

SPATIAL PLANNING SYSTEMS IN POLAND AND ITALY – COMPARATIVE ANALYSIS ON THE EXAMPLE OF OLSZTYN AND BARI

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ABSTRACT

The article discusses several aspects of spatial planning systems in Poland and in Italy. The analysis included the legal basis for the functioning of both systems, planning levels and documents developed at each level. The planning status of both countries is presented based on the statistical data obtained. This is shown on the cartodiagrams prepared with the use of ArcGIS and QGIS software as well as tabular lists containing statistical data. Detailed research was also done as a case study for two cities: Olsztyn in Poland and Bari in Italy. The data collected and the analyses carried out made it possible to compare the planning systems in both countries tested. The results show similarities and differences, as well as the positive and negative features of both analyzed systems. Conclusions can be used as a basis for proposing changes to the planning systems in both countries, based on good practices from the other country.

Keywords: spatial planning, spatial planning system in Poland, spatial planning system in Italy, comparative analysis, legal basis for planning

INTRODUCTION

The space in which we live belongs to so-called “rare goods”. We have to use it in a rational way, according to certain rules, because it is not a subject of production. These objectives are served, among others, by spatial planning. Spatial planning determines the way in which space is used (space is a limited good both in terms of quality and quantity). It aims at ensuring proper management of individual spaces,

taking into account their unique features, mutual relations and local interests. The use of space defined in this way must be subject to certain limitations, e.g. through legal regulations concerning spatial development [Koreleski, 2009, pp. 27–42, Markiewicz, 2020].

Spatial planning is of interest of different sciences [Brzezicki et al., 2013]. Spatial planning is part of the overall social and economic planning system. It concerns both economic [Harrison, 2017, Cheshire & Sheppard, 2002, Ihlanfeldt, 2007], environmental

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[Fijałkowski, 2019, Fleming, 2005, Pauleit et al., 2005], social [Barton, 2009, Marull et al., 2010, FAO, 1993] and e.g. cultural aspects [Ciski & Rzasa, 2018, Rzasa et al., 2016]. Spatial planning most often concerns urbanized areas [Bieda et al., 2020, Hersperger et al., 2018, Chapin, 1965, Luque, 2015], but is also carried out in rural areas [Erickson, 1995, De Montis et al., 2016, Rzasa et al., 2019]. Its role is to determine the ways of use for particular areas and to establish management rules for them [Gawroński et al., 2010]. Spatial planning is one of the most important instruments for implementing sustainable development, understood as socio-economic development integrating political, economic and social actions, balanced with environmental protection and a permanence of basic natural processes in order to ensure the possibility of satisfying the basic needs of individual communities or citizens in both the present generation and future generations [Rzasa & Ogryzek, 2018]. Spatial planning decides on the possibility of a specific investment, it also shapes the content and method of exercising the ownership right to land property [Brzezicki et al., 2013]. Spatial planning can have different meanings in different countries. In almost all countries that are members of the United Nations Economic Commission for Europe (UNECE), spatial planning is a key instrument for creating a periodic framework for spatial development, promoting sustainable spatial organization of land use and balancing competing policy objectives. It aims to reconcile development needs with environmental protection and to achieve social and economic objectives. It is an instrument which aims to maintain a balance between the rights of owners or the so-called private and public interest [Krajewska et al., 2014]. Spatial planning is often defined as the coordination of policies and actions affecting land use [Niedziałkowski & Beunen, 2019, Roy, 2009].

The basic act regulating the issue of spatial planning in Poland is the Act of 23th March 2003 on Spatial Planning and Management [Act of 27th of March, 2003]. The system of spatial planning in Poland has changed significantly after the fall of socialism. Like many other areas of the economy,

it was based on centralization, planning decisions were made centrally, municipalities, at the local level did not have much influence on the development of space. The changes initiated in 1989 transferred the responsibility for managing spatial processes to the municipalities in 1994. The main change brought about by this transition was the annulment of spatial development plans, which were in force before the political breakthrough of 1989. This decision was made by the Polish Parliament in 1994. The final wording of the regulations, valid to this day, was created in 2003 [Wagner, 2016].

Spatial planning practice in Italy has changed over the last three decades under the influence of the EU territorial governance agenda [Cotella & Rivolin, 2011]. Italian spatial planning is based on a stratified system, which consists of national, regional and provincial spatial coordination plans and general policy and municipal development plans. With the exception of the national level, any other level must prepare a spatial plan [Bragagnolo et al., 2012]. Compared to the rest of Europe, Italy has witnessed a slow diffusion of strategic planning practice. It has taken place in few cities towards the end of the 1990s in northern Italy [Grassini et al., 2018].

The main aim of the article is a detailed comparison of the spatial planning systems in Poland and Italy, as a result of which both systems were analyzed, showing the similarities and differences between procedures, methods and assumptions in and of these systems. The authors also try to determine the effectiveness of both systems by analyzing their impact on changes in the way of land use and try to find the strengths and weaknesses of the analyzed planning systems. In the end the Authors try reflect on the possibilities for both countries, and both systems, to learn from each other, to use the other as a source of inspiration and innovation. This article is an attempt to fill a gap in research in this area. The available scientific databases contain comparative analyses of various planning systems [Granath Hansson, 2017, Nadin & Stead, 2008], but there is no comparison between the Polish and Italian systems. Analyzing different systems in different countries, by pointing

out the good solutions, but also the weaknesses and problems, it is possible to arrive at the proposal of a model system, which would be so universal that it could be proposed for implementation, for example, in EU countries, with local minor modifications, resulting from local conditions.

The method of comparative analysis applied in the article is widely used in various scientific research on the comparison of different functioning systems and topics [Wiedmann & Barrett, 2010, Peng, 2020, Mahoney & Rueschemeyer, 2012, Smircich, 2017, Allan et al., 2002, Baycan-Levent & Nijkamp, 2009, Nguyen et al., 2018, Kim et al., 2020, Ma et al., 2020, Xu et al., 2019]. Its application to the objective set out in the article is therefore most justified.

MATERIALS AND METHODS

The main aim of the article, concerning the comparison of spatial planning systems in Poland and Italy, was realized according to the following research methodology.

In the first step, the administrative division of the two countries was analyzed to show the basis on which the decision-making levels in the planning system are based. In both countries, the different administrative levels are briefly described, indicating the authorities managing them.

In the next stage, an analysis of the legal basis for the functioning of each system was carried out. The regulations in force in both countries concerning spatial planning were indicated. Their evolution was also briefly analyzed.

As a result of the analyses, the specificity of the functioning of planning systems in Poland and Italy was presented. The levels of planning and formal planning documents performed on each of them were described. The most important characteristics, structure and influence on spatial development were indicated.

Based on reliable, public statistical data, obtained in the case of Poland from the Central Statistical Office (CSO) in Poland (as of the end of 2018) [www.bdl.stat.gov.pl] and in the case of Italy from National Institute

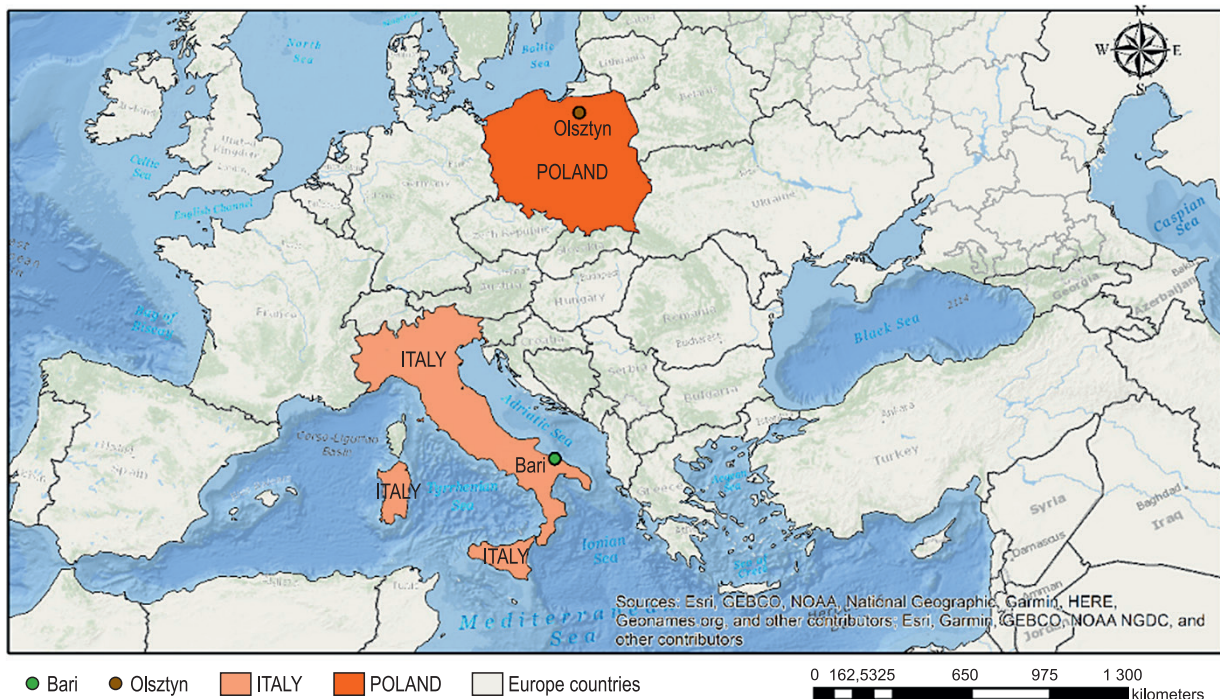


Fig. 1. The location of Olsztyn and Bari
Source: own preparation with the use of ArcGIS software.

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of Urban Planning (INU) (as of the beginning of 2019) [www.inu.it] and the National Institute of Statistics (ISTAT) [www.dati.istat.it], the state of spatial planning in both countries is presented. Using ArcGIS software (ArcMap component of ArcGIS 10.6) and QGIS cartograms showing quantitative, spatial and area distribution of the planning documents were prepared.

In the next step, as a case study, analyses of the planning state of two cities were carried out: Olsztyn in Poland and Bari in Italy. The location of both countries and both analyzed cities is presented in Figure 1.

These cities were selected because they perform similar administrative functions in both countries studied. Olsztyn is the capital city of Warmińsko-Mazurskie Voivodeship, located in north-eastern Poland. Bari is the capital city of the Metropolitan City of Bari and of the Apulia region, on the Adriatic Sea, in southern Italy. Both analysed cities have a rich history and perform similar functions in their countries. Bari is slightly larger than Olsztyn in terms of area and population and its density, but they are similar in terms of land use structure and administrative functions, so the analysis of the planning state has allowed to obtain objective and comparable results.

The conducted analyses made it possible to realize the main objective of the article, i.e. to compare spatial planning systems in Poland and Italy. The conclusions from the research were presented in the discussion.

