natural regeneration, reproduction, self-regulation, etc.);
- balanced use of ecosystem services of forest territorial systems (forestry and forestry complexes); optimal support for homeostasis of biogeocoenosis based on the spatial-temporal balance of their components; maintaining the regional forest ecological balance by forming – with the participation of protected areas – ecological networks of different hierarchical levels;
- reproduction of indigenous phytocoenosis and faunistic natural complexes;
- comprehensive protection of the genetic fund of flora and fauna as the basis of biological diversity;
- comprehensive expansion of international cooperation in the field of nature conservation and forest-resource relations;
- wide public participation in the protection and conservation of forest resources.

The implementation of certain areas of balanced recreation forest management in the system (mechanism) of ecosystem management of forest areas requires a systematic assessment of forest lands for recreational purposes. The procedure for evaluating its work is presented in the Figure. The assessment at any stage begins with the formation of the most rational strategy of recreational forestry management. The formation of a recreational management strategy is carried out by the decision maker (DM), has certain target facilities, and is provided with a set of value criteria and institutional legal regulations

through which it represents the states (regional) socio-economic, ecological, and economic interests in the recreational-tourism sector. At different stages of evaluation, the role of the DM in the design and selection of development scenarios may belong to different hierarchies of individuals or teams.

The scenario offers possible options for providing recreational and tourist recreational services using environmentally friendly innovative technologies. It is necessary to determine the size of violation of forest ecosystems, the volume of pollution, as well as the patterns of distribution and the dynamics of change. In the presence of recreational forestry management in the area of protected species, the degree of human impact on them should not exceed the maximum permissible environmental load.

It is necessary to emphasise that the degree of anthropogenic impact is the main criterion for the attractiveness or insecurity of this variant of the scenario of the development of balanced recreational forestry management. Environmental constraints in the recreational forest management system may be connected with the assimilation of the potential of the recreational area.

It should also be said that the economic aspect is the most important integrated component of the whole system of the assessment of recreational forestland management. The subsequent actions of the person making decisions regarding the strategy of recreational forest-land management depend, to a great extent, on the results of the economic assessment. Such a role of economic evaluation leads to the justification of the method of its implementation and the selection of relevant criterion indicators.

Improvement of the organisational and economic mechanisms of forest management, including land reclamation, through the application of economic methods, implies the widespread use of valuations of natural capital in its various interpretations (Bobylev, 2012; Glazyrina, 2001; Mishenin, 2015; Neverov, 2005).

It is worth noting that capital is an asset with the potential to generate benefits in the future. Recreational forest capital includes objects of natural origin that provide long-term economic productivity in the recreational and tourist spheres as well as socio-ecological and economic well-being of the society, economic entities and individuals.

Forest capital is measured by means of its inventories and flows expressed in physical units (the value of stocks and flows of natural capital can be expressed in monetary units because of the product of the price per unit of the resource and its quantity, but such a procedure is often problematic due to imperfections in resource markets and, consequently, distorted prices). Thus, market

