

## **METROPOLITAN AREAS IN POLAND – STATE OF DEVELOPMENT AND ITS BARRIERS**

*Agnieszka Stanowicka*

Department of Macroeconomics  
University of Warmia and Mazury in Olsztyn

**Key words:** metropolis, metropolitan area, regional development, metropolitan area management.

### **Abstract**

Metropolitan areas are increasingly often regarded as the key drivers of economic growth and the main targets of social and economic development strategies. Those processes are fraught with numerous limitations and barriers. The aim of this study was to identify major problems in the development of Polish metropolitan areas. The key issues were characterized based on a review of the available literature. Attempts were made to propose general solutions to selected problems. In Poland, the identification of metropolitan areas poses a problem, which lowers the effectiveness of management strategies for those regions. Polish urban agglomerations have weakly developed metropolitan functions, which compromises their status in European rankings and European metropolitan area networks.

## **OBSZARY METROPOLITALNE W POLSCE – STAN ROZWOJU I JEGO BARIERY**

*Agnieszka Stanowicka*

Katedra Makroekonomii  
Uniwersytet Warmińsko-Mazurski w Olsztynie

**Słowa kluczowe:** metropolia, obszar metropolitalny, rozwój regionalny, zarządzanie obszarem metropolitalnym.

### **Abstract**

Obszary metropolitalne uznaje się coraz częściej za bieguny wzrostu całej gospodarki i na nich się koncentruje, wskazując strategie rozwoju społeczno-gospodarczego kraju. W praktyce napotyka się tu wiele ograniczeń i barier. Celem opracowania jest identyfikacja głównych problemów rozwojowych obszarów metropolitalnych w Polsce. Dokonano w tym celu przeglądu literatury i scharakteryzowano najważniejsze z nich. Próbowano też wskazywać sposoby lub chociaż kierunki ich rozwiązywania. Zauważono, że problemem w Polsce jest już samo wyłonienie i zidentyfikowanie obszarów metropolitalnych. To rodzi problemy związane ze skutecznym zarządzaniem takimi obszarami. Niedorozwój funkcji metropolitalnych w polskich obszarach metropolitalnych powoduje, że plasują się one bardzo nisko w europejskich rankingach, mają więc słabą pozycję w europejskiej sieci powiązań metropolitalnych.

## **Introduction and Methodological Assumptions**

The global economy is witnessing dynamic metropolization processes. Large metropolitan areas are expanding their functions and scope of influence. Metropolitan areas form a dense network of connections with the surrounding regions, and they are becoming the key drivers of economic growth in a globalizing world. Metropolitan areas play the role of knowledge and innovation hubs that are essential for the achievement of high levels of social and economic growth on the global scale. The growing role of cities and metropolitan areas has been recognized by the Lisbon Strategy which emphasizes the importance of metropolitan regions for global and local growth (MŁODAK 2012, p. 21). In the „Poland 2030. Development Challenges” report developed by the Team of Strategic Advisors to the Prime Minister, metropolitan areas were recognized as Poland’s greatest incentive for investors, and the polarization-diffusion model, in which metropolitan areas are the key drivers of economic growth, has been recommended as the most effective model of development (IZDEBSKI 2010, p. 64). The main goal of the „National Strategy of Regional Development 2010–2020: Regions, Cities, Rural Areas” is to reinforce the metropolitan function of Poland’s largest urban centers. At present, the main focus is on metropolitan areas as functional entities, rather than on individual cities or municipalities which do not constitute sufficiently large reference points for analyzing urban development policies (LACKOWSKA 2010, p. 29).

This article identifies and evaluates the main barriers to the development of metropolitan areas in Poland. This goal was achieved through critical assessment of the relevant literature. The paper reviews various definitions of cities and metropolitan areas and identifies the most pressing problems faced by Polish metropolitan areas. Developmental problems are evaluated based on the author’s knowledge and market observations, but a more comprehensive assessment would require in-depth analyses of selected issues which are hinted in the article.

### **Definition of a Metropolitan Area**

Metropolitan areas and metropolises have various definitions in the literature. A metropolis is generally defined as a city with a population of more than one million. This threshold is often lowered to 500,000, in particular in Poland. A metropolitan area is characterized by high population density, and it is a center of industry, administration, market services, educational, scientific, cultural, recreational and medical institutions (MŁODAK 2012, p. 20).