RESULTS

Spatial planning system in Poland

In the historical aspect of spatial planning in Poland after World War I the following periods can be distinguished [Niedziałkowski & Beunen, 2019]:

– Advocating land use planning (1918–1939) – all land use decisions should be based on land use plans and opposed land speculation indicating that while profits were distributed among private investors, public authorities had to finance public infrastructure of new developments;

- Establishing land use planning (1945–1949) – new authorities needed spatial planners to reconstruct the country after the war and to transform social structures. From the outset spatial planners and architects actively cooperated with the communist government. They produced long-term land use studies to a large extent disconnected from economic reality. Economic planners, dealing with day-to-day challenges of a major reconstruction, often treated these plans as harmless fantasies;
- Land use planning in the socialist context (1949–1975) – strong centralization of planning and obligatory doctrine of Socialist Realism;
- Dealing with the crisis (1975–1989) – the government located major investments ignoring land use plans and planning often boiled down to registering such investments;
- The new paradigm (1989–1994) – the socio-political transformations of the late 1980s and early 1990s involved decentralization, recognition of political pluralism and private sector's role in the economy. These changes dramatically altered the context of land use planning, associated by many with lack of freedom, poor economic government and false promises of authorities, and undermined its sources of legitimacy;
- Deinstitutionalization of land use planning (1994–) – new decentralized planning system, based on local planning.

Today, the basic act regulating the issue of spatial planning in Poland is the Act of 23th March 2003 on Spatial Planning and Management. According to it in spatial planning in Poland takes into account: spatial order requirements, architectural and landscape values, environmental protection requirements, cultural heritage protection requirements, health and safety of people and property, economic values of space, property rights, needs of state defense and security, needs of public interest, needs of technical infrastructure development, ensuring public participation in planning works, maintaining openness and transparency of planning procedures and the need to ensure adequate quantity and quality of water, for the purpose of supplying the population, taking

spatial order and sustainable development as a basis for all activities in space.

The levels of spatial planning in Poland are closely linked to the administrative division of the country. The administrative division of Poland since 1999 has been based on three levels of subdivision. The territory of Poland is divided into voivodeships (pol. *województwo*) these are further divided into districts (pol. *powiat*), and these in turn are divided into communes (pol. *gmina*). Major cities normally have the status of both commune and district. Poland currently has 16 voivodeships, 380 districts (including 66 cities with district status), and 2477 communes.

Forming and implementing spatial policy:

- in the State, expressed in National Spatial Management Concept (pol. *Koncepcja przestrzennego zagospodarowania kraju*), belongs to the tasks of the Council of Ministers;
- in the voivodeship, including the adoption of the Voivodeship land-use plan (pol. *Plan zagospodarowania przestrzennego województwa*), is the responsibility of the voivodeship self-government;
- on the territory of the commune, including the preparation of a Study on the conditions and directions of commune spatial development (pol. *Studium uwarunkowań i kierunków zagospodarowania przestrzennego gminy*) and Local land-use plans (pol. *Miejscowy plan zagospodarowania przestrzennego*), is the commune's own task. The municipal authorities can also issue Decision about conditions of spatial development (pol. *Decyzja o warunkach zabudowy i zagospodarowania terenu*), when there is no local land-use plan for the area.

On the territory of the district, only analyses and studies in the field of spatial development, relating to the district area and the issues of its development, are conducted by the district government.

All the levels described above are interconnected and form a spatial planning system in Poland. The minister in charge of construction, spatial planning and development and housing shall coordinate the compliance of voivodeship land-use plans with the National Spatial Management Concept (NSMC).

The findings of the voivodeship's land-use plans shall be entered into the local land-use plans after prior agreement on the date of implementation of a public purpose investment of supra-local importance and the conditions for their entry into the local land-use plans. The commune head prepares a study containing a textual and graphical part, taking into account the principles set out in the National Spatial Management Concept and the voivodeship land-use plan. The arrangements of the study are binding on the commune authorities when drawing up local plans. Figure 2 presents a scheme of the spatial planning system in Poland.

The National Spatial Management Concept defines the conditions, objectives and directions of sustainable development of the country and activities necessary to achieve it, in particular: basic elements of the national settlement network, requirements in the field of environmental protection and monuments, including areas under protection, distribution of social infrastructure of international and national importance, distribution of technical and transport infrastructure objects, strategic water resources and water management objects of international and national importance, functional areas. The National Spatial Management Concept takes into account the objectives and directions included in the long-term national development strategy and covers the period consistent with its duration. The National Spatial Management Concept 2030, adopted by the Council of Ministers in 2011 [Council of Ministers, 2011], is currently not in force. On 13 November 2020, the NSMC has been cancelled. Today there is no new document at central level. The NSMC is no longer used, its place is to be taken by the National Development Concept (NDC), which is to perform similar functions.

The voivodeship land-use plan defines in particular: basic elements of the voivodeship's settlement network and their communication and infrastructure links, including the directions of cross-border links, the system of protected areas, the distribution of public purpose investments with a supra-local designation, the boundaries and rules for the development

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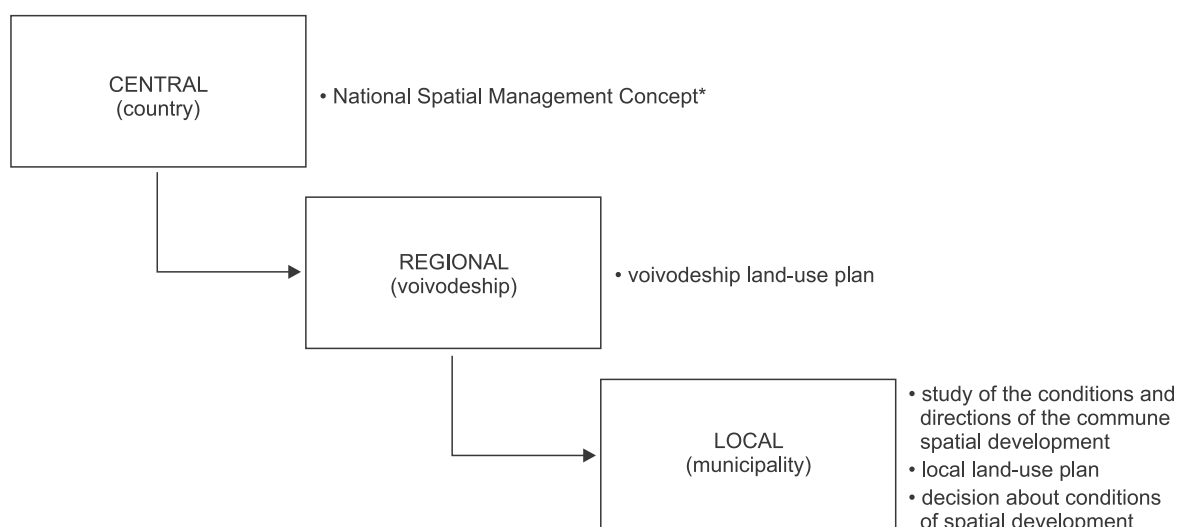


Fig. 2. The spatial planning system in Poland
Source: own elaboration based on Act of 27th of March, 2003.

*On 13 November 2020, the NSMC has been cancelled. Its place is to be taken by the National Development Concept, which is to perform similar functions.

of functional areas of supra-regional importance, areas of particular flood risk, the boundaries of closed areas and their protection zones, areas of documented mineral deposits and documented complexes of underground carbon dioxide storage. Currently, all 16 voivodeships in Poland have passed the voivodeship land-use plans.

Spatial planning at the level of a commune has a double role. On the one hand, it is supposed to formulate the commune’s spatial policy, that is objectives and directions concerning spatial development. On the other hand, the role of local spatial planning is to establish forms of land use and principles of land development and management [Gawroński et al., 2010]. The process of local spatial planning, which plays a major role in the shaping of space, consists of three basic elements: Study on the conditions and directions of commune spatial development, which is the commune’s spatial policy; Local land-use plans in which the land use is determined, the location of the public purpose investment and the determination of development methods and conditions of land development; Decision about conditions of spatial development, when there is no local land-use plan for the area.

The study is obligatory for the area within the administrative boundaries of the commune. It is not a local law. The study includes a textual and graphical part. The study is prepared by the Commune Head, adopted by the Commune Council. The costs of preparing the study are mostly borne by the municipality budget. The costs of preparing or modifying the study resulting from the distribution of a public purpose investment in a supra-local or metropolitan designation are charged to the state budget, voivodeship budget, metropolitan association budget or district budget respectively.

In order to determine the purpose of land use, including public purpose investments, and to determine the methods of their development and building, the municipal council shall adopt a resolution to proceed with the preparation of a local land-use plan. The Local land-use plan is mandatory if required by separate regulations. It is an act of local law. The local land-use plan includes a textual and graphical part. The text part is a resolution of the commune council, the graphic part is a drawing of the plan being an annex to the resolution. The local plan shall be drawn up at a scale of 1:1000, using official copies of basic maps or, in their absence, cadastral maps,

collected in the state surveying and cartographic resource. In particularly justified cases, it is permitted to use maps at a scale of 1:500 or 1:2000, and in the case of local plans which are drawn up solely for the purpose of assigning land for afforestation or prohibiting development, it is permitted to use maps at a scale of 1:5000.

Both documents are prepared with public participation. Every citizen has the right to contribute to the project of both the study and the plan being prepared. Public participation is a very important element of spatial planning in Poland [Kryk, 2019].

As indicated earlier the Local land-use plan is mandatory if required by separate regulations. This results in great diversity in the preparation of plans in Poland. The spatial and quantitative diversity of plans in the arrangement of voivodeships is shown in cartodiagram in Figure 3.

