

ECONOMIC REGIONALISM IN USSR SOME REMARKS

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SUMMARY. In this paper is discussed the significance of the principles of economic regionalism in planning for economic development. Experiences of the USSR have been described and examples of the application of the principle of economic regionalism have been given. It has been shown how the development of integrated economy, best suited for each region, results in maximum productivity with minimum capital and labour investments. Usefulness of the principle of economic regionalism for planning for economic development of India has been emphasized.

1. INTRODUCTION

The significance of the concept of economic regionalism was recognised in Russia as early as in the 18th century. Scientists like K.I. Arsenyev, the famous geographer, P. P. Semenov-Tyan-Shansky and D. I. Mendeleev made outstanding contributions on this subject. It should be noted that their objective was mainly academic, to divide the country into different regions for study. We find one main conclusion in all the studies—that economic regions exist in reality and the main aim of the scientists is not "to create" these regions but to identify them, and first describe their distinct characteristics.

It was only after the great October Socialist Revolution of 1917 that studies relating to economic regionalism, oriented to planning, started. Economic regionalism has become since then not only an approach to synthesise economic data but also a tool for economic reconstruction and regional planning.

2. THE NEED FOR REGIONALISATION IN USSR

The area of the USSR is the largest in the world; 22 million sq. km (8.8 million sq. miles) roughly 1/3 of the earth's surface, more than 7 times the area of India. The latitudinal and the longitudinal (36°N to the Arctic Circle and between 20°E and beyond 180°E longitude) extent of the Soviet territory is even more significant from the point of view of physical contrasts. Population of USSR is about 215 millions, nearly half of that of India, but in absolute terms definitely large in numbers. The Soviet Union consists of 15 Republics with different languages and nationalities. Besides, there are a number of autonomous national units. The whole population is distributed unevenly and there are sharp regional contrasts in population densities, an inevitable consequence of areal size, physical variations and history. Forestless tundra

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areas in the north; the taiga, the timber-store house of the world; the fertile steppe; the sub-tropical belt around the Black Sea and the hot sandy deserts of Central Asia are typical examples to indicate the magnitude in regional contrasts. Siberia has the greatest resource potential, e.g., hydro-electric power, minerals and timber in the whole country, while the most populous and developed area lies in the European part of the USSR. Partly due to physical and partly historical factors there are sharp contrasts in the distribution of the resource-potential and the pattern of economic development. Then the inference is that all parts of the country have not been developed to the same extent. All the more, this is the reason why regional planning and regional economic management are advocated as the most rational tools to minimise regional economic disparities and use regional resources to optimum level. The Soviet planners accepted and practised the regional principle in national planning, and accordingly recognised distinct economic geographical regions.

3. ECONOMIC REGIONALISM AND PLANNING

The first division of the USSR into economic regions was made along with the adoption of the very first plan of economic development of the country: the plan of the entire electrification of the State (GOELRO Plan—1920). This plan included the general electrification of the country, regionalisation for power-development and electrification of the main railway lines. In fact these are the three facets of the same problem. Electrical energy is consumed in all the modern production processes but its distribution from the main generating station is generally limited by a definite radius of transmission (250-300 miles) and this has a sharp regional dimension. While the maximum radius from the generating station constitutes the limit of the power region, resource potentialities (natural and economic) constitute its economic base.

The Planning Commission of the USSR (GOSPLAN) worked out the first and comprehensive project on economic regionalisation of the country in 1921. Thus regionalisation was the first step, and with full official recognition and sanction preceded planning. The First Five Year Plan was founded on economic-geographical regions. Thanks to the outstanding work of the Soviet scientists: G. M. Krzhizhanovsky, I. G. Aleksandrov and others, the main principles of economic regionalism were defined during the years 1920-1930. The Soviet Government accepted and applied these principles of regional delimitation in planning.

We shall now mention the main principles as formulated by the versatile Soviet scientist, N. N. Kolosovsky, late Professor of Geographical faculty, Moscow University, who elaborated and further developed the fundamental tenets of the GOELRO Plan and the regional scheme of GOSPLAN.

