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THE ROLE OF THE MUNICIPALITIES SPATIAL POLICY IN THE SPACE VALUES PROTECTION OF THE PODLASKIE VOIVODESHIP LANDSCAPE PARKS

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ABSTRACT

Motives: Shaping spaces covered by the legal form of nature protection is a significant challenge. The preparation of local plans in such areas mainly aims to protect their valuable assets. Landscape parks of the Podlaskie province, i.e. Suwałki Landscape Park, Knyszyńska Forest Landscape Park and Łomża Landscape Park of the Narew Valley offer rich natural and landscape assets. On the other hand, their location in the vicinity of urban centres may cause adverse effects of anthropoppression. Rational spatial policy allows for maintaining spatial order and respecting the principle of sustainable development. The lack of local and protection plans may contribute to reducing landscape and natural assets and even their degradation.

Aim: Analyse the planning status of selected landscape parks and verify their provisions in terms of guidelines from park protection plans.

Results: Low degree of coverage of selected landscape parks with local plans, except for Łomża Landscape Park. Local plans usually take into account the assumptions of existing protection plans.

Keywords: landscape, local plan, protection plan, Poland

INTRODUCTION

Space is a unique good that consists of various elements, natural and created by man. Space's diversity in objects and subjects can contribute to its distinctiveness but also lead to some conflicts. To resolve space conflicts, reasonable management, balancing private and public interests, and respecting its unique values are required. When the space is composed of elements particularly valued in nature and landscape, shaping it with a long-term spatial

policy can safeguard it from degradation, mitigate negative impacts, or even eliminate them. Landscape parks are one of these areas – legal forms of nature protection. Shaping the space in such facilities through planning documents helps avoid or mitigate the negative effects of investments. This is especially important as there is an increased interest in investing in nature-rich places and green spaces. This is especially true in places near urban centres with easy access to employment and school or where so-called second homes are used for tourism. Municipal spatial

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policies and their implementation in local plans and precisely formulated recommendations in landscape park protection plans, can all positively impact on the rational shaping of such spaces, protecting them from excessive, often chaotic development.

The article investigated how space is shaped in landscape parks and buffer zones. The article examines the status and regulations of the documents that shape and protect the space of the parks to answer the question of whether the implementation of the spatial policy of municipalities located on the territory of landscape parks is a sufficient effective tool for properly managing the space and protecting its valuable natural and landscape qualities. Keeping in mind that protection plans are the primary tool for protecting landscape parks and that their assumptions must be respected in local plans, the status of these documents in the parks was also verified, and the content of local plans was examined in terms of considering protection plan provisions.

LITERATURE REVIEW

Landscape and its legal protection

Landscape parks are an essential aspect of space. They are frequently the foundation of local growth due to the multitude of roles they serve, including nature, tourism, and recreation. According to Szpilko and Ziółkowski (2010) and Szarek-Iwaniuk (2018), the state of the natural environment, its values are the fundamental factors influencing tourist traffic, among other things, and tourists prefer places with a large share of natural values.

The Nature Protection Act of 16 April 2004 (Act, 2004) is the primary law governing the protection of landscape parks. It establishes the aims, principles, and forms of protection for nature and landscape. In 2004 Poland adopted The European Landscape Convention of 20 October 2000 (European Landscape Convention, 2000), which is a valuable instrument for developing and protecting landscapes. This document determines the definition of landscape and its functions: the creation of local cultures, an essential component of European natural and cultural heritage.

Degórski (2012) underlines that this is the most significant document for Poland's landscape value protection. The Convention underlines the importance of landscape values as a crucial component in societal well-being and how their protection, management, and planning can contribute to regional economic development (Degórski, 2012). Article 2(16e) of the Spatial Planning and Development Act of 27 March 2003 (Act, 2003) defines landscape as "a space perceived by people, containing natural elements or products of civilization, formed as a result of natural factors or human activity." Its primary protection is preserving its distinctive characteristics (Act, 2004, Article 5(8)). According to Zwiech (1995), not only the natural environment plays an important role in the landscape, but also culture and human activity. Landscape values can be formed from the elements listed above. Article 5(2) of the Nature Protection Act (Act, 2004) defines them as the area's natural, cultural, historical, artistic, and visual values, and the accompanying relief, formations, and aspects of nature and civilization generated by natural forces or human action. Landscape parks are developed to protect and popularise the aforementioned ideals in the spirit of sustainable development. As Mierzejewska (2015) points out, sustainable development is founded on three pillars: wants and the need to supply them, social fairness, and natural environmental restrictions. It should not involve impeding economic growth, but rather a new approach to development (Domański, 2006). To preserve the qualities of landscape parks, particularly landscape values and to protect the park from overdevelopment, a buffer zone can be designated. According to Article 5(14) of the Nature Protection Act (Act, 2004), the buffer zone is intended to protect the landscape park area from external threats caused by human activity. Furthermore, in landscape parks, bans may be imposed, such as the implementation of projects that may have a significant environmental impact, the liquidation and destruction of tree plantings, the carrying out of earthworks that permanently deform the relief of the terrain, and the construction of new buildings within a 100-meter-wide strip from, among other things, the shoreline of rivers,

lakes, and other natural water bodies (Act, 2004, Article 17(1)). In landscape parks, there may also be a complete prohibition on new construction and afforestation, where the protection plan specifies the boundaries of landscape protection zones, which include foregrounds of exposures, view axes, viewpoints, and built-up areas distinguished by their local architectural form. If a local spatial plan does not cover the area, the restriction includes regulations new buildings that differ from the local architectural form, locating new buildings with a height greater than two stories or seven meters, and afforestation. These prohibitions do not apply to public purpose investments, tasks under the protection plans, tasks for defence and security, and rescue operations. The resolution of the provincial assembly that established the landscape park includes a list of all of the bans mentioned above. According to Banaszuk (2017), the prohibitions that can be imposed on a landscape park provide “quite a lot of opportunities for landscape protection,” but in practice, they do not always reflect the actual threats, and incorporating them into the resolution is the regional assembly’s will. The bans might also be included in the park’s protection plan and the municipality’s planning documents. The protection park plan, which plays a significant role in landscape park management, is a document created once every 20 years by either the landscape park’s director or the director of the landscape park complex (Act, 2004, Article 19 (1)). The protection plan includes information on, among other things, the current state of nature, potential threats, the state of land use, and the results of the landscape audit, as well as the objectives of nature protection, methods for eliminating or reducing threats, areas for the implementation of conservation measures, and their scope. What is most significant is that the protection plan outlines the conservation guidelines that must be addressed in the municipalities and voivodeship’s planning documents, and the borders of landscape protection zones. If planning documents are not executed in the guidelines of the protection plan’s terms, they will become legally useless (Barczak,

2003). All planning documents, both at the local and provincial levels, must be agreed upon with the locally competent regional director of environmental protection regarding the arrangements for the areas covered by the landscape park and its buffer zone, particularly those that may have a negative impact on the landscape park’s nature protection (Act, 2004, Article 16(7)). However, the director of the landscape park is limited in interfering with the formation of the spatial policy of the municipality that is part of the landscape park. Raszka and Kasprzak (2017) acknowledged this, stating that landscape park directors lack enough legal tools to oppose investment pressures in particular effectively. They can only submit applications to the local plan, and the law does not oblige public administration bodies to inform landscape park directors about ongoing administrative proceedings (Raszka & Kasprzak, 2017). Due to Articles 105 (4) and (5) of the Nature Protection Act (Act, 2004) the director of a landscape park may only apply for a change of destination in the local spatial development plan. Furthermore, the Spatial Planning and Development Act does not include the director of the landscape park as one of those who approve or give an opinion on this planning document, although planning papers are agreed upon with the regional director of environmental protection.

