

Tourism and Recreation in Cities and Regions Development

Studia Periegetica nr 4(24)/2018

Turystyka i rekreacja w rozwoju miast i regionów

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Arnold Bernaciak



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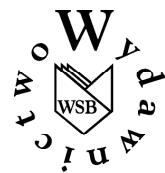
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Tourism and Recreation in Cities and Regions Development

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Arnold Bernaciak



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Introduction

Tourism plays a significant role in the development of contemporary cities and regions. For some of them it is a driving force of the economic growth and a guarantee for the inhabitants' welfare. For others, it is a necessary evil which poses many problems and obstacles in everyday life of the residents. These problems have long been addressed by experts conducting research on tourism and its phenomena. Also in this issue of *Studia Periegetica* we want to contribute to the current debate on that topic. The main areas that invited authors decided to cover are sustainability, health and recreation in the context of the tourist activity.

The first article addresses the issue of the relations between various tourist entities in rural areas. Yuriy Zinko, Marta Malska and Iryna Kriba present the multilevel, universal model of this kind of tourism and describe possibilities of its implementation at the local level. Different actors of rural tourism are classified on three levels: basic, affiliate and accompanying. The unique value of this model stems from its universal character and the possibility of application within rural tourism clustering.

In recent years we have been observing the growing importance of health tourism. This type of tourism brings new opportunities for development of the areas having appropriate opportunities. Iryna Fedina-Zhurbina presents Kaliningrad region in this context. Natural and geographical factors are the basis of its rapid development as a health tourism center in the Baltic Sea region. Many cities of Kaliningrad region are very rich for such resources as mineral waters, rivers and forests. Considering this abundance, numerous spa-centers, sanatoriums and rehabilitation centers were created, contributing to the development of the region.

Nowadays, sustainability is the one of the key trends of tourism development. There are many ways in which tourism can contribute to the implementation of the United Nations' sustainable development goals. One of them is increasing the sustainability of tourist destinations. Oresta Bodrun and Mariya Kozolup in their research paper analyze Lviv as a sustainable tourist destination. They dis-

cuss indicators of sustainability of Lviv perceived as urban destination and its use for improvement of planning and management of tourism business. In turn Margaryta Radomska, Larysa Cherniak, Innokentii Horobtsov and Olexandra Kolotylo present the concept of an urban network of protected areas as a tool of implementation of sustainable development in the city of Kyiv. Protected areas can play an important role in city residents' recreation: they provide contact with nature, encourage performing physical activities outdoors thus boosting mental wellbeing of the participants.

The recreational behavior of city residents is the subject of the study conducted by Maria Zamelska and Beata Kaczor. They try to identify main destinations of one day leisure activity performed by citizens of Poznan Metropolis. Forms of activities performed by inhabitants are taken into account also.

Phenomena, activities and processes described by the authors have been observed in the analyzed cities and regions. However, they can be seen as samples of wider scale trends, which transform territories, increase their sustainability and make them more attractive for both residents and tourists. The whole range of described problems and issues casts light on tourism and tourists' activities and the ideas how to design and implement tourist attractions to satisfy the desires and expectations of both visitors and local communities. Last but not least, the authors seek to answer the question of how to manage tourism to turn it into a real potential of a city or a region.

Arnold Bernaciak

YURIY ZINKO*, MARTA MALSKA**, IRYNA KRIBA***

A Multilevel Universal Model of the Rural Tourism Cluster: Implementation at the Local Level

Abstract. In order to scientifically support the process of forming rural tourism clusters in Ukraine it is important to develop both universal and end-use applied models relating to clusters of the type “the village rest” as well as rural tourism type. They are classified as follows: by the aim – as conceptual and applied ones, by structural peculiarities – as structural (institutional), structural-functional and factor (determinant). A multilevel universal model of the rural tourism cluster with basic structural levels: base, partner and accompanying ones is offered for research and practice. This model was approbated for two cluster initiatives in the Carpathian (a cluster of rural tourism “Boykivski Gazdy”) and Nadsiania (a cluster Goat farm of “Fromages of d’Elise”) regions. Possibilities to use different types of research models in order to introduce cluster initiatives of the rural tourism in Ukraine on the regional and local levels are investigated.

Keywords: rural tourism, cluster, multilevel universal model, cooperation, implementation

1. Introduction

Forming and functioning of clusters of rural tourism is a pressing research and practical range of problems. There exists a necessity of introduction of projects of innovative type related to formation of cluster structures in the sphere of rural tourism in Ukraine. It is connected with organizational disunity of agricul-

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tural dwellings, insufficient development of basic and auxiliary infrastructure, low standard of services as well as poor informational and advertising activity in promotion of products and services. Introduction of the projects of innovative type aimed at improvement and promotion of rural tourism products and localities, including those related to formation of cluster structures, is of utmost importance for the rural tourism in the present context.

In the last decade, cluster initiatives formed by the criteria of the farmsteads associations, agritourist economies and local attractions in rural areas appeared in Ukraine. Scientific and methodological support of their activity involving research structures (universities, academic institutions) has not yet become an important constituent when developing cluster initiatives and providing functioning of operating types of clusters of rural tourism. There is a necessity of the detailed analysis of research models in relation to forming of cluster structures in rural tourism and development of the conceptual (universal) and applied models that can serve as the base for introduction of cluster initiatives.

Conceptual institutional cluster model of the rural tourism cluster development as well as possibilities for its implementation on the local level is grounded in the given research. This model was developed on the basis of foreign and Ukrainian conceptual and applied cluster models analysis.

The work was carried out within the framework of the project of the Rural Green Tourism Development Union “Rural green tourism – from divided farmsteads to territorial clusters” which was supported by the UNDP Ukraine Project Strengthening Small and Medium Enterprises Business Membership Organizations and the USAID Project Agriculture and Rural Development Support.

2. Tourism and agritourism cluster models – their classification and use

Cluster models in tourism have their own specific features. In most cases they rest on basic Porter’s model as a geographically localized grouping of mutually related enterprises which enable raising their competitiveness [Porter 1990; 1998]. This approach was used in a cluster tourism model E. Smeral [1996] where competitive features of a tourism destination are determined by supplier quality and structure, network alliances, strategies and purposes as well as demand conditions. The tourism destination competitiveness model (TDC) where the determining factors are the main resources, destination management, planning and development policy, as well as amplifying factors (location, infrastructure, accessibility) [Ritchie & Crouch 2000], is the most popular topic for research. This model enabled transition from traditional approach based on the destina-

tion attractiveness to purposeful competitive approach [Fundeanua 2015]. Of great importance for practice is Tourism Cluster Development Model for Global Competitiveness [Kim & Wicks 2010], where four components of tourism destination mentioned in J.R. Ritchie and G.I. Crouch scheme [2000], as well as structural-functional elements: universities, companies, authorities connected in different ways (informal, cooperative) are presented as important compounds. Besides, they put emphasis on the role of transnational corporations.

The mentioned models of tourism clusters are mainly of a conceptual character and used as an important scientific and constructive instrument when justifying specific tourism clusters.

Another group of tourism cluster models is application oriented and connected with specific tourism products as well as with presenting of the structure and functioning of acting tourism clusters. This group comprises cluster models of rural tourism development (agritourism). Among the well-known models are the Concept of integrated rural tourism (IRT) according to M. Cawley and D.A. Gillmor [2008], entrepreneurial and public approaches according to S. Wilson et al. [2001]. These models take into account the factors important for functioning of agritourism profile destinations. A special aspect concerns forming rural tourism cluster models as compounds of regional and local development [Štoković & Gržinić 2007; Cunha & Cunha 2005].

As the conducted research shows, basing on the peculiarities of building, conceptual tourism cluster models and tourism product clusters models (the applied ones) may be divided into structural (institutional), structural-functional, factor (determinant). To develop rural tourism clusters mainly structural-functional and factor models are used. As it is, research of existing and development of potential rural tourism cluster formations in Ukraine is based mostly on institutional and structural-functional models [Hrycku-Andriyesh 2010; Lytvyn & Nek 2013; Milashov's'ka & Goblyk-Markovych 2013; Vasilyev et al. 2017].

In the focus of the presented research there is development of rural tourism cluster model which refers to the models of institutional type taking into account certain functional ties. This model results from generalization of existing foreign and Ukrainian developments on cluster problems in rural tourism. Its universal character is related to possibility of being used for two main types of rural tourism: "village rest" and agritourism [Sznajder & Przezbórska 2006].

Based on the use of the constructive-logistical approach, the hierarchical structural model of rural tourism clusters formation, taking into account its base, partner and accompanying members, was justified. To introduce this model in specific destinations, the algorithm of actions (logical-structural succession) with concrete stages was specified.

The range of problems of introduction of the worked out tourism cluster models is examined in different aspects: by means of development of structural-

logistic of stage-by-stage realization of cluster initiative, creation of management plan of cluster formation or through specially created administrative structures.

3. Analysis of research models of rural tourism clusters and development of multilevel universal model

Foreign and Ukrainian experience of scientific developments of models for rural tourism clusters and the ways of their implementation testifies to a great diversity of approaches. In particular, rural tourism cluster models may embrace certain regions (agricultural areas) of the countries, such as Austria, Switzerland, Poland [Roman 2013; Mazurek 2014; Borkowska-Niszczoła 2017], Croatia [Štoković & Gržinić 2007; Lukić 2013], Brazil [Cunha & Cunha 2005] as well as take into consideration both general resources and social-economic characteristics of rural areas and main factors of rural tourism product competitiveness.

The issue of developing models of rural tourism clusters is rather debatable in Ukraine. Among the organizational and functional models of rural tourism clusters, the following types have been distinguished: conceptual, of general participant structure, clusters of different hierarchical level (locality, region) and functional structural ones.

In particular, in the study of I. Lytvyn and M. Nek [2013], the conceptual structure of business entities is represented by the following set: entrepreneurs - owners of rural dwellings, trade and service facilities, catering, a shop producing souvenirs, entrepreneurs providing transport services, travel agencies, local authorities, health and educational institutions. In this structural model, entities are considered to be equivalent, without being divided into certain hierarchical levels according to their significance in the cluster's functioning.

Structural and functional models of the proposed tourist cluster for the Transcarpathian [Milashovs'ka & Goblyk-Markovych 2013] and Chernivtsi [Hrycku-Andriyesh 2010] administrative regions show that authors envisage, as the main subjects of the cluster, accommodation facilities, agricultural producers, catering, transport enterprises, tourism management bodies in the region and educational institutions. The effect of their interaction should result in the creation of a tourist product of the region. In these proposed regional models of rural tourism clusters, interaction is important both at the regional level and among the main actors of this specialized association.

The most common models are the structural functional schemes of existing cluster initiatives in various regions of Ukraine (West, South, East), which were previously analyzed. The study of this type of models [Vasilyev et al. 2017;

Zinko, Malska & Solski 2018], that is, existing clusters and cluster initiatives, has allowed the authors of this paper to offer their typology based on the criterion of smart-specialization.

The below models of RT clusters and cluster initiatives in Ukraine are based on the structure of the participants, specific types of their interaction and smart-specializations. Organizational functional disadvantages of these types of models include: lack of differentiation of participants according to their functions (leading, affiliate, secondary), insufficient emphasis on the resource and infrastructure basis of clusters (tourist attractions and material base), as well as the lack of definition of the main vectors and specific participants of interaction.

Multilevel universal model of RT cluster. For implementation of cluster initiatives on rural tourism with due regard for the actual state of activity of the subjects of the clusterization process in rural areas of Ukraine, we proposed a multilevel, universal structural and functional model of the rural tourism cluster. This model provides for the allocation of the main hierarchical levels of the cluster subjects (basic, affiliate, accompanying) with their resource support and the main levels of interaction (inter-level, intra-level). This model was approbated on the example of two clusters – the mountainous one in the Ukrainian Carpathians and in the Nadsianina region (the Baltic sea basin).

In terms of content, this universal model envisages three main levels:

- basic level – defines specialization (key idea) of the cluster and includes its main subjects (owners of rural homes, providers of agritourism services, agricultural enterprises) and tourist attractions of the area (natural, historical, cultural, socioeconomic). The interaction between actors at this level can be manifested through the development of agritourist networks, local agritourist products, provision of tourists with traditional food and local agricultural products;
- affiliate level – can be represented in the cluster by partner structures aimed at the comprehensive provision of tourist services in the countryside. They usually provide additional services (traditional and alternative transportation, organization of leisure and local festivals, services for participants interested in active, educational, recreational and gastronomic tourism);
- accompanying level – in the cluster of rural tourism it is associated with organizations and structures that facilitate the development of the cluster and promote its services on the market (self-government and government agencies, research and educational institutions, information and advertising centres, investment campaigns). The organizational formation of the cluster and its material and financial support through the implementation of projects within the framework of regional, national and international programs depends on this level.

This universal model of the rural tourism cluster with its main content components can be visualized in the form of appropriate concentres (Fig. 1). The basic level of the rural tourism cluster can be represented as an internal concentre

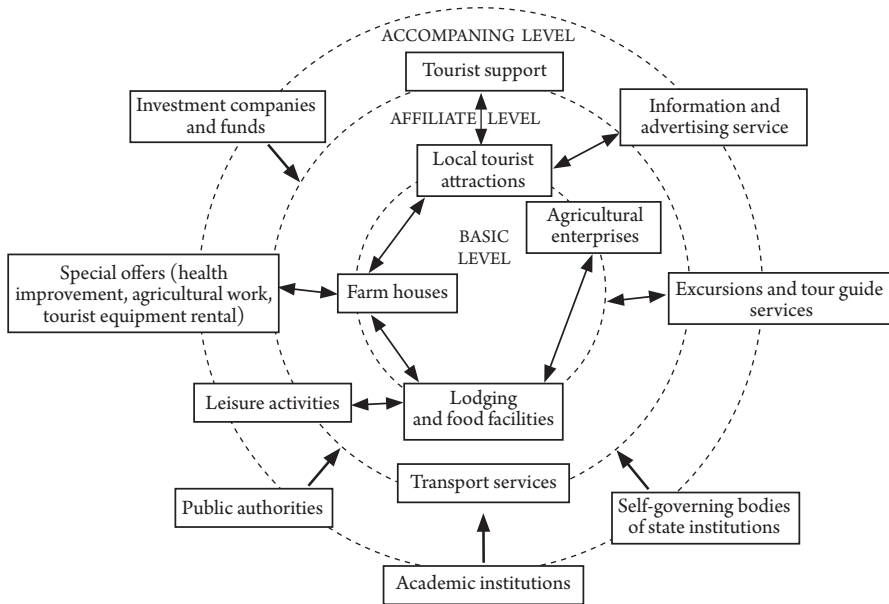


Figure 1. Multilevel universal model of the rural tourism cluster

Source: own elaboration.

(core) in the graphic model. The constituents of this concentre are providers of basic services and maintenance of the main tourist attractions of the area.

The following intermediate concentre graphically represents partner structures that provide additional services for tourists in the countryside. It is important for them to cooperate with the basic subjects of the cluster of the internal concentre.

In the graphical model of the cluster, the organizations and structures that support activities of the cluster are graphically represented by a peripheral concentre. For the accompanying level, the relationships between partners and entities providing core and complementary services in the cluster are important.

4. Step-by-step implementation of cluster initiatives in the Carpathian and Nadsiania regions

For introduction of universal multilevel model of the rural tourism cluster the algorithm of actions was worked out with certain stages in relation to specific rural

tourism and agritourism destinations. It envisages five basic stages in forming the cluster:

I stage is an authentication of the base subjects of the cluster through the study of tourist potential of a territory and establishment of basic services providers (agricultural dwellings and farms owners) and degree of ties among them.

II stage is an analysis of possibilities of partner organizations and additional services providers as well as the character of ties among them (supportive, cooperative).

III stage is an evaluation of possibilities of supporting (accompanying) organizations that will assist organizational, financial and marketing support of cluster initiative.

IV stage is informative-educational and scientific-innovative providing of cluster initiative by means of seminars and trainings for base, partner and accompanying participants.

V stage is development of cluster strategy and action programme as well as formalization of the cluster in the form of business associations, public organizations, cooperative societies.

Approbation of the developed model was carried out on an example of two local destinations representing the night quarters and gastronomic objects of rural tourism of the “village rest” type in mountain areas (Skole district in Ukrainian Beskids) and farmer enterprises and agricultural dwellings (Nadsiannia).

As mentioned above the multilevel universal model of the rural tourism cluster was approbated on the example of cluster initiatives on rural tourism in the Carpathian region (ethno-ecological tourist cluster type the “Boykivski Gazdy” and in Nadsiannia (agritourism cluster Goat farm “Fromages d’Elise.”

The “Boykivski Gazdy” ethno-ecological tourist cluster. The idea of cluster initiative on rural tourism in Skole district has become possible within the framework of the “Rural green tourism - from divided farmsteads to territorial clusters” of the Rural and Green Tourism Association which was supported by the UNDP project in Ukraine entitled “Strengthening of business associations of small and medium enterprises” and the USAID Project “Agrarian and Rural Development Support Programme.” The idea of cluster development was supported by the association of rural homes owners of Skole and neighbouring villages (northern part of Skole district). This territory of the cluster initiative has a significant potential for the development of rural tourism, which will ensure its specialization and will serve as an alternative to ski specialization in the southern part of the region (Slavske and Plai ski centres).

The idea of the cluster lies in voluntary joining of efforts of all interested parties in rural tourism to create a new tourist product in Skole district. The purpose of the cluster is to focus on the development of ethnographic, ecological and recreational tourism based on cooperation between farm houses and mini-hotels,

catering, manufacturers of traditional and environmental products, amateur folk groups, and nature and history protection institutions.

The territory of the cluster initiative covers the northern and central parts of Skole district, where the majority of villages and the district centre of Skole provide rural tourism services on the basis of private rural homes, cottages, mini-hotels, and hotel and restaurant complexes [Vasilyev et al. 2017; Zinko, Malska & Solski 2018]. In the last decades, cooperation is being established there between nongovernmental bodies, catering facilities, producers of traditional and environmental products, folklore ensembles, nature conservation and cultural institutions, and public organizations to develop new products and a spectrum of services. This cooperation has become the basis of the cluster of rural tourism as an effective tool for promoting the territory in the tourist market. As a result of meetings and consultations, priority was given to the development of attractions and services related to ethnographic, ecological and leisure activities, that is, to a local product of the cluster. As to its specialization, the cluster belongs to lodging and food (farm houses) type with an ecological and ethnographic product (Photo 1).

First three stages of introduction of the mountain cluster “Boykivski Gazdy” on the base of lodging sites (agricultural dwellings) were focused on bringing in of base, partner and supporting participants.

In terms of the market potential of the “Boykivski Gazdy” rural tourism cluster, it was necessary to identify its main participants in qualitative and quantitative aspects and the main types of tourism activities according to the proposed model. The **basic level** of the cluster is made up of the owners of farmsteads, cottages, and hotel and restaurant complexes. The **affiliate level** of the cluster is represented by the producers of traditional and environmental products, craftsmen, ethno-folk ensembles, as well as by business people providing transport, excursions and additional services. An important part of this level of the cluster “Boykivski Gazdy” is formed by the providers of services, related to excursions, environmental protection (the “Skolivski Beskydy” national park) and history and culture (“Tustan” State Historical and Architectural Reserve), as well as travel agencies of Lviv. The **accompanying level** of the cluster includes local self-government bodies (district and village councils), state bodies (departments of tourism and agri-industrial complexes of district state administrations, district employment centre), a number of public organizations (Association of Entrepreneurs of Skole district, “Impulse” training and production complex, the Agency for Regional Development, local branch of the Rural Green Tourism Association), and educational institutions (the Stryi Agrarian College, Ivan Franko National University of Lviv, Lviv Institute of Economics and Tourism, Bydgoszcz Economic University (Poland)). The total number of cluster participants was 43 in the beginning of 2018.



Photo 1. Traditional Boyko dwelling and costume as a brand of ethnographic-ecological cluster “Boykivski Gazdy” (author V. Pryndak)

Informative-educational and skilled-innovative provision through conducting working meetings and seminars with participation of base, partner and accompanying representatives became an important stage of forming the rural tourism cluster “Boykivski Gazdy.” In organizing and implementation of these events a considerable role was played by experts and trainers from the Association of promotion of rural green tourism in Ukraine, scientists of Lviv educational establishments and leaders of public organizations of regional development.

