

NATURE THERAPY AND SUSTAINABLE RURAL TOURISM DEVELOPMENT. A PLANNING CONCEPT FOR WOLA KOMBORSKA

Ewa Trzaskowska¹✉, Natalia Prajsnar²✉

¹ ORCID: 0000-0002-7698-9471

² ORCID: 0009-0007-8875-8527

¹ Katolicki Uniwersytet Lubelski
Konstantynów Street, 1H, 20-950 Lublin, Poland

ABSTRACT

Motives: The article addresses the need for sustainable tourism development in rural areas with high natural value. With increasing interest in health and wellness tourism, nature-based therapies such as forest therapy, apitherapy, phytotherapy, hippotherapy, and terrain therapy offer opportunities to enhance both the attractiveness of rural destinations and the well-being of tourists. There is a growing necessity to integrate the therapeutic uses of nature with tourism infrastructure while preserving environmental integrity.

Aim: To develop a spatial concept for local tourism based on the principles of sustainable development and therapeutic interaction with nature, using the village of Wola Komborska as a case study. The research aims to demonstrate how nature therapy can be integrated into rural tourism to support both human well-being and the long-term attractiveness of natural areas.

Results: The study proposes a spatial tourism development concept based on GIS analysis and field assessment to the natural conditions of Wola Komborska, including proposed infrastructure such as walking paths, viewpoints, and small-scale services. It emphasizes the therapeutic potential of the local landscape, microclimate, vegetation, and animals, proposing their sustainable use in health-promoting tourism forms such as agritourism and qualified tourism. The findings underline the importance of preserving natural resources to ensure the longevity and sustainability of rural tourism.

Keywords: sustainable tourism, nature therapy, rural development, Wola Komborska

INTRODUCTION

In Poland, as in many other countries, average life expectancy is steadily increasing, and people want to live in the best possible physical and mental condition (Dąbrowska et al., 2019). This has led to growing demand for services that improve quality of life, comfort, and help maintain health. According to the World Health Organization, health is not merely the

absence of disease but a state of complete mental, physical, and social well-being (Schramme, 2023). In common understanding, good health is often associated with a well-maintained body, but this is difficult to achieve without physical activity. Research (Williams, 2018) indicates that greater benefits come from outdoor exercise, such as walking in forests, parks, and other open-air activities.

✉etrzaskowska@kul.pl, ✉n.prajs1111@gmail.com

Many local governments are choosing to organize and invest in outdoor gyms, which provide people with access to exercise equipment without the need to purchase gym or fitness club memberships (Bajdalska & Knefel, 2018). Growing awareness of the positive impact of contact with nature on health has led to elements of nature therapy appearing in 4- and 5-star hotels and becoming part of the offerings at agritourism farms (Bajdalska & Knefel, 2018; Żmuda-Pałka, 2018). Rural tourism is also gaining importance as a form of leisure that combines recreation with health and well-being. Increasingly, it incorporates forest therapy (sylvotherapy), apitherapy, phytotherapy, and hippotherapy, all of which rely on natural assets and require minimal tourist infrastructure (Przezbórska, 2010). Rural areas also face a number of challenges, such as low economic productivity, migration to cities, declining employment, and a deterioration in quality of life. However, rural tourism is becoming one of the tools for development that can provide an alternative to traditional agricultural activities and support the socio-economic recovery of these areas (Liu et al., 2023). Sustainable development of traditional villages is more often achieved in small-scale tourism models, while intensification of tourist traffic increases the risk of negative social and environmental impacts. Rural tourism should be seen as a long-term process, requiring continuous adaptation of development strategies to local social, cultural, and environmental conditions (Li et al., 2024).

The growing significance of health-oriented tourism, combined with rising interest in nature-based leisure, strongly suggests that demand for such services will continue to increase. Consequently, interest in practical knowledge regarding the implementation of these tourism services is also expected to rise steadily (Bajdalska & Knefel, 2018). Wola Komborska, due to its rich forests, varied terrain, and historical traditions in beekeeping, represents an ideal location for the development of such activities. The aim of this article is to present a concept for sustainable tourism development that incorporates nature-based therapies, thereby supporting the growth

of rural tourism aligned with contemporary needs. The literature review will outline the distinctions between tourism and therapy involving nature (nature therapy). The results will present a concept for tourism development in Wola Komborska utilizing elements of nature therapy, which may serve as a model for shaping similar rural areas.

LITERATURE REVIEW

Nature-based therapies, known in Poland as *natureterapia*, *ecotherapy*, or *przyrodoterapia*, are grounded in the use of natural environmental resources to support human health and well-being (Perczak, 2016). However, these terms have distinct meanings. *Natureterapia*, derived from the English term *ecotherapy*, is a practical therapeutic approach linking mental and physical health with active contact with nature. It originates from the field of ecopsychology (Clinebell, 1996; Roszak, 1992). *Przyrodoterapia* (nature therapy), which includes forest therapy (*sylwoterapia*), aromatherapy, terrain therapy, dendrotherapy, balneotherapy, and other forms of interaction with the natural environment, is based on the assumption that all climatic stimuli, including outdoor activities, contribute to increased levels of “happiness hormones” and positively influence mood. The sounds of nature foster a sense of peace and harmony, support emotional calm and joy, while open spaces evoke feelings of comfort and balance (Kosiacka-Beck & Myszka, 2020). *Green therapy* refers to healing through contact with nature, which has proven relaxing and therapeutic properties (Poskrobko, 2013). In the strict sense, nature therapy is not a form of tourism, as its primary goal is therapy rather than recreation, travel, or the consumption of a tourism product (Avecillas-Torres et al., 2025). Nature therapy also does not fall under certain forms of tourism, such as qualified, rural, or agritourism, which take place in natural settings. Qualified tourism, practiced in environments like mountains, rivers, or forests, requires specialized skills, equipment, and physical fitness, for example, activities such as climbing,

kayaking, trekking, survival training, or cycling tourism. Nature therapy does not belong to this category, as it does not require specific competencies nor is it a form of physical activity in the athletic sense. Although both nature therapy and qualified tourism involve contact with nature, they constitute distinct categories. Rural tourism, which involves leisure in natural settings and is associated with landscape, tranquility, nature, and local culture (Balińska, 2016), is also not synonymous with nature therapy. Within rural leisure tourism, forms such as ecotourism, emphasizing active recreation in natural environments and ecological education, usually conducted in small groups (Matlegiewicz, 2009) and exploratory tourism, encompassing nature tourism, sightseeing tourism, and cultural tourism, are developing. These forms play a key role in the development of rural regions, where the natural environment serves a dominant function (Kosmaczewska, 2013). Nature tourism focuses on contact with nature while minimizing negative environmental impacts (Adamski & Ciapała, 2016). Sightseeing tourism enables learning about the unique morphological features of a region and supports sustainable local development (Stasiak et al., 2016). Cultural tourism, with its broad understanding of culture, includes, among others, culinary and ethnic tourism, which play important roles in preserving heritage and fostering the development of local communities (Kowalczyk, 2005; Małek, 2003; Motyka, 2016).