A metropolitan area is also defined based on its qualitative features. It should have well-developed exogenous functions that make it a part of the network of global connections with other cities. Metropolitan areas act as transportation hubs and centers of communication between manufacturers, trading companies, banks and other financial institutions (SMĘTKOWSKI et al. 2009, p. 53). Metropolitan areas have a specific organizational structure and comprise an urban core, suburbs and contiguous municipalities within a radius of up to several dozen kilometers. The progressing separation of residential districts and business areas in metropolitan areas results from fragmentation of urban space. Retail trade is concentrated mainly in shopping centers, and retail outlets in the urban core are being replaced with banks, restaurants and entertainment facilities. Cities are divided into districts and neighborhoods based on the social status or even ethnicity of their residents.

In Poland, the definition of a metropolitan area is provided by the Act of 27 March 2003 on spatial planning and development (Journal of Laws, 2003, No. 80, item 717, as amended). A metropolitan area is defined as a major city with its functionally linked surroundings, as indicated in the National Spatial Development Concept. This definition incorporates both quantitative and qualitative aspects. In another definition, a metropolitan area is an urban settlement system characterized by spatial continuity and combining separate settlement units, which covers the territory of a large city or a dense urban agglomeration as the core (nucleus) of the system with a functionally linked urban zone where social, economic and spatial conflicts are prevalent (NOWAK 2010, p. 20). According to yet another definition, a metropolitan area is an urban settlement system (monocentric or polycentric, comprising numerous settlement units and highly urbanized areas):

- with a directly linked functional zone and areas with prospects for development,
- where metropolization processes are observed, and where auxiliary activities and services complement the metropolitan functions of the urban core,
- characterized by a high degree of functional integrity,
- with a well-developed transport network (MARKOWSKI 2006, p. 14).

Other authors have proposed the concept of a metropolitan center as a city within its administrative boundaries, whereas the metropolitan area integrates the neighboring municipalities identified based on development and growth rate indicators. A metropolitan center and a metropolitan area form a metropolis. A metropolitan region combines the remaining non-metropolitan municipalities in a region (GORZELAK, SMĘTKOWSKI 2005, pp. 43–45). For the needs of this article, a metropolitan area will be defined as a major city with its functionally linked surroundings, delimited in line with the territorial division

of the country into municipalities, with a minimum population of 500,000, directly linked to international transportation, communication or service networks (NOWAK 2010, p. 26). In this definition, a metropolitan area is divided into two parts: the urban core and less-populated surrounding territories. The political, administrative, business, social and cultural functions of hinterland complement the metropolitan functions of the urban core.

In line with the cited definitions, a metropolitan area is characterized by (NOWAK 2010, p. 19):

- high quality of services, institutions and infrastructure,
- high levels of innovation,
- highly competitive production and specialist services,
- strong internal economic, social and institutional cooperation,
- tight connections with other metropolises,
- local uniqueness.

Metropolitan areas are major transportation hubs, seats of political, administrative, financial, industrial and service institutions, research and development centers, innovation hubs and leading markets (KISIAŁA, STEPIŃSKI 2013, p. 29).

## **Major Development Issues in Polish Metropolitan Areas**

The expansion of large cities and metropolitan areas produces increasingly complex urban organisms with vast surrounding territories, and it calls for new urban management methods. Polish metropolitan areas face numerous development problems, including (SMĘTKOWSKI et al. 2009, s.71):

- chaotic development which compromises spatial order,
- absence of an effective management model,
- traffic bottlenecks that disrupt functional cohesiveness of transportation systems,
- environmental degradation.

The first problem surfaces already at the stage of identifying a metropolitan area because this unit of spatial classification, defined by the Act on spatial planning and development, is not recognized by the National Spatial Development Concept. In 2005, the Government Center for Strategic Studies delimited metropolitan areas in Poland, but the resulting report has never been granted the status of a legally binding document. Metropolitan areas are sometimes delineated by regional authorities. As a result, metropolitan areas and metropolises are not clearly marked on the map. In Poland, the problem is addressed by the Union of Polish Metropolises. Various attempts have been made to create a formal category covering metropolitan areas in the spatial planning system. The proposed nomenclature included (MŁODAK 2012, p. 23):

- Extended Territorial Unit,
- Functional Urban Region,
- Extended Urban Zone.

