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**Delimitation Problems of Urban Agglomerations in Poland
and in Other Countries**

Delimitacyjne problemy światowych i polskich aglomeracji miejskich

Проблемы выделения мировых и польских городских агломераций

THE CONCEPT OF URBAN AGGLOMERATION

The concept of "urban agglomeration" has a wide and often controversial meaning.¹ In the world literature on this subject one may encounter quite varied opinions about this notion. The differences concern the very definition of an agglomeration, the name, and methods of separating it from the overall urban settlement system. Research and international conferences organized by the appropriate agencies of the United Nations have greatly contributed to a unification of the basic concepts and delimiting operations in this respect.² Urban agglomeration, called here a metropolitan area, has been defined as a region fulfilling

¹ The literature both in Poland and abroad is not unanimous in ideas about what is and what should be an urban agglomeration. A particularly stormy debate on the subject took place in Poland in the early 1970's. The highest authorities in the problems of agglomerations participated in it, among others, K. Dziewoński, S. Leszczycki, B. Malisz. See *Agglomeracje miejskie w Polsce. Pojęcia i terminologia (Urban agglomerations in Poland. Concept and terminology)*. „Biuletyn KPZK PAN”, vol. 79, 1973.

² Results of these studies and conferences are reflected, among others, in: Report of the Group of Experts on Metropolitan Planning and Development, Stockholm, 14–30 September 1961; A Concise Summary of the World Population Situation in 1970, United Nations Department of Economic and Social Affairs, „Population Studies”, no. 48, New York 1971.

certain requirements and inhabited by the population of at least 500 thousand, as well as including a city, clearly predominating in respect to size, or a municipal complex. This definition has become popular in many countries of the world, including Poland, and is often employed as a standard to construct more particular concepts and delimitation criteria, adopted to specific developmental conditions in individual countries.

A survey of international studies concerning urban agglomerations easily reveals the use of different names which are not always synonymous, for such units. One should mention such terms as a metropolitan area (USA), conurbation (United Kingdom), mono-or poly-communal urban agglomerations or equilibrium metropolis (France), and urban complexes (West Germany).

The variety of opinions about the essence of urban agglomeration, its constitutive elements and typical features, cannot hide the fact that the concept usually refers both to the state and form of a large urban settlement, as well as to the process characterizing the rise and development of the agglomeration and the phase of the urbanization processes. The characterization of agglomeration as a state and as a process may be reduced to a statement that it constitutes a collection of several, functionally connected municipalities within one common area, at the same time displaying a tendency towards further mutual cooperation, social, economic, and cultural, which, in turn, constitutes a prerequisite of the integration of these units into an increasingly compact municipal complex. The identification of an agglomeration with a definite urbanization phase requires an awareness of the fact that the progressing urbanization of areas may be approached as consisting of several distinct stages, each subsequent stage being a higher form than the preceding one. The agglomeration phase of our century has been preceded by two earlier stages, namely, a pre-industrial town typical of the 18th century and an industrial city developed in the 19th century. On the other hand, the agglomeration of a settlement system refers to the process of functional-territorial merging of single units of settlement or their groups into one complex settlement. The higher phases in the evolution of urbanization describe the rise of metropolis and megalopolis, respectively. The latter phase is typical of the most highly urbanized countries in the world. Its classical example may be found in the huge megalopolis on the Eastern coast of the United States which covers a compact area of about 140 thousand km² and a population of nearly 40 million.

Although connected with definite time periods, particular urbanization phases quite often occur simultaneously, even within the same

state. Using the example of Poland one may state that the agglomerations in the southern part of the country are in the phase of metropolis which is reflected in single agglomeration being merged. This is clearly shown by the integrative processes observed in the agglomerations of Katowice, Cracow, Opole, Bielsko Biała, and Częstochowa. The agglomeration phase, on the other hand, may be observed in the agglomeration of Warsaw. The agglomeration of Łódź, in turn, is an example of a compacted industrial city, since it is characterized by an unusually high concentration of population and socio-economic potential in the central city, i.e. Łódź, and, at the same time, by poorly urbanized surroundings. The initial phase of the urbanization processes is represented, among others, by the agglomeration of Lublin: It has no urbanized surroundings and is restricted to a complex of only two towns. It should be emphasized that the main factor which conditions the evolution of the urbanization processes is the development, improvement, and scope of the means of public transport and private means of conveyance.