An economic region should have sufficiently large area and volume of output of resources in which the region specialises by virtue of its having most favourable geographical and technological conditions for production. This is the first major

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principle. Thus regional and national ranking in area and output defines an economic region but not the region's geographic peculiarity.* In such a region, there is integration between different branches of production. The second major principle is that an economic region should be self-sufficient as far as possible, primarily to reduce the transport costs, which are bound to be high in a country of long distances. The assumption is that such a region has the necessary economic stability and viability.

The largest of the Soviet republics—Russia, Ukraine or Kazakhstan cover several economic regions. The smaller republics can be combined into one economic region: for example, Georgia, Armenia and Azerbaijan form Transcaucasian region; Uzbekistan, Turkmenia, Kirgizia, Tajikistan form the region of Central Asia.

In the delimitation of economic regions it is necessary to understand the regional economic structure which is very complex, and is getting more and more complex with the modern developments in technology. It is instructive to mention that in the USSR, as estimated by exports in some cases, a single industry consumes about 1000 different types of minerals and 500 types of organic raw materials. Let us take the iron and steel industry for example. The moot point is along with the complex process of manufacture, expansion of an industry induces the development of a number of related industries like the bye-product industries, and thus an integrated industrial agglomeration develops. We have both "Vertical" and "Horizontal" combinations. Production of pig iron, steel, rolling, casting, machine manufacture or coking coal, benzol, anilino and dyes, plastic products, soda, etc., illustrate the "vertical" combination. Coking, coking gas—open-hearth process or non-ferrous metallurgy-manufacture of sulphuric acid, fertilizer industry—illustrate the "horizontal" combinations. Near the major and central plants, we find a number of auxiliary industries like the 'satellites'.

At this stage it is necessary to refer to the term 'production cycle' or 'cycle' introduced by Professor Kolosovsky, who defined it as "the total aggregate of production process developing in consecutive order in an economic region of the USSR on the basis of combination of definite type of power and raw materials. This aggregate includes processes from initial forms mining and refinery of raw materials—upto the production of all kinds of finished articles profitable to produce in the region in accordance with the principle of bringing industry nearer to the sources of raw materials and power and rational utilization of all components of resources of raw materials and energy." Basic processes of mass production determine the character of development of the whole economic region. Studying the problems of different types of regions Professor Kolosovsky established eight general power-production cycles which exist in the USSR. A few examples are given below:

(1) *Pyrometallurgical cycles based on ferrous metals.* In the USSR we have three main metallurgical bases where these cycles are leading. These are Donbass, Ural, Kuzbass.

* As about definition of an economic region there are different views and accordingly the regions differ. The number of economic regions proposed for the USSR varied from 13 to 29.

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(2) *Hydro-energetic industrial cycles based on cheap large-scale electroenergy with its wide utilization in all production process.* The typical industries are electro-ferrous, non-ferrous and light metals (particularly aluminium), electrochemistry and thermo-electricity (manufacture of calcium carbide, electro-phosphorus, etc.). East Siberia is a typical example.

(3) *Group of cycles of processing industries, which develop in region of consumption with large population and internal market, located as a rule far away from sources of raw materials.* Usually, such regions depend on imported fuel, raw materials and half-finished products. The production-cycle consists of power-mechanical, power-chemical, thermo-energetical processes of mineral and organic raw materials including machine building—, ceramic industry, production of building materials, food, textile and other branches of light industry with all connecting "satellite" units, and industry processing waste materials. Here we have an example of "unity of diversity" founded on highly qualified labour. Due to advantageous situation raw materials are imported from many production regions. For instance the so-called Industrial Centre in the European part of the USSR depends on imported resources from almost all the economic regions in the country, particularly from Donbass, Ural and Central Asia.

