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## SPATIAL SYSTEM OF LANDSCAPE PROTECTION IN POLAND

### *PRZESTRZENNY SYSTEM OCHRONY KRAJOBRAZU POLSKI*

**Key words:** system and forms of landscape protection, European Landscape Convention, Poland

*Słowa kluczowe:* system i formy ochrony krajobrazu, Europejska Konwencja Krajobrazowa, Polska

#### **Abstract**

The spatial system of landscape protection in Poland includes 13 types of legitimate forms enabling protection of objects within landscape, parts of landscapes and sets of numerous landscapes. When considering surface area, the largest and most important forms of landscape protection are established on the basis of the Nature Conservation Act. The greatest area is covered by protected landscape areas and landscape parks (in total, ca. 30% of the area of Poland). However, they are of rather low importance in actual landscape protection due to weak implementing instruments. National parks and reserves provide better landscape protection, however focus on conservation of nature values and extend at only 3.5% of the country area. Cultural landscapes of historical significance are protected mainly in the form of heritage monuments and cultural parks, up to the present day founded in the number of only 54 and 24, respectively. These small amounts do not reflect the variability of Polish historical cultural landscapes and are insufficient to preserve them. In Poland, the weakest protection is provided to non-historical cultural landscapes.

#### **Streszczenie**

*Przestrzenny system ochrony krajobrazu w Polsce zbudowany jest z 13 typów usankcjonowanych prawnie form ochrony. Pozwalają one na ochronę obiektów w krajobrazie, części krajobrazów lub też układów zbudowanych z wielu krajobrazów. Najliczniejsze i najważniejsze formy ochrony krajobrazu pod względem powierzchni są tworzone w oparciu o ustawę o ochronie przyrody. Największe tereny zajmują obszary chronionego krajobrazu i parki krajobrazowe – łącznie ok. 30% terytorium kraju. Nie mają jednak dużego znaczenia w rzeczywistej ochronie krajobrazu ze względu na słabe instrumenty wykonawcze ochrony. Parki narodowe i rezerваты lepiej chronią krajobrazy, ale koncentrują się na ochronie walorów przyrodniczych i zajmują zaledwie 3,5% powierzchni kraju. Podstawowymi formami ochrony zabytkowego krajobrazu kulturowego są pomniki historii i parki kulturowe. Do tej pory powstały zaledwie 24 parki kulturowe i 54 pomniki historii, co nie odzwierciedla różnicowania zabytkowego krajobrazu kulturowego Polski i jest niewystarczające dla jego zachowania. Najbardziej w Polsce chronione są niezabytkowe krajobrazy kulturowe.*

## INTRODUCTION

Landscape protection, one of key aspects in preservation of sociocultural identity and natural heritage, is an important task for the Polish society and administration. Providing landscape protection may involve the development of a spatial system of protected areas, differing in their rank and protection conditions and contributing to legal protection described as passive (Kistowski, 2010). Active protection, not discussed in this paper, is supplementary to passive protection and enables accomplishment of the landscape protection aims.

In Poland, spatial systems of landscape protection are established according to a scientific paradigm in which landscape, as the subject of protection, is understood differently. Two main trends may be distinguished in its research and development: (1) based on natural studies (e.g. landscape geography, landscape ecology and geochemistry) and focusing on the protection of nature values and (2) based on technical sciences (e.g. urban planning, architecture, landscape architecture) and focusing on the protection of cultural values, very often resulting from the history of the area and its monuments. In subject literature, definitions of landscape were repeatedly revised and compiled (i.a. Pietrzak, 1998; Źarska, 2004; Richling, Solon, 2011; Chmielewski, 2012; Myga-Piątek, 2012). Terminology and methodology applied in Polish studies of landscape, also in the context of its protection, were discussed in very numerous publications, particularly ones published in two journals leading in the presentation of the Polish and partly foreign achievements in this field, namely the *Dissertations of Cultural Landscape Commission* and *The Problems of Landscape Ecology*.

Considering the two main trends in landscape studies, the Polish spatial system of landscape protection was developed on the basis of two principal sources of law:

- regulations on nature conservation (presently the Nature Conservation Act of 16<sup>th</sup> April 2004), describing mainly the structure of areas of natural landscape protection, however including forms putting strong emphasis on protection of cultural landscape (e.g. landscape parks, landscape-nature complexes); within this system, three forms of protection: landscape parks, protected landscape areas and landscape-nature complexes, as well as some reserves (landscape reserves), are dedicated to landscape protection;
- regulations on monuments protection (presently the Act on Monuments Protection and Maintenance of 23<sup>rd</sup> July 2003), providing basis for the protection of cultural landscapes and objects of historical significance; in spatial protection, two forms are of key importance: cultural parks and heritage monuments; they are accompanied by cultural heritage protection zones established in spatial planning.

Moreover, landscape protection within forms of protection defined in the Polish law may be enhanced when the rank of an area or object increases, e.g. when it is included in the UNESCO World Heritage List or Biosphere Reserves List.

With both the above-mentioned types of regulations, the Polish legal system of landscape protection provides passive protection for:

- objects within landscape – single or grouped components, e.g. nature monuments, monuments entered into the register of monuments;
- parts of landscapes – fragments of natural or cultural landscapes, e.g. single ecosystems, groups of monuments;
- landscapes – all natural and cultural resources in particular area, protected mainly in large-scale spatial forms of environmental protection, e.g. national parks and landscape parks, as well in forms of protection of cultural assets, such as cultural parks and heritage monuments.