Qualified tourism is also associated with active contact with nature and, by definition, requires specialized skills and equipment. This category includes activities such as hiking and cycling tourism, which can be accessible to most people without special skills and are well suited to the landscapes of foothill areas (Balińska & Kowalska, 2011; Niezgoda, 2012).

Undoubtedly, when individuals visit the countryside to relax, find calm, or walk in the forest, nature therapy may become part of their experience. Similarly, agritourism, a subtype of rural tourism where accommodation is provided by farmers, includes attractions such as contact with the farm environment, food production, and local traditions.

In this context, elements of nature therapy may be present, for example, in silent retreats, close contact with nature, gardening activities (hortitherapy), or forest walks. However, the primary aim in agritourism remains experiencing rural life rather than therapy (Kandefer, 2002). Therefore, nature therapy can appear as a complementary element in agritourism, but it is not its main purpose. Between nature therapy and tourism, there exists a transitional zone where therapeutic and recreational goals intersect. Within this space, we find forms such as wellness or health-oriented tourism incorporating forest bathing, agritourism with horticultural therapy, and breathwork workshops. Although these are not classic forms of clinical therapy, nor can they be clearly classified as typical tourism, they represent a new quality of services at the intersection of health, personal development, and recreation. In practice, elements of nature therapy are increasingly integrated into tourist offerings, especially within wellness tourism, health-oriented tourism, and rural tourism (Bajdalska & Knefel, 2018). Modern forms of tourism development, particularly in areas of high natural value, often incorporate practices inspired by nature therapy, such as forest bathing (*shinrin-yoku*), mindful walking, horticultural therapy workshops (garden therapy), meditation and breathing exercises in natural settings, or contact with animals (zootherapy, also known as animal-assisted therapy). The inclusion of these activities in tourism offerings does not transform nature therapy into tourism *sensu stricto* but rather creates hybrid service models that combine leisure with elements of personal development and health (Table 1).

Contemporary tourism, as noted, often relies on the natural environment and cultural heritage; however, it frequently results in the overexploitation of these resources (Widawski et al., 2024). Only natural landscapes characterized by diverse terrain and rich vegetation stimulate all human senses, evoking feelings of harmony, relaxation, and stress reduction. Clean water and air are essential for effective rest and the therapeutic benefits of sunbathing, as well as river and lake bathing (Przezbórska, 2010). Undisturbed areas and forests, in turn, provide ideal conditions

Table 1. Comparative analysis of nature therapy and tourism

Criterion	Naturomy (ecotherapy)	Tourism (wellness, health-promoting, rural)
Main objective	Therapy, health, well-being	Leisure, experience, recreation
Sources	Psychology, ecology	Tourism studies, geography, recreation
Travel requirement	No	Yes
Implementation	Independently or in therapy	As part of a tourism product/service
Form	Therapeutic activities	Services, infrastructure, development
Example	Hortotherapy, meditation in the forest	Stay in a hotel, agritourism, guided walk
Connection to tourism	May be part of it	Is the overarching form

Source: own elaboration (2025).

for sylvotherapy, aromatherapy, terrain therapy, dendrotherapy, and balneotherapy (Kosiacka-Beck & Myska, 2020). A crucial factor is limiting tourist capacity to preserve the therapeutic qualities of the natural environment, which can deteriorate due to overuse (Poskrobko, 2013). Sustainable rural tourism development requires environmental protection, which includes promoting environmentally friendly practices and maintaining the integrity of ecosystems as a condition for long-term tourist attractiveness. Natural values are a key economic resource in rural tourism, helping to attract tourists and stimulate the development of the local economy (Priatmoko et al., 2023). Preserving nature's health-promoting effects is also vital in rural areas and extends to therapies such as hippotherapy, cynotherapy, felinotherapy, onotherapy, and apitherapy (Popiel, 2016; Przezborska, 2010).

MATERIALS AND METHODS

The research was conducted in 2024/2025 in the area of Wola Komborska and its immediate surroundings. Spatial analyses were performed, including an assessment of the existing tourist infrastructure, evaluation of natural and landscape resources, as well as functional-spatial and transport analyses. Based on the analysis, spatial development directions were delineated. The applied methodological approach is based on previous studies on rural tourism development and spatial planning in ecologically valuable areas (e.g., Dąbrowska et al., 2019; Przezborska, 2010), with the adaptation of tools used in the evaluation of landscape and therapeutic

potential of rural spaces. Spatial analyses were carried out using Geographic Information Systems (GIS), specifically QGIS software. The study used publicly available spatial data from the Head Office of Geodesy and Cartography (GUGiK), the General Directorate for Environmental Protection (GDOŚ), and local spatial planning documents. Field visits were conducted in spring and summer 2024 to verify selected features, assess accessibility, and document the therapeutic potential of landscape elements. The evaluation criteria included terrain diversity, vegetation types, presence of water features (e.g., streams, springs) (Dudek, 2013), as well as aesthetic and sensory qualities of the landscape. The description of the health-promoting properties of plant communities was based on the work of Krzymowska-Kostrowicka (1997). The assessment of landscape values was based on a point-rating method (Table 2), enabling a quantitative evaluation of environmental, sensory, landscape, and functional characteristics. This method enables a quantitative assessment of environmental, sensory, landscape, and functional characteristics, which allows for the systematic identification of areas most suitable for the development of nature-based tourism. The assessment used three groups of criteria that are key to determining the suitability of an area for the development of health tourism based on contact with nature. Natural and environmental values were treated as indicators of suitability for nature-based therapeutic functions. The second group of criteria concerned the therapeutic properties of landscape perception and environmental stimuli, including visual, acoustic, and microclimatic factors.

