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AN ATTEMPT AT A FUNCTIONAL CLASSIFICATION OF THE AREAS OF THE  
WARSAW SUBURBAN ZONE (CONFINED WITHIN THE BOUNDARIES OF THE  
METROPOLITAN VOIVODSHIP)

In research of the spatial differentiation of the socio-economic development of the voivodships (L. Kokotkiewicz, 1977) and in the classification of Poland's rural area (W. Stola, 1978), the metropolitan voivodship of Warsaw, within its new boundaries, was unlike the remaining voivodships because of its complexity and the level of the development of functions. This was mainly caused by a close vicinity of the metropolitan centre, i.e. the capital, and by the complexity of its links with the surrounding area (L. Zawadzki 1978), in particular as regards functions associated with production and services.

However, the question arises how the area of the metropolitan voivodship of Warsaw, as a multifunctional area, is internally diversified as regards the principal elements of its spatial structure. The main cognitive objective of the study is to provide an answer to this question, and to make a functional classification of the area of the voivodships (the city of Warsaw excluded) on the scale of the basic administrative units (communes and towns). Its main methodological objective, besides the establishment of the selection criterion of diagnostic properties, is to select adequate measures, which could represent the most important functions, developing in the area between urban agglomerations, i.e. in the area, which could be qualified as a rural one, in the most objective way (J. Kostrowicki, 1976). The problem of the quantification of typological properties as well as the selection of a method to correlate them are also significant from the viewpoint of methodology, and enable the researcher to compare results in space and time (J. Kostrowicki, 1972; U. Planck, 1975).

In research aimed at a functional classification of the areas including both rural and urban territories methodological experience gained during the typological research of the countryside<sup>1/</sup>, as well as of towns<sup>2/</sup>, is very useful, especially when strongly urbanized territories of the metropolitan voivodship are investigated.

Most studies concerned with such topics as function, classification, or functional typology of towns are based on the investigation of the structure of em-

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ployment in exogenetic, town-forming functions and endogenetic, town-servicing functions operating for the local population. When it is taken into consideration that one of the basic objectives in the socio-economic development is the elimination of spatial disproportions in the level of satisfying population needs, which is conditioned largely by the development of basic functions, determining the connection of a given area with the external world, it seems to be of interest to investigate also the areas outside urban agglomerations (J. Kostrowicki, 1976) from the viewpoint of the structure of basic and supplementary functions. Basic functions will thus include such part of traditionally "rural" functions as agriculture, forestry, and fisheries, producing for the satisfaction of external needs in the form of commercial production. Moreover, this group should also contain production service external functions, i.e. industry, construction, external transport, and moreover the functions of tourism and recreation, and in the case of commuting to work also housing functions, etc. To sum up, these are functions operating to satisfy external needs. Supplementary functions are such socio-economic activities, the output of which is produced for local needs, or which render services to the local population, i.e. agricultural output for selfsustenance, handicraft, and industry producing for local needs, education, health protection of local population.

To establish the functional structure of the area of the Warsaw suburban zone, according to the division mentioned above, though a very interesting undertaking, would be very difficult because of methodological reasons as well as lack of adequate data.

The functional character of towns is characterized by the structure of their external functions (exogenetic), e.g. industry, trade, transport. Rural areas, however, have for quite a long time been characterized as fulfilling traditional "rural" functions of the biogenetic character (A.S. Kostrowicki, 1978), or to use other words by surface production, i.e. agriculture, forestry, inland fisheries. With the growth of industrialization and urbanization in the rural space, besides the biogenetic forms of the utilization of natural resources, an increasingly more important role has been played by functions, recognized so far as external, like industry, urban construction, transport. The expansion of those functions has induced profound changes in the rural areas (J. Kostrowicki, 1976), transforming them into polyfunctional ones. Depending on their place in the region, their situation in relation to urbanized areas in the rural territories, both internal as well as external functions have developed in various proportions. The professional structure of the village population has changed. Greater and greater population numbers have been engaged in industry, construction, services located in neighbouring towns, or in the rural area, or have combined work in agriculture with another occupation. This phenomenon has often developed simultaneously with the taking over of agricultural land forested land by industrial and urban construction. To identify the functional character of the rural areas it is necessary to undertake an investigation of the structure of all essential functions developing there. As the character of those functions is different, different are also measures of their significance. Together with population measures, showing the share of

people for whom a given function is a source of livelihood or employment, or in the case of services showing what percentage of the population is engaged in this activity, a very important measure of the significance and role of the function is, for example, in the case of agriculture or forestry the occupied area, or the share in invested fixed assets (e.g. by industry, agriculture, transport, recreation).

Important measures of significance and role of separate production functions are also those which illustrate the magnitude of the total and commercial output, produced by those functions, and calculated either in relation to the total output, produced in that area, or in relation to the number of people engaged in those functions, or in the case of agriculture and forestry in relation to a hectare of utilized land. The significance of productive functions and services can also be measured by their percentages in the income created in the investigated area (cf. Table 1).

It seems therefore that the investigation of the role and significance of various functions in a given area, undertaken for the purpose of a classification, should not be influenced by only one, isolated viewpoint. The investigation, for example, of functions by means of the measures of population employment sources cannot suffice because, i.e. the size of employment is dictated not only by economic reasons but social as well (A. Suliborski, 1977), so the size and structure of production and services, and in general the role and significance of separate functions are not necessarily proportional to the size and structure of population employed in them.

However, the selection of typological properties and quantitative measures representing them is conditioned by the fact whether or not respective statistical data are available. This, in turn, depends also on the scale of research. For basic administrative units there has been so far very little adequate statistical information, and this practically makes the classification of the suburban zone impossible from the viewpoint of the structure of fundamental and supplementary functions. Therefore, in my study, I divided functions into three groups, corresponding to the fundamental groups of socio-economic activity, namely: I. Production of the biogenetic character (A. S. Kostrowicki, 1978; W. Stola, 1978b); II. Production of the technogenetic character; and III. Services. This division makes it possible to avoid the subdivision of certain functions, e.g. agricultural, into commercial and self-sustenance. A more detailed information as to the division of functions is included in Table 1, which also contains proposed typological characteristics, representing them. These characteristics can every time be made more precise as various quantitative measures.

Because of lack of adequate source material, mentioned above, I had to give up certain measures, like those representing production and profitability of functions. It was also necessary to use also the data which illustrated investigated functions only partially or approximately.

To select characteristics of real importance for the classification of the areas of the Warsaw metropolitan voivodship I investigated some twenty measures<sup>3/</sup>, characterizing the structure of population livelihood and employment, commuting to work, the structure of the main form of land use, significance of certain service functions, etc. These issues differentiate the investigated area as follows.