The legal system of landscape protection, with a structure generally distinguishing protection of cultural landscape from natural landscape and divided into activities aimed at preservation of landscape components, parts of landscapes or entire landscapes, has its advantages and disadvantages. The most important advantages include the fact that all areas and landscape components, both natural and cultural ones, are subjected to protection, which may be provided from object-scale to large-scale. Additionally, the level of protection can be adjusted to current needs. The main drawback of the system is that it authorizes dualism in landscape protection management, what results in functioning of two “areas” of protection. The first one, based on the Nature Conservation Act, is too weak in the protection of cultural landscape values, while the second one, based on regulations on monuments protection, does not sufficiently consider the need to protect natural resources and values. Moreover, it is too much focused on cultural landscapes of historical significance while other cultural landscapes, of great importance for the society and in present day culture, remain underappreciated. This coincides with problems with defining landscape and its protection in various legal regulations (Giedych, 2004; Badora, 2009).

Spatial landscape protection was introduced in Poland already before World War Two, however a comprehensive approach to this issue has been developed since the late 1940s. Works on the system were intensified particularly in the 1980s and 1990s, due to a paradigm shift in nature protection from conservatorial and focused on objects towards comprehensive and focused on landscapes. In protection of landscapes of historical significance, greater emphasis was put on the need to preserve complexes of monuments and the entire landscape into which they are integrated.

The aim of this paper is to outline the present day state of spatial landscape protection in Poland and to present possible ways of its optimization.

## TYPOLOGY OF COMPONENTS IN THE SPATIAL SYSTEM OF LANDSCAPE PROTECTION

Passive protection of natural and cultural landscapes in Poland is provided in the following forms of protection:

- based on regulations on nature conservation: national parks, nature reserves, landscape parks, protected landscape areas, Natura 2000 areas, documentation sites, nature monuments, landscape-nature complexes, ecological areas; the first five forms are usually large-scale and protect landscapes or sets of landscapes (nature reserves protect mainly the key ecosystems of landscapes); other forms protect mostly objects within landscapes or parts of landscapes;
- based on regulations on monuments protection: heritage monuments, cultural parks, protection specifications in spatial planning documentation (particularly zones of cultural heritage protection: A, B, K, W, E), entries into the register of monuments; the first three forms are mainly spatial and cover urban and rural arrangements of historical significance, often with the integrated open landscapes of high nature values; entry into the register usually provides protection only for single or grouped landscape components, nearly exclusively of an architectonic type.

Particular forms of landscape protection differ in the aim of protection, spatial scale, scope of protection and importance (rank) of the protected resources and values. The main differences are presented in tab. 1.

Compilation presented in tab. 1 shows that the key forms of natural landscape protection in Poland include national parks, nature reserves and Natura 2000 areas. However, it should be noticed that nature reserves and Natura 2000 areas are forms oriented towards specific subjects of protection (natural habitats, plant and animal species, defined types of ecosystems). Therefore, they do not provide equal protection to all landscape components. Only landscape reserves, established for conservation of entire landscapes, make an exception.

Cultural parks and heritage monuments are important for the protection of cultural landscapes of historical significance.

In a spatial scale, the greatest protection is provided by national and landscape parks and by a large part of protected landscape areas. The minimum area of a national park was specified at 1000 ha. For landscape parks and protected landscape areas no minimum areas were determined, however these forms often extend at areas between several and several tens of thousands of hectares and cover large-scale systems of landscapes, usually of a diversified structure, functioning and management. When considering surface area, protected landscape areas are the leading form of landscape protection. However, its aim was inaccurately defined in the act what causes serious problems. Such areas are established to preserve ecological corridors or sites of mass tourism, therefore landscape protection, unless promoting migration of flora and fauna, is in fact of low importance. For this reason, ecological corridors should be rather distinguished as a distinct protection category in the Nature

Conservation Act while forms of landscape protection oriented towards development of mass tourism should be no longer maintained. Aims of protected landscape areas should be redefined and oriented towards preservation of natural and cultural landscapes in conditions of well-balanced management. Less consideration should be given to robust prohibitions while greater to tasks to be fulfilled within active landscape protection.

**Tab. 1.** Forms of landscape protection in Poland and their characteristics

Forms of landscape protection	Aim of protection	Spatial scale of protection	Scope of protection	Level of protection	Rank of protected values
National park	N	S	A	H	I
Nature reserve	N (C)	L, C	C (A)	H	N, R
Landscape park	N, C	S	A	M	R, N
Protected landscape area	N	S (L)	A	L	R (N)
Natura 2000 area	N	S (L)	C	H	I
Nature monument	N	C	C	H	R, L
Documentation site	N	C	C	H	R (N, L)
Landscape-nature complex	V	L	A	M	L
Ecological area	N	C (L)	A (C)	M	L
Cultural park	C	L (C)	A	M	R (N, I)
Heritage monument	C	L (C)	A	H	I, N
Cultural heritage protection zones in plans:					
A	C	L, C	A	H	R (N)
B	C	L, C	A	M	L (R)
K	C, N	L, C	A	M	L
W	C	C	C	M	L
E	V	L	A	L	L, R
Registers and records of monuments	C	C (L)	C (A)	H, M	I, N, R, L

*Source: own study.*

Denotations. Aim of protection: N – nature values, C – cultural values, V – visual values.