The latter solution seems to be most appropriate because it relies on the scope of functional influence exerted by a large city. In practice, however, reliable information for describing the scope of that influence may be difficult to obtain. In consequence, an Extended Urban Zone does not cover the entire metropolitan area. According to the Union of Polish Metropolises, there are 12 metropolitan areas in Poland: Warsaw, Łódź, Kraków, Wrocław, Poznań, Gdańsk, Katowice, Szczecin, Bydgoszcz, Białystok and Rzeszów. Based on the quantitative criterion, we can identify six metropolises which, together with their functionally linked suburbia, create metropolitan areas. They are Warsaw, Kraków, Łódź, the Tricity, Wrocław and Poznań. If a metropolitan area is defined as an urban agglomeration with population higher than 500,000, there are nine metropolitan areas in Poland: Bydgoszcz-Toruń, Kraków, Poznań, Silesia, Szczecin, the Tricity, Warsaw and Wrocław. In line with this concept, Białystok, Lublin and Rzeszów are regarded as urban centers of prospective metropolitan areas. Ideally, metropolitan areas should be delineated by the Council of Ministers by way of a resolution. This approach would eliminate many problems associated with their identification and management. The Faculty of Law and Administration of the University of Silesia in Katowice has developed a draft regulation on metropolitan counties (DOLNICKI 2014, pp. 9–17). The document preserves Poland's three-tier system of territorial administration but proposes to add a new category of counties. In addition to rural and urban counties, Poland would also feature metropolitan counties with somewhat different functions. Selected responsibilities, which are performed by cities as part of municipal unions or supra-local projects of key importance for the entire urban agglomeration, would be transferred to municipal counties (DOLNICKI 2014, pp. 10, 11). The draft of the so-called Metropolitan Act is controversial with respect to provisions regarding the property of metropolitan poviats. New units of local government could acquire property via transfer of assets from communes forming a part of a metropolitan poviat. In other words, currently operating communes would be expropriated for the benefit of metropolitan poviats. This would constitute a significant breach of independence of local government units at the communal level. In this place, it is necessary to mention that as of the moment of establishment of poviats pursuant to the Act of 1998, they were provided with property provided it did not constitute the property of any commune (KIEŁBUS 2014). The developed drafts for establishment of a metropolitan poviat are criticized by local government organizations and the Council of Ministers.

Another barrier for development of metropolises in Poland is underdevelopment of metropolitan functions. Determination of sources of income of metropolitan poviats is equally controversial. Polish metropolitan areas comply with the qualitative requirement (population higher than 500,000), but not all of them have fully developed metropolitan functions, in particular business functions. The following metropolitan functions should be developed (KUĆ-CZAJKOWSKA 2009, pp. 78–89):

- business hubs,
- business space (office, storage, retail space),
- science, training and educational centers (research and development centers, specialist training centers, science parks, congress centers, universities offering international study programs),
- transportation hubs (expansion of freeway systems, high-speed rail systems, international airports operating direct and frequent flights to major cities in Europe and in the world).

Disparities in development levels are often noted in the same region, where different counties and municipalities lag behind in respect of their exogenous functions. Metropolitan areas should be characterized by sufficient availability of services that complement the metropolitan functions of the urban core. Polish metropolitan areas still have a lot of catching up to do in this respect.

The difficulties associated with the identification of metropolitan areas lead directly to management problems. Metropolitan areas are not managed by territorial self-governments. The responsibility for managing large cities and their suburbia divided among municipalities (which are burdened with most functions), regions and, least of all, counties (NOWAK 2010, p. 18). Municipalities have to cooperate and develop common policies in order to effectively manage metropolitan areas. This process is exacerbated by globalization, it involves many public institutions and, increasingly often, nonpublic entities. The key problems in metropolitan management stem from the diversity of entities, their various tasks, goals and conflicts of interest. Effective management requires coordination of all functions at the metropolitan level, which remains problematic in Poland. Metropolitan functions are managed at the local level, which does not always contribute to the achievement of shared goals at the metropolitan level. Constituent municipalities may have mutually exclusive goals that are not consistent with the metropolitan management concept. There are no institutions responsible for identifying metropolitan areas, developing, coordinating and monitoring metropolitan strategies, and motivating municipalities to cooperate rather than compete. The Metropolitan Area Coordination Team was created in 2007. Municipalities were advised to create task-oriented municipal unions for pursuing common goals. Unfortunately, Polish municipalities have a strictly competition-oriented approach (by

competing for investors, tourists, etc.), and they fail to recognize the benefits of cooperation within the metropolitan area. The term „metropolitan problem” often appears in the literature, and it refers to organizational and functional issues that are encountered in metropolitan areas due to conflicting interests of public and private institutions (LACKOWSKA 2008, p. 6).

