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TERRITORIAL CONCENTRATION AND DECENTRALIZATION OF INDUSTRY IN THE SOVIET BALTIC REPUBLICS *

One of the key problems of territorial organization of production lies in the determination of optimum proportions between concentration and decentralization, that is, the reconciliation of the interests of industry branches (mainly calling for concentration) with those of various regions (mainly calling for decentralization).

The solution of this problem is unthinkable without solving an array of other preliminary questions, such as, first of all, an examination and economic-geographical assessment of factors which lead to territorial concentration or decentralization of the production on a given territory.

Below an attempt is made to discuss this problem, taking an example from the Soviet Baltic republics, preferentially from Estonia. Here the above-mentioned problems are especially actual since a complete reconstruction of the entire system of settlements is to be achieved within the next few decades.

The previous type of settlement which was adapted to small-scale production will be transformed into a new one, living up to the requirements of socialist large-scale production. In this connection sweeping changes will also take place in the pattern of the transportation network, services, cultural and educational establishments.

Let us dwell, first of all, upon the problems of the territorial concentration of production.

The process of the concentration of industry, as we know, is characterized by the growth of industrial enterprises and an increasing weight of big enterprises in the total output of a given industry branch or industry on the whole.

In our view, territorial concentration of industry means that industrial enterprises are concentrated in larger industrial regions or centres, with an increase of their weight among the other industrial regions or centres on a given territory.

This process becomes apparent mainly in a more rapid development of production as compared with other industrial regions or centres, or in a territorial merging of the apart-lying production units.

Thus, territorial concentration may progress in various forms, for example: a) industry is concentrated in some regions or centres without a decrease of the production volume in other regions or centres. Consequently, territorial concentration proceeds, so to speak, by way of priority development; the number of industrial centres does not go down; b) industry is concentrated in some centres, which involves a decrease of the production volume in the others; the number of industrial centres does not go down; c) industry is concentrated in several centres as a result of an amalgamation of industrial centres; the number of industrial centres decreases.

* The report at the 21st International Geographical Congress held in Delhi in December, 1968. (Abstracts of Papers. 21st International Geographical Congress, India. Calcutta, 1968.)

The territorial concentration of production makes it possible to widely utilize cooperation and combination not only in one industrial branch, but also between enterprises of several branches, and in that way to achieve a considerably higher productivity of social labour.

In territorial concentration of industry, like in every other form of territorial organization of production, the guiding principle is: resources should be concentrated in those places where they achieve a maximum national-economic effect, not only from the angle of an individual branch or a confined territorial production complex.

As distinct from the territorial concentration of industry, decentralization is a process where production is mainly developed and located in small industrial centres, the weight of which in the industrial output on a given territory increases.

Decentralization mainly takes place by way of an organization and location of new production units in places without or only with a weak industry, as well as by an industrial development of small industrial centres, in the first place.

The territorially confined demand, limited supply of raw materials as well as the expediency of the utilization of local raw materials (in the Baltic republics, for instance, milk, potatoes, flax, peat, etc.) require the availability of small, relatively scattered enterprises. Furthermore, no region can do without servicing establishments. Their capacity and network should ensure a prompt and regular catering for the population without any extra transport costs.

In spite of the fact that a large number of small and medium-sized industrial centres and enterprises are an objective evidence of industrial decentralization, and that the bulk of small enterprises could be replaced by a small number of big enterprises, in most cases such a replacement is not needed or possible, inasmuch as it would involve considerable capital investments and deteriorate employment and service condition.

The very process of a territorial concentration or decentralization of industry may bring about significant changes in the number of production units and industrial centres, in the functional structure of some towns or economic regions and in that way cause major alterations in the location of the individual branches as well as in the industrial location as a whole. This, in its turn, may lead to changes in the development and location of production complexes and in the system of settlements on a given territory.

What, then, are the factors that determine a territorial concentration or decentralization of industry?