Table 2. Point-Based Assessment of the Landscape and Therapeutic Potential of the Area

Criteria group	Evaluation criterion	Scale (1–5)	Points
Natural and Environmental Assets	Forest cover and diversity of forest ecosystems	1–5	5
	Presence of favorable microclimates (stream valleys, slopes)	1–5	5
	Presence of water and springs (including the “Bartłomiej” sulfate spring)	1–5	4
	Geological features (rock formations, quarries)	1–5	5
	Landscape diversity (hills, valleys, clearings, meadows)	1–5	5
	Ecological connectivity (ecological corridor)	1–5	4
Landscape and sensory qualities	Attractiveness and complexity of views	1–5	5
	Noise level and natural soundtrack of the environment	1–5	4
	Microclimatic properties (humidity, air quality, ventilation)	1–5	5
	Stimuli supporting therapy (smells, tactile stimuli, terrain structure)	1–5	5
	Year-round attractiveness (phenological variability)	1–5	5
Functional and tourism features	Accessibility of the area (roads, trails)	1–5	4
	Existing and informal tourist infrastructure	1–5	3
	Safety and difficulty level of the terrain	1–5	4
	Proximity to local services and dining facilities	1–5	3
	Visibility of cultural elements (shrines, crosses, farmsteads)	1–5	4
Total		Max. 80	70

Source: own elaboration.

STUDY AREA

The study area covers the administrative boundaries of Wola Komborska and its immediate surroundings within approximately a 5 km radius. Wola Komborska is located in south-eastern Poland, in the Podkarpackie Province (Fig. 1).

The village is situated in the eastern part of the Korczyna municipality, bordering the Brzozów district to the northeast and south (Fig. 2).

The area is varied in terms of elevation, with valleys and hills dominating, while flat terrain is scarce. In the southeastern part of the village, there are rock outcrops. Several mountain streams flow through the area, most of which descend from forest-covered elevations where human impact is limited. The streams converge into the Rosielna Stream, which flows through the village and constitutes its main hydrological axis. In the central part of the village,

there is a sulfur spring called “Bartłomiej”¹. The entire area under analysis belongs to the Czarnorzecko-Strzyżowski Landscape Park, with the Bieszczady-Gorce-East ecological corridor running through the northwestern part of the village. The village’s cultural features mainly include sacred objects such as the church, wayside crosses, and chapels located along communication routes or road intersections, as well as farmstead buildings that, in some places, have preserved their original character (Fig. 3).

The village is accessible via national road No. 19, supplemented by county and municipal roads and a dense network of local routes. Other roads include a county road, municipal roads, and a dense network of local roads. The accommodation base consists of the agritourism farm “Dyziówka.” The area lacks designated educational trails, hiking routes, and cycling paths (Fig. 4).

¹ <https://www.pomniki-przyrody.pl/?tag=zrodlo-bartlomiej>



Fig. 1. Location of Wola Komborska on the national scale
Source: own elaboration.

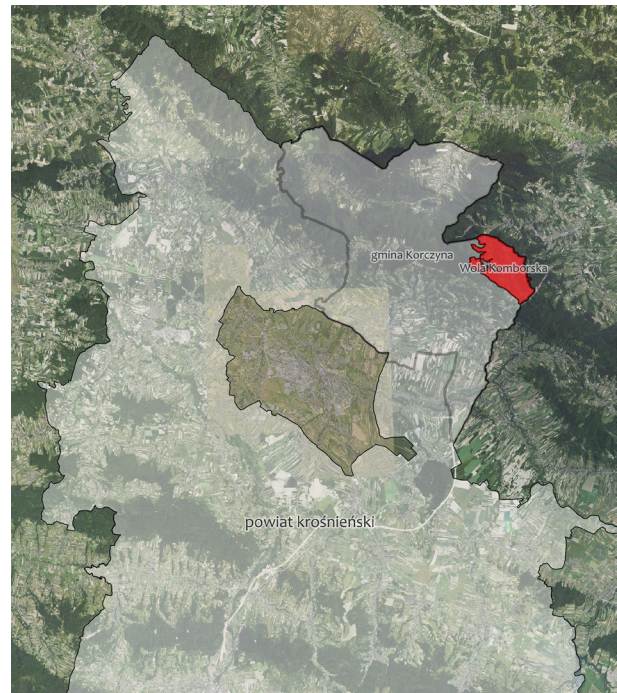


Fig. 2. Location of Wola Komborska on a regional scale
Source: own elaboration.

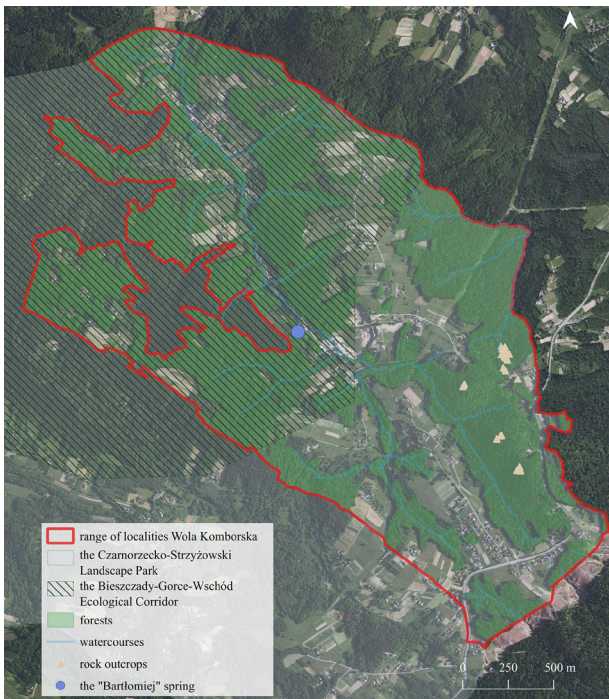


Fig. 3. Natural conditions in the village of Wola Komborska
Source: own elaboration.

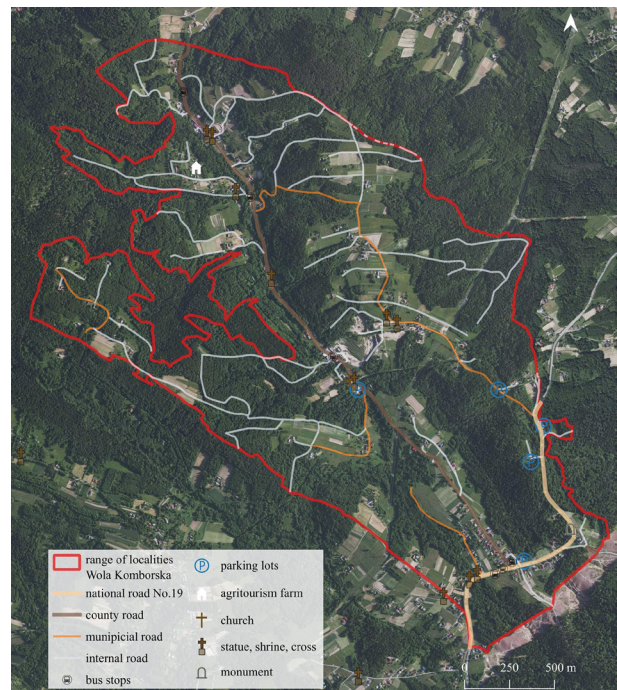


Fig. 4. Existing infrastructure in the town of Wola Komborska
Source: own elaboration.