The debate on creating a legal framework for metropolitan areas continues in Poland. Experts differ in their opinions and cite various international experiences. Metropolitan areas with urban cores in Toronto, Winnipeg and Montreal were created in Canada after World War II. They were quickly dissolved due to numerous conflicts. The Metropolitan Corporation of Barcelona was also disbanded. In Germany, only several regions decided to create a legal framework for metropolitan areas. The best metropolitan management practices can be found in Hannover and Stuttgart. The Portland Metropolitan Area, popularly referred to as the Metro, is the only directly elected metropolitan planning organization in the United States (LACKOWSKA 2010, pp. 5–8). Examples of good metropolitan management practices can also be found in London where the Metropolitan Board of Works, a principal instrument of London-wide government, was created already in 1833. The Government Office for London, an administrative agency representing the Greater London Authority (GLA), was established in 1986. The GLA, which consists of the Mayor of London and an elected 25-member London Assembly, is responsible for public transport, local development, planning, waste management, environmental protection and culture in the metropolitan area. Its decisions are open to public consultation. Despite much success, the GLA has been criticized for focusing on the needs of London rather than the entire metropolitan area (GAWŁOWSKI 2014, pp. 18–29).

Metropolitan management and coordination of policies in constituent municipalities pose numerous problems not only in Poland. Those difficulties are barriers to metropolitan development around the globe. Nonetheless, the future belongs to metropolitan governments, units of territorial administration that can effectively mobilize human and material resources and increase the region’s competitive advantage in an era of economic globalization (JAŁOWIECKI 2002, p. 225). This is a difficult challenge because effective and easy to implement methods of metropolitan management have not yet been developed by any country. The discrepancy between local and metropolitan functions often poses a barrier to the development of metropolitan management methods. Social, economic and planning issues and their mutual interactions give rise to conflicts of interest (DOLNICKI 2014, p. 6). Public tasks where voluntary cooperation would suffice as well as projects that require the supervision of metropolitan authorities should be clearly identified. Relatively flexible management methods are preferred.

Public transport is also a pressing issue in Polish metropolitan areas. Poland lags behind other European countries in terms of both domestic and international transportation. There is a scarcity of public funds for the development of world-class transport infrastructure. Transportation and easy access to metropolitan areas are the prerequisites for growth, and metropolitan functions will not be sufficiently developed unless progress is made in this area. Development of a metropolis depends on its position in the network of metropolitan links. A world network of cities functions globally (with centres in New York, Tokyo or London). Polish cities are slightly outside of this network on account of a weakly developed network of transport connections. The junctions in this network are large cities which connect the domestic economic environment with the global economy. Determination of large cities as a complementary network and separation of world cities from this group is attributed to J. FRIEDMAN (1986), who formulated the „World City Hypothesis”, relying on the following premises:

- the form and the scope of integration of a city with the world economy and functions ascribed to the city within the scope of global division of work determine structural changes occurring in the city;
- cities are used by trans-national capital as basic junctions for spatial organization of production and as outlet markets. The capital is concentrated primarily in world cities. The resulting network of connections leads to the shaping of a hierarchical network of world cities;
- world cities are the destination of international and domestic migration (SMĘTKOWSKI et al. 2001, p. 87).

Subsequently, the concept of a global city has been developed, whose originator, S. Sassen (1991), drew attention to cities as:

- decision-making centres of world economy;
- most important locations of companies;
- leading locations of innovations;
- outlet markets for the most modern products and innovations (SMĘTKOWSKI et al. 2001, p. 88).

It is also worth paying attention to the theory of a global city by M. CASTELLS (1998). This is a theory of the „space of flows”; this new space consists of the following layers according to the author (CASTELLS 1998, p. 412–416):

1. Technical layer: network of flows of electronic impulses (the structure of the space of flows is not determined by places, but by the network of mutual connections);
2. Spatial layer: junctions of flows (the world network of cities has a hierarchical character – some of the junctions are superior and others only organize the local environment);

3. Social layer: spatial organization of elites managing the network (development of a metropolitan class, which influences the processes that shape the economy, the society and the space).

