

The Influence of a Metropolis on Regional Development in Poland

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Introduction

A settlement net in Poland, in a part concerning big cities, is characterized by a feature, which is called polycentrism. The polycentrism is a concentration of a population and social and economic life in many cities. Bigger cities, developing simultaneously, do not grow to the too large scale. At the same time, developing, they stimulate the development of the regions, whose capitals they are. Currently, 8 cities in Poland have the population of more than 500 000. In 12 out of 16 regions, there are cities or complexes of cities that are or can be metropolitan cities. It is expected that in the future, in 10 – 15 years, there can be more of such cities or complexes of cities. It can be stated that the influence of a phenomenon of metropolisation of cities plays, and will increasingly play, an important part in regional development in Poland. At the same time, the fact is that in the current period of programming within the framework of European Union to year 2006, and in the future period of programming for years 2007 – 2013, the whole country, including all regions in Poland, is and will be a beneficiary of help from the structural funds. This help reaches also cities and complexes of cities with metropolitan functions. Metropolitan territories in Poland, in a number of 12, concentrate more than 41% of population in the country and occupy 15% of the area of the country. At the same time more than 2/3 of help from EU structural funds lands in these cities. Thanks to this help, the regions where the metropolises are situated achieve higher rates of convergence. Thus, due to metropolisation, an accelerated regional development follows. Thereby, it influences the faster development of the whole country.

Three issues will be discussed in this paper. The first issue concerns the description of plans or conceptions of spatial development of the country. Within the scope of these plans and conceptions the problems of metropolises have been also included. For the concise description of this issue, the presentation will be limited to the last 30 years. In this period plans and conceptions concerning the problems of metropolises have been created.

The second problem concerns presentation of such phenomena, which influencing the cities` development, triggered an increase of the process of metropolisation. The cities developing are gradually becoming metropolises. Simultaneously, in the development they use increasingly global phenomena. That is why they develop not through a colonization of occupied neighbouring areas, but through an interception of benefits from the global scale.

The third issue discussed is an attempt of explaining in what degree current and future EU policy of uniformity, through support of metropolises, can also cause faster regional development.

Summing up, on the base of these problems discussed, the significance of metropolises in the regional development of Poland will be presented.

1. Concepts of development of metropolitan areas in Poland

Big cities constitute in all countries the most important element of the concept of area development. Also in Poland, since more than 30 years ago, the problems of metropolises have been introduced to the studies connected with the planning of area development of the country. The way of presenting the metropolitan problems will be discussed on the basis of three examples of plans (concepts) of spatial development of the country. They were named conventionally: Poland 1990, Poland 2000 and Poland 2000+. In the studies, called plans or conceptsⁱ, connected with spatial development of the country, the discussed problems of metropolises, started to be taken into consideration already in the seventies. In the plan of 1966 till the year 1985, the seven biggest cities were presented as urban agglomerations. According to the then terminology a term agglomeration can be acknowledged as an equivalent of the term metropolis. It was accepted that urban agglomerations were the cities or complexes of the cities with the population above 500 000 inhabitants.

In a 1976 plan of spatial development of the country, in short - Poland 1990, encompassing the period to 1990, it was assumed that the settlement system of the country comprises 18 urban agglomerations and 33 country development centers. Among these 18 urban agglomerations, 9 were distinguished as the developed urban agglomerations and 9 as the developing urban agglomerations. The complexes of the cities and the cities with the population above 500.000 inhabitants were recognized as the developed urban agglomerations. Whereas the developing urban agglomerations are the cities and complexes of the cities with the population above 200.000.

In the long-term concept of spatial development of the country from the eighties, encompassing a period to the year 2000, in short – Poland 2000, 18 urban agglomerations were also assumed as the basis of this idea. There were distinguished 9 urban agglomerations as having favourable conditions for faster development.