The marketing profile of the cluster is shaped by the following offers: rest in traditional Boyko farm houses; eating traditional Boyko dishes; tasting and purchasing ecological produce of the mountain region; participation in traditional entertainments and holidays; local festivals; local souvenirs, visiting folk craftsmen and master classes; rehabilitation and rejuvenation according to the recipes of folk medicine (bathing in vats, apitherapy, phyto-tea); trips to the protected areas of the “Skolevski Beskydy” National Park (mountain valleys, virgin forests, waterfalls, rocks, caves, aurochs); learning the history of Boyko ethnical group and visiting the unique wooden rock fortress “Tustan”; practising various types of active tourism: skiing, trekking, equestrian and water tourism, cycling. At the special strategic session the final name of the cluster as well as its smart-specialization was ratified by the potential participants of the cluster (V stage of introduction). Strategy and annual programme of the cluster development with corresponding events was worked out and approved.



Photo 2. Goat farm “Fromages d’Elise” (farm “Shevret” on cheese production of Belgian Bernar Willem) (<http://chevrette.com.ua/>)

The first stages such as: forming the base level as well as forming the partner participants network for to the cluster of agritourism initiative “Agritourism cluster of Goat of farm »Fromages of d’Elise«, where agricultural enterprises (goat farm) and households constitute the base, were carried out.

The basis of promising agritourist cluster in Nadsiania will be the goat farm “Fromages d’Elise” (farm “Shevret” on cheese production of Belgian Bernar Willem) (Photo 2). The tourist component will base on servicing tourists on the farm during excursions and tasting products.

5. Models of rural tourism clusters and their application for regional and local development

The modern tendency of development of the rural tourism cluster models testifies to considerable attention to the models of structural-factor type. It is emphasized, that the specifics of cluster models for rural areas is provided by such factors as integration into the local systems and specific use of resources [Lukić 2013], that distinguishes them from the forms of mass tourism. Apart from it, a considerable role in their development is played by rural communities, where community management and participation of local self-governance play a signifi-

cant part. Importance of administrative factors including presence of the leading body of the cluster and policy of its activity planning is emphasized in many models.

Households characteristics (financial, human, social capitals), as well as variety of land use [Lukić 2013; Santana-Jiménez et al. 2011] is of great importance for tourism cluster development in rural areas. In order to strengthen rural tourism destinations competitiveness, ecological factor, that can serve as their important brand at the market of services, is significant.

Alongside, it is worth mentioning that in the models of structural-factor type the cluster participants selection, their meaningfulness (hierarchy) and interrelations is reflected insufficiently. Further development of rural tourism cluster models is seen in two aspects: through detailed development and hierarchization of the subjects of development in factor models as well as “enriching” of structural (institutional) and structural-functional models by the factors (determinants) of competitiveness. These tendencies are fixed in a number of modern models of tourism clusters development [Kim & Wicks 2010; The Andalucía Tourism Cluster 2011].

An important scientific-methodical and practical problem for development of clusters of rural tourism is their introduction at regional and local levels. From scientific-methodological point of view it takes place by means of creation of end-use cluster models, in particular, influence of cluster activity on regional and local development [Cunha & Cunha 2005], alongside with development of analytical, organizational and services instruments [Štoković & Gržinić 2007]. Another group of models represents existing clusters at local and regional levels through the specifics of their structural and structural-functional organization [Hrycku-Andriyesh 2010; Vasilyev et al. 2017].

Practical issues of implementation of the developed cluster models at the regional and local levels are provided by a certain system of recommendations in the form of implementation of specific steps (stages). Here emerge the problems of approaches to cluster formation as follows: the choice of the scheme “from top to bottom” by the initiative of the authorities, tourism associations or “bottom-up” with broad involvement of the village community and its public figures. The issue of formalizing the local-level rural tourism clusters (business associations, cooperative societies, public associations) is of utmost importance. As experience of creation and operation of rural tourism clusters of Poland and Ukraine testifies, the two identified approaches to the creation and provision of clusters of rural tourism both with the participation of administrative bodies (“from above”) and local communities (“from below”) were combined [Roman 2013; Borkowska-Niszczota 2017].

6. Conclusions

The analysis of research on the range of problems of tourism clusters development testifies to the importance of working out of different types of their models of both conceptual and applied character. By peculiarities of the structure, they can be divided into structural (institutional), structural-functional and structural-factor (determinant). The mentioned types of models are widely used when forming cluster initiatives in rural areas and generalization of functioning of existing rural tourism clusters.

Based on the analysis of scientific-methodical approaches and practice of functioning in relation to clusters in rural tourism, the universal multilevel (institutional) model of development of rural tourism clusters taking into account base (granting basic services), partner (granting additional services) and accompanying (scientific institutes, supporting government bodies) members and ties among them is grounded in the article. In a graphic form this model is presented by a concentric chart with the list of participants and ties among them. Universal character of this model is related to the fact that it can be used for creation of the clusters referring to the basic forms of rural tourism (village rest and agritourism). This structural model can be a constituent base for structural-functional and factor models that are widely used in research of cluster range of problems in rural tourism. At the same time, this model has corresponding practical potential when used at regional and local levels. It can be used for forming of two types of clusters: village rest and agritourism. A logical-structural sequence of its stage-by-stage implementation for cluster initiatives of the “village rest” and agritourism types is proposed.

An example of the use and stages of implementations is provided for cluster initiatives in Ukraine: of the mountain cluster in Beskids and agritourism cluster in Nadsianina.

Further research on the range of problems of development and introduction of rural tourism cluster models should be focused on detailed development of structural, functional and factor (determinant) constituents for their conceptual varieties and expansion of spectrum of the applied models with a special purpose setting. For scientific accompaniment of the process of rural tourism clusters formation in Ukraine, an improvement of the two types of applied models related to the “village rest” and agritourism itself is of utmost importance. The range of problems relating to clusters creation is up-to-date when diversifying these types of agrarian economy of Ukraine.

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Wielopoziomowy uniwersalny model klastra turystyki wiejskiej: wprowadzenie na poziomie lokalnym

Streszczenie. W artykule przedstawiono analizę modeli badawczych klastrów turystyki wiejskiej na Ukrainie. Reprezentują one różne typy: koncepcyjne, hierarchiczne według kryterium terytorialnego i funkcjonalno-strukturalne. Do celów naukowych i praktycznych zaproponowano wielopoziomowy uniwersalny model klastra turystyki wiejskiej o poziomach strukturalnych: podstawowym, partnerskim i towarzyszącym. Model ten został przetestowany na bazie dwóch inicjatyw klastrowych w regionie karpackim (skupisko turystyki wiejskiej „Boykivski Gazdy”) oraz w Nadsiani (klastr Goat Farm „Fromages d’Elise”). Podkreślono konieczność wykorzystania w badaniach klastrów turystyki wiejskiej zagranicznych doświadczeń ich rozwoju i funkcjonowania.

Słowa kluczowe: turystyka wiejska, klastr, wielopoziomowy model uniwersalny, interakcja, wprowadzenie

IRYNA FEDINA-ZHURBINA*

Kaliningrad Region of Russia as Perspective Actor for Health-Tourism Development in Baltic Sea Region

Abstract. The article considers the Kaliningrad region from the perspective of the development of medical and health tourism in the region. The main objective and problematic of the research is to study the potential of the Kaliningrad region in the development of health tourism and definition the place of the Kaliningrad region's health tourism in the Baltic Sea region. In the course of the study, methods of reviewing the literature on topics were applied, the experience of both Russian and foreign researchers was analyzed; For visualization of the results, the cartographic method was used, and the results of the analysis are presented in the form of graphs and tables. The article considers the natural and geographical prerequisites for the development of health tourism in the Baltic region, analyzes the sanatorium-resort base of the Kaliningrad region, shows the dynamics of attendance at sanatorium-resort institutions in the region from 2012 to 2016. The potential of each municipality of the Kaliningrad region in the development of medical and sanatorium-resort tourism is shown. As a result of the study, it was found out that the Kaliningrad region has significant potential for the development of therapeutic, health and medical tourism in the Baltic region: a developed sanatorium-resort network, natural resources (mineral water, therapeutic mud, etc.), an advantageous geographical position, affordable prices for spa treatment). However, it is necessary to expand the range of sanatorium-resort services of the institutions of the Kaliningrad region in order to be able to compete with similar institutions in the Baltic countries and neighboring Poland; improvement of medical infrastructure and level of medical services in the region to expand their range.

Keywords: health tourism, medical tourism, Baltic Sea Region, Kaliningrad region, regional development, socio-economic development

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1. Introduction

The Baltic Sea Region since many years represented as the resort with wide coastline with sandy beaches, soft climate and perfect natural conditions for health improvement. Russian regions (Kaliningrad region, Leningrad oblast), Baltic States, Poland and Germany – countries with direct access to the coastline, which use the natural resources for purposes of the health-tourism development. Most popular the coastline of the Baltic Sea, a lot of spa infrastructure objects are concentrated in that part. But despite the positive and attractive resource – coastline, there is big potential in areas distanced from the coastline for 150-350 km (sanatoria, guesthouses with SPA service, etc.), for example Druskininkai and Birštonas.

Kaliningrad region in such situation has very big potential, it developing this type of tourism (medical and health), rural tourism as well, but development of this sector of tourism is very weak. The health tourism destination is one of the priority of socio-economic development Strategy of the Kaliningrad region, and could be the platform for interconnections of Baltic Sea countries. Besides the development of health tourism, or wellness tourism, Kaliningrad region opening its gates for classic medical tourism – guests coming with different parts of Russia to the new cardiology, and potential cancer mad region opening its gates for classic medical tourism – guests coming with different parts of Russia to the new cardiology, and potential cancer medical center.

2. Theory

The concept of “medical” and “health-improving” tourism is quite new, despite the fact that health services outside the places of permanent residence have been used for quite some time. In the scientific works of both foreign and Russian authors one can find many different interpretations of medical and health tourism. Clearer definitions and distinctions of the concepts of tourism associated with improving health can be found in foreign authors. For example, the following concepts can be found abroad: “medical tourism,” “wellness tourism,” “health tourism,” and interpretations of these concepts differ from different foreign authors, and analyzing the definitions of foreign authors, it can be concluded that the concept Health tourism is broader, including the concepts of medical tourism and wellness tourism. The World Tourism Organization (UNWTO) defines health tourism as a type of tourism, including services offered by spa centers

or medical services related to surgery, associated with the best price compared to home region, and also to preserve anonymity. According to the definition of Steve Hayjof, health tourism is a trip to other countries, territories for medical services and other health care activities, thereby identifying this concept with the term medical tourism. Contrasting with Steve Hayjof, Greek author Ikos Aris defines health tourism as tourism associated with visiting mineral and thermal springs for medicinal purposes. Two other definitions used by foreign authors have more specific meanings. Thus, the concept of medical tourism is a trip to improve the health and treatment of existing diseases, as well as economic activities to provide services, combined treatment and tourism [Bookman & Bookman 2007]. As for the concept of wellness tourism, it was introduced in 1961 by Helbert Dunn. This term is understood to mean that tourists receive health procedures that are aimed at preserving and enhancing health related to the use of natural resources, diet, physical activity. For the Russian conceptual apparatus, this term is most correlated, in authors opinion, with the term “sanatorium-resort tourism”, which prevailed in domestic works related to the study of health-improving tourism, and the concept of “therapeutic tourism” adopted only in recent years links with the active development of medical services offered by various clinics, private medical and rehabilitation centers to foreign citizens. Among the Russian authors who give the definition of tourism in order to improve health, we can mention A.A. Fedyaikin, who substantiated the concept of “health tourism”. You can also note such authors as V.A. Nabdrik, V.F. Kazakova, R.P. Sukhov, V.G. Gulyaev, R.M. Navodnichy and others, who considered theoretical approaches to the concept of medical and health tourism.

Analyzing different definitions of “health” tourism and “medical tourism” it could be concluded differences between these two definitions. Medical tourism is travelling for getting medical treatment, medical service, health tourism is much broader definition, which means travelling for health treatment, spa-services, recreation services, sport activities, etc. Among the scientists exploring the development of health tourism in Russia, we can distinguish A.S. Sokolova, V.G. Gulyaev and N.P. Manko [2017] and others. The works of such domestic authors as A.Y. Arkhipov, I.Yu. Sevryukov are devoted to the issues of sanatorium-resort tourism [2013], S.L. Mozokina, O.A. Nikitina [2012], and foreign authors: M. Smith, C. Kelly [2006], E. Erfurt-Cooper, M. Cooper [2009], C. Voigt, C. Pforr [2013], etc. The combination of developing health and sustainable tourism is considered in his works A.I. Seselkin, T.V. Rassokhina [2016] and E.G. Kropinova [2016]. Such a form of health-improving tourism as a sanatorium-resort and its development in the Kaliningrad region and in the Baltic region as a whole, E.G. Kropinova, I.I. Dragileva, V.S. Korneevets [2008], A.T. Mitrofanova [2010], O.A. Nikitina [2012], M.S. Oborin, J.A. Mingaleva [2017] and others.

3. Research methods

The methods which were implemented during the research preparation, are as follows: analysis of statistics data, analysis of data of municipalities and tourist agencies within Kaliningrad region and Baltic States; cartographic methods using GIS systems; analysis of works on topic of Russian and foreign scientists; During the preparation of research the poll of tourism destinations and spa and health tourism (spa-centres, sanatoria's, etc.) in Lithuania and Kaliningrad region was conducted. The results of poll are presented in the article.

4. Research results

Recently, medical tourism has been developing more actively and considered as a separate direction of tourism. Russia is not an exception in the development of this type of tourism. In addition to health tourism, spa and sanatorium-resort treatment, classical medical services such as dentistry, cancer treatment, cardiology, gynecology, ophthalmology, plastic surgery, and surgical cosmetology are in demand in Russia. But most of the medical tourists, which coming to Russia are patients from the CIS and neighboring countries. Among European countries, tourists who come to Russia for medical services, can be noted Sweden, Finland and Denmark (Scandinavian region mostly to S. Petersburg). However, in 2017, the number of Chinese and South Korean citizens arriving in Russia increased. They actively visit the cities of the Siberian Federal District, as well as Moscow.

In Russia, in addition to large cities with developed medical services, seaside destinations are also popular - mainly resorts on the Baltic and Black Sea coasts, as well as mountain regions. In the North-West Federal District of the Russian Federation, the Leningrad and Kaliningrad regions are most popular, but in terms of climatic conditions, the Kaliningrad region wins, sanatorium-resort tourism in the region is developing, and also services of dentistry, cardio medicine and plastic surgery are in demand.

The Ministry of Tourism of Kaliningrad region notes that the Federal Center for Cardiovascular Surgery, opened in the region in 2012, has revived such a promising area as medical tourism. Here, not only Russians, but also foreigners have the opportunity to receive high-quality examination and treatment at affordable prices, and then to undergo postoperative rehabilitation in one of the sanatoriums on the seashore.

It is important to note that Kaliningrad region has a convenient geographical position for the development of tourism services and their promotion not only in the Russian, but also in the European market (Fig. 1).

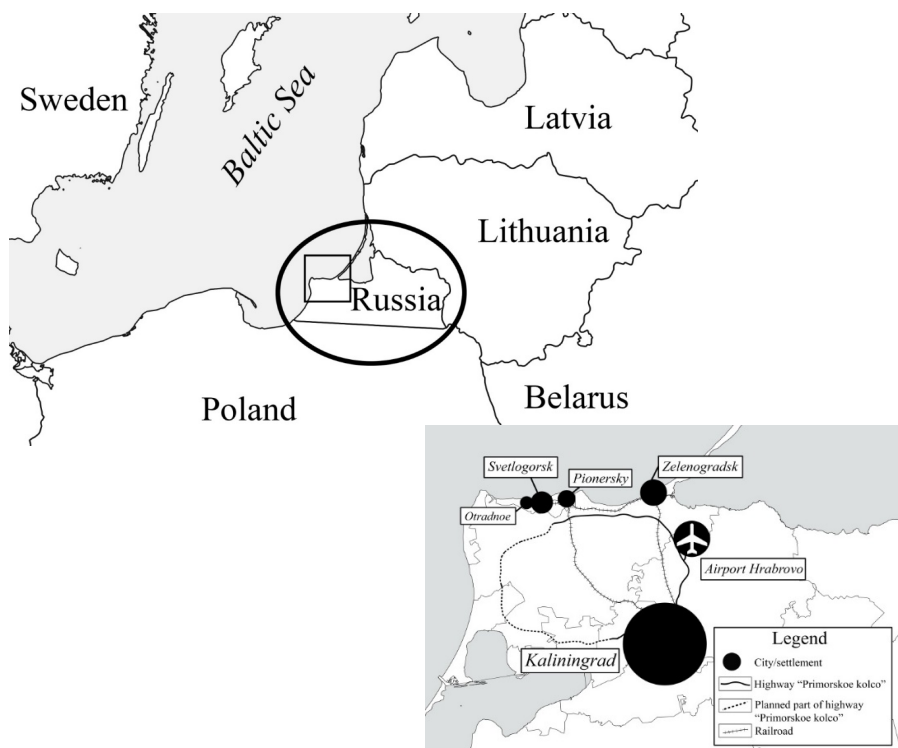


Figure 1. Kaliningrad region in the Baltic Sea Region

Source: own elaboration.

According to the Ministry of Tourism, 48% of Russian tourists consider the Kaliningrad region as a region of medical and health tourism, where it is combined with cultural and educational, which is preferred by 28% of visitors to the region. At the same time, the volume of sanatorium and health services in the region shows high growth rates: in 2013, the growth was 9.2%, in 2014 – 15.4%.

There are 20 active sanatorium-resort and therapeutic facilities in the Kaliningrad region. Almost all of them are located in coastal cities, resorts of federal significance and coastal settlements of the region. As well as there are motels and hotels with a spa and wellness center (Table 1).

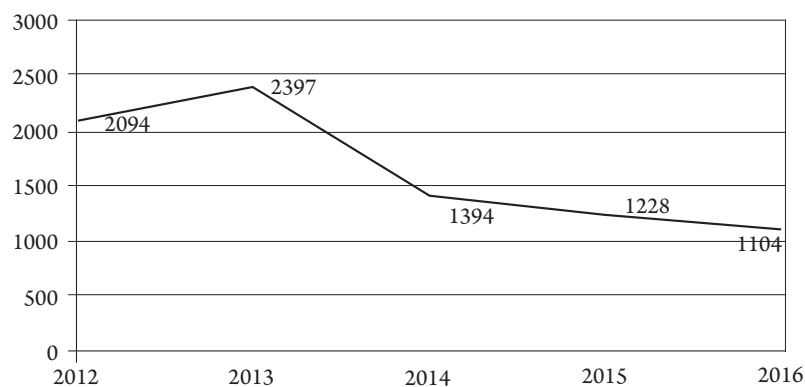
Table 1. Health-tourism facilities of the Kaliningrad region

No.	Town/ Settlement	Specialization of facilities	Number of beds (% to the total number of beds in the Kaliningrad region)
1	Zelenogradsk	Cardiovascular system, neurosystem, gynecology, musculoskeletal system, neurosensorymotors for children	525 (4%)
2	Svetlogorsk	gastrointestinal tract; respiratory system; ENT diseases; metabolic disorders; endocrine system; urology, neurosystem, gynecology, musculoskeletal system, circulatory organs, cardiovascular system	2149 (13,9%)
3	Otradnoje	cardiovascular system, neurosystem, musculoskeletal system	550 (4,22%)
4	Pionersky	musculoskeletal system (for children)	300 (2,3%)

Source: own elaboration.

Basically, Russian tourists use the spa and health-treatment services of the Kaliningrad region. A significant part of tourists at the wellness facilities consists of residents of the Kaliningrad region, partly from Moscow and the Moscow region, and from other areas of European and Central Russia. However, foreign citizens also visit sanatorium-resort accommodation facilities of the region, but their share has decreased in comparison to 2014. This was caused by the economic crisis and the abolition of the simplified visa regime (a 72-hour visa issued to tourists upon arrival in the region) and local border traffic with Poland (Graph 1).

Graph 1. Number of foreign tourists in spa and sanatoria treatment facilities of the Kaliningrad region (persons)



Source: Federal Statistics of Russian Federation, Kaliningrad region, 2017.