Spatial scale of protection: S – large-scale, mainly systems of numerous landscapes, L – landscape, C – landscape component. Scope of protection: A – all components, C – selected components. Level of protection: H – high, M – medium, L – low. Rank of protected values: I – international, N – national, R – regional, L – local. Denotations in brackets are of subordinate importance.

Forms of landscape protection established on the basis of regulations on monuments protection cover noticeably smaller areas, namely landscape fragments, often even single objects within landscape, of cultural and historical significance and key importance for preservation of the national heritage. As they are oriented towards historical landscapes, more modern, however valuable cultural landscapes are insufficiently protected against present day anthropoppression.

Most forms of landscape protection established in Poland are comprehensive, i.e. protect all landscape components. However, forms based on regulations on nature conservation are oriented mainly towards protection of nature values, while forms based on regulations on monuments protection are focused on preservation of historical and cultural values.

In the Polish legal system of landscape protection, particular forms differ in the level of protection, varying from the highest one in national parks, nature reserves, heritage monuments, nature monuments, cultural heritage protection zones A and objects entered into the register of monuments, to the lowest one in protected landscape areas, which cover the largest surface area within forms of landscape protection (tab. 2, fig. 1).

Among these forms, the highest quality rank was assigned to national parks and Natura 2000 areas. Some cultural parks and heritage monuments (e.g. the Malbork Castle and Wieliczka Salt Mine), as well as selected objects entered into the register of monuments are also of international importance.

**Tab. 2.** Basic information on the spatial system of landscape protection in Poland, developed on the basis of the Nature Conservation Act

Forms of landscape protection	Total area in thous. ha	Share in the area of Poland [%]	Area in m <sup>2</sup> per capita
National parks	314.6	1.0	82
Nature reserves	165.5	0.5	43
Landscape parks	2528.6	8.1	656
Special Protection Areas, Natura 2000	5575.2	17.8	1446
Special Areas of Conservation, Natura 2000	3816.0	12.2	990
Protected landscape areas	6992.1	22.4	1815
Documentation sites	0.9	0.0	0
Ecological areas	52.2	0.2	14
Landscape-nature complexes	95.5	0.3	25

*Source: own study based on "Environment 2013" (Central Statistical Office, 2013).*

## SPATIAL SYSTEM OF LANDSCAPE PROTECTION AND DIRECTIONS IN ITS DEVELOPMENT

Main components of the spatial system of landscape protection in Poland are presented in tab. 2-5 and fig. 1. The figure does not include Natura 2000 areas as they mostly overlap other forms of protection.

When considering surface area, forms of landscape protection established on the basis of the Nature Conservation Act are the dominant ones. Protected landscape areas show the greatest share in the area of Poland (22.4%) and cover ca. 70% of all forms of conservation. However, they provide the weakest protection, most important reasons of which were discussed above. Areas ensuring high level of protection, i.e. national parks and nature reserves, cover ca. 1.5% of the country area.

**Tab. 3.** Number of landscape protection objects of the Nature Conservation Act in particular voivodships

Voivodeship	Number of landscape protection object							
	national parks	reserves	landscape parks	protected landscape areas	documentation sites	ecological areas	landscape-nature complexes	nature monuments in total
Lower Silesia	2	66	12	16	1	153	17	2597
Kujawy-Pomerania	-	94	9	32	5	1536	48	2675
Lublin	2	86	16	17	7	267	7	1513
Lubuskie	2	64	7	38	1	361	14	1290
Łódź	-	89	6	13	6	483	39	3398
Lesser Poland	5	85	9	10	54	39	7	2207
Mazovia	1	184	5	29	8	740	25	4272
Opole	-	36	3	9	9	96	20	661
Podkarpacie	2	95	7	13	28	426	10	1388
Podlasie	4	93	3	13	2	272	5	2015
Pomerania	2	130	7	42	5	857	32	2809
Silesia	-	64	7	14	7	74	23	1532
Świętokrzyskie	1	72	9	18	15	79	13	710
Warmia-Masuria	-	109	6	69	1	293	18	2564
Greater Poland	1	98	11	33	2	185	8	3843
West Pomerania	1	116	5	19	10	1171	42	2842
In total	23	1481	121	385	161	7032	328	36316

*Source: own study based on "Environment 2013" (Central Statistical Office, 2013).*

**Tab. 4.** Areas and percentage shares of landscape protection forms of the Nature Conservation Act in particular voivodeships

Voivodeship	Area of landscape protection forms [ha]	Percentage share of landscape protection forms in the area of voivodeship	Area of landscape protection forms per capita [m <sup>2</sup> ]
Lower Silesia	371020.0	18.6	1273
Kujawy-Pomerania	571180.7	31.8	2725
Lublin	570164.2	22.7	2633
Lubuskie	543398.8	38.8	5310
Łódź	359708.6	19.7	1425
Lesser Poland	790843.6	52.1	2358
Mazovia	1055514.5	29.7	1991
Opole	256272.3	27.2	2537
Podkarpacie	797638.7	44.7	3745
Podlasie	645990.7	32.0	5389
Pomerania	598230.0	32.7	2612
Silesia	273574.8	22.2	593
Świętokrzyskie	755645.9	64.5	5931
Warmia-Masuria	1129457.7	46.7	7786
Greater Poland	948260.6	31.8	2739
West Pomerania	482578.0	21.1	2803
In total	10149479.1	32.5	2634

*Source: own study based on "Environment 2013" (Central Statistical Office, 2013).*

Among reserves, the landscape reserves (including two types: natural landscape and cultural landscape reserves) are of crucial importance. However, they were established in the number of only 110, making only ca. 7% of all Polish reserves and covering ca. 0.05% of the country area.