As can be seen in the figure above, the spatial distribution and quantitative diversity of local

land-use plans is very large in the communes in different voivodeships. In terms of quantity, the average number of plans in the voivodeship for Poland is about 3351. Meanwhile, e.g. in the communes of Wielkopolskie Voivodeship there are 8430 plans, and on the other hand, in the communes of Świętokrzyskie Voivodeship – 781. This gives a standard deviation of about 2087. With the given average it is a large value, indicating a strong diversity of analyzed data. A similar diversity of results occurs when we analyze the areas of communes in voivodeships covered by the existing plans. Here, with the average for Poland – 602133 ha (which is about 32% of the total area), the standard deviation is about 408293 ha. The largest area is covered by plans in the Lublin Voivodeship – 1420289 ha, the smallest, in the Kujawsko-Pomorskie Voivodeship – only 125072 ha. In percentage terms, plans for Poland cover 32% of the country’s area, from about 7% in Kujawsko-Pomorskie to about 68% in Małopolskie Voivodeship. The standard deviation

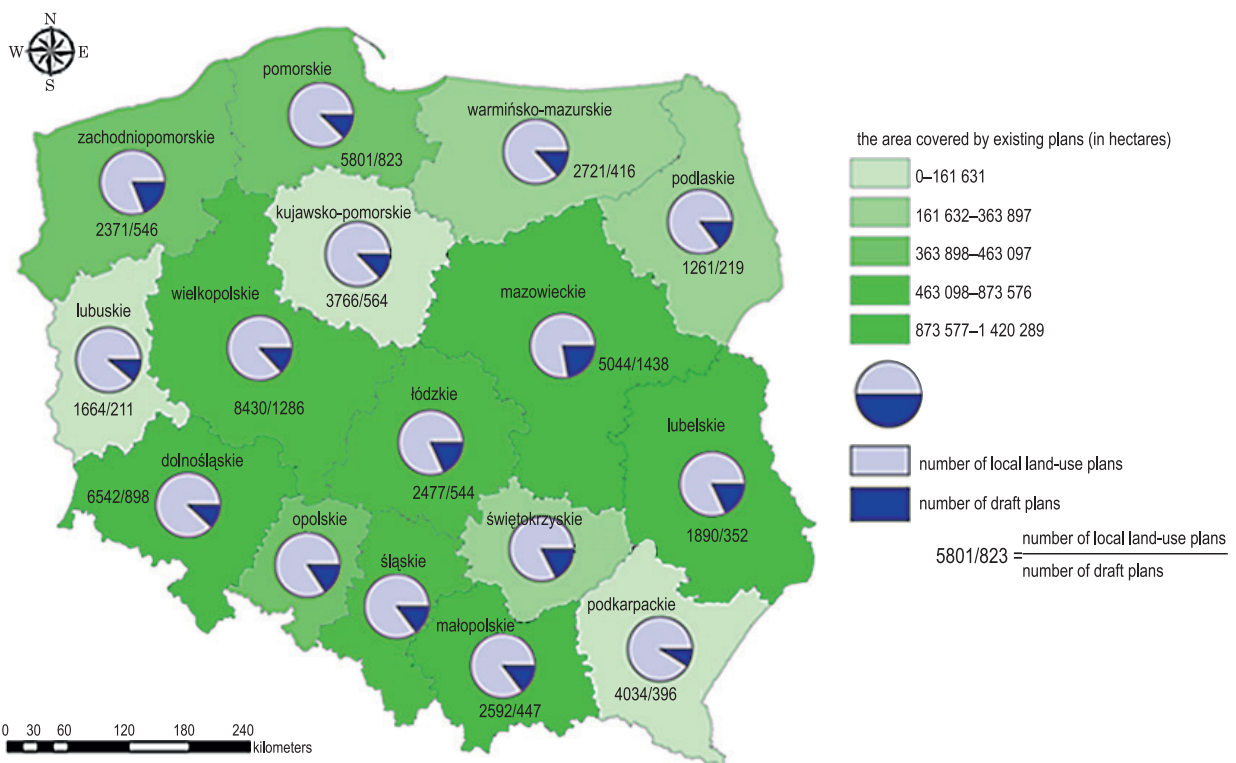


Fig. 3. Local land-use plans in voivodeships in Poland

Source: own elaboration with the use of ArcMap component of ArcGIS 10.6 based on data obtained from CSO.

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in this case is about 21%. The number of draft plans is similarly diverse in Poland. On average, there are 570 draft plans in the voivodeship. This gives a standard deviation of about 361. Most plans are prepared in Mazowieckie Voivodeship (1438) and Wielkopolskie Voivodeship (1286), the least – in Świętokrzyskie Voivodeship (166) and Lubuskie Voivodeship (211). These results are partly correlated with the number of adopted plans, although some deviations can be identified here, e.g. Podkarpackie Voivodeship with relatively large number of plans and low number of draft plans.

Local land-use plans have a very large impact on changes in land use. Table 1 below contains data on the type of land use in individual voivodeships and in the whole country, for three functions: residential, industrial and transport areas, for the years 2009 and 2019. The surface data were compared with the

area covered by the local plans in force in individual voivodeships.

Changes in the area of land covered by particular types of development, between 2009 and 2019, are closely related to changes in the area covered by local land-use plans. The correlation with the area covered by the plans in a given voivodeship is very high for the changes in all three analyzed land development types, for the changes between years 2009 and 2019. The correlation coefficient with the area covered by the plans in a given voivodeship is very high for the changes in all three analyzed land development types and is in each case over 0.98. This is a direct confirmation of the effectiveness of the spatial planning system in Poland. For areas where more local land-use plans are adopted, the increase in the area of intensively managed areas is clearly visible.

Table 1. Changes in land use compared to the area covered by local land-use plans in Poland and individual voivodeships

Poland/Voivodeship	residential areas			industrial areas			transport areas			area covered by existing plans		
	2009	2019	change	2009	2019	change	2009	2019	change	2009	2019	change
	[ha]											
POLAND	268 510	358 693	90 183	110 041	124 861	14 820	773 204	815 715	42 511	8 003 374	9 771 146	1 767 772
DOLNOŚLĄSKIE	19 525	23 708	4 183	13 734	14 752	1 018	61 225	64 496	3 271	1 031 008	1 293 283	262 275
KUJAWSKO-POMORSKIE	15 329	21 529	6 200	5 783	6 950	1 167	41 220	44 050	2 830	61 265	130 766	69 501
LUBELSKIE	8 161	11 589	3 428	3 752	4 268	516	59 236	61 453	2 217	1 406 368	1 423 983	17 615
LUBUSKIE	7 992	10 188	2 196	2 947	3 397	450	32 234	34 357	2 123	49 177	132 889	83 712
ŁÓDZKIE	17 927	23 545	5 618	5 786	7 458	1 672	44 824	49 911	5 087	509 519	601 588	92 069
MAŁOPOLSKIE	15 511	26 954	11 443	6 954	8 242	1 288	40 277	42 700	2 423	911 250	1 032 185	120 935
MAZOWIECKIE	40 506	55 470	14 964	10 752	12 589	1 837	89 134	94 088	4 954	1 013 087	1 186 913	173 826
OPOLSKIE	9 059	10 840	1 781	4 814	4 920	106	26 667	27 019	352	323 276	389 943	66 667
PODKARPACKIE	10 269	17 229	6 960	4 675	5 591	916	42 626	46 910	4 284	131 774	162 661	30 887
PODLASKIE	7 277	8 721	1 444	2 357	2 993	636	49 113	51 277	2 164	306 088	329 218	23 130
POMORSKIE	16 931	22 254	5 323	5 126	6 048	922	43 265	44 950	1 685	238 584	384 918	146 334
ŚLĄSKIE	42 955	52 272	9 317	20 917	22 158	1 241	39 568	43 037	3 469	731 973	881 743	149 770
ŚWIĘTOKRZYSKIE	7 399	9 497	2 098	3 553	4 017	464	26 471	27 839	1 368	233 727	364 683	130 956
WARMIŃSKO-MAZURSKIE	11 763	14 803	3 040	2 937	3 663	726	52 208	54 552	2 344	274 790	353 543	78 753
WIELKOPOLSKIE	27 209	36 618	9 409	8 503	10 614	2 111	76 361	78 881	2 520	465 310	627 918	162 608
ZACHODNIO-POMORSKIE	10 697	13 476	2 779	7 450	7 201	-249	48 775	50 195	1 420	316 178	474 912	158 734

Source: own elaboration based on CSO data.

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In the absence of a local spatial development plan, the determination of land development methods and conditions of land development is made by means of the Decision about conditions of spatial development, whereby: the location of a public purpose investment is determined by means of a Decision on the location of a public purpose investment (pol. *Decyzja o ustaleniu lokalizacji inwestycji celu publicznego*); the land development method and development conditions for other investments are determined by means of a Decision on development conditions (pol. *Decyzja o warunkach zabudowy*). The Decision about conditions of spatial development was supposed to be a supplement to the plans. however, due to the much lower cost of issuing it and the faster procedure of preparation, it became a convenient and often abused planning instrument for many communes in Poland. The cartodiagram in Figure 4 presents the quantitative and spatial distribution of decisions issued by voivodeships in Poland.

The analysis of spatial and quantitative distribution of issued Decisions about conditions of spatial development in Poland gives similarly differentiated results as in the case of local land-use plans. The average number of issued decisions in the voivodeship is 9158 for Poland. The standard deviation here is as much as about 5511, with the lowest number of decisions issued – 2084 in the Opole Province and the highest number – 23 436 in the Wielkopolska Province. For both types of Decisions about conditions of spatial development, the difference in results is similar.

The obtained results indicate a large variety of spatial planning system implementation in different parts of Poland. This is undoubtedly influenced by the attractiveness of the location of a given municipality, but certainly also by the efficiency of local authorities. The influence of the location has also been partially eliminated in the above data by performing an analysis for the data at the level of voivodeship and not

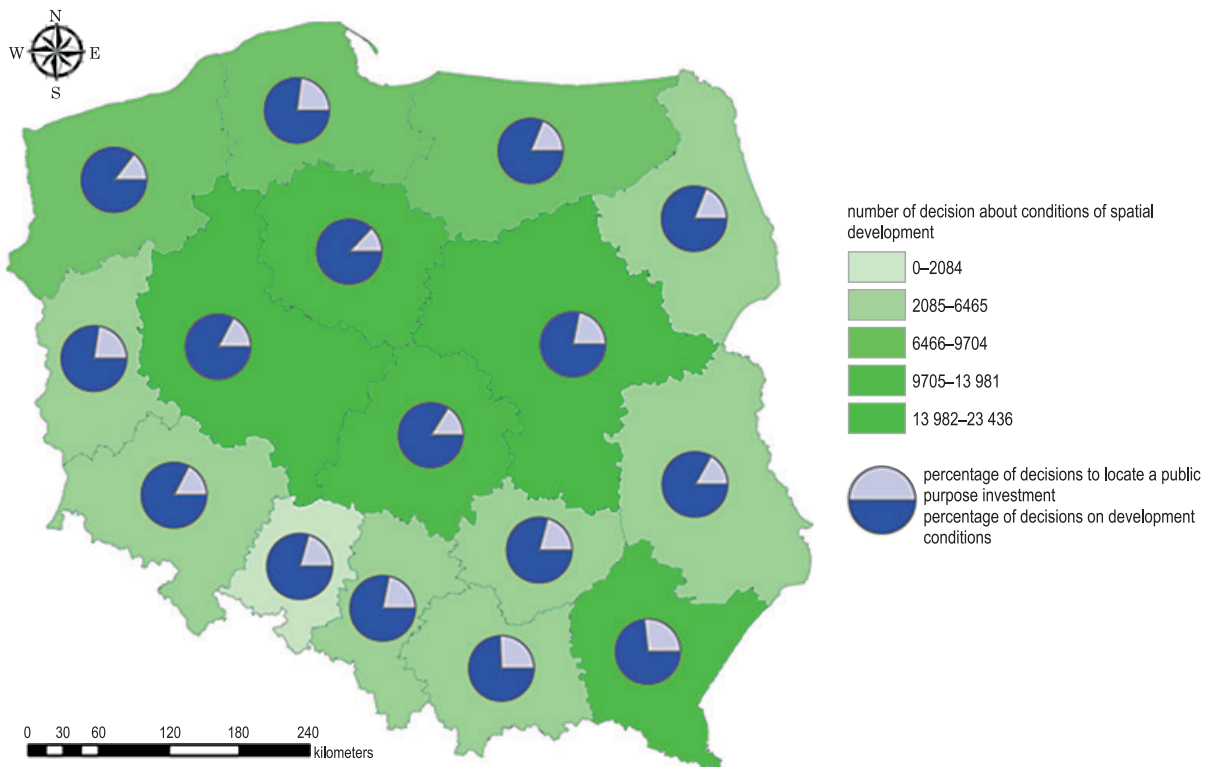


Fig. 4. The number of Decisions about conditions of spatial development (both types) in Poland
Source: own elaboration with the use of ArcMap component of ArcGIS 10.6 based on data obtained from CSO.

