

THE METHODOLOGY OF TERRITORY ZONING OF THE UKRAINIAN RIGHT-BANK POLISSIA FOR THE GASTRONOMIC TOURISM DEVELOPMENT PURPOSES

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Abstract: Scientific research is devoted to the problem of the gastronomic zoning methods of the Ukrainian Right-bank Polissia. The authors use the scientific facts of landscape, ethnographic, and soil science approaches to the gastronomic zoning of the Ukrainian Right-bank Polissia. The methodological basis of the scientific research is the methods of analysis and synthesis, information, classification, cybernetics, and geographic information mapping. The systematic approach is applied in the course of the scientific development, which presents a designed cartographic model of zoning for the purposes of gastronomic tourism. A territory zoning algorithm is created for the gastronomic tourism development, based on the gastronomic potential indicator of physical and geographical areas, taking into account the selected principles. The developed areas are combined on the principle of neighborhood as a result of integrated zoning, and are mostly homogeneous. A synthetic cartographic model of recipe territory zoning of the Ukrainian Right-bank Polissia has been created according to the level of gastronomic tourism development in the scale of 1: 3,500,000.

Key words: gastronomic tourism, gastronomic zoning, the Ukrainian Right-bank Polissia, a cartographic model, gastronomic potential, the principle of neighborhood

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INTRODUCTION

A geographical territory has always aroused great curiosity, so its development is one of the fundamental spatio-temporal characteristics of human activity. The territories development process in socio-cultural formations is the driving cause of district formation, which determines a number of research manifestations. Branch and integrated districts with market specializations are formed in the process of the socio-cultural development. This is the tourist specialization, which organizes the territory (a landscape) for a particular type of tourism including gastronomic. A landscape as a natural factor directly affects the motive of travel, it acts as a simulacrum in the minds of tourism services consumers, who in turn have a universal impact on the development of the landscape, changing it and developing with it.

Formulation of a scientific problem

The concept of "*gastronomic landscapes*" may provoke an initial response in our research. The new research direction is based on the territory zoning methods of the Ukrainian Right-bank Polissia according to the level of the gastronomic tourism development. The author's study of the landscape of the Ukrainian Right-bank Polissia region can play a role in this discussion, as it provides evidence of the links and significance that such policy changes may have, whether agricultural subsidies or responses to urban distribution systems, helping to determine the urban food landscape development. Food and landscape have enormous potential as an interdisciplinary field of study, and there are several interesting initiatives to study

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the spatial and cultural dimension. On the basis of poststructuralist concepts, such as Gilles Deleuze's "nomadism", Jean Baudrillard's "simulacrum", Volodymyr Volkov's "escapism", a new hybrid strategy of nomadic society has been modeled thanks to the tourism production, which significantly affects the organization of recreation so called "tourist reflections" space.

ANALYSIS OF RECENT RESEARCH AND PUBLICATIONS

The tourist zoning is developed in the fundamental works of Ukrainian scientists (Beydik, 2001; Gorun, 2012; Marinich et al., 2003; Mezentseva and Mezentsev, 2000). Scientific research of the gastronomic territory zoning is less developed, but there are mentions of the enogastronomic zoning (Basiuk et al., 2017). The food historiogenesis theme penetrates into all spheres of mass culture. The trends of gastronomic tourism are considered by both domestic (Samilyk and Kubrak, 2021; Hafurova and Siuiva, 2021; Uliganets et al., 2021) and foreign researchers (Wiastuti et al., 2022; Lucas and Ramires, 2022). Numerous books and periodicals on culinary topics are published.

Historical factors and acquaintance with the cuisine of different peoples are described in the works of domestic and foreign scholars, including Artiukh (1985), Basiuk (2012), Hall et al. (2011), Pesme et al. (2010). Line Gordon et al. (2010), Professor of sustainable food systems, director of the Stockholm Resilience Center (SRC), is the founder of the concept of "gastronomic landscapes". Wylie (2007) suggests that food, as well as landscapes become "a reflection in the common and collective circles of cultural meaning". The works of Barham and Sylvander (2011), Bowen and Mutersbaugh (2014), Berriss (2019) demonstrate deep interest in studying the places where products come from. Food products that originate from certain landscapes are called "landscape products" (Ilbery and Kneafsey, 1999).

A classic study of Crouch and Ward's allotments (1988) demonstrates the way how interaction with the land through food cultivation creates rich and distinctive shared cultural meanings, language, and aesthetics. D. Imbert's most recent collection (2015) "Food and the City: Histories of Culture and Cultivation" covers a range of themes and views on symbiotic relationships and connections between food, people, and urban landscapes.

Classical writing and historical descriptions can provide a variety of choices for those interested in what ways food has helped shape the city's sense of place, meaning, and association. Later works, such as Adele Wessel's (2010) on the "landscape of taste" in Australia, point to the possibility of reading the landscape as a gastronomic text that captures cultural dynamics and change over time. What food we eat, and why we eat it the way we do, shapes the landscape.

Other useful sources include the popular "Food for Free" by Mabey (1972), which is still important to those interested in food production in Britain, while "Wild Foods of Britain" (1941) by Jason Hill provides a less-known but interesting indication of the role, finding food to supplement meager diets and provide enjoyment in Britain during the Second World War. As a result traditional food has become one of the essential aspects of developing culinary tourism (Komariah et al., 2020; Wiastuti et al., 2022; Lucas and Ramires, 2022).

The aim of the article is zoning of the territory of the Right-bank Polissia of Ukraine according to the development of gastronomic tourism in the studied region, which was carried out according to the integral indicator for the physical and geographical regions of the Volyn Polissia, Zhytomyr Polissia and Kyiv Polissia in points. The criteria of gastronomic zoning were based on the factors of the development of gastronomic tourism: physical-geographic, ecological, settlement, historical-cultural, gastronomic, institutional, infrastructural. The hierarchy of gastronomic districts was based on the weight of gastronomic potential. The research task is related to the gastronomic tastes and preferences of tourists, therefore the district-forming features are the objects of gastronomic tourism: gastronomic festivals, gastronomic events, gastronomic objects (for example, monuments dedicated to food), etc., trade, food industry, alcohol establishments, infrastructure, services, means of accommodation, communications, medical infrastructure. So, we relied on the following components in the structure of the map indicated in the legend: food, shops, industrial, alcoholic, festivals.