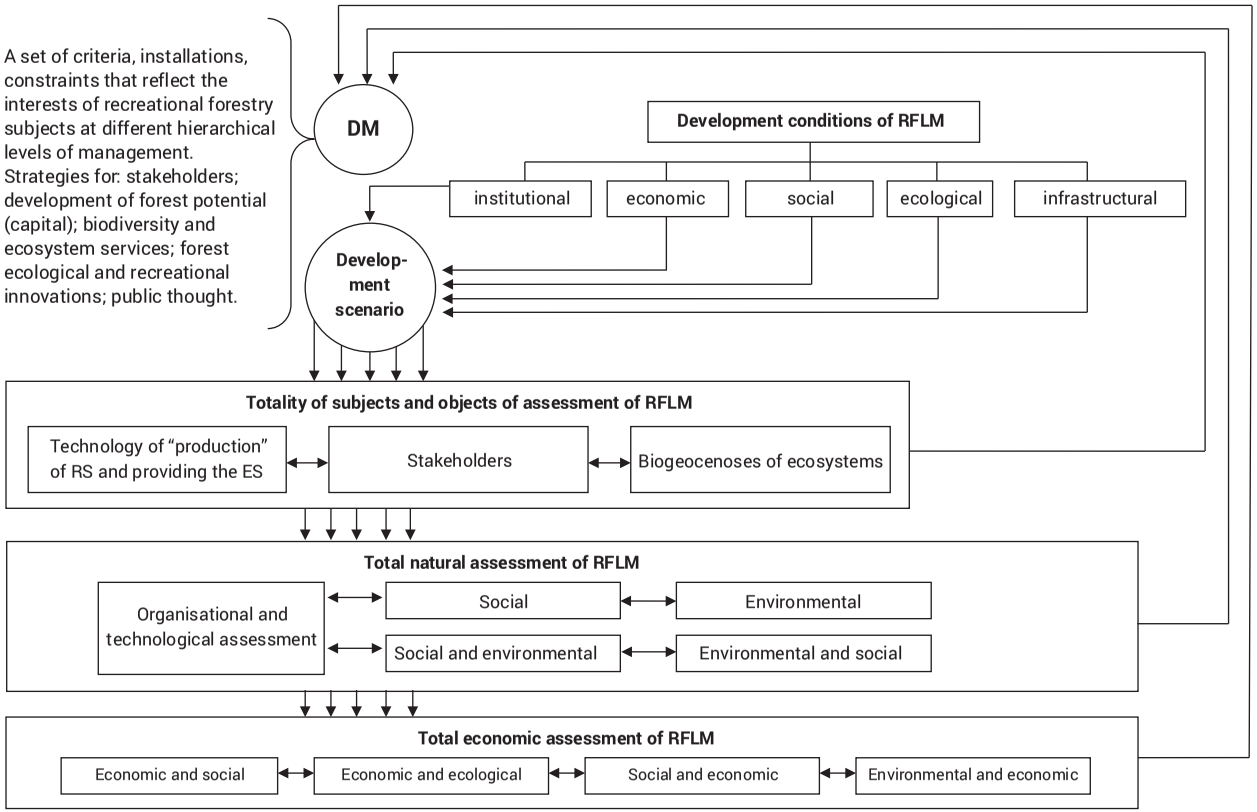

Figure 1. The scheme of the system assessment of the Recreational Forestland Management (RFLM): RS – recreational services, ES – ecosystem services (developed by I.Ye. Yarova with consideration (Pakhomov, 1989))

price adjustments are needed in order to reflect actual alternative costs of using resources for society. However, the size of such an adjustment is difficult to determine due to many contradictions (Mishenin, 2011: 88).

In order to conduct the market evaluation of natural capital, a set of "natural assets" should be taken into consideration; this set offers the society various resources (natural, mineral, energy, water, biological, soils, etc.) and ecosystem services, the use of which leads to obtaining economic and social benefits of production and society as a whole.

Indicators for estimating the state of natural capital are divided into three groups: indicators of economic evaluation of natural resources, indicators of economic evaluation of ecosystem services, and indicators for assessing the economic damage caused by anthropogenic changes in the environment (ecosystems).

An analysis of existing methods for the economic assessment of natural resources suggests that the concept of total economic value (value) (TEV) corresponds to the most complete task of the integrated and systematic assessment of recreational forestry, according to which various benefits are assessed both with and without the use of resources and services in the environment (The economic significance; Zagvoiskaya, 2014).

Total economic value (cost) (TEV) of the natural capital of recreational forestry is calculated as follows:

TEV = Direct and indirect use value + Non-use value (option value + + existence value + request value)

Direct use value is measured by the income derived from the use of natural resources and ecosystem services.

Indirect use value is measured through additional revenues derived from the use of elements of the environment (for example, from providing recreational services, increased ecological and aesthetic comfort, etc.).

Option value is related to the possibility of deriving direct or indirect benefits from the future use of ecosystem services and recreational forest resources. It is measured through the willingness to pay for the conservation of elements of the environment with a view to their future use.

Existence value is related to satisfaction with the existence of a clean, diverse and productive environment of forests.

Request value is related to the desire to endure that our descendants will have the same opportunities in the sense of ecosystem services of forestlands.

