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The Designation of Recreational and Tourist Areas in the Sustainable Management of Rural and Suburban Areas

Abstract:

This paper presents guidelines for the designation and development of locations for tourism and recreation in the countryside and on the city outskirts. The proposed criteria for designating these areas can be used in the development of strategic and planning documents. Using the METPRET and SWPR methodology in the area of the Mazowieckie Voivodeship, the research allows for the development of proposals to be included in the strategic documents of the voivodeship. These proposals indicated the need to find new areas with the potential for individual short-term tourism and recreation. In uncertain circumstances, an integrated approach to spatial policy is essential as it ensures the ability of urban, suburban, and rural areas to adapt to change and develop sustainably.

Keywords:

individual short-term tourism, pandemic, natural environment potential, suburban areas, rural areas, recreation

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1. Introduction

Although agriculture still has a decisive socioeconomic influence on most rural areas, the process of the deagrarization of social and economic structures is becoming increasingly evident [1].

One of the main non-agricultural activities in rural areas is tourism [2–4]. The process of introducing tourism and recreation into rural space has been occurring for several decades, however, in most rural municipalities and regions, it remains underdeveloped and does not visibly affect their functional structure [5, 6]. We are currently witnessing a growing interest in the potential to restore physical and mental health outside in contact with nature [7]. Limited mobility and restrictions in social life due to COVID-19 pandemic resulted in additional open spaces for tourism and recreation being sought out, particularly in proximity of metropolitan areas [8, 9]. These newly designated recreational zones will contribute to reducing the burden on existing ones in the cities.

Other current phenomena are also influencing changes in leisure activities and decisions, particularly the highest rate of inflation in 25 years (13.9% in Poland in May 2022); in 2022, 59% of Poles declared that they would not go on holiday [10]. People are looking for short trips in close proximity to their place of residence and it is expected that short-term tourism in rural areas will increase [11–13]. The untapped potential of rural areas in Poland for weekend recreation, which is a common form of leisure activity in the EU, had already been pointed out before the pandemic [14]. Particularly in the Mazovia region, the need to redirect tourist traffic outside the borders of Warsaw was highlighted [15]. Its purpose was to provide a more diversified offer for the weekend recreation of the inhabitants of the capital city and other main towns as well as foster the development of other parts of the region. Individual short-term tourism, understood as trips lasting from a few hours to two-to-four days, suited to individual preferences [16], has become increasingly popular beyond the inhabitants oflarge and medium-sized cities [17].

By defining a typology of tourist-recreational behavior and determining how to delimit potential areas that can meet the individual short-term tourism needs of city residents [18], it was possible to identify the main assumptions that should be met for the recreational function to develop in a given area. The research presented here aimed to develop a procedure algorithm to be used to designate recreational and tourist areas.

We sought to answer the following research questions:

- What solutions should be applied in strategic and planning documents so that rural and suburban municipalities can effectively invest in the development of areas identified for individual short-term tourism and recreation?
- What criteria for identifying areas for individual short-term tourism and recreation should be used?

2. Materials and Methods

Under the social constraints caused by various crises (for example, reduced mobility during a pandemic or high inflation), rural and suburban areas can help reduce stress on urban recreational areas, because their tourist potential remains relatively untapped. This potential seems to be crucial in pandemic conditions when active recreation in the context of social distancing is recommended. The present study led to the development of guidelines for the designation of areas suitable for tourism and recreation located in rural and urban-rural municipalities in the vicinity of cities. The study encompassed three stages which used the following research methods:

- 1) A literature review on best planning practices for determining areas for tourism and recreation and methods of assessing the potential of rural and suburban areas, including the organization of individual short-term tourism under conditions of limited social mobility. Literature studies, including scientific and grey literature, statistics, poll results, reports and planning documents were examined to identify effective spatial solutions that can be applied in rural and suburban municipalities to foster the development of new places for recreation. Additionally, factors shaping the attractiveness of areas were determined.
- 2) The definition of theoretical assumptions. It was assumed that the methodology for identifying potential areas (METPRET), using the Recreational Potential Index (RPI) [18], was suitable for use with planning documents. On the basis of the literature and the results of analyses of selected planning documents, guidelines have been developed for the designation of areas for tourism and recreation located in rural and suburban areas in the vicinity of cities (Fig. 1). The application of the developed guidelines will be a useful tool to support the decision-making process and will allow local government units to identify new directions for development.
- 3) The development of guidelines. The results of research using the METPRET methodology and the RPI [18] allowed for the development of guidelines for the designation and development of areas for tourism and recreation located in rural and suburban areas in the vicinity of cities in the Mazovia Voivodeship. Suitable areas were identified, and requirements were indicated that should be introduced in the voivodeship strategic documents to enable local government units to effectively invest in the development of such areas. The following documents were used:
 - Strategy for the development of the Mazovia Voivodeship 2030,
 - Strategy for the development of the Mazovia Voivodeship 2030+ innovative Mazovia,
 - Spatial development plan for the Mazovia Voivodeship.

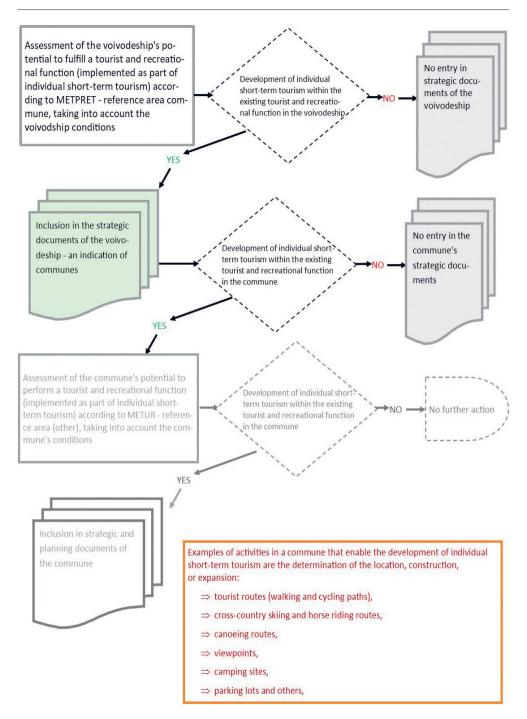


Fig. 1. A schema of guidelines for designating areas for tourism and recreation in rural and suburban areas located in the vicinity of cities

3. Planning Solutions Related to the Designation of Tourist and Recreational Areas in the Spatial Planning System in Poland

In the current legislation on spatial planning, there are no concepts directly related to tourism and touristic land use [19]. This concept can refer to the general, individual characteristics that distinguish an area in terms of the direction of the activity of its inhabitants, or as an economic and social activity that is a mechanism for development [20]. The latter approach should be understood as providing opportunities for tourism traffic development [21]. The literature indicates that touristic development is aimed at adapting space to tourist traffic [22], also referred to as tourism potential [23]. Tourist space should be characterized primarily by its natural [24] and cultural values [25, 26], which are complementary [27, 28]. In environmental terms, 'green infrastructure' is essential, since in addition to the natural aspect, it also aims at increasing accessibility to green spaces and thus supporting people's quality of life [29]. Touristic development consists of the elements that condition the development of tourism, i.e., transportation, accommodation and catering facilities and accompanying infrastructure [30].