In the landscape protection system, the key function of national parks should be supported by landscape parks, which extend on ca. 8.1% of the area of Poland. However, despite numerous instruments and protection tools resulting from conservation plans, in fact landscape parks provide very weak landscape protection (Kistowski, 2004). Active and passive landscape protection in landscape parks was also limited by reforms, in result of which the parks became administered by voivodeship self-governments, and other changes in legislation regulating the functioning of parks (Kistowski, 2012a, b). For example, staff capabilities of the park service were reduced.

When considering quantity, small forms, such as objects or small-scale landscape fragments, are most numerous within forms of landscape protection. The greatest number, exceeding 36 thousand, is attained by nature monuments having one of the longest conservation traditions, together with national parks. Ecological areas (over 7 thousand) are also numerous. Within larger landscape protection forms,

protected landscape areas, in the number of 385, are dominant. 23 national parks and 121 landscape parks were also established in Poland (Kistowski, Kowalczyk, 2011), however no such forms have been founded since 2003. The last national park (Ujście Warty National Park) was established in 2001. Projects of new national and landscape parks or extensions of the already functioning ones are successfully blocked by local governments.

**Tab. 5.** Cultural parks in Poland

Voivodeship	Name of cultural park (numbers follow fig. 2)	Year of foundation
Lower Silesia	1. Fortress Cultural Park in Srebrna Góra	2002
	2. Fortress Cultural Park "Kłodzko Fortress"	2005
	3. Cultural Park of the Jeleniogórska Valley	2009
Kujawy-Pomerania	4. Cultural Park in Wietrzychowice	2006
	5. Cultural Park "Pakoska Calvary"	2008
	6. Cultural Park "St. Oswald's church" in Płonków	2009
	7. Cultural Park in Sarnowo	2010
Lubuskie	8. Cultural Park "Three Mills Valley" in Bogdaniec	2006
Łódź	9. Cultural Park "Weavers Town" in Zgierz	2003
	10. Cultural Park "Castle Hill" in Sieradz	2009
Lesser Poland	11. Cultural Park of the Zakopiańska Valley	2006
	12. Cultural Park of the Old Town in Cracow	2010
Mazovia	13. Cultural Park "Ossów – Gates of the Battle of Warsaw 1920"	2009
	14. Wilanów Cultural Park	2012
Podkarpacie	15. Cultural Park of the Old Town Complex and the Dominicans Complex in Jarosław	2009
Pomerania	16. Cultural Park of City Fortifications "Gdańsk Fortress"	2002
	17. Cultural Park of Eight Beatitudes in Sierakowice village	2006
	18. Cultural Park "Seal Hunters Settlement" in Rzucewo	2008
	19. Cultural Park "Monastery Ponds"	2009
Silesia	20. Cultural Park of the Jewish Cemetery in Żory	2004
	21. Cultural Park "Popłuczkowa Heap"	2006
Świętokrzyskie	22. Cultural Park of the Town of Końskie	2005
Warmia-Masuria	23. Cultural Park of the Varmian Landscape Road, Gietrzwałd – Woryty	2009
Greater Poland	24. Mickiewicz Cultural Park	2007

*Source: own study based on data from the National Heritage Board of Poland.*

Reserves are found in a high number of 1481, however most of them protect only small landscape fragments, mainly in forest areas, and are of low importance for cultural landscape protection.

Particular voivodeships differ in the area covered by forms of landscape protection. Their greatest share is recorded in the Świętokrzyskie and Lesser Poland Voivodeships (64.5% and 52.1%, respectively) while the lowest one in the Lower Silesia and Łódź Voivodeships (18.7% and 19.7%, respectively). Generally, the zone of montane, post-lacustrine and upland landscapes includes a high proportion of landscape protection forms while other areas, particularly in central Poland, show weak

protection. In contrast to the protection system of cultural landscapes, including ones of historical significance, the spatial system of landscape protection based on regulations on nature conservation is rather representative for the preservation of diversity and values of natural Polish landscapes. However, its spatial organization and instruments of active protection still need to be optimized.