Despite the fact that the Kaliningrad region has a number of prerequisites and natural and climatic resources for organizing health tourism in its central and eastern part, all the existing spa facilities are located on the coast. The region has an extensive river network, lakes and forests (Fig. 2), as well as therapeutic mud, medicinal mineral waters and other resources for recreational and resort development.

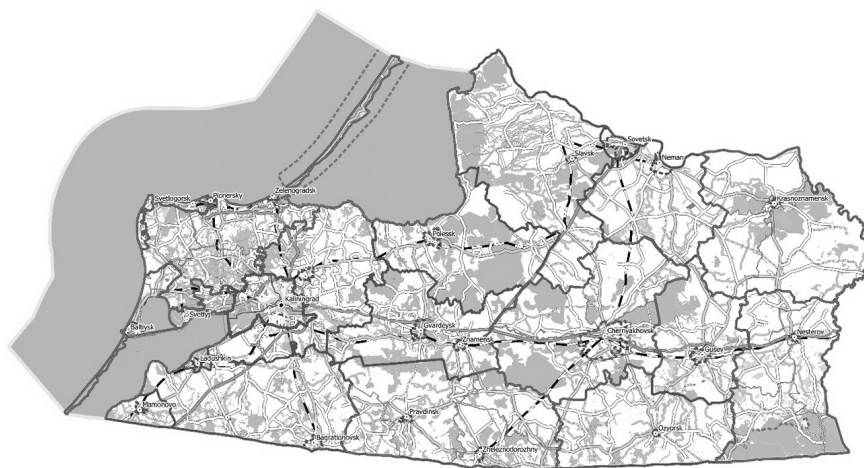


Figure 2. Natural resources and transport net of Kaliningrad region for health-tourism development

Source: own elaboration.

It can be seen from the map that, in addition to the presence of water bodies and woodlands, the region, due to its compact features, has a wide and extensive transport road network. The most common roads, railway inland transport is also there, but to a lesser extent. Thus, each municipality of the region has the prerequisites and resources for the development of health tourism. Table 2 presents all the municipalities of the Kaliningrad region (except for coastal ones) and shows their resources for the development of types of health and recreational tourism.

Kaliningrad region ranks 10th in Russia for its tourist attraction. And thanks to this, it is advisable to develop not only classic types of tourism (beach, educational, etc.), but also sanatorium-resort and health tourism.

At the end of 2017, we conducted a sociological survey of tourists on the criteria by which the Kaliningrad region is attractive for them. 500 respondents were interviewed. The results are shown in Graph 2.

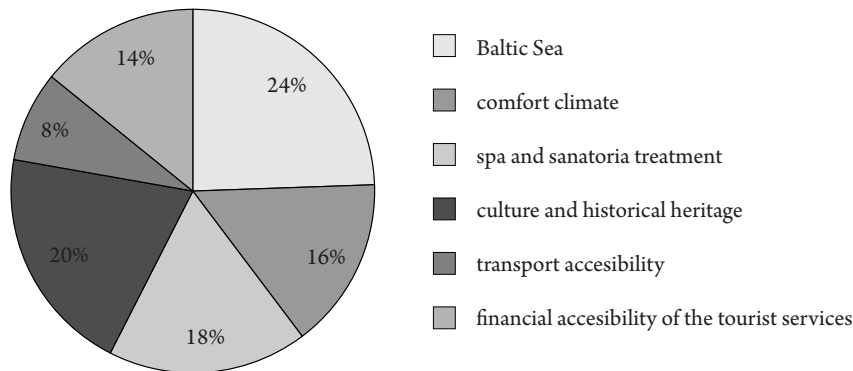
Kaliningrad region acting as the one of most attractive area of Russian Federation for health tourism. Graph 2 shows that spa and sanatoria treatment is on

Table 2. Natural and socio-economic resources for development health-tourism in municipalities of Kaliningrad region

No.	Municipality	Resources for sanatorium development	Proposals for development
1	Slavsk	– mineral water	– water-wellness treatment
2	Sovetsk	– Neman rive – cross-border point with Lithuania in the city-centre	– rehabilitation center for children with disables; establishment center for adults
3	Cherniakhovsk	– three rivers (Angrapa, Prgolia, Instruch – transport accessibility	– spa-and recreation center, rehabilitation center for people with problems of musculoskeletal system
4	Mamonovo	– border town (Poland) – Vistula lagoon	– spa and sanatoria complex on the Vistula lagoon
5	Neman	– mineral water	– sanatoria complex for children in former children's camp "Sputnik"
6	Nesterov	– Rominten forest – p. Vishnynets lake	– spa-center, health-recreation complex
7	Ozersk	– natural resources (mineral water)	– winter sport resort – establishment of rehabilitation center
8	Polessk	– Curonian lagoon, health treatment substances	– mud resort
9	Pravdinsk	– cross-border settlement (Poland) – natural resources of the lake – Lava river (Iyna in Poland)	– SPA Center with a specialization in heart disease
10	Svetly	– Vistula lagoon	– rehabilitation center for children
11	Bagrationovsk	– natural resources (lake) – close to the borer – transport accessibility	– establishment the center for the prevention of respiratory diseases
12	Gvardejsk	– natural resources (Deima river) – transport accessibility	– rehabilitation sanatoria for children with respiratory diseases
13	Gurjevsk	– Pregel river – transport accessibility	– posttraumatic rehabilitation center for the elderly.
14	Gusev	– underground mineral waters – close to the polish border	– water-treatment resort
15	Krasnoznamensk	– clear environmental with forests – Sheshupe and Neman rivers – State nature monument "Dobrovolski"	– rehabilitation sanatoria for people with respiratory diseases
16	Kadushkin	– Vistula lagoon – transport accessibility	– health resort based on former children's camp "Chaika"

Source: own elaboration.

Graph 2. Reasons to visit Kaliningrad region



Source: own elaboration.

the third place (18%) of the respondents' choice. It is important to mention that the poll was conducted among 85% of Russian citizens coming to Kaliningrad for tourism, and 15% of foreign tourists. Foreign tourists were mostly from neighbouring countries (Poland, Lithuania, Germany).

It is important to mention that health tourism and medical tourism in Kaliningrad region is oriented mostly on Russian-speaking tourists. The level of foreign languages of personnel in spa, sanatoria, and medical facilities are not sufficient. Also, some sanatoria of the region are still working without additional services, and the recreational programmes limited only in 21 days. Lack of flexibility in services makes retard the development of health-tourism in the region. Despite financial possibilities of common projects with EU (CBC Cooperation Programmes, etc.), there is still lack of investments and it is the negative factor for development of health-tourism facilities and infrastructure in municipalities without sea access. But, as it was mentioned in the article, the potential (natural, transport) is high, and there is still demand for several medical and health-treatment services in the region.

5. Conclusions

As we can conclude, the Kaliningrad region has significant potential for the development of health tourism. Basically, it is a type of health tourism based on the use of climatic and balneological resources (Baltic Sea, mineral waters, curative

mud). In the region, sanatorium-resort tourism has been developing for a long time, and it is a historically established destination for sanatorium-resort services from both Russian tourists (initially) and foreign ones (since 2000).

The coastal territories of the region are most developed in terms of infrastructure, there are resorts of federal significance and almost all the health resorts in the Kaliningrad region (sanatoriums, hotels with spa services). In the total volume of accommodation (beds), spa facilities occupy 24.42% to the total number of beds in the region. This indicator, in our opinion, is sufficient for the region, covering the needs of tourists in sanatorium-resort services. However, a significant part of the infrastructure needs a complete renovation, some accommodation facilities need to be refitted to meet the needs of people with disabilities. In addition, one of the important measures to improve the attractiveness of the sanatorium-resort complex of the region is the change in the concepts of institutions. For example, in accommodation facilities in resort cities, such as motels, recreation centers, there are not enough tools for loyalty and attracting tourists, there are not enough ready-made packages of services targeted at various categories of tourists. A good example of such attraction of tourists can serve as spa resorts and spa complexes in neighboring Lithuania (in Palanga, Druskininkai and other cities).

In addition, since the Kaliningrad region not only has coastal resources, but also a number of natural resources that can be used for recovery, it is advisable to develop health and recreation and sport centers and spas in the central and eastern part of the region, to attract investments to create a healing infrastructure based on natural resources. Taking into account the small area of the region and the developed transport accessibility, treatment and rehabilitation in potential centers in the east of the region can be combined with tourist excursions to the coast. Thus, today, in the Kaliningrad region, sanatorium-resort tourism on the Baltic Sea coast is one of the most developed, as a type of health-improving tourism. Other medical tourism is less developed due to visas targeting for foreign citizens, despite favorable geographical position of the region. And in order to improve the image of the region as an attractive center of sanatorium-resort medical and health tourism, first of all, it is necessary to bring the sanatorium-resort infrastructure and services to a high level comparable to the level of similar institutions in neighboring Lithuania.

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Rosyjski Obwód Kaliningradzki jako przyszły obszar rozwoju turystyki zdrowotnej w regionie Morza Bałtyckiego

Streszczenie. Artykuł dotyczy perspektyw rozwoju turystyki medycznej i zdrowotnej w regionie Kaliningradu. Głównym celem badań jest potencjał regionu kaliningradzkiego w rozwoju turystyki zdrowotnej i określenie miejsca turystyki zdrowotnej tego regionu w obszarze Morza Bałtyckiego. W ramach badań dokonano przeglądu literatury i przeanalizowano doświadczenia

rosyjskich i zagranicznych badaczy. Do zilustrowania wyników wykorzystano metodę kartograficzną, a wyniki analizy przedstawiono w postaci wykresów i tabel. W artykule rozważono naturalne i geograficzne przesłanki rozwoju turystyki zdrowotnej w regionie bałtyckim, przeanalizowano bazę sanatoryjno-uzdrowiskową w Obwodzie Kaliningradzkim i przedstawiono dynamikę frekwencji w ośrodkach sanatoryjno-uzdrowiskowych w regionie od 2012 do 2016 r. Pokazano potencjał każdej gminy w rozwoju turystyki medycznej i sanatoryjno-uzdrowiskowej. Ustalono, że Obwód Kaliningradzki ma znaczny potencjał dla rozwoju turystyki terapeutycznej, zdrowotnej i medycznej w regionie bałtyckim: rozwinięta sieć sanatoryjno-uzdrowiskowa, zasoby naturalne (woda mineralna, błoto lecznicze itp.), korzystne położenie geograficzne, przystępne ceny leczenia uzdrowiskowego). Konieczne jest jednak rozszerzenie zakresu usług sanatoryjno-uzdrowiskowych, aby móc konkurować z podobnymi instytucjami w krajach bałtyckich i sąsiedniej Polsce oraz poprawa infrastruktury medycznej i usług medycznych w regionie w celu rozszerzenia ich zakresu.

Słowa kluczowe: turystyka zdrowotna, turystyka medyczna, region Morza Bałtyckiego, Obwód Kaliningradzki, rozwój regionalny, rozwój społeczno-gospodarczy

ORESTA BORDUN*, MARIYA KOZOLUP**

SWOT Analysis of Lviv Tourist Destination and Key Indicators of its Sustainability

Abstract. Attractiveness of Lviv as an urban tourist destination has grown over recent decades. The increase in numbers of visits and visitors to this city inevitably makes an important impact on local economy, cultural developments, community life, etc., and consequently gives rise to certain sustainability issues. In order to assure a long-term planning and effective management of the city's tourism assets it is essential to run monitoring programs aimed at spotting problem areas and determining needs for changes in local tourism development. This paper aims at using indicators of sustainability of Lviv urban destination as a central instrument for improved planning and management of tourism business in the city. The research methods combine SWOT analysis and a survey carried out in 2016 in a joint effort of the authors, students of Lviv Ivan Franko National University majoring in Tourism and the City Institute commissioned by Department of Tourism of Lviv City Council. After processing all the data collected in the study, we were able to determine the key indicators of the destination sustainability, namely tourist attractiveness of the city and tourist satisfaction with the destination. As a result of indicator analysis, indexes of Lviv attractiveness as an urban tourist destination and tourist satisfaction with local tourism services were calculated.

Keywords: SWOT analysis, incoming tourist survey, urban destination, indicators of sustainable development, index of tourist satisfaction, index of destination attractiveness

1. Introduction

Tourism is now one of the global engines of development. Every year, more people are in motion than ever before in history. With good planning and management,

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tourism can be a positive force, bringing benefits to destinations around the world. If poorly planned and managed, tourism can be an engine for degradation. It is in the interest of the tourism sector to maintain and sustain the basis for its prosperity – the destinations for tourism. Lviv as an urban tourism destination has been gaining popularity through the growing variety and originality of tourist offerings and, consequently, the number of visitors has increased substantially in the recent years. The situation calls for more thorough control of the current state of the city's development in order to avoid the pitfalls of intensive exploitation of its resources, particularly by the tourism sector. This article focuses on the use of indicators of sustainability of Lviv urban destination as a central instrument for improved planning and management, bringing managers the information they need, when it is required, and in a form that will empower better decisions.

2. Literature review

In recent years, the use of indicators for monitoring progress towards sustainability has been advocated and discussed by tourism researchers and tourism organizations. Since 1993, the WTO has pioneered the application of sustainability indicators as a “fundamental part of overall destination planning and management, and an integral element in efforts to promote sustainable development for the tourism sectors at all scales” [Indicators of Sustainable Development 2004: 8]. Among the researchers who laid the foundations for sustainability indicators studies were Ercan Sirakaya, Tazim Jamal and Hwansuk Chris Choi [2001] and Zhenhua Liu [2003]. A systemic approach should be applied to selecting and defining sustainability indicators. The concept of systemic indicator system (SIS) was first introduced by Karin Schianetz and Lydia Kavanagh. The researchers applied complex adaptive systems (CASs) approach to test SIS methodology while conducting a case study of a holiday eco-village project near Lamington National Park in Queensland, Australia [Schianetz & Kavanagh 2008]. At the same time, Juan Fernandez and Marcelino Rivero [2009] argue that in “no way can one claim that there exists a universally and unanimously accepted list of indicators” [Fernandez & Rivero 2009: 281]. These authors established some methodological bases for the design of a composite index, called the “ST index” (an acronym of sustainable tourism) to measure tourism sustainability “based on the use of weights with the basic information of sustainability” [Fernandez & Rivero 2009: 282].

Polish scholars Łukasz Nawrot and Piotr Zmysłony suggested an original system of methods for sustainability of the urban environment indicators analysis in cities undergoing intensive tourism development in their study dedicated to the assessment of Polish cities competitiveness [Nawrot & Zmysłony 2013].

Difficulties and challenges in applying the European Tourism Indicators System (ETIS) for sustainable tourist destinations were discussed by a team of Romanian researchers in their case study of Braşov County in the Romanian Carpathians [Tudorache et al. 2017]. Yaroslav Yanyshyn, who analyzed the dynamics of tourists coming to Lviv and presented a classification of transport means used for arrivals and departures [Yanyshyn 2016], identified main features of Lviv tourism industry. However, sustainable tourism indicators have not yet been used to analyze the current state of tourism development in one of the major Ukrainian tourist destinations – the city of Lviv, which testifies the topicality of our study. Urban destination study using methods similar to those we apply here were carried out by Andreea Zamfir and Razvan-Andrei Corbos [2015].

3. Methods

The main method of data collection used in this study was a survey held among visitors to Lviv city. We conducted the survey with the help of graduate students of Ivan Franko National University of Lviv majoring in Tourism studies. The survey received responses from 400 cultural tourists who came to Lviv in June 2016. Their geography is rather wide and represents almost all continents. Besides major tourism markets (Ukraine, Poland, Germany), the largest number of tourists came from the USA, the Czech Republic, and Hungary. Most of the respondents can be referred to the group of recreation and leisure tourists (71.5%). The data obtained through the survey was processed by Lviv City Institute commissioned by Department of Tourism of Lviv City Council. Other conclusions of the study are based on the official statistics published annually by Lviv City Institute.¹

SWOT analysis is the main analytical method used in this study to evaluate the indicators of tourism development, which can be observed in recent years. The method enables us to identify the main prospective threats to the tourism industry, which can be avoided by improving the weak indicators.

4. National Strategy for sustainable tourism development in Lviv

Over the past decade, studies and workshops have been held at destinations in various regions of the world, with the objective of creating an effective system to support better decision-making for tourism. There are large numbers of programs

¹ City Institute: <http://city-institute.org/index.php/en/> [access: 22.11.2018].

supporting sustainability of destinations. Ukraine has been involved in sustainable development as a part of Europe.

On August 7, 2018, a group of people's deputies of Ukraine representing Petro Poroshenko Block introduced a Draft of Sustainable Development Strategy for Ukraine by 2030 to the Parliament. The main strategic goals of Ukraine's long-term development presented in the Draft include provision for an average annual GDP growth; achieving economic productivity increase; ensuring the increase of the employment rate by creating new jobs; eliminating the extreme poverty in the country; ensuring gradual approximation of the minimum wage and minimum pension to the factual minimum subsistence level.²

The Cabinet of Ministers of Ukraine bears the overall responsibility for the Strategy implementation. In addition, the National Agency for Sustainable Development shall be created under the Ministry of Economic Development and Trade of Ukraine. It will exercise the authority for coordination of actions, strategic planning, Strategy implementation, monitoring and reviewing at a regular basis. Besides, for the establishment of the institutional basis for sustainable development, it is imperative to create sustainable development management units under all ministries, regional and local governmental bodies responsible for the development of complex prognostic documentation with regard to the changes in natural resource potential, living standards, population health and wellbeing, environmental conditions, etc.

5. SWOT analysis of Lviv destination tourism potential

The Strategy for tourism development in Lviv within the National sustainable development strategy framework should rely on the studies of sustainable tourism indicators. In order to identify the latter, it is useful to assess a destination's Strengths, Weaknesses, Opportunities and Threats (SWOT). A SWOT analysis assesses tourism potential and helps managers to decide what type of indicators will be useful in monitoring trends and progress towards achieving the tourism goals of the destination. A SWOT analysis gives a succinct picture of the destination's assets and shortcomings and reveals the opportunities and challenges it faces. It helps clarify issues and the types of indicators that will be valuable. It provides important information that may help to generate consensus on which issues and risks are of greatest importance and to whom. In our study we used the guidelines for conducting

² Stratehiya staloho rozvytku Ukrayiny do 2030 roku. Proekt-2017, www.ua.undp.org/content/dam/Ukraine/docs/SDGreports/UNDP_Strategy_v06-optimized.pdf [access: 22.11.2018].

Table 1. SWOT analysis of Lviv destination

SWOT	Analysis
Strengths	<ul style="list-style-type: none"> – destination assets: local, complementary attractions, historical and cultural assets, infrastructure and support services – community support: active participation, common objectives – workforce: availability, skill levels – management capacity: skill levels, funding available
Opportunities	<ul style="list-style-type: none"> – economic opportunities: for businesses, employment – community enhancement: socio-cultural benefits
Weaknesses	<ul style="list-style-type: none"> – no vision: uncertainties in direction, lack of understanding or cohesion in the destination community; – preparedness: lack of plans, training needs, funds, alternative priorities
Threats	<ul style="list-style-type: none"> – environmental impacts: increased use of resources, waste; – cultural degradation: daily lives, customs and practices disrupted; – poor quality: tourist dissatisfaction, lack of standards; – external threats: regulations, travel security, environmental impacts

Source: own elaboration.

SWOT analysis presented in [Indicators of Sustainable Development 2004: 34] and included the following elements of Strengths, Weaknesses, Opportunities and Threats for further analysis (Table 1).