In the current concept of spatial development effective from the year 2000, shortly Poland 2000+, distinguished were:

1. Capital metropolis – Warsaw,
2. European centers of polarization of the I category: Cracow, Poznan and Gdansk,
3. European centers of polarization of the II category: Katowice, Wroclaw, Lodz and Szczecin,
4. Potential European centers of polarization: Bydgoszcz, Lublin, Bialystok and Rzeszow.

Together they comprise 12 city complexes and the cities, which were accepted as the metropolitan cities. The cities are surrounded by metropolitan areas.

In accordance with the binding act on spatial planning development, in concepts of spatial development of the country, it is defined which cities perform the metropolitan functions. For these cities, within the framework of prepared plans of spatial development of the regionsⁱⁱ, metropolitan areas are marked out. For the metropolitan areas plans of spatial development are being worked out as a component of an appropriate plan of spatial development of the region. Currently, in Poland there are being prepared plans of spatial development for several metropolitan regions. The first such developed plan was a plan of metropolitan area of Poznan.

2. Factors influencing metropolitan areas development.

A location of the cities in Poland bears the features of polycentrism. They are located more or less evenly on the territory of the whole country. In the last years, numerical changes in cities are insignificant. There is not a one dominating city in Poland. Just 18 cities have

more than 200.000 citizens, and 8 among them have more than 500.000 citizens. In the picture 2 there is presented a location of all the cities ⁱⁱⁱ in Poland.

In respective 10-year periods, the increase of population in cities is as shown:

- in years 1951 – 1960: 5.1 million people
- in years 1961 – 1970: 2.7 million people
- in years 1971 – 1980: 3.8 million people
- in years 1981 – 1990: 2.6 million people
- in years 1991 – 2000: 0.2 million people
- after year 2000 the number of city population decreased.

In years 1951 – 2000 a quantitative upward trend of cities occurred. After 1990, and especially after 2000, a trend towards stabilization and subsequently a downward trend of the size of cities were revealed. At the same time the process of metropolisation began. An incoming population settled outside the cities, mainly in the rural areas around the big cities. In this way the metropolitan areas around big cities come into being. The population of metropolitan cities does not increase. On the other hand, through the influx, the population in metropolitan areas increases. The changes of population in cities in Poland in years 1951 – 2005 are presented in the table 1.

Twentieth century urban ideas, such as functionalism, modernism and socialist realism, introduced a separation of urban functions in planning of the development of the cities. As the consequence of this separation, monofunctional quarters in the cities came into existence. Because of that the area occupied by urban buildings increased. It also evoked a need for development of city transport. These ideas have been currently abandoned. In EU countries, in a similar way as in Poland, they have been replaced by the idea of “balanced development”. This rule applies to joining together many functions at the same city quarter.

The development of the cities is influenced by a phenomenon of globalization and its derivative, which is a feature of metropolisation of settlement. The phenomenon of globalization exerts an influence on the development of the cities. The cities which are influenced by globalization are transforming into metropolises. Metropolitan cities are the participants or the actors of the globalization process. On the global scale they are world metropolises. On the scale of Europe they are europolises or the cities with accumulated European functions. Further, they are eurocities or cities having specified European functions. There are technopolises as well – cities creating progress on the European scale. These four types (kinds) of cities, if they achieve a significant scale or if they directly subordinate certain area to themselves, can be accepted as metropolitan cities. Subordinate territories are accepted as metropolitan areas. In Europe there are not explicit criteria of acceptance of cities as metropolitan cities. There also do not exist any criteria for isolating of metropolitan areas. For defining a net of metropolitan cities and their areas domestic criteria are used. It is only acknowledged that the city itself or the whole metropolitan area should have more than 0.5 million inhabitants. In such areas occur everyday bonds, mainly commuting to work, education and services. Whereas the range of the area is marked out on the basis of borders of administrative divisions, mainly communes.