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of individual municipalities. This activity resulted in a certain averaging of results anyway, which are nevertheless very diverse.

Planning documents created at the municipality level have a great influence on the value of the area. With a classical change of land use (from agricultural to investment function), the value of the land may increase even by several hundred percent. Average prices of agricultural land in Poland are at the level of 4–10 PLN/m², while e.g. prices of building plots reach 800–900 PLN/m² in cities, and of industrial and warehousing investment plots about 200 PLN/m². If, as a result of the plan, the value of the property has increased and its owner wants to sell it within 5 years from the approval of the plan, the municipality may demand the so-called planning fee of up to 30% of the property value increase. The amount of the fee is specified in the local land-use plan. If, as a result of the plan, the value of the property has decreased (e.g. if the property is located in the neighbourhood of the planned areas of annoying use, e.g. a waste dump) and its owner wants to sell the property within 5 years from the approval of the plan, the municipality may demand compensation equal to the decrease of the property value.

All planning levels in Poland and the documents created on them are interconnected. Municipalities adopting local land-use plans have to take into account the provisions of voivodeship's plans. These, in turn, are the records of the solutions adopted at the national level in The National Spatial Management Concept for individual voivodeships. This creates a hierarchical system. The municipalities decide on the designation of the land, but they must take into account the solutions developed at the regional and national level.

Spatial planning system in Italy

Urban development in Italy has evident roots already in Roman times given the need to regulate rural areas and give order to the towns that were born during the period of expansion of the Empire [Patterson, 2006]. Even during the medieval period it appears to be characterized by specific urban struc-

tures of the territory [Piccinato, 1993]. Renaissance town planning is the distinctive feature of many Italian cities such as Florence, Venice and many others [Calabi, 2001]. The unification of Italy took place on March 17, 1861; the following are the significant laws and Decrees of the President of the Republic (D.P.R.) issued from this moment onwards.

- Law of 25 June 1865, n. 2359 according to which municipalities with more than 10000 inhabitants had the right to draw up a master plan for the already urbanized areas. The law recognized the public administration the right to expropriate the land of private individuals on which the works under the responsibility of public bodies must be carried out: this is the expropriation for public utility;
- Law of 15 January 1885, n. 2892 (called “Naples Law”) issued to deal with the health emergency of cholera. It provided for the possibility of rehabilitation of the town following the declaration of public utility (unhealthy houses, wells, waters, sewers). The expropriation system;
- Laws of 1939: various laws concerned the protection of environmental, cultural, historical, artistic and archaeological heritage;
- Law of 17 August 1942, n. 1150 established the formation of the General Regulatory Plans (PRG) which had to affect the entire municipal area;
- D.P.R. January 15, 1972, n. 8: transfer to the regions with ordinary statute of the state administrative functions in the field of urban planning and viability, aqueducts and public works of regional interest and the related personnel and offices;
- Law of 28 January 1977, n. 10 (“Bucalossi law”): provided for the separation of the property right from the right to build realizable through the onerous building permit, as a result of which the public authority had the power to grant the owner the use of the land by means of concession. The adaptation to these norms was slow and uneven. These were years in which unauthorized building was rampant and the authorities, unable to repress the offenses, deemed it appropriate to resort to amnesties to regularize the differences;

- Law of 8 August 1985, n. 431 (“Galasso law”): containing urgent provisions for the protection of areas of particular environmental interest (obligation for the Regions to adopt territorial landscape plans);
- D.P.R. 6 June 2001, n. 380: has grouped the building regulations in a single text;
- The law of 7 April 2014, n. 56 (“Delrio law”): establishes metropolitan cities, redefines the system of provinces, and defines the criteria for merging small municipalities.

The State is only vested with the responsibilities relating to the direction and coordination of regional administrative activities, highways, national railways, ports, hydraulic works and inland navigation of national importance, state buildings, state-owned building and university buildings.

The hierarchical levels of urban planning tools have as a reference the constitutional organization of the national territory. Article 114 of the Italian Constitution assumes that “The Republic is made up of Municipalities, Provinces, Metropolitan Cities, Regions and the State. Municipalities, Provinces, Metropolitan Cities and Regions are autonomous bodies with their own statutes, powers and functions according to the principles established by the Constitution” [Costituzione della Repubblica Italiana, 2012]. According to the ISTAT data, currently the Italian territory is now divided as follows:

- 20 Regions;
- 107 supra-municipal units of which 76 provinces in the regions with ordinary statute, 10 metropolitan cities in the regions with ordinary statute, 6 free consortia and 3 metropolitan cities in Sicily, 4 provinces and 1 metropolitan city in Sardinia, 4 provinces at a statistical level in Friuli-Venezia Giulia, 1 Autonomous Region in Valle d’Aosta, 2 Autonomous Provinces in Bolzano and Trento;
- 7903 municipalities.

Article 118 of the Constitution also adds that: “Administrative functions are attributed to Municipalities unless, to ensure their unitary exercise, they are conferred on Provinces, Metropolitan Cities, Regions and the State, on the basis of the principles of subsidiarity, differentiation and adequacy”. The principle

of subsidiarity means a relationship modality between entities according to which if a specific entity, while occupying a lower position in the hierarchical scale of the entities themselves, intends to carry out its own intervention having the capacity and means to carry it out satisfactorily, the entity and/or entities that occupy higher positions in the same hierarchical scale must not only allow the entity that initiated the intervention to complete it, but are also required to cooperate in order to allow its successful conclusion [Amerio et al., 2015]. In general, the law of 17 August 1942, n. 1150 is the basis of inspiration for Italian urban planning as it gives rise to the urban planning tools that can be distinguished by hierarchical level, type and functionality. The rigidly hierarchical “cascade” model proposed by law 1150/42 has now been superseded by a planning method aimed at cooperation between different administrators, preferring the integration of objectives, shortcomings and interventions in order to overcome the classical hierarchy. Therefore, on the one hand, it is possible to identify three levels of planning related to the territorial scale, on the other, a “dimension” of the planning tools can be defined, based on the contents of the individual plans.

The Plans can therefore be distinguished:

- General Plans: with a guiding function, strictly connected to economic forecasts and plans and provide programmatic ideas for the development of a territory;
- Sector Plans: govern the use of the territory with reference to specific sectors;
- Mixed Plans: with characteristics common to the two previous categories;
- Figure 5 schematizes the above and gives examples of the various types of plan.

The urban planning tools provided for by Law 1150/42 were based on the culture of urban expansion and land use without considering the effects on economic development, the quality of urban life and the unconditional consumption of the land. In recent decades, the need has also matured to take into account the ecological and environmental aspects and the enhancement and recovery of existing assets

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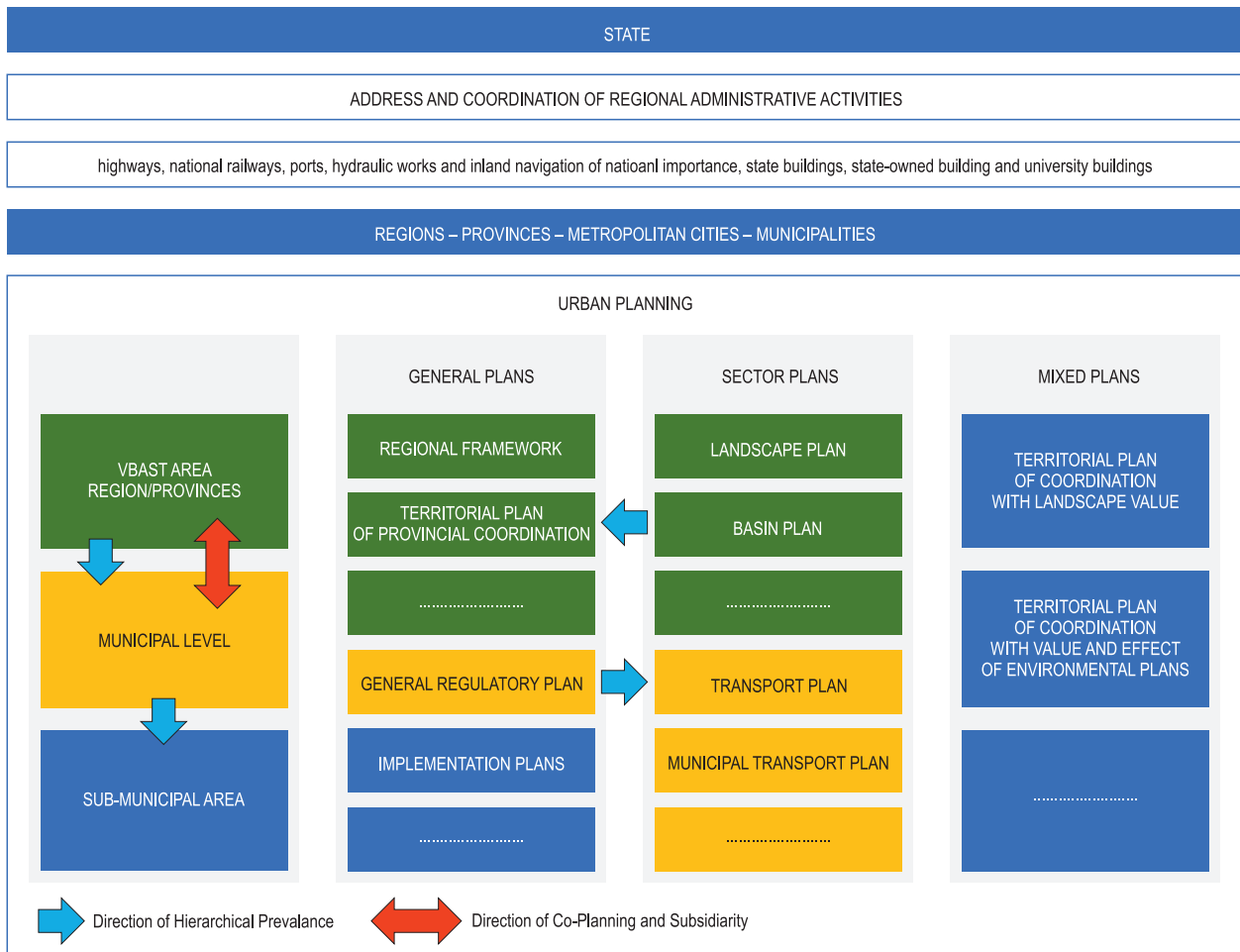


Fig. 5. The Italian planning system
 Source: own elaboration.

through the application of the Strategic Environmental Assessment (SEA) to planning.