Landscape parks in local spatial policy

Progressive investment development and increased interest in living places outside of urban centers can have negative consequences, such as landscape degradation, the cutting through of ecological corridors, and the loss of species variety. Data from Statistics Poland in 2018 shows that since 2000, there has been a more significant rise in migration to the countryside than to cities, affecting the development of these areas (Tataruch et al., 2019). It is critical to respond effectively to such operations. Degórski (2015) emphasizes the importance of landscape protection as a very important challenge in today’s modern world. It is critical not to lose sight of the importance of maintaining natural balance when

managing a landscape park area. According to Rożek (2017), land management cannot avoid impacting the natural ecosystem. People significantly impact landscape changes (Krajewski et al., 2018). The natural environment is being modified and adapted to meet the demands of a growing population with rising consumption levels (Banaszuk, 2017). The necessity to address societal requirements drives landscape alteration (Krajewski et al., 2018). As a result, it is essential to acknowledge that the problem of built-up area development does not simply affect metropolitan regions, and that nature is affected by more than only the built-up area itself and its frequently uncontrolled development. According to Otawski (2011), disordered suburban expansion, development encroaching on rural areas, river valley development, and regional architecture fading are all facts of Polish space. According to Banaszuk (2017), landscape protection is one of the most essential duties conducted in planning and spatial management, and maintaining excellent landscape condition is the foundation for the preservation of spatial order. A well-formulated spatial policy allows for the protection of landscape values. Rational planning decisions, and the proper use of protective measures such as limits and, in some cases, prohibitions can aid in preserving valuable spatial aspects.

Spatial Planning and Development Act (Act, 2003) governs the shape of space in Poland, and it is based on three levels of spatial planning: state, provincial, and local (municipal). While no national planning document defines the country's spatial policy, each voivodeship has a spatial development plan. In the municipality, until 30 June 2026, the document that describes the spatial policy is the study of the conditions and directions of the municipality's spatial development, which includes the entire municipality and constitutes a general provision. General municipal plans will replace the current studies. Unlike the study, the general plan is local legislation. Spatial policy is implemented by the local spatial development plan. This document regulates change of land use, defines development and spatial planning requirements, and specifies the site

of public-purpose investments. It is prepared on an optional basis unless legislation requires otherwise. If there is no local plan, the decisions of development conditions set the conditions for development and spatial planning, while consideration of natural and landscape values is ensured by such decisions being agreed upon by, among others, the regional director of environmental protection. This body evaluates the investment project's feasibility in light of current environmental and nature protection regulations.

The drafting of planning papers causes future changes in space. These are frequently permanent and irreversible changes, so implementing the regulations in planning documents should be approached with extreme caution and responsibility, particularly regarding environmental and landscape values (WSA judgment, ref. II SA/Kr 1144/20). The harmonious development of various types of space, which allows for the stability of ecosystems while maintaining the natural and cultural heritage for future generations, should be prioritized (Hajduk, 2011). Any local development should not come at the expense of natural resource deterioration. Hence the municipality's spatial policy should include activities that could halt processes that harm the landscape. Nature and landscape protection arrangements shall be included in the municipality's general plan and local spatial development plans. In accordance with § 4 items 3 of the Regulation of the Minister of Development and Technology of 17 December 2021 (Regulation, 2021) on the required scope of the draft local spatial development plan, the regulations of the local plan should include orders, prohibitions, permissions, and restrictions on land use resulting from the needs of environmental protection referred to in Articles 72 and 73 of the Environmental Protection Law Act of 27 April 2001 (Act, 2001) and from protection plans established for national parks, natural reserves or landscape parks. The regulations of study of the conditions and directions of the municipality's spatial development and decision on development and land use conditions should ensure to the maximum extent feasible, the restrictions resulting from establishing of legal forms of protection (Act, 2001, Article 73(1)).

Nothing precludes an environmental authority from prohibiting development if a particular investment or development proposal may conflict with landscape values.

A landscape audit, whose recommendations and results are incorporated into the voivodeship spatial development plan, is critical regarding landscape park protection. An audit like this identifies landscapes throughout the province, establishes their characteristics, and rates their value. Furthermore, the document specifies the location and bounds of several types of nature protection and recommendations and conclusions about landscape construction and protection.

Specifying restrictions and prohibitions in planning documents in connection with the establishment of a landscape park can cause conflicts and is not accepted by property owners, which may have bad effects for the municipality. When implementing a local plan, the municipality should consider the long-term repercussions from the start. The imposition of restrictions and orders may result in the municipality incurring costs associated with the requirement to pay compensation or purchase back the property due to restrictions on its use.

METHODS

Realization of the purpose of this article required complex actions to prove the hypothesis that the protection of landscape parks values in Podlaskie Voivodeship through the implementation of the spatial policy of municipalities is insufficient and requires changes.

To test the research hypothesis, three landscape parks in Podlaskie Voivodeship were studied: Suwałki Landscape Park, Prof. Witold Sławiński Knyszyn Forest Landscape Park, and Łomża Landscape Park of the Narew Valley, as well as their buffer zones. These landscape parks in Podlaskie Voivodeship are located near the main urban centres: Suwałki (Suwałki Landscape Park), Białystok (Knyszyn Forest Landscape Park), and Łomża (Łomża Landscape Park of the Narew Valley). Białystok is Podlaskie

Voivodeship's primary urban hub. It has 41% of the urban population of the voivodeship and was the only center to experience population growth between 2011 and 2021 (Local government portal, 2024). According to the Resolution no. XXXVI/330/17 of the Sejmik of the Podlaskie Voivodeship of May 22, 2017 on the Spatial Development Plan of the Podlaskie Voivodeship (Resolution no. XXXVI/330/17) Suwałki and Łomża are the two main sub-regional hubs of Podlaskie Voivodeship, accounting for almost 13% of the total population and 21% of the urban population.

Podlaskie Voivodeship was chosen because it is a valuable natural centre. Legally protected areas account for approximately 32% of the province's territory. Every year, many people visit this place due to its favorable characteristics. The Suwałki Landscape Park in Northern Suwalszczyzna, the Łomża Landscape Park in Lower Narew Valley, and the Knyszyn Forest Landscape Park in Knyszyn Forest are nationally famous tourist destinations.