RESULTS

Wola Komborska and its surroundings comprise forested areas with diverse species composition, a varied hilly terrain, stream valleys, and rock formations. In the central part of the village, there is a sulfate spring called “Bartłomiej,” and in the north-western part of the area, the Bieszczady–Gorce–East ecological corridor passes through. The high forest coverage, diverse terrain, and presence of watercourses provide conditions for potential use of the landscape for various forms of nature-based tourism.

Analysis of the existing infrastructure indicated that the area currently lacks designated hiking trails, cycling routes, and educational paths. The proposed hiking loop passes through the Działy region, encompassing hills, stream valleys, and forested areas, including the Rosielna stream valley. Areas with varied slopes are mainly located on hills and near rock outcrops, while in the valleys, forests occur in more scattered clusters.

The nature trail has been designed within the area of rock outcrops in the southeastern part of the village. This area includes rock formations with diverse mineral composition and varied terrain. In the north-western part of the village, “wild tourist infrastructure” in the form of a campsite was identified, located within a forested area.

In the central part of the village, a former sandstone quarry can function as a geological observatory, allowing for the observation of rock formations and surrounding terrain.

Agritourism in the area includes the “Dyziówka” farm, located near the forest, which provides accommodation and opportunities for observing local flora and fauna.

To assess the landscape and therapeutic potential, a point-based method was applied, covering three groups of criteria: natural and environmental values, landscape and sensory qualities, and functional-tourism features. Each criterion was rated on a scale of 1–5. The results are presented in Table 2.

The village and its surroundings are well-suited for walking and nature observation. A circular hiking

trail has been proposed to enable visitors to appreciate the natural and scenic values of the area. Within the Działy region, the route traverses hills offering views of the surrounding landscape, including the Dynów Foothills and the Strzyżów Foothills. A portion of the trail follows the valley of the Rosielna stream. The varied slopes add diversity to the route. The loop facilitates observation of mixed forests, vegetation typical of mountain stream valleys, plants accompanying cultivated fields, as well as thermophilic grasslands growing on steep slopes. Dense forest complexes dominate the hills, whereas in the valleys, tree clusters are more scattered alongside meadows and cultivated fields.

The nature trail has been designed within the area of rock outcrops located in the southeastern part of the village. The varied rock formations, diverse mineral compositions, numerous grooves, and landscape-enhancing vegetation encourage physical activity and also provide sensory experiences (such as smell and touch). The rock outcrops, together with their immediate surroundings characterized by varied terrain and steep slopes, remain attractive even during the autumn-winter period when visibility is enhanced. The mixed forests in this area are appealing year-round due to the presence of coniferous trees (Fig. 5).

The sandstone quarry, situated in the central part of the village, has been adapted as a geological observatory, showcasing the parent rocks of the sandstone, which is particularly significant in relation to the nearby rock outcrops. The observation point within the quarry offers views of the surrounding hills, especially the arrangement of the rock formations.

In the forested area in the northwestern part of the village, there is so-called “wild tourist infrastructure” in the form of a campsite, which constitutes a low-impact form of informal tourism infrastructure. This element is worth preserving as it supports the creation of programs incorporating elements of nature therapy, such as dendrotherapy, phytotherapy, and terrain therapy.

The historical traditions of beekeeping provide a solid foundation for the development of apitherapy, which can become an important component of the