RESEARCH METHODOLOGY AND METHODS

Working out the territory zoning methodology of the Ukrainian Right-bank Polissia for the development purposes of the gastronomic tourism is based on the methodology selected by the authors among general and special methods of scientific research. To form the methodological base of the study, an algorithm for the study of gastronomic tourism was developed: the formation of the task of gastronomic tourism, the construction of a conceptual model of the potential of gastronomic tourism, the implementation and testing of the concept of the potential of gastronomic tourism, the sequence of determining the potential of gastronomic tourism, the implementation of the gastronomic tourism zoning of the Right-bank Polissia of Ukraine, visualization of the cluster model of development gastronomic tourism of the region (Figure 1). The method of analysis and synthesis is used to study the existing experience of zoning, including the gastronomic tourism purposes. The information method and the method

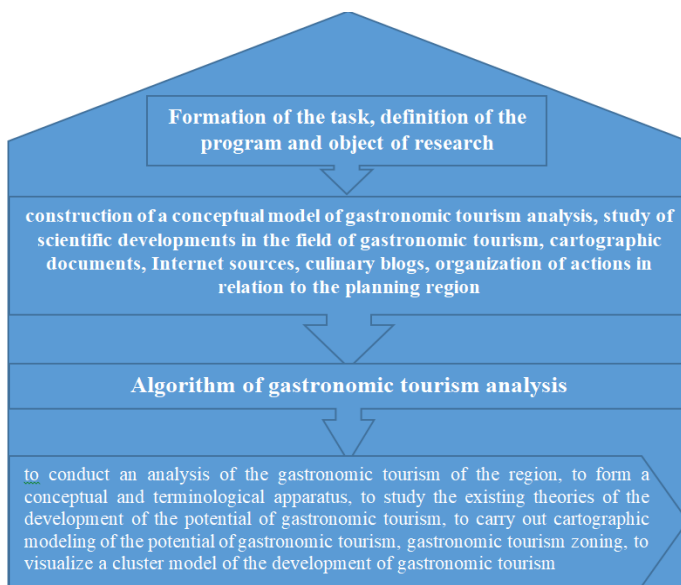


Figure 1. Gastronomy-tourist, landscape information pool (Source: Developed by Authors)

of classification are necessary for the separation of information support groups in order to substantiate the criteria of the territories zoning on the selected features and further in the creation of synthetic cartographic works. The cybernetic method is used to systematize the primary knowledge about the research area in the form of an information database and its use in the methodological scheme (algorithm) of zoning map development. The method of geographic information mapping is an effective tool for the direct creation of the synthetic cartographic zoning model of the Ukrainian Right-bank Polissia for the gastronomic tourism on the basis of the geographical information systems (GIS) functionality, which becomes a clear spatio-temporal cartographic result of its further development. At all stages of the research, a systematic approach is applied, which is considered in interrelated aspects through the conceptual basis of creation and use of the applied research methods, including using the developed cartographic zoning model for the gastronomic tourism purposes. The basic materials for the study are previous studies of the authors (Nesterchuk et al., 2020; 2021).

PRESENTATION OF THE MAIN RESEARCH MATERIAL

The essence of the concept of "territory zoning". The term "zoning" is known to refer to the method of cognition and concurrently the method application result. The method of cognition for the zoning process is characterized by a set of techniques aimed at identifying objectively existing areas and the boundaries between them (Rudenko, 2010).

The result of the method of cognition application is the process of synthetic mapping with the creation of a synthetic zoning map, which reflects the integral characteristics of the selected areas on the map by depicting the boundaries of the territories to which these characteristics belong. The result of applying the method of cognition is quite effective for creating a synthetic map with the selection of areas in the Ukrainian Right-bank Polissia for the gastronomic tourism development on the basis of the developed clustering map of the territory.

Principles, approaches, concepts, features, types, taxonomic units of the territory zoning

There are six principles of zoning, which to varying degrees can be taken into account in the territory zoning process of the Ukrainian Right-bank Polissia for the of gastronomic tourism purposes: objectivity; genetic; relative homogeneity of zoning units; territorial integrity; comparability of results; priority accounting of universal laws.

However, it is logical that in the process of zoning not all the selected principles will be observed without exception. For instance, the genetic principle is possible for zoning while identifying territorial units that are characterized not only by similar natural conditions but also, for example, common origin. And while applying the principle of relative homogeneity of zoning units in case of lack of information in the selected territorial units, the existence of "blank spots" is possible, which will not belong to any of the selected areas according to their characteristic (Marynych and Shishchenko, 2006).

Further, two **approaches** (regional, district) are pointed out and three **concepts** are considered in the process of zoning the object of study: descriptive, quantitative, systemic (Ishchuk et al., 2003). In general, the regional approach to zoning is characterized by the totality of all information about the object of zoning, and district one serves as a methodological tool for the consistent application of theoretical foundations, principles, methods and algorithms of zoning (Gudzevich, 2012).

The content of **the descriptive concept** of zoning is to summarize all available materials about the object of study, to reproduce its holistic image with a logical division into a certain number of spatially localized objects of lower order, which act as taxa of zoning. Within this concept, the quality of zoning is determined by the competence of the researcher zoning in this case is rather art than science (Nesterchuk, 2020). The essence of the **quantitative concept** is to formalize the source data, followed by the algorithmic selection of areas using certain statistical criteria. However, the integrity of the object is often lost. In the final stages, elements of the expert approach are usually used (Nesterchuk, 2019).

The synthesis of the two concepts mentioned above with the connection of interdisciplinary developments in the field of the reality cognition forms a **systemic concept**, which is based on the statement that all research operations carried out during zoning (not just the allocation of areas) should be interconnected and interdependent and their choice is made on a modular basis. This ensures the synthesis of any source information and a reasonable reproduction of the integrity of the districts. The key ones are: the mechanism of synthesis of formalized (quantitative) and content (descriptive) cognition in expert systems, postulates of the logical approach, modular organization of the methods system, the strategy of choosing the necessary method (Ishchuk et al., 2003). Zoning is carried out on a number of *features*, some of which the researcher can describe and evaluate. The researchers selected among them those that are considered to be quite important for the characteristics of the model area, reflecting its peculiarities. Features can be considered equal or located in order of importance; if necessary, they are given a "weighting factor". It includes:

- direct measurement of individual components as composites of the system;
 - generalization and obtaining by correlation of the object with some classification (for instance, by components of the gastronomic potential of physical and geographical areas: objects of gastronomic tourism, gastronomic festivals, objects of tourists accommodation, objects of communication, services, etc.);
 - obtained from directly measurable characteristics according to certain formulas (for example, calculation of weighted average tourist flow);
 - related to individual components (for example, the level of use of services by means of communication);
 - characterizing the "object-subject" relationship for which these features can be assessed (for instance, the suitability of the area for gastronomic tourism purposes).
- given the set of the zoning features, there are several **types**: partial, sectoral, complex.