The above-mentioned landscape parks and their buffer zones were analysed to achieve the set objective. The total area of the parks without buffer zones is 86,566.05 ha. Twenty-four municipalities within the parks' boundaries and their buffer zones were evaluated. The Central Register of Nature Conservation Forms and the official websites of the landscape parks provided most of the information on the researched sites. These sources included information on data such as the area of parks and their buffer zones, the location of communes within the park, the legal provisions based on which these facilities were created, and landscape park protection plans. To identify the principles of shaping space in landscape parks and the protection principles of their landscape and natural assets, an examination of the parks' protection plans and the planning situation of the municipalities where these parks and buffer zones are located was conducted. The assumptions of protection plans concerning the building location and development principles as well as the park and buffer zone coverage state by local spatial development plans were analysed. The choice of methodology was dictated by the analysis of literature and legal

regulations, which clearly show that spatial planning is of fundamental importance in shaping areas with high natural values, and local plans play a key role in the rational use of the potential of the natural environment and landscape (Degórski, 2012; Hajduk, 2011). Spatial information systems of individual municipalities were used for this, as well as the register of local plans GIS portals and information from the official municipal portals. The data obtained from these sources include the boundaries of parks and their buffer zones, the scope of local plans and a register of applicable local plans with the possibility of viewing them. After reviewing and verifying the degree of coverage by local plans, their shares in individual park areas were estimated. This estimation was based on manual measurements using the measurement tools available in the GIS portal on a map base containing data on the administrative boundaries of communes, the scope of local plans and the boundaries of parks and their buffer zones. It was possible to identify whether the local plans overlapped with the investment areas of the individual municipalities using the thematic layers available from the General Office of Building Control (building licenses issued) and the National Database of Topographic Objects (BDOT10) (residential buildings, farm buildings). For this analysis, municipalities with growing population density (based on data from Statistics Poland in years 2009–2022) were selected. On this basis, areas have been identified that are characterised by the location of new development are not covered by local plans. The current study was supplemented by an analysis of whether local spatial development plans comply with the provisions of park protection plans. As the need to incorporate the provisions of the park's conservation plan into the local plan derives from the legislation, this assessment is limited to indicating whether the conservation plans contain arrangements relating to the conditions and rules for the location of development and whether the local plans take account of the conservation plan's regulations in terms of nature and landscape protection, and what these regulations are.

The research period of the work is 14 years, from 2009 to 2022. The municipalities' planning

status was analyzed using the Local Data Bank. The precise number and area of local plans within parks boundaries and buffer zones were verified using data from the e-map portal's local plan database. This source was credible because it did not repeat the area of local plans from the updated plans. The decision to begin the research in 2009 was based on the unavailability of data on planning and spatial development (such as the number of local plans and their area, the number of decisions on development conditions) before 2009 in the Statistics Poland Local Data Bank service and the fact that the municipalities of Michałowo and Krynki altered their municipal statutes that year.

Characteristics of landscape parks and their buffer zones

The Suwałki Landscape Park is Poland's oldest landscape park, founded in 1976 to "preserve the unique, young glacial landscape of northeastern Poland, spreading around Lake Hańcza and the Szeszupa basin" (Resolution No. XXXVI/330/17). On June 22, 2015, the Podlaskie Voivodeship Assembly passed Resolution No. XII/92/15 on the Suwałki Landscape Park (Resolution No. XII/92/15), which is currently binding. The Knyszyn Forest Landscape Park was formed in 1988 to conserve Poland's most well-preserved forest systems. The park management is based on Podlaskie Voivodeship Assembly Resolution No. XXIII/201/16 on the Professor Witold Sławiński Knyszyn Forest Landscape Park, adopted on March 21, 2016 (Resolution No. XXIII/201/16). The Łomża Landscape Park of the Narew Valley was founded in 1994 to preserve the environmental, historical, and visual aspects of the Narew River Valley from Bronów to Łomża (Resolution No. XXXVI/330/17). According to Resolution No. III/20/11 of the Sejmik of the Podlaskie Voivodeship of January 10, 2011 on establishing a protection plan for the Łomża Landscape Park of the Narew Valley (Resolution No. III/20/11), these objectives include the "preservation of the freely meandering lowland Narew River and its irregular channel and valley with a large number of oxbow lakes, or the preservation and protection of open

landscape complexes”. It is based on the Regulation No. 3/06 of the Podlasie Governor of 23 May 2006 on the Łomża Landscape Park of the Narew Valley (Regulation, 2006), while Resolution No. XXIII/200/16 of the Sejmik of the Podlaskie Voivodeship of March 21, 2016 on the Łomża Landscape Park of the Narew Valley (Resolution No. XXIII/200/16) is currently binding.

The Knyszyn Forest Landscape Park has the largest land area, while the Łomża Landscape Park

of the Narew Valley has the smallest (Table 1). Each of the analyzed sites has its buffer zone. Knyszyn Forest Landscape Park has the highest buffer zone, whereas Suwałki Landscape Park has the lowest.

Knyszyn Forest Landscape Park is located in the area of a more significant number of municipalities, which are located in Białystok, Łomża and Suwałki counties (11 municipalities in total). Łomża Landscape Park covers two counties (4 municipalities), whereas Suwałki Landscape Park covers only one county

Table 1. Areas of landscape parks of Podlaskie Voivodeship and their buffer zones, as well as municipalities within their range

No.	Landscape park	Area of park [ha]	Area of buffer zone [ha]	County	Municipalities within the range of a landscape park or its buffer zone	Share of park area in the municipality [%]	Share of buffer zone area in the municipality [%]
1.	Suwałki Landscape Park	6337.66	9306.24	Suwałki	Jeleniewo	61.5	28.5
					Przerośl	12.7	19.0
					Rutka-Tartak	13.1	13.0
					Wiżajny	12.7	39.5
2.	Knyszyn Forest Landscape Park	72860.2	53827.5	Białystok	Czarna Białostocka	21.1	8.6
					Dobrzyniewo Duże	4.9	9.6
					Gródek	20.0	11.4
					Michałow	3.5	8.1
					Supraśl	17.3	5.2
					Wasilków	5.3	12.4
					Zabłudów	-	8.9
				Mońki	Knyszyn	3.6	5.1
					Jasionówka	-	2.9
					Krypno	-	1.1
				Sokółka	Janów	1.7	9.4
					Krynki	1.0	2.9
					Sokółka	4.2	8.8
					Szudziałowo	17.5	5.3
3.	Łomża Landscape Park of the Narew Valley	7368.22	12228.6	Łomża	Łomża	55.7	34.4
					Piątnica	39.2	32.3
					Wizna	4.8	15.9
					Łomża (city)	0.3	-
				Zambrów	Rutki	-	14.7
					Zambrów	-	3.1

Source: General Directorate for Environmental Protection. Central Register of Nature Conservation Forms (<https://crfop.gdos.gov.pl/CRFOP/widok/viewparkkrajobrazowy.jsf?fop=PL.ZIPOP.1393.PK.76>; <https://crfop.gdos.gov.pl/CRFOP/widok/viewparkkrajobrazowy.jsf?fop=PL.ZIPOP.1393.PK.75>; <https://crfop.gdos.gov.pl/CRFOP/widok/viewparkkrajobrazowy.jsf?fop=PL.ZIPOP.1393.PK.74>).

