

SECTION II POSSIBILITIES OF FORMING LPS-BASED CLUSTERS

CLUSTER APPROACH TO THE REGIONAL ECONOMIC POLICY DESIGN

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This paper focuses on methodological approaches to regional economic policy design. Identified are principal objectives, structure and content of regional economic policy. Prerequisites for and limitations on regional socio-economic development affecting the competitiveness of a region have been analyzed. Cluster approach to the regional economic policy design is proposed and its major directions and priorities are described. Considered are different types of clusters on the example of Novosibirsk oblast. Mechanisms ensuring effective regional economic policy implementation are proposed.

INTRODUCTION

The increased importance placed on regional policy issues is due to many factors, the major ones being the following. First, state economic strategy detached from the problems of regional economic development becomes nonviable as shown by declining economic growth that goes on despite the relatively high prices for the energy resources on the world market. The second factor is the national economic policy inconsistency manifested in the fact that its declared priorities have little to do with the extremely expensive image-generating investment projects, the costs of which are incommensurate with their negligible effect on the economic development of the projects implementation territories. The third factor is the increasingly growing disparity in the regional socio-economic development. The longer this tendency will proceed, the farther a significant part of them

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will plunge into a depression, and the more difficult and expensive will be their way out of the impasse. Nobody doubts in the seriousness of economic and social consequences of this situation.

Each subject of the Russian Federation is characterized by its own spatial factors that influence the regularities of its economic growth and opportunities for interregional cooperation.

This has created a need for sub-federal policy challenges study with the aim of fostering socio-economic development of regions and municipal units and ensuring their economic advance. In an increasingly competitive environment in the context of transition to a new governance system it has also become essential to give credence to the priorities of spatial socio-economic development and to substantiate the need for strengthening the role of innovation-based economic growth, developing business sector and providing a sustainable regional development.

Economic studies analyze regional economic policy challenges through various aspects, such as: interrelationship between the elements of a region's environment; ensuring integrated socio-economic development of a region; coordination of State interests with those of regions; integrated solution of the problems of socio-economic development of a region on the basis of its competitive advantages; a whole complex of regional aspects of different types of policies; regional integration and sustainability in the common economic space, interregional socio-economic disparities.

Economic literature considers two levels of regional policy – federal and sub-federal that differ in the level of governance and its actors, problem-solving dimensions and complexity, as well as in methods and mechanisms used to attract investment. Regional authorities play a dual role: they act both as the objects of federal regional policy (in terms of management of socio-economic development of a region as a whole) and as the main subjects of federal policy (in terms of spatial organization of the economy of a region and creation proper living and working conditions for its population).

In the Russian Federation, with its huge territory and diversity of regional specific features, the challenge of ensuring a relative homogeneity of economic space of the country is extremely topical. The increasing role of regions with high competitiveness and a favorable business climate leads to increased migration of labor resources and financial flows. This raises the issue of financial and economic support for depressed regions, in order to avoid social tensions and ethnic conflicts.

The structure of regional policy of a subject of the Russian Federation includes the following subsystems:

- regional economic policy aimed at the improvement of regional economy competitiveness, support and development of the real sector of the economy, the creation and development of regional infrastructure, the efficient use of state property and others;
- regional innovation policy aimed at creating conditions and incentives for innovative activity in a region, development of regional innovative infrastructure, innovative development territories, innovation clusters and networks;
- regional social policy aimed at achieving a high standard of living in each region, harmonizing differences in the level of personal incomes of regional population, the creation of equal opportunities for all citizens, regardless of residence, ensuring the right of free choice of place of residence and work, solving the problems of unemployment and creation of new jobs, the development of social infrastructure, the regulation of population and labor force migration, the revival of villages and small towns, prevention of intense social conflicts in regions;