Currently in Poland, the level of areas development is dependent on a level of metropolization. In the table 2 the order of regions was presented according to GDP/1 inhabitant. At the same time, the position which metropolitan areas take according to the size of population was given. At the beginning of the table there are nine regions, the capitals of which are the cities having metropolitan functions developed. The rest of regions are situated in the neighbourhood of metropolitan cities or they are inclined to intensive development of metropolitan functions. Out of 16 regions, 12 have or will have developed metropolitan functions. The rest four regions will use for their development metropolitan functions from the cities situated in the neighboring regions. Thus, a drive towards a situation when a territory of

the whole country would be under the influence of cities with metropolitan functions is natural.

There are a number of factors that influence the phenomenon of metropolization in Poland. A stabilization of economy was followed by the decrease of inflation from about 600% in 1989 to below 1% nowadays. A share of people working in services increased from 35% to 56%. The Internet was popularized. The number of schools offering higher education increased radically. They are concentrated in metropolitan cities. The location of the institutions of higher education is presented in picture 3.

Metropolitan cities function in global economy not in regional economy. For their development they use the connections with the global economy. Simultaneously, being a part of the region, they supply the regional development from the global economy. Thus, their important part in regional development as a place "clasping" a given region with global economy. The occurring connections between the development of metropolitan area and the development of the surrounding region get weaker. That is why a region gradually plays a smaller part in the development of the metropolitan city itself, while the importance of a metropolitan city in a given region increases. A metropolis in its development "feeds" on cooperation with other metropolises by means of global economy. A region supplies the development of the metropolis with only basic resources. Whereas a global surrounding supplies the metropolis development with complex resources. In this way, indirectly, supplies the region with these resources. So in circumstances of growing globalization as a process, the meaning of metropolis in the regional development is growing as well. There is a triad expressing itself by interdependence of three processes: globalization, metropolization and regional development.

3. The European Union policy of uniformity and metropolitan areas.

The EU policy of uniformity referred to Poland for years 2007 – 2013, concerns support that serves for:

- fuller use for the development of endogenous potential of the biggest cities,
- faster development of eastern regions,
- help in the renovation of the cities (revitalization) and finding new functions for post-industrial regions,
- assuring safety for endangered regions,
- developing of frontier regions.

Bigger cities, including metropolitan areas participate in all these kinds of support. Resources from the EU structural funds are directed mainly to them. Due to this, the development of metropolitan functions of the cities will follow. The infrastructure will be extended, inside as well as outside metropolises. The support will be granted to both, human resources and entrepreneurship.

EU strategic guidelines for the period of 2007 – 2013, concerning the policy of uniformity, supporting employment, innovations and infrastructure, realize the support through territorial dimension. It means that cities, including big cities, are able to contribute the biggest share to the fulfillment of these guidelines. Big cities have bigger absorptive capabilities of structural funds than other parts of the regions situated outside the metropolitan areas.

Polish metropolitan areas, from the point of view of EU policy of uniformity, can be characterized in the following way. Seven of them are metropolitan regions, which do not ignite any controversies as far as their recognition as metropolitan areas is concerned. Katowice, Warsaw, Lodz, Cracow, Wroclaw, Poznan and Gdansk belong to this group. Two other: Szczecin and Bydgoszcz – Torun, are metropolitan areas about which there exist some objections. The objections are caused by too small intensity of use of metropolitan region. Together, in Poland there are nine areas acknowledged as the developed metropolitan areas. Moreover, within the framework of the policy of uniformity, three potential

metropolitan regions apply for support. These are, situated in eastern Poland, Lublin, Bialystok and Rzeszow. Altogether there are 12 Polish metropolises. In the table 3 a typology of metropolitan areas in Poland is presented. In table 4 there are given the basic data characterizing metropolitan areas in Poland.