After thorough analysis of the data obtained through the survey and from the official statistics, we received the following results:

5.1. Strengths

5.1.1. Destination assets: Local and complementary attractions, historical and cultural assets

Lviv is more than 760 years old and it has numerous monuments of historical and cultural value. It is often referred to as the capital of scientific, spiritual and artistic life of Ukraine. Today the city has an area of 182.01 km and is situated in the western part of Ukraine 70 km from the EU border and 160 km from the Eastern Carpathian Mountains. The city has old and rich history. It was founded by King Danylo Halytskyi in the 13th century. Situated on the crossing of two profitable trade routes, Lviv developed and flourished rapidly and became one of main trade centers of the Medieval Europe. While being a part of different

countries, Lviv borrowed numerous elements of culture and know-how from its occupants which eventually provided for its transformation into an architectural gem with a unique combination of Western and Eastern cultures and architectural styles. Here one can find unique samples of Ukrainian, Polish, Armenian, Jewish, German, Austrian and other cultures within a span of a 10-minute walk. In 1998, Lviv's historical center (120 ha) was included into the UNESCO World Heritage list. In 2009, the city was named Ukraine's cultural capital. The majority of Ukraine's historical and architectural monuments, 2,500 in total, are in Lviv. There are about 60 monuments of Renaissance, Baroque and Classicism styles in the city. Lviv is famous for the beauty of its cathedrals and variety of their styles. There are about 120 operating churches in the city. In June 2001 Pope John Paul II served the Byzantine rite Liturgy in Lviv for 1,500,000 people. It became the event with the largest number of participants in Ukraine.

Three top tourist attractions of Lviv include the Rynok (Market) Square with the Town Hall, The Opera House and the High Castle. Rynok Square has been the centre of political, public, cultural, and commercial life of the city for 500 years; it is the heart of Lviv, the setting of the historic beginning of the Europeanization of Ukraine. Surrounding it are about fifty unique architectural monuments dating back to the 16-20th centuries. The highest point of Lviv called "High Castle" is the place where one can will find the ruins of ancient Lviv defensive walls and a great observational point with the view on the whole city. The Lviv Opera House is an architectural gem built in the Neo-Renaissance style. Designed by architect Zygmunt Gorgolewski and constructed in 1901, the Grand Theatre in Lviv was compared to the Paris and Vienna opera houses. The interior of the Lviv Opera House is no less amazing than the exterior. The internal decorations are gilded, adorned with marble of various colors, decorative paintings, and sculptures. The four-circled lyre-shaped hall, remarkable for its perfect acoustics, accommodates over a thousand people. Embellishing the stage, the decorative curtain Parnassus (1900), painted by Henryk Siemiradzki, represents an allegorical image of the meaning of life in the Parnassus figures. On offer are performances by celebrated opera and ballet troupes of Ukraine as well as distinguished guest performers from abroad. The Lviv Opera House is the host venue for the recently revived Vienna Balls.

Apart from these three most frequently visited sights, the top ten of the most renowned historical and cultural monuments of the city include:

- The Armenian street with its unique architecture that portrays the original spirit of Eastern Christian culture;
- The Palace of Counts Potocki – a majestic edifice in French Neo-Renaissance style of the late 19th century housing the exposition of Lviv Art Gallery. European art of the 14th-18th centuries is represented by the best works from the Gallery's collection: the 15th-century Ukrainian icon of St. Paraskeva, paintings

by M. Basaiti, J. Zucchi, S. Ricci, J.-E. Lyotard, J. Guerin, and F. Goya. The palace often hosts conferences, presentations, chamber concerts, and political meetings;

- The Chapel of the Boims family – a famous and unique late Renaissance monument; which has no analogues, either in Ukraine or in the rest of Europe. The building, designed by Andrzej Bemera, a constructor from Wroclaw, was consecrated in 1615;

- The Lychakiv Cemetery, classified as a historic and cultural museum and heritage preserve. It was officially founded in 1786 by the new Austrian government in Lemberg (Lviv);

- The Dominican Church, now the Greek Catholic Church of the Holy Eucharist – a magnificent monument of the late Baroque with an alabaster gravestone dating back to the 16th century – a reminder of the old Gothic church that vanished 260 years ago;

Table 2. Tourist Assessment of Lviv's major attractions

Tourist attraction	Points out of 100
Rynok Square	78
High Castle	37
The Lviv Opera House	35
City Council	34
Dominican Church	34
The Korniyakt Palace	27
Armenian Church	23
Saint George's Cathedral	22
Latin Cathedral	20
Lychakiv Cemetery	19
The Arsenal	17
Chapel of the Boims	14
Bernardine Monastery (now the Greek Catholic Church of St. Andrew)	13
Gunpowder Tower	12
Pharmacy Museum	10
Open-air Folk Architecture Museum "Shevchenkivskii Hai"	10
Night city excursions	10
Ivan Franko National University of Lviv	9
Castles around Lviv (Golden Horseshoe)	6
Rus'ka Church architectural complex with The Korniyakt Tower	6
Underground passageways	5
Museums	5
Other	4

Source: own elaboration.

- The Bernardine Monastery (now the Greek Catholic Church of St. Andrew) – an impressive monument in the Renaissance, Mannerism, and Baroque styles dating to 1600-1630s that used to be a fortified medieval monastery;
- The Kornyakt Palace – an extremely valuable Renaissance monument dating to 1580 that belonged the wealthiest medieval citizen of Lviv – merchant Constantine Kornyakt.

The aforementioned attractions obviously enjoy high frequency of tourist visits. According to the information obtained during our survey the attractiveness rates held among the city's main sights are as follows (Table 2).

At the time when our survey was conducted, some tourist attraction did not exist. Among them the memorial to Lviv's beer traditions Lvivarnya that has recently been opened and now enjoys considerable tourist interest. In 2005, the employees of the brewery compiled the first exhibition in Ukraine's only (at that time) museum of the history of brewing. After renovation, it has become the modern museum and cultural center created thanks to the joint efforts by prominent historians, designers and brewing experts.

Lvivarnya is one of the top-notch museum complexes that has no parallels in Ukraine. The idea behind the exhibition and the wording of tours is straightforward: Lvivarnya has collected everything of interest that has to do with either Lviv or beer. Some exhibits are interactive and playable, such as the living engraving, the shadow theater and the 3D-hologram. The exhibition visitors can immerse into the brewing process and make their own variety of beer. From 2017, the third floor of the museum accommodates a powerful cultural complex with an art center for hosting exhibitions and concerts, as well as a business center for conferences and forums.

5.1.2. Events and festivals

Carefully preserving the historical heritage, citizens of Lviv have always done their best to demonstrate their keeping-with-the-times. It is in Lviv where traditional celebration of the holidays has received the new format of various themed festivals. The city produces the majority of new art and modern culture trends in the country, as well as the ideas for various interesting entertainment. Over fifty different festivals are listed on the Lviv Calendar of Events. Some festivals gather up to 50,000 tourists. The most popular are the festivals of classical music and jazz, coffee and chocolate, festival of the street arts. Eight of Lviv's festivals are in the top-100 best festivals of Ukraine. Below is the list of top 10 touristic events regularly taking place in the city:

- National Chocolate Festival,
- Lviv Coffee Festival,

- “Easter in Lviv”,
- Lviv Beer Festival,
- Lviv Cheese and Wine Festival,
- Jazz Festival,
- Easter Egg Festival,
- Lviv Doughnut Festival,
- Christmas Fair,
- Easter Fair.

5.1.3. Destination assets: Infrastructure and support services

Restaurants. The local cuisine is a mixture of traditional Ukrainian, Polish, Austrian and Armenian dishes. There are about 1,500 restaurants, coffee shops and confectionaries in the city.

Tourist accommodation infrastructure. Among the officially included in the City Council register are 87 hotels (excluding hotels located around the city) with total capacity of over 6,000 people per day, representing all categories. Among them are 3 five-star, 19 four-star, 36 three-star, and 19 two-star hotels. The presented statistics does not include all hotels in Lviv since some hoteliers do not report to the local authorities about their businesses and do not register them at Ukrainian and international hotelier web sites. The number of hotels in the city is growing: nine hotels are currently under construction.

Apart from hotels, visitor to Lviv often choose to stay in hostels and rented apartments. The official number of hostels is 73, although their actual number is around 300. According to the data obtained in our survey in 2016, 24.2 % of incoming tourists preferred to stay in hotels, 25.2 % stayed with their friends or relatives, 11% chose hostels, and 22.7 % rented apartments.³

Transport. Danylo Halytskyi International Airport “Lviv” is the biggest airport in Western Ukraine according to passenger flow and destination network. It is a brand new airport that opened on April 12, 2012 and can accommodate 50 incoming and outgoing flights per day and bear a daily passenger load of 150,000 people. A growing number of international airlines fly into Lviv including Austrian Airlines, Lufthansa, Turkish Airlines, LOT Polish Airlines and others. The New Terminal A with the total area of 47,233 m² has 9 departure gates, 4 air bridges, 28 check-in desks, 11 passport control checkpoints, 12 aviation security control checkpoints, 15 airline offices, VIP-lounges for the passengers of international and domestic flights, 2 modern Duty Free shops, 2 parking lots with a total

³ Lviv Travel: <http://Lviv.travel/ua/index/wheretostay> [access: 22.11.2018].

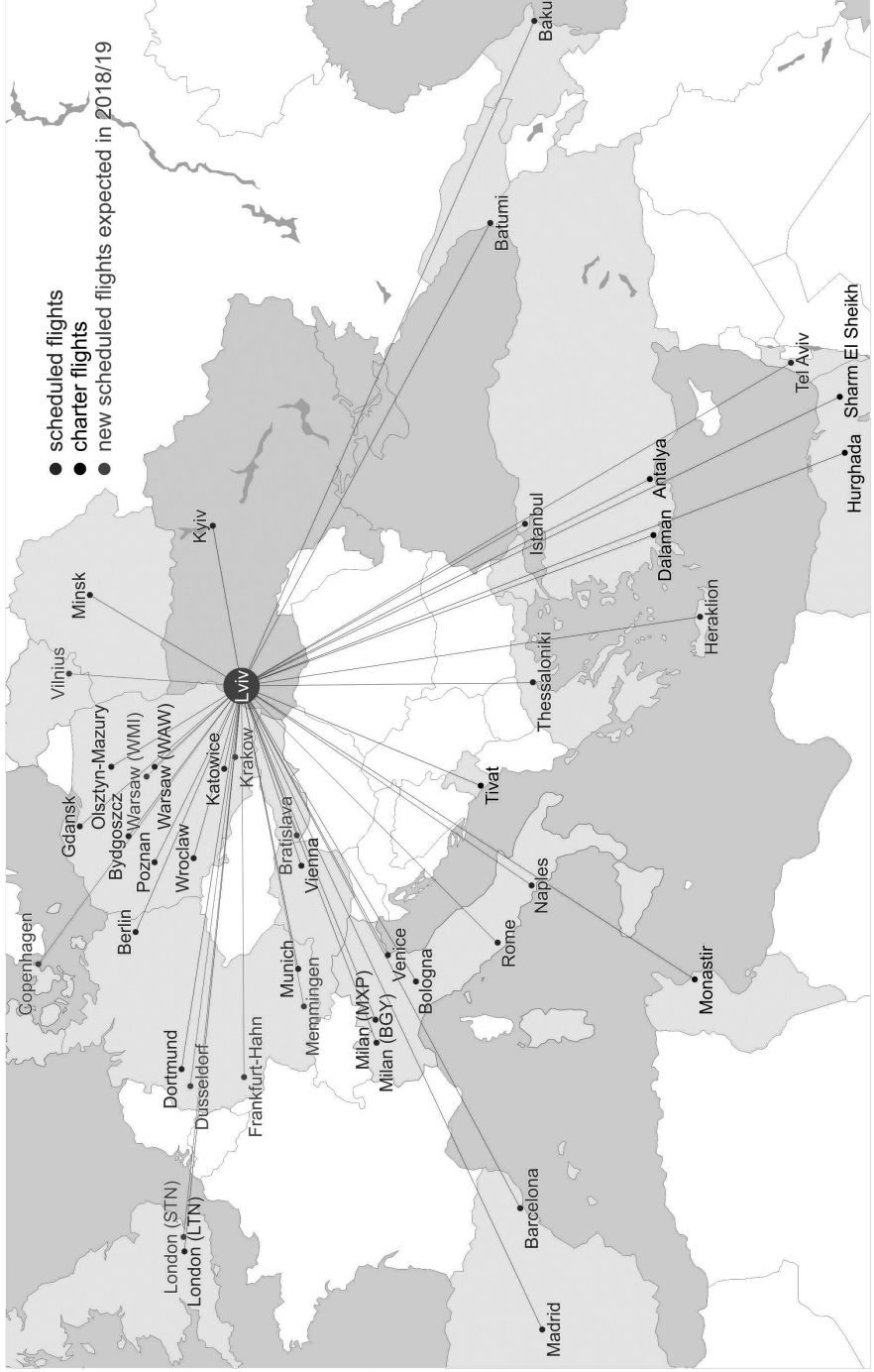


Figure 1. Direct international regular flights from Lviv airport

Source: City Institute: <http://city-institute.org/index.php/en/> [access: 22.11.2018].

of 623 parking spaces, 2 conference rooms. The airport is only 7 km from Lviv city center. Figure 1 presents the map of direct international flights connecting Lviv with other cities of the world.

Lviv was the first city in Ukraine with its own railway. The first train arrived in Lviv from Vienna on November 4, 1861. Today, Rail travel offers international connections to Slovakia, Hungary, Poland, and Russia with direct trains going to a number of European capitals such as Warsaw, Prague, Bratislava, Budapest.

Medical care infrastructure. Medical care can be provided to travelers by both local and American Medical Centers. The latter are represented by AMC Assist Lviv and offer the following services:

- 24/7 emergency medical assistance and on-call consultations;
- medical evacuation by air ambulance, hospitalization referral and coordination;
- referral and accessibility to Europe and the US's top international centers of medical excellence;
- direct insurance billing to most national and international insurance groups – more insurance partners than any private clinic or hospital in Ukraine;
- affordable annual health plans designed for individual or corporate patients;
- world-class team of national and international specialist consultants and elective surgery second-opinions.

Destination accessibility. The issue of access to destinations and attractions for those with impaired mobility is a rapidly growing concern, as older persons and those with disabilities become a larger part of global tourism. One of the most rapidly growing demographics is the sixty and over group, many having more time and discretionary income than other groups. Thus demands for access, even to places which have not been easy to climb or traverse, are growing. An international effort to remove barriers to those with disabilities is reinforcing this demand [Indicators of Sustainable Development 2004: 90].

Following the strategy of increasing the city's competitiveness, new tourist offerings to people with disabilities have been introduced in Lviv since 2017. In particular, the non-profit organization "Ukrainian Community of the Disabled" received 20,000 UAH for the improvement of tourist offerings for the blind. The money has been used to:

- develop 5 bus and walking tours for people with visual impairments;
- 11 tourist guides have been trained to use the technique of audio description;
- book "Historical walking tour of Lviv" by Ivan Krypyakevych has been recorded and thus became accessible to the blind;
- small-scale copies of three most popular cultural monuments, namely the Saint George's Cathedral, The City Council Building and The Monument to

Taras Shevchenko, along with their brief description in Braille symbols have been placed near the original sights to make the latter available for “observation” to visually impaired visitors.

Support services. Informational tourist support is provided by Lviv Tourist Information Center (TIC) whose offices are located at Danylo Halyts’kii Airport, Central Railway Station and in the very heart of the old town – at 1 Rynok Square. Lviv Tourist Information Center has a professionally designed highly informative website that is regularly updated and has an English version available. Besides, officers of the Centre, who speak five languages, willingly provide tourists with any information in a face-to-face mode. Due to the high level of service provided at Lviv Tourist Information Center it was selected as the meeting place for TIC experts. Thus, on October 25-26, Lviv hosted European Cities Marketing Tourist Information Centers Expert Meeting (ECM TIC Expert Meeting) that was attended by 72 participants from 26 countries.

One of the recent benefits offered to visitors is the digital tourist Lviv City Card. Many European cities having tourist cards on offer have not launched its digital version yet. Lviv City Card can be acquired at one of the Lviv TIC offices and is available in 3 variations: for 24, 48 and 72 hours. The Card enables its holders to visit city museums, ascend the City Hall Observation Tower, take a sightseeing tour and use public transport free of charge; it also gives discounts at city’s restaurants, cafés and ethno-shops. In addition, a SIM card of Lifecell mobile communication provider is given as a gift.

Table 3. Search engines used by tourists visiting Lviv

Search engine	Frequency of using (%)
Google, Yandex, and other search systems	69,3
Facebook	16,4
Lviv.travel	10,0
Instagram	6,9
touristinfo.Lviv.ua	5,4
AfishaLviv.net	5,1
Booking.com	3,9
Trip Advisor	2,4
Everplaces	1,0
Couchsurfing	0,7
Pinterest	0,3
Other	2,5
No internet sources	18,1

Source: own elaboration.

In our survey, we collected data about the frequency of using various search engines by travelers in order to find information about Lviv as tourist destination. We found that the majority of respondents used Google and Yandex. The information obtained also shows that representatives of the younger segment of the tourist market gave their preference to Facebook and Instagram (Table 3).

5.1.4. Community support: active participation, common objectives

Lviv City Council is in charge of planning, management and monitoring processes connected with the city's tourism industry development. The Department of Tourism in cooperation with the Department of Culture perform the main representative functions. Community members are actively involved in these processes through the Community Tourism Board.

Lviv commercial communal enterprise "Lviv Tourism Development Centre" was established by Lviv city council in accordance with the decision of the City Council of 10/23/2008 № 2137 and is subject to the Office of Tourism of Lviv City Council. Its main goals are as follows:

- to increase tourism attractiveness of the city;
- to promote social and economic development of the city through streamlining and development of tourism as a priority economic activity;
- to provide tourist information services.

The last goal is achieved by means of Tourist Information Centre, which is a division of "Lviv Tourism Development Centre" established in September 2009.

Workforce: availability, skill levels. A number of post-secondary and higher educational institutions offer junior bachelors', bachelors' and masters' programs in tourism industry. Among them are Ivan Franko National University of Lviv; Lviv Polytechnic National University and its subsidiary Vyacheslav Chornovil Institute of Ecology, Nature Protection and Tourism; Stepan Gzhytskyi National University of Veterinary Medicine and Biotechnology in Lviv; Lviv State University of Physical Culture; Lviv Institute of Economy and Tourism; College of Ecology at Lviv National Agrarian University, and Lviv Community College of Hospitality and Catering Services.

During 2017, a number of educational and scientific events were held in Ukraine to promote continuous education and professional growth of faculty involved in teaching tourism-related disciplines as well as tourism industry workers. These included: OTBF, Odessa, (April 6-7); International Conference on the Improvement of Statistical Methods in Tourism and Implementation of the Satellite Count System Recommended by UNWTO, Kyiv (October 3-4); Lviv Tourism Forum & Tourism Information Centers Forum, Lviv (October 18-20);

HoReCa Show, Lviv (November 1-3); Tourism Business Forum, Zaporizhia (November 16-17). Employees of Tourism Department at Lviv City Council, educators and administrators also participated in numerous international conferences, workshops and other forums including ECM Spring Meeting, Gdansk, Poland (February 22-25); ECM City Cards Expert Meeting, Vienna, Austria (October 5-6); ECM TIC Expert Meeting, Budapest, Hungary (October 26-27); 3rd Industry Forum, Karpacz, Poland (December 7-9).

It is worth mentioning that a number of important professional development events in tourism industry are held in Lviv. For example, Lviv Tourism Forum & Tourism Information Centers Forum, which took place in October 2017 and lasted for three days, involved 250 hospitality industry experts from 16 regions of Ukraine. The event was held in two venues: Museum and cultural complex of brewery history “Lvivarnia” and Metropolitan Andrei Sheptyts’kii Centre. Among other events were projects “Hospitality Recipes”, “Lviv: From legends to historical facts” and B2B-Networking. The latter gathered about 100 participants who attended 77 meetings organized in June and December.

Tourism industry workers as well as local population are continuously kept informed about educational and developmental events, industry news, tourist exhibitions, tourism projects organized by Lviv City Council, polls and surveys, etc. Local tourism businesses have an opportunity to spread their promotional materials and introduce business initiatives at fairs, exhibitions and other events held in Lviv and abroad.

Management capacity: skill levels, funding available. Due to skillful management of tourism in the city, Lviv now occupies high positions in various tourism rankings. Here are some of them:

The Telegraph, Great Britain – 5th position on the list of 12 places in the world which are highly recommended to visit

The Independent, Great Britain – 2nd position on the list of 26 European cities where one can live on less than £600 per month.

Business Insider, USA – 1st position on the list of 12 least expensive recreation destinations in the world in 2017

Lviv tourist information center has been awarded with the Certificate of Excellence from Trip Advisor for three past years concurrently.