All municipalities can form a general regulatory plan, but its formation is mandatory for those municipalities indicated in special lists to be approved by the region, just as its formation is mandatory regardless of their inclusion in the lists for municipalities declare health care, residence and tourism. In principle, it indicates the subdivision into zones (the so-called zoning) of the municipal territory in relation to the functions (services, residence, production facilities, etc.) to which they are mainly intended with the determination of the constraints and characteristics to be observed in each zone; the location of specific areas

intended for public works and installations of public and general interest; the historical, environmental, landscape areas with an indication of the related constraints and the implementation rules of the plan; the regulation of the intended use of the properties. Various effects derive from the general regulatory plan which can be identified in the immediate discipline of urban planning requirements for public and private works to be carried out and in the prerequisite of the landscape plans (see urban plan, general territorial landscape master plan) of execution. Among the immediate effects produced by the general land use plan are identified the inability to build for five years from the completion of the restriction of land

subject to restrictions even before their expropriation (see expropriation for public utility), the temporariness of the restrictions themselves in the event that it is not date them to be executed within the legal term.

Formation of the general regulatory plan. The first phase is the deliberation, compulsory or optional, depending on whether the municipality is included in the lists approved by regional decree by council. The obliged municipalities must appoint planners for the general regulatory plan who will work together with the offices and bodies of the municipality itself. Once formed, the general regulatory plan is adopted by resolution of the municipal council. The primary effect of the resolution to adopt the general regulatory plan is represented by the so-called safeguard period during which the mayor (see) can suspend any determination on the building permit applications received when these are in contrast with the general regulatory plan already adopted. This period cannot last for more than five years from the date of adoption of the general land use plan if the municipality has submitted it within one year of the expiry of the deadline for publication of the plan adopted for approval and for no more than three years from the date of adoption where the municipality has not promptly submitted the general regulatory plan for approval. The adoption of the master plan is followed by the filing of the master plan project in the municipal secretariat for a period of 30 consecutive days. Notice of the deposit must be made public so that anyone can view it. During this period, observations may be submitted by trade unions and other public bodies and institutions concerned and also by private individuals. The master plan is approved by the region. The approval process is divided into three phases: the preliminary phase, the introduction of any changes and the decision-making phase. The preliminary phase begins with the transmission of the plan, with the counter-arguments of the municipality to any comments submitted, to the region that examines it and issues its opinion. The modifying phase of the general land use plan is characterized by the possibility that the region changes the general land use plan, resulting in a conflict with

the municipality. The decision-making phase is that in which the general land use plan is approved with the changes accepted by the municipality and shared by the region and with the other changes that the latter has determined. The act of approval of the general land use plan is published in the Official Gazette and filed with the municipality. From the moment of filing, the general regulatory plan becomes fully effective.

Variations to the general regulatory plan: these are changes to the prescriptions, including regulations, of the master plan. The content of the amendments is very varied and may concern both the technical documents and the implementation rules of the general master plan. In the cases provided for by law, the procedure for approving the variants may differ according to the content and therefore involve approval by the region. The variants are generally distinguished, as the general regulatory plan is subject to periodic, specific reviews, when they concern parts of the municipal area and regulations relating to the implementation rules of the master plan and not to the urban planning of the territory [Santini, 2017].

Municipalities without general urban planning tools or without implementing urban planning tools comply with the provisions of art. 9 of the Consolidated Law on construction of Presidential Decree No. 380/01. This article allows regional legislations to set more restrictive limits; any building interventions admissible in limited cases must comply with the sector regulations, in particular the landscape one [Santini, 2017].

The owner of the land subject to expropriation is paid a variable economic compensation depending on the state of the soil. For uncultivated soils the market value of the soil is paid while for cultivated soils the criterion of market value is adopted based on the crop actually practiced; the farmer is also entitled to an additional indemnity defined as the average agricultural value.

For land that could be built before 2007 an indemnity was paid equal to about 50% of the market value. The European Court of Human Rights has repeatedly invited Italy to correct the criterion for estimating building areas since the compensation is far below

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the market value. With the Finance Law 244/2007 today establishes that the allowance for building areas is determined to the extent equal to the market value of the property and is reduced by 25% when the expropriation is aimed at implementing economic and social reform measures. In Italy the average value of agricultural land is about 21000 EUR/hectare with wide margins of variation depending on the region and the orography while the average values of building land in Italy vary from north to south between 600 and 480 EUR/m². Through the data made available by ISTAT and the “Report to the INU Territory 2016” [INU, 2016] it was possible to conduct the analysis of the planning status of the Italian territory.

Table 2 shows the data relating to the number of approved municipal plans, the number of municipi-

palities without a plan, the total area, the area covered by the plans and the area not covered by the plans, with respect to each Italian region and the entire nation.

The following figures allow a better interpretation of the data. Figure 6 shows the percentage of the area covered by the current municipal plans and that not covered by any plan with respect to each Italian region and to the entire nation.

Figure 7a shows the number of approved municipal plans for each Italian region in the form of a green histogram and the area covered by them in terms of blue gradation from lowest to highest. Figure 7b shows in each Italian region the number of municipalities without a PLAN in the form of a yellow histogram and the area they represent in terms of blue gradation from the lowest to the highest.

Table 2. Regional and national data with respect to the state of planning

Region	N. plans	N. Municipalities without plans	Area (ha)	Planned area (ha)	Planned area (%)
Abruzzo	305	8	108300	1067700	98.58
Basilicata	131	16	1007300	890000	88.36
Calabria	409	2	1522200	1511400	99.29
Campania	550	39	1367100	1280600	93.67
Emilia-Romagna	340	5	2245200	2205500	98.23
Friuli-Venezia Giulia	216	0	786100	786100	100.00
Lazio	378	22	1723200	1657500	96.19
Liguria	235	1	541600	540200	99.74
Lombardia	1529	7	2386200	2367300	99.21
Marche	236	1	940200	936200	99.57
Molise	136	0	446000	446000	100.00
Piemonte	1206	0	2538400	2538400	100.00
Puglia	258	3	1954100	1929300	98.73
Sardegna	377	0	2409800	2409800	100.00
Sicilia	390	1	2583000	2579100	99.85
Toscana	279	0	2298700	2298700	100.00
Trentino-Alto Adige	326	0	1360300	1360300	100.00
Umbria	92	0	846400	846400	100.00
Valle d'Aosta	74	0	326100	326100	100.00
Veneto	579	3	1840600	1831200	99.49
ITALY	8046	108	30205600	29807800	98.68

Source: own elaboration obtained from the data contained in the 2016 INU Territory Report [INU, 2016].

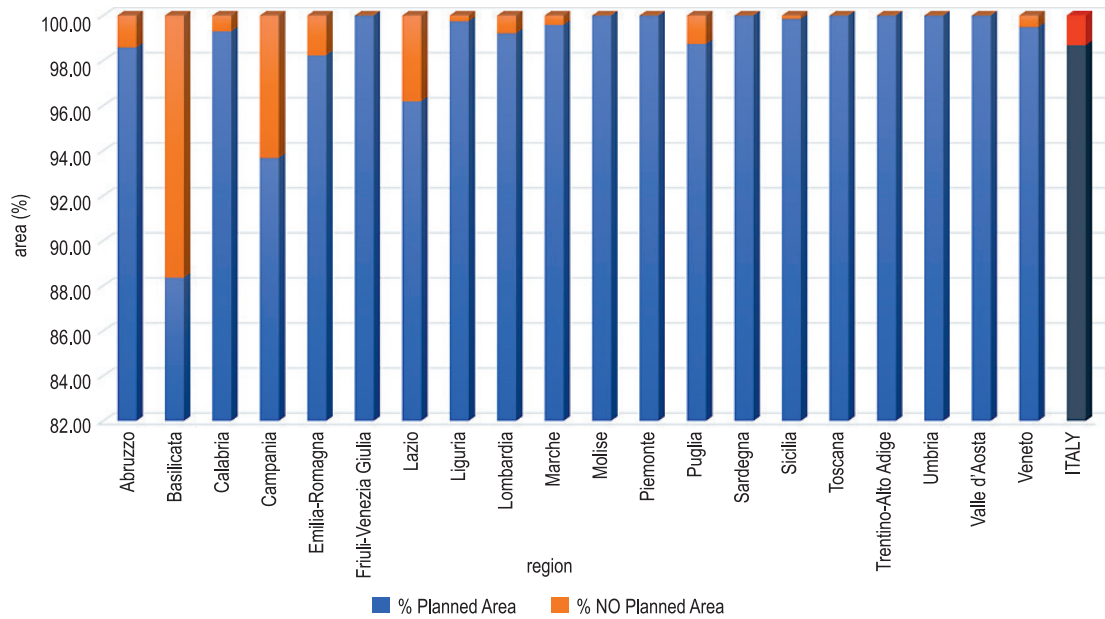


Fig. 6. Percentages of planned and unplanned area for each Italian region and for the entire nation
Source: own processing obtained from the data contained in the 2016 INU Territory Report [INU, 2016].