Tourism infrastructure is an important factor in spatial layout as it has a significant impact on the landscape [31]. Therefore, despite the lack of direct reference in the spatial planning system to tourism development, it indirectly contains a number of regulations that can guide authorities in the development or conditioning of tourism in selected areas [32].

The Polish spatial planning system, regulated by the Act of 27 March 2003 on Spatial Planning and Development [33], is divided into three levels: national, voivodeship and local (commune). The 2020 amendment to the Act abolished the Concept of the National Spatial Planning (CNSP) 2030. In its place, under the Act of 6 December 2006 on the Principles of Development Policy [34], the Concept of National Development (NDC) 2050 is to be developed, which is to become a document combining socioeconomic and spatial planning. Despite the repeal of the existing CNSP 2030 in 2020, as of June 2022 the NDC 2050 has not been finalized and there are no detailed guidelines for drawing it up. The general scope covers national development scenarios and challenges in social, economic, and spatial dimensions. It can only be assumed that, similarly to the CNSP, the NDC document will contain general trends and directions for the development of the community network, which is only an indirect reference to the development of the function of tourism.

At the voivodeship level, several documents are available, including the Voivodeship Spatial Development Plan (VSDP), various analyses and studies, concepts and programs, and the landscape audit. The detailed scope of the VSDP (in line with the amendment to the Spatial Planning and Development Act) has not yet been enacted. However, from the general provisions of the Act, the plan should include, among

other things, the essential elements of the community network of the voivodeship. This includes communication and infrastructure links, including the directions of cross-border links, the system of protected areas, including areas for the protection of the environment, nature and cultural landscapes, the protection of resorts, cultural heritage and historical monuments as well as modern cultural assets, and the distribution of public-purpose investments of supra-local importance. Despite the lack of a direct reference to the issue of tourism, a number of indirect links can be found. Tourist traffic is directly linked to transportation accessibility [35], both public and individual. Combined with tourist values, the voivodeship authorities, determining the main functions of community centers, can set priorities for nature and landscape protection and communication development. These priorities can direct and foster the tourist development of voivodeship areas. Creating a network of bicycle routes increases the accessibility and attractiveness of rural areas [36]. This can also be achieved through the deployment of investments of supra-local importance directly related to tourism, such as sports and recreational facilities [37]. A landscape audit is of great importance for identifying areas with tourism potential, the recommendations of which are directly transferable to the VSDP. According to the Spatial Planning and Development Act, the landscape audit characterizes the landscapes found in the voivodeship and the location of priority landscapes, and makes recommendations and conclusions for shaping and protecting these landscapes. The identification and protection of areas valuable in terms of nature and scenery can be directly linked to the development of tourist areas, as they attract tourists seeking recreation in nature [38, 39]. Other documents drawn up at the voivodeship level which also indirectly affect the development of tourism constitute strategies by which voivodeship authorities can analyze the functioning of economic sectors of individual regions, including the state of spatial development. By defining the strategic objectives of voivodeship development policies and implementing operational programs, they can directly guide the development of individual functions carried out at the municipal level [19].

At the municipal level, the Study of Conditions and Directions of Spatial Development (SCDSP, 'the Study') expresses the municipality's spatial policy and the Local Spatial Development Plans (LSDP, 'the Local Plan') implement that policy. The Study, which is a requirement for the entire municipality, combines both conclusions and recommendations from higher-level documents, in particular, the VSDP and the landscape audit, as well as municipal strategies containing short- and long-term development plans. Despite the lack of a direct reference to tourism in the scope of the SCDSP, this document can broadly stimulate the development of tourism and enhance tourist assets. Municipal authorities, based on their analyses of natural, infrastructural, and socioeconomic conditions, have the opportunity in the SCDSP to indicate areas with functions directly related to recreation and leisure, or functions indirectly conditioning the attractiveness of tourist areas. This primarily concerns service functions that are direct tourist attractions or are tourist facilities.

In the literature, this is called the tourist economy, i.e., the development of economic and social functions to meet the demand for tourist goods [40]. The Study also provides indications for the development of transportation infrastructure, including bicycle and pedestrian trails that can form regional routes with adjacent municipalities. In addition, municipalities have the opportunity in the SCDSP to clarify public-purpose investments of local importance, which are vital for increasing tourist attractiveness, i.e., sports, recreational or cultural facilities [41]. A crucial aspect in the context of tourist attractiveness is spatial order and sustainable development. The SCDSP indicates those areas designated for development and those that are to be excluded, such as protected areas and areas with high natural and scenic values. The municipality can therefore plan the development of individual parts of the area ensuring all tourist values are met [42]. To prevent too intensive and aggressive urbanization, which occurs primarily in open suburban areas and negatively affects the development of tourism [43], municipal authorities can control the functions and intensity of development through urban indicators in the SCDSP.

The basic planning document at the local level is the LSDP, which ultimately determines the designation of land and the manner of its development and use. The Spatial Planning and Development Act only makes a direct reference to tourist land use in the case of a Local Plan, indicating that an LSDP may set the boundaries of recreational and leisure areas and locations for the organization of mass events. In addition, the municipality has the option of allocating land and making arrangements to ensure the creation of so-called tourist products, which are a collection of goods and services [44]. This includes the protection of naturally valuable areas from development and devastation [45], enabling both tourism development and the preservation of high natural capital [46], as well as the development of forest areas that are designated for tourism and recreation [47, 48]. Green infrastructure planning should ensure that environmental and human benefits are optimized [49] and that these areas are multifunctional [50]. Cultural assets are an important factor for tourism [51] and the protection of cultural areas and sites is the direct responsibility of the municipality, reflected in the Local Plan. Planning the allocation of land for development is aimed at providing tourist facilities [52] constituting, among other things, accommodation and catering facilities [53] and supporting infrastructure [54], i.e., hiking and biking trails. Planning documents at the municipal level also provide opportunities to protect and create local folklore and expressed forms of development, e.g., in the layout of buildings or architectural qualities, or regional products, which are increasingly a determinant of tourist traffic.

Spatial development in physical terms should be considered to be the sum of the interdependencies of territorial, surface, point, linear and nodal systems, objects and facilities, which form the existing state of functioning and use of a given area [55]. The literature emphasizes the need to choose an appropriate model for tourism development planning for the optimal use of space and to ensure attractiveness to tourists. It must consider the main characteristics of tourism, especially

seasonality, intensity and basic types of tourism [40]. It is also noted that the area identified for tourism should be divided into zones with different recreational use, ensuring maximum efficiency of recreation and collision-free exploitation of the area by selected forms of tourist traffic [56].