(4 municipalities). Knyszyn Forest Landscape Park encompasses 14 municipalities, Łomża Landscape Park covers 6 municipalities, and Suwałki Landscape Park covers 4. This includes park buffer zones. More than 75% of Knyszyn Forest Landscape Park is located in the municipalities of Czarna Białostocka, Gródek, Szudziałowo, and Supraśl. The majority of Łomża Landscape Park is in the towns of Łomża and Piątnica (about 95% of the park's area), whereas Suwałki Landscape Park is in Jeleniewo (more than 61%).

According to land usage, Knyszyn Forest Landscape Park is the most forested park (Table 2).

Table 2 shows that over 85% of the Knyszyn Forest Landscape Park is covered in forest and woods. The other two parks have far fewer forests and woodlands (Suwałki Landscape Park 24% and Łomża Landscape Park of the Narew Valley 18.7%). The Łomża Landscape Park of the Narew Valley has the most agricultural land (72.1%) (mainly land used for agriculture and meadows and pastures), followed by the Suwałki Landscape Park (60%). All of the analyzed landscape parks have varied terrain. The highest point of the Suwałki Landscape Park is 275 m above sea level, while the lowest point (Lake Postawełek) is 146 m above sea level (Górniak et al., 2012). Altitude differences in the Knyszyn Forest Landscape Park range from 91 m above sea level in the Czarna River valley to 209 m on Mount St. Anne (pkpk.wrotapodlasia.pl). In the Łomża Landscape Park, the bottom of the Narew River valley is 101 m above sea level, while the highest hill nearby is up to 153 m.

In addition, other forms of nature conservation exist in all national parks. The most important of these are nature reserves. The Suwałki Landscape Park

contains four nature reserves, totalling 371.12 ha (5.8% of the park area) (spk.org.pl). The Natura 2000 “Ostoja Suwalska” protects ecosystems, plants, and animals, and covers the entire park area. In addition, there are 5 ecological sites totalling 152.04 ha (2.4% of the Suwałki Landscape Park area) and 37 natural monuments (trees and erratic stones) (spk.org.pl). The Knyszyn Forest Landscape Park contains 21 nature reserves covering 3,997.4 ha (5.5% of the park's area) and 157 natural monuments (spk.org.pl). The Natura 2000 area of specific bird protection covers almost the entire Knyszyn Forest Landscape Park and its buffer zone. Łomża Landscape Park includes two nature reserves covering 245.36 ha (3.3% of the park's area). The Natura 2000 region goes across the park.

Analysis of conservation documents for landscape parks

The Podlaskie voivodeship landscape audit is currently being prepared, as per Resolution No. 316/4634/2018 of the Board of the Podlaskie Voivodeship of September 4, 2018, on accession to the preparation of a landscape audit for Podlaskie Voivodeship (Resolution No. 316/4634/2018).

Protection Plan for the Suwałki Landscape Park

Suwałki Landscape Park's Protection Plan is not currently in effect. The most recent one was created between December 1, 2003 and November 30, 2023. However, it should be mentioned that the non-binding protection plan assumed, among other things, the preservation and protection of open landscape

Table 2. Land use structure in the borders of the landscape parks of the Podlaskie Voivodeship [%]

No.	Landscape Park	Agricultural land	Forest and woodland land	Water land	Wastelands	Other (roads, mined land, development, various)
1.	Suwałki Landscape Park	60	24	10	nd	3.2
2.	Knyszyn Forest Landscape Park	bd	85	nd	nd	nd
3.	Łomża Landscape Park of the Narew Valley	72.1	18.7	3.4	2.5	3.3

Source: Regulation, 2003; https://pkpk.wrotapodlasia.pl/pl/o_parku/powolanie.html, Resolution No. III/20/.

complexes, the maintenance of characteristic types of residential and business development, the development of agro-tourism and other forms of tourism that take advantage of scenic qualities by the requirements of nature and environmental protection, the preservation of scenic routes and viewpoints, as well as coordinating investments and spatial development plans with the director of landscape parks. In terms of guidelines for local spatial development plans, it assumed, among other things: preservation of spatial layouts; the possibility of development of the basic units of the settlement network with observance of the requirements specified for the protection of nature, cultural environment, and landscape, while excluding facilities that are burdensome to the environment and the surroundings; preservation of historically shaped types of compact development in the form of streets and chains the possibility of new colonial homestead development is limited to farms with more than 10 ha of arable land, whose land is located in the park or in the park and its protection zone; the prohibition of the construction of any buildings and equipment not related to farming or forestry and the performance of the Park's statutory tasks; the localization of new buildings that do not violate the natural configuration of the terrain; the use, when erecting new buildings regional architecture forms harmonized with existing buildings and the surrounding landscape.

Protection plan for the Łomża Landscape Park of the Narew Valley

According to the Łomża Landscape Park Narew Valley protection plan (Resolution No. III/20/11), the most serious concern is “pressure to change the agricultural land use, mainly for housing and summer housing.” The solution to this threat is to “exclude open spaces from development and designate the maximum extent of development of settlement units in local spatial development plans.” Another danger involves the “development of the valley along roads on artificially created embankments.” The method to eliminate this hazard is to “establish

in local development plans an absolute ban on the development of these areas.” The protection park defines the so-called natural landscape protection zone of the escarpment and sub-scarp, which is related to historical village assumptions and should be stated in local plans. When developing such zones, it is first and foremost vital to conserve the landscape, adapt new developments to the landscape circumstances, and integrate the proposed buildings into the surrounding landscape. The Łomża Narew Valley Protection Plan makes provisions for local spatial development plans. These arrangements include: the need to strive for biological and landscape diversity when allocating agricultural and forest land for non-agricultural and non-forest purposes; the type of development that can be located in designated zones (development: homestead and residential, individual recreation, public services and administration, sports and recreation, and tourism services); the prohibition of projects that may have a significant impact on the environment, new (except its replenishment with the limitation of the size of livestock facilities and the exclusion of open manure tanks), new construction facilities within a 50-meter-wide strip from the Narew River bank line (except of facilities serving tourism, water management, farming within the boundaries of the invested plot), cell phone base stations, and wind power plants. Łomża Landscape Park protection plan envisions altering and enlarging existing buildings to improve utility and technical requirements. In addition to the aforementioned general arrangements, the protection plan specifies the limiting urban-architectural requirements for new development. For example, it is assumed that regions of individual recreation development and single-family home development are outside the areas of existing development. The plot must have a minimum width of 24 m, a minimum area of 1500 m², a minimum coefficient of biologically active area of 70%, a maximum height of two overground floors, including a usable attic of up to 10 m, double or multi-pitched roofs with a slope gradient of 30–45°, and a preference for openwork fences without a foundation or breaks in the foundation, with a maximum height of 1.5 m.