Independently from these 12 metropolitan areas, which made an effort of an active participation in the created foundation named *The Union of Polish Metropolises*, it is being postulated for the establishment of three additional metropolitan areas, namely, Czestochowa, Kielce and Olsztyn. These areas, in the future, with some beneficial activities for their sake, can meet the minimal requirements to be counted as metropolises, with the population number of 500 000 in the metropolitan area. In picture 4, the location of metropolitan areas is presented. All metropolitan areas are connected with transeuropean communication nets TEN-T, railway and road net and are being served by the net of EU category airports.

Conclusions

From the above characteristics of the influence of metropolises (the cities and areas) on the regional development in Poland the following conclusions can be drawn:

- the settlement net is characterized by two main features, such as polycentrism and metropolisation,
- already in the seventies the phenomenon of metropolisation was taken into consideration, which was expressed by the acknowledgement of metropolises in the successively worked out national plans (Poland 1990, Poland 2000, Poland 2000+),
- there is a trend towards expanding of metropolitan city categories to all the regions in the country, through the increase of types and reducing the criteria that qualify the cities as metropolises,
- metropolises raise the sucking effect of development factors to the regions of the world economy, not the effect of sucking out of the same factors from their region,
- the effect causes that the metropolises are an abstract ingredient of each region, what influences the constant tendency to promote them,
- the policy of uniformity, led by the European Union, is conducive to the development of metropolitan cities, especially the cities situated in the regions with a lower level of development.

Table 1. Changes in Population in Poland in the years 1951 – 2005

Years	State (on the initial date)	Increase
1951-1955	9.2	2.8
1956-1960	12.1	2.3
1961-1965	14.4	1.3
1966-1970	15.7	1.4
1971-1975	17.1	1.9
1976-1980	19.0	1.9
1981-1985	21.0	1.5
1986-1990	22.5	1.1
1991-1995	23.5	0.4
1996-2000	23.9	-0.2
2001-2005	23.7	-0.3
2005	23.4	-
1951-2005	-	11.4

Source: Own calculation on the basis of Central Statistical Office data.

Table 2. Diversification of GDP/ 1 inhabitant in Poland according to regions in 2003 (Poland=100), and the localization of the metropolitan areas

No.	Region	GDP/1 inhabitant Poland=100	Metropolitan areas (no. refers to the order according to their size)
1.	Mazowiecki	153.2	(2.) Warszawa
2.	Slaski	111.0	(1.) Katowice
3.	Wielkopolski	104.2	(7.) Poznan
4.	Dolnoslaski	102.9	(5.) Wroclaw
5.	Pomorski	98.0	(4.) Gdansk
6.	Zachodniopomorski	95.3	(9.) Szczecin
7.	Lodzki	91.3	(6.) Lodz
8.	Kujawsko-Pomorski	89.7	(8.) Bydgoszcz-Torun
9.	Malopolski	86.7	(3.) Krakow
10.	Lubuski	86.1	- no metropolis
11.	Opolski	80.4	- no metropolis
12.	Swietokrzyski	79.1	- no metropolis
13.	Warminsko-Mazurski	77.2	- no metropolis
14.	Podlaski	75.4	(12.) Bialystok – potential metropolis
15.	Podkarpacki	72.2	(11.) Rzeszow – potential metropolis
16.	Lubelski	70.3	(10.) Lublin – potential metropolis

Source: Own preparation on the basis of Central Statistical Office data.

Table 3. Typology of metropolitan areas in Poland (according to size)

Type of Metropolitan Area	No.	Name of the Metropolitan Area	Name of the Region
A. developed metropolitan area a) no objections	1.	Katowice	Slaski
	2.	Warszawa	Mazowiecki
	3.	Krakow	Malopolski
	4.	Gdansk	Pomorski
	5.	Wroclaw	Dolnoslaski
	6.	Lodz	Lodzki
	7.	Poznan	Wielkopolski
	8.	Bydgoszcz-Torun	Kujawsko-Pomorski
	9.	Szczecin	Zachodniopomorski
B. potential metropolitan area	10.	Lublin	Lubelski
	11.	Rzeszow	Podkarpacki
	12.	Bialystok	Podlaski
C. proposed metropolitan area	13.	Czestochowa	Slaski
	14.	Kielce	Swietokrzyski
	15.	Olsztyn	Warminsko-Mazurski