In 2020, a new package of legislation on development policy was introduced [57]. The changes implement the provisions of the Strategy for Responsible Development until 2020 with a perspective until 2030 regarding the consolidation of Poland's development management system and the staged introduction of a system of integrated strategies. This system encompasses the national, voivodeship and municipal levels, as well as a supra-local strategy for a group of neighboring, functionally linked local government units. The new regulations introduce a number of changes in the area of strategic planning. The aim of these changes is to integrate the social, economic, and spatial dimensions in strategic documents prepared at different levels of administration, including local government. At the local level, the changes mainly concern the municipal development strategy. The municipal development strategy ("the strategy" or "municipal strategy"), is a facultative document that guides the implementation and spatial planning documents. Its task is to diagnose the most important conditions and development needs, the commune's potential, describe the integrated approach and define the areas, objectives and activities of the socioeconomic policy to be pursued in the commune space [58]. The strategy has three basic roles: directing and securing the continuity of development policy, constituting the basis for applying for funding, and an integrative role. It is required to include a model of the functional and spatial structure of the municipality, findings and recommendations for the formation and conduct of spatial policy in the municipality, areas of strategic intervention as defined in the voivodeship development strategy, optional areas of strategic intervention for the municipality and a framework for financing the strategy.

4. Methods for Assessing the Potential of Rural and Suburban Areas for Tourism and Recreation

The spatial planning process in rural areas is largely determined by the degree of urbanization, the development of the communication network and agricultural production [30], which consequently leads to a change in the function and value of land. In the spatial planning of a municipality, it is important to identify opportunities for the diversification of economic activities that are able to provide a significant impetus to economic development. This might be the favorable location of the land next to a projected route, anticipated raw materials which may be available for extraction, or a very attractive tourist area [59]. Planning in a municipality concerns the immediate surroundings and is carried out at the greatest level of detail [60]. It should therefore be a process preceded by a comprehensive diagnosis of the existing state and an assessment of the potential of the natural environment [61]. It is commonly accepted

that the potential of the environment refers to all resources and values demonstrating the ability to satisfy broadly understood human needs [61]. In practice, this is very difficult to define because of the many possibilities for its use. An assessment of the potential of the natural environment is therefore made according to land use by means of land valorization. The degree of detail of the qualification and thus the number of separate categories is determined by the purpose of the study [62].

Tourist attractiveness depends on the features of the natural environment such as topography and land cover, cultural values, but also intangible aspects connected with hospitality of inhabitants and personal feelings of safety and peace [30, 63]. Furthermore, land devoid of sources of pollution and elements reducing scenic values is perceived as more valuable for tourists. For example, transit lines or industrial and storage zones act as potential destimulants [64, 65].

Among the criteria used in valorization for tourism purposes are those that determine the scenic, ecological, and cultural values of the landscape and its suitability for particular forms of recreation. Apart from water and forest coverage and the type of landform, which are most frequently considered [65], landscape diversity, legal forms of nature protection and abundance of unique natural or anthropogenic features are included [64, 66–74]. Moreover, the degree of the preservation of unaltered landscape and historical-cultural heritage [75] can also be examined. Other criteria relate to the state of the natural environment. They are taken into consideration due to their impact on the health of recreationists [74]. Water purity [66, 69], air quality and noise level [64, 69, 74–77], carbon footprint [77] or the amount of recovered waste [69] are assessed.

Finally, the accessibility of the area plays an important part of the valorization. This is an example of a multi-faceted criterion which concerns various factors such as the transport accessibility of sites and attractions, price, time and information availability [14, 78], as well as the provision of accommodation, catering and recreational equipment [74, 78–80].

The assessment of tourism potential should be conducted prior to the development of the study of the spatial conditions and directions and local spatial development plans in order to make informed planning decisions that consider local context [81]. The designation and appropriate development of land in a given community is extremely important and guarantees better conditions and a higher quality of life for residents [82].

An example of a synthetic measure to assess the potential of rural and suburban areas for tourism and recreation is the original RPI developed by Bielska et al. [18]. It comprises four criteria, considering the conditions of reduced mobility caused by the pandemic: landscape values and socioeconomic conditions (K1); environmental protection (K2); air quality (K3); transportation accessibility (K4). Each criterion is represented by universal indicators, for which the evaluation parameters were adjusted to the conditions of the Mazovia Voivodeship considering its characteristic features [18].

5. Characteristics of the Research Area

The chosen study area was the Mazovia Voivodeship (Fig. 2), which is located in the central-eastern part of Poland and is the largest voivodeship in terms of area (over 35 558 km²) and population (over 5 million inhabitants).

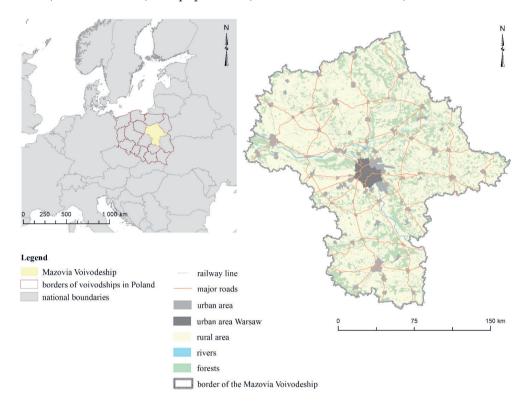


Fig. 2. Location of the research area in Poland and Europe Source: authors' own figure based on Topographic Objects Database and NRB

The capital of the Mazovia Voivodeship (and also the capital of Poland) is Warsaw, inhabited by approximately 1.7 million people, which is nearly a third of the voivodeship's population and 5% of the country's population. Around two-thirds (64.4%) of the voivodeship's population live in cities. The average population density in the Mazovia Voivodeship is 153 people per square kilometre (in Poland overall it is 123 people per square kilometre). It is one of four in Poland with the highest population growth and this trend will continue until 2028 [83]. Arable land covers 2.4 million ha, which is the highest nationally, constituting 13.4% of arable land in Poland. The area of arable land is decreasing at an accelerating rate, which is related to the allocation of arable land for non-agricultural purposes, including for housing [84].

The voivodeship mainly covers the historical-geographical region of Mazovia. It includes small areas of historical Lesser Poland, Podlasie, Kujawy and Dobrzyń Land. The fact that most of the Mazovia Voivodeship belongs to the Central European Lowland determines its lowland character. Small fragments of the eastern part of the voivodeship lie within the East Baltic-Belarusian Lowlands, whereas the southern part is within the Polish Uplands. River valleys such as the Vistula, Narew, Bug and Pilica are prominent in the landscape.

6. Guidelines for the Designation of Areas for Tourism and Recreation Located in Rural and Suburban Areas in the Vicinity of Cities

The results of the study allowed for the development of guidelines for the designation of areas for tourism and recreation located in rural and suburban areas in the vicinity of cities (Fig. 1). According to the guidelines, on the basis of the METPRET methodology using the RPI, the potential of the voivodeship to fulfil tourism and recreational functions should be assessed. The assessment will make it possible to select the municipalities in the voivodeship with a very high and high potential to fulfil the functions for individual short-term tourism. The RPI in the voivodeship should be determined in relation to the area of the commune. This will make it possible to specify recommendations for development options for selected communes in the voivodeship's strategic documents and, at the same time, to introduce appropriate measures in the specified communes. This is the optimal solution since the commune is the basic administrative unit in Poland to which planning documents refer and statistical data are aggregated. Some possibilities in this respect are provided by the Municipality Development Strategy, developed on the basis of the amended regulations (Act of 15 July 2020, amending the Act on the Principles of Development Policy and various other Acts [57]). At the stage of social, economic, and spatial diagnosis, it is necessary to consider the potential of the municipality to perform tourist and recreational functions based on the RPI. The use of benchmarking in the diagnosis will allow the municipality to be placed within a broader context, including neighboring municipalities, as well as in relation to national and voivodeship averages. It is also possible to conduct a comparison with selected leading municipalities to identify and creatively adapt and adopt best solutions and practices.