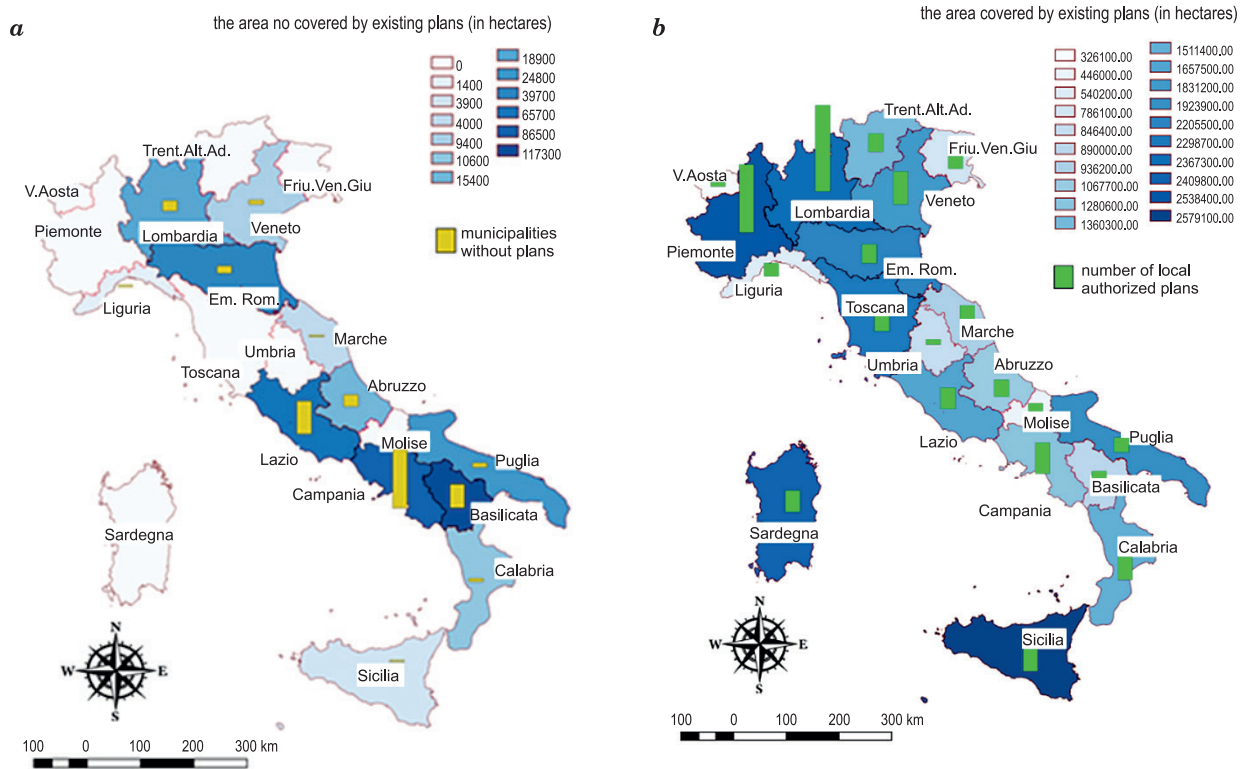


Fig. 7. a) Number of approved municipal plans and area covered in each Italian region, b) Number of municipalities without plan and surface area occupied in each Italian region
Source: own processing obtained through the QGIS software from the data contained in the 2016 INU Territory Report [INU, 2016].

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Figure 8 shows a pie diagram corresponding to each Italian region representing the relationship between the area covered by approved municipal plans and the area of the municipalities without a plan with a radius proportional to the regional area.

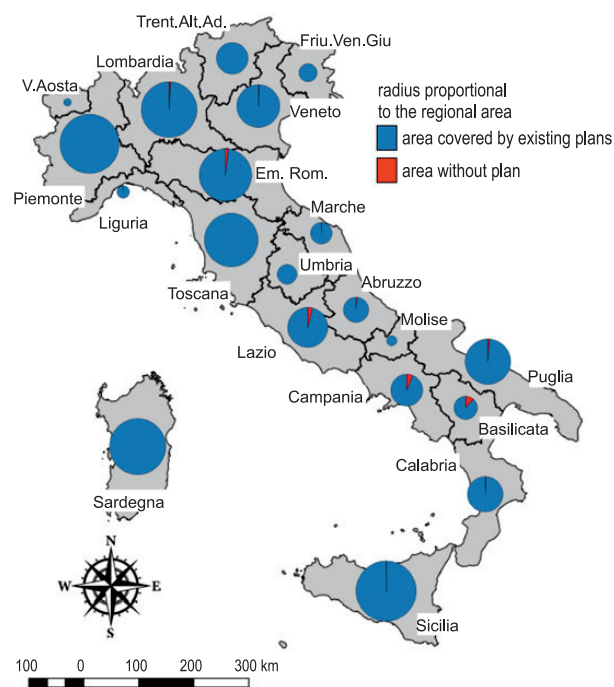


Fig. 8. Ratio between area covered by municipal plans and area without plans in each Italian region

Source: own elaboration obtained through the QGIS software from the data contained in the 2016 INU Territory Report [INU, 2016].

The analysis of the data makes it possible to learn that in Italy there is an average number of municipal plans per region of 402 with a maximum of 1529 in Lombardy, a minimum of 74 in the Aosta Valley and a standard deviation of about 351 indicating the fact that there is a significant difference in the allocation of municipal plans between the various Italian regions. The average regional area covered by the municipal plans is 1490390 ha with a maximum of 2 579100 ha in Sicily, a minimum of 326100 ha in Valle d'Aosta and a standard deviation of about 726875 ha indicative of a significant difference in the area covered by municipal plans between the various Italian regions. The average percentage of the regional

area covered by the municipal plans is 98.55% with a maximum of 100% reached in Friuli-Venezia Giulia, Molise, Piedmont, Sardinia, Tuscany, Trentino-Alto Adige, Umbria and Valle d'Aosta, minimum 88.36% assumed by Basilicata and standard deviation of 2.8%. Before 2016, there were 8046 Italian municipalities of which 108 did not have an approved municipal plan. The problem of the absence of a municipal plan was most noticeable in the central-southern regions (39 municipalities in Campania, 22 municipalities in Lazio, 16 municipalities in Basilicata and 8 in Abruzzo). In 2020 the Italian municipalities became 7903 as a result of various mergers and it is therefore possible that the municipalities without a plan have further decreased.

Spatial planning system in Olsztyn

Olsztyn is the capital of the Warmińsko-Mazurskie Voivodeship and its largest city. It is located in north-eastern Poland, with a population of approx. 175000 people. The current city border has been in place since 1st January, 1988 and covers an area of 88.33 km². Olsztyn is divided into 23 estates. They are the lowest, auxiliary, level of city government. Their scope of activity includes public matters of local range.

Since its foundation in 1362, the history of Olsztyn spans more than 650 years. Even as the biggest city and the capital of the voivodeship, Olsztyn is still a city which perfectly integrates with the natural environment. No matter in what part of Olsztyn you will find yourself, you will always feel the closeness of nature. Within the borders of Olsztyn lie 11 lakes and 4 smaller water reservoirs. They are mainly situated in the western part of the city. Between the eastern and the western part of the city, the City Forest expands along its northern border. It has approx. 1300 ha, which makes it one of the largest municipality forest complexes in Europe. The landscape of the city is formed by an immense network of lakes surrounded by a ring of forests. These forests, together with other greenery, cover as much as 27.5% of the whole area of the region's capital, while lakes (725 ha) stand for

another 8%. The rich history of the town combined with its natural values gives Olsztyn a touristic character. We will not find many large industrial ones here.

The most important data showing the state of spatial planning in Olsztyn, taking into account the variability in the years 2010–2018, are presented in Table 3.

Table 3. The planning system in Olsztyn – document data

The elements of planning system in Olsztyn	Unit	Year				
		2010	2012	2014	2016	2018
The local land-use plans	units	48	58	65	67	76
The area of the city covered by the plans	ha	3894	4420	4929	4761	4943
Share of the area covered by the plans in force in the total city area	%	44.1	50.0	55.8	53.9	56.0
Draft plans	units	28	24	24	32	32
The area of the city covered by draft plans	ha	3053	1306	1435	1960	1819
Decisions about conditions of spatial development	units	242	244	259	212	157
Decision on the location of a public purpose investment	units	36	41	76	65	78
Decisions concerning multi-family housing development	units	11	10	32	51	40
Decisions concerning single-family housing development	units	20	53	60	44	47
Decisions concerning service development	units	45	93	92	71	59
Decisions concerning other developments	units	166	88	75	46	11

Source: own elaboration based on data obtained from CSO.

As of the end of 2018, 76 local land-use plans were in force in Olsztyn. They covered 4943 ha, which is 56% of the city area. An additional 32 plans were in preparation. This is a better result than the average for Poland (plans cover about 32% of the country's area). However, the value for Poland refers both

to non-urbanized areas – rural (where there are much fewer plans and often no need to develop them) and urbanized – urban (where there are more plans). In comparison with other cities in Poland, Olsztyn's score is at an average level. A big plus, however, is the ever-increasing number of plans being passed. As can be seen in Table 1, the years 2010–2018 saw an increase in the number of plans by about 58% and an increase in the area covered by plans by about 27%. The development of the city of Olsztyn has a great influence on the neighbouring municipalities, where large changes in land use can also be observed [Tataruch et al., 2019].

Such a trend is not visible when making Decisions about conditions of spatial development. Between 2010 and 2016, the number of decisions issued is relatively stable, and in 2018 it is even decreasing. This, however, taking into account the function of the decision in the spatial planning system in Poland (it is to be a supplement to the local land-use plans and is only issued for the area where there is no plan), is also a positive indicator. A worrying trend can be observed in many municipalities in Poland. The local authorities, instead of shaping the development of space using plans, prefer to issue decisions that are less complicated in procedure, less time consuming and cheaper to prepare. This is not fully consistent with the idea of the spatial planning system in Poland, although formally compliant with the law. The decisions concern single investments, most often located on single plots. Through plans, the municipality can comprehensively shape the space of larger areas [Gawroński et al., 2010, Krajewska et al., 2014, Niedzialkowski & Beunen, 2019, Oxley et al., 2009]. In view of the above, the results of Olsztyn in terms of decisions issued must be regarded as positive. The largest number of decisions concerns service investments, a clear increase in residential investments is also visible. As a plus, the increasing number of Decisions on the location of a public purpose investment issued should also be indicated. This type of decision concerns investments for the development of public space (such as roads, technical infrastructure, public facilities), improving its quality and used by citizens.

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Taking into account the above elements, the planning state of Olsztyn can be assessed positively, indicating that the city authorities have developed the space in accordance with the principles of the spatial planning system in Poland.

Spatial planning system in Bari

Bari overlooks the Adriatic Sea for a length of over 42 km, between the municipalities of Giovinazzo, to the north, and Mola di Bari, to the south. It extends in a latitudinal direction for about 18 km, starting from the port area to the extreme district of Loseto in the south-west. The municipal territory is at the center of a large flat and depressed area, the Bari basin. However, in its central portion, it goes for a few kilometers inland, up to the centers of Capurso, Triggiano, Bitritto, Modugno and Bitonto, meeting so the first slopes of the Murge. The conformation of the city is often described as an eagle with outstretched wings, whose head is the small peninsula on which the first urban center, “Bari Vecchia”, was built; conformation that they wanted to give to the agglomeration and the municipal territory especially in the Fascist era. The city is characterized by a Mediterranean climate with mild winters and hot summers. The thermal excursions are contained by the marine mitigating action. However, the city in the winter months can be influenced by the cold currents of north-eastern Balkan and north-western origin coming from the high Abruzzo mountains, which sporadically cause precipitation even of a snowy nature. The rains, concentrated in the winter months, are characterized by an extremely variable regime; in the summer months there is alternation between waves of torrid heat coming from North Africa alternating with as many waves of humid heat coming from the eastern regions of the lower Mediterranean basin. In contrast to heat waves, there are days in which northern winds of the mistral blow, which can be associated with transient low pressure zones that can give rise to storms typical of the summer season, sudden drops in temperature and rough sea.