As results of the urbanization processes and like them, urban agglomerations have an objective character of development. They are also manifestations of general regularities, regardless of the political systems, features characterizing particular state organisms and geographical zones. The tendencies to the concentration of socio-economic activities are connected with the localization advantages created by large city agglomerations. The concentration forces also effect the population. The rise and growth of an urban agglomeration unavoidably increase the tendency towards further concentration of population and differentiated forms of socio-economic activities in it.

For a long time the objective nature of the origin and development of urban agglomerations could not find a confirmation in the operations concerning them and carried out either in Poland or in other countries. Beginning with the 1930's, with a short break in the post-War years, and until the 1970's, a deconcentration policy was employed towards the largest towns of the country in Poland. At the beginning of the 1970's the departure from the operations restricting the development of the large towns in Poland was a consequence of the change in the opinions about their effectiveness and, generally, about the effectiveness of the whole deglomeration policy. The latter was substituted by a policy of moderate and controlled growth of large towns, particular stress being laid on the problems of their correct town development organization. This organization is inseparably connected with the question of properly determined borders of urban agglomerations. It is not an easy question in view of the fact that the agglomerations do not constitute institutionalized links within the urban settlement system. This implies a need to work out

particularly correct methods of their delimitation. In this field all irregularities are negatively reflected in the developmental processes in urban agglomerations and they diminish the effectiveness of control over these complex systems of urban settlements.

A SURVEY OF INTERNATIONAL DELIMITATION METHODS

The need to demarcate agglomerations in a given state results from a number of conditions of which probably the most important one is the achieved level of the urbanization processes in this country. In states characterized by highly advanced urbanization processes, the methods of distinguishing agglomerations are represented most numerous and often have a long tradition going back to the first decades of our century. Among others, this group includes the United States, Great Britain, France, German Federal Republic, and the Soviet Union. The survey of the methods for delimiting agglomerations worked out in these countries, as well as opinions about this phase of urbanization as a whole, may reveal far-reaching differences. This, in turn, determines the scale of difficulties in international comparisons and thus excludes almost a possibility of carrying out team research in this field.

The element which particularly hinders comparisons of urban agglomerations in different countries of the world is the rich variety of purposes which such distinctions are to serve. A relatively wide popularity has been won by statistical purposes which, as a rule, employ an a priori assumed limiting measures. An example may be found in the American "Statistical Standard Metropolitan Areas" (delimiting criteria: size of the central city, metropolitan character, integration of the agglomerated areas),³ the conurbations of over one million population in Great Britain (delimiting criteria: continuity of built-up areas, population density, commutation to and from work, school, and shopping centres),⁴ poly-communal agglomerations in France (delimiting criteria: population capacity, index of built-up areas density, percentage of population of the agricultural type of households in the total number of households),⁵ or the

³ *Standard Metropolitan Statistical Areas*, Bureau of the Budget. Washington 1961.

⁴ P. Korcelli: *Problematyka regionów metropolitalnych w Stanach Zjednoczonych i w Wielkiej Brytanii (Problems of Metropolitan Regions in the United States and United Kingdom)*. „Przegląd Geograficzny”, vol. XXXIX, no. 2, 1967, pp. 334—354.

⁵ P. Le Fillâtre: *Révision de la délimitation des agglomérations urbaines utilisées par l'INSEE*. „Etudes et Conjoncture”, 4, 1968, pp 49—112..

urban complexes in West Germany (delimiting criteria: population, population density, percentage of inhabitants employed in agriculture, percentage of population commuting to and from work in the centre of the complex).⁶ It should be stressed that, with the exception of Great Britain, "statistical" agglomerations are not usually endowed with the scientific status and they are merely employed for the practical realization of certain administrative undertakings.

As a rule, scientific research concentrates on the subject of urban agglomerations to achieve scholarly or cognitive purposes of delimitation. The borders of thus differentiated agglomerations are most often identical with their actual areas. Among others, such an area is determined on the basis of various functions performed by the central city for its surroundings (USSR — M. L. Strongina⁷), the frequency of transport commutations between the central city and its environment (USA — A. Hawley,⁸ O. D. Duncan⁹), the balancing of jobs and housing (USA — B. J. L. Berry,¹⁰ Great Britain — P. Hall,¹¹ USSR — G. Łappo,¹² W. G. Dawidowicz,¹³ D. J. Bogorad¹⁴).