The basis of this theory is an assumption that the society is focused around flows of capital, information, technology, flows organizing interactions, flows of images, sounds and symbols. The space of flows replaces or absorbs the hitherto traditional space of places.

Referring to Castells' theory, it is necessary to note that Polish cities are only at the stage of being included in the world network of metropolitan links; none of them has and none of them is going to have a superior position in the spatial layer in the near future; due to the low position of Polish metropolises in the network of global links, there are no representatives of elites that manage such a network in Poland. The highest position in the network of metropolitan links is occupied by Warsaw. Next to the capital, such cities as Poznań, the Tri-city, Cracow and Wrocław are frequently listed.

Other problems faced by metropolitan areas include growing levels of environmental degradation, decreasing quality of life, fast-paced and stressful lifestyle, communication noise, traffic congestion, social inequality, loneliness and anonymity of big city residents. Those issues are a direct consequence of high population density, and they contribute to social and psychological problems.

The urban cores of metropolitan areas are strategically obliged to share the profits stemming from their rapid growth with the surrounding areas. This is a developmental challenge that creates social conflict. Smaller cities and towns in a metropolitan area should draft their own development strategies that are internally cohesive and constitute an integral part of the metropolitan strategy. They should be able to take advantage of the urban core's potential. Unfortunately, Polish towns and municipalities choose to compete rather than follow a shared path towards socioeconomic development. A metropolitan area should have a single development strategy that encourages all constituent units to cooperate and generate mutual benefits. According to popular belief, however, metropolitan municipalities profit from their location but generate only losses for the urban core. Effective cooperation in a metropolitan area is determined by numerous factors, including (GROCHOWSKI 2010, p. 30):

- clear division of tasks and a legible mechanism of planning and managing development,
- common goals and interests shared by municipalities and other entities,
- strong leadership, clear development goals and effective management,
- positive experience of working with municipalities,
- political role of cooperation, ability to reach common ground and develop shared solutions,

- abandoning municipal goals in the common interest of the metropolitan area,
- special mechanism of financing operations in metropolitan areas,
- legal incentives, such as additional powers for the most cooperating municipalities.

Urban cores can hamper the development of hinterland regions by importing qualified employees from less developed peripheral municipalities. This phenomenon has been termed as the „backwash effect” by Myrdal or as the „polarization effect” by Hirschmann (KISIAŁA, STĘPIŃSKI 2013, p. 30). Urban cores can promote the growth of metropolitan areas and the entire economy only when their wealth spills over to the surrounding communities and creates new opportunities in those localities („spread effect” in Myrdal’s theory and „infiltration” in Hirschmann’s theory).

According to the literature, metropolitan areas are fraught with many other problems that stall their development. They include (HERBST 2010, p. 48):

1. Local vision and strategy frequently change when new authorities are elected;
2. The citizens, rather than institutions, potential for development remains untapped;
3. The role played by culture, multiculturalism and competitive education in development is underestimated;
4. Uncontrolled development and lack of sustainable planning regulations pose numerous threats:
  - chaotic development due to weakly coordinated planning measures,
  - dominant status of private property and weak status of common areas,
  - lack of reference models and good practices relating to urban life,
  - scarcity of funding for the construction of transport routes, road networks and local streets;
5. The knowledge of social problems in metropolitan areas and the regional labor market remains limited.

Citizens should play an active part in the process of drafting a metropolitan area’s development strategy. Social debates addressing metropolitan problems could point to new directions for change and local growth. Various instruments can be deployed in the process of managing a metropolitan area, including civic partnerships, business partnerships, partnerships with investors (public-private) and financial institutions (HERBST 2010, p. 50). Positive examples of public-private partnerships include Fraport, the owner of the Frankfurt airport, which actively participated in the process of promoting the Frankfurt/Rhein-Main Region as an attractive international destination, or BASF which lobbied for an institutional reform in the Rhein-Neckar Region (LACKOWSKA 2010, p. 30).