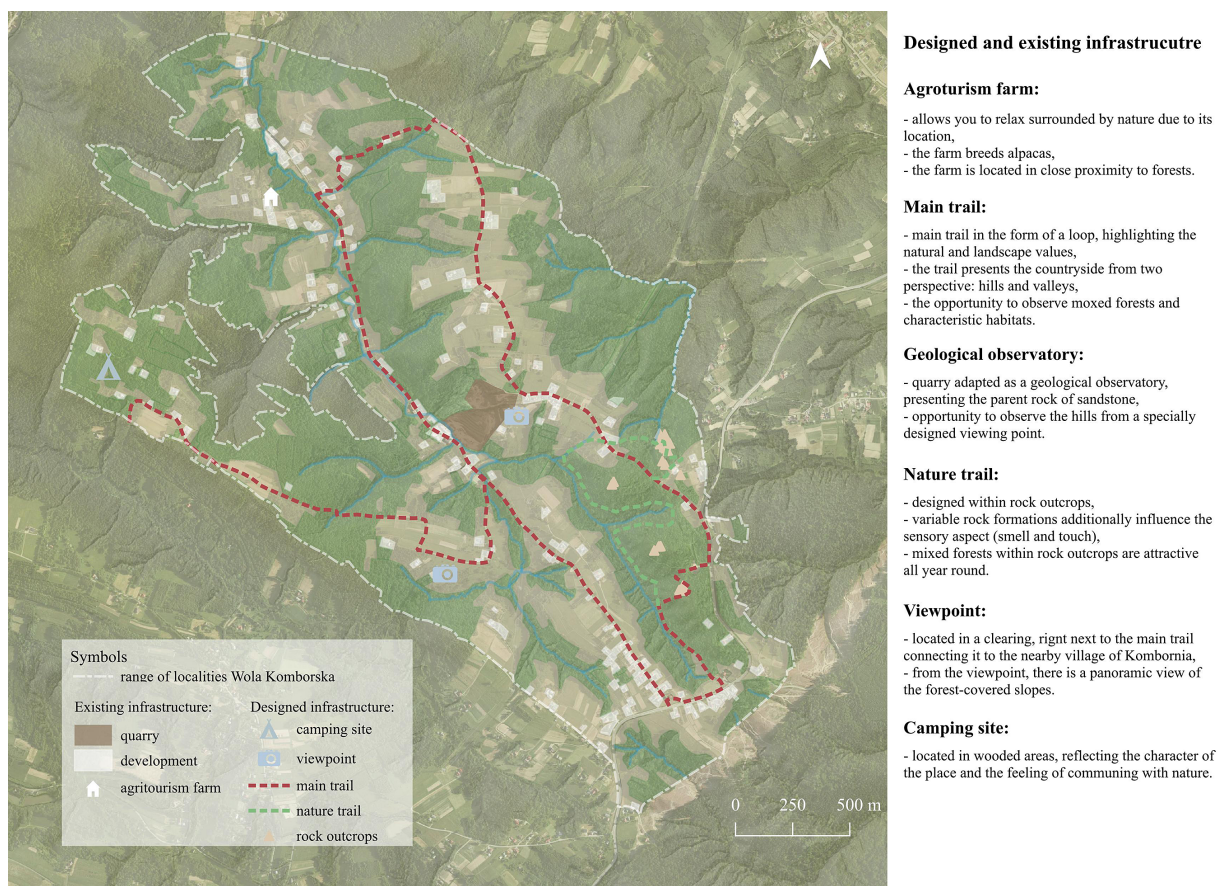


Fig. 5. Proposed forms of development
Source: own elaboration.

village’s tourism offerings. Rich herbal traditions allow for the introduction of phytotherapy, for example, through the organization of herbal workshops. Meanwhile, the vineyard located in the nearby village of Kombornia, accessible via the proposed trail, can promote wine therapy, which, according to Rutkowska-Podołowska and Podołowski (2014), has broad application possibilities, particularly due to the nurturing properties of grapes. Forms of vitality regeneration can be combined with attractions offered by agritourism farms that practice horticultural therapy and animal-assisted therapies. The agritourism farm “Dyziówka” provides relaxation amidst nature thanks to its location. The agritourism facility provides a base for integrating small-scale therapeutic and experiential tourism activities. The

close proximity of forests enables mushroom picking and wildlife observation. The farm breeds alpacas, whose fleece is used to make products, and guests can relax in the company of these and other animals (alpacas, cats).

The areas with high scores correspond to places where a walking loop, a nature trail in the rocks, and viewpoints have been planned.

The results of the functional and spatial assessment made it possible to identify locations suitable for a circular trail, a nature trail in the rocks, a geological observation point in the quarry, and areas conducive to apitherapy, agritourism programs, and therapies based on agriculture and contact with animals. Scoring and interpretation of results. Each location was assigned a total number of points, which was the

sum of the scores from three groups of criteria. The results were interpreted in three classes:

– 80–100 points – very high therapeutic and tourist potential

Areas of mixed forests, stream valleys, rocks, micro-climatic zones.

– → Basis for forest therapy, climate therapy, terrain therapy, dendrotherapy.

– 60–79 points – moderate to high potential

A mosaic of meadows, forests, fields, gentle slopes.

– → Suitable for walking, plant observation, phytotherapy, viewpoints.

– <60 points – limited potential

Areas that have been heavily transformed or have functional limitations.

→ For complementary forms of tourism or services.

The results of this assessment made it possible to select locations for:

– a walking loop;

– a path in the rocks;

– a geological observatory in a quarry;

– the development of apitherapy, phytotherapy, and agritourism programs with therapeutic values.

To assess the landscape and therapeutic potential, a point-based method was applied, covering three groups of criteria: natural and environmental values,

landscape and sensory qualities, and functional-tourism features. Each criterion was rated on a scale of 1–5. The results are presented in Table 2.

The point-based assessment resulted in a total score of 70 out of 80, indicating a high level of landscape and therapeutic potential. The highest scores were recorded in the groups of natural and environmental assets, as well as landscape and sensory qualities, while comparatively lower scores were observed in functional-tourism features.

To complement the point-based evaluation, a SWOT analysis was conducted to present the internal strengths and weaknesses, as well as external opportunities and threats (Table 3).

The SWOT analysis highlights a predominance of internal strengths over weaknesses, particularly in terms of environmental and landscape assets. The area's high forest coverage, diverse terrain, ecological corridor, and location within the Czarnorzecko-Strzyżowski Landscape Park constitute its primary endogenous resources. Identified weaknesses are mainly related to infrastructural and organizational limitations, including insufficient tourism infrastructure and limited community engagement. External opportunities are associated with growing demand for nature-based and therapeutic tourism, while the main

Table 3. SWOT analysis of Wola Komborska

Strengths	Weaknesses
1	2
Access to national and provincial roads	Poorly developed tourism infrastructure
Location in the mountainous part of Krosno County	Insufficient network of cycling routes and trails
Diverse terrain morphology	Limited availability of public transport
High natural and landscape values	Inadequate tourist information system
Significant forest coverage	Low intensity of promotional activities highlighting natural assets
Presence of foothill streams	Low level of local awareness of natural resources
Forest glades and ecotone areas	Limited engagement of the local community
Location within the Czarnorzecko-Strzyżowski Landscape Park	Anthropogenic pressure on the natural environment (e.g., private logging)
Functioning ecological corridor	Insufficient recreational development of existing rural roads and field paths
Preserved traditional cultural landscape (farm buildings)	Poorly developed tourism infrastructure

cont. Table 3

1	2
Opportunities	Threats
Improved accessibility and potential increase in visitor numbers	Persistently low levels of tourist traffic
Growing recognition of the area as a high scenic-value destination	Reduced attractiveness for active tourism
Development of diversified recreational activities	Seasonal concentration of tourist flows leading to environmental pressure
Expansion of nature- and landscape-based tourism	Progressive decline in the recognition of natural and landscape values
Development of forest therapy and relaxation activities in natural settings	Risk of socio-economic stagnation
Enhancement of aquatic ecosystem observation opportunities	Inappropriate use of areas with high natural value
Development of phytotherapy and nature education initiatives	Degradation of the natural environment and cultural landscape
Increased interest in fauna and flora observation	Persistently low levels of tourist traffic
Promotion of local architecture and cultural heritage	Reduced attractiveness for active tourism
Improved accessibility and potential increase in visitor numbers	

Source: own elaboration.

threats concern environmental pressures, seasonal tourist concentration, and the risk of socio-economic stagnation.

The conducted spatial and strategic analyses enabled the identification of zones with differentiated levels of therapeutic and tourism potential, as well as areas suitable for specific forms of nature-based tourism development.

The results of the spatial, point-based, and SWOT analyses provide a comprehensive overview of the therapeutic and tourism potential of Wola Komborska. Areas with the highest scores were identified as suitable for specific forms of nature-based tourism, including walking loops, nature trails, geological observation points, and agritourism programs incorporating therapeutic activities. The combination of quantitative scoring and strategic assessment enables the identification of strengths, weaknesses, and opportunities that can inform future planning and development. These findings form the basis for a detailed discussion on the implications of the landscape, environmental, and cultural resources for the sustainable development of health- and nature-oriented tourism in the area.