The inertia of the agglomeration growth, together with the tendency towards the spontaneity of this process have indicated the need of its rational organization. For this reason, some definite town planning purposes have also been employed for the delimitation of urban agglomerations. The delimitation methods of this kind are fairly popular in socialist countries and in those capitalist countries which introduce planning systems on a larger scale. In the latter group, France is particularly conspicuous where in the fifth plan for the years 1966—1970 eight equilibrium metropolises have been distinguished, namely, Lyon-Saint Etienne, Marseille-Aix, Lille-Roubaix-Tourcoing, Nancy-Metz, Bordeaux,

⁶ O. Boustedt: *Die Stadtregionen in der Bundesrepublik Deutschland*, (in:) *Forschungs- und Sitzungsberichte der Akademie für Raumforschung und Landesplanung*, vol. XIV, Raum und Bevölkerung 1, Walter Dorn Verlag, Bremen 1960.

⁷ M. L. Strongina: *Socialno-ekonomiceskije problemy razwitija bolszich gorodow w SSSR*. Moscow 1970.

⁸ A. Hauley: *Human Ecology. A Theory of Community Structure*. The Ronald Press, New York 1950.

⁹ O. D. Duncan et al.: *Metropolis and Region: Resources of the Future*. John Hopkins Press, Baltimore 1960.

¹⁰ B. J. L. Berry: *Growth Centers in American Urban System*. Bellinger, Cambridge, Mass. 1973.

¹¹ P. Hall et al.: *The Containment of Urban England*. vols. I, II, London 1973.

¹² *Planirówka i zastrojka bolszich gorodow*. Collection of studies. Moscow 1961.

¹³ W. G. Dawidowicz, G. M. Łappo: *Woprosy rozwitija gorodskich aglomeracji w SSSR* (in:) *Sowriemiennyje problemy gieografii*.

¹⁴ D. J. Bogorad: *Gorodskije aglomeracii Ukrainskoj SSR*, Kiev 1960.

Tuluse, Nantes-Saint Nazaire, Strasburg.¹⁵ The rational stimulation of these large-city concentrations in the form of agglomerations was justified by the need to balance the dominance of the Paris agglomeration in the territorial structure of France.

The delimitation methods employed in particular countries of the world reveal a very great variety of the delimiting criteria. They can be divided into two types, quantitative and qualitative. The former criteria seem to predominate which may result from an evident tendency to quantify urbanization phenomena examined. A more detailed characterization of the delimiting criteria makes it possible to divide them into the demographic and non-demographic types. As a rule, the former group of criteria occurs in the form of quantitative indexes. The most popular indexes in this group include: the population of the central city, population density, percentage of non-agricultural population, or commutation to work. These indexes are often regarded as decisive in the delimitation of the agglomeration system. The non-demographic criteria, in turn, most often occur in the form of qualitative indexes. They are usually applied for the representation of the character and mode of developing the areas which aspire to the rank of agglomerations. In most cases they have a function of criteria which complement the quantitative indexes though sometimes, e.g. in Great Britain, in demarcating conurbations they decide about including a given area within them.

The delimiting criteria employed abroad also reveal a further division of the criteria into those expressing the functional features of particular areas of the agglomeration and those expressing the features of the interconnections between these areas. Apart from that, the features of the interconnections are commonly expressed by the magnitude and directions of commuting to work by the inhabitants of the agglomeration. Only in few cases are they additionally expressed by other criteria, e.g. the range of services provided by the central city for the remaining areas of the agglomeration (this is true mainly of the United States and the Soviet Union). Nevertheless, it should be emphasized that it is to the indexes of interconnections that an increasingly important role is ascribed in distinguishing agglomerations. As has already been mentioned, the criteria of this type were introduced, among others, by B. J. L. Berry and P. Hall. Instead of the term "agglomeration", these authors used even the concept "Daily Urban Systems" to stress the fact that the borders of agglomerations should be characterized by a high degree of closure of the spheres of the daily contacts of their inhabitants.