The conditions of limited mobility caused by the COVID-19 pandemic have resulted in the need to seek out new areas for individual short-term tourism. After appropriate design and investment, these areas may permanently become an optimal solution for the multifunctional development of rural areas. The introduction of such assumptions in strategic documents will be a strong motivation for municipalities to obtain funds and develop tourism and recreation in areas hitherto not exploited for this purpose. Therefore, it is proposed to introduce provisions that will clearly

define these needs and we suggest such provisions in the strategic documents of the Mazovia Voivodeship:

"The voivodeship has a potential for the development of tourism and recreation realized as individual short-term tourism. Landscape values and socio-economic conditions, transportation accessibility and air quality make it possible to organize recreation as part of individual short-term tourism also in conditions of limited mobility and social isolation. The following municipalities have very good predispositions in this respect: Borkowice, Odrzywół, Gielniów, Siemiątkowo, Wodynie, Kołbiel, Słubice, Białobrzegi, Pilawa, Sarnaki, Lutocin, Chotcza, Stromiec, Łochów, Domanice, Mokobody, Wiśniew, Lipowiec Kościelny, Rząśnik, Kozienice, Stoczek, Szczutowo, Brochów, Cegłów, Nowy Dunin, Korczew, Sobienie-Jeziory, Wyśmierzyce, Celestynów, Mrozy, Długosiodło, Brok, Sadowne, Brańszczyk, Łaskarzew, Łąck, Garbatka-Letnisko, Ceranów, Solec nad Wisłą, Osieck, Wilga, Pionki, Maciejowice".

Areas with the potential for the development of individual short-term tourism require investment and the development of tourist and tourism-related infrastructure, depending on the proposed "recreation activities" offer. For municipalities, it is advisable to conduct an assessment of this potential in relation to the area of the geodesic precincts. This will allow a detailed assessment of the conditions present in the various parts of the municipality. Consequently, it will be possible to make appropriate provisions in the strategic and planning documents at the municipal level. In the currently recommended integrated approach to the municipal development strategy, it should be remembered that it is not only quality of life and economic development that are central to the strategy, as has been the case in most strategic documents to date. Attention should also be paid to the quality of the spatial development which significantly affects quality of life. The objectives, directions, and actions proposed in the strategy can therefore be thematic.

Such a solution provides opportunities to establish the direction of the development of areas and to plan detailed actions concerning the development of the tourism infrastructure in a rural municipality (or in the rural part of an urban-rural municipality). Examples of activities could be the identification of the location, construction, or extension of:

- tourist trails (pedestrian and bicycle paths),
- cross-country skiing routes,
- canoeing routes,
- viewpoints,
- camping sites, parking lots, etc.

Other measures relevant to the development of individual short-term tourism may concern the introduction of improvements for disabled people, senior citizens, and families with young children. Systematic and planned measures and investments will have a positive impact on the development of the municipality, including the diversification of income and an increase in the quality of recreation of the inhabitants of nearby towns, particularly under conditions of limited mobility.

7. Discussion

The aim of the present study was to develop guidelines for the designation and development of areas identified for tourism and recreation in rural and suburban areas in the vicinity of cities. The results made it possible to determine the characteristics of such areas under pandemic conditions. The METPRET methodology has high application potential. In particular, it can be used in the preparation of municipal development strategies drawn up using an integrated approach [57, 58] as an auxiliary approach to building a model of the functional and spatial structure of a municipality as part of new development strategies. The model is intended to present a long-term strategic vision for the development of the municipality, resulting from internal and external conditions, diagnosed development needs and potential possessed, considering specificity and internal diversity [58].

The METPRET methodology using RPI provided the basis for the formulation of guidelines for the designation of areas for tourism and recreation. The use of the guidelines in the development of strategic documents at the local level (municipal and voivodeship) will make it possible to exploit the potential of a given municipality for short-term tourism and, at the same time, may help to promote the region by informing and persuading people to take advantage of the regional offer. Local governments should be the catalyst for changes in the tourism offer [14] because they own part of the tourism infrastructure (cultural institutions, transportation infrastructure, small tourist architecture) and shape the development policy of a given territorial unit. Local authorities therefore have the potential to indicate which tourism products are worth creating based on local attractions and spatial resources and, consequently, to direct the attention of urban residents to rural areas to meet recreational needs in times of pandemic.

One way in which a municipality can provide infrastructure may be to cooperate with neighboring municipalities to jointly finance the most capital-intensive projects [84, 85]. Recent amendments to the Act of 6 December 2006 on the Principles of Development Policy [57] provide a basis for cooperation between municipalities by creating supra-municipal development plans [86]. This allows for cooperation on individual short-term tourism development policies, plans to be linked in neighboring municipalities and infrastructure solutions to be established to support different forms of leisure, including linear forms. Importantly, inter-municipal cooperation can also involve investment by urban municipalities in the areas of rural municipalities as a natural and recreational hinterland of the city. Activities undertaken as part of inter-municipal cooperation will therefore influence the shaping of the development potential of local governments [87].

The local development of tourism and recreation will be facilitated by expanding the necessary technical infrastructure of rural communes and promoting these places among the inhabitants of nearby towns. City residents will have the opportunity to satisfy their need for a short rest by visiting attractive places quickly and

relatively cheaply. However, it should be noted that there are various groups of stakeholders in the commune (residents, local authorities, entrepreneurs, external investors, external consumers of goods and services produced in a given place) and their needs, preferences and commitment will determine the directions and degree of use of natural and cultural resources of a given area. Since the effects of tourism development may also be adverse, it is necessary to implement preventive and corrective mitigating measures. This is the task of local authorities, as is stimulating local entrepreneurship and innovation, which leads to an enhancement of the competitiveness of a given area [88].

The pandemic has been seen as an opportunity to transform the tourism industry in accordance with the demands of sustainable development, i.e., a move away from mass tourism, which has led to the degradation of the natural environment and substantial disruption to the lifestyle of the community in popular resorts [89]. An alternative is slow tourism, a mode which is based on authentic experiences, calming down, establishing relationships with local residents and respecting the environment, expressed primarily by choosing closer destinations where access generates lower levels of air pollution [90, 91]. It is expected that the more unpopular locations with amenable accommodation facilities (including agritourism farms) that present themselves as safe places for rest during pandemics have a chance to attract tourists [13, 89, 91]. A relatively new trend is the introduction of tourism services as part of the sharing economy. Research by Balińska and Staśkiewicz [92] has shown that this form of service is also increasingly popular in Poland and its popularity is anticipated to increase further in the face of the uncertain socioeconomic situation and rising inflation. In this context, new possibilities for economic recovery in rural areas are emerging. For communes with higher potential for recreation to take advantage of this opportunity, they will need to provide appropriate tourist infrastructure and promote their short-term recreation sites among the inhabitants of nearby towns.

8. Summary and Conclusions

The experiences of the COVID-19 pandemic have shown that it is difficult today to make advance plans because of uncertain socioeconomic conditions. Tourism and recreation in rural areas are forms of non-agricultural entrepreneurship that contribute to the diversification of the local economy and enable multifunctional development. However, incurring expenditure on the development of the tourist function in rural and suburban areas is only justified in the case of communes with areas of natural value and high scenic values.