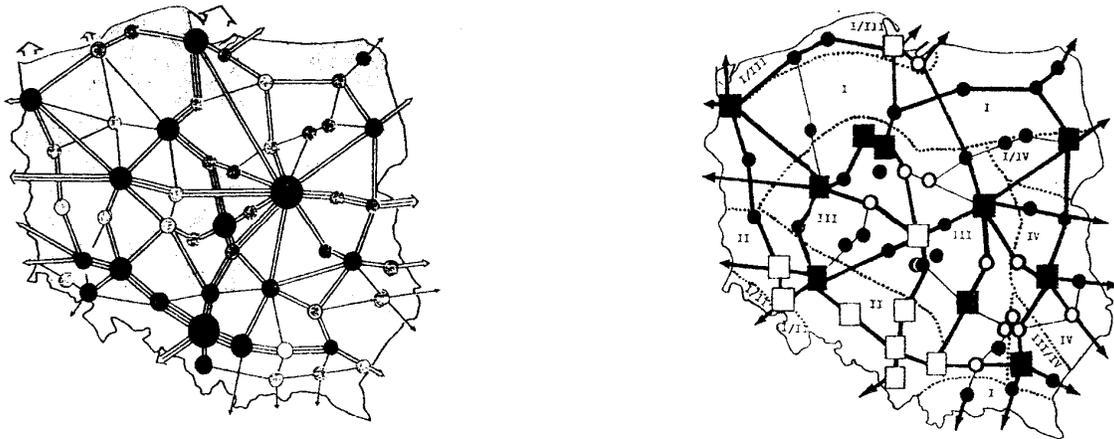
Source: Own preparation

Table 4. Basic data concerning metropolitan areas in Poland

No.	Metropolitan Area	Population in thousands in 2004	Area in km²	Density people/km²	Share of the central city in the area population
1.	Katowice	2 886.7	5 578	518	11.2
2.	Warszawa	2 761.8	6 100	453	61.2
3.	Krakow	1 961.2	6 425	305	38.6
4.	Gdansk	1 226.8	4 839	254	37.6
5.	Wroclaw	1 164.6	6 725	173	54.7
6.	Lodz	1 152.8	2 497	462	67.6
7.	Poznan	1 102.6	5 192	212	52.1
8.	Bydgoszcz-Torun	755.3	2 915	259	49.0
9.	Szczecin Lublin	725.0	5 654	128	57.1
10.	Rzeszow	715.3	4 220	170	49.9
11.	Bialystok	602.2	3 551	170	26.4
12.		548.5	4 461		53.2
	Total	15 602.8	58 157	268	-

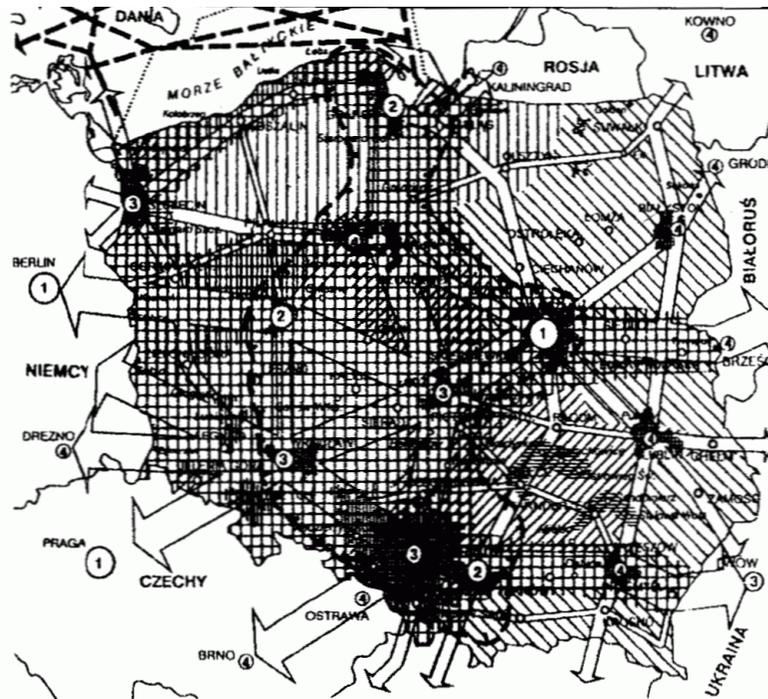
Source: Data of the Union of Polish Metropolises