¹⁵ B. Winiarski: *Polityka regionalna (Regional Policy)*. PWE, Warszawa 1966, pp. 80—83, 321.

Summing up, it may be stated that differences in the delimitation methods of determining the borders of agglomerations employed in particular countries of the world are conditioned by the specific needs and the information resources at their disposal. Although in some countries the influence of the United Nations propositions is evident in the field concerning the concept of agglomeration and the basic criteria of its delimitation, still a margin of freedom left by this organization in formulating more detailed indexes is wide enough to allow for the persistence of considerable differences in this field.

CHARACTERIZATION OF AGGLOMERATION DELIMITING METHODS IN POLAND

The effects of the advancing urbanization processes in the Polish state since World War II may be found in clearly distinguished urban agglomerations within its urban settlement system. The hardening of the deglomeration policy in the 1960's in respect to the largest cities in Poland could not hinder the process of their transformation into urban agglomerations. In science the fact was reflected in studies on these complex settlement systems and special attention was paid to their delimiting criteria. The departure from the deglomeration policy at the beginning of the 1970's and a change of opinions in economic practice about the unavoidability of agglomeration processes were accompanied by discussions concerning, among others, the unification of terminology in this field and the delimitation methods. In consequence of these discussions a relative unity has been achieved in the ideas about the essence of the urban agglomeration as a phenomenon, process, and phase of urbanization.¹⁶ It is still an open matter to reconcile opinions on the method of distinguishing urban agglomerations within the settlement system. The problem does not lie in the lack of delimitation methods, because in this field we have at our disposal many useful methods worked out by teams of scientists, single scholars, and, most recently, by economic practitioners. It should be pointed out that the beginning of scholarly considerations on the distinction of agglomerations in Poland goes back to the 1960's, and even earlier in this field one could observe certain initiatives coming mainly from individual scholars. However, the latter concerned problems of distinguishing industrial regions and centres rather than urban agglomerations in the literal sense of the term.

The evaluation of the delimitation methods worked out in Poland should be carried out in three aspects, each concerning the range and character of studies, kind and set of the delimiting criteria, and realized analytical aims.

¹⁶ *Agglomeracje miejskie w Polsce. Pojęcie i terminologia, op. cit.*

The formulation of an unequivocal estimation of the range of studies conducted on urban agglomerations in Poland is not a simple matter. In this respect the delimitation methods differ very greatly among themselves. Here the simplest evaluation must be based on their division into two groups. The first one would concern the methods limited to a determination of the borders of agglomerations accepted a priori and to a characterization of their inner structures. As an example of this group of methods one may mention the concepts of delimiting the metropolitan region of Warsaw by K. Lier,¹⁷ eight largest town concentrations in Poland by E. Iwanicka-Lyra¹⁸, the Warsaw agglomeration by B. Kostrubiec,¹⁹ or ten urban agglomerations whose centres are represented by the ten largest cities of the country by A. Stasiak.²⁰ In the second group of methods the specification of the borders of particular agglomerations is preceded by investigations concerning the determination of their concentration in the area of the country. An example of the methods mentioned above may be provided by the following delimitations: nine compact territorial systems according to the conception by K. Dziewoński and L. Kosiński,²¹ thirteen developed urban agglomerations according to the conception by the team directed by K. Dziewoński,²² sixteen urban-industrial agglomerations according to the conception designed by the team of S. Leszczycki, P. Eberhardt, and S. Heřman,²³ twenty one metro-

¹⁷ K. Lier: *Region metropolitalny Warszawy: Próba delimitacji (The Warsaw Metropolitan Region: An Attempt at Delimitation)* (in:) *Z badań nad strukturą przestrzenną gospodarki narodowej Polski (From Studies on the Territorial Structure of the National Economy of Poland)* „Biuletyn KPZK PAN”, no. 85, 1965, pp. 50—86.

¹⁸ E. Iwanicka-Lyra: *Delimitacja aglomeracji wielkomiejskich w Polsce (The Delimitation of Large City Agglomerations in Poland)*. „Prace Geograficzne IG PAN”, no. 76, 1969.

