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PERSPECTIVE DEVELOPMENT OF THE SUBURBAN ZONE OF WARSAW

1. The notion of the suburtan zone of Warsaw

The suburban zone of Warsaw has never been determined in an unequivocal way. Quite often not only suburban settlements and villages around Warsaw have been referred to as situated within the suburban zone, but also small and medium towns, lying within a 30-40 km radius from the capital. Moreover, all settlement within this range has been connected by strong links with 'Warsaw for thirty years, and rural settlement is strongly affected by intensive processes of urban development. In the 1960s the notion of the Warsaw Urban Complex was in use. Various plans have been made for that area, including a perspective plan of its spatial economic development, which was prepared in 1969. The plans covered the areas of Warsaw and of six powiats^{X)}, surrounding the capital.

In the 1970s the Warsaw Urban Complex has been renamed the Warsaw Agglomeration. Its area, delineated on the basis of standardized criteria worked out by the Reserch Institute of Environmental Development, was very slightly less than the area covered by the plan of the former Warsaw Urban Complex.

The area of the voivodship of Warsaw, established in the 1975 administrative division of Poland, differs only slightly from that of the Warsaw Agglomeration.

When I refer in my paper to the zone I have in mind all towns and rural localities in the area of the area of the voivodship of Warsaw, excluding the capital.

Current population changes

In 1975 the zone population amounted to 712 thous, people ($\frac{1}{3}$ of the voivod-ship total), of which 263 thous, in the rural area 37% of the total population in the zone).

X) administrative units changed in 1975

Mag., Biuro Planowania Rozwoju Warszawy, Warszawa, glej izvleček na koncu zbornika.

During 1960-1975 the number of zone inhabitants steadily increased, both in the towns and villages, though the rate of growth was slower than in Warsaw. During the last two years the population in the rural area has become stable.

In 1975 there were 281 thous. jobs (75 thous. in agriculture and 125 thous. in industry and construction) in the zone; 170 thous. commuted everyday to Warsaw, of which at least 150 thous. from the zone. In 1960 this number was 130 thous. A majority of commuters were employed in construction, industry and transport, as physical workers. The percentage of population living in the countryside who earned their living mainly outside agriculture increased from 56 in 1960 to 67 in 1970.

Migrations are a characteristic feature in the zone. Because of administrative restrictions in Warsaw population from other parts of the country (mainly from Mazovia) settles in the zone and waits there for an opportunity to move to Warsaw; 40-50 % of migrants who obtain a permission to settle in Warsaw for a permanent stay have left the zone (their last place of permanent residence). The opposite movement, from Warsaw to the zone, has so far been insignificant (ca 1500 people per year in 1975-1977).

3. Current changes in economic development and the living conditions of the population

The zone develops mainly along the suburban electric railway and in localities bordering with Warsaw. Those areas are inhabited by 91 % of the urban population and 30 % of the rural population, i.e. altogether by 85 % of the total population living in the zone. The character of this agglomeration of people is, however, relatively extensive. The density of population in the towns oscillates from 300 to 2,500 people per sq.km; in the villages and suburban settlements it does not go beyond 300.

The remaining parts of the zone are characterized by disperse construction, mainly along the bus lines. The degree of afforestation $^{\rm X}$) (22%) is much lower in the zone than the national average; moreover, $\frac{1}{4}$ of the forests is in the Kampinos National Park.

Changes in the economic development of the zone are rather slow, and they cause a greater density of buildings along the railway lines and a wider dispersal elsewere in the zone.

Recently, construction of summer houses out of private means, has been greatly intensified: the houses are predominantly built on aforested sites, and near forests or rivers.

x)
the ratio of the afforested area to the total area

Living conditions in the zone are less favourable than those in Warsaw, as:

- everyday journeys to work are two times longer;
- there are many times less dewellings with sanitation, water supply, central heating, or a telephone;
- the percentage of people per unit of the dwelling area is higher;
- the degree of normative equipment with basic services is much lower.

Though the social and financial status of the zone population is varied, in general, the financial level is lower than the voivodship average.

One of the reasons which has caused that unfavourable situation - as is believed - was the administrative division in force until 1975. Within the then introduced division the zone could not obtain any share in public means and investments outlays, allotted to the capital. The means allotted to the vast Warsaw voivodship were mainly distributed between the towns which were subregional focuses of growth, like Plock, Ciechanów, Ostroleka, Siedlee or Skierniewice. A large portion of the means used to improve the living conditions of the zone population came from own funds of that population, in contradiction to what happened in Warsaw, where the social and communal infrastructures and services were almost entirely financed out of public means.

4. Objectives in the voivodship development plan

The Warsaw voivodship development plan, covering both Warsaw and the zone, was prepared in 1976-1977. Its main objectives are as follows:

- to preserve the balance and environmental protection under the conditions
 of intensive and rapid urban development and intensification of agriculture;
- to improve steadily the living conditions of the population and to alleviate existing disproportions;
- 3) to use optimally and develop the economic potential.