DISCUSSION

The proposed concept for integrating nature therapy into tourism development in Wola Komborska emphasizes the village's natural and cultural assets while maintaining its authentic rural character. Natural resources and undeveloped areas, particularly those with varied topography and forest cover, play both ecological and therapeutic roles, enabling the development of hiking and rural tourism. The proposed network of trails along existing forest paths and clearings supports the principles of sustainable tourism and helps distribute tourist traffic, thereby reducing pressure on fragile ecosystems (Fig. 6).

This approach aligns with broader trends in tourism and public health, as described by Williams (2018), who emphasizes the physical and psychological benefits of outdoor activity in natural environments. It also supports conclusions drawn by Przezbórska (2010), who noted the growing demand for low-impact tourism connected with local resources and traditions. In this context, Wola Komborska represents a valuable case for exploring how therapeutic elements of the landscape—such as microclimate, biodiversity,

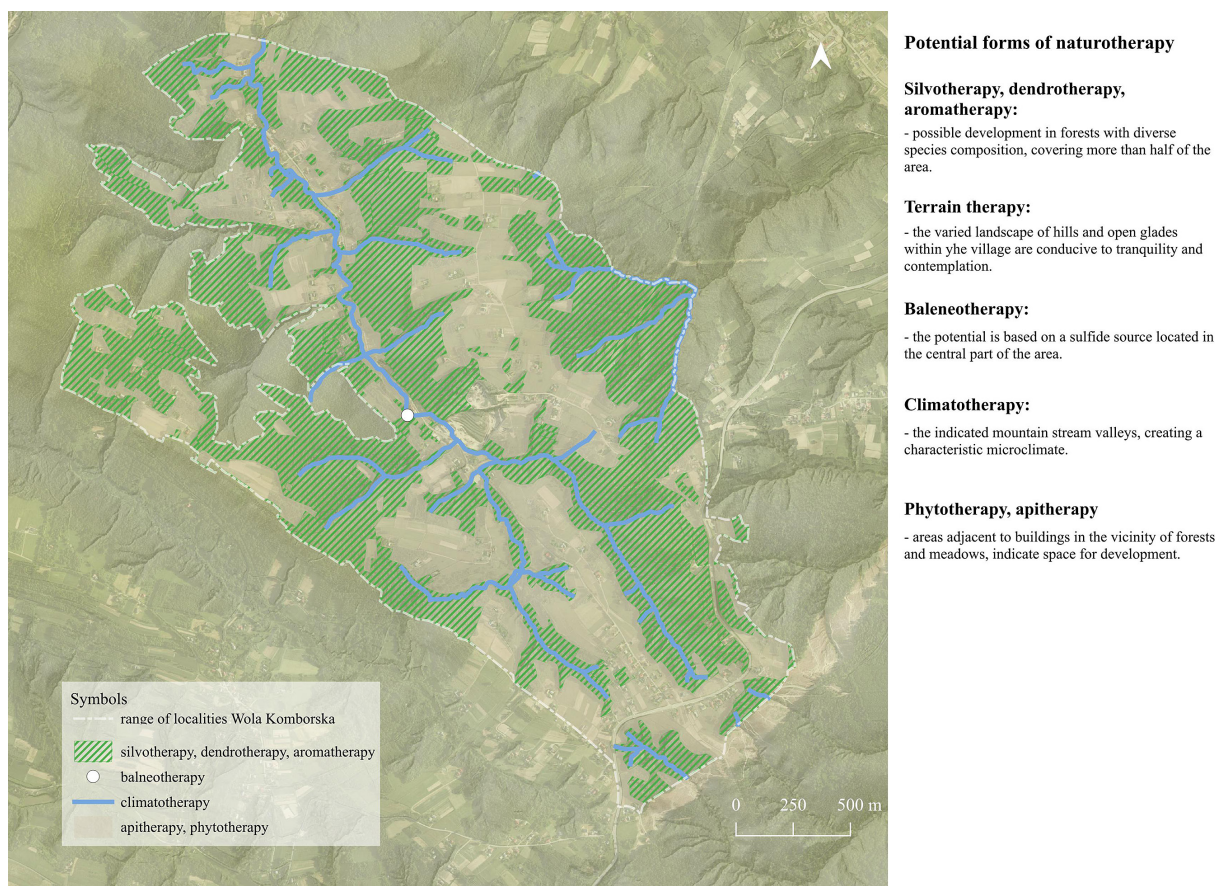


Fig. 6. Proposed forms of development
Source: own elaboration.

or traditional beekeeping—can be integrated into rural tourism models.

Within the Korczyna municipality, where Wola Komborska is located, the potential for rural tourism development has already been recognized through various local initiatives, including promotional events such as “Morning with Nature and Yoga at Sunrise.” These events not only promote active recreation but also strengthen the connection between nature and well-being, an approach increasingly visible in international trends in “green” or therapeutic tourism (Woś, 2017). One of the most valuable aspects of rural stays is the restoration of daily rhythms and sensory awareness that are often lost in urban environments. Activities like herbal tea preparation, contact with animals, or gardening create routines that promote

mental balance and emotional stability (Trzembicki, 2002). These practices are being rediscovered and intentionally developed in agritourism settings across Europe, from Poland (e.g., Zagroda Bammerska, Młyn Klekotki) to Austria and Italy, where herbal walks, workshops, and apitherapy are becoming central elements of tourism offerings (Bieńkowska & Dmitruk, 2008; Salzburger Land Tourismus, 2023).

Wola Komborska, with over half of its area covered by forests of diverse composition, is conducive to the development of silvotherapy, aromatherapy, terrain therapy, dendrotherapy, balneotherapy, and climatotherapy. Climatotherapy is particularly feasible in the slopes and valleys of mountain streams, where a characteristic microclimate forms. In areas with varied hill formations, open clearings, and meadows

nestled between forests, natural viewing points can be created, providing opportunities for relaxation and landscape contemplation. Rock outcrops and former quarries are especially suitable for hiking tourism and terrain therapy (Fig. 1).

The therapeutic use of nature-including horticultural therapy, animal-assisted activities, or apitherapy-fits into the growing movement of slow, eco, and experience-based tourism. These models prioritize local engagement, sustainability, and multisensory experiences, contributing not only to visitor satisfaction but also to community resilience (Duda, 2019).