¹⁹ B. Kostrubiec: *Badania rozwoju przestrzennego aglomeracji miejskich metodą profilów (Investigations on the Territorial Growth of Urban Agglomerations by the Method of Profiles)*. „Przegląd Geograficzny”, vol. XLII, no. 2, 1970, pp. 235—257.

²⁰ A. Stasiak: *Rozwój aglomeracji miejskich w Polsce (The Development of Urban Agglomerations in Poland)*. „Studia KPZK PAN” 1973.

²¹ K. Dziewoński, L. Kosiński: *Rozmieszczenie ludności w Polsce w XX wieku (Population Distribution in Poland in the 20th Century)*. „Przegląd Geograficzny”, vol. XXXVI, no. 1, 1964, pp. 3—36.

²² K. Dziewoński et al.: *Potencjał ludności Polski w latach 1950—1970 (The Population Potential in Poland in the Years 1950—1970)*. „Przegląd Geograficzny”, vol. XLVI, no. 2, pp. 183—204.

²³ S. Leszczyński, P. Eberhardt, S. Herman: *Agglomeracje miejsko-przemysłowe w Polsce w latach 1966—2000 (City-Industrial Agglomerations in Poland in the Years 1966—2000)*. „Biuletyn KPZK PAN”, no. 67, 1971.

politan areas by the method worked out in the Central Statistical Office,²⁴ eighteen agglomerations according to a verified conception of the territorial development plan for the years 1970—1990.²⁵

Some methods of delimitation are characterized by a valuable approach which takes into consideration phenomena of broader nature. In these methods, urban agglomerations are regarded as some of the manifestations of socio-economic processes taking place in the country (e.g. the element of population phenomena in the method worked out by K. Dziewoński and his team) or as a determined system in the territorial structure of the country (e.g. the main nodes in the nodal-striatal system in the conception designed by the team of S. Leszczyński, P. Eberhardt and S. Heřman).

The approach to the agglomeration as a phenomenon developing in time has been reflected in interesting methodological solutions allowing for a possibility of recording processes of the rise and growth and these complex settlement systems and their mutual comparability in time, regardless of changes in the political and administrative divisions of the Polish state. As illustrations of such solutions one should mention studies by Polish geographers, K. Dziewoński and L. Kosiński. In their investigations, repeated at certain intervals of time, on the distribution of the population of Poland and changes in this field within periods of several scores of years, they made use of the perfected methods of an arbitrary division of the country. Initially this division appeared in the form of a hexagonal²⁶ grid of 300 hexagons, the area of each corresponding to about 1000 square kilometers; later on it was developed into a grid of 2500 squares,²⁷ and finally a grid of regular areas²⁸ in the form of squares, each corresponding to the area of about 100 square kilometers. The refinement of the arbitrary division of the country made it possible for the authors to achieve a more precise and closer to the reality picture of the shaping of the urbanization processes (including agglomeration processes) in the area of the country. The tendency to ensure

²⁴ Z. Gontarski: *Osadnictwo wielkomiejskie w statystyce regionalnej (Large City Settlements in Regional Statistics)*. „Wiadomości Statystyczne”, no. 8, 1972, pp. 20—23.

²⁵ K. Fiedorowicz: *System osadniczy w planie przestrzennego zagospodarowania kraju do 1990 r. (The Settlement System in the Plan of Territorial Development of the Country until 1990)*. „Miasto”, no. 9, 1976, pp. 1—5.

²⁶ K. Dziewoński, L. Kosiński: *Rozmieszczenie ludności w Polsce...*, op. cit.

²⁷ K. Dziewoński, L. Kosiński: *Rozwój i rozmieszczenie ludności Polski w XX wieku (The Growth and Distribution of Polish Population in the 20th century)*. PWN, Warszawa 1967.