Partial zoning is zoning on one basis, which is usually carried out by narrow specialists within the specific task. This is, for instance, the creation of a zoning map on the basis of gastronomic festivals or quantitative parameters of gastronomic tourism facilities.

Sectoral includes zoning by a group of indicators that are tied to a specific territorial unit and characterize each component of the geosystem in different ways from different angles (for example, the distribution of gastronomic festivals by frequency, average duration, etc.). It is also called specialized or component. Complex zoning includes the use of many indicators that characterize the various components of the territory; in particular, this may include all indicators that are part of the integrated index of gastronomic potential of the territory by units of physical and geographical division. If zoning takes into account only the features that characterize the current state of the territory, it is called recent. If historical aspects are taken into account, then zoning is genetic. According to the results of zoning, it is possible to distinguish three types of areas: homogeneous with internal relative uniformity; functional, united by any connections (they can be internally heterogeneous); configurational, concluded between physical boundaries or delineated by a network of previously identified lines and points. In the context of the territory zoning for the gastronomic tourism development purposes the areas of the first two types, which are distinguished by homogeneous and functional zoning, are of sufficient interest.

The principle of homogeneity is similar to the principle underlying any classification, which allows us to consider this type of zoning as its variety. Similarity criteria are used there. Functional zoning is the allocation of interacting territorial elements, united by flows of matter, energy, and information. The criteria for combining sites into one area are the strength of their interaction, the density of communication, and the intensity of flows, expressed in one form or another. Primary zoning units can be combined on the principle of neighborhood, also obtaining a hierarchical structure of increasing area.

The algorithm of the territory zoning of the Ukrainian Right-bank Polissia for the gastronomic tourism development purposes

The zoning algorithm is a complex process formed of a number of logically interrelated elements, which include: choosing a conceptual model, justifying the scale of the research, determining the type of source materials, methods of their use, further formalization of data (if necessary), selection of areas by selected types and interpretation of results.

The gastronomic zoning of the Ukrainian Right-bank Polissia is not carried out on modern scientific principles at all. The authors have used the scientific fact of landscape, ethnographic, soil science approaches to the gastronomic zoning of the Ukrainian Right-bank Polissia. Physical-geographical, ethnographic, and soil zoning have become an ascending platform for the separation of gastronomic regions, areas of the Right-bank Polissia (Nesterchuk et al., 2020).

Delimitation of the gastronomic areas depends directly on biological and geographical factors. Regularities of the geographical shell such as altitude zonation and horizontal zonation are the basis for the gastronomic zoning. Altitude zonation takes into account regular changes in the nature from the foothills to the peak, can be traced in the soil cover, climate change with altitude, location of mountains in latitudinal zones, belts, exposure of slopes, the length of the mountain systems (Gorun, 2012). Latitude varies from the equator to the poles, and leaves an imprint on the geographical zonation, which vividly presents these manifestations in the change of natural complexes. Mountain natural systems are intensively used not only in agriculture and industry; they are becoming attractive sites for the development of the gastronomic tourism. This research relies on the landscape approach to the problem of the gastronomic zoning. Therefore, the main object of method study mentioned above is territorial units, namely geosystems as integrated systems. The landscape is an attractor in essence. Currently, the motivational approach of I. Yakovenko (2002) expresses the recreational needs of the consumer, who chooses certain components of the nature for recreation. The main motivation is not perceived in individual attractions, but rather in a set of environmental, social, economic, and cultural characteristics that identify and highlight a particular gastronomic landscape. S. Dutchak (2014) singles out the definition of "tourist and recreational landscape".

These products are deeply linked to the local identity and landscape of the production sites and are part of a "quality shift" in food consumption by sections of society in Europe and beyond. Examples of these "landscape products" from the Mediterranean region are olive oil produced on the Greek island of Lesbos; ham from pigs fed on acorns raised on wooded pastures in Extremadura, Spain; and wine produced in the Portuguese region of Alto Douro. Although "landscape products" are usually sold in niche markets, they can offer leverage to promote sustainable management of industrial landscapes when they have a high market value and the cultivation is tied to specific regions. In our opinion, the "landscape products" of the Right-bank Polissia can be cranberries, blueberries, cowberries, raspberries, honey, potatoes, carp, lard, meat (Nesterchuk, 2018; 2020). Traditions and identities of food are included in the "marking" and physical form of Polissia landscapes, manifested in the city scene through monuments, place names, allotments, public gardens, outlets, street and farm markets, restaurants, fast food restaurants and their signs. Some of them have changed over time, but food identities can also be developed and used to convey a sense of place for marketing purposes or to engage a certain category of consumers who themselves have a particular food identity. Taking a gastronomic tour within the city is another way to grasp a comprehensive understanding of local gastronomic culture (Zhu and Yasami, 2021). There is a growing interest in the landscapes formation with the help of food production and consumption in the region. Socio-economic, cultural, and technological changes have led to the huge changes in our attitude to food and its perception over the last three to four decades. Food can be viewed as a representation and manifestation of human identity, and this affects the nature of the landscape.

In particular, it can be demonstrated with the ways of local food crops development as a result of the interaction between people and food grown in specific environmental conditions and people culinary practices. Examples of such interactions are a number of "cultural landscapes" recognized by the UNESCO World Heritage List, such as the Alto Douro wine region in Portugal, the Honghe Hani rice terraces in China, the Fry Bentos industrial meat processing landscape in Uruguay and the Winegrau wine landscape. Our aim is to popularize the landscapes and terroir of the Ukrainian Right-bank Polissia, for instance, landscapes of physical and geographical areas: Klesivsko-Rokytnianskyi, Olevsko-Bilokorovytskyi, Slovechansko-Ovrutskyi, Rudniansko-Vilchanskyi, Chystohalivsko-Korohodskyi, where cranberries, blueberries,

cowberries, honey, potatoes and related branded products are sold; Verkhnioprypiatskyi, Nizhniostyrskyi, Kolkyvsko-Sarnenskyi, Kostopilsko-Bereznivskyi, Horodnytsko-Emilchynskyi, Cherniakhivsko-Korostyshivskyi with cranberries, blueberries, raspberries, potatoes, lard, meat, which represent ethnic foods, etc.