As part of the current research, guidelines were developed for the designation and development of areas for tourism and recreation as part of individual short-term tourism located in rural and suburban areas. The proposed criteria for designating these areas can be used in preparing strategic and planning documents. Areas

characterized by high and very high RPI are those covered by various forms of nature protection, with an attractive landscape (forests, surface waters), where there are no favorable conditions for the development of large-area agriculture, with clean air and good transport accessibility (travel time up to 60 minutes). Using the METPRET and SWPR methodology in the area of the Mazovia Voivodeship, the research allowed for the development of proposals to be included in the strategic documents of the voivodeship. These proposals indicated the need to seek out new areas with the potential for individual short-term tourism and recreation. The possibility of introducing such provisions in documents at the commune level was also indicated. In addition, the designed solutions are utilitarian because, based on the collected data, it will be possible to manage space in other crises effectively. Crises can result from both environmental and socioeconomic threats. In uncertain circumstances, an integrated approach to spatial policy is essential as it ensures the ability of urban, sub-urban, and rural areas to adapt to the changes and their sustainable development.

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Author Contributions

Author 1: conceptualization, investigation and methodology, formal analysis, data curation and visualization, writing – original draft, writing – review & editing.

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Author 3: conceptualization, investigation and methodology, writing – original draft.

Author 4: conceptualization, investigation and methodology, formal analysis, data curation and visualization, writing – original draft.

Author 5: conceptualization, investigation and methodology, writing – original draft.

Author 6: conceptualization, investigation and methodology, formal analysis, data curation and visualization, writing – original draft.

References

- [1] Karwat-Woźniak B.: *Transition processes in selected socio-economic structures of rural areas and agriculture in Poland.* Folia Pomeranae Universitatis Technologiae Stetinensis. Oeconomica, nr 77, 2014, pp. 35–46.
- [2] Novickytė L.: *Income risk management in agriculture using financial support*. European Journal of Sustainable Development, vol. 7(4), 2018 pp. 191–202. https://doi.org/10.14207/ejsd.2018.v7n4p191.

[3] Cong L., Zhang Y., Su Ch.-H., Chen M.-H., Wang J.: *Understanding tourists'* willingness-to-pay for rural landscape improvement and preference heterogeneity. Sustainability, vol. 11(24), 2019, 7001. https://doi.org/10.3390/su11247001.

- [4] Sari D.: *A study on the qualities that affect preference of rural recreation areas*. Applied Ecology and Environmental Research, vol. 17(5), 2019, pp. 11509–11523. https://doi.org/10.15666/aeer/1705_1150911523.
- [5] Spychała A., Graja-Zwolińska S.: *Rural tourism in Poland*. Journal of Institute of Economic Research. J.S.S. Institute of Economic Research, vol. 26, 2018, pp. 85–106.
- [6] Yang J., Yang R., Chen M.-H., Su Ch.-H., Zhi Y., Xi J.: Effects of rural revitalization on rural tourism. Journal of Hospitality and Tourism Management, vol. 47, 2021, pp. 35–45. https://doi.org/10.1016/j.jhtm.2021.02.008.
- [7] Buckley R., Westaway D.: *Mental health rescue effects of women's outdoor tourism: A role in COVID-19 recovery*. Annals of Tourism Research, vol. 85, 2020, 103041. https://doi.org/10.1016/j.annals.2020.103041.
- [8] Jiricka-Pürrer A., Brandenburg Ch., Pröbstl-Haider U.: City tourism pre- and post-covid-19 pandemic Messages to take home for climate change adaptation and mitigation? Journal of Outdoor Recreation and Tourism, vol. 31, 2020, 100329. https://doi.org/10.1016/j.jort.2020.100329.
- [9] Honey-Rosés J., Anguelovski I., Chireh V.K., Daher C., Konijnendijk van den Bosch C., Litt J.S., Vrushti Mawani et al.: *The impact of COVID-19 on public space: an early review of the emerging questions design, perceptions and inequities*, Cities & Health, vol. 5(suppl. 1), 2021, pp. S263–S279. https://doi.org/10.1080/23748834.2020.1780074.
- [10] Dobiegała A.: 59 proc. Polaków nie wyjedzie w tym roku na wakacje. "Grecja odpada. Chorwacja też. Może stanie na podróży w Bieszczady. Bez dzieci". wyborcza.pl, 15.06.2022. https://trojmiasto.wyborcza.pl/trojmiasto/7,35612,28580738,wakacje-drozeja-z-dnia-na-dzien-a-przecietny-kowalski-zaciska.html [access: 15.06.2022].
- [11] Napierała T.: *Usługi hotelowe na obszarach wiejskich w Polsce* [Hotel infrastructure in the rural areas of Poland]. Studia Obszarów Wiejskich, t. 53, 2019, pp. 51–62. https://doi.org/10.7163/SOW.53.4.
- [12] Wiskulski T.: COVID-19 and tourism the case of Poland. Prace Komisji Geografii Komunikacji PTG – Transport Geography Papers of Polish Geographical Society, nr 23(2), spec. iss., 2020, pp. 35–39. https://doi.org/10.4467/2543859XP-KG.20.005.12103.
- [13] Wojcieszak-Zbierska M.M., Jęczmyk A., Zawadka J., Uglis J.: *Agritourism in the era of the coronavirus (COVID-19): A rapid assessment from Poland.* Agriculture, vol. 10(9), 2020, 397. https://doi.org/10.3390/agriculture10090397.
- [14] Bański J., Kulikowski R.: *Analiza obszarów wiejskich pod kątem konkurencyjności i towarowości*. Studia Obszarów Wiejskich, t. 16 (*Analiza zróżnicowania i perspektyw rozwoju obszarów wiejskich w Polsce do 2015 roku*), 2009, pp. 39–54.