Polish metropolitan areas are also weakly linked to the global network of big cities. Warsaw is the only Polish city with fully developed metropolitan functions. Other leading cities are metropolises with a domestic impact, and they do not play important roles in the global economy. The ESPON project 1.4.3 Study on Urban Functions identified Functional Urban Areas (FUA) and Metropolitan European Growth Areas (MEGA). Warsaw was classified as the only prospective European metropolis in Poland. Seven urban agglomerations of Cracow, Katowice, the Tricity, Poznań, Wrocław, Łódź and Szczecin were identified as weakly developed metropolises (*Koncepcja przestrzennego...* 2011, p. 67). The remaining metropolitan areas were not included in the classification. Warsaw ranks relatively low in European classification systems, and it is regarded as a city with weakly developed metropolitan services and international functions, as well as low levels of accessibility. Metropolitan functions include industry, services and higher-order services such as education and science with at least a domestic impact, but mostly a supranational reach. Metropolitan functions in the domestic, supranational, European and global arena should be performed by the entire metropolitan area, and not only its urban center. In the global network, Warsaw is only a prospective European metropolitan area. Its advantage over other Polish metropolises can be attributed to its status of Poland's capital city which contributes to the development of metropolitan functions. The Union of Polish Metropolises was founded in Cracow on 11 October 1990 with the aim of developing a network of connections between former Soviet block cities and urban centers in Western Europe and the world. The Union brings together Poland's 12 largest cities which are also members of the Eurocities network. The representatives of the Union of Polish Metropolises are also members of the European Union's Committee of the Regions.

According to the GaWC (Globalization and World Cities) classification, there are over 120 world cities with the rank of global metropolises around the world. This classification differentiates four categories of world cities: alpha (leading), beta (major), gamma (secondary) and D – developing world cities. The alpha (leading) category includes London, Paris, New York, Tokyo, Chicago, Milan and Los Angeles. The beta category encompasses San Francisco, Sydney, Toronto, Madrid, Mexico, Moscow, Seoul and Brussels. The gamma (secondary) category includes, for example, Amsterdam, Boston, Prague, Johannesburg, WARSAW, Stockholm, Copenhagen and Istanbul. In 2008, the GaWC classification was extended onto new categories. The classification of world cities from 2008 differentiates the following categories: alpha++, alpha+, alpha, alpha- (leading cities), beta+, beta, beta- (major cities), gamma+, gamma, gamma- (secondary cities) and so-called high sufficiency (highly sufficient cities – satisfactory) and so-called sufficiency (sufficient cities – satisfactory). The entire classification encompasses 207 cities which can be

called world cities. It is worth paying attention to the fact that the sufficiency category includes such cities as Torino, Strasbourg, Cracow, Belfast, Reykjavik, Dresden and Seville. According to the GaWC classification, only Warsaw and Cracow are noticed in the global network of metropolitan links.

It is worth emphasizing the fact that the functioning of a city in a global space of flows leads to partial independence from the local environment. In Poland, no intense weakening of regional links has been observed so far. The role of the region would be limited to performing residential and recreational functions for the inhabitants of a metropolis.

This article highlights only selected barriers to the development of Polish metropolitan areas. An in-depth analysis of other functional areas in urban agglomerations would undoubtedly reveal more obstacles. Elimination of those barriers would promote economic growth in regions and increase their competitive advantage. Integration of metropolitan functions in an urban agglomeration could generate the following benefits (SMĘTKOWSKI et al. 2009, p. 72):

- economies of scale due to an increase in market size,
- greater specialization of growth centers in metropolitan areas, which would increase the complementarity of metropolitan areas and contribute to economic diversification,
- improved efficiency of projects initiated by local authorities,
- reduced environmental pollution due to greater availability of public transport and less private-vehicle commuting,
- reduced unemployment in hinterland through the creation of alternative employment opportunities for farmers,
- improved quality of and access to public services.

The authorities and urban planning experts should search for new ways of overcoming barriers to development and reinforcing the status of Polish metropolitan areas in the global network. Metropolitan areas should be regarded as growth poles whose development will trigger economic growth in the entire country.

## Conclusions

The aim of the article was to identify the main barriers to the development of metropolitan areas in Poland. Various definitions of a metropolitan area were reviewed. The population criterion differed across definitions, ranging from 500,000 to 1 million. Those discrepancies create problems already at the stage of identifying and delimiting metropolitan areas in Poland and in other countries. The number of metropolitan areas has been defined at 12 or only nine, depending on the report and the adopted statistical method. According to European reports, Warsaw is the only metropolitan area or, rather, a prospec-

tive metropolitan area with weakly developed metropolitan functions in comparison with European urban centers. The Polish definition of a metropolitan area should be updated and harmonized to minimize ambiguity in the delimitation process.