Protection plan for the Knyszyn Forest Landscape Park

The protection plan for the Knyszyn Forest Landscape Park (Regulation, 2001) states that “economic activities and social life developed in the Park area must not result in the diminution or loss of the Park’s values, and vice versa; the Park’s residents must not suffer restrictions on their standard of living due to the introduced protection regimes of natural, cultural, and landscape values” (Regulation, 2001, p. 3). In terms of shaping the settlement network and development, the protection plan specifies, among other things: preservation of the existing structure of the settlement network; development of the town of Supraśl as a supra-local spa center; development of settlement units, primarily by filling in their spatial structures within the boundaries of compact development, specified in local plans; preservation of the physiognomic character of development; formation of new buildings and development while respecting the internal structure of settlement units and their relationship with the surrounding area; prohibition of new development on forest land and at a distance of less than 30 m from the forest boundary (with the exception of forest management facilities and those serving tourism routes); prohibition of new development with a height greater than 2 stories and a usable attic or 10.5 m, with roof pitches falling outside the range of 20–50 degrees, and with aggressive form and color in relation to the environment; designation in villages with compact development of new residential and homestead development in the vicinity of existing clusters of buildings, i.e. new residential buildings at a distance of no more than 50 m, and new homestead habitats at a distance of no more than 100 m (with the possibility of derogations from this rule for farms with a land area of more than 50 ha); designation of plots of land for summer housing in connection with the existing development of the village, in the form of supplementing the existing development, using the size of plots min. 1500 m², with intensive tree planting.

Łomża Narew Valley Protection Plan differs from the Knyszyn Forest Protection Plan in that it does not

contain direct provisions for the municipality study of the conditions and spatial development directions or local spatial development plans. Its regulations are very general.

Analysis of the planning status of municipalities situated in landscape parks and their buffer zones

Each municipality has a study of the conditions and directions of the municipality’s spatial development, but it is the local spatial development plans that have the most influence on the shaping space, as they take into account the regulations of protection plans. According to the studies, none of the municipalities included in the examined parks and buffer zones has covered by 100% local plans (Fig. 1). In 2009, only two Łomża Landscape Park municipalities – Łomża and Piątnica, accounted for more than 10% coverage of the local plan area. Sokółka (Knyszyn Forest Landscape Park) and Jeleniewo (Suwałki Landscape Park) had above 5% coverage. The remaining municipalities have local spatial plan coverage of less than 5%, with several lacking local plans (Przerośl, Jasionówka, Krynki, Szudziałowo). Adoption of local plans increased slightly between 2009 and 2022, with considerable increases in several municipalities, including Przerośl and Łomża. Due to lack of data, no coverage was determined in the municipalities of Krypno and Knyszyn.

The low level of participation of local plans in the municipalities above is reflected in the state of local plans coverage in parks and their buffer zones. Figure 2 illustrates the estimated local plans coverage of parks and their buffer zones in 2009 and 2024.

There is very little difference between the years analysed. The chart shows that the Suwałki Landscape Park buffer zone currently has the smallest percentage of local plan coverage. There is not a single local plan within the Suwałki Landscape Park’s borders, and just roughly 0.7% of the buffer zone is covered by local plans (Jeleniewo municipality). The situation is not much better at the Knyszyn Forest Landscape Park and surrounding area. In 2022, local plans covered only 0.7% of the park’s land (primarily in the municipalities

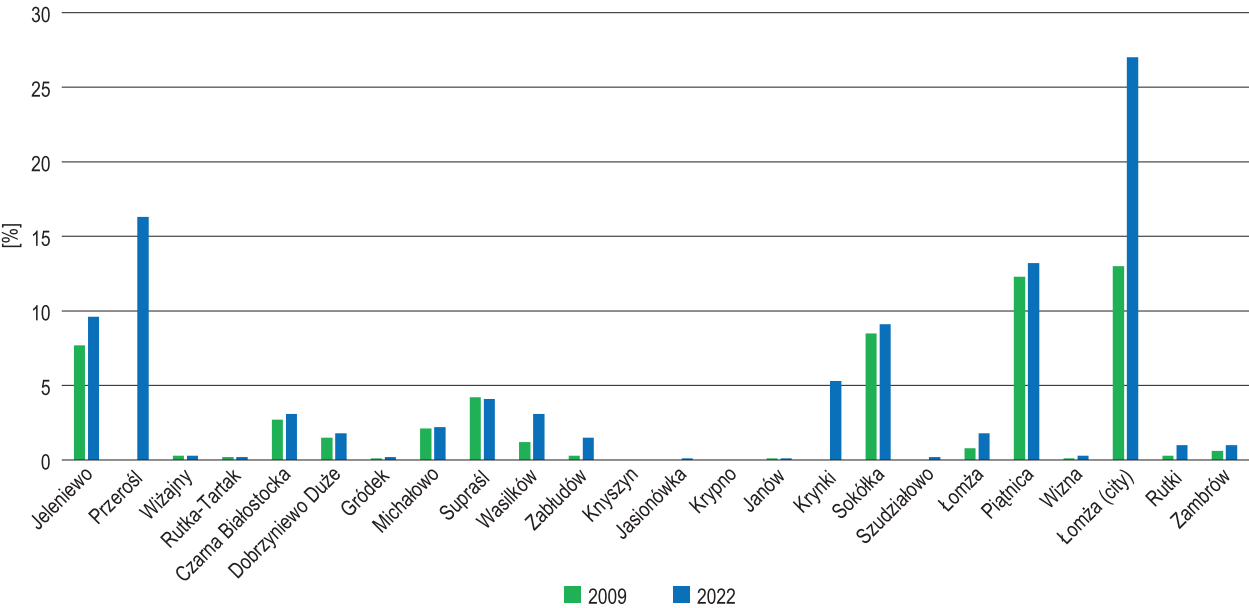


Fig. 1. Coverage by the local spatial development plans in the municipalities of Suwałki Landscape Park, Knyszyn Forest Landscape Park and Łomża Landscape Park of the Narew Valley and their buffer zones in 2009 and 2022
Source: Statistics Poland. Local Bank Data (2024).