Analysis of the spatial distribution of main forms of landscape protection in Poland (fig. 1) shows several zones of their concentration:

1. Post-lacustrine zone – the largest one, typified by a great share of protected landscape areas, forming coherent spatial systems of ecological corridors; the central part of zone, along the axis of the Vistula river, includes numerous landscape parks and 3 national parks: the Drawa, Bory Tucholskie and Wigry National Parks. In its south-western part, the zone passes into a belt of young glacial landscapes, also marked by numerous protected landscape areas and two national parks: the Ujście Warty and Wielkopolska National Parks;

2. Podlasie zone – includes 3 closely located national parks: the Biebrza, Białowieża and Narew National Parks, accompanied by several landscape parks and protected landscape areas;

3. Warsaw zone – covering the Kampinos National Park, several landscape parks and protected landscape areas, located mainly in the Vistula valley and adjacent areas;

4. Silesian Rampart and Barycz valley zone – covering the greatest landscape park in Poland (the Barycz Valley Landscape Park) and several large protected landscape areas, extending in the diversified landscapes of hummock landforms within the Silesian Rampart;

5. Lesser Poland and Świętokrzyskie Mountains zone – including numerous landscape parks and 2 national parks: the Ojców and Świętokrzyski National Parks, and large concentrations of protected landscape areas; a large part of the zone, particularly in the region of the Świętokrzyskie Mountains, is covered by complementary and diversified forms of landscape protection;

6. Sudetes zone – covering 2 national parks: the Karkonosze and Góry Stołowe National Parks and several landscape parks;

7. Polesie and Roztocze zone – covering 2 national parks: the Polesie and Roztocze National Parks, as well as several landscape parks and protected landscape areas;

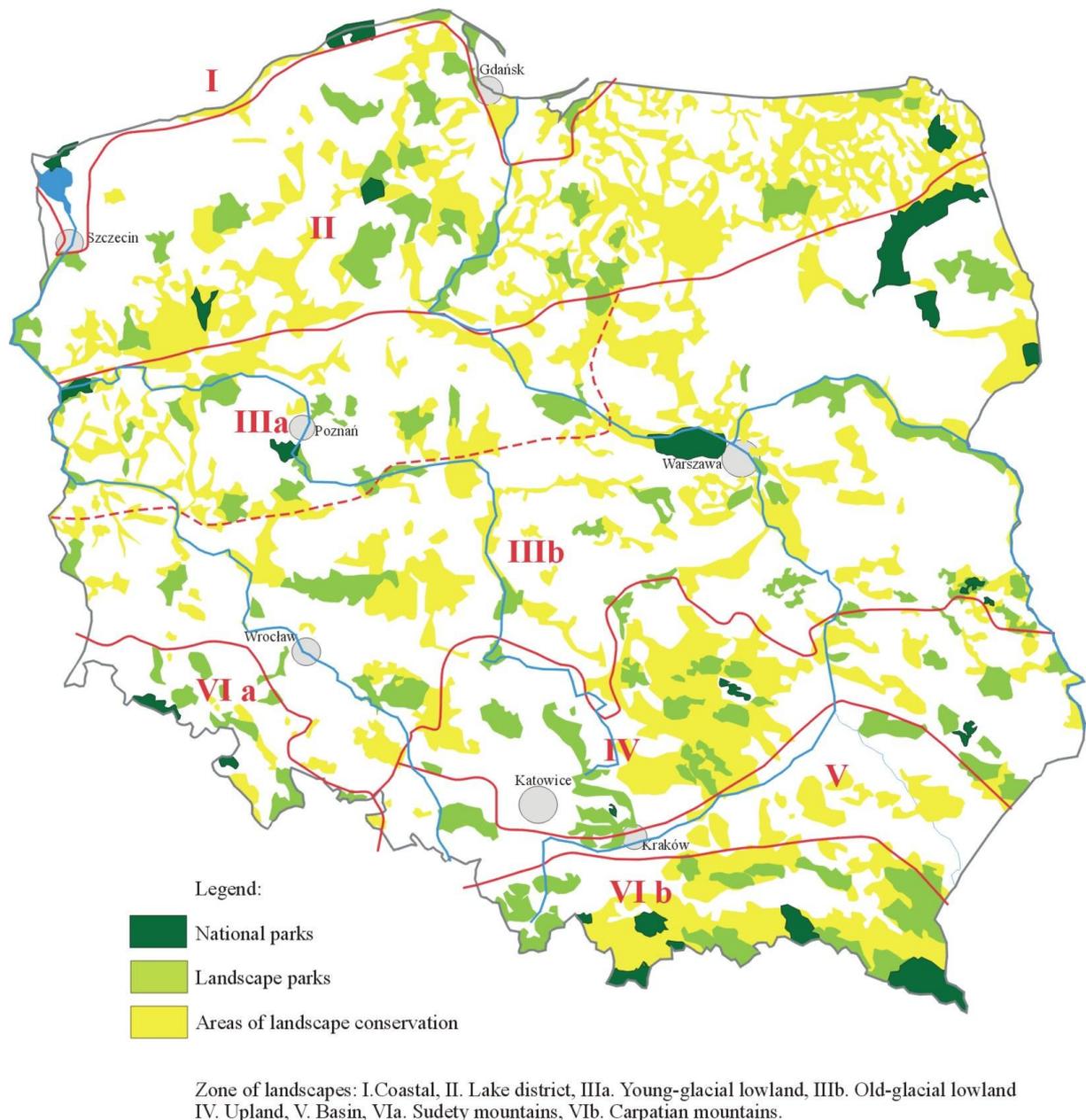
8. Carpathian zone – marked by the greatest number of national parks (7), numerous landscape parks and protected landscape areas of large spatial extents.