Those factors are quite numerous. Arbitrarily they can be divided into natural, demographic, historical, economic, social, etc.

The natural factors include, for instance, the geographical position, its specific features, as well as natural resources, especially mineral wealth and the peculiarities of its location. A territorial concentration or decentralization of production may also be due to such natural conditions as relief, character of terrain, etc.

The demographic factors include resources of population and manpower, peculiarities of their location, the skills and experience of the population, etc.

The economico-historical factors include the production basis historically formed on some territory or other, and its territorial differences.

The economic factors include the scale and pace of industrialization on a given territory, as well as industrial production standards, structural features, etc.

The social factors, in addition to the social system and the effects of its economic policy, also contain the influence of the existing forms of settlement on the development and location of production.

There are also factors which simultaneously belong to several categories, or to a category not mentioned above. Many factors may be partly interrelated and form composite factors, for instance, economico-historical ones.

Let us consider some examples of the influence of the individual factors on the concentration and decentralization of industry, making use of a research into the Baltic republics.

Factors causing territorial concentration of industry

Peculiarities of the geographical position. The geographical position of the Baltic Union republics is very favourable for sea transport and fishing in the Atlantic.

By virtue of an economically developed and vast hinterland, such as the inland regions of the European part of the USSR, considerable industry has been rapidly concentrating in the seaports of the Baltic republics. Thus, for instance, Riga accounts for approximately 60%, Tallinn for 43% and Klaipeda for 20% of the industrial gross output in the respective republics. Apart from that, there is a growing tendency towards a concentration of industry in other Baltic seaports (Pärnu, Ventspils, Liepaja).

However, from the viewpoint of a more even location of production and population, an excessive concentration of industry in the older Baltic seaports cannot be regarded as a positive phenomenon and it should be restricted.

High level of industrialization under socialism. If in the period of 1940—1964 the industrial gross output of the USSR rose 7.3 times, the respective figure for the Baltic republics was 15—16.

The high level of industrialization in the Baltic republics was accompanied by an intensive process of production concentration. Thus, for instance, in Estonia the number of employees per industrial enterprise averaged in 1936 to 13, in 1959 to 87, and in 1964 to 640.

Industrialization which, on the basis of advanced technology, inevitably leads to a concentration of production, brings in its wake a territorial concentration of industry as well. For instance, in 1956, the major towns of Estonia (Tallin, Tartu, Kohtla-Järve, Narva, Pärnu) accounted for 66% of the industrial gross output of the republic (among these, Tallinn — for 43%); in 1965 these towns accounted for up to 78%. In Latvia, territorial concentration is more apparent.

Differences of economic stimuli of the workers in agriculture. The deficiency or lack of economic stimuli in some agricultural regions causes a migration of population to the towns, thus involving a development of industry in towns.

Shortage of manpower. In view of local manpower shortage, Estonia and Latvia have to draw some part of manpower from other Union republics to develop industry. This impels a territorial concentration of industry because it allows to economize in labour power for various reasons 1) a merger of scattered industrial points into one compact enterprise permits to boost labour productivity and reduce the number of workers as a result of improvements in labour organization, of mechanization and automation, 2) managerial staff will also be reduced, 3) in connection with territorial concentration of population less service staff will be needed.

Factors causing territorial decentralization of industry

Dispersed deposits of minerals. In the Baltic republics, no big deposits of minerals occur. Mineral wealth is mainly of local importance and dispersed. For instance, in the Latvian SSR the number of the explored deposits of minerals (peat, clay, dolomite, limestone, limonite, sand, gravel) exceeds 5,000. Most deposits are limited in their size, and on their basis only small industrial enterprises of local importance can be established.

In the Estonian SSR, however, minerals (oil shale, phosphorites) have caused a high territorial concentration of industry in the shape of an oil-shale basin in the north-east of the country (one of the largest centres of oil-shale industry throughout the world).