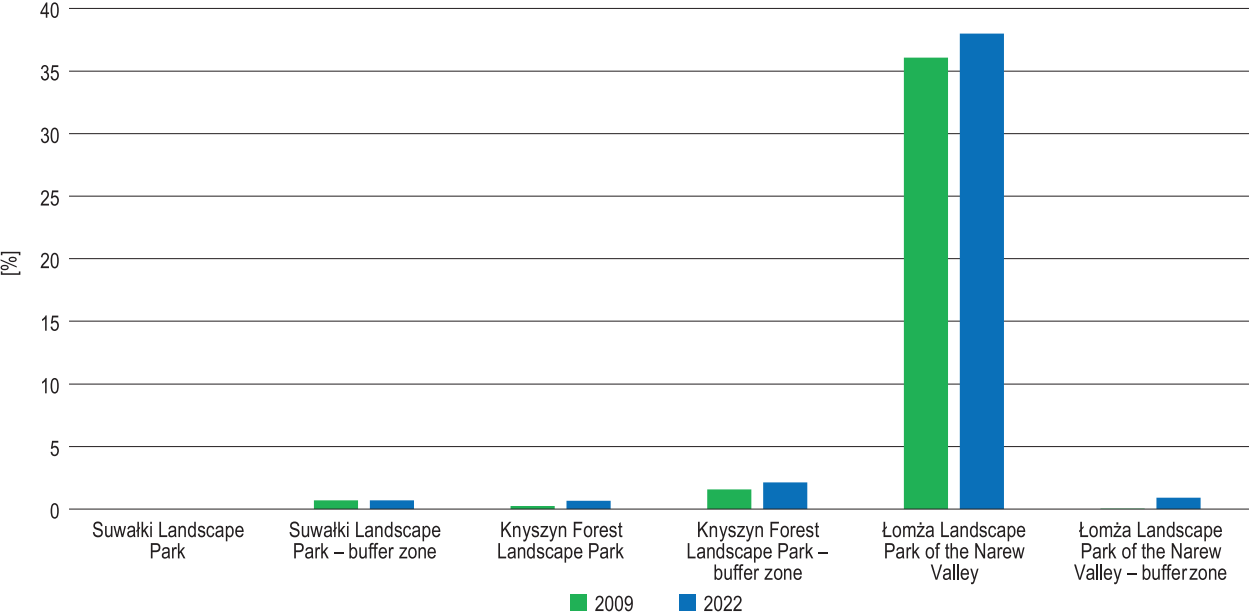


Fig. 2. Coverage by the local spatial development plans in the area of Suwałki Landscape Park, Knyszyn Forest Landscape Park and Łomża Landscape Park of the Narew Valley and their buffer zones in 2009 and 2022
Source: Statistics Poland. Local Data Bank (2024), Geoportal e-mapa.

of Supraśl, Czarna Białostocka, and Wasilków). Since 2009, there has been a minor increase in coverage, particularly in Supraśl and Wasilków municipalities. The Knyszyn Forest Landscape Park buffer zone has more local plan coverage than the park area. In 2022, over 2% coverage was noted (primarily in the Czarna Białostocka and Wasilków municipalities), an improvement from 2009. Łomża Landscape Park of the Narew Valley had the best local plans coverage in 2022 – roughly 38%, mainly due to the spatial policy of the municipalities of Piątница and Łomża. In 2009, the plan coverage was similar, but the leading role was provided by the Piątница municipality, where in 2007 a local plan was adopted covering the area of the Łomża Landscape Park of the Narew Valley, which is 2.624 ha. Unlike other parks, the Łomża Landscape Park buffer zone has smaller local plans coverage than the park. In 2022, this coverage was around 0.9%, compared to 0.03% in 2009.

Analysis of investment areas in parks and their buffer zones

Local plans created in landscape parks focused on implementing investments in single-family homes, farm buildings, tourist and recreation services, hotels, and agritourism. However, it should be emphasized that not all areas of parks and their buffer zones were investment procedures are carried out have local plans. There are many such locations where development is progressing, and their implementation is mainly based on decisions on development and land use conditions (no local plans). According to statistical data, in the year 2009–2022, the most significant population growth was recorded in the Knyszyn Forest Landscape Park municipalities of Wasilków, Supraśl, Dobrzyniewo Duże, and Zabłudów and then one Łomża Landscape Park municipality – Łomża (rural municipality) (Fig. 3). Taking into account, it can be

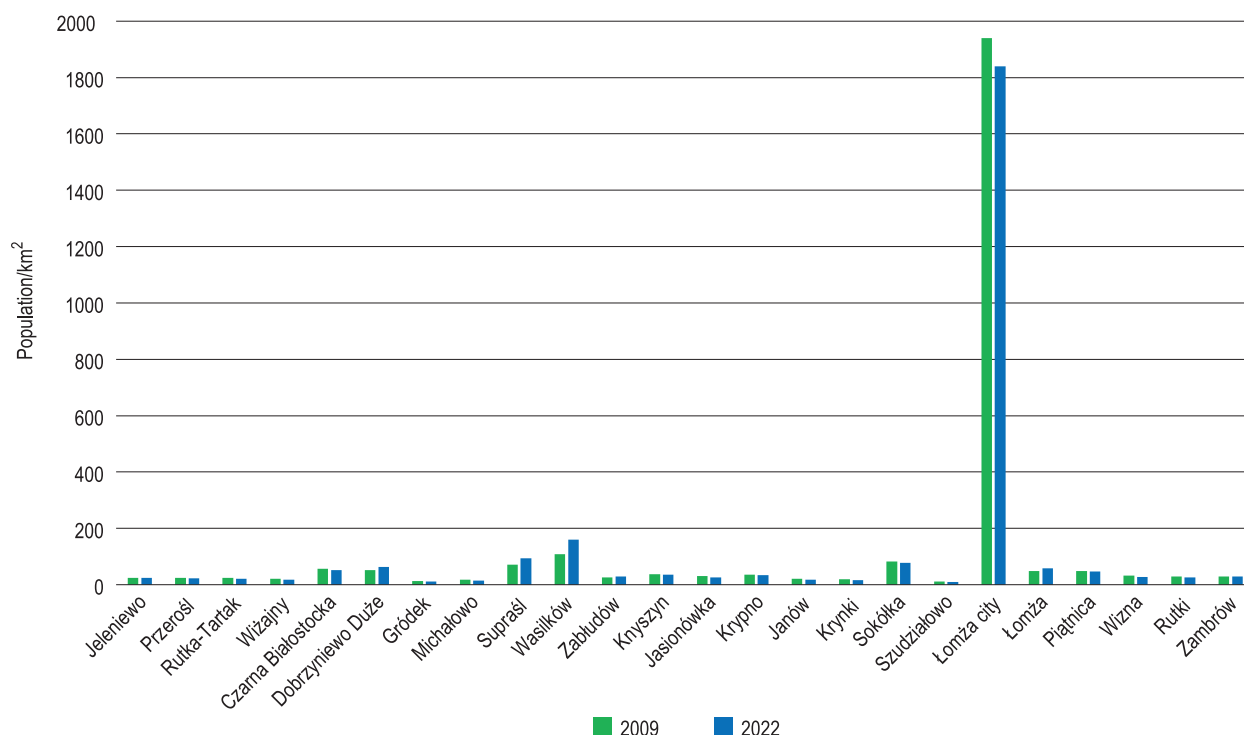


Fig. 3. Population density in the municipalities of Suwałki Landscape Park, Knyszyn Forest Landscape Park and Łomża Landscape Park and their buffer zones in 2009 and 2022

Source: Statistisc Poland. Local Data Bank (2024).

reasonably expected that investment processes will take place in these municipalities.