Measures proposed in the plan are aimed at the realization of its all objectives, and this will profoundly influence the development of the zone. In my paper I Will present only those measures which will induce changes in the distribution of residential places, jobs, and services, will contribute to the development of passenger traffic, as well as will improve the living conditions of the zone population.

5. Distribution of the residential places

The plan implies that by 1990 all households that will wish it will have obtained socially accepted standards in their dwellings. Thus, one of the basic tasks aimed at improving the living conditions will be realized. The objective is to build ca 420 thous. dwellings.

The turing point in the realization of this objective will be the utilization of free sites in the area of Warsaw, which at the present rate of construction (ca 100 thous. dwellings in five years) will be built up in 1981-1985. This

means that in 1981-1990 three-fourths of new constructions will be completed in the zone in comparision with one-fourth built in 1971-1980.

The plan anticipates that the residential construction for large families will be concentrated outside Warsaw in the vicinity of the suburban railway stations, within or contiguously to the already urbanized parts of the zone. Such a distribution of construction for larga families will make it possible to utilize passenger railway transport, which is the most efficient system in the agglomeration. This will also precipitate the rehabilitation of the current residential resources through the expansion of the range communal and social services, realized in common for both new and old residential houses.

At the same time the steadily increasing number of detached houses, built mainly out of private means of the population, would be located under one of the following forms:

- within residential complexes of constructions for large families: compact settlement (terraced, atrial houses, etc.) 10-20 % of the total;
- at the fringes of residential complexes for large families, within a zone of 700-1500 m from the suburban railway stations 40-50 %;
- in small complexes (up to 500 dwellings) at bus stations, situated at a distance of up to 5 km from the suburban railway stations and places of work and services, situated in the zone - 20-40 %;
- as a further supplementation of the network of urban settlements within, or very near to, commune of local service centres 20-30~%.

The plan anticipates that in 1975-1900 the share of one-family houses will amount in the zone to at least one-third of the total new residential constructions. The plan recommends that the following principles should be implemented when accomodation facilities in the zone will be reshaped:

- higher standards should compensate for less favourable situation;
- new residential resources should favour such conditions that will make it possible to choose the residential place according to preferences of various population groups, and at the same time prevent the construction of large residential complexes inhabited by people belonging to the same social and professional strata;
- the distribution of residential construction should create favourable conditions for economic and efficient linkages between the places of residence, as well as those of work and services, which should be situated at a rational distance;
- to utilize for residential purposes, in the highest possible degree, the areas with natural values which are positive from the viewpoint of residential needs, and to minimize the loss of areas valuable for agriculture.

Following the premises adopted in the plan, the population of the current suburban zone (719 thous.) will increase to 960 thous. in 1990.

6. Distribution of places of work and services

Current changes in the distribution of places of work and services in the agglomeration are characterized by the following features:

- continuous concentration of the places of work and services in Warsaw, its central part in particular;
- insignificant number of services in the zone.

Planned transformations consist of a gradual concentration of places of work and services, a stop being put to the shifting of working places far away from the places of residence, and a gradual specialization of functions fulfilled by separate areas and centres.

The planned changes in the zone should be based on the following measures proposed in the plan:

- To establish sectorial work and service centres in the towns of Pruszków, Piastów, Otwock and Wołomin, as well as in a locality named Chotomów. The first four are already important concentrations of work and services, as the former capitals of powiats under the previous administrative division. The Chotomów centre is a central point in the northern development trend, favoured in the plan. The plan implies that the formation of attractive places of work and services, with a high concentration of work and service places at a 25-30 km distance from the city core, will favour a gradual deconcentration of the places of work and services from the central area, will secure a balanced distribution of places of residence and work, and thus will make residence in the external zone attractive. All those centres are connected with the centre by electrified railways.
- To establish a system of local service centres, alleviating disproportions in the potential of basic services.
- To establish industrial and warehouse complexes for establishments which sho uld be isolated from residential areas (such an isolation cannot be obtained in Warsaw), located in such a way that working conditions and the sectorial balance of places of residence and work is further improved.

Location of all working establishments should favour a gradual functional specialization of the separate centres and sectors.

It is to be expected that the implementation of the rational recommendations of the plan will meet with certain difficulties. At present, there are no mechanisms favouring dislocation of economic and service activities from the central area of the agglomeration, whereas financial gains from central locations are accompanied by a number of subjective tendencies. A compulsory deconcentration of places of residence might create tensions in the transport network, the development of which does not keep pace with current needs, and causes that a loss of time on everyday commuting to work and services is still steadily increasing.