There is a general scarcity of effective metropolitan management models in Poland and in other countries. Polish urban planners are searching for new methods of managing metropolitan areas. One of the proposed solutions relies on the concept of metropolitan counties that would assume selected responsibilities at the local and supra-local level that are vital for the development of the entire metropolitan area. The management structure of a metropolitan area is vague, and the division of powers and responsibilities is unclear. The goals and functions of municipalities and institutions in a metropolitan area are not mutually complementary or cohesive. Polish municipalities choose to compete rather than cooperate, which probably poses the greatest obstacle to the development of metropolitan areas.

Metropolitan functions are weakly developed in Polish urban agglomerations, mainly because the existing transportation networks and transport infrastructure do not meet modern standards and current needs. By definition, metropolitan areas should be strongly connected to the global network. Deficient transportation systems and infrastructure hamper the development of metropolitan areas in Poland and prevent them from becoming a stable element of the global network. Freeway networks and air links to cities around the world should be expanded to enhance the metropolitan functions of Polish urban agglomerations.

In Poland, metropolitan areas exert a negative impact on the surrounding zones, which can be partly attributed to the absence of comprehensive management solutions covering the entire urban agglomeration. Urban cores attract investors, inhabitants and labor, and they are able to develop rapidly at the expense of contiguous municipalities. Big cities are reluctant to share the resulting profits with the remaining members of the metropolitan area. This discourages hinterland municipalities from collaborating with the metropolis.

Knowledge about the challenges faced by metropolises and the methods for approaching those problems is insufficient. The citizens' (rather than institutions') potential for solving those issues remains untapped. Maintenance of spatial cohesion is not regarded as an important goal in the rapid urbanization process. As a result, urban development is often chaotic and lacks a shared vision. Environmental degradation resulting from high density of business and other entities that serve the same area, as well as the ensuing social problems are also frequently disregarded aspects of metropolitan development.

## References

- DOLNICKI B. 2014. *Koncepcja powiatu metropolitalnego*. Samorząd Terytorialny, 7–8.
- GAWŁOWSKI R. 2014. *Metropolia londyńska – rozwiązania prawne i praktyka*. Samorząd Terytorialny, 7–8.
- GORZELAK G., SMETKOWSKI M. 2005. *Metropolia i jej region w gospodarce informacyjnej*. Scholar, Warszawa.
- GROCHOWSKI M. 2010. *Samorząd na obszarach metropolitalnych*. Samorząd Terytorialny, 6.
- HERBST K. 2010. *Problemy strategii w rozwoju metropolitalnym*. Samorząd Terytorialny, 6.
- IZDEBSKI H. 2010. *Zadania metropolitalne i instytucjonalne sposoby ich realizacji*. Samorząd Terytorialny, 6.
- JAŁOWIECKI B. 2002. *Zarządzanie rozwojem aglomeracji miejskich*. Wydawnictwo Wyższej Szkoły Finansów i Zarządzania, Białystok.
- KISIAŁA W., STĘPIŃSKI B. 2013. *Rola obszarów metropolitalnych w rozwoju regionalnym w opinii władz samorządowych*. Samorząd Terytorialny, 10.
- Koncepcja przestrzennego zagospodarowania kraju 2030*. 2011. Ministerstwo Rozwoju Regionalnego, Warszawa.
- KUĆ-CZAJKOWSKA K. 2009. *Funkcje metropolitalne Warszawy, Pragi i Budapesztu*. Studia Regionalne i Lokalne, 1(35).
- LACKOWSKA M. 2008. *Zarządzanie metropolitalne – spojrzenie teoretyczne*. Samorząd Terytorialny, 9.
- LACKOWSKA M. 2010. *Nowe interpretacje teoretyczne polityki wiekowiejskiej*. Studia Regionalne i Lokalne, 2(40).
- MARKOWSKI T., MARSZAŁ T. 2006. *Metropolie. Obszary metropolitalne. Metropolizacja. Problemy i pojęcia podstawowe*. KPZK PAN, Warszawa.
- MŁODAK A. 2012. *Statystyka metropolii polskich – problemy i perspektywy*. Studia Regionalne i Lokalne, 2(48).
- NOWAK M. 2010. *Polskie obszary metropolitalne – problemy definicyjne*. Samorząd Terytorialny, 3.
- SMETKOWSKI M., JAŁOWIECKI B., GORZELAK G. 2009. *Obszary metropolitalne w Polsce*. Studia Regionalne i Lokalne, 1(35).