²⁸ K. Dziewoński et al.: *Potencjał ludności Polski...*, op. cit.

the comparability of agglomerations in time and space is also evident, though to a lesser extent, in the papers by other authors, among others, by W. Wdowiak who employed arbitrary iso-urbanization lines,²⁹ or by B. Kostrubiec who used the iso-line method for the division of the area of the Warsaw agglomeration into several concentric rings.³⁰

In many methods worked out in Poland for the differentiation of urban agglomerations there appears an evident tendency to accept criteria which could make international comparisons possible. One may mention here investigations carried out in this field by the Central Statistical Office which employ the delimiting criteria recommended by the United Nations.³¹

Some delimitation methods are characterized by an interesting feature in placing special emphasis on the selection of investigation techniques. In some of them even highly formalized numerical computation — cartographic techniques are employed. One should mention here, first of all, the use of the model of the potential for a description of population distribution in Poland and changes in this respect within the past 60 years by K. Dziewoński's team, mentioned above. One cannot omit studies by the authors already quoted, such as B. Kostrubiec or E. Iwanicka-Lyra, who also widely employ mathematical methods.

Polish delimitation methods differ considerably among themselves (like in other countries) with regard to the sets of the criteria applied. In this respect an important feature is a tendency, becoming more evident with the passage of time, to enlarge their sets of criteria. Particular authors are trying to express the complicated features of agglomerations or of the processes taking place in them with the help of appropriate indexes. Among delimitation indexes, quantitative measures predominate, although the still existing difficulties in the quantification of some spatial phenomena justify the use of descriptive measures. Like in other states, the quantitative measures employed most often have a demographic character. It results from the fact of the relatively easiest

²⁹ W. Wdowiak: *Miasto — skupisko miejskie — obszar umiastowiony* (Town — Municipal Concentration — Urbanized Area) „Miasto” 1965, no. 2, pp. 9—12; no. 9 pp. 1—11; no. 12, pp. 6—19.

³⁰ B. Kostrubiec: *Badania rozwoju przestrzennego aglomeracji.*, op. cit.

³¹ M. Klimczyk, A. Mijakowski: *Próba delimitacji regionów metropolitalnych w Polsce* (An Attempt to Delimitate Metropolitan Areas in Poland) „Wiadomości Statystyczne” no. 3, 1968, pp. 27—30; J. Kikolska-Lesiań, A. Mijakowski: *Informacje o pracach GUS dotyczących obszarów metropolitalnych w Polsce* (Information on the Studies of the Central Statistical Office on the Metropolitan Regions in Poland) (in:) *Delimitacja obszarów zurbanizowanych* (The Delimitation of Urbanized Areas) „Biuletyn KPZK PAN”, no. 57, 1970, pp. 85—93; Z. Gontarski: *Osadnictwo wielkomiejskie*, op. cit.

expression of the population phenomena in a measurable form on the basis of the already existing statistical data. The conformity with the latest delimitation approaches in the world is also observed in respect to the evident preference of indexes reflecting the features of the interconnections of the agglomeration areas. Yet, the difficulties in the quantitative expression of the interconnection features make the scale and range of commutation the most popular index. Many authors perceive a clear drawback in the designed methods of agglomeration demarcation in that they do not adapt the delimiting criteria to the highly differentiated as well as complicated phenomena occurring in the agglomeration area and in the presently existing difficulties in the determination of the possibly objective limiting values of particular indexes. According to many authors of delimitation methods, a way out of this situation is to be found in adapting the base of statistical data to the needs of investigations and theoretical studies on agglomerations, including the problems of determining their limits as well.

It seems that an important drawback of the delimitation methods worked out in Poland and elsewhere is not only the far reaching differentiation in the scopes of studies and types of the criteria applied, but also the evident lack of integration of their purposes concerning science, statistics, and planning. As a rule, particular delimitation methods are to serve one, clearly outlined analytical purpose, taking small account, or none at all, of the remaining aims. The problem is worthy of attention in so far as in the literature the attitude towards the integrity of analytical purposes is practically unquestionable. Nevertheless, contrary to the attitude taken, the thesis of the integrity of purposes concerning science, statistics and planning finds no confirmation in any delimitation method designed in Poland or elsewhere. Moreover, the construction of a single method meeting the requirement of the integrity of analytical purposes is considered to be a difficult task, though perhaps not infeasible. It seems that the first step to solve this problem is to make a choice from among the devised delimitation concepts of those methods which serve particular analytical purposes and integrate them into one research procedure to constitute a process of the delimitation of an agglomeration system. The proposed manner of differentiating an agglomeration has been verified on the example of the Lublin agglomeration.³² The essence of this conception is not to offer a new method but to take advantage of the methods already designed on the principle of integrating three selected methods, each of which serving a clearly