The food production potential in the urban landscape in the industrialized world, including the United Kingdom and the United States, creates "urban gastronomic landscapes". The territory of the Right-bank Polissia is a potential arena for the development, urban planning policy, which increasingly seeks to expel food production to rural and suburban areas, especially when more people whose rural identity, skills, and values are based on food production traditions migrate to cities. This will especially apply to the period of post-war reconstruction of the certain territories of Ukraine. Urban agriculture, in particular, has become a significant area of study for social and economic issues, including community and partnership work, land tenure and social justice. Public gardens, greenhouses, mini-gardens can have consequences for the health and well-being of the urban population, especially for the low-income population groups, through cultivation, cooking and food exchange. Therefore, urban agriculture policy is also essential. Food policy for the sustainable nutrition strategies have implications for landscapes at every level. The authors' research concerns the autochthonous region of the Right-bank Polissia in the context of the landscape space and food prints of the ethnic groups. Although much of the focus of the scientific community, which was on landscapes, food production, has shifted to the city, it is still necessary to study the impact of food production on the rural landscapes as climate change and human processes change and degrade soils, as populations migrate and pressure on the use of genetically modified organisms (GMOs) is also increasing.

The interest of famous chefs contributes to the growing popularization of the gastronomic landscape and the identity of food for trade and tourism. This provides new opportunities for those who "sell" and "create" the gastronomic landscapes and have important implications for human health and the economy, as well as for animal health and welfare. There is also an increase in interest in fodder, partly as a result of interest in the culinary industry. Although the search for fodder is mostly concentrated in rural areas, where traditional knowledge and practices still exist, there is a growing attention, including the scientific literature, to the potential for food production in urban areas. This has significant consequences for the landscape and biodiversity, as well as for people's eating habits and possibly for eating due to food poverty.

Gastronomic research is essential for a holistic view of the productive landscapes potential, where productivity is not only about food, but also about tourism and cultural identity. The historical view emphasizes the weight of agricultural innovation and technology as a driving force for landscape change. In recent years, EU agricultural policy and subsidies in Europe have had a huge impact on the landscape. Nowadays in Southeast Asia everything is focused on changing the landscape as a result of the palm oil industry. Padfield et al. (2016) provide an analysis of these transitional landscapes and identify key issues for the study of sustainable land use policies and practices that arise due to their work. Turning to the urban landscape, Roe et al. (2016) offer a landscape framing of the concept of gastronomic landscapes as a potential way to study human interaction, production and consumption of food. Nutrition issues in urban areas are of growing concern to politicians as the world's population becomes increasingly urban. The relationship between public and municipal efforts to develop urban agriculture in Sacramento is covered in the scientific work of Napawan and Townsen (2016). Russell and Hedberg (2016) reveal the ecology of alternative food chains that supply Greenmarket farmers' markets in New York. There is a problem of quality in terms of food and a landscape, which is introduced by Camaioni et al. (2016) while studying vineyard landscapes. The intersection of food and the landscape is covered in different areas, for instance, by artists (e.g. New Bridge Project, Newcastle upon Tyne***), as well as community-based initiatives (e.g. Incredible Edible, Todmorden). The analysis of the interactions between the landscape and food also provides significant opportunities for both qualitative and quantitative research methods.

Mankind has so dramatically changed the biosphere where human societies are embedded that it has undermined it in a way that threatens our very existence. We offer a new field of study that combines the natural and social sciences to write a recipe for a prosperous human society within our planet. Gastronomic tourism will allow us to identify impact points that can transform harmful human behavior, build sustainable food systems, improve human health, and strengthen the resilience of the biosphere. The food systems of the ethnic groups of certain territories are factors that reduce the degradation of the planet. We know that the food we eat or do not eat at all has a profound effect on the planet. The global food system emits one third of all man-made greenhouse gas emissions, accounts for 70% of all human water and accounts for 1/3 of the Earth's surface. Destroying forests to make room to feed livestock, we destroy biodiversity. It is necessary to focus, among other topics, on the gastronomic landscapes to help reduce biodiversity loss. Pastures, forests, wetlands, urban gardens, and coastal areas generate products that promote human and global health.

This focus demonstrates the know-how needed to manage and strengthen the resilience of these landscapes. It also promotes culinary skills and innovation and can improve biosphere management. The research focus is on gastronomic tourism, potential, zoning and gastronomic landscapes as key factors in the sustainable tourism development. The research aims to demonstrate how we can use the "art of eating well", i.e. practices and skills mobilized to choose and cook good food to improve these gastronomic landscapes. Emphasizing the value of ingredients can stimulate interest in aspects of governance such as understanding, caring, and fostering a sense of belonging to the biosphere. These aspects are often ignored in more industrial food systems. There is no one-size-fits-all solution, but rather a mosaic of solutions coming from around the world. We need to use the various best practices and innovations that exist. Divide and Conquer: A Global Analysis of Food Systems. In a truly global style – think globally, act locally. This is clearly confirmed by the SRC 2022 Executive Training program, which focuses on transforming the nutrition system. The food that gets on our plates consumes huge resources and puts more and more pressure on our planet. But this is not necessary. Studying people's behavior and using traditional know-how and modern innovations may be the key to changing our food systems. For this purpose we identify key players in the region, focusing on FoodTech. Online life is rapidly gaining momentum, almost all

spheres of human life have gone online. With the advent of touchscreen smartphones, technology has become an integral part of everyone's life. And as a result, a new trend has emerged called foodtech. The word "foodtech" is formed from the fusion of the English words "food" and "technology". This trend means the integration of digital technologies in the food production, cooking, and delivery. However, people mean online food delivery services using the word "foodtech".