Among these zones, the central post-lacustrine one, region of the Świętokrzyskie Mountains and the Carpathians are worth particular consideration. The belt of old glacial lowlands is relatively poorest in the areas of landscape protection, as in this region natural and cultural environment was strongly modified by human settlement and agriculture.

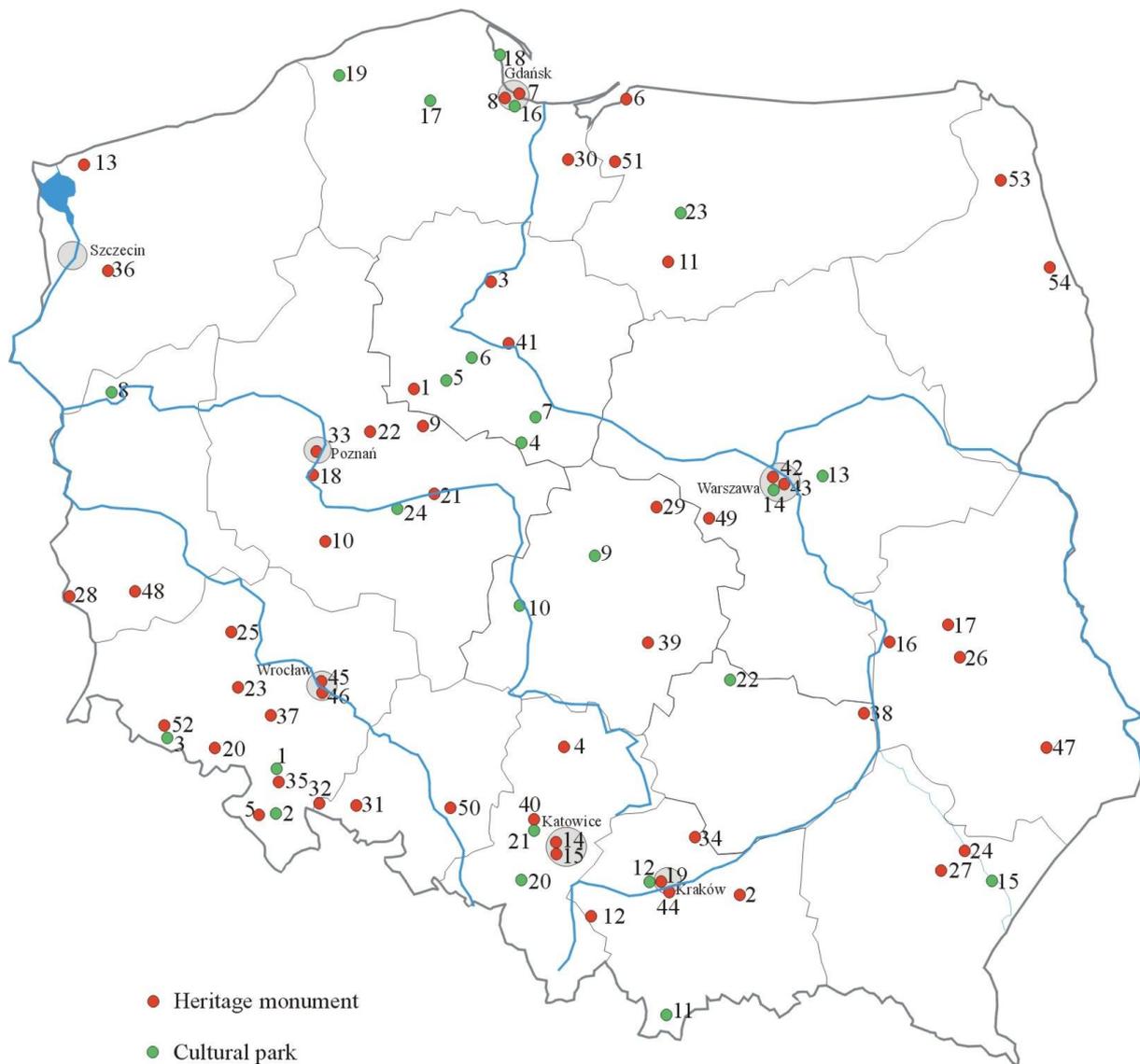
For historical landscapes, heritage monuments and cultural parks are the main forms of protection, established in the number of 54 and 24, respectively, until 2012 (fig. 2, tab. 5). Most of them include complexes of historical buildings, occasionally

integrated with parks and open landscapes being important components subjected to protection. Some cover battle areas or relicts of ancient human activity.

In contrast to forms of landscape protection established on the basis of regulations on nature conservation, protection of historical cultural landscapes is much less representative for the diversity of historical Polish landscapes. These forms need much more intensive development, including e.g. establishment of cultural parks for conservation of well preserved cultural landscapes, not necessarily of historical significance, as required for heritage monuments.



**Fig. 1.** Spatial distribution of the main forms of natural landscape protection, considering the diversity of natural landscapes in Poland.