Population density is a measure often applied in the investigation of the state of economic development. Though it does not provide any direct information on any function, it illustrates the degree of intensity of economic development, urbanization, settlement (Fig. 2). This index is for the investigated area under 50-80 people per sq. km. in the north-western communes, and between 100 and 200 in a majority of the communes which surround Warsaw, in most of small towns the index is over 1000 people per sq. km. This is caused by the fact that in the metropolitan voivodship (the city of Warsaw excluded), the area of which amounts to 3,347.9, land lying within the boundaries of the towns accounts for 15.5 % and the rural area for the remaining 84.5 %. Out of 723.1 thous. people (1976), living in the voivodship 63.5 % were town inhabitants and 36.5 % inhabited the rural area.

Population data according to the source of livelihood, estimated on the basis of the 1970 General Census for the new administrative division, indicate that non-agricultural population, i.e. people earning their livelihood mostly in technogenetic functions (II) and service functions (III) amounted, on the average, to 67 % (64 % in 1974) in the rural area, and to slightly over 80 % in the urban area (Fig. 3).

As far as the structure of population employment in the national economy is concerned the estimates obtained for 1975 show that the percentage of people employed in industry and construction amounted on the average to 18 in the rural area and to 45 in the urban area (Poland's average being 38.4 %). This group is composed mainly of people employed in industry (towns 35%, countryside 14 %) (Fig. 4). The percentage of population employed in agriculture and forestry was characterized by big spatial differences and amounted to from under 10 and even 5 in a majority of the towns to 70-80 in the north-western and southern communes.

The share of people employed in service functions in the investigated area (III) amounted on the average to 31.4 % i.e. slightly over Poland's average (29.5 % in 1974). In the rural area it was almost two times less (under 20 %) than in the towns (38 %). Spatial differences were as follows: from under 15 % in a majority of the north-eastern (Fig. 5) and southern communes to over 40-50 % in the towns. The highest proportion of people engaged in service functions was in Otwock (76 %) because of high employment in health service (24 %) and education (20 %). Besides transport, a function of production character, in which the share of people employed was relatively big in certain towns only attention should be paid to employment in education and health service because of a striking spatial differentiation. Namely, the share of

employed oscillated between under 4 % and even 2 % in most western and southern communes of the voivodship, and over 10 %, and occasionally even over 20 %, in the towns of Konstancin-Jeziorna, Otwock and Zabki (Fig. 6).

The residential (dormitory) function of the settlement units as well as the problem of bi-professional population can be indirectly measured by the index of commuting to work. In the metropolitan voivodship the differences between the number of departing and arriving commuters are quite big. In 1973, the out-movement involved 180.1 thous. people, while the in-movement amounted to 247.6 thous. people. The investigation of the out-movement from the voivodship area, Warsaw including, has revealed that about 64 % of people came from the towns and 36 % from the rural communes. An overwhelming majority went to the towns, and merely 5 % to the communes (Fig. 7).

Spatial differences point to a functional differentiation of the area from the viewpoint of the population professional structure. Of equal importance is the knowledge of differences in the land use. In the metropolitan voivodship land, which is the main factor on which the development of biogenetic functions is based, i.e. agricultural land and forested land, accounts for a much smaller proportion in the voivodship total area than it occurs on the average in the country as a whole. Namely the voivodship's agricultural land accounts for 55.5 % (Poland: 61.2 %) and forests for 22 % (Poland: 27.6 %), i.e. altogether for slightly over three-fourths of the voivodship area. The percentage of agricultural land is relatively the lowest in the northern and south-eastern parts (Fig. 8), and, of course, in most of the towns. The highest percentage - over 70-80 % - characterizes the south-western areas, where, however, forests account for a very small proportion (Fig. 9).

The investigation of the agricultural function is usually based on measures which provide information as regards land tenure, the size of farms, labour and capital inputs, productivity and commercialization of agriculture<sup>4/</sup>.

As essential function for vast areas of the suburban zone is recreation. Unfortunately lack of data referring to the spatial aspect, does not make it possible to analyse the size of the phenomenon, either from the viewpoint of the number of people participating in tourism or recreation, or from the viewpoint of the role this activity plays in local population incomes. Data in spatial approach referring to the number of beds in tourist and recreation base, and on the number of people profiting from those amenities, provide a certain information on the magnitude of recreation. This is especially true of the suburban zone, to which a great number of population comes to spend short periods of leisure time, and does not stay overnight, or in which their so-called "second houses" (country cottages) are situated. Out of the total of 27 towns (Warsaw excluded) - 14, and out of the total of 32 communes - 17, possess tourist or recreation amenities, or both: they are situated mainly in the north-western part of the voivodship (Fig. 10.11) and in the territories bordering with Warsaw from the south.

In the classification on the scale of the basic administrative units 10 characteristics were selected out of those described above, as they seemed to provide accurate information about the spatial differentiation of the areas as regards their productive and service functions (housing included).

The characteristics are as follows:

1. Share of agricultural land, which is predominantly a measure of agricultural function.
2. Employment in agriculture, expressed in terms per 100 ha of agricultural land. This is a synthetic index of the agricultural function and an evidence of the character of the intensity of agriculture, which makes it possible to draw conclusions as regards the size of holdings, labour productivity, etc.
3. Share of forests in the total area, which is characteristic informing not only about the forestry function but also about potential conditions for the growth of recreation.
4. Number of beds in tourist and recreation homes per sq. km.
5. Number of people staying overnight in tourist and recreation homes per 1000 inhabitants.

Information provided by characteristics 4 and 5 refers to the development of the area for recreation and indirectly also illustrates the significance of recreation in the life of the local population.

6. Share of non-agricultural population in the total number of population: this measure provides information as to the sources of livelihood of the population employed in industry and construction and also in services, and indirectly, on the proportion of agricultural population (the remaining part of 100 %), earning therefore their livelihood in agriculture.
7. Share of population employed in industry and construction, which is an important measure of external functions.
8. Number of commuters to work per 1000 inhabitants in productive age as an information about departures of people to work in towns and indirectly also about the size of bi-professional population, which is, of course, mostly connected with rural areas. This measure informs also about the housing (dormitory) function of settlement units.
9. Share of people employed in education and health service, i.e. an information about the growth of service functions of the nonmaterial character.
10. Number of people employed in "existential" services for the population per 1000 inhabitants, a measure of material services rendered to the population.

The normalization of the adopted characteristics as well as their association were similar to those used for the classification of Poland's area on a macro scale (W. Stola, 1978), in which methodological experience gained during the investigation of the typology of agriculture (J. Kostrowicki, 1976b) was also taken into consideration. Certain modifications, which resulted mainly from a different scale of research, were introduced, i.e. the normalization was based on the national divergences in the values of adopted characteristics while differences in their values in the investigated voivodship were taken into account. A division was made of the total of the given characteristic values into five groups-intervals, which were ascribed proper ranks, from 1 to 5 (Table 5). The ranks represent the values from the lowest to the highest, and the values of the national averages of the characteristics<sup>6/</sup> are in the medium class (rank 3).