Fig.1. City agglomerations and metropolitan cities in the concepts (plans) of the spatial development of the country



a) Poland 1990
 City agglomerations:
 ● - Developed
 ○ - Developing

b) Poland 2000
 City agglomerations:
 ■ □

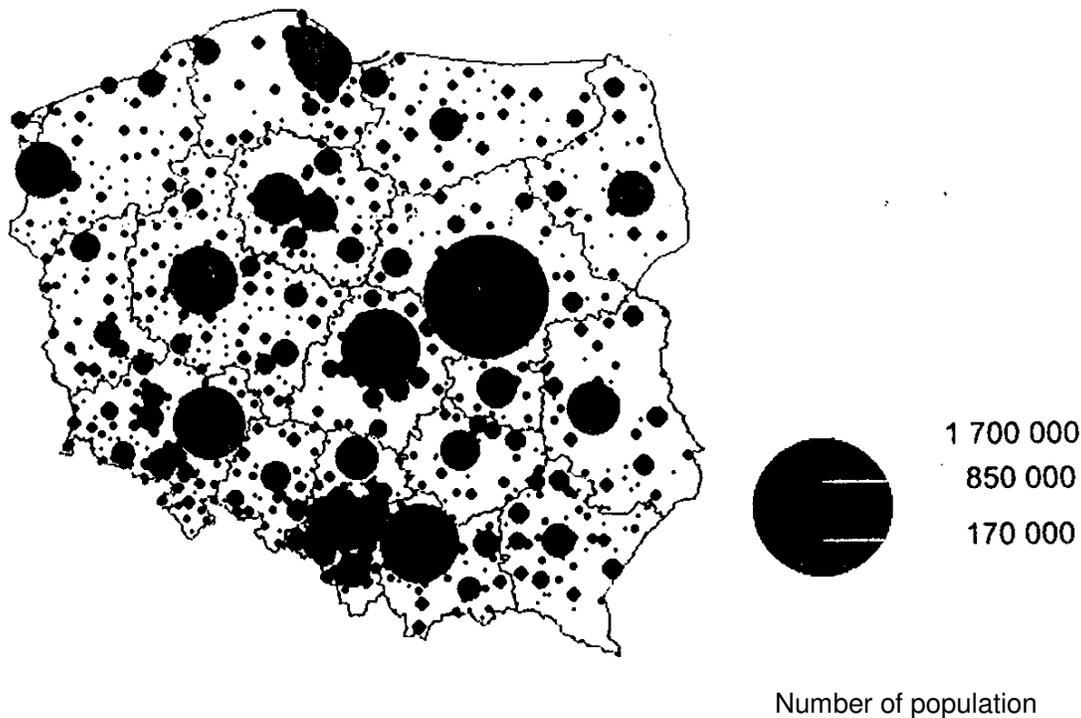


c) Poland 2000+

1. Capital metropolis European centers of polarization:
2. I category,
3. II category.
4. Potential European centers of polarization.

Source: On the base of: Poland 1990, Poland 2000 and Poland 2000+.