³² U. Wich: *Agglomeracja lubelska i czynniki kształtujące jej rozwój (The Lublin Agglomeration and Factors Shaping its Development)* UMCS, Wydział Ekonomiczny, Lublin 1977.

outlined purpose, i.e. those of statistics, science, and planning. In consequence of this integration we obtained a delimitation method characterized by the integrity of analytical purposes. Naturally, the method may still have some imperfections or too far going simplifications, nevertheless, it seems that its value lies in proving the feasibility of designing a delimitation method of urban agglomerations characterized by the desirable integrity of analytical purposes.

The various conceptions about the determination of the limits of urban agglomerations, even if presented so briefly, reveal in consequence quite considerable differences in the numerousness of their sets and the size of the areas. Still, these differences cannot hide the fact that in all delimitations the same agglomerations recur and include Katowice, Warsaw, Łódź, Gdańsk, Cracow, Wrocław, and Poznań. This clearly indicates the evident emergence of these agglomeration systems in the territorial structure of the country. The very phenomenon cannot be effected to any larger extent even by different delimitation methods. The influence of this difference is clearer in cases of the separation and determination of the limits of agglomerations in status nascendi, such as Bielsko Biala, Częstochowa, Opole, Staropolska agglomeration, Wałbrzych, and Lublin.

CONCLUSION

A correct determination of the limits of urban agglomerations is one of the most difficult and important problems in the theory and planning of urban settlement systems. The difficulties result mainly from the contradiction between the principally static character of the very act of delimitation and the practically uninterrupted evolution of the agglomeration system. A resolution of this contradiction may be sought for not only in the refinement of the methods of agglomeration delimitation, but also in coupling this task with research on the differentiated aspects of the spatial and functional organization of the settlement systems. Important implications for the delimitation methods may also result from the theory of economic base and functional structure of towns. A correct delimitation of urban agglomerations is also conditioned by a valid and rational estimation of their place in the spatial — economic structure of the country, as well as the place of each agglomeration among the others. In this case, the rule of sequence by size of settlement systems, which is perfectly suited for the purpose, would also find application.

The importance of a valid delimitation of an agglomeration system reflects the impossibility of a correct control over such a complex settlement system without an a priori specification of the limits of this area

on which the task is to be performed. Thus, the avoidance of the spontaneity of agglomeration processes is inseparably connected with the correctness of the delimitation of areas where these processes are taking place or are expected to occur in the future.

STRESZCZENIE

Na tle uporządkowanej terminologii w dziedzinie aglomeracji miejskich oraz zaakcentowanej znacznej wagi a zarazem trudności poprawnej ich delimitacji z układu osadniczego, autorka opracowania dokonuje przeglądu światowych i polskich metod wyodrębniania aglomeracji miejskich. Przegląd ten sprowadza się do uwypuklenia nie tylko zalet, lecz przede wszystkim słabości i wad wypracowanych metod delimitacyjnych, co w sumie decyduje o nieporównywalności aglomeracji pomiędzy sobą nawet w granicach jednego państwa, osłabia też skuteczność działań na rzecz prawidłowego ukierunkowania procesów rozwojowych zachodzących na obszarach tych złożonych układów osadniczych. Za jedną z głównych wad wypracowanych metod delimitacyjnych autorka uznaje odmienność ich celów badawczych. Na tej podstawie formułuje koncepcję metody cechującej się pożądaną integralnością celów: poznawczych, statystycznych i planistycznych.

РЕЗЮМЕ

На фоне упорядоченной терминологии в области городских агломераций, с учетом как значимости, так и трудности их правильного выделения из поселенческого уклада, в статье дается обзор польских и зарубежных методов выделения городских агломераций. Этот обзор охватывает не только достоинства, но и недостатки выработанных методов выделения, приводящие к тому, что несравнимы даже агломерации внутри одного государства, а кроме того, ослаблена эффективность действий, направляющих процессы их развития. Одним из главных недостатков существующих до сих пор выделительных методов автор считает тот факт, что они преследуют различные исследовательские цели. На этой основе формулируется концепция метода, объединяющего познавательные, статистические и планировочные цели.