The value of every variable was calculated for each administrative unit (towns, communes), and presented as a number (rank), representing the class of the given characteristic. The thus expressed characteristics provided the basic material used to classify the investigated units (27 towns and 32 communes). This was made by means of the taxonomic method (J. Szyrmer, 1973) and the deviation method, used in agricultural typological research (J. Kostrowicki, R. Szczesny, 1972; W. Stola, 1977, 1978). Subsequently, the set of variables was investigated for every administrative unit and the degree of their similarity (distance) to the set of variables of the remaining units was established. The set of variables, differing as regards the set of ranks by the sum total of deviations (distances) not bigger than 20% (8-9 deviations altogether) of the theoretically possible number of deviations (43)<sup>7/</sup>, was acknowledged as belonging to the same category (class). When the number of deviations was bigger the sets were identified as separate categories, or if they resembled 2-3 differentiated categories they were treated as transitory categories.

As a result 6 categories were differentiated, containing a total of 52 administrative units; the remaining 7 units were identified as transitory categories (Fig. 12).

Category I (1,4-5, 0-2, 2-3, 1-2, 5, 4-5, 3-4) with a dominance of external functions of industry, construction, and a medium development of service functions. It contains 8 towns, characterized by a very small (1) share of agricultural land, a small share of forests, and a small number of beds for tourists and holiday-makers. A very big (5) percentage of population earns its livelihood in nonagricultural work (mainly industry and construction; 4-5) and in a lesser degree in service functions.

Category II (2,5,1,0,0,5,3-4,2-3,3-4,3) with a dominance of the group II functions, mainly industry, and group III functions, i.e. services, recreation excluded. It contains 8 towns. It is characterized by a small (2) share of agricultural land, a very big number of employed population per hectare of ag-

gricultural land, generally a very small (1) share of forests, a very big (5) percentage of nonagricultural population, predominantly high employment in industry and construction, little or big commuting to work, relatively big employment in education, health protection, and relatively weak (3) development of "existential" services.

Category III (3-5, 2-4, 1-3, 0, 0, 4-5, 1-2, 3-4, 2-1) with agricultural and industrial functions, in principle without tourist and recreation amenities, with poorly developed service functions. This category occurs in the area of the two-thirds of voivodship's communes, covered mainly by agricultural land and forests, generally with low or medium agricultural employment, a high percentage of non-agricultural population and a small (2) or very small (1) employment in industry and construction. Commuting takes place on a medium (3) or high (4) level.

Category IV (1, 3-5, 4-5, 0, 0, 5, 2-4, 3-4, 2-4,2-3), from the viewpoint of the population functions are predominantly of group II and III, while - from the viewpoint of land use - its character is "rural", which is evidenced by a big or very big share of forests and a very small (1) percentage of agricultural land. Lack of social recreation and tourist amenities. Category IV contains 7 administrative units, mainly in the eastern part of the voivodship.

Category V (2, 2-3, 3-4, 4-5, 5, 5, 2-3, 2-3,3, 2-3) with recreation-industry-agriculture functions, appears mainly in the voivodship's northern part (Fig. 12) and is characterized by territories with a small (2) share of agricultural land and a rather big (3-4) share of forests. The recreation function is relatively well developed, as far as tourist-recreation amenities are concerned, as well as the number of participants. The percentage of population, earning its livelihood in non-agricultural professions, is very high (5). The share of population engaged in industry and construction is small (2) or medium (3) in the structure of the professionally active population. A similar situation is in service functions.

Category VI (1, 4, 3-4, 5, 2-3, 5, 2-4, 3-4, 4-5, 4), with functions of a health resort or recreation locality, with a share of industrial functions and services. It contains only three towns: Konstancin-Jeziorna, Otwock and Józefów.

The remaining 2 towns and 5 rural communities were identified as transitory because they were not similar enough to either of the differentiated categories, but, in certain aspects they resembled 2-3 categories (Fig. 12).



Footnotes:

- 1) The evaluation of methodological experience gained during the typological studies of rural areas is included in the paper by the author, quoted above (W. Stola, 1978).
- 2) The evaluation of views, theories and methods of investigating functions of a town was made by K. Dziewoński (1971) and A. Suliborski (1976).
- 3) The study was based on data included in the Statistical Yearbook of the Metropolitan Voivodship of Warsaw, 1977, data compiled by the Planning Office of Warsaw's Development, and by the Voivodship Statistical Office in the metropolitan city of Warsaw.
- 4) The characterization of the agricultural suburban zone of Warsaw is subject of a study by R. Kulikowski and B. Galczyńska, which will be included in the programme of the Seminar.
- 5) "Existential" services include services rendered by handicraft and service workshops, services of internal trade, repairs, laundry, etc. according to the Statistical Yearbook of the Metropolitan Voivodship, 1977, p. 239.
- 6) The normalization of characteristic 10 (Number of people employed in "existential" services for the population per 1000 inhabitants) is based on the diversification of its value within the investigated voivodship because of lack of suitable comparable data on the national scale.
- 7) The theoretical number of deviations for 7 characteristics (3, 4 and 5 excluded), occurring in every investigated unit, amounts to 28 ( $7 \times 4$ ), while for the remaining 3 (3, 4, 5), illustrating the share of forests and measures of the recreation function, which are represented not in all the units, the number of possible deviations is 15 ( $3 \times 5$ ), i.e. altogether 43.

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Tab. 1

Typological characteristics	Population						Area			Invest. in the area		Production				Created income	
	supported by		employed in		out- or in-going commuters		share in total area	share of socialized land	per 1 holding (enterprise)	fixed assets		gross		share in the area's production	share in national income	per 1 employed or 1 inhabitant	
	% per sq. km	% per sq. km or 1000 dwellings	% per sq. km	% per sq. km or 1000 dwellings	to work	tourism and recreation				per 1 ha (sq. km)	per 1 employed or serviced	per 1 ha, 1 employed or 1 serviced	per 1 ha, 1 employed				
					% or per 1000 inhabitants in productive age	per sq. km., 1 inhabitant or 1 bed											
Functions																	
I. Production (biogenetic),	+	+	+	+	+	X	+	+	X	+	+	X	X	X	X	+	+
1. Agriculture	+	+	+	+	+	X	+	+	+	+	+	+	+	+	+	+	+
2. Forestry	+	+	+	+	+	X	+	+	+	+	+	+	+	+	+	+	+
3. Fisheries	+	+	+	+	+	X	+	+	+	+	+	+	+	+	+	+	+
II. Productive (tehnogenetic)	+	X	+	+	+	X	+	+	+	+	+	+	+	+	+	+	+
1. Industry	+	X	+	+	+	X	+	+	+	+	+	+	+	+	+	+	+
2. Construction	+	X	+	+	+	X	+	+	X	+	+	+	+	+	+	+	+
III. Services	+	X	+	+	+	X	X	X	X	+	+	X	X	X	X	+	+
1. Communication (transport included)	+	X	+	+	+	X	+	X	X	+	+	+	+	+	+	+	+
2. Trade	+	X	+	+	+	X	X	X	X	+	+	X	X	X	X	+	+
3. Science, culture, arts	+	X	+	+	+	X	X	X	X	+	+	X	X	X	X	X	+
4. Education	+	X	+	+	+	X	X	X	X	+	+	X	X	X	X	X	+
5. Health protection and social welfare	+	X	+	+	+	X	X	X	X	+	+	X	X	X	X	X	+
6. Tourism and recreation	+	X	+	+	+	X	+	X	X	+	+	X	X	X	X	X	+
7. Housing	+	X	+	+	+	X	+	+	+	+	+	X	X	X	X	X	+
8. Others	+	X	+	+	+	X	+	X	X	+	+	X	X	X	X	X	+