Although this study presents a conceptual framework for nature-based tourism in Wola Komborska, certain limitations should be acknowledged. The project is based on spatial analysis and field observations conducted over a limited period. Future research could involve empirical studies on visitor experience, measurable health impacts of proposed activities, or comparative analyses with other rural regions developing therapeutic tourism.

The methodology used, particularly the integration of GIS-based spatial analysis with therapeutic landscape assessment, may contribute to systematizing the planning of health-oriented tourism in rural areas. While similar approaches have been applied in regional planning (e.g., Dąbrowska et al., 2019; Dudek, 2013), their application in the context of therapeutic tourism remains underexplored. The proposed model thus contributes to both academic discourse and practical tourism planning, offering a replicable framework for other rural communities with comparable environmental and cultural conditions.

CONCLUSIONS

Wola Komborska is a village with significant natural values that favor the development of tourism; however, the current tourist infrastructure is limited, with a lack of hiking trails and specialized therapeutic routes. In the Korczyzna Commune, tourism activity is primarily concentrated in Korczyzna and Kombornia, while other villages have minimal

tourism infrastructure. On one hand, this creates a clear contrast in tourism development levels, but on the other, it offers opportunities for sustainable rural tourism growth that integrates nature therapy principles and helps protect the local environment.

The application of nature-based therapies such as sylvotherapy, aromatherapy, terrain therapy, dendrotherapy, and climatotherapy can not only enrich the tourism offer but also contribute to improving visitors' physical, mental, and social well-being. The proposed tourism development concept, grounded in spatial analyses and sustainable development principles, provides a foundation for future implementation and further research on the practical effects of therapeutic tourism in rural areas.

Author contributions: The authors have approved the final version of the article. The authors have contributed to this work as follows: E.T., N.P. developed the concept and designed the study, N.P. collected the data, N.P. analyzed and interpreted the data, E.T. drafted the article, E.T. revised the article critically for important intellectual content.

REFERENCES

- Adamski, P., & Ciapała, S. (2016). Turystyka przyrodnicza, ekoturystyka i turystyka zrównoważona – problemy klasyfikacyjne [Wildlife Tourism, Ecotourism and Sustainable Tourism – Problems with Classification]. *Folia Turistica*, 40, 10–26. <https://foliaturistica.pl/article/01.3001.0010.4016/pl>
- Avecillas-Torres, I., Herrera-Puente, S., Galarza-Cordero, M., Coello-Nieto, F., Farfán-Pacheco, K., Alvarado-Vanegas, B., Ordóñez-Ordóñez, S., & Espinoza-Figueroa, F. (2025). Beyond Rest: Nature Tourism and its Measurable Effect on Mental Well-Being Through the Reduction of Depression, Anxiety and Stress. *Sustainability*, 17(2), 654. <https://www.preprints.org/manuscript/202411.0831/v1>
- Bajdalska, A., & Knefel, M. (2018). Wellness w turystyce aktywnej [Wellness in active tourism]. *Komitet Przestrzennego Zagospodarowania Kraju PAN*, 269, 204–215. <http://bazekon.icm.edu.pl/bazekon/element/bwmeta1.element.ekon-element-000171578696>

- Balińska, A. (2016). *Znaczenie turystyki w rozwoju gmin wiejskich na przykładzie obszarów peryferyjnych wschodniego pogranicza Polski* [The importance of tourism in the development of rural communes on the example of peripheral areas of the eastern border of Poland]. SGGW.
- Balińska, A., & Kowalska, M. (2011). Turystyka jeździecka jako forma turystyki kwalifikowanej [Horse tourism as a kind of qualified tourism]. *Ekonomiczne Problemy Usług*, 78, 421–430. <http://bazekon.icm.edu.pl/bazekon/element/bwmeta1.element.ekon-element-000171320943>
- Bieńkowska, W., & Dmitruk, J. (2008). Agroturystyka w Zjednoczonym Królestwie Wielkiej Brytanii [Agritourism in the United Kingdom]. In I. Sikorska-Wolak (Ed.), *Potencjał turystyczny w regionach* [Tourism potential in the regions] (pp. 123–145). SGGW.
- Clinebell, H. J. (1996). *Ecotherapy: Healing Ourselves, Healing the Earth: a Guide to Ecologically Grounded Personality Theory, Spirituality, Therapy, and Education*. Augsburg Fortress Publishing. *Spirituality, Therapy, and Education*. Augsburg Fortress Publishing.
- Dąbrowska, A., Janoś-Kresło, M., & Lubowiecki-Vikuk, A. (2019). Styl życia wellness a zachowania osób starszych na rynku usług prozdrowotnych [Wellness lifestyle and behaviour of the elderly in health services market]. *Zdrowie i style życia. Wyzwania ekonomiczne i społeczne*, 47–64. https://www.researchgate.net/publication/337745398_Styl_zycia_wellness_a_zachowania_osob_starszych_na_ryнку_usług_prozdrowotnych_Wellness_lifestyle_and_behaviour_of_the_elderly_in_health_services_market
- Duda, T. (2019). Idea turystyki powolnej (slow tourism) i edukacji kreatywnej szansą zrównoważonego rozwoju wsi i regionu – studium przypadku wsi Bełczna w powiecie łobeskim (Pomorze Zachodnie) [The Concept of Slow Tourism and Creative Education – a Chance for Sustainable Development of the Rural Areas and the Whole Region. A Case Study of the Village of Bełczna in the County of Łobez (West Pomerania)]. *Przegląd Zachodniopomorski*, 34(01), 111–128. <https://doi.org/10.18276/pz.2019.1-05>
- Dudek, T. (2013). Ocena potencjału rekreacyjnego lasów w terenie o zróżnicowanej orografii na przykładzie Czarnorzecko-Strzyżowskiego Parku Krajobrazowego [Assessment of recreational potential of forests in areas with diverse orography: Czarnorzecko–Strzyżowski Landscape Park case study]. *Sylvan*, 157(10), 775–779. <https://doi.org/10.26202/sylvan.2013092>
- Kandefer, W. (2002). *Produkt agroturystyczny – uwarunkowania rozwoju. Agroturystyka w teorii i praktyce* [Agritourism product – development conditions. Agritourism in theory and practice]. UWM.
- Kosiacka-Beck, E., & Myszk, I. (2020). Ogrody terapeutyczne miejscem dobrostanu dla osób z dysfunkcjami neurologicznymi. Aspekty projektowania [Hortitherapeutic gardens a place of welfare for people with neurological dysfunctions: aspects of design]. *Architectus*, 3(63), 111–125. <https://www.dbc.wroc.pl/dlibra/publication/152086/edition/109735/content?ref=struct>
- Kosmaczewska, J. (2013). *Turystyka jako czynnik rozwoju obszarów wiejskich* [Tourism as a factor in the development of rural areas]. Bogucki Wyd. Naukowe.
- Kowalczyk, A. (2005). Turystyka kulinarna [Culinary tourism]. *Turyzm*, 15(1–2), 164–186. <https://doi.org/10.18778/0867-5856.15.1-2.12>
- Krzyszowska-Kostrowicka, A. (1997). *Geoekologia turystyki i wypoczynku* [Geoecology of tourism and recreation]. PWN.
- Li, Y., Ismail, M. A., & Aminuddin, A. (2024). How has rural tourism influenced the sustainable development of traditional villages? A systematic literature review. *Heliyon*, 10(4), e25627. <https://doi.org/10.1016/j.heliyon.2024.e25627>
- Liu, YL., Chiang, J., & Ko, P. (2023). The benefits of tourism for rural community development. *Humanit Soc Sci Commun*, 10, 137. <https://doi.org/10.1057/s41599-023-01610-4>
- Małek, J. (2003). Turystyka kulturowa jako czynnik rozwoju lokalnego [Cultural tourism as a factor of local development]. *Prace i Studia Geograficzne*, 32, 13–34. <https://bibliotekanauki.pl/articles/2085025>
- Matlegiewicz, M. (2009). Ekoturystyka jako przyjazna środowisku forma turystyki [Eco-tourism as an environmentally friendly form of tourism]. *Folia Pomeranae Universitatis Technologiae Stetinensis, Oeconomica*, 275(75), 59–66. <https://bibliotekanauki.pl/articles/78894>
- Motyka, M. (2016). Turystyka etniczna a turystyka sentymentalna [Ethnic vs sentimental tourism]. *Przestrzeń Społeczna*, 1(11), 156–177. https://www.researchgate.net/publication/321808433_Turystyka_etniczna_a_turystyka_sentymentalna_Ethnic_vs_sentymental_tourism
- Niezgoda, A. (2012). Rynkowe uwarunkowania rozwoju turystyki rowerowej [Market determinants of the