Fig.2. Cities in Poland (2002)



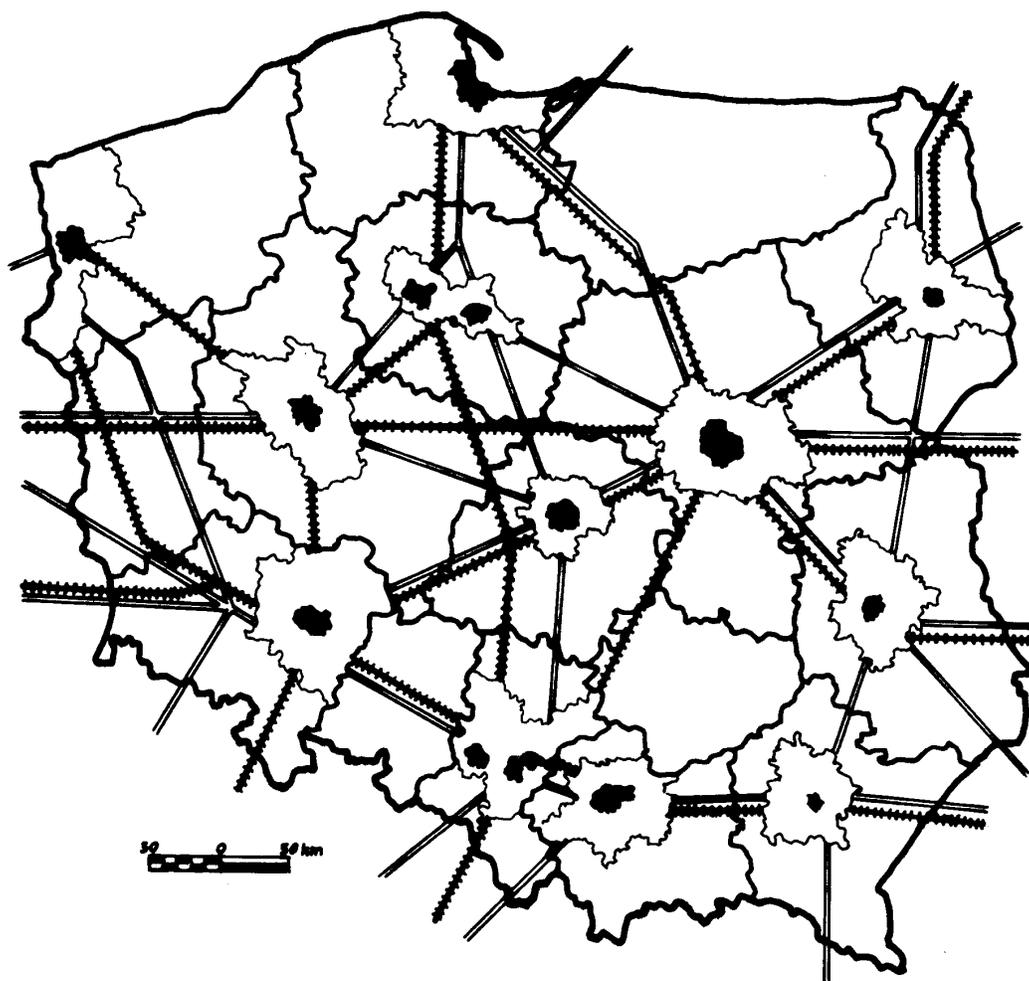
Source: Prepared on the basis of Central Statistical Office data.

Fig. 3. Higher Education Institutions in Poland (2003)



Source: Prepared on the basis of Central Statistical Office data.

Fig. 4. Metropolitan Areas in Poland



Borders of:

- Regions,
- Metropolitan areas,
- Metropolitan cities.

TEN – T network:

- railway,
- roads.

Source: The Union of Polish Metropolises

ⁱ The terms plan and concept are treated as equivalents.

ⁱⁱ They match the level NUTS 2 and are named “province/voivodship”.

ⁱⁱⁱ A city in Poland has the status of a commune. Communes are urban and rural. Granting of a commune status, including the urban status, is in the capacity of the state government.