**Fig. 2.** Location of cultural parks and heritage monuments in Poland.

**Heritage monuments:** 1. Archaeological reserve in Biskupin, 2. The Bochnia Salt Mine, 3. Chełmno – the Old Town, 4. The Pauline Monastery on Jasna Góra in Częstochowa, 5. Paper mill in Duszniki Zdrój, 6. The Cathedral complex of Frombork, 7. Historical town in Gdańsk, 8. Battle field on Westerplatte in Gdańsk, 9. The Cathedral of the Blessed Virgin mary and St. Wojciech in Gniezno, 10. The monastery complex of the Congregation of the Oratory of St. Filippo de Neri in Gostyń – Głogówko, 11. Historical battle area in Grunwald, 12. The Kalwaria Zebrzydowska Pilgrimage Park complex, 13. The Cathedral complex in Kamień Pomorski, 14. Workers’ housing estate Nikiszowiec in Katowice, 15. Katowice – building of Śląskie Voivodeship and Parliament, 16. Kazimierz Dolny, town area within the heritage protection zone, 17. Palace and park complex in Kozłówka, 18. The castle and park complex in Kórnik with the parish church – necropolis of owners, 19. Cracow – the historical town complex, 20. The complex of former Cistercian Abbey in Krzeszów, 21. The complex of former Cistercian Abbey in Łąd, 22. Lednogóra – the Ostrów Lednicki Island on the Lednickie Lake, 23. The complex of former Benedictine Monastery in Legnickie Pole, 24. The Benedictine Monastery complex in Leżajsk, 25. The complex of Benedictine Abbey in Lubiń, 26. Lublin – the historical town complex, 27. Łańcut – the castle and park complex, 28. Mużakowski Park in Łęknica, 29. Cathedral Basilica of the Assumption of the Blessed Virgin Mary (formerly Primate’s Collegiate) in Łowicz, 30. The complex of the Castle of the Teutonic Order in Malbork, 31. Parish church complex of St.

James Older the Apostle and St. Agnes – Virgin and Martyr – in Nysa, 32. Paczków – Old Town complex with its medieval fortification system, 33. Poznań – historical town complex with Ostrów Tumski, Zagórze, Chwaliszewo and the left-bank Old Town, with a Medieval settlement and urban-architectonic arrangement designed by Josef Stübben at the beginning of the 20<sup>th</sup> century, as well as with the Winiary Fort, presently the Cytadela Park, 34. Historical battle area in Raclawice, 35. Fortress of Srebrna Góra, modern mountain fortress of the 18<sup>th</sup> century, 36. Church of the Blessed Virgin Mary Queen of the World complex and the medieval city walls in Stargard Szczeciński, 37. Strzegom – the church of St. Apostles Peter and Paul, 38. The flint mines from the Neolithic Age in Sudół Krzemionki, 39. The complex of Cistercian Abbey in Sulejów, 40. The Tarnowskie Góry silver mine and the “Black Trout” drift, 41. Toruń – the Old Town Complex (Old Town, New Town, ruins of a Teutonic castle), 42. Warsaw – historical complex of Town with King’s Route and Wilanów, 43. William Lindley’s Filter Station Complex in Warsaw, 44. Wieliczka Salt Mine, 45. Historical Centre of Wrocław, 46. The Centennial Hall in Wrocław with an architectonic complex including the Pavilion of Four Domes, Pergola and Iglica, 47. Historical Centre of Zamość, 48. The complex of former Augustinian monastery in Żagań, 49. 19<sup>th</sup> century factory village in Żyrardów, 50. Culture-natural landscape on Góra Św. Anny, 51. Elbląski Canal, 52. Jeleniogórska Valley – castles and landscape parks, 53. Augustowski Canal, 54. Bohoniki and Kruszyniany – Mosques and Mizars. Cultural parks are listed in tab. 5.

The spatial distribution of heritage monuments and cultural parks indicates that large areas of Poland are devoid of these forms, with their lowest numbers recorded in the north-eastern and north-western part of the country.

Many cultural parks and heritage monuments are located in urban areas.

Most cultural parks were founded in 2009 (7) and 2005 (5). In other years within the period of 2002-2012, one or two parks were established per year.

When assessing the development of cultural parks and heritage monuments, it is worth to mention that cultural parks are used particularly insufficiently as a form of landscape protection. Both forms protect valuable landscapes on much smaller surface areas than landscape and national parks, protected landscape areas, as well as most landscape-nature complexes.

Main directions in the development of a landscape protection system in Poland include:

- establishment of new protection forms and extension of the already functioning ones, as assumed in the planning documentation: concept of national spatial management policy and, in particular, voivodeship plans of spatial management, voivodeship environment protection schemes and commune studies of conditions and directions of spatial management;
- redefinition and enhancement of the legal basis of landscape protection, particularly principles of passive and active protection in specific types of forms;
- implementation of the European Landscape Convention, including identification of national landscape resources, assessment of their condition and suggestions of new principles of protection;
- comprehensive linking of landscape protection forms (particularly ones established on the basis of the Nature Conservation Act for the protection of nature values) into a coherent spatial system; this optimization aims to provide spatial connections between forms of environmental protection, promote migration of flora

and fauna, as well as to improve functioning of other natural processes affecting the flow of energy and circulation of matter;

– increase the representativeness of forms subjected to protection in order to show full diversification of Polish nature and cultural values; in order to accomplish this aim, it is necessary to subject Polish landscapes to complete inventorying and valorization and afterwards identify landscapes of key importance for passive and active protection.

## CONCLUSIONS AND FINAL REMARKS

Assessment of the development of spatial system of landscape protection in Poland may be summarized in the following conclusions:

1. The legal system of landscape protection, including 13 forms, enables vast protection of the key landscape components (objects), parts of landscapes and entire landscapes. Additionally, the level of protection regime may be graded and adjusted to the rank of protected values and current needs.