- regional investment policy aimed at establishing a favorable economic climate for attracting domestic and foreign investment to regions, encouraging priority investment projects of construction, the provision of State guarantees;
- regional competition policy aimed at promoting competition, ensuring freedom of entrepreneurial activity, overcoming administrative barriers, prevention of monopolistic activities, government regulation natural monopolies activities in a region;
- regional fiscal policies aimed at effective distribution and redistribution of financial resources between regions and municipalities
- regional environmental policy aimed at the implementation of measures to maintain the necessary level of environmental safety in regions, the prevention of crisis situations in areas with high environmental impact, support for regions in the case of environmental emergencies, regulation of natural resources tax rates depending on their quality and location;
- regional foreign economic policy aimed at fostering the development of export-oriented and import-substituting production in regions that have enabling environment for that, as well as the development of the essential elements of foreign economic activities infrastructure.

REGIONAL ECONOMIC POLICY DESIGN ON THE EXAMPLE OF NOVOSIBIRSK OBLAST

Consider problems concerning regional economic policy design on the example of Novosibirsk oblast. The main strategic objective of regional economic policy of Novosibirsk oblast is to make it an attractive place to invest, work and live in as well as to help it to maintain and consolidate its position as a scientific and educational center and to ensure its' taking a full advantage of innovative development.

The main objectives of regional economic policy of Novosibirsk oblast include the following ones:

- to make not only Novosibirsk, but the whole territory of Novosibirsk oblast attractive both for living, and for investing;
- to identify the main directions of Novosibirsk oblast economic development reflecting long-term interests of business, local authorities and those of population;
- to create timely prerequisites for ensuring the feasibility of long term objectives of Novosibirsk oblast's development programs that will place the oblast among the regions - leaders of the Russian economy.

In order to overcome the recession and to accelerate the economic growth of small towns and districts of Novosibirsk oblast there is a need to increase levels of production in traditional basic specialized industries (agriculture, industry of construction materials and food industry) and to improve the competitiveness of products through the use of innovative technologies, as well as to foster new activities increasing the attractiveness of the territories (new knowledge-intensive industries, recreation and travel business).

Novosibirsk can develop dynamically as interregional business, commercial and industrial centre with a high concentration of high-tech industries, science and education, market infrastructure, medical and social services. Its priority areas are machine-building, chemical industry, construction, trade and public catering and the non-material services sector.

Scientific and technological park «Novosibirsk» established on the basis of scientific potential and in the integration with the research institutes of the Siberian branch of the Russian Academy of Sciences has become a real tool in solving problems concerning the

commercialization of scientific developments, creation of a competitive economy and promotion regional economic development. The main goal of Technopark is to ensure the accelerated development of high-tech industries and to make them one of the major driving forces facilitating economic development of the City of Novosibirsk as a whole and Novosibirsk City Agglomeration, and in the first place, the development of Academgorodok, the Koltsovo science city and the town of Berdsk.

In developing small towns of Novosibirsk oblast it should be taken into account that only large cities are capable of performing inter-town functions related to providing a full range of personal, cultural and social services. Therefore, the increase in small oblast's towns' population and the development of the second major industrial center on the basis of Kuibyshev and Barabinsk are one of the strategic tasks. Unfortunately, this pressing challenge is still not being solved as there is no strategy to address it, although there are necessary prerequisites for its solving: it is possible to combine these cities into a single agglomeration, they are located in the immediate vicinity of the main railways and highways of federal importance, they possess some industrial potential and relatively well-developed social services sector.

The development of other oblast's towns and districts is aimed at overcoming depression and depopulation of smaller towns and settlements by increasing the competitiveness of traditional sectors of the economy, the development of their market, transport and social infrastructure and non-material services sector development.