- [15] Mazowieckie Biuro Planowania Regionalnego: Raport z badań ruchu turystycznego w województwie mazowieckim w latach 2015–2017. Trendy Rozwojowe Mazowsza, nr 21, 2019.
- [16] Cervinka M., Svajdová L., Tykva T.: *Thematic tourism vs. mass tourism in the Czech Republic*. Turističko poslovanje, br. 13, 2014, pp. 95–107. https://doi.org/10.5937/TurPos1413095C.
- [17] Ziółkowska-Weiss K., Żemła M.: Charakterystyka turystyki miejskiej wśród studentów krajów Grupy Wyszehradzkiej. Przedsiębiorczość Edukacja, t. 14 (Rola przedsiębiorczości w rozwoju społeczno-gospodarczym), 2018, pp. 359–373.
- [18] Bielska A., Borkowski A., Czarnecka A., Delnicki M., Kwiatkowska-Malina J., Piotrkowska M.: Ocena potencjału obszarów podmiejskich i wiejskich do pełnienia funkcji turystyczno-rekreacyjnej w tym w zakresie indywidualnej turystyki krótkotrwałej w warunkach pandemii. Politechnika Warszawska, Warszawa 2022.
- [19] Maliszewski C.: Planowanie przestrzenne obszarów turystycznych i rekreacyjnych w świetle obowiązujących regulacji prawnych [Spatial Planning in tourist and recreation areas in the light of the binding legal regulations]. Człowiek i Środowisko, nr 38(3–4), 2014, pp. 69–90.
- [20] Suliborski A.: Funkcje i struktura funkcjonalna miast: studia empiryczno-teoretyczne: komentarz do zbioru monotematycznych publikacji stanowiących rozprawę habilitacyjną. Rozprawy Habilitacyjne Uniwersytetu Łódzkiego, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2001.
- [21] Matczak A.: *Problemy badania funkcji turystycznej miast Polski*. Turyzm, t. 5, 1989, pp. 27–39.
- [22] Warszyńska J., Jackowski A.: *Podstawy geografii turyzmu*. Państwowe Wydawnictwo Naukowe, Warszawa 1978.
- [23] Marciszewska B.: *Potencjał turystyczny regionu a kreowanie jego wizerunku*. [in:] Meyer B. (red.), *Potencjał turystyczny: zagadnienia przestrzenne*, Zeszyty Naukowe Uniwersytetu Szczecińskiego, nr 590, Ekonomiczne Problemy Usług, nr 52, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2010, pp. 13–21.
- [24] Liszewski S.: *Przestrzeń turystyczna* [Tourist space]. Turyzm, t. 5(2), 1995, pp. 87–103.
- [25] Mileska M.I.: Regiony turystyczne Polski: stan obecny i potencjalne warunki rozwoju. Prace Geograficzne Polska Akademia Nauk. Instytut Geografii. nr 43, Państwowe Wydawnictwo Naukowe, Warszawa 1963.
- [26] Bar R., Doliński A.: *Turystyka*. Wyd. 3. Wydawnictwa Szkolne i Pedagogiczne, Wrocław 1978.
- [27] Butler R., Pearce D. (eds.): *Change in Tourism: People, Places, Processes.* Routledge, London, New York 1995.
- [28] Kurek W. (red.): Turystyka. Wydawnictwo Naukowe PWN, Warszawa 2007.

[29] Lafortezza R., Davies C., Sanesi G., Konijnendijk van den Bosch C.: *Green Infrastructure as a tool to support spatial planning in European urban regions*. iForest – Biogeosciences and Forestry, vol. 6, 2013, pp. 102–108. https://doi.org/10.3832/ifor0723-006.

- [30] Lijewski T., Mikułowski B., Wyrzykowski J.: *Geografia turystyki Polski*. Polskie Wydawnictwo Ekonomicze, Warszawa 2002.
- [31] Płocka J.: Turystyka: wybrane zagadnienia. Wydawnictwo Escape Magazine, Toruń 2009.
- [32] Meyer B. (red.): *Potencjał turystyczny: zagadnienia przestrzenne*. Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2010.
- [33] Ustawa z dnia 27 marca 2003 r. o planowaniu i zagospodarowaniu przestrzennym. Dz.U. 2003 nr 80, poz. 717 [Act of 27 March 2003 on spatial planning and development. Journal of Laws of 2003 no. 80, item 717].
- [34] Ustawa z dnia 6 grudnia 2006 r. o zasadach prowadzenia polityki rozwoju. Dz.U. 2006 nr 227, poz. 1658 [Act of 6 December 2006 on the Principles of Development Policy. Journal of Laws of 2003 no. 227, item 1658].
- [35] Mańkowski T.: System publicznego transportu zbiorowego w obsłudze ruchu turystycznego w województwie zachodniopomorskim. [in:] Meyer B. (red.), Potencjał turystyczny: zagadnienia przestrzenne, Zeszyty Naukowe Uniwersytetu Szczecińskiego, nr 590, Ekonomiczne Problemy Usług, nr 52, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2010, pp. 497–507.
- [36] Ritchie B.W., Hall C.M.: Bicycle tourism and regional development: A New Zealand case study. Anatolia, vol. 10, 1999, pp. 89–112.
- [37] Panasiuk A.: Współpraca i konkurencja podmiotów destynacji turystycznej. Przedsiębiorstwo i Region, nr 7 (Współpraca, konkurencyjność, rozwój), 2015, pp. 71–83.
- [38] Raszka B., Hełdak M., Szykowna H.: Obszary chronione jako miejsce turystyki aktywnej konflikty i współdziałanie organizatorów i użytkowników terenów rekreacyjnych. [in:] Meyer B. (red.), Potencjał turystyczny: zagadnienia przestrzenne, Zeszyty Naukowe Uniwersytetu Szczecińskiego, nr 590, Ekonomiczne Problemy Usług, nr 52, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2010, pp. 667–677.
- [39] Łuszczyk M.: Kontrowersje wokół rozwoju turystyki na obszarach przyrodniczo cennych. [in:] Meyer B. (red.), Potencjał turystyczny: zagadnienia przestrzenne, Zeszyty Naukowe Uniwersytetu Szczecińskiego, nr 590, Ekonomiczne Problemy Usług, nr 52, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2010, pp. 633–641.
- [40] Gaworecki W.: *Turystyka*. Polskie Wydawnictwo Ekonomiczne, Warszawa 2003.
- [41] Bramwell B.: *User satisfaction and product development in urban tourism*. Tourism Management, vol. 19(1), 1998, pp. 35–47. https://doi.org/10.1016/S0261-5177(97)00091-5.

- [42] Jakubowicz E., Toczek-Werner S., Sołtysik M.: *Wybrane zasoby strukturalne potencjału turystycznego (na przykładzie gminy Długołęka)*. [in:] Meyer B. (red.), *Potencjał turystyczny: zagadnienia przestrzenne*, Zeszyty Naukowe Uniwersytetu Szczecińskiego, nr 590, Ekonomiczne Problemy Usług, nr 52, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2010, pp. 95–105.
- [43] Poniży L.: Zagadnienia turystyczne w dokumentach planistycznych w aspekcie uwarunkowań przyrodniczych gmin powiatu poznańskiego [Natural conditions and tourist issues in the planning documents of selected communes of Poznań poviat]. Problemy Ekologii Krajobrazu, vol. 25, 2009, pp. 165–174.
- [44] Panasiuk A.: *Ekonomika turystyki*. Wydawnictwo Naukowe PWN, Warszawa 2006.
- [45] Kachniewska M.: Funkcja turystyczna jako determinanta jakości życia na wsi. [Tourism function as the determinant of the quality of life in village areas]. Folia Pomeranae Universitatis Technologiae Stetinensis. Oeconomica, nr 64, 2011, pp. 53–71.
- [46] Panfiluk E.: Kreowanie przestrzeni turystycznej obszarów przyrodniczo cennych na przykładzie Doliny Narwi [Creating tourist space of environmentally valuable areas on the example of the Narew river valley]. Turystyka i Rozwój Regionalny, t. 1 (Turystyka w rozwoju regionalnym), 2014, pp. 77–88.
- [47] Jalinik M.: *Obszary leśne w rozwoju turystyki* [Forest areas stimulating the development of tourism]. Ekonomia i Środowisko, nr 3(58), 2016, pp. 313–323.
- [48] Janeczko E.. Woźnicka M.: *Turystyka i rekreacja na terenach leśnych w dokumentach planistycznych gminy*. Studia i Materiały Centrum Edukacji Przyrodniczo-Leśnej, vol. 18, 2016, pp. 136–142.
- [49] Thomas K., Littlewood S.: From green belts to green infrastructure? The evolution of a new concept in the emerging soft governance of spatial strategies. Planning Practice & Research, vol. 25, 2010, pp. 203–222. https://doi.org/10.1080/02697451003740213.
- [50] Sandström U.G.: Green infrastructure planning in urban Sweden. Planning Practice & Research, vol. 17, 2002, pp. 373–385. https://doi.org/10.1080/02697450216356.
- [51] Gryszel P., Jaremen D.E., Rapacz A.: Park kulturowy jako stymulator rozwoju turystyki kulturowej. Przykład Kotliny Jeleniogórskiej. [in:] Meyer B. (red.), Potencjał turystyczny: zagadnienia przestrzenne, Zeszyty Naukowe Uniwersytetu Szczecińskiego, nr 590, Ekonomiczne Problemy Usług, nr 52, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2010, pp. 331–340.
- [52] Horbaczewska O.: Przestrzenne zróżnicowanie konkurencyjności i atrakcyjności turystycznej powiatów w Polsce [Spatial diversity of competitiveness and tourist attractiveness districts in Poland]. Studia Ekonomiczne, vol. 391, 2020, pp. 57–76.