Wasilków municipality saw the most significant increase in population. Development is concentrated and growing both within the park (Rybniki) and its buffer zone (Jurowce, Sochonie, Wólka Przedmieście, Wólka Poduchowna, Studzianki, Zapieczki, Dąbrowki). These areas are usually not covered by local plans. The Supraśl municipality faces a similar problem. There are no local plans in Ciasna along Sosnowa Street (the buffer zone) and the western and northern parts of Supraśl and Podsupraśl (the park). Dobrzyniewo Duże has seen investment development in Nowy Aleksandrów, Leńce, Podleniec, and Letniki, as well as within the park boundaries in Kopisko. The problem in Łomża's rural municipality affects the towns of Stara Łomża, Zosin and Lutostan (the buffer zone), and Szlachta (the park).

Analysis of local spatial development plans on landscape and nature protection of parks

Thirty-three local plans covering the landscape park (excluding the buffer zone) were accepted for analysis. The analysis focused on local plans adopted in the Knyszyn Forest Landscape Park and Łomża Landscape Park municipalities, as there are no local plans in the Suwałki Landscape Park area. Local plans in Knyszyn Forest Landscape Park primarily governed residential, agricultural, service, and tourism development arrangements. The local spatial development plan for part of the area of the village of Wólka Ratowiecka located in the Czarna Białostocka Municipality – Resolution No. VII/56/07 of the Czarna Białostocka Municipality Council of May 29, 2007 (Resolution No. VII/56/07) requires farms, services, and hotels to adhere to the landscape park protection plan and maintain landscape identity by harmonizing new developments with the surrounding landscape. To maintain local natural and landscape qualities, Resolution No. XI/83/07 of the Czarna Białostocka Municipality Council of October 9, 2007 on the local spatial plan for Bukszel settlement

in Czarna Białostocka (Resolution No. XI/83/07) recommends preserving existing forest complexes and designing new buildings to respect these values. Local plans for recreational, leisure, tourist, and hotel development in the Gródek municipality, according to the Resolution No. XXIII/184/09 Gródek Municipality Council of March 18, 2009 on local spatial plan for the area of plots No. 119, 120 and 121/2 with a total area of 8.5 ha, located on the Borki village in the municipality of Gródek, intended for recreational, tourist and hotel development (Resolution No. XXIII/184/09) must adhere to the provisions of the Knyszyn Forest Landscape Park protection plan, as well as “referring the scale and form of the designed development to the existing forest surroundings, as well as maintaining the regional development features”. The provisions of the Knyszyn Forest Landscape Park protection plan are referenced in the Gródek municipality's local plan for urban and architectural aspects. Supraśl commune strictly establishes development parameters among others in the Resolution No. XLVI/571/2018 Supraśl Municipality Council of September 20, 2018 on local spatial plan for Supraśl City (Resolution No. XLVI/571/2018), and according to the Resolution No. XXIII/196/2012 Supraśl Municipality Council of September 27, 2012 on local spatial plan for the part of Sokolda and Woronicze-Międzyrzecze villages in Supraśl municipality (Resolution No. XXIII/196/2012) any investment activity resulting from plan implementation cannot conflict with the principles resulting from the Protection Plan of the Knyszyn Forest Landscape Park. In the Wasilków municipality as part of tourism and recreation service development, it is prohibited to “introduce into land development functions that negatively affect the natural environment and deteriorate landscape values,” as well as “construction of buildings, e.g. towers that may obscure view axes, panoramas, and viewing planes” – Resolution No. XXXIV/184/09 Wasilkow Municipality Council of March 3, 2009 on local spatial plan for part of the land of the village of Rybniki (area of the intersection of roads to the villages of Wólka Przedmieście and Karczmisko)

(Resolution No. XXXIV/184/00). In the Łomża Landscape Park, in the rural commune of Łomża, numerous local plans emphasized additionally the necessity to agree on any actions that may change environmental or cultural values with the director of the landscape park. In rare circumstances, the Director of the Łomża Landscape Park's opinion is required regarding urban-architectural criteria.

DISCUSSION

The role of spatial policy in shaping the space covered by legal forms of nature protection is significant. "Local spatial planning is a basic and important tool for the protection and shaping of the environment" (Dubicki & Kułyk, 2019, p. 21). Its implementation based on local spatial development plans is the basis for implementing sustainable development and preserving spatial order. In particular, proximity to urban centres is linked to sustainable development (Cialdea & Privitera, 2021). The provisions of the local plan shape the way of exercising property rights. Fulfilling social needs, including allowing new places for development and protecting exceptional natural and landscape values, may cause conflicts. Spatial conflicts are inherent in any developing area especially at times of high land use intensity and the need to change land use (Xiangping et al., 2022). The objective of land use management should be both to meet current and future social needs and to maintain an appropriate level of land use (Brown & Raymond, 2014). Landscape values in a space are essential for spatial planning, but they can also be an obstacle (Buława & Ahn, 2024). To eliminate them, local authorities avoid shaping the space based on local plans to implement investments based on decisions on development conditions. The situation is similar in the landscape parks of the Podlaskie Voivodeship, where municipalities within the landscape parks and its buffer zones spatial policy is implemented primarily through decisions on development conditions. The scale of realised investments based on the regulations of the local plan is tiny. While there was an increase

in the area of land covered by local plans, such as in the Przerośl municipality (from 0 to 16%) and the Łomża city municipality (from 13% to 27%), this is still insufficient to ensure an adequate level of spatial order protection in the analyzed municipalities. The limited coverage of local plans in surveyed municipalities was mirrored in the low percentage of local plans in landscape parks. However, the area covered by plans in the Przerośl municipality in the analyzed period increased significantly but did not include the Suwałki Landscape Park or its buffer zone. There is no single local plan in effect in the Suwałki Landscape Park, but only two in its buffer zone in the Jeleniewo municipality. The Knyszyn Forest Landscape Park and its buffer zone face a similar scenario. Local plans cover around 0.7% of its area. These were mostly the local plans of the municipalities of Supraśl and Wasilków, which have had rising population densities for many years. The Łomża Landscape Park of the Knyszyn Forest Landscape Park had the highest coverage of local plans, accounting for 95% of the total in the municipalities of Piątница and Łomża. Regarding the land use structure, it can be predicted that the share of local plans for the Knyszyn Forest Landscape Park may be lower than in other parks, since as much as 85% of its area is forest and forest land. The Suwałki Landscape Park and the Łomża Landscape Park of the Narew Valley do not require local plans for huge bodies of water or open agricultural regions, just like large open forests. The absence of local plans or their limited coverage in landscape park area could also be attributed to municipalities' fear of reimbursement from property bans or limitations. Implementing local plans for such places can be challenging and cause a lot of disagreement.