2. The potential of passive (legal) protection is reversely proportional to its actual efficiency. It is necessary to improve the instruments of actual active landscape protection and, in processes of spatial planning and management, prevent the possible landscape degradation and damage.

3. Development of comprehensive landscape protection clearly shows dualism and distinction into protection of natural landscape independent from conservation of historical cultural landscapes. As a result, non-historical cultural landscapes, very important for preservation of the Polish landscape heritage, are subjected to the weakest protection.

4. It is necessary to undertake activities aiming to combine the two main trends in research and application of landscape protection in practice and to provide full protection, considering both cultural and natural values.

5. Representativeness and large extent of forms of landscape protection (ca. 32% of the area of Poland) does not result in actual, effective protection. In particular, it is necessary to modify the formal and legal structure of protected landscape areas which cover over 20% of the country area and do not provide actual landscape protection.

6. It is necessary to enhance the instruments of landscape protection in landscape parks, particularly in conservation plans and by making park service independent from local governments.

7. It is necessary to intensify activities for the establishment of cultural parks, as areas of key importance in the protection of cultural landscapes of lower historical quality ranks. Heritage monuments should protect cultural landscapes of the highest historical quality ranks. Presently, the two forms are hardly distinguished in practice.

8. It is necessary to introduce the plans of development of the spatial landscape protection system, particularly projects included in voivodeship plans of spatial management and commune studies of conditions and directions of spatial management.

Introduction of policy for the protection and appropriate development of landscapes is one of key assumptions of sustainable development (Andrejczuk, 2013; Myga-Piątek, 2010, 2013). The diversified legal forms of landscape protection provide various opportunities, however if they are wrongly applied the preservation of Polish landscape heritage (both its nature and cultural values) may be threatened. Considering the intensive development of spatial management, mainly due to economic factors, the failure to use legal instruments for landscape protection is a serious omission that may result in great implications for the nationwide spatial order. Spontaneous modifications in the most valuable natural and cultural Polish landscapes may cause the loss of components important for the social and cultural identity.

## REFERENCES

- Andrejczuk W., 2013: Koncepcja współdziałania człowieka i natury w krajobrazie. *Prace Komisji Krajobrazu Kulturowego* 20: 9-16.
- Badora K., 2009: O potrzebie i możliwościach przebudowy krajowego systemu ochrony krajobrazu. *Problemy Ekologii Krajobrazu* 23: 29-35.
- Giedych R., 2004: Uwarunkowania prawne planowania, ochrony i zarządzania krajobrazem w Polsce w świetle Europejskiej Konwencji Krajobrazowej [w:] *Studia ekologiczno-krajobrazowe w programowaniu rozwoju zrównoważonego, przegląd polskich doświadczeń u progu integracji z Unią Europejską* (red.): M. Kistowski, UG, PAEK, Gdańsk: 29-34.
- GUS Ochrona Środowiska 2013 (2013): Główny Urząd Statystyczny, Warszawa.
- Chmielewski T.J., 2012: *Systemy krajobrazowe. Struktura – funkcjonowanie – planowanie*. PWN Warszawa: 1-408.
- Kistowski M., 2004: *Wybrane aspekty zarządzania ochroną przyrody w parkach krajobrazowych*. Bogucki Wydawnictwo Naukowe. Gdańsk – Poznań: 1-140.
- Kistowski M., 2010: Bierna ochrona krajobrazu jako podstawa utrzymania korzystnych warunków życia człowieka. *Przegląd Przyrodniczy* 21.2: 29-41.
- Kistowski M., Kowalczyk J., 2011: Wpływ transformacji modelu zarządzania parkami krajobrazowymi na skuteczność realizacji ich funkcji w przestrzeni Polski, *Biuletyn KPZK PAN* 247: 1-165.
- Kistowski M., 2012a: Problemy zarządzania parkami krajobrazowymi w Polsce jako skutek zmian przepisów prawnych w latach 2008-2010. *Problemy Ekologii Krajobrazu* 33: 215-227.
- Kistowski M., 2012b.: Institutional changes in Polish landscape parks and their influence on the efficiency of governance. *Economic and Environmental Studies* 12.1: 23-46.
- Myga-Piątek U., 2010: Przemiany krajobrazów kulturowych w świetle idei zrównoważonego rozwoju. *Transformation of Cultural Landscapes in the Light of the Idea of Sustainable Development. Problemy Ekorozwoju*, 5.10: 95-108.
- Myga-Piątek U., 2012: *Krajobrazy kulturowe, aspekty ewolucyjne i typologiczne*. Uniwersytet Śląski, Katowice: 1-382.

- Myga-Piątek U., 2013: Cultural landscape in the time of sustainable development. Prace Komisji Krajobrazu Kulturowego 20: 82-90.
- Pietrzak M., 1998: Syntezy krajobrazowe, założenia, problemy, zastosowania. Bogucki Wydawnictwo Naukowe, Poznań: 1-168.
- Richling A., Solon J., 2011: Ekologia krajobrazu. Wyd. V, PWN Warszawa: 1-464.
- Żarska B., 2005: Ochrona Krajobrazu. SGGW Warszawa: 1-252.