5.2. Opportunities

5.2.1. Economic opportunities

Tourism industry is a complex branch of economy and includes 24 industries related to tourism product creation. Recently, the number of tourists visits has

been growing and in 2017 it reached 2,6 million visitors out of which 1,75 million stayed over 2 days. A trip to Lviv is relatively cheap, for example: An average cost for a trip constitutes EUR 171; total expenses during the stay in Lviv (per one person) – EUR 120.6; family expenses (two adults and children) – EUR 264.86; average daily expenses (per one person) – EUR 47. Accordingly, with the increase in the number of visits to Lviv, the income to the city budget is growing. Thus, compared with 2016 the amount of collected tourist tax rose by 24% in 2017, which resulted in 1.8 fold growth of income to the city budget. In 2017, visitors to Lviv spent EUR 615 million in total.⁴

5.2.2. Product and market opportunities

The successful development of tourism in any locality relies on the support of major tourist brands, or tourists associations with the destination. The main associations of visitors to Lviv, according to the information obtained through our survey, are “coffee,” “architecture” and “chocolate.” Other associations include “beer,” “cobblestone,” etc. (Table 4).

Table 4. Key associations with Lviv

Associations	%
Coffee	48,2
Architecture	47,9
Chocolate	31,1
Beer	24,7
Cobblestone	22,8
Temples	22,8
Lion sculptures	21,3
Art	14,2
Festivals	8,8
Cycling	2,2
Other	3,0

Source: own elaboration.

Among the innovative associations with Lviv are the following:

1. Sightseeing tour by Wonder Train and Wonder Bus;
2. Cobblestone Freeway Tours Travel Show;
3. Smart Route “First time in Lviv”, created on the basis of the book by a Lviv historian Ilko Lemko, that stretches along 3.5 km and includes 15 sites marked

⁴ City Institute: <http://city-institute.org/index.php/en/> [access: 22.11.2018].

with plaques with QR code. Using free Wi-Fi, travelers can download the excursion over the place on their smartphones. The text is available in five languages: Ukrainian, English, German, Polish, and French.

5.2.3. Community enhancement: Socio-cultural benefits

The development of a sense of ownership and responsibility regarding sustainable tourism in host communities is a key issue for managers and planners. Neither of these elements is easily achieved in the short term without a strong focus on awareness building, engagement of community and ultimately, empowerment of the individual so he or she can recognize and understand the direct and indirect benefits of a sustainable approach to tourism and how to become involved. The key is a participatory approach that empowers the local community and the tourism industry so they can develop an appreciation and knowledge regarding local and individual issues and costs associated with developing tourism. That way the awareness and responsibility can be an outcome of the planning process.

Twice a year free mass tourist events take place in Lviv involving of a large number of tourist attractions. The first period falls on May, and the second is timed to the World Tourism Day on September 27. Both guests and local residents of the city enjoy socio-cultural benefit from activities. In the framework of this year's Museum Day in Lviv, which was celebrated on May 18-31, 2018 – 2,000 people visited various museums free of charge. Then, for the first time, the Museum of the City, located in the Town Hall dungeons, opened its doors to visitors. The organizers held an interactive project including a number of workshops, which demonstrated to visitors the future of this cultural and educational space. Guests were encouraged express their ideas of what a perfect museum should be like and vote for them; they also had an opportunity to create their own mini-exhibitions and feel like authors and organizers of the event. Within three days the Museum of the city was visited by almost 600 people. From May to November 2018, the Museum of the City held a number of events, including exhibitions, lectures, master classes, discussions, excursions, film shows, etc. Here comes the list of the most prominent events: Interactive project "Museum, which doesn't exist yet," International Museums Day; "The 60th Year of Our Media Era," Workshop of the City; Guest exhibition from Lviv Museum of the History of Electrification; A Night in Lviv; The exhibition "Vanishing Towns" by Peter Smetana; Days of European Heritage in Lviv; Olga Babak's exhibition "Changing Reality," a Meeting with organizers of the Museum for Change. In total, about 1,570 people took part in all events held by the Museum of the City.

The other period of free mass tourist events is September. It begins on the first September weekend with the famous European Heritage Days. In 1991, the Council of Europe launched European Heritage Days. Since then every September in countries that have joined the European Cultural Convention, little-known buildings open their doors to visitors to unveil the secrets hidden behind their facades. The main goal of this activity is to draw attention to the cultural heritage and its role in the development of modern society. Each year, European countries choose a topic and organize various events under a common slogan. Lviv has participated in this European action for the last two years. The Days of European Heritage in 2017 were held under the theme: “City Pulse: Factories, Hospitals and Educational Institutions” and lasted for three days (September 8-10). During that time, 45 events took place, in which 40 initiative guides, historians and 35 volunteers took part. About a thousand of local residents and guests of the city actively participated and supported the events.

This year’s Days of European Heritage in Lviv were held under the theme “From Crafts to Professions: The Legacy of those who create Lviv,” which included 75 free events. The Day of Tourism that takes place on September 27 is also traditionally marked by free events. The World Tourism Day in Lviv in 2018 included a program of 19 events and an action with free entrance to the Town Hall. Fifteen initiative guides conducted excursions and quests, which were attended by about 500 people. People who visited the Tourist Information Center on that day were able to take part in a win-win lottery and win gifts from partners of the event.

In addition to the above-mentioned two major socio-cultural events of the year, a number of other cultural events, which leave cultural values to the Lviv community, are held in the city. With the support of the City Council Tourism Department, on August 25-27, 2018, the Graffiti Festival “Alarm” was organized. It was attended by 60 artists from all over Ukraine who painted drawings in graffiti style in two locations. As a result, Lviv obtained 800 m² of painted walls and 70 graffiti drawings. NGO “Institute of Social Initiatives,” the winner of the competition initiated by the City Council, implements the project of creating a tourist route that covers the city’s street art masterpieces. The financial support of the project amounted to UAH 65,000. The city community has benefitted from the project by receiving 6 new painted murals in Pidzamche and a guidebook to the new tourist route “LvivWalking” including a total of 25 murals.

5.3. Weaknesses

Today, the main weakness of the development of tourism in the city of Lviv is the lack of a strategy for the development of tourism industry in the framework of the overall Strategy of City Competitiveness. Others include uncontrolled

building, excess of cars and traffics congestion, limited space for tourists. Today's weaknesses may become real threats to the existence of tourism in the future and it constitutes the main challenges to the city administration and tourism business.

Uncontrolled and often illegal property development is a major threat to the historical heritage of the city. Developers try to use every plot of land within the central part in the proximity to the City Hall for the construction of office blocks with the view of selling that at a maximum profit. This situation creates an excess load on the infrastructure of the downtown area that performs the functions of an administrative, business, cultural and tourist center as well as traffic hub.

If the central part loses its image, Lviv will lose its concept as a tourist city. The unordered legal status of the historic center creates legal chaos and prerequisites for illegal construction. Almost the entire Halyts'kii District is a UNESCO world heritage site and a buffer zone around it. Most of the new high-rise buildings, which are currently constructed or planned in Lviv, appear in the buffer zone. Such a situation with illegal building could lead to the abolition of the status of the UNESCO memorial for Lviv unless urgent measures are taken by the city authorities to fulfil their obligations to the World Heritage Committee and take care of preserving the historical part of Lviv.

Excess of cars and careless parking are the main reasons for congestion in the city center. Reducing the number of cars can be achieved by increase of the cost of parking. The city authorities intend to create parking areas around the center, so that people could leave their cars there and walk or use public transport further on. In future, the Southern bypass road that will connect residential areas will redirect traffic from the center and partly unload it. Part of the administrative offices can be moved from the center to other parts of Lviv. Constructing underground parking lot could be an effective solution to the congestion problem. The authorities have declared their intention to build such parking areas in three location: Petrushevich Square, the square in front of Lviv National University of Franko and Dvirtseva Square. However, no construction works have started yet. The problems that exist today must be solved so that they do not hinder the development of tourism for the future.

5.4. Threats

It's hard to draw a distinct line between weaknesses and threats – it's a very dynamic process. Problems that have not been solved in time develop into real threats to the community and the environment. According to our survey, 43.8% of visitors to Lviv did not mention any negative aspects of staying the city. However, this situation might be very unstable if we do not take measures to improve

Table 5. Negative sides of tourism service in Lviv destination

No.	Negative aspects	%
1	No downsides	43,8
2	Many gypsies and homeless people on the streets	8,0
3	Litter on the streets (lack of garbage bins)	6,8
4	Poor state of roads	6,0
5	Lack of public toilets	5,2
6	Unsatisfactory state of architecture	5,2
7	Unsatisfactory state of public transport	4,4
8	Lack of parking spaces	3,2
9	High food prices	3,2
10	Lack of round-the-clock stores	2,8
11	Lack of green spaces	2,4
12	Lack of recreational spaces	2,4
13	Lack of public city maps	2,0
14	Lack of English-language information	1,2
15	Too much advertising	1,2
16	Lack of cultural events	0,8
17	Lack of ATM	0,4

Source: own elaboration.

the infrastructure which ensures the functioning of the tourist sphere. Some aspects of stay in Lviv caused tourists dissatisfaction (Table 5).

Nowadays, the main threats to the city sustainability consist in: a) runaway of local inhabitants from the historical part of the city resulting in the loss of its unique identity; b) overloading of the existing infrastructure, which cannot serve the increasing numbers of visitors any more, c) the increased use of resources and the problem of wastes disposal.

Tourist satisfaction as the key indicator of the destination sustainability.

Tourist satisfaction is central to whether tourists return, recommend the destination to others or conversely advise others to stay away. It is therefore a leading indicator of the longer-term sustainability of a destination. Tourist satisfaction is based on many different factors, including the range of attractions of a destination, its market positioning, the quality of services, the expectations of tourists, and the experiences of each tourist during their stay.

In order to determine tourist satisfaction level with visit to Lviv we asked respondents in our survey to evaluate various aspect of their visit including beauty of the city, its architectural, historical and religious attractions, general atmosphere and hospitality of local residents, accessibility of tourist information, quality of accommodation facilities, restaurants, food and local cuisine, security, roads and pub-

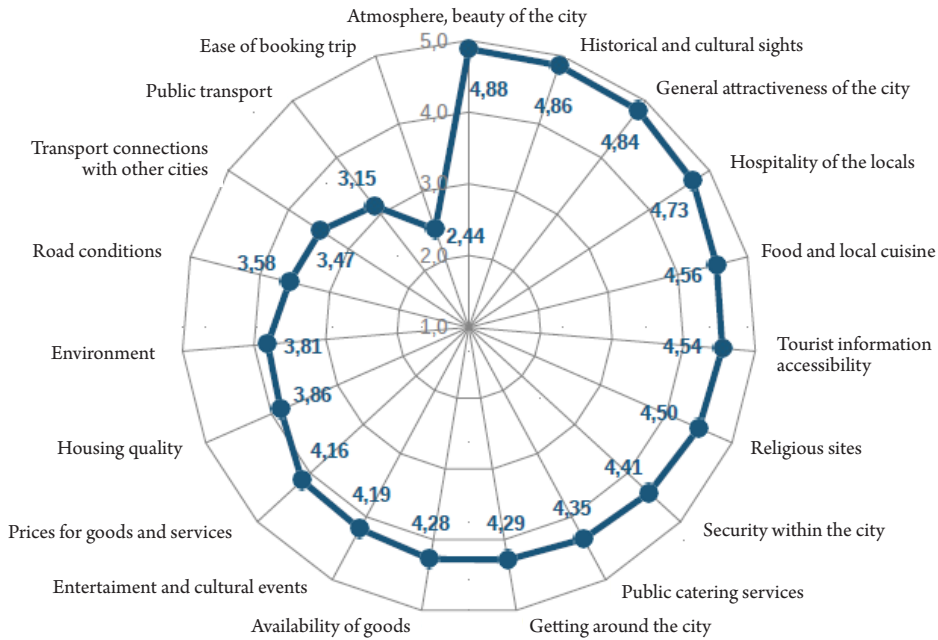


Figure 2. Tourist assessment of various aspects of visit to Lviv by 5-point scale

Source: own elaboration.

lic transport, etc. We used a 5-point scale where 1 stood for “completely dissatisfied,” and 5 for “completely satisfied.” Most of the aspects of travel to Lviv included in the survey questionnaire received high appreciation by the respondents (above 4 points within the scale of 5) (Figure 2). Moreover, 95 % of the respondents expressed their desire to visit the city again, and 98.5% will recommend their friends or relatives to visit Lviv.

Index measuring tourist attractiveness of the city and index measuring visitor satisfaction with tourist services are key indicators showing the effectiveness of the Strategy of the city competitiveness. The former was calculated as an average value of such sub-indicators as atmosphere, beauty of the city, historical and cultural sites, religious places, hospitality of the locals and overall attractiveness of the city and constituted 4,64. The latter was formed on the basis of the average value of such sub-indicators as public catering services, housing quality, public transport, road conditions, tourist information accessibility, ease of booking the trip, getting around the city, security within the city, etc. and constituted 3,99.

6. Conclusions

The analysis of tourism sustainability indicators of Lviv urban destination showed that tourism industry here is at the development stage and has the potential to increase economic indicators of profitability. The use of SWOT analysis has given the opportunity to classify the strengths and weaknesses of the development of Lviv destination, as well as highlight the problems that need to be addressed in order to prevent the process of transforming the destination development into its degradation.

The main indicators of sustainable tourism development in Lviv: economic, ecological and social have been analyzed. They showed a significant contribution of the tourism sector to the economic complex of the city. Thus, tourist spending in Lviv, which amounted to 615 million euros in 2017, has been distributed among the hotel, restaurant and entertainment sectors, forming the bulk of the income for Lviv residents involved in the tourism business. The social benefit for the local inhabitants, in addition to salaries and wages, includes an opportunity to lead a cultural life, which is very rich in events due to the development of the Tourism Development Strategy by the city authorities. The implementation of the Strategy has enabled to eliminate the dead season from the city's tourist calendar: summer festivals compensate for the break in the theatrical season, and wintertime is dominated by numerous international business exhibitions. Recently, the city's transport system has improved: new buses and trams have entered the routes, which has significantly increased the level of comfort in public transport for local residents and guests of the city. Improvement of the natural environment has also become possible due to the increments to the budget through tourist tax, which constitutes a significant contribution to the city's economy. The lion's share of the budget has been used for cleaning up and landscaping the streets of Lviv and its park areas.

In our study, we found that the main indicator of the tourist destination sustainability – the degree of tourist satisfaction – is very high. Nevertheless, it can be improved through the increase of availability of Lviv city tourist attractions to all segments of tourism product consumers without exclusion.

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Analiza SWOT oraz kluczowe wskaźniki trwałości Lwowa jako destynacji turystycznej

Streszczenie. W ostatnich dziesięcioleciach wzrosła atrakcyjność turystyczna Lwowa. Zwiększająca się liczba turystów przyczynia się do rozwoju społeczno-gospodarczego i kulturalnego miasta. Jednocześnie prowadzi do negatywnych skutków w postaci naruszenia równowagi rozwojowej. Skuteczne długoterminowe zarządzanie rozwojem turystyki w mieście wymaga systematycznego monitorowania obszarów problemowych i wskazywania koniecznych zmian. W artykule zaprezentowano wskaźniki zrównoważonego rozwoju, które mogą być wykorzystane do planowania i zarządzania rozwojem turystyki w Lwowie. Na podstawie analizy SWOT oraz badań ankietowych określone zostały kluczowe wskaźniki trwałości destynacji. Przeprowadzone analizy pozwoliły określić wskaźniki atrakcyjności Lwowa jako destynacji turystycznej oraz zadowolenia z lokalnych usług turystycznych.

Słowa kluczowe: analiza SWOT, miejska destynacja turystyczna, wskaźniki zrównoważonego rozwoju, wskaźnik satysfakcji turystycznej, wskaźnik atrakcyjności destynacji

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Sustainable Development of the Urban Agglomeration through the Creation of an Urban Network of Protected Areas: Case Study of Kyiv City Urban Ecosystem

Abstract. The need for improvement of the environment quality at the territory of cities is directly conditioned by its impact on the health of humans. At the same time humans are not the only residents of urban ecosystems, but they are also inhabited by other organisms, using city as their habitat. The growth of cities is a stable trend of the modern times and it comes into conflict with wildlife living activity and quality of environment. Sustainable development of cities is impossible without environment protection, economic progress and benefits for local communities, therefore the creation of protected areas groups within the city of Kyiv is offered as an instrument for biodiversity support and urban ecosystem stabilization. The most important requirements to the sites to be included into the system of protected areas have been formulated. The first two cores are developed based on small lakes, which are characterized with environmental, recreational and wildlife support potential. The benefits from the creation of the urban network of protected areas have been defined for urban ecosystem and social and economic situation in the city.

Keywords: urban environment, eco-network, protected areas, lacustrine ecosystem

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1. Introduction

The current intensive development of cities and adjoining settlements accelerates the degradation of natural components of urban ecosystem. Eventually it leads to the reduction of living conditions quality and imposes threats to human health due to growing pollution of the atmospheric air, water bodies, soils and intensive electromagnetic and noise pollution. The residuals of natural biocenosis and artificially created green islands are intended for the support of environmental balance at the territory of the city. However, growing population and subsequent construction of new residential areas tread on the nature areas and they gradually vanish, thus living residents without contact with nature, recreation facilities, protection from air and noise pollution, regulation of microclimate parameters, and other living organisms loose their habitats and movement corridors. However, the issues of species conservation at the urban territories are given minor attention in the researches dedicated to the environmental impacts of cities. While green infrastructure of cities is under constant attention due to its obvious importance for the regulation of environment quality, especially atmospheric air pollution mitigation, animals of cities are usually given not much of attention. The major focus in this case is on the biological hazard control, but urban fauna is an important element of biogeocenosis, being a part of biota, which provides the circulation of matter and energy through this ecosystem. Therefore the stability of the urban ecosystem depends also on the viability and quality of both zoo- and phytocenosis, which depends on a range of factors, including quality of abiotic environment and integrity of habitats. So, the aim of this study is to analyze the condition of urban biota and offer the approaches to its support in terms of sustainable development of the city of Kyiv.

2. Biodiversity conservation challenges under urban conditions

While urbanization, agriculture, and introduction of species are all contributing to species endangerment, urbanization seems to be the most intensive impact [Czech et al. 2000]. The essence of the negative influence from the urbanization is the direct destruction of habitats by replacing them with urban facilities and buildings, and the degradation of natural resources quality so that they are not able to provide the needs and living activity of biota. The modeling results of most specialists show that urban areas will grow in the upcoming years: from the

current 55% the proportion of the world's population living in cities is expected to increase to 68% by 2050. Projections show that urbanization combined with the overall growth of the world's population could add another 2.5 billion people to urban areas by 2050, with close to 90% of this increase taking place in Asia and Africa [UN 2018]. In the latter regions the threat is especially serious, as these are mostly areas rich in biodiversity [Lenzen 2014]. As a result by 2030 most population will live under the condition of so called "biological poverty" [Turner et al. 2004]. Biological poverty occurs when urban citizens experience below-average levels of native species diversity on a daily basis [Clergeau et al. 2001; Turner et al. 2004]. Combating poverty and provision of environmental safety to all citizens are among the tasks of sustainable cities. So, the efforts must be invested in the support of the habitat profile of cities to make them really sustainable.

Thus, urban and suburban development leads to huge conservation challenges [McKinney 2002]. As it was already mentioned, urban sprawl increases local extinction rates and the rates of native species loss due to replacement with alien species [Marzluff 2001; Blair 2001]. Scientists note, that the nature of disturbance from urbanization is similar to that from deforestation, but it is more permanent, and the affected lands have no chance to go back to previous conditions [McKinney 2002].

Still, urban ecosystems are diverse, and it is impossible to divide them into clearly anthropogenic and natural or habitable and non-habitable. Most cities are rather mosaics of artificial structures and conserved islands of native biocenosis. These elements are now full participants of the urban ecosystem with new interactions within the regional nature complexes of higher levels. So, it is impossible to apply approaches valid for technogenic systems or artificial plantations as agricultural fields to regulate the stability of urban ecosystems for the tasks of habitats protection and biota support. Consequently, research in this field must consider combined framework of various land use patterns and different level of pristine condition. It is also necessary to account that with passing time and economic progressing, the level of human manipulation with the nature increases, especially in cities [Pickett et al. 2001].