Today, the gastronomy is a key part of any travel experience. Sometimes it can be the reason for the trip. Tourists are looking for meaningful experiences when travelling, and one way to do this is to "taste the place." Conversations at the table with food or walks and conversations with producers, acquaintance and participation in production come to the fore. Researchers use anthropological methods to understand food stories, which can reveal much, that traditional sociological methods cannot. According to Craig et al. (2015), we have recently discovered that while studying the archeology of banquets in Stonehenge, UK, we can learn about human behavior and the landscape use (even in prehistoric times) by exploring interactions with food. There is much to learn from past and present practices and interactions between people and the landscape through the prism of food, but most importantly, there is also great potential for the research, especially on the future gastronomic landscapes of the world. Our hypothesis is that the gastronomy and tourism could improve the local sustainable territorial development through an adequate institutional framework that manages collective and individual action. In other words, gastronomic tourism and indigenous gastronomy can benefit local communities with the right set of rules. We set goals to confirm our hypothesis: to describe the territorial transformation of the Right-bank Polissia from a marginal region of Ukraine into a major tourist destination; to study and determine the gastronomic potential and conduct gastronomic zoning, identify clusters of gastronomic tourism in the region and their contribution to territorial development, building cartographic models.

Since the 21st century, the world has seen a significant increase in the number of tourist trips to attract to the ethnographic heritage, acquaintance with indigenous dishes, the magic of cooking and tasting. Accordingly, the Right-bank Polissia is traditionally perceived as a region with significant ethnocultural potential. The inner irresistible urge to nostalgic reconstructions of the world in the gray times of antiquity is also a search for answers to the question of how we should live today, how to project the future. The Right-bank Polissia has long been an oasis of wild nature. The reason for this is impassable and opaque swamps, which have always received enough moisture from the Horyn and the Sluch and from large masses of groundwater on the right bank of the Dnipro, which were unloaded in this place, forming swampy floodplains, lakes, and ditches. Today, almost nothing has survived from this diverse and extraordinary natural complex. Such natural living conditions has also affected the diet of Polishchuks.

The design of the Right-bank Polissia gastronomic zoning is subject to the criteria of selection of tourist regions, districts by two numerous groups that reflect the tourist functions of the territory: natural resources and resources of anthropogenic origin. We have tried to cover the whole territory, based on the concentration the of gastronomic tourism potential in the selection of regions, districts. We have relied on the *principle of perspective*, even where tourism is virtually absent or underdeveloped, but it has certain prerequisites for development, i.e. it is proposed to implement zoning without residue. An ongoing process of expanding the spatial coverage of tourism is a strong argument in support of the principle of perspective. Applying the cluster theory of Enright and Sun Hung Kai (2000), we have identified *the projected gastronomic tourism clusters of the Ukrainian Right-bank Polissia*. It provides typification of the territories to improve opportunities to promote products and traditions of the region through integrated forms and methods of production, trade and tourism in the short and medium term in the long run (Nesterchuk et al., 2021 b). The development of scientific principles of the gastronomic zoning and their further development allows us to identify new recreational resources and other prerequisites for the development of gastronomic tourism in unexplored places; identify and create new gastronomic tourist areas of different order; determine their tourism specialization correctly, transfer the experience of gastronomic tourism from one area to another with similar conditions; provide differentiated attitude to different gastronomic areas.

The gastronomic zoning in our case is based on the main elements that determine the content of gastronomic tourism: gastronomic tourism resources and services, material base, tourist migration, logistics, investment activities in tourism, etc. The gastronomic zoning will provide answers on combining approaches to the landscape ecology and food systems to study the links between different properties of food systems and the different results of the landscape sustainability in the study area, using landscape products as an important link between remote locations and processes. For this reason, we have identified and resolved the following research issues: how Polissia landscape products are characterized on the basis of common attributes of their food systems; what environmental, cultural, social, and economic results of the ecological and economic sustainability of the landscape have these landscape products, and what synergies and trade-offs arise between them; what different types of food systems can be identified and how they relate to the landscape sustainability outcomes.

Gastronomic tourism has been recently established as a form of specific tourism that is constantly evolving and aimed at preserving and developing products, local areas and local dishes, which allows visitors to discover the natural connection between food and its region of origin. Thus, the territory zoning of the Ukrainian Right-bank Polissia for the purposes of gastronomic tourism is carried out on the basis of the proposed algorithm stages using the indicator of gastronomic potential of physical and geographical areas and taking into account the selected principles. The resulting areas on the grounds of integrated zoning, which are mostly homogeneous, are combined on the principle of neighborhood, Figure 2.

The economic basis of territory zoning of the Ukrainian Right-bank Polissia for the purposes of gastronomic tourism development is an essential tool for viability and self-sufficiency substantiation of the tourist destinations. The calculation of the economic efficiency of tourism will predict the tourism destinations outcome. According to the World Tourism Organization (UNWTO**), the growth of international tourist arrivals is 4-5% annually, the tourism sector accounts for 9% of world GDP, 30% of world exports of services and one in 12 jobs in the world.