4. *Group of agricultural-industrial cycles.* This includes industries processing agricultural raw materials—plants and animal fibres, leather industry, flower mills, sugar plants, creamery, oil-mills, etc. These industries have a local power base. Agricultural areas are characterised by this group of production cycles.

Each economic region usually has several types of power-production cycles mutually connected and located in more or less non-contiguous areas within the region. Cycles of processing industries exist in incomplete form as auxiliaries in regions of basic cycles like Ural and Donbass. In these regions we find also group of agricultural-production cycles which are necessary for local consumption. But there is a big difference in the significance of these groups. Basic cycles have the national importance, their products spread out over the whole country. Other cycles have only local importance; almost all their products are consumed within the regions. Some cycles are fully developed, while others are incomplete. It depends upon the resources of the region and its history of economic development. In due course, new cycles arise and mutual connections between branches of economy change, and as a result, the cycles become more and more complicated. But leading cycles of the region remain stable because they are founded on stable technological processes.

Each production cycle has its characteristic structure of expenditure. The expenditure of power, raw materials, labour and transport, capital investment, etc., are in definite proportions. Based on the production cycle targets, we cannot only delimit economic regions but also understand the tendency of economic growth in the region and the whole country. Each economic region has an interconnected group of production cycles representing the norm for that region. On the basis of this we can plan the development of each region.

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4. A TYPICAL EXAMPLE

East Siberia can be considered as one of the typical examples of the practical application of the planning on the theory of economic regionalism. The area of East Siberia is 1.8 million sq. km (203.1 thousand square miles) more than the area of France, England and Italy put together, and consists of three administrative units: Irkutsk Oblast, Buryatskay Autonomous Republic and Chitinskay Oblast. The geographic centre of the region is the Baykal, deepest lake in the world while the city of Irkutsk, located on the banks of the Angara, nearly 60 kilometers west of the Baykal, is the historical, economic and cultural centre, accessible to the whole region.

East Siberia is the store house of first grade natural resources: coal, iron ore, non-ferrous metals, bauxite, magnesite, refractories and chemical raw materials particularly sodium chloride. The region has large resources of best timber. Added to this, both the terrain and the regime of the rivers are most favourable for the location of hydro-electric power stations. The head waters of the great Siberian rivers like the Angara, the Selenga, the Lena, the Amur and the Vitim lie in this region. But the basic limitations in the full development of these resources are the shortage of labour and inadequate transport facilities.

The construction of the great Urals-Kuznetsky combines the use of Ural iron ores with Cuzbass coal and the location of the second coal-metallurgical base constitute the first major step in shifting the centre of development from West to East.

It should be mentioned here that the hydro-electric power is the key for the economic development of Eastern Siberia, while electro-metallurgy, electro-chemistry, coal mining, timber and cellulose industry and machine building constitute the regional norms.

Due to large size and internal regional differences Eastern Siberia is divided into several sub-regions. The Irkutsk-Cheremhovo is one of the sub-regions rich in coal and hydro-electric power. While aluminium, ferro-alloy industries, machine building are localised near Irkutsk, Cheremhovo is specialising in coal-chemistry. The two centres are like the two poles (just over 80 miles apart) with a number of chemical and machine building plants, and food industry located in between. The significant principle that emerges from the above example is that a region should be developed according to the character of its production-cycle. The development of integrated economy, best suited for each region, results in maximum productivity with minimum capital and labour investments.

5. CONCLUSION

In a large country of sharp physical, economic and national differences like the USSR or India, regionalisation for planning is inevitable. The Russian planners recognised this rightly from the very beginning and first delimited economic regions.

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It must be mentioned here that the principles of economic regionalism are being modified, and new methods to adopt to the changing economic conditions developed. Particularly after 1957, following the new decentralisation policy of the Soviet Government, economic regionalism has become a more powerful tool in economic reconstruction. In India there is a strong case for scientific regionalisation on all accounts. It is hoped that the Soviet experience in regionalisation for planning would be a pointer to Indian planners and geographers at least in general principles and approach.

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