This value is determined by the willingness to pay for a favourable environment for future generations.

The peculiarity of recreational natural capital is the presence in its composition a significant number of ecosystem goods, which do not explicitly participate in the economic turnover and do not have monetary value. One of the benefits of this approach is that it allows us to evaluate the ecosystem services of recreational forest management, which are not measurable directly in cash in the system of market relations.

The total damage from the degradation of forest biogeocoenoses in the system of recreational land use consists of partial damage in accordance with the components of natural-territorial complexes and landscapes (forest, water, agro-forest biogeocoenoses, etc.). The ecological and economic assessment of the damage caused by the violation of biogeocoenosis in the system of recreational forestry management (Y^s_{e-e}) can be determined by the following formula:

$$Y^s_{e-e} = \sum_{t=1}^{T} \sum_{i}^{n} Y^t_i \frac{Z^t_i}{(1+E)^t}, \quad (1)$$

where:

Y^t_i – the natural loss from the decline in productivity, the deterioration of the functional state and the reduction of the volume of ecosystem services and the element of forest biogeocoenosis, which is used in the *t*-th period of time;

Z^t_i – the economic value of the *i*-th element of forest biogeocoenosis in the *t*-th period of time;

Z^t_i – coefficient of factor counting;

$t = 1, 2, \ldots,$

T – period of time from the beginning of degradation of biogeocoenosis to its end and recovery.

While conducting an environmental and economic assessment, it is also necessary to take into account the resistance of forest-based recreational systems (assimilation potential), and their ability for self-purification and self-healing.

Ecological and social assessment is characterised by qualitative indicators, because it is very difficult (quantitatively) to estimate, for example, a deterioration of the comfort of rest or decrease of the aesthetic value of the agro-forest

landscape (Pakhomov, 1989: 31). In this case, the environmental and social assessment of the damage Y^s_{c-e} can be defined as follows:

$$Y^s_{c-e} = \sum_{i=1}^{n} m_i \left(C_{1i} - C_{2i} \right), \quad (2)$$

where:

m_i – is the element of the forest biogeocoenosis, the type of ecosystem or landscape;

C_{1i}, C_{2i} – respectively, the social or ecological (socio-ecological) value of the i-th element before and after anthropogenic change.

It is worth noting that there is a methodological position according to which only those elements of biogeocoenosis – ecosystems that are widespread or renewable – should be subject to environmental and economic appraisal. Those components of ecosystems that are unique (relicts, endemics, etc.) or intended to preserve the gene fund, and those which are not subject to environmental and economic assessment, simply need to be preserved within the protected areas (Pakhomov, 1989: 31). However, it is necessary to determine the cost of their conservation within the natural-economic systems (complexes). In the forest management mechanism, it is important to formulate incentive systems for the preservation of unique, rare ecosystem entities in the spatial dimension.

Thus, more attention should be paid to the development scenario of recreational forestry management from the perspectives of applying methods of heuristic forecasting (expert estimation method, the method of collective generation of ideas, etc.). After determining the scenario of recreational forestry development within protected areas, a hierarchy of problems and the tree of different goals are established and created. Then, in relation to this scenario, the subsystems of the simulation model are developed, that is, a particular methodological model is formed for each subsystem. This is a general evaluation scheme. It depends on the specialization peculiarities of recreational forestland management. Proceeding from this, the criteria and methods for systematic evaluation of recreational forestry management are selected.

The main dominant strategies in the field of recreational forestland management may be the following: the strategy of ignoring the need for management of balanced recreational nature management; the strategy of neutralization and mitigation of the negative impact on nature-recreational objects; a strategy for supporting the functioning of forest ecosystems and preventing their

degradation; the strategy of compensation for damage to natural ecosystems and their recreational services; strategy of rational use of influence on ecosystem services; a recovery strategy and the creation of prerequisites for the formation of new ecosystem services (Mishenin, 2016).

Thus, comprehensive and systematic assessment of recreational forestland management based on the application of the natural capital methodology and the concept of total economic value (value) should become an effective lever in the market-oriented mechanism of forest management in the spatial and territorial format.

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