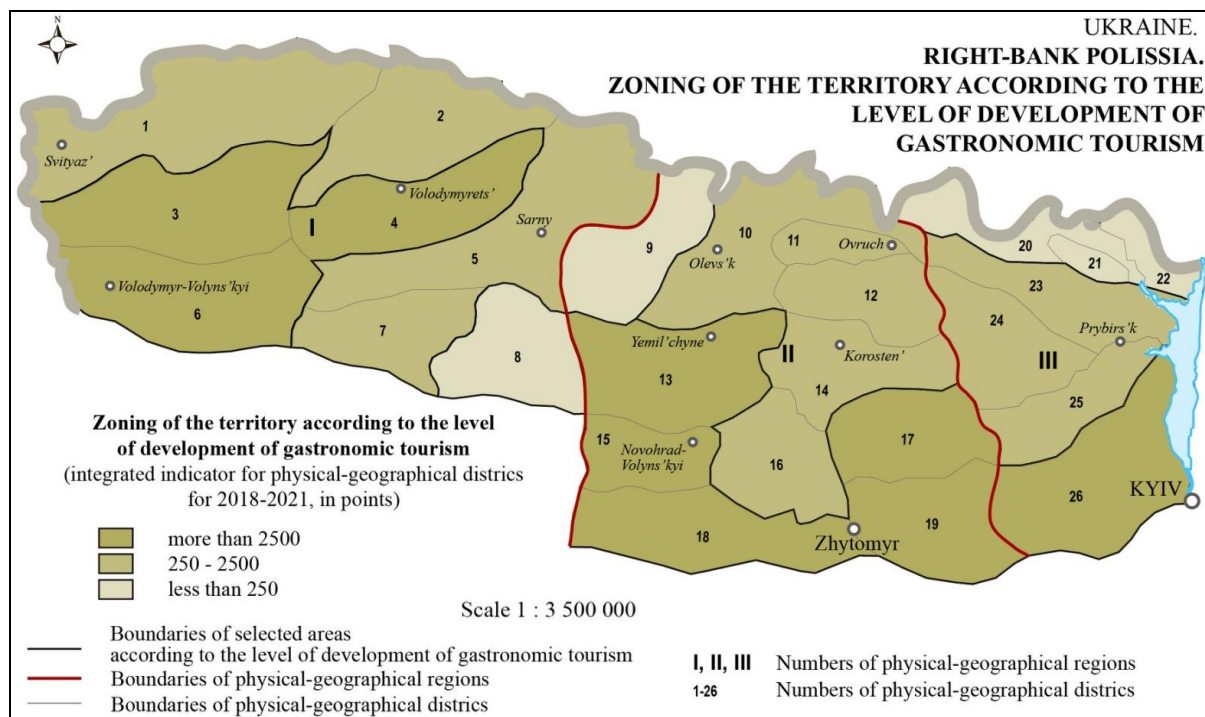


Figure 2. Synthetic cartographic model of recipe territory zoning of the Ukrainian Right-bank Polissia according to the level of gastronomic tourism development (original in scale 1: 3 500 000) (Source: Developed by Authors)

Since the pandemia, gastronomic tourism needs to be set in a new framework, to "re-formulate" the offer for gastronomic tours. This requires an updated list of necessary initial data for assessing integrated indicators of economic and social efficiency of tourism activities at the regional level (for instance, the territory of the Right-bank Polissia) (Table 1).

Table 1. List of necessary initial data for assessment of integrated indicators of economic and social efficiency of tourist activity at the regional level (Source: Mironov and Mironova, 2016)

The indicators set of economic tourism efficiency	The indicators set of social tourism efficiency
Number of tourists per unit capacity of all accommodation, including special, pers. /place	The share of those employed in the field of tourism in the total economically active population of the region, %
The share of those employed in the field of tourism in the total economically active population of the region,%	Volume of paid sanatorium health services per capita of the region, UAH / pers.
Room utilization rate (available rooms)	The average number of employees in tourism-related activities, pers.
Labor productivity, thousand UAH / pers.	Current (operating) costs for environmental protection, thousand UAH
Gross Regional Domestic Product generated by tourism,%	Turnover of public catering per capita in the region, UAH / pers.
Gross Regional Domestic Product generated by tourism,%	
The average number of tourists per capita in the region, pers.	
The share of tourism services in the total amount of paid services to the population of the region, %	

The basis for calculating the integrated indicators of economic and social efficiency of tourism is the indicators set of economic and social blocks. Based on the adapted methodology for assessing the socio-economic tourism efficiency, the following formulas (1-5) developed by Nesterchuk will be used to calculate the integrated indicators of social (ES) and economic (EE) efficiency. Assessing the dynamics of indicators of economic and social efficiency of the study area for a certain period of time should be standardized according to the following formula (developed for the first time by Nesterchuk, 2022):

$$G = \frac{\Delta g}{g_0}, \quad (1)$$

g_0 is the value of the indicator in the previous period;
 Δg is a change of the indicator for the period.

We use formula 1 and calculate for each block an integrated indicator of economic and social efficiency of the block (formula developed in 2022 by Nesterchuk, for the first time):

$$p_y = \sum_{i=1}^m v_i b_{yi}, \quad (2)$$

$y = 1$ (a block of economic efficiency indicators);
 $y = 2$ (a block of social efficiency indicators);
 p_y is an integrated indicator of economic (or social) efficiency;
 b_{yi} is i -normalized indicator from the block y ;
 v_i is the weight by which the i -index of the y -block is included in the integrated indicator;
 m is the number of y -block indicators.

To determine v_i we use an approach based on the calculation of the weights of the indicators by the coefficients of pairwise correlation between them. If r_{ij} is the pairwise correlation coefficient between the i -th and j -th indicators, the weights are determined by the following formula (developed for the first time in 2022 by Nesterchuk I.):

$$v_i = \frac{\sum_{j=1}^n r_{ij}}{\sum_{j=1}^n \sum_{i=1}^n r_{ij}} \quad (3)$$

v_i - weights of indicators according to pairwise correlation coefficients between them;
 r_{ij} - pairwise correlation coefficient between i-th and j-th indicators.

Thus, the sum of the pairwise correlation coefficients of each indicator with the others is correlated with the total sum of the coefficients throughout the matrix of pairwise correlation coefficients. Due to the fact that the latter reflects the relationship between all indicators, the obtained values of a_i determine the proportion of the i-th indicator in the integrated efficiency indicator for the t-th block. This approach is justified in this case, because each block contains indicators that characterize the same aspect of socio-economic tourism efficiency: economic or social.

Accordingly, the formula for calculating the indicator that characterizes the economic tourism efficiency is the following (formula developed in 2022 by Nesterchuk I., for the first time):

$$E_e = \sum_{t=1}^7 v_i b_{yti} \quad (4)$$

E_e is an integrated indicator of economic tourism efficiency;
 v_i - weights of indicators according to pairwise correlation coefficients between them;
 b_{yi} - i-normalized index from block y.

The formula (developed in 2022 by Nesterchuk I. for the first time) for calculating the indicator that characterizes the social tourism efficiency is:

$$C_e = \sum_{t=1}^5 v_i b_{yti} \quad (5)$$

C_e is an integral indicator of the social tourism efficiency.
 v_i - weights of indicators according to pairwise correlation coefficients between them;
 b_{yi} - i-normalized index from block y.