With increasing rate of urbanization and consequent loss of wild habitat land, cities are now viewed as potential sites for restoration and conservation of biotic communities and rich diversity [Shochat et al. 2010]. Consequently, urban environments should not be considered as lost wildlife habitat, on the contrary, if certain efforts are invested, these areas could become new habitats for species other than synanthropic. During the last decade urban ecosystems have therefore become a new component of concern for conservation and restoration, covered by a new discipline – reconciliation ecology [Miller & Hobbs 2002; Rosenzweig 2003].

The sustainable urban ecosystems with high diversity communities must also maintain high quality of abiotic components, such as clean air and water, waste management, and pest control [Sanderson & Huron 2011].

Maintaining ecological function of urban ecosystems can be provided by designing and managing landscapes in an ecologically sensitive mode [Marzluff & Rodewald 2008]. The principles of species conservation in connection with urban planning started to form with the works by Leedy and Adams [1984], Adams and Dove [1989], Soulé [1991], and Shafer [1997]. However, they mostly cover the technical solutions for species conservation in human-dominated habitats. In particular, they argue the perspectives of creating in-city reserves in biodiversity “hotspots,” based on native phytocenosis with communities of valuable macro vertebrates, all integrated with human community needs. A more realistic, but general approach offered was to restore shrub layers under urban forests and preserve small wetland complexes [Adams 1994].

Still, ecological studies of urban areas are on the rise now and they start to cover new components, except green plants. It should be noted that efforts aimed at conservation of animal species are of greater complexity as compared with vegetation. Animals are much less controllable due to their mobility and need more specific conditions to provide nutrition bases and behavioral patterns implementation. But really stable ecosystem must give these possibilities. The obvious answer is to concentrate on small animals, but the circulation of matter, which is a system forming process, cannot be provided under reduced scale and simplified hierarchy of interactions between the food chain components. Thus, the work should be done at a full scale for the good result.

From this point the most perspective is the support of the diversity communities at cities as they are in lower competition with the human needs and commodities. Therefore, research concerning birds in cities started to appear during the last quarter of the 20th century and results indicate that as development intensifies, bird communities lose their diversity, but the biomass grows [McKinney 2002; Donnelly & Marzluff 2004; Edgar & Kershaw 1994; Emlen 1974; Lancaster & Rees 1979; Turner et al. 2004]. Birds could also be used as bioindicators as they are active, respond to changes quickly and easily observable. Moreover, trends that work for birds may be good for other species of wildlife as well [Melles 2005]. It is possible to find studies about bird abundance and diversity in relation to ecological attributes, such as tree cover and impervious surface cover, composition, and number of tree species [Melles 2005], relationships between economic status of an urban neighborhood and its bird community [Donnelly & Marzluff 2004]. The research also shows that urban bird diversity is an indicator of human social and economic inequality, which is an important indicator of sustainability.

However, there are still many questions to be answered before the efficient management instruments for bird communities at urban areas will appear. For example, what are the ecological processes and interactions involved in maintaining an urban bird community (i.e., food availability, extinction dynamics, source/sink dynamics, predation, parasitism, disease, dispersal, adaptation); what are preferred mobility pathways under urban conditions (street trees or back yard lanes) and whether birds are ready to cross large open spaces? But even though there is not much information about mortality risks for crossing different land cover types and urban predators, or the relationship between diversity and the amount of impervious surface, or whether species of fragmented urban parks demonstrate population pattern, we can still conclude that the support of continuous habitats and creation of mobility corridors is the solution that will provide the necessary level of biological diversity and final stability of urban ecosystem.

3. Protected areas of urban areas

The term “protected area” is very general, covering a variety of names used for natural parks, green areas, reserves, etc. in countries around the world to mark the territory, which has been excluded from direct economic exploitation and is under protection for the purposes of biocenosis conservation. In other words, a protected area can be defined as a precisely delineated area subject to specific legislation aimed primarily at protecting the environment [Girault 2017]. To obtain the status of protected area, the ecosystem must have some environmental value. According to Ukrainian legislation the territory could be a candidate for protected area if it has natural complexes and objects of nature conservation, scientific, aesthetic and other value. Specifically, this territory must also be a habitat for the species under official protection of the state Red Book or any international agreements. Here it is seen that the protected areas are not compulsory those, which had no contact with humans and are really wild, on the contrary they are in many cases a merger between results of anthropogenic influence, which grant cultural and social value, and unique natural complexes of aesthetic and stabilization value for biosphere. If we need as much nature as possible to feel ourselves comfortable in a city, it is worth working on formation of protected areas within a city. Hence as C. Girault states, urbanity can incorporate naturalness and naturalness can incorporate urbanity [Girault 2017]. And the creation of urban protected areas is also the first step in cognition of fundamental principles of natural systems self-regulation and fusion of urban and natural. This process is expected to pave the way to the formation of a “naturbanity” [Rodary 2018].

From the practical point, protected areas in cities also serve utility purposes: some are treated as eco-zones for observation over natural processes, while others are regularly used for physical activities and more contemplative pastimes, the way they would use a public park. Therefore urban protected areas must be provided with public transportation and thereby integrated into the urban fabric. Moreover, in some cities nature areas are protected to improve their integration into the urban system, rather than to save them from the threat of predatory urban development. The diversity of their visitors and the activities for which the reserves are used reflect the diversity of the city [Girault 2017]. However, most cities contain a wide range of small natural islands, not considered real protected areas due to fragmentation; instead they form a sort of “archipelago” [Girault 2017]. The absence of the links levels down the significance of any number of protected areas.

To provide more sustainable and environmentally safe development of Kyiv urban areas it was offered to create a range of minor protected areas within the city, which would be both providers of environmental services (reduction of pollution, regulation of microclimate, recreation) and elements of regional and local eco-network. The core of such protected areas could be water bodies of any kind, and the authors offer to use lakes as the basis for the implementation of the proposal. It is possible to find numerous small water bodies with green areas attached at the territory of almost any city. Due to their small scale they are often disregarded and wiped out in the plans of new construction. Moreover, they are considered attractive elements for future buildings infrastructure and become built around, if not destroyed.

So, to protect these water ecosystems and let them work for good of urban population and wild or synanthrope species, it is necessary to choose the appropriate objects and press for their inclusion into the system of protected areas of any level. The important traits of the candidates, as the authors suggest, are presence of natural or artificial vegetation around the water body, water biocenosis, recreational and cultural value, habitat to any valuable species, sanitary condition. The first line of the plan must be formed of those objects, which possess all the mentioned characteristics, but are under the threat of construction.

The results of lacustrine ecosystems official protection will procure three major components of sustainability – environment, local communities and economic development (Fig. 1). Any new protected area is a stabilizing element for the urban ecosystem as it will be protected from exploitation and pollution. This way, residents will be able to enjoy another spot of safe environment, with reduced human health hazard. The improved tourist attractiveness of these territories will form the economic component of sustainability by providing incomes to the budget from controlled recreation. This will also create some new jobs for local residents and contribute to the improvement of environmental awareness

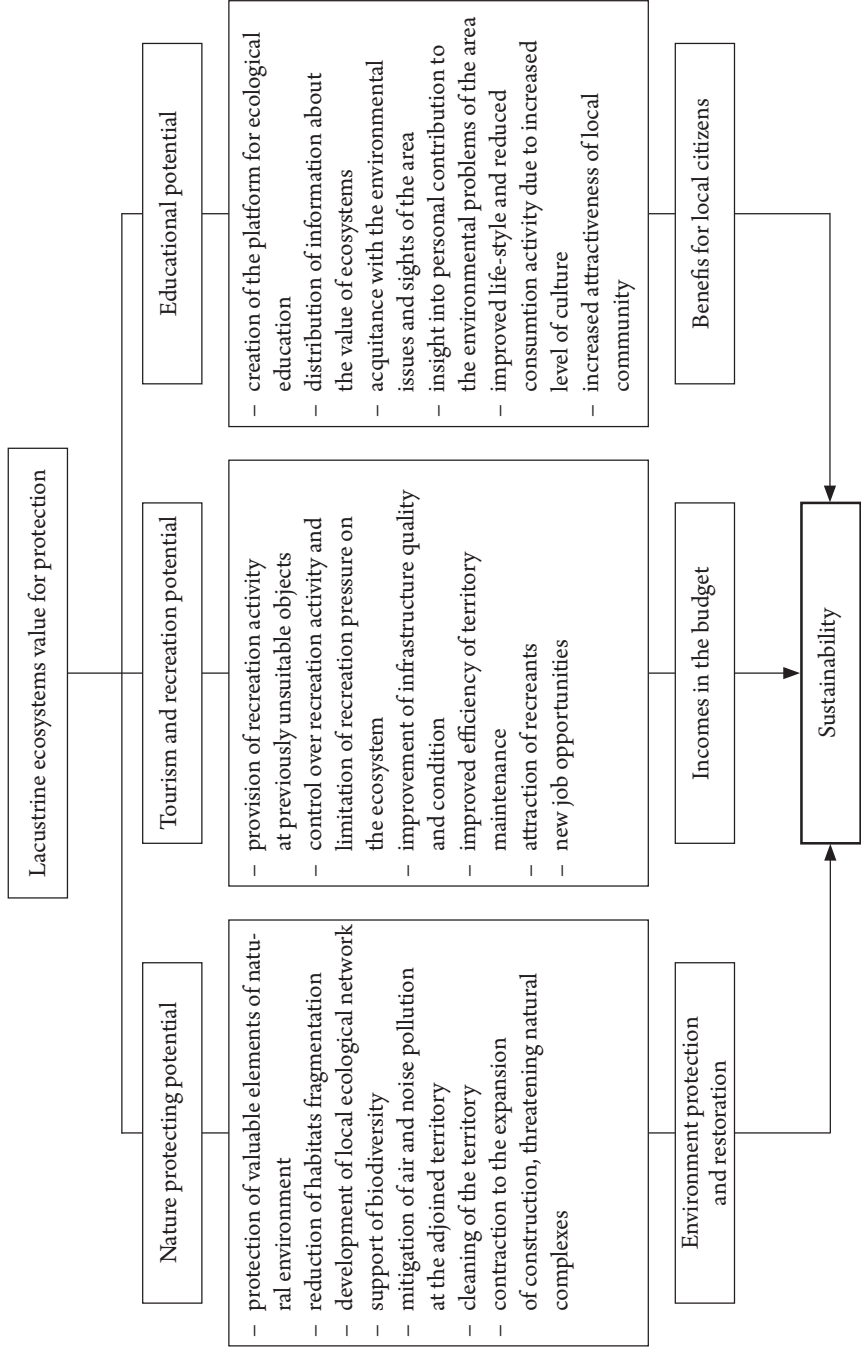


Figure 1. Contribution to cities sustainability from the protection of water bodies ecosystems

Source: own elaboration.

among population. Eventually budget filling, environment quality improvement and ecological education and recreation opportunities will all be valuable for local communities.

From the other point, these ecosystems will also benefit from the acquiring protection status: prohibition of construction; prohibition of waste storage; prohibition of hydrotechnical works; protection of soil cover; protection of phytocenosis; controlled recreation and active information policy, which will contribute to the support of the official nature conservation efforts.

4. Nature protecting potential of Kyiv city

Kyiv is the largest city in Ukraine. Taking into account the capital status of the Kiev agglomeration, a significant proportion of both domestic and foreign investments in construction and services are directed here. The processes of land allocation and development also take the fastest rate. Unfortunately, under modern conditions, new land allocation is possible exclusively at the expense of natural areas.

At the same time, Kiev remains the unique European capital, which has preserved significant areas of valuable natural complexes. Kyiv also has a well-developed hydrographic system, including 129 lakes, 102 ponds, 43 small artificial reservoirs, 37 springs, 9 rivers, 27 channels, 28 streams, 2 ducts and 24 bays. Within the boundaries of Kiev, the water area of the Dnieper and its tributaries occupies 5.6% of the city's territory in the form of 430 reservoirs, total area of which is 23.47 km² [Batog 2017].

Natural lakes are commonly found on the left bank. Basically, these are the oxbow lakes of the ancient riverbed of the Dnieper, which gradually migrated from the east to the west. The accumulated alluvial deposits were eventually compacted, which led to the formation of depressions, which later became lakes.

The high plateau of the right bank, dissected with beam and valley depressions, also includes significant number of ponds that were created and used by inhabitants of the city from ancient times. As a result, a range of natural lakes, significantly transformed by man, is located on the right bank of Kiev. The transformations are mainly caused by the extraction of sand for the construction of the residential districts and the creation of embankments for infrastructure (roads, subway, communication lines and power stations, etc) [Anakhov et al. 2018].

The reservoirs on the Right Bank are mostly single and small in size. The lakes of the Left Bank are usually larger, often forming groups; this is a good basis for the implementation of the idea to create continuous protected areas with the reduced level of defragmentation, which equals integrity of potential habitats.

The largest of the lakes in Kiev is Diamond. Its length reaches 3 km. It is located in the northeastern part of the city. The other large lakes are Redkine, Rainbow, Vyrlitsa, Tyagle; slightly smaller are Solar, Verbne, Blue, Telbin, Svyatoshinsky ponds. The smallest water bodies are Central, Glinka, Orikhuvatske, Didorovsky and the system of ponds in the park "Crow grief." The lakes Goloseevsky, Samburk, Feofaniya, Sovki, Syretsky and other small water bodies undergo gradual waterlogging. Most of the lakes in Kiev are eutrophic and dystrophic.

Thus, there are many potential candidates for the official inclusion into the protected areas network. However, to reach the targets set these objects must meet the official criteria: be the habitat of rare species; represent value as a natural complex; have historical or cultural value; be important for research and scientific purposes; be threatened by human activity. The authors have included one more criteria: location – the proposed water bodies must be located close to each other to provide the possibility to form wildlife corridors and continued habitats, as this is the only way to real support of urban fauna.

Kyiv is a habitat of a range of animals and plants listed in the Red Book of Ukraine. The official list of regional rare plants in Kyiv contains 56 types of vascular plants. The list of animal species subject to special protection in the city of Kiev is made of 82 species of animals, including: birds – 10 species, reptile – 3 species, amphibious – 6 species, fish – 3 species, insects – 60 species [Vasylyuk et al. 2012]. It is possible to find ermine, otter, and white-tailed eagle, to see several species of fading orchids here. 12% of Kyiv lands have a protected status. In particular, the territory of Kyiv includes 23 protected areas of the national status, 5 historical and natural parks, 3 regional landscape parks, 20 parks-monuments of the landscape art, 5 botanic gardens, etc. [Ecological passport of Kyiv 2018]. Through the city there passes the Dnieper ecological corridor, which has national and pan-European significance.

5. The project of the urban econetwork

As it was mentioned above the efficient preservation of urban biocenosis depends on the availability of suitable ecotop, which, in turn, is formed by the following factors:

- natural character of vegetation or stable (climax) semi-artificial plantation (the one includes artificially planted vegetation combined with typical species for the region;
- continuous character of habitat (mitigation of barrier effect between protected areas with wildlife corridors and green infrastructure networking);
- low level of noise from adjoining territories;

- reduced level of environment pollution, in particular soil and underground waters (the air pollution is, of course, a crucial factor, but it is hard to control it, and at the same time it will be mitigated by the green plants themselves);
- presence of a water body, which supports the necessary level of humidity without irrigation and increases the diversity of ecological niches, which equals increased diversity of species;
- attractiveness of the territory for the population (picturesque landscape, historical and cultural value) for the purpose of regulated recreation and ecotourism;
- importance of the territory for wider territorial environmental networks (ecological network, margin environmental stripes, networks of valuable wetlands, etc.);
- possibility of organization of research and educational activity.

For these reasons in Kyiv the authors have chosen a few small lakes, suitable for the development of protected network and meeting the above mentioned requirements. These are Lake Lisove (Forest), Babyne (Old Lady), Radunka, Veselka (Rainbow), Milen'ke (Shallow), Gnylukha, Bykivnyanske (Table 1). They are located in the eastern part of the city within the major residential areas. There are some valuable species (*Trapa natans*, *Rana tarrestris*, *Salvinia natans*) and they

Table 1. Characteristics of the lakes, chosen for econetwork integration

Group of lakes	Subgroup	Name	Area, ha	Character of shore
Hydrogenic	Natural, partially transformed	Babyne	47	Densely covered with meadow and forest vegetation
		Transformed	Radunka	65
		Kyrylivske	18	Arranged for recreation with residuals of natural water plants
		Yordanske	15	Arranged for recreation with residuals of natural semi-water plants
	Ox bow	Gnylusha	9	Partially preserved meadow and forest vegetation
		Verbne	16	Arranged for recreation with residuals of natural semi-water plants
		Milen'ke	8,5	Partially preserved meadow and forest vegetation
Artificial	Quarry	Lisove (Diamond)	162	Dense forest (pine and birch) at the left bank and poor water plants associations at the right bank
		Veselka	41	Partially preserved meadow and forest vegetation

Source: own elaboration.

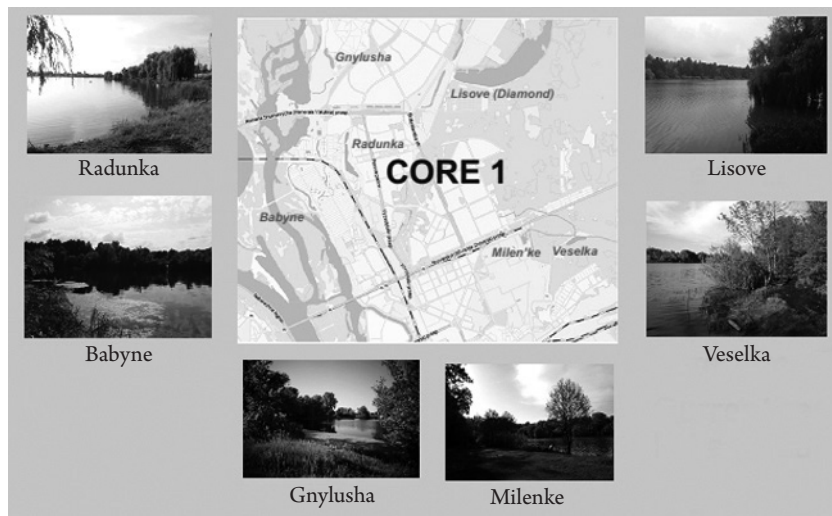


Figure 2. The candidates for protected areas in the Dniprovsky and Desnyanky districts of Kyiv

Source: own elaboration based on Google Maps.

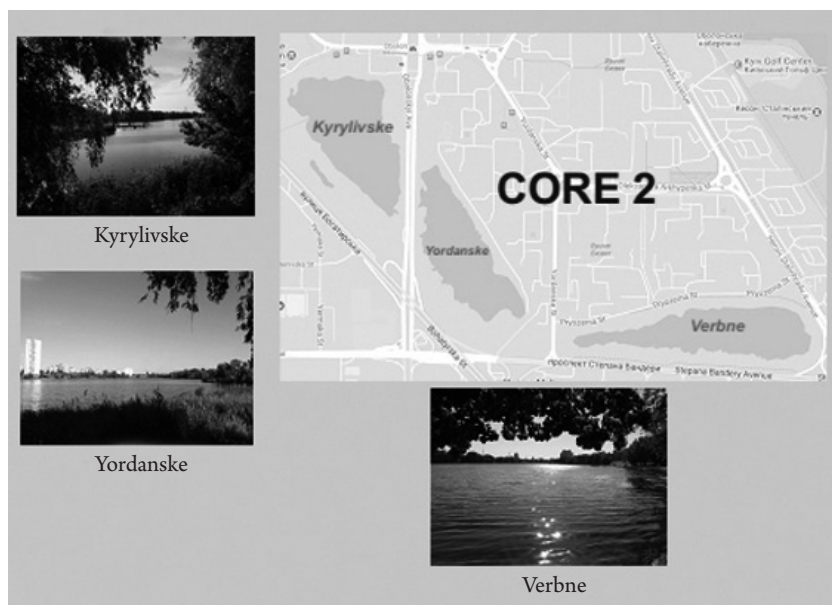


Figure 3. The candidates for protected areas in the Obolon district of Kyiv

Source: own elaboration based on Google Maps.

are well covered with arboreal or bush plantations, mostly natural or semi-artificial. Together they will form two cores, within which the conditions similar to those outside urban areas are created (Fig. 2 and 3).