[53] Szostak D.: Miejsce hotelarstwa w rozwoju lokalnego produktu turystycznego – Analiza wybranych czynników zwiększających ruch turystyczny. [in:] Rosa G., Smalec A. (red.), Marketing przyszłości: trendy, strategie, instrumenty: wybrane aspekty marketingu terytorialnego, Zeszyty Naukowe Uniwersytetu Szczecińskiego, nr 663, Ekonomiczne Problemy Usług, nr 75, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2011, pp. 269–277.

- [54] Butowski L.: Turystyka jako czynnik rozwoju w świetle wybranych teorii rozwoju regionalnego [Tourism as a development factor in the light of regional development theories]. Turyzm, t. 20(1), 2010, pp. 5–11.
- [55] Matuszewska D.: Zasady zagospodarowania terenu dla potrzeb turystyki i rekreacji. [in:] Młynarczyk Z., Zajadacz A. (red.), Uwarunkowania i plany rozwoju turystyki. T. 2: Zasoby antropogeniczne, krajobraz, ruch turystyczny, Turystyka i Rekreacja Studia i Prace, Wydawnictwo Naukowe Uniwersytetu im. Adama Mickiewicza, Poznań 2008, pp. 77–88.
- [56] Stalski M.: *Przestrzenne aspekty zagospodarowania turystycznego*. Studia Komitet Przestrzennego Zagospodarowania Kraju Polskiej Akademii Nauk, t. 41, Państwowe Wydawnictwo Naukowe, Warszawa 1973.
- [57] Ustawa z dnia 15 lipca 2020 o zmianie ustawy o zasadach prowadzenia polityki rozwoju oraz niektórych innych ustaw. Dz.U. 2020 poz. 1378 [Act of 15 July 2020 amending the Act on the principles of development policy and certain other acts. Journal of Laws of 2020 item 1378].
- [58] Hoinkis D., Cieplak J., Machowski T., Odzimek W.: *Strategia rozwoju gminy:* poradnik praktyczny. Ministerstwo Funduszy i Polityki Regionalnej, Warszawa 2021.
- [59] Woch F.: Wytyczne techniczne do opracowania programów urządzeniowo-rolnych gmin. Instrukcja Upowszechnieniowa, nr 150, Instytut Uprawy Nawożenia i Gleboznawstwa Państwowy Instytut Badawczy, Puławy 2008.
- [60] Bieda A., Hanus P., Hycner R.: Geodezyjne aspekty planowania przestrzennego i wybranych opracowań projektowych. Wydawnictwo Gall, Warszawa 2012.
- [61] Bródka S.: Ekofizjograficzne aspekty oceny potencjału rekreacyjnego [Eco-physio-graphic aspects of evaluating recreational potential]. Problemy Ekologii Krajobrazu, nr 27, 2014, pp. 59–64.
- [62] Hopfer A., Cymerman R., Nowak A.: *Ocena i waloryzacja gruntów wiejskich*. Państwowe Wydawnictwo Rolnicze i Leśne, Warszawa 1982.
- [63] Bąk I., Matlegiewicz M.: Przestrzenne zróżnicowanie atrakcyjności turystycznej województw w Polsce w 2008 roku. [in:] Meyer B. (red.), Potencjał turystyczny: zagadnienia przestrzenne, Zeszyty Naukowe Uniwersytetu Szczecińskiego, nr 590, Ekonomiczne Problemy Usług, nr 52, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2010, pp. 609–620.
- [64] Brzezińska-Wójcik T., Świeca A.: Przyrodnicze uwarunkowania rozwoju turystyki w wybranych gminach Wyniosłości Giełczewskiej (środkowowschodnia Polska) [Environmental determinants of tourism development in the selected municipalities

- *of the Giełczew Elevation (mid-eastern Poland)*]. Problemy Ekologii Krajobrazu, nr 27, 2014, pp. 65–72.
- [65] Potocka I.: Atrakcyjność turystyczna i metody jej identyfikacji. [in:] Młynarczyk Z., Zajadacz A. (red.), Uwarunkowania i plany rozwoju turystyki. T. 3: Walory i atrakcje turystyczne, potencjał turystyczny, plany rozwoju turystyki, Turystyka i Rekreacja Studia i Prace, Wydawnictwo Naukowe Uniwersytetu im. Adama Mickiewicza, Poznań 2009, pp. 19–32
- [66] Buczek-Kowalik M.: Waloryzacja turystyczna środowiska przyrodniczego wybranych gmin Pogórza Dynowskiego i Przemyskiego. [in:] Krupa J. (red.), Problemy ochrony środowiska przyrodniczego i kulturowego Pogórza Dynowskiego w rozwoju turystyki, Związek Gmin Turystycznych Pogórza Dynowskiego, Dynów 2016, pp. 309–321.
- [67] Duda-Seifert M.: Kryteria oceny atrakcyjności turystycznej obiektów architektury w świetle literatury [Criteria of evaluation of tourist attractiveness of architectural monuments based on the literature review]. Turystyka Kulturowa, nr 4, 2015, pp. 74–88.
- [68] Fornal-Pieniak B., Żarska B.: *Metody waloryzacji krajobrazowej na potrzeby turystyki i rekreacji* [*Methods of landscape evaluation for tourism and recreation*]. Acta Scientiarum Polonorum. Formatio Circumiectus, t. 13(2), 2014, pp. 3–9.
- [69] Dong H., Geng Y., Xi F., Fujita T.: *Carbon footprint evaluation at industrial park level: A hybrid life cycle assessment approach*. Energy Policy, vol. 57, 2013, pp. 298–307. https://doi.org/10.1016/j.enpol.2013.01.057.
- [70] Graja-Zwolińska S., Uglis J.: Syntetyczna ocena uwarunkowań rozwoju ekoturystyki w województwie wielkopolskim. [in:] Meyer B. (red.), Potencjał turystyczny: zagadnienia przestrzenne, Zeszyty Naukowe Uniwersytetu Szczecińskiego, nr 590, Ekonomiczne Problemy Usług, nr 52, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2010, pp. 609–620.
- [71] Jakiel M.: Ocena atrakcyjność wizualnej krajobrazu dolinek krakowskich możliwości zastosowania w planowaniu przestrzennym [Assessment of the visual attractiveness of the landscape: application in spatial planning]. [in:] Liro J., Liro M., Krąż P. (red.), Współczesne problemy i kierunki badawcze w geografii. Tom 3 [Contemporary problems and research directions in geography. Vol. 3], Instytut Geografii i Gospodarki Przestrzennej UJ, Kraków 2015, pp. 91–107.
- [72] Kistowski M.: Rola i zakres studiów fizycznogeograficznych w procedurze sporządzania opracowań ekofizjograficznych. [in:] Śmigielska M., Słodczyk J. (red.), Geograficzne aspekty globalizacji i integracji europejskiej, Polskie Towarzystwo Geograficzne, Uniwersytet Opolski, Opole 2003, pp. 147–152.
- [73] Miazek P.: Przyczyny zróżnicowania ruchu turystycznego w polskich parkach narodowych [Causes of variations in the scale of tourism in Polish national parks]. Turyzm, t. 30(1), 2020, pp. 73–86. https://doi.org/10.18778/0867-5856. 30.1.19.