7. Transformations in the transport system

Out of 165 thous. people commuting from the zone to Warsaw 65 % travel by the suburban railway, 15 % by bus, and the remaining 20 % by own transport means, or by coaches owned by the employer. The average commuting time is 70 minutes.

Within the central part of the agglomeration traffic becomes denser and denser. With the current index of motorization, equalling 85 motor cars per 1000 people, to drive through a street crossing the driver must often wait for 3-4 changes of traffic lights; there are also local shortages of parking places.

The basic element in the strategy of the plan is to develop the undeground railway system which would carry passengers in the central part of the agglomeration, and to modernize and utilize intensively the network of suburban railways connecting the zone with Warsaw.

The following three sectors with different transport conditions are differentiated in the plan:

- zone A, covering the central district, with a priority for pedestrians or for public transport means, while traffic by passenger cars is strongly limited;
- zone B, covering the areas of intense economic development, serviced by underground and suburban railways, and tramways; a cooperation of public and private transport is anticipated;
- zone C, extensively developed, without restrictions in the use of private cars, and which is efficiently connected with the suburban railway stations and the termini of the underground railway.

It is implied that the planned transformation of the transport system with a simultaneous greater density of traffic in the central zone will favour a rational deconcentration of the central area, and above all the removal of certain work places to the zone. Such a manoeuvre is a condition for the premises and decisions anticipated in the plan of economic development to become successful.

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PERSPEKTIVE RAZVOJA OBMESTJA VARŠAVE

Obmestje Varšave nikoli ni bilo jasno opredeljeno. Tako se v ta okvir poleg obmestnih m selij in vasi okrog Varšave uvrščajo tudi majhna in srednje velika mesta v oddaljenosti 30 do 40 kilometrov od središča mesta. Dejstvo je, da so se v zadnjih tridesetih letih naselja na tem celotnem območju močno povezala z Varšavo. L. 1960 se je začel uporabljati izraz Varšavski mestni kompleks. Za to območje je bil 1. 1969 izdelan perspektivni načrt prostorskega ekonomskega razvoja. V l. 1970 se je območje preimenovalo v Varšavsko aglomeracijo. Območje varšavskega vojvodstva, ustanovljenega l. 1975, se le malo razlikuje od tistega, ki ga obsega varšavska aglomeracija. Vsi podatki v razpravi se nanašajo na območje varšavskega vojvodstva z izjemo mesta.

L. 1975 je znašalo število obmestnega prebivalstva 712 000 (tretino prebivalcev vsega vojvodstva); od tega je dobra tretina živela na podeželju.

Med letoma 1960 in 1975 je število obmestnega prebivalstva močno naraslo, tako v mestih kot na podeželju, čeprav je bila stopnja rasti počasnejša kot v Varšavi. V zadnjih dveh letih se je rast števila prebivalstva na podeželju ustalila.

Migracije so značilen pojav obmestja. Zaradi administrativnih prepovedi doseljevanja v Varšavo se prebivalstvo iz raznih poljskih pokrajin doseljuje v obmestje in čaka na priložnost, da se preseli v Varšavo. Nasproten tok, iz Varšave navzven, je povsem neznaten. Obmestje se razvija predvsem vzdolž obmestnih železniških prog in na robu Varšave. Na teh območjih živi 91 % mestnega prebivalstva in 30 % podeželskega oziroma 85 % prebivalstva obmestja.

Razvojni načrt varšavskega vojvodstva, ki zajema tako mesto kot obmestje, je bil izdelan v letih 1976-77. Njegovi glavni cilji so:

- ohraniti ravnotežje varstva okolja v pogojih intenzivne in hitre urbanizacije in intenzifikacije kmetijstva;
- močno izboljšati življenske pogoje prebivalstvu in ublažiti sedanja nasprotja;
- optimalno izkoriščati in razvijati gospodarski potencial.

Po predvidevanjih načrta naj bi število prebivalstva sedanjega obmestja naraslo na 960 000 l. 1990. Tako hiter razvoj prebivalstva naj bi omogočila nova delovna mesta. Razvojni načrt predvideva postopno koncentracijo delovnih mest in storitev, prenehanje potiskanje delovnih mest daleč stran od bivalnih območij in postopno specializacijo funkcij po posameznih predelih ali središčih.

Osnovni element izvedbe načrta je izgradnja podzemnega železniškega sistema, ki bo omogočalo dovoz potnikov v središčni del aglomeracije in posodobitev ter intenzivna izraba omrežja obmestne železnice za povezavo obmestja z Varšavo.

Pričakuje se, da bo načrtovana preobrazba transportnega sistema z istočasno povečano gostoto prometa v središčni coni prispevala k racionalni dekoncentraciji osrednjega območja, predvsem pa preselitev določenih delovnih mest v obmestje. Tak poseg je pogoj za izpeljavo ciljev, ki so postavljeni v načrtu gospodarskega razvoja.