The most vulnerable in tourism is the regional level. Especially the development of gastronomic tourism at the level of the united territorial communities. Gastronomy reflects both natural and climatic, geographical aspects of the region, and cultural, historical, religious features, social practices, norms of behavior, traditions, rituals of the territory. With the expansion of the space of everyday life, with the growth of the processes of demythologization and "magic" of the world, the opposite process occurs, i.e. the creation of new spaces where people can hide from the rationalist, orderly, determined by the agenda reality. The creation of such a reality, both physical and virtual, is based on the practices of simulacra, escapism and nomadism. One of these is the "gastronomic space", despite all the geopolitical and epidemiological changes in the modern world. The standardized model of creation and promotion of a new tourist product in the united territorial communities proposed by Nesterchuk I. for the first time is demonstrated through a step-by-step program (Figure 3).

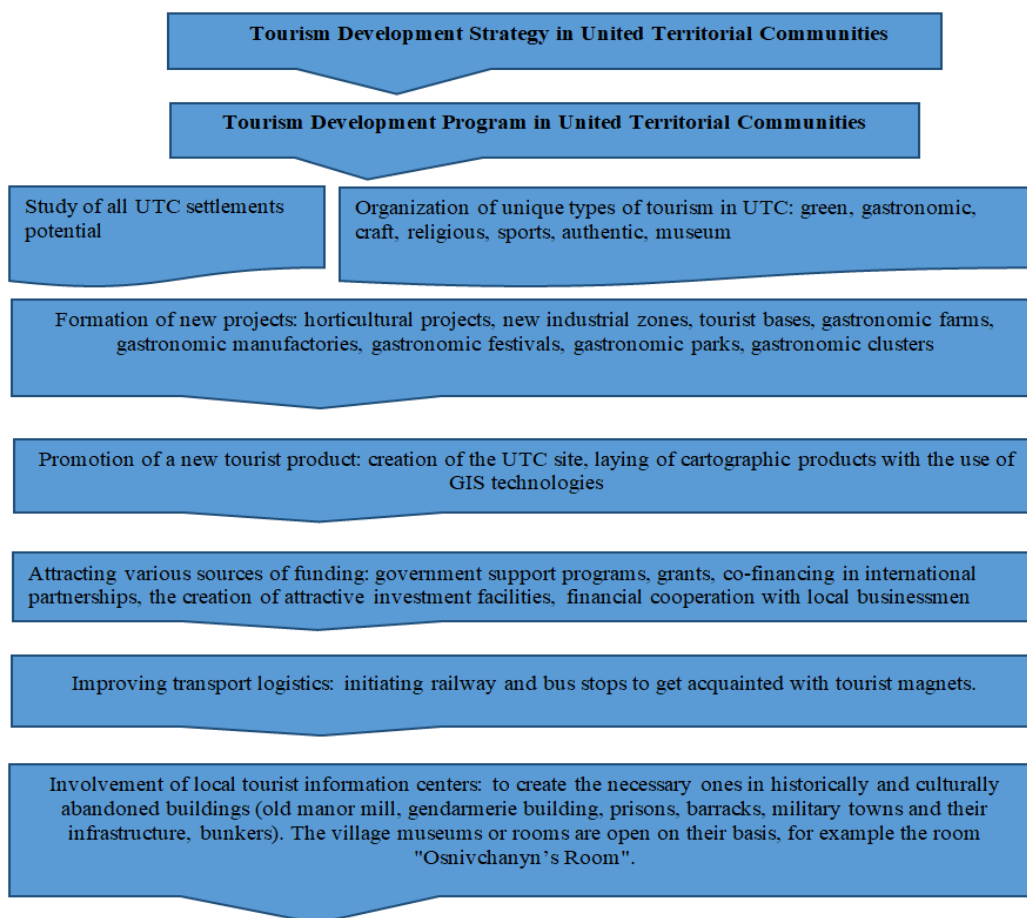


Figure 3. The standardized model of a new tourist product creation and promotion in the United Territorial Communities. (Source: Developed by Authors)

It is appropriate to use the practices of nomadism, escapism, simulacra to meet the needs of modern tourists looking for "exclusive" emotions, impressions and experiences, virtual tours and pseudo-events, the opportunity to participate in rituals, performing certain functions, acquire certain knowledge and skills (Figure 4).

Gastronomic tourism offers a great potential for stimulating the local economy and increasing sustainability and inclusion. It has a positive effect on many levels of the value formation chain, such as agriculture and local food and its production, and allows us to explore the potential role of food and wine products in the rural area of the Right-bank Polissia. The offer of food and wine tourism should not be made in addition to typical products: restaurants, hospitality systems, events, thematic routes, corporate museums, local markets. The Right-bank Polissia is a territorial system that bases its offer on typical productions and the quality of their food. The Right-bank Polissia is a territorial system where the gastronomic offer retains a secondary role compared to other types of attractions. The statistical facts of domestic tourism will be visualized in Figures 5, 6, 7, 8. The diagram (Figure 5) demonstrates the structure of the domestic tourism consumption by products and categories of

visitors. Tourists are characterized by a relatively even distribution of consumption among the typical services in the field of tourism by categories: accommodation, food, rail passenger transport and road passenger transport. There are no accommodation costs for tourists, as they do not need to find a place to stay; however, a significant part of the costs are food services (30%), rail services (20%) and road passenger transport (20%).

Implementation of innovative tourism management for UTC in the practices of nomadism, escapism, simulacra includes:

"On-site work" means that the tourism industry encourages citizens to **create a "nomadic impulse"**, highlighting the landscape of the country or region (the Right-bank Polissia) places that are artificially sacred, mythologized and offer "exclusive" emotions, impressions and experiences (gastronomic tours). The province, which is unable to provide comfortable conditions for tourists, forms a brand of tourist (gastronomic) product - (Korosten - Derun Festival, Ovruch - Mrs. Kartopelka, etc.). Gastro-manufactures and productions are being created.

Attempts to delve into the world of fantasy, away from the troubles of reality, which can take various forms is known as **tourist escapism**. Recreation and reloading in the field of virtual tourism - virtual tours of wildlife, tourist attractions with a guide disguised as a postman, a shepherd in authentic clothes of previous centuries, sending parcels with herbs, teas and tinctures and postcards of tourist gastronomic location.

The use of simulacra by tourists, namely pseudo-events, brands, retrospective festivals that mimic or replace historical and cultural values.