The Lisove or Diamond Lake is on the left bank of Kiev and is the biggest in the city. It has an artificial origin: earlier it was a peat bog, but in the 80s of the last century the sand was washed here for the construction of a new residential area and subsequently, the area was flooded with water. It is a habitat for European pond turtle, coypu, stoat, weasel, hare, beaver, and the rusty toad (*Rana tarrestris*), which is included in the Red Book of Ukraine. There are wild ducks, grebes, and gulls. The shores are flat, covered with reed vegetation (common reed, narrow-leaved reedmace, broad-leaved reedmace). The lake is home to 10 species of fish, mainly pike, bream, crucian carp, perch, tench, as well as crayfish.

Lake Radunka is 1,4 km long, divided with the artificial pre-wall embankment and bridge into uneven parts. The reservoir is surrounded with a reed. There are 5 species of fish, wild ducks, martini, water chickens, common moorhen, muskrat. Vegetation of water body includes 20 species of plants, which is quite rich diversity for Kiev reservoirs. The most important plant species such as *Salvinia natans* and *Trapa natans*, which are listed in the Red Data Book of Ukraine, and *Salvinia natans* has the international protection status of the Berne Convention. This territory is under the threat of destruction due to planned expansion of residential construction.

Lake Babyne is of natural origin and was heavily exploited at the end of the nineteenth century when the workshops of the Dnieper Shipping Company worked there. Now it is rewilded area out of active touristic use, but there is a problem of overfishing. In the coastal zone there is a number of rare and endangered species requiring protection: Becketter's Festuca (*Festuca beckeri* (Hack.) Trautv.), which is listed on the European Red List, *Salvinia natans* L., and early marsh-orchid (*Dactylorhiza incarnata* (L.) Soo), listed in the Red Book of Ukraine.

Lake Hnylusha is considered one of the most dangerous water reservoirs in Kiev, because it does not meet sanitary norms due to building of private houses and household waste dumped in. There is an open question about cleaning and arrangement of the territory around. There is a memorial sign next to the lake, in which it is noted, that on this place Yaroslav the Wise concluded a peace agreement with his brother, which contributed to the unification of Kyiv Rus into a single state in 1020. The historical park "Horodets knyazhy" works here. The biocenosis of this area is marsh meadow. It is represented with groups of sedge, more rarely Glyceria, also known as mannagrass in the United States, or sweet-grass in the UK. The floral nucleus is formed of hydrophilic species, including Siberian horns, listed in the Red Book of Ukraine. In the open landscapes, there are many big isolated white willows, which have significant age and must be preserved. The

water protection zone of the lake is included into the landscape reserve of local significance “Desniansky meadows,” but it has no established zoning, protected plan and marking on the land, therefore the conservation efficiency is not high and the lake should be included into separate protected area.

The lakes Veselka and Milen’ke are hydrologically similar and located in close proximity, but Veselka is artificial, formed in 1950 by deepening and expansion of the Darnytsa River. Still the Veselka Lake experience lower human influence and higher water quality as a result. By the characteristic of the water plantation they are both poor, but they have big amount of fish, and there dwells the moor frog, protected by the Red Book of Ukraine and the Red Book of vertebrates of the International Union for Conservation of Nature (IUCN).

The lakes Yordanske and Kyrylivske are created on the place of the riverbed of the Yordanska River, which is a historical landmark as it was the place of Kyiv population first baptizing in 998. The lakes are polluted due to the discharge of storm waters from residential areas. The value of these objects is due to the fact that their shores include the preserved remains of the typical biotopes of the region, which were destructed for the construction of residential area. In particular, there are fragments of sand dunes overgrown with psamophytic (peptic) groups, including willow acorns or shellfish (*Salix acutifolia* Willd.). Overgrown inaccessible shores of lakes have also become a protected biotope for many coastal and water birds and valuable fish species (crucians, pikes and carps). The presence of fish attracts birds – in particular, river martins. Well-developed coastal and aquatic vegetation, such as canopy walls and broad-leaved hornbeam, is common in the site. In the vicinity of the lake of Jordan there are creeping roes (*Iris pseudacorus* L.) protected by the decision of the Kyiv city council.

Lake Verbne is an ichthyological-botanical nature reserve of local importance and is offered as the basis for the creation of the Core 2. Economic activity, leading to damage to natural complexes, is prohibited in the reserve. There are information signs, but the territory of the reserve is not fenced. It is a place for local recreation. The southern shore of the lake is shallow with the beach, the northern - elevated. On the banks willow fragile grows, as well as black poplar, willow shrubs and ashen. The grassy tier is represented by typical meadow and meadow-bog cereals and grasses. Coastal aquatic vegetation is represented by species of common reed and rare rice cutgrass and salvinia. The lake water has high phytoplankton biomass, which is the basis for the development of the animal world: there are more than 20 species of fish, such as bream, tench, white bream, silver and gold carp, perch.

It is tough task to apply to the authorities, but the active group of students of the National Aviation University managed to prepare and submit the application to the Kyiv City municipal authority and the Ministry of Environment protection about the Lake Radunka, which was finally approved and implemented: the local

landscape reserve was created in 2017. Lake Verbne is already a nature reserve, as well as Lake Hnylysha, so, the next stage is obtaining protected status for the Lake Lisove and Babyne – corresponding applications has already been prepared and are currently under consideration.

A good support of ‘wildlife island’ image of these territories would be a dense population and variety of birds, which could be an ideal entry point for families and school groups, who can learn about the avifauna through the information materials and excursions, contributing to ecological education and understanding the importance and vulnerability of nature at their neighborhood. To achieve this it is necessary to invest efforts into creation of continuous habitat, which will be provided when all the offered territories acquire the necessary status. Simultaneously, such an independent and massive biocenosis will support the stability of urban ecosystem by mitigating the levels of environment pollution and supporting careful attitude to the nature from the local population, benefitting from such neighborhood through the reduced health risks and improved living standards.

6. Conclusions

The issues of environmental safety support are quite topical for urban areas, as the most of prognosis prove that the number and density of urban population is going to grow in the upcoming years. The various approaches to tackling this problem must also consider cities as an ecosystem with components other than buildings and people and with certain flow of energy and information through the food chains and communication between living organisms. Here comes the need to develop cities as habitats for local and regional species of animals and plants. But the success of this work depends on the availability of areas with reduced anthropogenic pressure, including that from industry, transport and recreation. The outcomes of the study on the problem are as follows:

1. Kyiv possess a rich and diverse nature protection potential due to conservation of a range of natural biogeocenosis and presence of dense hydrological network. The main threats to the natural areas are growing residential construction and overexploitation of recreational resources.

2. The possible solution to the outlined problem is the creation of small protected areas around the lakes within the urban territory. They should be chosen to be located as close as possible so that they form continuous habitat and overcome fragmentation problems by providing passages for wildlife.

3. The authors offer to create two core areas of wildlife habitats maintenance and communication in Kyiv. 9 lacustrine ecosystems have been chosen to be included into these cores. These lakes have landscape, biocenotic and cultural value,

and their potential for granting the status of protected area is supported by the presence of rare and valuable species, included into national and pan-European lists.

4. The process of the protected status acquisition is a time-consuming factor, which limits the process of the protected cores formation. Currently 3 objects have already received their protection, and two others are on their way.

5. The urban protected areas are still usual elements of cities, which follow the rhythm of urban life, with peak visitor periods in the evenings and at weekends, as at many other urban facilities such as stations and shops. Still, they will have much more important positive impact for the quality of life of citizens.

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Zrównoważony rozwój aglomeracji miejskiej poprzez stworzenie sieci miejskiej obszarów chronionych. Studium przypadku miejskiego ekosystemu Kijowa

Streszczenie. Potrzeba poprawy jakości środowiska na terytorium miast wynika z jego wpływu na zdrowie ludzi. Jednak ludzie nie są jedynymi mieszkańcami ekosystemów miejskich, zamieszkują je także inne organizmy, wykorzystując miasto jako swoje siedlisko. Rozwój miast jest współcześnie stałym trendem i wchodzi w konflikt z dziką przyrodą i jakością środowiska. Zrównoważony rozwój miast jest niemożliwy bez ochrony środowiska, postępu gospodarczego i korzyści dla społeczności lokalnych, dlatego tworzenie obszarów chronionych w Kijowie może stanowić narzędzie wspierania różnorodności biologicznej i stabilizacji ekosystemów miejskich. W artykule przedstawiono najważniejsze wymagania dotyczące obiektów, które mają zostać włączone do systemu obszarów chronionych. Pierwsze dwa dotyczą małych jezior, które mogą służyć ochronie środowiska, rekreacji i przyrodzie. Korzyści wynikające z utworzenia miejskiej sieci obszarów chronionych zostały określone dla ekosystemu miejskiego oraz społeczno-gospodarczej sytuacji miasta.

Słowa kluczowe: środowisko miejskie, ekosieć, obszary chronione, ekosystem jeziorny



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Main Destinations for One Day Leisure Trips in the Area of Poznań Metropolis¹

Abstract. The main objective of this paper is to identify chief areas and forms of one day leisure activity performed by Poznań Metropolis' residents. A hypothesis was assumed that the dominant area of tourist holiday activity of interviewees is the Warta River Valley and its main creeks, and the most common form of activity is qualified tourism, nature-based tourism, physical recreation, relax and rest. Method used for hypothesis verification was a diagnostic survey, with a questionnaire interview. Research was conducted in the years 2015 and 2016, on about 1600 residents of the metropolis. The article has a research character and is about preferences in the area of using tourist holiday spaces of Poznań Metropolis. Practical implication of the article is to point out a level of activity in specific tourist holiday areas within the research scope, in order to classify these areas. Results confirmed both assumed theses. Main directions of one day recreation excursions are the Warta Valley and the valleys of rivers Główna and Cybina (especially near the Malta Lake). Preferred forms of tourist recreation are qualified tourism, nature, relaxation and physical recreation.

Keywords: Poznań Metropolis, tourist recreation activity, one day excursions, tourist and recreation complex, indicator of resident's one day leisure activity (AWM)

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1. Introduction

In recent years, a growing metropolitanization of space is being observed, which is connected with the phenomenon of globalization, and growing importance of large cities. This phenomenon is especially visible in countries, which joined the global economy system relatively recently. Tourist functions are also an important factor in the development of multifunctional metropolis areas. Cultural and natural resources make them attractive for tourists. At the same time, these resources are important as recreation spaces for the metropolis' residents. Currently the majority of people lives in urban areas, therefore the 21st century is considered the age of metropolis [Smętkowki et al. 2008; Markowski & Marszał 2006; Rykiel 2002; Czyż 2009].

Over the centuries cities have organized themselves into various forms, starting from antiquity, through the industrial era, until modern metropolis. Their functions have changed as well. It is hard to find a precise definition of a metropolis in literature on the subject. It is assumed, that it's an area consisting of a city with over a million of residents (usually spreading over more than tens of kilometres). Apart from size, morphological features, also functionalities are important (transportation, economical ties, trade, etc.) [Bernié-Boissard 2008]. A metropolis does not have clearly defined borders, which results from delimitation of its areas (so called fuzzy boundaries). It is a heterogeneous mosaic, of various functionalities, types of buildings, intertwined together [Haughton & Allmendinger 2008; Walsh et al. 2013].

Metropolitan areas are a subject of interest in many disciplines, determining new challenges and the need for a general look at these specific functional areas. Metropolises appeared in official Polish strategic documents only after the year 2000 [Koncepcja polityki przestrzennej zagospodarowania kraju 2001; Narodowy Plan Rozwoju 2004-2006; Narodowy Plan Rozwoju 2007-2013; Strategia Rozwoju Kraju 2006; Krajowa Strategia Rozwoju Regionalnego 2010-2020; Długookresowa Strategia Rozwoju Kraju Polska 2030; Koncepcja Przestrzennej Zagospodarowania Kraju 2030]. They are described as a metropolis, europolis,² agglomeration, functional area. Metropolitan areas also found their place in legislation. In 2015 there was a law accepted about metropolitan connections,³ however without suitable executive decisions, and was re-

² Europole – potential centres of socio-economic development, of European significance [...], which in the process of international competition (European) will create strengthening enterprise and innovation connections influencing entire Polish and European space. The term was not widely accepted in literature [Smętkowski, Jałowiecki & Gorzelak 2009: 34].

³ Ustawa z dnia 9 października 2015 roku o związkach metropolitalnych, Dz. U. 2015. poz.1890; 2016, poz. 2260.

pealed when in 2017 a new law got introduced, about metropolitan connection in the Silesian voivodeship,⁴ which resulted in creating a metropolitan connection titled Górnośląsko-Zagłębiowska Metropolia. Simultaneously, new self-regulating organizations began to appear, based on cooperation, inter-municipal coalition; such as: Stowarzyszenie Szczecińskiego Obszaru Metropolitalnego (2006), Górnośląski Związek Metropolitalny „Silesia” (2007), Stowarzyszenie Metropolia Poznań (2007), Stowarzyszenie Obszar Metropolitalny Gdańsk-Gdynia-Sopot (earlier: Stowarzyszenie GOM) (2011) [Porawski 2013; Kaczmarek 2014; Janas & Jarczewski 2017; Gajewski, Ważny & Zelewski 2015]. Many difficulties are caused by identification and specification of areas being named metropolises. In Poznań an agreement between city authorities and local governments initiated the Agglomeration Council, and later an Association in Poznań. Centre of Metropolitan Research coordinates works on developing and deepening metropolitan integration. Creating a Poznań Metropolis was one of the main goals of Updated Development Strategy for Poznań till 2030.⁵ and it assumes strengthening integrity through connections between spaces and functionalities of neighbouring voivodeships in the areas of leisure, tourist attractions, creating awareness and metropolitan identity [Kaczmarek & Mikula 2015]. Poznań Metropolis is considered to be of national consideration [Markowski & Marszał 2006], or a poorly developed European metropolis (fourth category).⁶

The main goal of this article is to identify directions and forms of one day leisure trips of Poznań Metropolis' residents. From theoretical and empirical perspective, the goal of this work is to:

- analyse the structure of interviewees, identify their main needs and preferences in the aspect of leisure time,
- identify main destinations for one day leisure trips of Poznań Metropolis' residents,
- determine touristic forms of recreation performed during one day trips, by Poznań Metropolis' residents.

Practical aspect of this article is to point out areas preferred and used for one day activity, within the boundaries of specifically designated zones of Poznań

⁴ Ustawa z dnia 9 marca 2017 roku o związku metropolitalnym w województwie śląskim, Dz. U 2017, poz. 730.

⁵ Uchwała Nr LX/929/VI/2013 Rady Miasta Poznania z dnia 10.12.2013 w sprawie Strategii Rozwoju Miasta Poznania do roku 2030.

⁶ In Europe, within ESPON programme (European Spatial Planning Observation Network) functional areas were determined (FUA – Functional Urban Areas), within which Metropolitan European Growth Areas were specified. They were divided into four groups according to specific metropolis categories. Polish metropolises were included in two lowest groups:

- potential European metropolis (third category) – Warsaw,
- poorly developed European metropolis (fourth category) – Kraków, Upper Silesia, Tricity, Wrocław, Łódź, Szczecin, Poznań. See: www.espon.eu [access: 28.11.2016].

Metropolis. An indicator of resident's one day leisure activity (AWM) has been proposed, to outline the intensity of resident movement in specific regions within the metropolis.

During research the following theses were accepted:

- main directions for one day leisure trips of Poznań Metropolis' residents are: Warta River valley, the valleys of Główna River and Cybina River,
- forms of preferred activity, during one day trips, are: qualified tourism, nature-based tourism, relaxation and rest, physical recreation,
- specific regions of the metropolis are characterized by definite structure and uniqueness of one day activities of their residents.

The research included leisure activities in the years 2015 and 2016. About 1600 residents of cities and regions within Poznań Metropolis were interviewed.

2. Material and methods

Empirical research was conducted from March till September 2016, among residents of all cities and communes belonging to Poznań Metropolis (22 territories, towns: Poznań, Luboń, Puszczykowo, urban-rural communes: Buk, Kostrzyn Wlkp., Kórnik, Mosina, Murowana Goślina, Oborniki, Pobiedziska, Skoki, Szamotuły, Stęszew, Swarzędz, Śrem i gminy wiejskie: Czerwonak, Dopiewo, Kleszczewo, Komorniki, Rokietnica, Suchy Las, Tarnowo Podgórne). The area of so determined metropolis takes 11% of Greater Poland province, and 30% of residents live there.

Method of diagnostic survey was used, and a technique of interview, using a questionnaire. The questionnaire consisted of 12 questions, open and closed, about the goal, duration, costs, destinations in the area of Poznań Metropolis; preferences, needs, tastes determining activities during free time, especially tourism and leisure activities in the area [Zamelska & Kaczor 2015]. "W" card in the questionnaire elaborated on these questions, including a table with all regions and complexes recognized during works on Concepts of Directions of Spatial Development of Poznań Metropolis [Kaczmarek & Mięka 2016], which serve as tourism and leisure destinations.⁷ The "W" card was used to take notes on areas of tourism and leisure activities, in which the interviewees had spent time in the year 2015 and planned to do so in the year 2016 (research was conducted from March till September 2016), with a distinction between long and short term trips, including one day. During research the interviewees received a map of regions and complexes of Poznań Metropolis, which was supposed to make it

⁷ This article presents partial results obtained during research, related with one day leisure activities of the interviewees, mostly based on "W" card.

easier for them to understand the area. In the last part of the survey, there were 16 questions about demographic, social and economical qualities of the interviewees. The research was conducted on tourist and recreation destinations of the metropolis. 1600 residents were interviewed, of which all performed some kind of tourist or leisure activity within the metropolis. 1543 qualified for further analysis, based on correctly filled surveys.⁸ An indicator of resident's one day leisure activity (AWM) was created to determine the movements of residents of specific communes, when travelling for leisure within the metropolis (Graph 1).

The indicator of resident's one day leisure activity (AWM) in Poznań Metropolis.

$$AWM_{ij} = \frac{wd_i}{lm_i} \quad (1)$$

where:

wd – total number of one day leisure trips

lm – number of residents of administrative unit of metropolis covered by the study

i – number of administrative unit of Poznań Metropolis ($i = 1, 2 \dots 22$)

j – number of tourist-leisure area of Poznań Metropolis ($j = 1, 2 \dots 10$)

3. Characterization of the research sample

In the examined group, slightly more than a half were women (55%). Most represented were people in the age of 30-39 years (24%) and fifty years old (15%). Education wasn't very diverse; majority of the interviewees declared secondary education (36%), vocational education (33%) and higher education (30%). Three out of four interviewees live in cities (86%), with a spouse (65%), mainly with 2-3 cohabitants (34 and 29, respectively). Almost one out of ten interviewees has a disability, mainly light or medium, usually because of hearing, movement or sight disorders. The interviewees estimated their financial situation as good (46%) or average (43%), their monthly net earnings at about 4.1-6000 PLN (46%) and 2.1-4000 PLN (34%). Most of them are working, in private (44%) or public sector (19%), only 15% are retired. Of possessions which might be of interest regarding tourist-leisure activity they usually declared: a car (25%), bicycle (22%), own garden or lot (14%), tent (13%), rarely roller skis, ski equipment, motorbike, cottage, hunting and fishing equipment (6.5-3%).

⁸ During selection of the sample two criteria were considered: number and age structure of residents in examined administrative units of Poznań Metropolis. Materials collected were verified according to amount and quality (analysis of missing data), and then coded and processed by the authors using SPSS software. The software was purchased by the WSB University in Poznań.