Tab. 2

No Characteristics	Classes				
	1 very low	2 low	3 medium	4 high	5 very high
1. Share of agricultural land (%) in the total area	≤ 50	50-60	60-70	70-75	75-100
2. Number of people employed in agriculture per 100 ha of agricultural land	≤ 25	25-30	30-40	40-60	> 60
3. Share of forests (%) in the total area	≤ 10	10-20	20-30	30-50	50-100
4. Number of beds in tourist and recreation homes per sq. km.	≤ 1	1-2	2-6	6-10	> 10
5. Number of people utilizing beds in tourist and recreation homes per 1000 inhabitants	≤ 100	100-400	400-800	800-1600	> 1600
6. Share (%) of non-agricultural population in the total number of population	≤ 30	30-40	40-50	50-60	60-100
7. Share of people employed (%) in industry and construction	≤ 10	10-20	20-40	40-60	60-100
8. Number of people commuting to work (departures) per 1000 people in productive age	≤ 200	200-300	300-400	400-600	> 600
9. Share (%) of people employed in education and health service	≤ 2	2-6	6-10	10-20	20-100
10. Number of people employed in "existential" services for the population per 1000 inhabitants	≤ 4	4-8	8-12	12-20	> 20



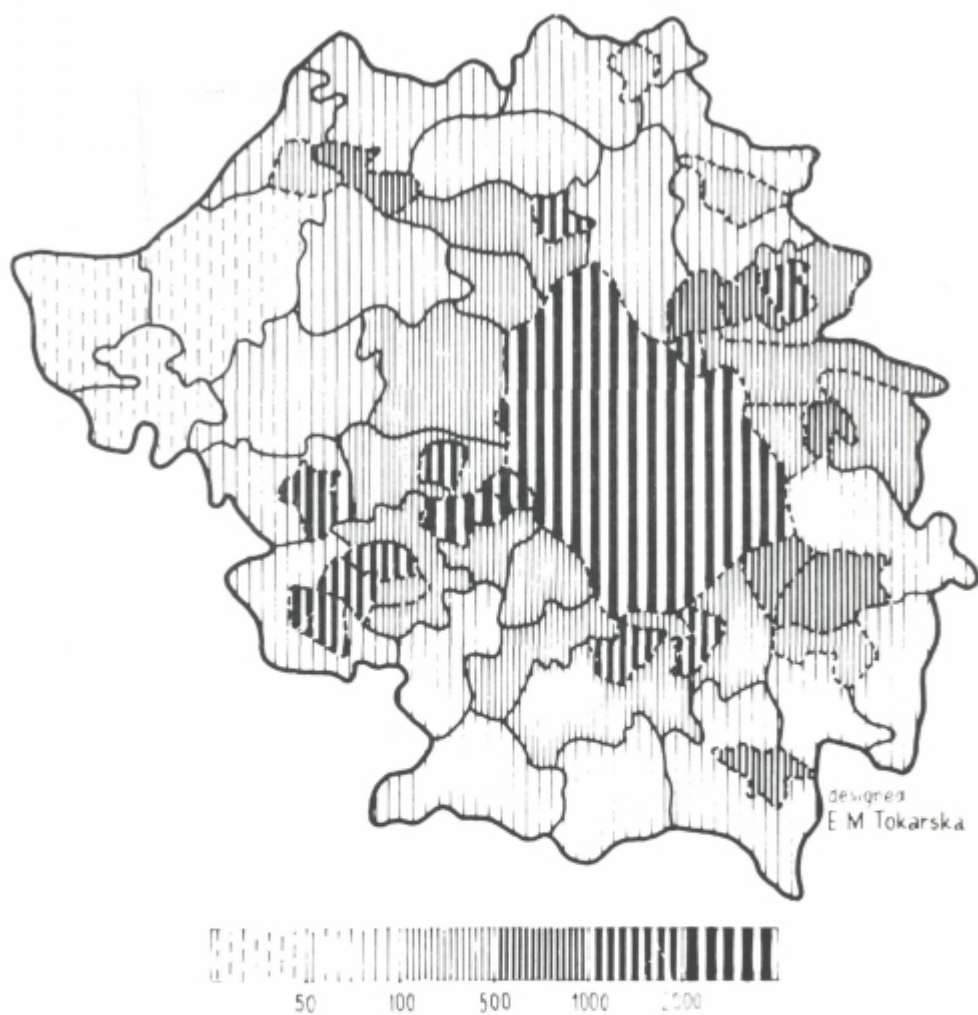


Fig. 2. Density of population per sq. km.