Structural features of industry. The light-industrial and foodstuffs enterprises of the Estonian, Latvian and Lithuanian republics employ respectively 41.8, 35.7 and 42.6% of their industrially employed population. These figures are considerably higher than those of the Soviet Union on the average (26.2%).

Depending on the above circumstance as well as on the fact that the average size of the industrial enterprises in the Baltic republics is somewhat smaller than that of the USSR at large, the proportion of the enterprises of light manufacturing and foodstuff

production in the total number of the Baltic republics' industrial enterprises is also higher than that of the USSR on the average. Therefore these branches of industry in the Baltic republics are more dispersed than throughout the Soviet Union on the average.

Dispersed location of production inherited from the previous regime. The Estonian, Latvian and Lithuanian Soviet Socialist Republics inherited from the previous regime an underdeveloped economy which was mainly geared to the needs of small-scale production. This basis was characterized by a multitude of small enterprises and farms with a backward technology. Their bulk was located in numerous rural settlements. Besides, Soviet Estonia inherited from the bourgeois system more than 17,000 handicraft enterprises, about 12,000 among them belonging to light and food industries. Thus, the industry of Soviet Estonia and the other Baltic republics inherited a dispersed location of production. Its territorial concentration requires relatively high capital investments.

Peculiarities of the settlement. As distinct from other parts of the Soviet Union, a peculiar feature of the Baltic republics is a lack of a compact rural settlement in form of villages. Prior to the war, there was a huge number of farmsteads: only in Estonia and Latvia, taken together, more than 370,000 with an average size of 10—20 ha.

And it is for this reason that even in our days, under conditions of socialist large-scale farming (instead of 145,000 farms there are now 600 big ones in Estonia), a land plot averages less than 10 ha. The dispersal of cultivable lands, partly caused by natural conditions, exercised a significant influence on the forming of rural settlement and on the location of industrial enterprises.

The density of urban network in the Baltic republics is also relatively higher than that of the Soviet Union on the average. Peculiar to the Baltic republics is a predominance of small towns with a population of less than 5,000. In small urban-type communities resides less than one-fourth of the Baltic urban population.

In such towns with an agricultural environment, first of all, small enterprises of light manufacturing and foodstuff production can be located, chiefly on the basis of processing of agricultural raw materials and staple goods brought for some branches of light industry (textile, clothing).

From the above-said we may draw the conclusion that an examination of the factors causing territorial concentration and decentralization of production, in our view, is of great importance both from a scientific and practical standpoint; for instance, for a determination and assessment of the conformity between territorial proportions and economical effectiveness of the existing location of production. It is also necessary for working out scientific conceptions and practical recommendations concerning the development and location of production complexes (industrial regions, centres). This is especially important for preparing long-term plans for a development and location of productive forces in Union republics, economic regions as well as in individual towns.

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TÖÖSTUSE TERRITORIAALSE KONTSENTRERITUSE JA HAJUTATUSE PROBLEEMIDEST BALTI LIIDUVABARIIKIDES *

Resüme

Tööstuse territoriaalset kontsentreeritust ja hajutatust põhjustavaid faktoreid on rohkesti. Tinglikult võib neid jaotada looduslikeks, demograafilisteks, ajaloolisteks, majanduslikeks, sotsiaalseteks jne. Tähtsamateks neist, mis on põhjustanud tööstuse territoriaalset kontsentreeritust Balti vabariikides, sealhulgas ka Eestis, on Balti liidu-

* Kokkuvõte XXI rahvusvahelisel geograafia kongressil Dehli 1968. aasta detsembris peetud ingliskeelsest ettekandest. Vt. Abstracts of Papers 21st International Geographical Congress, India, Calcutta, 1968.)

vabariikide geograafiline, eriti mereline asend (põhjustab tööstuse koondumist eeskätt suu-rematesse sadamalinnadesse, nagu Tallinn, Riia, Klaipeda jt.); industrialiseerimise kõrge tase sotsialismi tingimustes (soodustab tugevat tööstuse kontsentreerimist, mis omakorda tingib ka territoriaalset kontsentreerumist); põllumajanduses töötajate ebapiisav majanduslik stimuleerimine (põhjustab maaelanike siirdumist linnadesse, mis soodustab tööstuse arendamist linnades); terav tööjõupuudus (nii tööstuse kontsentreerimine kui ka territoriaalne kontsentreerimine võimaldab hoida kokku tööjõudu).