The Municipality of Bari has a PRG approved by decree of the President of the Regional Council n. 1475 of 08/07/76 (called “PRG Quaroni”) available in digital format on the website of the Municipality of Bari [www.comune.bari.it]. Quaroni based his planning in 1976 starting from a population of 351200 inhabitants and foreseeing a city that could host 628577. The demographic decline of the last decades has produced a population that today in Bari has about 322316 making forecasts ever more distant plan from demographic realities. Added to this were the crisis in the construction market and the birth of new regional planning legislative instruments which resulted in numerous variants of the Quaroni plan and in one and a series of implementation measures in a limited number compared to forecasts. Therefore, the Quaroni plan has no longer been adequate to the needs of the Municipality of Bari for several years, which since 2013 has been working on the new General Urban Planning Plan (PUG) [www.comune.bari.it]. The Preliminary Planning Document (DPP) of the new PUG published by the Municipality of Bari in December 2010, in the General Report part 2, reports the budget of the current planning referred to the Quaroni plan [www.comune.bari.it]. According to this report, it is appropriate to carry out the quantitative estimate of the planning status of the city in December 2010 through the survey of the residential expansion areas and the areas for directional-tertiary activities of the Quaroni plan. For each of these areas, the expected planning volume was therefore quantified (obtained by multiplying the area of each area by its own territorial buildability index contained within the technical regulations for implementing the PRG), the volume achieved and the residual volume (reported in the General Report part 2). Table 4 summarizes the state of planning in volumetric terms from 1976 to 2010.

On April 1, 2009, the Agreement between the state, regions and local authorities was formalized on the act concerning measures for the revival of the economy through construction activity. The Puglia Region has implemented this agreement by approving the regional law of 30 July 2009, n. 14 (called “Piano Casa”)

Table 4. State of planning in volumetric terms of the municipality of Bari from 1976 to 2010 with respect to the expansion areas and directional-tertiary

PRG area type	Area (ha)	1976			2010	
		Planning volume (m ³)	Built volume (m ³)	Residual volume (m ³)	Built volume (%)	Residual volume (%)
Expansion areas	1240.8	13169500	5673211	7496289	43.8	56.92
Directional-tertiary	297	14850000	9993159	4856841	67.29	32.71
Total	1537.8	28019500	15666370	12353130	55.91	44.09

Source: www.comune.bari.it, date 10.12.2020.

concerning “Extraordinary and urgent measures to support the construction activity and to improve the quality of the residential building heritage” [Repubblica Italiana, 2009]. The legislation has followed several changes over the years and the municipality of Bari has adopted various administrative acts to regulate the methods of implementation of the L.R. 14/09 in its own area. The following summarizes the effects of the application of the regional law of 30 July 2009, n. 14 [Comune di Bari, 2009] within the municipality of Bari both in terms of buildings and urban planning, starting from the data contained within the *Report on the implementation to the year 2019. Update September 2019* published by

Table 5a. Volumes built in the municipality of Bari according to the regional law of 30 July 2009, n. 14

Year	Expansion volume (m ³)	Volume of demolition and rebuilding (m ³)	Total volume (m ³)
2009	7.44	0	7.44
2010	188.5	963.26	1151.76
2011	18.62	13121.6	13140.22
2012	753.12	3914.7	4667.82
2013	360.45	9965.74	10326.19
2014	710.09	0	710.09
2015	758.67	7167.93	7926.6
2016	1022.15	142256.78	143278.93
2017	1647.39	145360.98	147008.37
2018	1755.22	83582.92	85338.14
2019	1228.28	56490.6	57718.88
Total volume (m ³)	8449.53	462824.51	471274.44

Source: Comune di Bari, 2009.

the Town Planning and Private Building Department of the Municipality of Bari [Comune di Bari, 2019]. It is possible to distinguish within Table 5a effects of the extraordinary enlargement interventions pursuant to Article 3 of the regional law of July 30, 2009, n. 14 and effects Extraordinary of demolition and reconstruction works pursuant to Article 4 of the regional law of July 30, 2009, n. 14 in Table 5b.

Table 5b. Building applications under construction in the municipality of Bari according to regional law n. 14 of 30 July 2009

Year	Instances for expansion	Instances for demolition and reconstruction	Total instances
2009	1	0	1
2010	3	4	7
2011	5	12	17
2012	12	8	20
2013	13	4	17
2014	19	3	22
2015	12	8	20
2016	16	22	38
2017	33	58	91
2018	31	73	104
2019	32	26	58
Total instances	177	218	395

Source: Comune di Bari, 2009.

The data show that from 2009 to 2019 a significant part of the construction activity in the municipality of Bari – solely due to the regional law of July 30, 2009, n. 14 – was concentrated in demolition and reconstruction interventions (462824.51 m³) instead

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of in expansion activities (8449.53 m³). At the end of 2019, the volumes defined in tables 6a and 6b are divided between the residential expansion areas and the areas for directional-tertiary activities of the Quaroni PRG, as reported in table 6.

Table 6. Distribution of building volumes for the period 2009–2019 between the residential expansion areas and the areas for directional-tertiary activities of the PRG of Bari according to regional law of July 30, 2009, n. 14

PRG area type	2009–2019	
	Expansion volume (m ³)	Volume of demolition and rebuilding (m ³)
Expansion area	2345.3	33433.98
Directional-tertiary	463.76	0
Total volume	2809.06	33433.98

Source: Comune di Bari, 2019.

The comparison between what was achieved and what was planned in terms of areas was deduced from the analysis of the areas of the Quaroni planning of 1976, from the areas deductible from the General Report part 2 of the 2010 DPP and from the areas

directly observable through the PRG computerized report of the Puglia SIT at the end of 2019 Figure 9.

The comparison of analyzed planning systems

The data collected and presented in the above chapters show that there are spatial planning systems in both analyzed countries. Both are based on the legal regulations in force in the countries. In both cases their main goal is rational space management, but this goal is implemented in different ways. The systems operate on different historical and legal bases, different administrative divisions. The system in Italy has a rich tradition, which began in the 1940s and has already evolved to the present day to the final version. The system in Poland is still evolving, due to the fact that it started to be created only after the political and economic changes in the country in the 1990s.

Table 7 below presents an attempt to compare both systems, based on the data collected and presented above, including a compilation of the results presented in previous chapters.

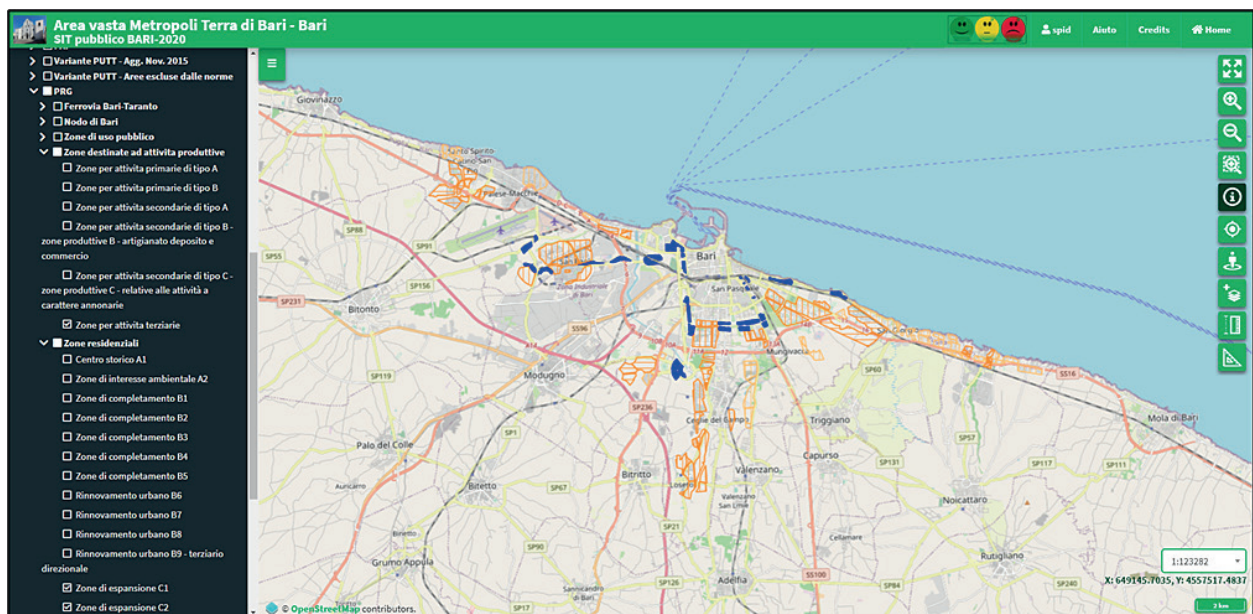


Fig. 9. The PRG of Bari within the webgis of the SIT Puglia
Source: sit.egov.ba.it, date 10.12.2020.

Table 7. Comparison of spatial planning systems in Poland and Italy

Analyzed item	Spatial planning system	
	Poland	Italy
The beginnings of system creation	the 90's of the 20th century	the 40's of the 20th century
Based on administrative division	yes (municipalities, voivodeships, state)	yes (municipalities, metropolitan cities, provinces, regions)
Planning levels and their legal relationships	Central (country), regional (voivodeship), local (municipality) Voivodeships must comply with national regulations, municipalities at local level must take into account regional solutions	Regional, local On state level – coordination of regional activities On local level, all municipalities can form a general regulatory plan, but its formation is mandatory for those municipalities indicated in special lists to be approved by the region
Planning documents prepared at specific planning levels	CENTRAL (country) – National Spatial Management Concept REGIONAL (voivodeship) – Voivodship land-use plan LOCAL (municipality) – Study of the conditions and directions of the commune spatial development, Local land-use plan, Decision about conditions of spatial development	CENTRAL (country) – Address and Coordination of Regional Administrative Activities REGIONAL (region) – Regional Territorial Urban Plan (PTR) or Regional Landscape Plan (PPR) SUB-REGIONAL (province AND metropolitan city) – Territorial Coordination Plan (PTC) and General Metropolitan Territorial Plan (PTGM) LOCAL (municipality) – General Regulatory Plan (PRG) and its implementation plans
Planning level at which the area's function is determined	local	local
Covering the country with plans	about 32% Different level in municipalities in different voivodeships, from about 7% in Kujawsko-Pomorskie to about 68% in Małopolskie Voivodeship. The largest area is covered by plans in the Lublin Voivodeship – 1 420 289 ha, the smallest, in the Kujawsko-Pomorskie Voivodeship – 125 072 ha	about 99% Almost the whole country is covered by plans
The obligation to prepare plans	The plans are obligatory only in specific situations, if a special law regulation so provides	The regions are required to arrange the PTR (Presidential Decree n. 616 of 1977) Provinces and Metropolitan Cities are required to have PTC and PTGM (Law n. 56/2014) The PRG is mandatory for the Municipalities included in special lists prepared by decrees of the Minister for Public Works and in those indicated by the Regions to which they belong (Law n. 1150/1942)
Problem with the functioning of the system	Low coverage of the country by plans, complicated and lengthy procedure of passing new plans, abuse by municipalities of Decisions about conditions of spatial development, which should only be a supplement to plans, and due to simpler and faster procedures of elaboration and issuance, they start to replace plans	The principle of co-planning between the different administrative levels generates the disadvantage of lengthy bureaucratic procedures that often make urban planning tools obsolete when they are created
Age of urban planning tools	Last twenty/thirty years	Decades
Flexibility of urban planning tools	Plans can be changed when needed	New needs can be satisfied through variations to the plans
Correspondence of reality to the plans	The way of land development is usually consistent with the plans	Frequent deviations between reality and original plans

Source: own elaboration.