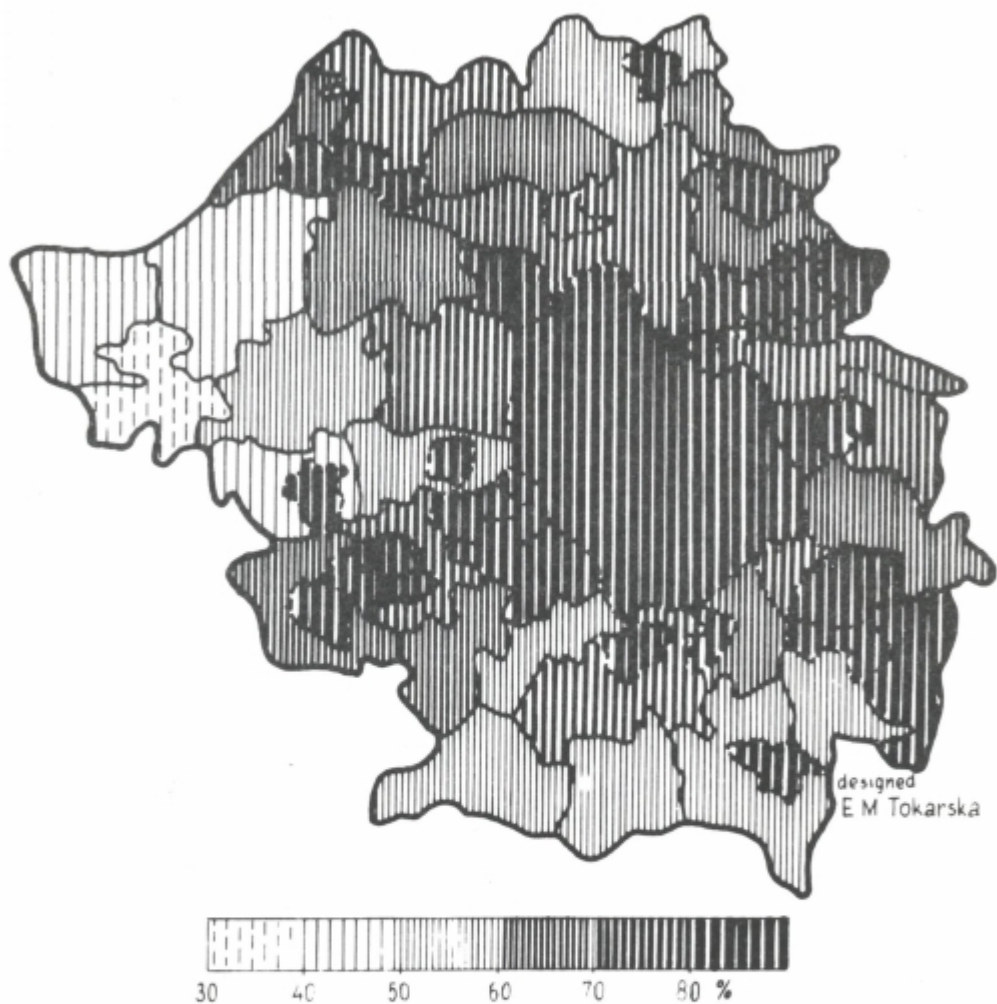


Fig. 3. Non-agricultural population as a percentage of the total number of population.



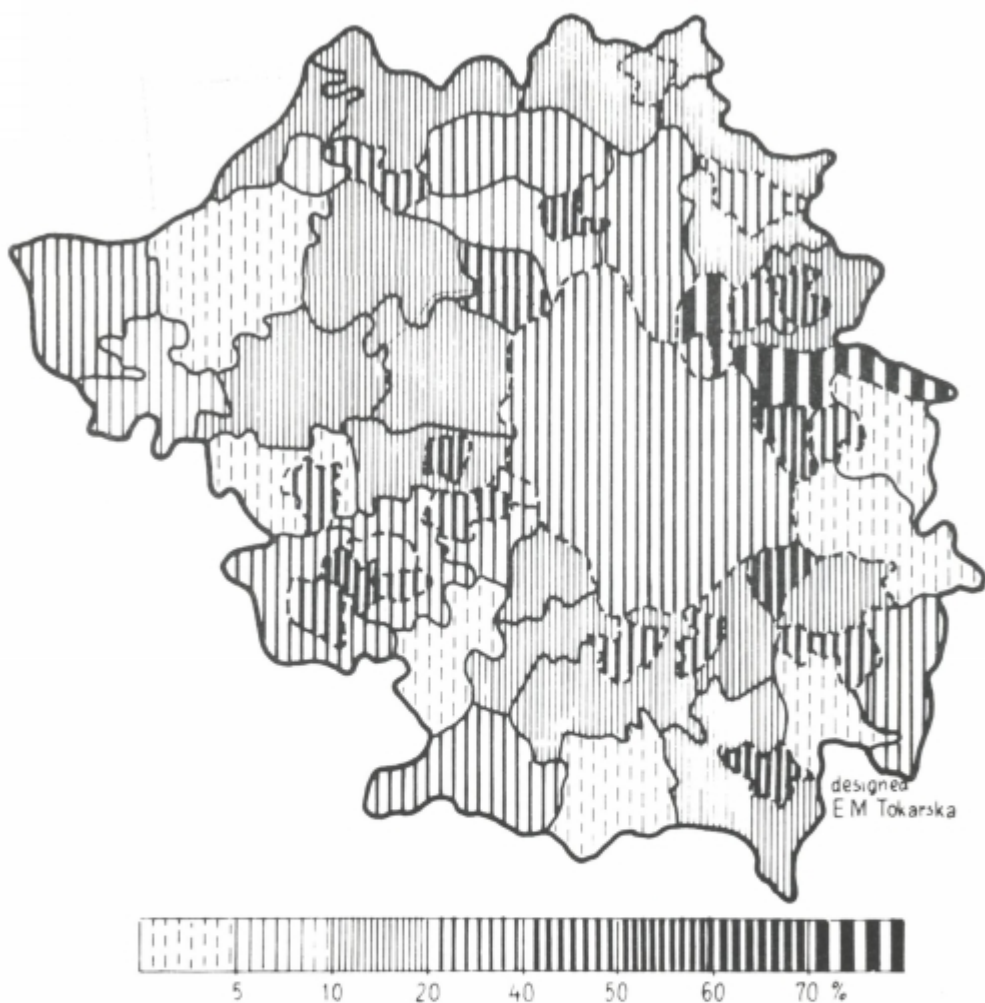


Fig. 4. Employed in industry and construction as a percentage of all employed people (II).



Fig. 5. Employed in the service functions as a percentage of all employed people (III).

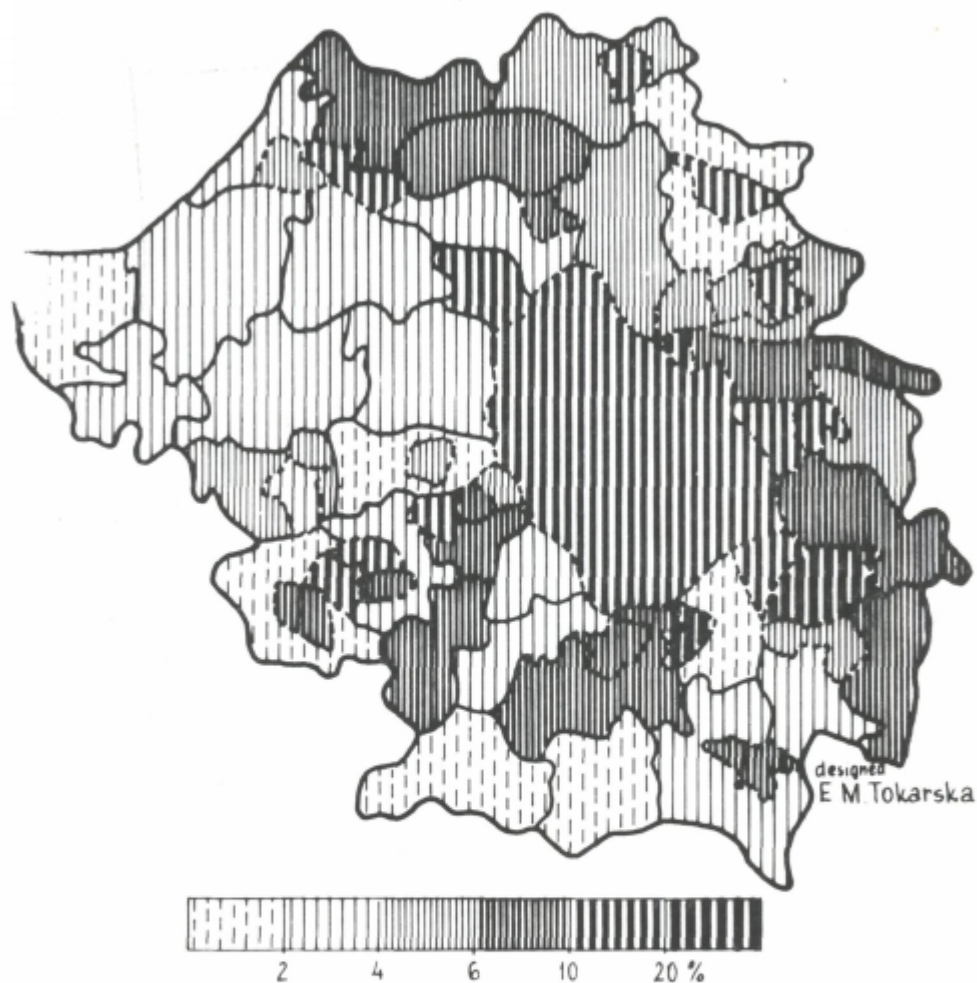


Fig. 6. Employed in education and health service as a percentage of all employed people.