Figure 4. The gastronomic tourism development model in the United Territorial Communities through explication of nomadism, simulacra, espakapism (Source: Developed by Authors)

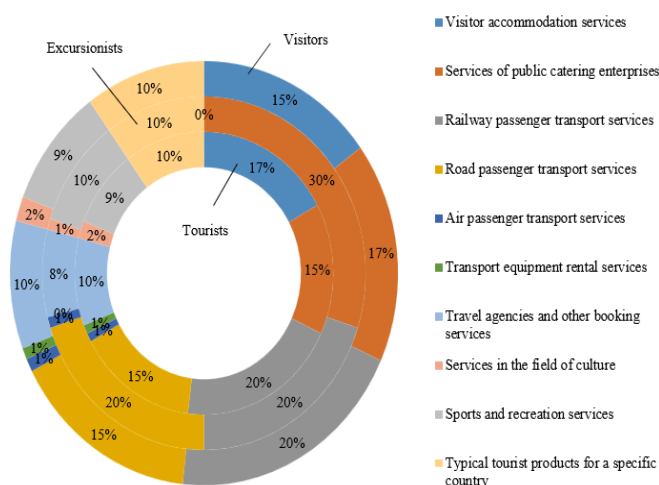


Figure 5. The structure of the domestic tourism consumption

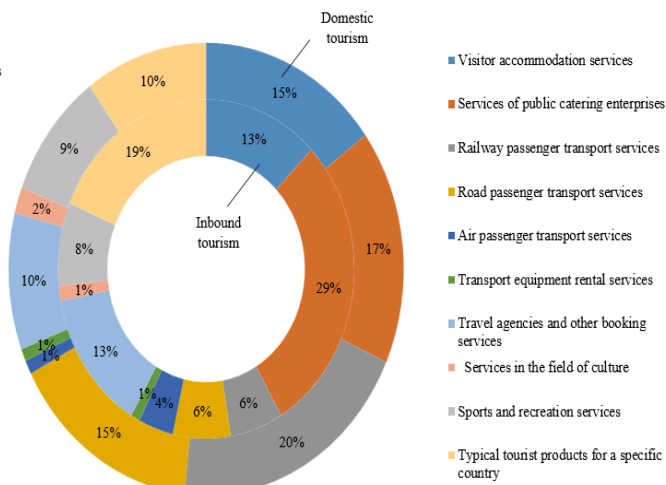


Figure 6. The structure of tourism costs within the country

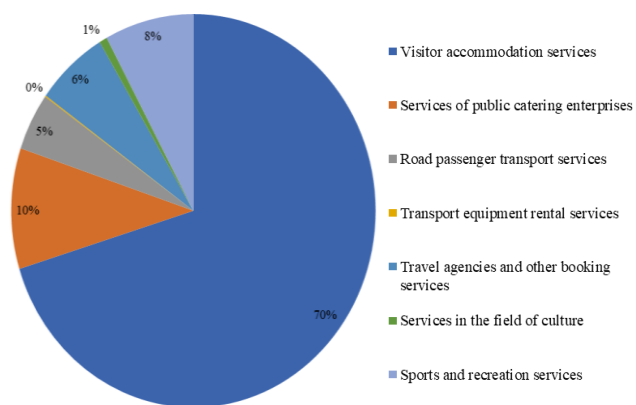


Figure 7. The structure of the internal supply by type of activity in the field of tourism (Source: Developed by Authors based on Official website of the State Statistics Service of Ukraine)

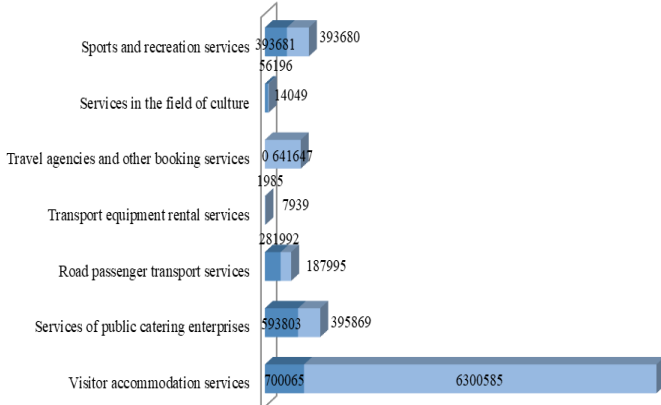


Figure 8. The total volume of domestic supply and consumption of tourism within the country, in consumer prices (UAH)

For visitors, the structure of consumption is similar to tourists. All groups are characterized by the same costs for sports and recreational services (9%) and typical tourist goods for a particular country (10%). Figure 6 proves that for domestic tourists the cost of accommodation and meals is almost the same share (15% and 17% respectively) on a par with rail and road passenger transport services (20% and 15%). The structure of expenditures of foreign tourists is dominated by food costs (29%), a significant part is the cost of typical tourist goods (19%), reservation services (13%) and accommodation (13%). All other costs for both groups of tourists are insignificant.

According to the net valuation of production accounts by types of activities in the field of tourism, there is a clear predominance of accommodation services which share is 70%, the share of catering services is 10%, sports and recreational services are 8%, travel agency services are 6%, and road passenger transport services are only 5%. The total net value is UAH 9,969,486 thousand. The total Gross Value Added for visitor accommodation services is 71%, catering services is 47%, road passenger transport services is 46%.

The chart above demonstrates that services related to booking and other travel agency services are fully consumed, 90% of the total offer of accommodation services and 80% of vehicle rental services are also consumed by tourists within the country. All other services provided consume less than 50% of the supply by activity in the field of tourism.

CONCLUSIONS

Our scientific research in the field of gastronomic tourism provides further evidence that such initiatives can provide not only high quality food, but also a place for meetings and learning, where exchange and discussion are as important as food itself; interaction with the landscape gives all kinds of benefits. Given the vast opportunities for research and publications in this field, from understanding lost landscape heritage and food practices to technology to create city-wide roofs and vertical urban landscapes, our study focuses on some of the key areas of gastronomic tourism of the growing interest to politicians and practitioners as well as to researchers in many different disciplines.

The offered methodological approach fully reflects the innovative aspects of the study of socio-economic efficiency in the field of recreation and tourism at the regional level, especially at the level of United Territorial Communities through the practices of nomadism, simulacra, espapism. It will be useful in identifying "weak points" in some components of socio-economic tourism efficiency, and parameters, their components, for instance, in the economic aspect of the effectiveness of inter-firm relations, social, blocks of indicators of economic and social efficiency and others.

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