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As can be seen in Table 7, both systems have similarities, but in terms of effectiveness they differ. The coverage rate of the space plans in Italy seems to be even impossible to achieve in Poland. In Poland, plans are developed in the current state of law mainly for urbanized areas. In agricultural and forest areas plans are not adopted.

The weaknesses of the spatial planning system in Poland are too low land coverage with plans. This is related to many factors. One of them is for sure the relatively short period of functioning of the system in Poland on the current principles and the past, resulting from long years of functioning of the country in the post-communist system. Procedural considerations are also a big problem. Adopting a new plan (similarly to a change in the functioning one) is a long and complicated administrative procedure. It requires agreements and opinions with several bodies and institutions of different levels and types (responsible for e.g. environmental protection, monument protection, terrain armament, etc.). Adoption of a new plan usually takes a period of time in Poland, e.g. 1 year. In today's market reality it is a very long period. The municipalities also do not pass the plans, fearing claims from property owners, whose value may be reduced. All this results in the fact that more and more often municipalities, instead of adopting local plans, issue decisions on the development conditions in large numbers. It is not a good solution for space, because the decisions refer to individual plots of land or investments, and only through the plans the space is shaped in a comprehensive way, taking into account such elements as: public space, land utilities, land transport service, etc. The limitation of too much freedom to issue decisions on building conditions has been announced in the legislation for several years now, however, due to the not entirely stable today's political situation of the country, these changes still remain only in the announcements. An example of the imperfection of the Polish legislation in this area is also the current situation with regard to national planning. At the end of 2020, the current NSNC was repealed and no new document was produced in return. The announced NDC does not fully know

how it will look like and when it will be adopted. Such a situation may cause big problems in locating investments of supra-regional range, requiring coordination from the national level. In Poland, there is no document that would cover the whole area of the municipality, even in a general way, indicating areas for investments. The existing study of conditions and directions of spatial development of the municipality has too weak legal force and is only a provision of the spatial policy and not an executive document, which determines the designation of the land. Among the strengths of the planning system in Poland, it can be pointed out above all that the adopted local plans are to a large extent observed. The existing control system guarantees that forms of development that do not comply with the plans are sporadic. In the vast majority of cases the development method corresponds to the function established in the local plan or the decision on development conditions. The growing role of social participation in spatial planning can also be pointed out as a strong point. There is a growing social awareness of citizens, who either personally or through their representatives in various social organizations have a real impact on the designated area and the solutions adopted in new plans.

Italy does not have a real modern national urban planning policy: the basic urban planning law (1150 of 1942) is mainly administrative in nature and describes the consistency and elements of the planning activity that fact are then exercised by regions, provinces and municipalities; on the one hand this allows us to respond to specific local needs but on the other hand it determines a disharmony of procedures and reality.

The expropriation procedure for public utility undoubtedly represents a strong point of the Italian urban planning process, despite the process of complete legislative formulation and the period of "acceptance" by citizens have often extended the time of the activity until the 1990s planning frequently leading municipalities to resort to application solutions of agreement between public and private entities that cannot be configured as real urban plans (program agreements) in order to anthropize the territory.

A weakness for the Italian planning activity is represented by the imperfect correspondence between the forecasts of the plan and what was then achieved. In fact (as can be seen from the case of the city of Bari in which the Housing Plan concentrated the construction activity in the reconstruction interventions) in various circumstances urban planning in Italy had to give way to the need to meet emergency needs (reconstructions of the postwar period, natural disasters such as landslides, earthquakes and floods), and new needs (social economic housing plans). The crisis of the industrial model of the 70s and the demographic contraction with the consequent attention to building waste (recovery plans), historic centers and environmental issues have assumed a significant weight within the planning – reality divergence.

Sensitivity to the environmental theme in the 1980s became a strength for Italy and led to the development of urban planning skills specialized in the creation of Territorial Landscape Plans, Basin Plans for rivers, parks and protected areas that have become the basis of new Italian economy focused on tourism [Villani, 1969, Derycke & Caloia, 1975, Fiorelli, 1975, Sernini, 1974, Karrer & Lacava, 1974, Allione, 1976, Amante & Gorelli, 1991].

In many areas of the Italian territory it happens that several floors of different types overlap, often imposing incompatible urban restrictions that confuse or block urban planning activity.

From an economic point of view, the Italian urban planning tools do not consider the economic resources necessary for their implementation. Within a strategic planning, the plan instead raises the question of resources, their finding, the prioritization of actions over resources.

CONCLUSIONS

Spatial planning systems in different European countries are different. This results from different traditions of spatial management, historical conditions, different political systems shaped over the years (especially in the countries of Eastern Europe, which for many years after the Second World War were

strongly influenced by the communist system) and finally different rules of functioning of administrative divisions of countries. The planning system is different in Germany [Schmidt, 2009], Great Britain [Cullingworth & Nadin, 2006], Sweden [Granath Hansson, 2017], France [Thériault et al., 2020], the Netherlands [Buitelaar & Sorel, 2010], Latvia [Volosina et al., 2018], Bulgaria [Moteva & Marinova, 2020] and finally different in Italy and Poland analyzed in this article.

The analyzed systems differ from each other, but it is not surprising. Rational management of limited space is certainly the guiding principle of all systems, while each country has developed its own instruments, tools and rules for shaping space. Different countries have different administrative divisions, to which the spatial planning system created in them must also be adapted.

The research conducted within the article allows to formulate the following conclusions:

1. The analyzed systems of spatial planning in Poland and Italy have different historical conditions. Today's planning system in Italy could have started to take shape much earlier, already in the 40's of the 20th century. Today's system of planning in Poland has its roots only in the 90's of the 20th century after the political and economic changes that took place in Poland then. This has an impact on the functioning solutions, which in Italy are already developed to a much greater extent than in Poland, where they are still being evaluated today.

2. The system of spatial planning in Poland is clearly based on a hierarchical division related to the administrative division of the country. The national, regional and local levels are clearly visible here, with each of them developing different planning documents with a different scope of impact. On the national level, The National Spatial Management Concept is created, on the regional level – The Voivodeships land-use plans and on the local level – Study on the conditions and directions of municipality spatial development and Local land-use plans.

3. Italy is a unitary country, but its land planning system follows a model generally observed in federal countries, with regional laws and regulations

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as the main source of legal provisions outlining the planning process. However, despite the high degree of regional autonomy, actual planning systems are similar across the country. Italian spatial planning is based on a tiered system, which consists of national Acts, regional and provincial spatial coordination plans, and general policy and land use plans at the level of municipalities.

4. The local level is the most important in the Polish spatial planning system. This is where Local land-use plans are developed, which are local laws. However, when planning their space, the municipalities must take into account the conditions resulting from planning documents created at regional and national levels. This applies primarily to investments of a supra-local nature. A certain problem visible in recent years is the abuse of Decisions about conditions of spatial development by municipalities. This instrument was supposed to complement the local land-use plans and in the majority of municipalities they are even beginning to replace them, which is not consistent with the idea of the system, although on the other hand it is legally permissible. The results presented in Figure 4 and their analyzes confirm the problem that is noticed in Poland.

5. The Italian planning system possesses both a hierarchical aspect from the regional to the municipal level and a complementary aspect since the higher site levels are involved in the design process of the lower-level urban planning tools.

6. Analyzing the synthetic indicators, one can conclude that the system of spatial planning in Italy is at a higher level than in Poland. In Italy 98.68% of the country is covered by plans. In Poland this indicator is three times lower and it amounts to 32%. On the one hand, this is due to the much earlier introduction of the planning system in Italy, which is still being evaluated in Poland. On the other hand, it is related to the specificity of the systems being compared. In Poland plans are developed mainly for urbanized space (in cities and rural areas), they are rarely found in non-urbanized areas.

7. Following the Italian experience, in order to increase the effectiveness of the planning system

in Poland, it is possible to postulate the introduction of an additional planning document in the form of a general plan, developed for the whole municipality, which would indicate the general possibilities of land development. This plan could be further elaborated with the existing local land-use plans. It would significantly improve the possibilities of land development in the municipalities.

8. Introduction in Poland, following the Italian system, of a general plan in the municipality would limit excessive freedom of interpretation when issuing Decisions about conditions of spatial development. As it stands, these decisions are definitely abused in Poland. In the Italian system, due to the almost complete coverage of the area with plans, such a document is not needed at all.

9. Italian urban planning tools are often obsolete and plan elements are no longer suited to the needs of the territory. The complexity of the design phases of the new plans and the long lead times of the Italian bureaucracy often lead the administrations to make variants to the old plans. The variants solve single problems but make reality increasingly disharmonious and far from the provisions of the plans.

10. Both cities, Olsztyn in Poland and Bari in Italy, both of which are analyzed in the article, have a similar function in their countries. Both have similar character and rich historical conditions. The conducted analyses allow concluding that the spatial planning in both cities is carried out at the right level. A certain problem in the case of Olsztyn is suburbanization. In recent years, it can be seen that a large part of the new buildings appear outside the administrative borders of the city in the neighbouring municipalities. This is a problem that local authorities have to deal with. Comparing synthetic indicators, Bari, like Italy as a whole, performs much better in this aspect than Olsztyn. 100% of the Bari area is covered by plans, for Olsztyn this indicator is about 56%. For Bari – beyond the covered area and the built volumes – given the age of the Quaroni plan, the demographic forecasts not verified by reality and the many variations made, there is a significant difference between the originally planned urban elements and those actually built [Granath Hansson, 2017].

The analyses of available scientific databases have shown a number of articles analyzing planning systems in different European countries. There are also individual publications in which the authors attempted to compare different systems in different countries. However, no publication was found in which the Authors attempted to compare and evaluate spatial planning systems in Poland and Italy. This publication is a proposal to fill a gap in this respect. It may also be useful for other researchers who would like to use the presented data and conclusions to compare the spatial planning system in Italy or Poland with systems operating in other countries.

Author contributions: author/authors have given approval to the final version of the article. Authors contributed to this work as follows: developed the concept and designed the study, analyzed and interpreted the data, prepared draft of article, revised the article critically for important intellectual content.

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