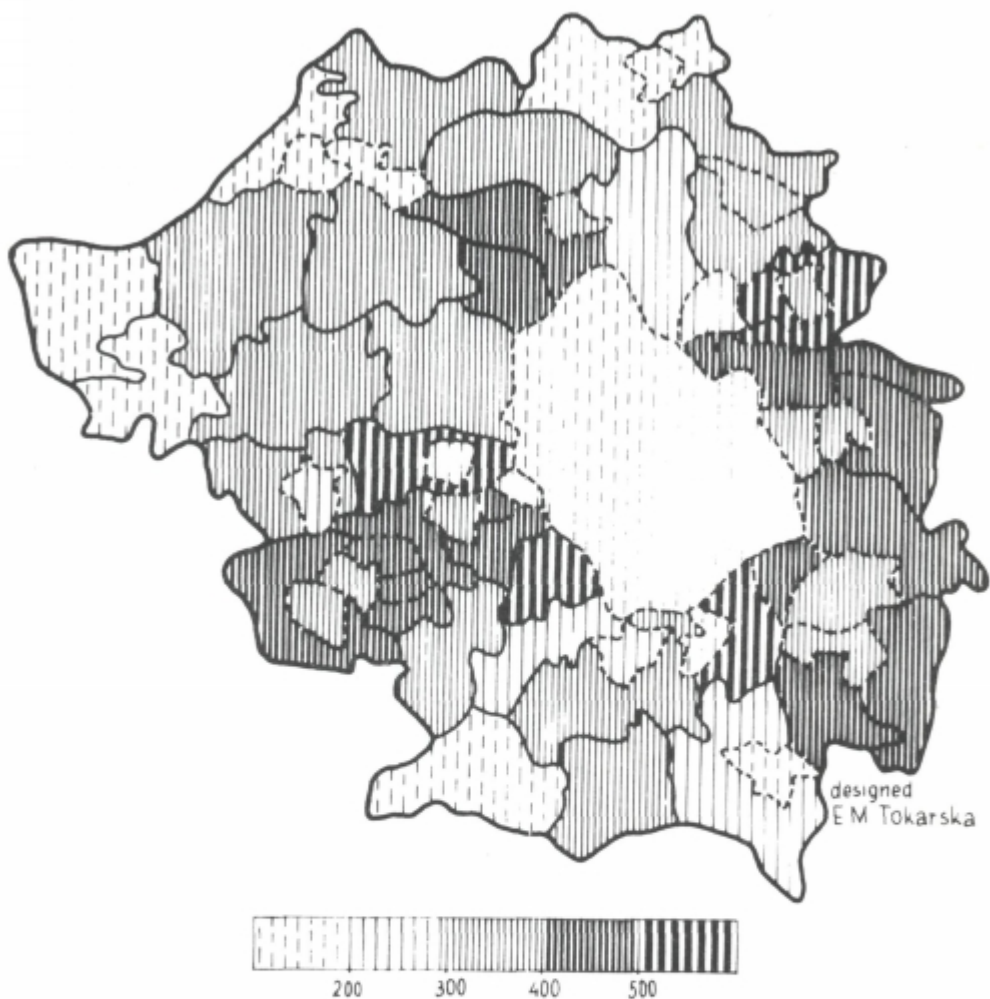


Fig. 7. Number of commuters to work per 1000 inhabitants in the productive age.

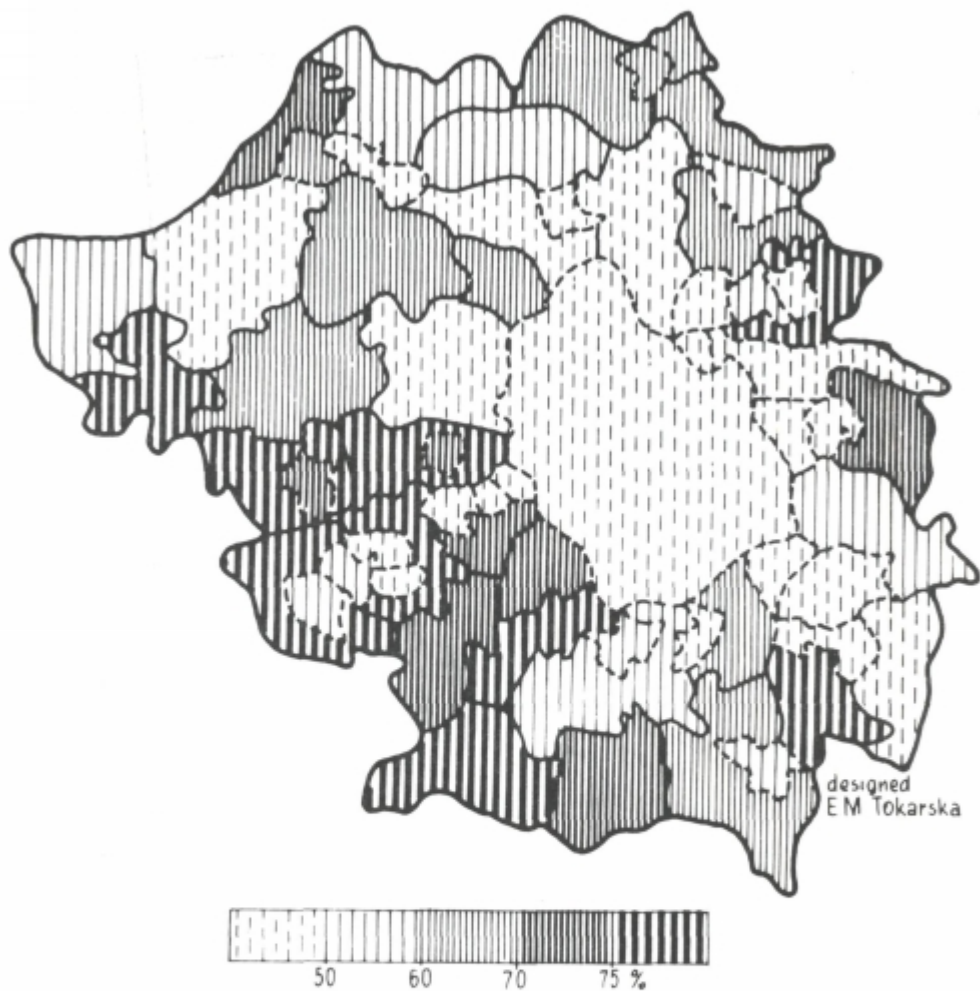


Fig. 8. Agricultural land as a percentage of total area.