- development of cycling tourism]. In J. Śledzińska, & B. Włodarczyk (Eds.), *Turystyka rowerowa w zjednoczonej Europie* [Cycling tourism in a united Europe] (pp. 29–39). PTTK “Kraj”.
- Perczak, J. E. (2016). Szaman w kiosku, czyli polska prasa poświęcona medycynie niekonwencjonalnej [Szaman at newsstands: Polish press dedicated to alternative medicine]. *Zeszyty Prasoznawcze*, 4(228), 727–750. <https://doi.org/10.4467/22996362PZ.16.045.5920>
- Popiel, M. (2016). Znaczenie turystyki wiejskiej w życiu osób niepełnosprawnych [The importance of rural tourism in the lives of people with disabilities]. In A. Jęczmyk, J. Uglis, & M. Maćkowiak (Eds.), *Turystyka Wiejska. Zagadnienia ekonomiczne i marketingowe* (pp. 194–202). Wieś Jutra Sp. z o.o.
- Poskrobko, B. (2013). Zielona terapia i rekreacja jako nowy produkt turystyczny [Green Therapy and Recreation as a New Tourist Product]. *Problemy Turystyki i Rekreacji*, 3, 5–23. <https://bibliotekanauki.pl/articles/529683>
- Priatmoko, S., Kabil, M., Akaak, A., Lakner, Z., Gyuricza, C., & Dávid, L. D. (2023). Understanding the Complexity of Rural Tourism Business: Scholarly Perspective. *Sustainability*, 15(2), 1193. <https://doi.org/10.3390/su15021193>
- Przezbórska, L. (2010). Produkty terapeutyczne i lecznicze w agroturystyce i turystyce wiejskiej [Therapeutic products in agritourism and rural tourism]. *Studia Periegetica*, 5, 233–251. <https://journals.wsb.poznan.pl/index.php/sp/article/view/253>
- Roszak, T. (1992). *The voice of the Earth: An exploration of ecopsychology*. Simon & Schuster.
- Rutkowska-Podłogowska, M., & Podolowski, G. (2014). Winoterapia jako część enoturystyki i jej wpływ na organizm człowieka [Wine therapy as part wine tourism and its impact On the human body]. *Zeszyty Naukowe. Turystyka i Rekreacja*, 1(13), 53–67. <https://bibliotekanauki.pl/articles/475889>
- Salzburger Land Tourismus. (n.d.). *Turystyka zielarska w regionie Hochkönig* [Herbal tourism in the Hochkönig region]. <https://www.salzburgerland.com/pl>
- Schramme, T. (2023). Health as complete well-being. The WHO definition and beyond. *Public Health Ethics*, 16(3), 210–218. <https://doi.org/10.1093/phe/phad017>
- Stasiak, A., Śledzińska, J., & Włodarczyk, B. (2016). *Współczesne oblicza krajoznawstwa* [Contemporary aspects of local history]. PTTK.
- Trzembicki, L. (2002). *Zachowania konsumentów na regionalnym rynku usług agroturystycznych. Agroturystyka w teorii i praktyce* [Consumers behaviour on the market of agritourist services]. UWM.
- Widawski, K., Krzemińska, A., Zaręba, A., & Dzikowska, A. (2023). A Sustainable Approach to Tourism Development in Rural Areas: The Example of Poland. *Agriculture*, 13, 2028. <https://doi.org/10.3390/agriculture13102028>
- Williams, F. (2018). *Natura leczy czyli co sprawia, że jesteśmy szczęśliwsi, zdrowsi i bardziej kreatywni* [The Nature Fix: Why Nature Makes Us Happier, Healthier, and More Creative]. UJ.
- Woś, B. (2017). Turystyka zielarska i uwarunkowania jej rozwoju [Herbal tourism and conditions for its development]. *Prace i Studia Geograficzne*, 62(3), 141–156. <https://pisg.wgsr.uw.edu.pl/?p=1299>
- Żmuda-Pałka, M., Siwek, M., & Kolasińska, A. (2018). Spa & Wellness Services in Selected Hotels in Krakow. *Studies of the Industrial Geography Commission of the Polish Geographical Society*, 32(1), 63–75. <https://doi.org/10.24917/20801653.321.5>