Local plans established by municipalities in the investigated landscape parks primarily overlap with investment areas. They were enacted principally to support single-family dwelling, homesteading, tourism, and recreation services. There are also local plans for infrastructure projects like power grids and highways, as well as those for aggregate mining. Analysis of the most developing municipalities in terms of population density: Wasilków, Supraśl,

Dobrzyniewo Duże, and Zabłudów, showed a high number of areas in landscape parks and buffer zones, also characterized by a growing level of investment. Local plans do not cover these areas. Thus investment locations are determined based on development conditions. This is supported by data from the Supraśl and Wasilków municipalities, where more than 80% of the land is in the landscape park and buffer zone. Supraśl and Wasilków municipalities issued 258 and 175 zoning decisions of development conditions, respectively, in 2022 (Statistics Poland). Almost all of these decisions involved single-family home development. Since 2009, a comparable number of land use and development decisions have been granted yearly. The number of residential buildings in Supraśl increased by 2274 between 2009 and 2024 (from 3701 in 2009 to 5975 in 2022) (Statistisc Poland). The number of residential buildings in Wasilków increased by 1946 between 2009 and 2024 (from 3134 to 5080), demonstrating the magnitude of investment in places without local planning (Statistics Poland). In 2022, the percentage of permits and notifications based on local plans in the total number of permits and notifications with a construction project for the construction of new structures in the municipality of Supraśl was 13.6%, while in the municipality of Wasilków it was only 3,6%. In 2022, 55 decisions on development and land use conditions were issued in Czarna Białostocka (Statistisc Poland), where more than 97% of the land is in the Knyszyn Forest Landscape Park and its buffer zone. It was the same in previous years. Basing the implementation of the spatial policy in the analysed area on decisions on land development conditions may bring negative consequences in the form of, among others, spatial chaos and uncontrolled distribution of development. The ease of obtaining decisions on land development conditions causes buildings to be built spontaneously and spatially unplanned, resulting in poor spatial order and an increasing threat to the natural environment (Śleszyński & Kukołowicz, 2021). The low coverage of local plans in the Podlaskie Voivodeship in protected areas was confirmed by the Supreme Audit Office in 2013. The Office stressed that the actions of local

governments are insufficient to ensure spatial order in areas covered by forms of nature, which does not guarantee proper protection of areas with exceptional natural values.

The level of coverage of local plans in the municipalities of the studied landscape parks is low, and the condition of the parks' protection plans is also poor. In Poland, less than half of landscape parks have valid protection plans (Dmytrowski & Kicińska, 2022). Only the Łomża Landscape Park contains regulations that should be included in the municipality's planning documents. The Knyszyn Forest Landscape Park's protection plan does not contain such provisions but indicates the preservation of the existing settlement structure, supplementation of spatial structures within the boundaries of compact development, and location of specific forms of development. Suwałki Landscape Park does not yet have a protection plan. A review of the local plans in landscape parks showed that the regulatory provisions in almost all plans refer to the parks' protection plans. This situation leads to the conclusion that the landscape park protection plans are essential for preserving valuable aspects of landscape parks and their buffer zones. As Mastalska-Cetera and Krajewski (2014) emphasised, Poland is characterised by a large dispersion of development, distinguishing it from other countries. Areas of unique natural values, such as the areas around for example the Complex of Jurassic Landscape Parks, are subject to specific changes due to often irrational planning decisions (Mastalska-Cetera & Krajewski, 2014), caused by, among others, issuing numerous decisions on development conditions. Similar sites in Poland include Wigry National Park (Baniszewski & Budnicka-Kosior, 2024), Mazowiecki Landscape Park (Janeczko et al., 2016), and Kampinos National Park (Janeczko et al., 2024; Mastalska-Cetera & Krajewski, 2014).

Based on the conducted research, the research hypothesis put forward in this article has been justified. Spatial policy in the scope of protection of valuable natural and landscape elements of landscape parks of the Podlaskie province is insufficient. Its implementation should mainly take place based

on local spatial development plans. These documents, containing the provisions of park protection plans, should be a key instrument for the protection and shaping of space in the areas of landscape parks and their buffer zones.

CONCLUSIONS

Considering the results of research and discussions, it should be noted that the shaping the space in landscape park largely depends on the regulations of local plans and protection plans. However, the lack of local plans does not limit reasonable land management in landscape parks. In this case, the will of local authorities plays a key role in shaping the space and protecting natural and landscape values. Park protection plans have proven to be a crucial instrument for conserving the valuable qualities of parks; however, not all parks have such documents.

Finally, it should be noted that the Suwałki Landscape Park does not have local spatial development plans and does not have a protection plan. In the Knyszyn Forest Landscape Park the coverage with local plans is small, and due to the growing population, residential investment areas appear within its border. This raises concerns about the spatial order of the municipalities and the preservation of the natural and landscape values of the park and its buffer zone. The Knyszyn Forest Landscape Park's protection plan contains general regulations, but they are sufficient to include in local plans. The Łomża Landscape Park has a larger scope of local plans than other evaluated parks, mainly due to one large Piątница municipality local plan. The regulations of the park's protection plan are highly detailed and constitute guidelines for the municipality's planning documents.

A review of the provisions of local plans adopted in areas within the boundaries of landscape parks revealed that the regulations were consistent with the guidelines of the protection plans (except several adopted before 2000).

The following conclusions can be drawn based on the article's regulatios and discussion.

1. Landscape parks in the Podlaskie Voivodeship's have very low coverage with local plans, but it is

impossible to ensure a substantial share of these legal activities due to park conditions. Despite this, efforts should be made to achieve the most excellent possible of the landscape park area with local plans, especially in areas of progressive development.

2. The ongoing development and increase population density, particularly in Wasilków, Supraśl, Dobrzyniewo Duże, and Zabłudów municipalities, should encourage local administration to create local plans. Thanks to planning documents, can protect themselves from spatial chaos and excessive development dispersion, preventing them from incurring excessive future expenses for, among others, technical infrastructure, social infrastructure, etc.
3. The lack of local plans in landscape park and buffer zone areas can also be attributed to municipalities' concerns about future claims of property owner in connection with the introduction of prohibitions and restrictions. Based on current legislation, it is easier to realise development on the basis of decision on development conditions than to adopt a local plan, assuming that any restrictions will cause spatial disputes even during the plan's development.
4. Because from July 2026 each municipality must have a municipal general plan land use and development decisions must be based on its regulations. Furthermore, investment localization based on development decision will be achievable only if municipal authorities opt to include the so-called "building supplement zones" in the general plan.
5. To better understand the protection of valuable landscape park assets through the implementation of spatial policy, research should be extended to include other landscape park regulations in other voivodeships.

Many researchers, such as Banaszuk (2017) and Degórski (2012, 2015), suggest that the lack of local plans, particularly in areas covered by forms of nature protection, is a major issue. This article confirms these concerns. Degórski (2012) points out that no coherent principles of landscape protection have been developed in Poland, which is confirmed among other things, by a lack of sufficiently effective tools for modifying space within landscape park limits. Although Otawski (2011)

emphasizes that this state of affairs does not indicate that the landscape's devastation will be stopped, hope is raised by the municipalities' general plan, which, like the local spatial development plan, will be an act of local law. Although it will contain very general wording, only on its conclusions will it be possible to issue decision on development conditions, which, as this study has demonstrated, primarily contribute to chaotic development and thus landscape degradation.

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