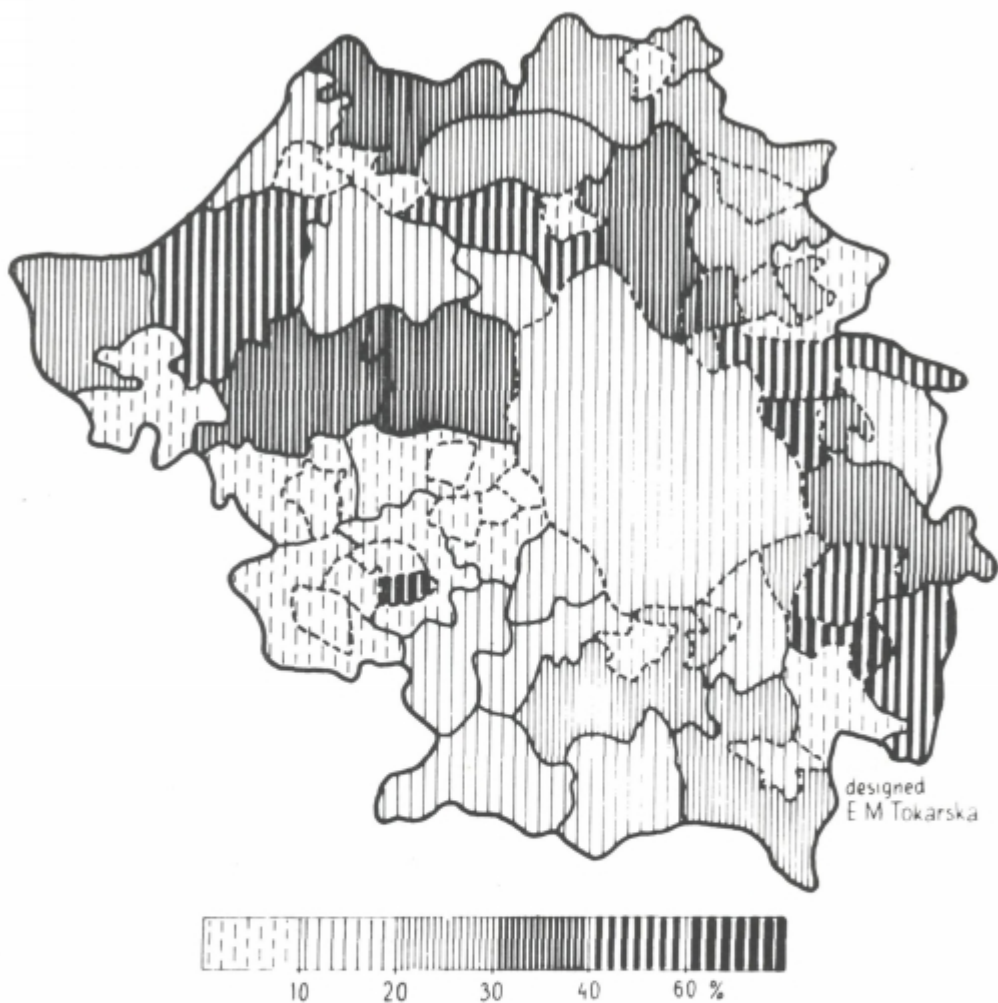


Fig. 9. Land under forests as a percentage of total area.

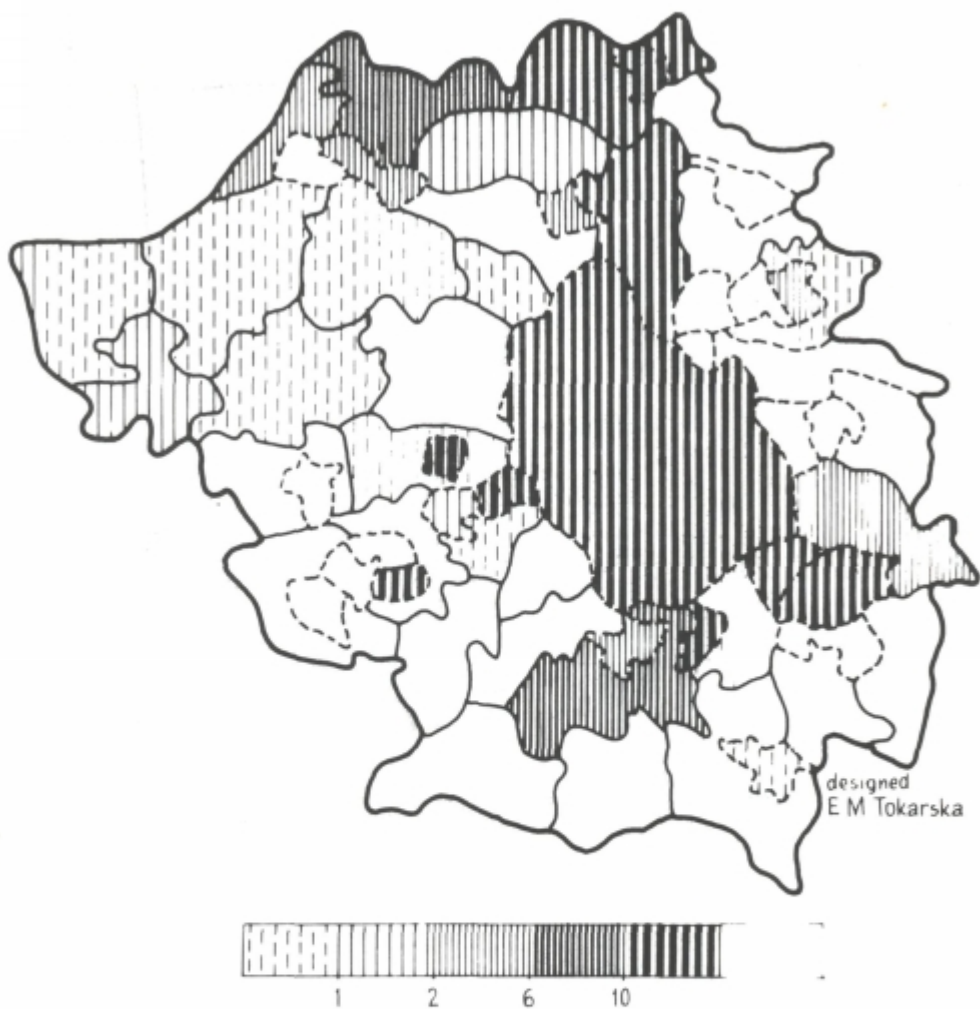


Fig. 10. Number of beds in the tourist and recreational establishments per sq. km.