[74] Wyrzykowski J.: *Potencjał turystyczny w ujęciu geograficznym*. [in:] Meyer B. (red.), *Potencjał turystyczny: zagadnienia przestrzenne*, Zeszyty Naukowe Uniwersytetu Szczecińskiego, nr 590, Ekonomiczne Problemy Usług, nr 52, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2010, pp. 609–620.

- [75] Gonda-Soroczyńska E., Przybyła K.: Poziom rozwoju infrastruktury technicznej w gminach wiejskich powiatu jeleniogórskiego [The level of development of technical infrastructure in rural districts of Jelenia Góra commune]. Infrastruktura i Ekologia Terenów Wiejskich, nr 10, 2011, pp. 197–204.
- [76] Zajadacz A.: Potencjał turystyczny miast na przykładzie wybranych miast Sudetów Zachodnich. Bogucki Wydawnictwo Naukowe, Poznań 2004.
- [77] Jęczmyk A., Uglis J., Kasprzak K.: Zanieczyszczenie powietrza a turystyka [Smog and tourism]. Polish Journal for Sustainable Development, t. 23(2), 2019, pp. 17–24. https://doi.org/10.15584/pjsd.2019.23.2.2.
- [78] Borkowska-Niszczota M.: Ocena potencjału turystycznego obszarów przyrodniczo cennych województwa podlaskiego [Assessment of the tourism potential of the naturally valuable areas of Podlaskie voivodship]. Ekonomia i Zarządzanie, nr 1, 2014, pp. 311–332.
- [79] Bański J., Rudolf A., Przybył C., Bednarek-Szczepańska M., Czapiewski K., Mazur M., Pieniążek W.: *Turystyka wiejska, w tym agroturystyka jako element zrównoważonego i wielofunkcyjnego rozwoju obszarów wiejskich*. Agrotec Polska Sp. z o.o., IGiPZ PAN, Warszawa 2012.
- [80] Gierańczyk W., Gierańczyk W.: Przestrzenne zróżnicowanie infrastruktury turystycznej w Polsce w świetle typologii obszarów wiejskich według OECD i EUROSTAT [Spatial diversity of tourist infrastructure in Poland in view of the OECD and EUROSTAT typology of rural areas]. Barometr Regionalny, t. 11(1), 2013, pp. 45–55.
- [81] Krekhovetska I.: Potencjał rekreacyjny górskich terenów wiejskich w rejonie rożniatowskim w obwodzie iwano-frankowskim [Recreational Potential Mountainous Rural Area Rozhniativ District, Ivano-Frankivsk]. Infrastruktura i Ekologia Terenów Wiejskich, nr I/1, 2014, pp. 35–48.
- [82] Bielska A., Krupińska I.: Ocena potencjału środowiska przyrodniczego i kierunków rozwoju jako element planowania przestrzennego gminy wiejskiej [Assessment of the natural environment potential and directions of development as an element of spatial planning of a rural commune]. Infrastruktura i Ekologia Terenów Wiejskich, nr II/1, 2016, pp. 473–484.
- [83] Główny Urząd Statystyczny: *Powszechny Spis Rolny* 2020. *Raport z wyników*. 11.08.2021. https://stat.gov.pl/obszary-tematyczne/rolnictwo-lesnictwo/psr-2020/powszechny-spis-rolny-2020-raport-z-wynikow,4,1.html [access: 20.11.2021].
- [84] Trojanek M.: *Oddziaływanie władzy lokalnej na efektywność przedsięwzięć inwestycyjnych.* Zeszyty Naukowe, Seria 2, Prace Habilitacyjne / Akademia Ekonomiczna w Poznaniu, Wydawnictwo AE, Poznań 1994.

- [85] Bończak-Kucharczyk E., Cousins L., Herbst K., Stewart M.: *Lokalne strategie rozwoju gospodarczego: poradnik dla gmin i liderów lokalnych.* Brytyjski Fundusz Know-How, Fundusz Współpracy, Warszawa 1996.
- [86] OECD: Planowanie strategiczne rozwoju lokalnego w Polsce. [in:] Lepsze zarządzanie, planowanie i dostarczanie usług w jednostkach samorządu lokalnego w Polsce, OECD Publishing, Paris 2021, pp. 118–157. https://doi.org/10.1787/b1c061dd-pl.
- [87] Rulińska M.: Współpraca pomiędzy jednostkami samorządu terytorialnego. Fundacja Rozwoju Demokracji Lokalnej, Warszawa 2003.
- [88] Balińska A.: Znaczenie turystyki w rozwoju gmin wiejskich na przykladzie obszarów peryferyjnych wschodniego pogranicza Polski. Wydawnictwo SGGW, Warszawa 2016.
- [89] Sztuk A.: Zmiany w wyborach destynacji turystycznych w okresie pandemii CO-VID-19: szansa dla małych miast [Changes in tourist destination choices during the COVID-19 pandemic: Opportunity for small towns]. [in:] Nowak W., Szalonka K. (red.), Zdrowie i style życia: ekonomiczne, społeczne i zdrowotne skutki pandemii, E-Wydawnictwo. Prawnicza i Ekonomiczna Biblioteka Cyfrowa. Wydział Prawa, Administracji i Ekonomii Uniwersytetu Wrocławskiego, Wrocław 2021, pp. 155–174. http://doi.org/10.34616/142089.
- [90] Burmecha-Olszowy M.: *Slow tourism: cechy i funkcje nowego nurtu w turystyce* [*Slow tourism: features and functions of the new trend*]. Rozprawy Naukowe Akademii Wychowania Fizycznego we Wrocławiu, t. 45, 2014, pp. 177–184.
- [91] Żylski T.: Turystyka w czasach pandemii. Architektura Murator, 29.09.2021.
- [92] Balińska A., Staśkiewicz D.: "Sharing economy" w gospodarce turystycznej: kontekst teoretyczny i empiryczny. Wydawnictwo SGGW, Warszawa 2021.