Tööstuse hajutatust põhjustavad maavarade leiukohtade suur arv ja nende hajutatus (erinevalt Läti NSV-st ja Leedu NSV-st, on Eesti NSV-s selle kõrval tegemist ka maavarade tugeva territoriaalse kontsentreerimisega, mis on põhjustanud Kirde-Eestis tunduvalt tööstuse aglomeratsiooni), tööstuse struktuur (Balti vabariikide tööstuses on olulisel kohal kerge- ja toiduainete tööstus, mis oma iseloomult on territoriaalselt tunduvalt hajutatum kui rasketööstus), kapitalismilt pärandatud peamiselt väiketootmisele kohandatud tootmisbaas, asustussüsteemi iseärasused (väikelinnade ja maa-asulate rohkus).

Tööstuse territoriaalset kontsentreeritust ja hajutatust tingivate tegurite uurimine võimaldab välja töötada ratsionaalsed tootmise territoriaalse organiseerimise proportsioonid, sealhulgas kindlaks määrata ka optimaalsed tööstuse territoriaalse kontsentreerituse ja hajutatuse proportsioonid. See on omakorda aluseks tootlike jõudude arendamise ja paigutamise perspektiivskeemide teaduslike kontseptsioonide ning praktiliste soovitusete väljatöötamisele.

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B. ТАРМИСТО

О ТЕРРИТОРИАЛЬНОЙ КОНЦЕНТРАЦИИ И РАССРЕДОТОЧЕНИИ ПРОМЫШЛЕННОСТИ В ПРИБАЛТИЙСКИХ СОЮЗНЫХ РЕСПУБЛИКАХ *

Резюме

Существует много факторов, определяющих территориальную концентрацию и рассредоточение промышленности. Они могут быть условно разделены на природные, демографические, исторические, экономические, социальные и другие факторы. Наиболее важными из них, определяющими территориальную концентрацию промышленности в прибалтийских республиках (в том числе и в Эстонии), представляются следующие: географическое положение республик, в частности их приморское положение (обуславливает концентрацию промышленности в основном в таких крупных портовых городах, как Таллин, Рига, Клайпеда и др.); высокий уровень индустриализации в условиях социализма (способствует значительной концентрации промышленности, которая, в свою очередь, обуславливает территориальную концентрацию); недостаточное материальное стимулирование занятых в сельском хозяйстве (обуславливает уход сельского населения в города, который способствует развитию промышленности в городах); острый дефицит рабочей силы (как концентрация промышленности, так и территориальная концентрация позволяют экономить рабочую силу).

Рассредоточение промышленности связано со следующими факторами: большое количество месторождений ископаемых и их распыленность (в Эстонской ССР, в отличие от Латвийской ССР и Литовской ССР, наблюдается, помимо того, и сильная территориальная концентрация полезных ископаемых, что ведет к значительной агломерации промышленности в северо-восточной части Эстонии); структура промышленности (в промышленности прибалтийских республик значительное место занимает легкая и пищевая промышленность, для которой территориальное рассредоточение характерно в большей степени, чем для отраслей тяжелой промышленности); унаследованная от капитализма производственная база, приспособленная в основном для мелкого производства; особенности расселения (многочисленность мелких городов и сельских поселений).

Изучение факторов территориальной концентрации и рассредоточения производства позволяет определить рациональные пропорции территориальной организации производства, в том числе оптимальные пропорции между территориальной концентрацией и рассредоточением промышленности. Это, в свою очередь, послужит основой для разработки научных концепций перспективных схем развития и размещения производительных сил, а также практических рекомендаций в данной области.

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