Fig. 11. Number of people staying overnight in the tourist and recreational establishments per 1000 inhabitants.



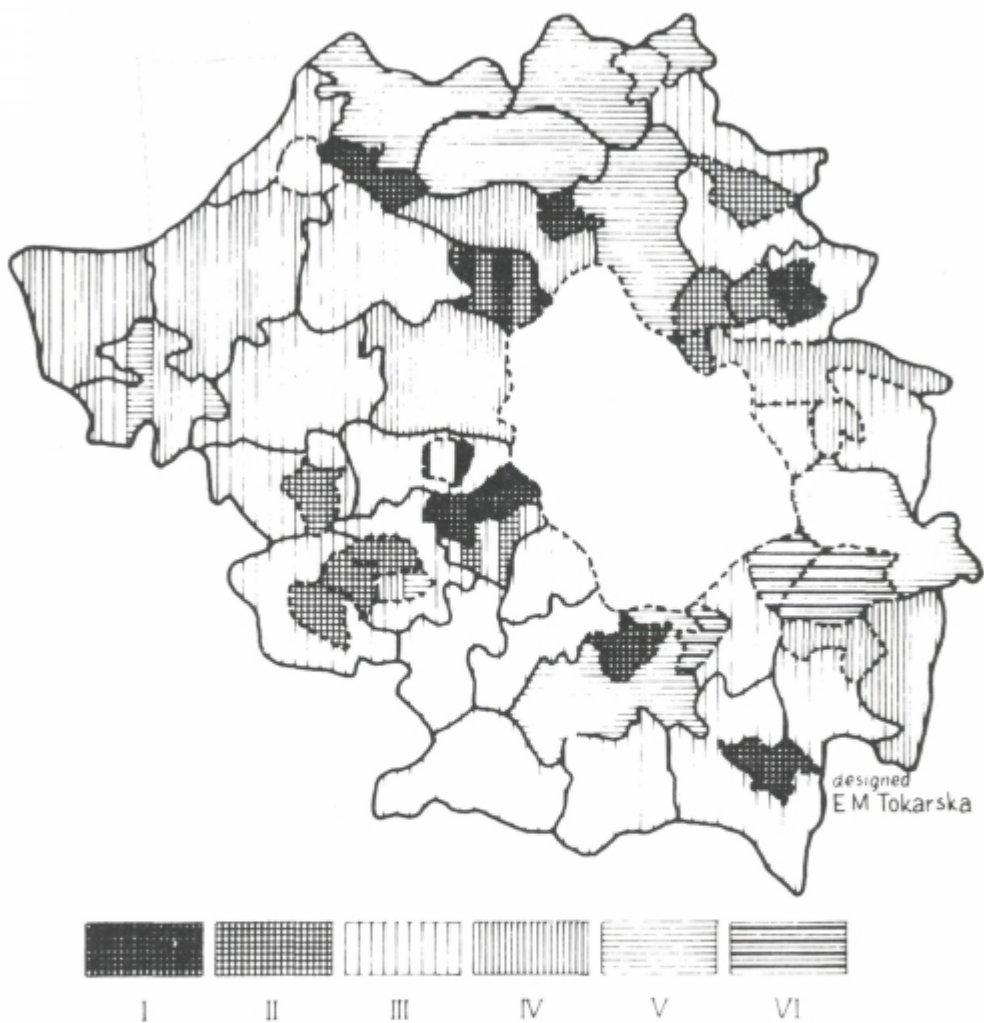


Fig. 12. Functional categories of the territories.

POSKUS FUNKCIJSKE KLASIFIKACIJE OBMEŠTJA VARŠAVE

Z industrializacijo in urbanizacijo podeželja se močno poveča vloga funkcij, ki jih večkrat smatramo za zunanje: industrija, mestni način zazidave, transport. Širjenje teh funkcij je povzročilo globoke spremembe na podeželju, predvsem tako, da podeželje dobiva značaj polifunkcionalnega območja. Posledice nakanega razvoja se odražajo na primer v spremenjeni zaposlitveni sestavi podeželskega prebivalstva, v močnem povečanju tržnega načina proizvodnje itd. V analizi so bile funkcije razvrščene v tri osnovne skupine, kot ustrezajo osnovnim skupinam socialne-ekonomske dejavnosti: proizvodnja biogenetskega značaja, proizvodnja tehnogenetskega značaja in storitve.

Analiziranih je bilo dvajset kazalcev, ki so opredeljevali zaposlitveno sestavo prebivalstva, dnevno migracijo delovne sile, sestavo glavnih oblik izrabe zemlje, pomen posameznih storitvenih funkcij itd.

Za klasifikacijo je bilo izbranih 10 kazalcev, za katere se je zdelo, da zagotavljajo zadovoljive informacije o prostorski diferenciaciji območij, tako po njihovih proizvodnih kot storitvenih funkcijah. Kazalci so naslednji:

1. delež kmetijskih površin;
2. delež gozdov od celotne površine;
3. zaposlitev v kmetijstvu;
4. število postelj v turističnih in počitniških domovih na km<sup>2</sup>;
5. število turistov (na 1000 prebivalcev);
6. delež neagrarnega prebivalstva;
7. delež prebivalstva, zaposlenega v industriji in gradbeništvu;
8. število dnevnih migrantov (na 1000 prebivalcev v produktivni dobi);
9. delež prebivalcev, zaposlenih v šolstvu in zdravstvu;
10. število prebivalcev, zaposlenih v terciarnih dejavnostih (na 1000 prebivalcev).

Vrednosti posameznih kazalcev so bile razdeljene v pet skupin, tako da je vsaka skupina predstavljala določeno stopnjo, in sicer od spodnje do zgoraj (najnižje do najvišje). Tretja (srednja) stopnja predstavlja povprečno vrednost kazalca v državnem okviru. Tako opredeljeni kazalci so bili osnovno gradivo za klasifikacijo v 27 mestih in 32 občinah. Klasifikacija je bila izvedena s pomočjo taksonomske metode. Kot rezultat je bilo izločenih 6 kategorij, ki so opredeljevale 52 administrativnih enot, medtem ko je bilo ostalih 7 uvrščenih med prehodne kategorije.

I. kategorija predstavlja območja s prevlado zunanjih funkcij (industrije, gradbeništvu) in povprečen razvoj storitvenih funkcij.

II. kategorija: prevladujejo funkcije druge skupine, v glavnem industrije in funkcije tretje skupine, (storitve), vendar brez turizma.

III. kategorija: razviti sta kmetijska in industrijska funkcija, zelo slabo pa storitvene.

IV. kategorija: v zaposlitveni sestavi prebivalstva prevladujeta industrija in storitve, v zunanjem izgledu pa daje pokrajina vtis kmetijske, predvsem zaradi velikega deleža gozdov.

V. kategorija: zastopane so turistično-industrijsko-kmetijske funkcije.

VI. kategorija: prevladuje zdraviliška ali turistična funkcija, razvita je še industrija in storitve.