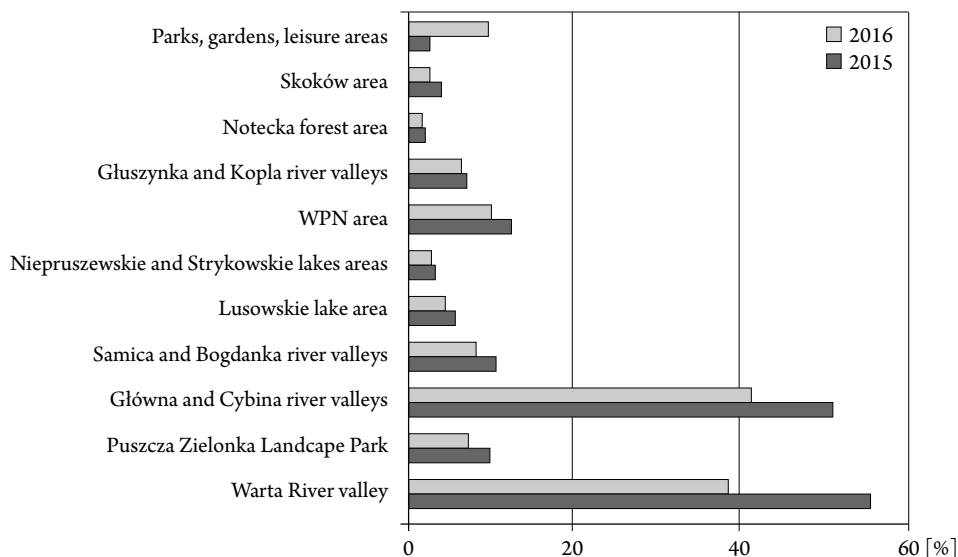
Just over one third of the respondents declared having 8-10 hours of free time weekly, and that they usually spend it on tourist and leisure activities. They spend free time with their close family (66%), friends (24.5%), alone (every eighth), and with colleagues (7%). They usually seek calmness, relaxation, rest (36%), various forms of physical activity (20%), to learn about nature and culture (12%), to improve health (6%), to experience art (5%) and spend time in fresh air. They are usually interested in watching TV and sports (46% and 36%), training (30%), gardening, travelling and sightseeing (27% each).

4. Directions and forms of activities performed during one day leisure trips of residents of the Poznań Metropolis

In literature, it is possible to find examples of “perfect cities”, in which green areas are important within city boundaries, and near them. Also a “green infrastructure” refers to that; open space dominated by flora, and blue infrastructure which is surface water [Lorek & Lorek 2016]. Within the green infrastructure of Poznań Metropolis, 71% of the area is a priority (National Park, NATURA 2000 and protected forests), 10% are important nature reserves (wetlands, rushes, greenery located in the direct vicinity of surface waters, in depressions being ecological corridors designated for protection, etc.), 19% are surface waters [Mizgajski & Zwierzchowska 2015]. Green areas are usually used by residents for tourism, leisure and relaxation, mainly in two zones [Cofta 1983; Iwicki 2002]. Based on existing green areas, the space has been divided to ten areas and fourteen complexes of touristic-leisure character [Bródka & Zmyślony 2012]. A main problem was to determine to what extent was the tourist-leisure space designed for residents of Poznań Metropolis used by them on a daily basis. They were asked to show areas in which they spend free time most often [Kaczmarek & Mikuła 2016: 107]. Main destinations during both research periods were: Warta River valley (in 2015 55% and 38% in 2016) and valleys of rivers Główna and Cybina (51% and 41% respectively) (Graph 1). Less popular were: Wielkopolski National Park (12% and 9%), and valleys of Samica River and Bogdanka River (10% and 9%) or the Puszcza Zielonka Landscape Park (9% and 7%).

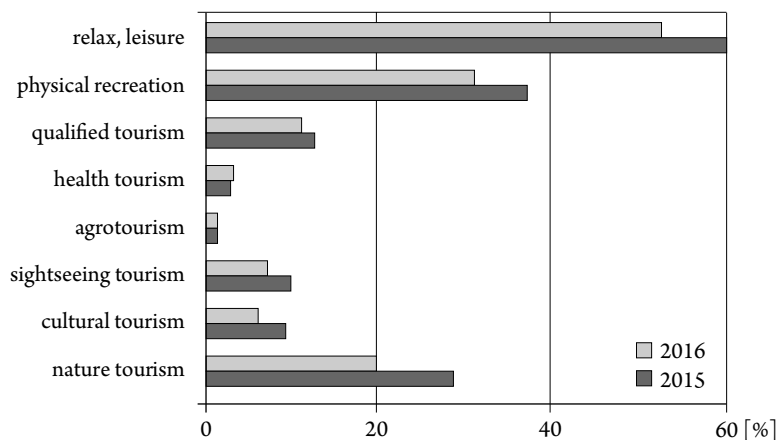
The Warta River valley is a main tourist and recreation area of Poznań Metropolis. Residents choose this route most often. Secondary are valleys of Główna River and Cybina River. This area is well prepared for various age groups, easily accessible and well promoted, and recognized not only by the locals. It hosts various sport, entertainment or cultural events, which motivate residents to go out.

Graph 1. Main one day tourist destinations within Poznań Metropolis, in the years 2015 and 2016 (percentage of respondents)



Source: own research, $n = 1543$.

Graph 2. Preferred activities during one day leisure trips in the years 2015 and 2016 declared by residents of Poznań Metropolis



Source: own research, $n = 1543$.

Warta River valley also connects other areas, such as Wielkopolski National Park, Puszcza Zielonka Landscape Park, and valleys of Samica River and Bogdanka River, with lakes: Kierskie and Strzeszyńskie. These areas have a well devel-

oped tourist infrastructure, including signs for tourist routes, but they are less attractive for the residents.

In the second period of research the popularity of parks and the likes (gardens, etc.) became more attractive, especially for short term leisure. The residents were asked to mention their preferred activities for one day tourism. Various forms of relaxation and rest were mentioned (60% in 2015 and 52% in 2016) – slow walks (also long), play with dogs or kids. Physical recreation was performed by 36% and 30% of respondents. It was usually walking, cycling, Nordic walking. Almost one out of three respondents performed tourism in 2015 and less in 2016 (almost one out of five). Qualified tourism was less popular.

5. One day leisure activity of inhabitants of cities and communes of Poznań Metropolis

To learn about the culture and specific aspects of one day leisure activity of Poznań Metropolis' residents it was important to determine the intensity of travelling in various towns and communes of the metropolis. The proposed indicator of resident's one day leisure activity (AWM) in Poznań Metropolis (pattern 1) allows to determine and classify the level of such activity within various scopes, of space and also of time.

The researched residents are quite varied in terms of their leisure activities, performed during one day trips (illustration 1). In 2015 relatively most active were residents of Puszczykowo (AWM = 5.42) and: Murowana Goślina, Kormorniki, Pobiedziska, Swarzędz (AWM = [2.23; 2.89]). Results confirm relatively intense activity comparing to general population of the metropolis that was examined (AWM = 1.69). It is worth noting that the before mentioned communes are near the most popular tourist areas, which are Warta River valley and valleys of Główna River and Cybina River, as well as Wielkopolski National Park, and these residents do appreciate the infrastructure and values of the nearest surroundings.

Residents of the second (most populated) group of administrative metropolis units were relatively less active within the metropolis (AWM = [1.09; 1.84]). In this group were residents with the highest, comparing to others, indicator (such as Dopiewo, AWM = 1.77) and Rokietnica (AWM = 1.75). Lowest indicator was reported by residents of Kostrzyn (AWM = 1.09), Kórnik (AWM = 1.29) and Luboń (AWM = 1.32) despite the fact of living near attractive and popular areas. Residents of the remaining seven communes declared relatively lowest amount of one day leisure trips to tourist areas of Poznań Metropolis, and as a result they have a low indicator of resident's one day leisure activity (AWM < 1). Relatively

lowest activity, within those communes, was reported by residents of Buk commune (AWM=0.37), and highest in Oborniki (AWM=0.90) and Suchy Las (wskaźnik AWM = 0.96).

Results allow to assume that average one day leisure activity of the examined residents within the metropolis is not very high (indicator shows that it was usually less than two trips in 2015 per one person). Only residents of Puszczykowo



Figure 1. Classification of administrative units in Poznań Metropolis, according to indicator of residents' one day leisure activity (in 2015)

- > 2 – group I: communes with high indicator
- 1-2 – group II: communes with medium indicator
- < 1 – group III: communes with low indicator

Source: own elaboration.

Table 1. Indicator of resident's one day leisure activity in Poznań Metropolis, in 2015 and 2016 (according to examined administrative units and tourist-leisure areas)

Commune / area	Warta River valley	Puszcza Zielonka Landscape Park	Valleys of Główna and Cybina rivers	Valleys of Samica and Bogdanka rivers	Lusowskie lake area	Areas of lakes Nieporuszewskie and Stryszewskie	Wielkopolski National Park	Valleys of Głuszynka and Kopla rivers	Puszcza Notecka	Skoków area	Parks, gardens, leisure areas of the metropolis
2015 in all	1.06	0.17	0.98	0.19	0.09	0.05	0.23	0.12	0.03	0.07	0.18
2016 in all	0.74	0.13	0.79	0.15	0.07	0.04	0.18	0.11	0.02	0.04	0.17
Poznań	1.25	0.19	1.07	0.18	0.06	0.03	0.23	0.10	0.04	0.07	0.24
Buk	0.94	0.15	0.93	0.16	0.05	0.02	0.19	0.11	0.02	0.03	0.23
	0.00	0.00	0.21	0.00	0.00	0.43	0.11	0.00	0.00	0.00	0.00
	0.00	0.00	0.21	0.00	0.00	0.11	0.21	0.00	0.00	0.00	0.11
Czerwonak	0.88	0.49	1.17	0.05	0.00	0.00	0.10	0.05	0.00	0.10	0.05
	0.73	0.44	0.97	0.10	0.00	0.00	0.05	0.05	0.00	0.05	0.19
Dopiewo	0.38	0.31	1.25	0.13	0.38	0.19	0.19	0.06	0.06	0.00	0.38
	0.44	0.19	1.06	0.19	0.38	0.25	0.00	0.06	0.06	0.00	0.25
Kleszczewo	0.58	0.00	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.19	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Komorniki	1.14	0.11	1.36	0.40	0.79	0.00	0.51	0.40	0.00	0.06	0.23
	0.74	0.17	1.14	0.28	0.45	0.11	0.57	0.23	0.06	0.06	0.28
Kostrzyn Wlkp.	0.38	0.08	1.13	0.00	0.00	0.08	0.00	0.08	0.00	0.00	0.08
	0.53	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
Kórnik	0.51	0.11	0.29	0.06	0.00	0.00	0.00	1.49	0.00	0.06	0.00
	0.23	0.00	0.23	0.00	0.00	0.00	0.00	0.69	0.00	0.00	0.00
Luboń	1.02	0.09	0.98	0.17	0.09	0.04	0.00	0.04	0.00	0.00	0.04
	0.81	0.04	0.68	0.00	0.00	0.17	0.26	0.04	0.00	0.00	0.13

Mosina	1.34	0.00	0.43	0.00	0.00	0.00	0.52	0.17	0.00	0.04	0.22
	0.65	0.04	0.22	0.00	0.00	0.00	0.22	0.26	0.04	0.00	0.17
Murowana Goślina	1.63	0.54	1.55	0.23	0.15	0.00	0.23	0.08	0.00	0.85	0.00
	0.77	0.31	0.70	0.15	0.08	0.00	0.31	0.00	0.00	0.39	0.00
Oborniki	0.78	0.00	0.58	0.23	0.04	0.00	0.00	0.00	0.04	0.04	0.00
	0.62	0.04	0.70	0.23	0.04	0.00	0.00	0.00	0.08	0.00	0.00
Pobiedziska	0.83	0.35	1.32	0.14	0.00	0.00	0.21	0.14	0.00	0.00	0.21
	0.49	0.21	1.18	0.14	0.00	0.00	0.21	0.14	0.00	0.00	0.21
Puszczykowo	2.35	0.13	2.09	0.00	0.26	0.78	2.48	0.13	0.26	0.00	0.00
	1.04	0.39	1.04	0.00	0.65	0.39	1.96	0.00	0.26	0.13	0.00
Rokietnica	0.64	0.28	0.28	1.29	0.37	0.00	0.18	0.18	0.00	0.00	0.00
	0.37	0.37	0.28	1.20	0.28	0.00	0.18	0.18	0.00	0.00	0.00
Szamotuły	0.04	0.22	0.17	0.57	0.00	0.00	0.00	0.00	0.04	0.00	0.09
	0.00	0.09	0.13	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.13
Skoki	0.14	0.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.00
Stęszew	0.53	0.00	0.35	0.18	0.26	0.00	1.23	0.00	0.00	0.00	0.09
	0.35	0.00	0.26	0.00	0.00	0.00	0.61	0.26	0.00	0.00	0.00
Suchy Las	0.76	0.17	0.76	0.08	0.00	0.00	0.08	0.00	0.00	0.00	0.00
	0.59	0.17	0.67	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00
Swarzędz	1.50	0.25	2.06	0.06	0.03	0.03	0.06	0.00	0.00	0.00	0.31
	0.61	0.06	1.25	0.14	0.06	0.00	0.00	0.00	0.00	0.08	0.06
Śrem	0.81	0.03	0.34	0.00	0.00	0.00	0.06	0.22	0.00	0.00	0.00
	0.34	0.00	0.19	0.00	0.00	0.00	0.03	0.28	0.00	0.00	0.00
Tarnowo Podgórne	0.11	0.00	0.28	0.84	0.67	0.45	0.34	0.11	0.00	0.00	0.11
	0.17	0.00	0.28	0.56	0.61	0.39	0.22	0.00	0.00	0.00	0.17

Source: own elaboration.

are positively outstanding in the group (about 5 trips in a year). Two and more one day leisure trips in 2015 were declared by residents of another four communes. Residents of ten other administrative units were only moderately active, performing one day trip once, and less than two trips of this kind, in 2015. Residents of remaining seven communes were relatively least active, as their indicator of residents' one day leisure activity shows: $AWM < 1$. It means that a number of residents did not perform such activity at all.

In order to determine the structure and specifics of one day leisure activity of Poznań Metropolis' residents in 2015 and 2016, in terms of the surveyed administrative units and tourist and recreation areas, an indicator was calculated according to scheme presented (Fig. 1), which describes the intensity of residents' movement in specific communes to designated touristic and leisure areas (Table 1). Analysis of indicators included in the table presented, allows to estimate the intensity of resident activity in specific communes in various areas of the metropolis, in two time intervals.

Comparing leisure activity of the interviewees in 2015 and in 2016 one can conclude, that it was usually higher in the first period of time.

Among the ten tourist-leisure areas analysed, two are relatively most active in both periods of time, and these are: Warta River valley and valleys of Główna River and Cybina River. In 2015 the Warta River valley area was relatively most frequently visited by the examined residents of Puszczykowo ($AWM = 1.50$), communes: Murowana Goślina ($AWM = 0.84$), Swarzędz ($AWM = 0.78$), Mosina ($AWM = 0.72$) and the city of Poznań ($AWM = 0.67$). The valleys of Główna River and Cybina River were more often visited by the residents of Puszczykowo ($AWM = 1.33$) and communes: Pobiedziska ($AWM = 0.95$), Murowana Goślina ($AWM = 0.80$), Komorniki ($AWM = 0.73$). In case of both tourist-leisure areas, the residents of nearest towns and communes were most interested in visiting them.

In the remaining tourist-leisure areas, the preferred destinations are closest to the place of residence. Wielkopolski National Park is visited relatively more often by the residents of Puszczykowo ($AWM = 1.58$) and communes: Mosina ($AWM = 0.28$) and Komorniki ($AWM = 0.27$). Valleys of Samica River and Bogdanka River are more preferred by residents of Rokietnica commune ($AWM = 0.70$) and the Puszcza Zielonka Landscape Park by residents of Murowana Goślina ($AWM = 0.28$) and Czerwonak ($AWM = 0.26$). Dolina Głuszyny and Kopla were more often visited by residents of Kórnik commune ($AWM = 0.76$), and the Lusowskie Lake area was visited by residents of Komorniki ($AWM = 0.42$) and Tarnowo Podgórne ($AWM = 0.34$). The Skoków neighbourhood was relatively most preferred by residents of: Skoki ($AWM = 0.44$) and Murowana Goślina ($AWM = 0.44$), and the areas of lakes Niepruszewskie and Strykowski were visited by residents of nearest communes: Puszczykowo ($AWM = 0.50$), Tarnowo Podgórne ($AWM = 0.23$) and Buk ($AWM = 0.21$).

6. Conclusions

Questions related with multifaceted functioning of metropolitan areas are an increasingly popular research subject in various areas of science. Still there is not enough empirical research, which would allow to learn about the phenomenon of tourist-leisure activities of metropolis' residents. Research on tourist-leisure activity of Poznań Metropolis' residents allowed to deepen the knowledge on this subject.

Results show that the residents perform a short, one day or afternoon, tourist-leisure activity most often. Weekend trips are fewer, and usually involve use of a summer house or a garden lot, own or belonging to friends, colleagues, or family.

Results confirmed a thesis that main destinations of Poznań Metropolis' residents are areas (in both periods of research): Warta River valley, Główna River and Cybina River valleys (near Maltańskie Lake area, closest to the city). Warta River valley has significantly changed in the recent years. Many years of government efforts to improve the leisure and recreation facilities have proved effective. The interviewees pointed out the Poznań part of Warta River valley mainly, which had significantly changed its image, becoming an attractive place for active recreation (mostly cycling). Another destination for one day leisure were the Rogalin and Puszczykowo areas of Warta River valley.

Another confirmed thesis assumed, that forms of recreation activity preferred by Poznań Metropolis' residents, during one day trips, were: qualified tourism, nature-based tourism, relaxation, rest, physical recreation (cycling, running, walking, Nordic walking, etc.). Health tourism was not very popular among the interviewees.

The proposed indicator of resident's one day leisure activity (AWM), utilized to estimate the intensity of resident movement within communes, for recreational purposes within the metropolis, allowed to confirm a thesis that specific towns and communes are characterized by set structure and uniqueness of one day leisure activity of their residents. The results allowed to filter out three groups of administrative units within Poznań Metropolis, differing in intensity of one day leisure activity. First group are communes of high indicator of resident's one day leisure activity of their residents (five administrative units were included in this group). Second group are communes of medium intensity of one day leisure activities of their residents (ten administrative units). Third group are communes with low intensity of recreational activity of their residents (seven administrative units).

In the cognitive aspect, the research performed allowed to identify directions of tourist-leisure trips of residents within Poznań Metropolis. Results show the

need for a deeper analysis of these specific areas, and for considering specific preferences of their residents, to further improve touristic attractiveness of the area. Further research is needed, as well as a discussion on tourist-research activities of Poznań Metropolis' residents. A more thorough examination of places and areas chosen for spending free time should result in better and more effective use of the potential of a metropolis area.

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Główne kierunki jednodniowych wyjazdów wypoczynkowych mieszkańców w obszarze metropolii Poznań

Streszczenie. Celem artykułu jest identyfikacja głównych obszarów i form jednodniowej aktywności wypoczynkowej mieszkańców na terenie metropolii Poznań. Przyjęto hipotezy, iż dominującym obszarem aktywności turystyczno-wypoczynkowej badanych mieszkańców jest Dolina Warty i jej główne dopływy, a najczęstsza forma aktywności to turystyka kwalifikowana, turystyka przyrodnicza, rekreacja ruchowa, relaks i wypoczynek. Do weryfikacji hipotez wykorzystana została metoda sondażu diagnostycznego, z zastosowaniem wywiadu z kwestionariuszem. Badania przeprowadzono w latach 2015 i 2016, na próbie ok. 1600 mieszkańców metropolii. Artykuł ma charakter badawczy i dotyczy preferencji w zakresie użytkowania przestrzeni turystyczno-wypoczynkowej Metropolii Poznań. Praktyczną implikacją artykułu jest wskazanie poziomu aktywności w konkretnych strefach turystyczno-wypoczynkowych obszaru badań, celem ich klasyfikacji. Wyniki potwierdziły obie przyjęte tezy. Głównymi kierunkami jednodniowych wyjazdów wypoczynkowych mieszkańców okazały się obszary Doliny Warty oraz Dolin Rzek Głównej i Cybiny (szczególnie okolice Jeziora Maltańskiego). Natomiast preferowane turystyczne formy rekreacji to turystyka kwalifikowana, przyrodnicza, relaks, wypoczynek i rekreacja ruchowa.

Słowa kluczowe: metropolia Poznań, aktywność turystyczno-rekreacyjna, wyjazdy jednodniowe, obszary i kompleksy turystyczno-rekreacyjne, wskaźnik jednodniowej aktywności wypoczynkowej mieszkańców



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