The priority areas of the accelerated growth of the cities and districts of Novosibirsk oblast may be the following ones:

1. New «points of growth» in non-material services sector:

- recreation and travel intra-regional business on the basis of the Dovolensky and the Krasnozyorsky health resorts, mineral waters and therapeutic mud and clay of Karachi, health resorts Berdsky, Rassvet, Parus, Sibiryak and Sosnovka in the town of Berdsk and its vicinity;
- ski resort in Maslyanino, the development of historical and ethnographic tours in Zdvinsky, Kolyvansky and Suzunsky districts;
- the development of recreation and travel intra-regional business on the banks of Chany Lake in Barabinsky district;
- the establishment of specialized and vocational education institutions for training workers of required job specializations, reconstruction and renovation of pre-school and general education institutions in districts centers;
- the reconstruction of health care establishments and development of adequate public health service networks so as to give rural population access to better quality health services;
- the establishment of International Centre of Trade with Kazakhstan and Central Asian republics in the town of Karasuk;

2. New «points of industrial growth» in small towns and districts: oil (fuel), oil processing and petrochemical industries, mixed feed industry, machine-building, timber and wood processing industry. With regard to the oil industry, there is no doubt that it has good prospects, since the development of the Verkh-Tarsk oil field in the north of Novosibirsk oblast is gathering pace. One of the strategic objectives of Novosibirsk oblast Administration is attracting investors to oil processing industry that could play an important role in saturation of domestic market with high-grade motor fuel and aviation kerosene which, in turn, should have a positive impact on the prices of the domestic market and, as consequence, promote the development of road transport. Towns located along the Trans-Siberian railway such as Kuibyshev and Barabinsk are the potential sites of industrial construction.

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The development of mix feed industry in Novosibirsk oblast will help to establish stable forage reserve for dairy cattle and pig breeding. This industry should be subsidized by the Government, possibly in the framework of a national project for the development of agriculture. Rural areas producing coarse grains (Tatarsky, Chanovsky, Zdvinsky, Kuibyshevsky, Barabinsky) are the potential areas of mix feed industry localization.

The following three developmental areas should be singled out in machine-building spatial development as most important:

- development of service enterprises network for maintenance of agricultural equipment in district centers;
- development of innovative instrument-making sector and science-based machine-building industry in Novosibirsk agglomeration (in the towns of Berdsk and Iskitim);
- power engineering development – the production of energy-efficient steam boilers of light and medium power for district heating plants and autonomous distributed energy supply systems (Cherepanovsky district).

CLUSTER APPROACH TO THE REGIONAL ECONOMIC DEVELOPMENT

The effective spatial policy implementation requires new approaches specific to a market economy that allow constructing regional competitive advantage and solving the tasks of modernization and innovative economic development. This refers mainly to the cluster approach to economic development. The cluster approach to the development and placement of the oblast's productive forces focuses on two directions.

The first direction is the development of territorial and sectoral clusters. An actual example of such a cluster is a «Power electronics» Program. This includes about 20 regional enterprises and organizations and research and educational institutions. More than 20 projects are at various stages of their implementation. This cluster integrates research and development works on material engineering, power semiconductor devices, microprocessor engineering, and information technology. Cluster products are widely used in automotive electronics, modernization of power plants as well as in public utilities.

In Novosibirsk oblast there is a strong economic base and all preconditions for the establishment of a wide range of new territorial and sectoral clusters, among them are the following ones.

1. Biotechnological cluster, the nucleus of which could become:
 - Production Association «Sibbiopharm» is the largest biotechnology company in the Russian Federation. Among the consumers of its products are 54 distilleries, 42 centers of State Sanitary and Epidemiological Surveillance of Russia, 72 oil production enterprises and organizations for environmental protection, 300 agricultural enterprises and livestock farms in Russia and neighboring countries and 8 foreign companies. The company has designed strategic development projects within the framework of which it conducts biotechnology research.
 - Closed Joint-Stock Company «Biomedical Union» is the third largest company in Russia producing Enzyme-Linked Immuno-electrodiffusion Essay (ELISA) test systems demanded nowadays by Russian medical institutions for diagnostics of human diseases and selection of the appropriate treatment course. At present this company is the only Russian producer of test systems meeting national standards for quality control of diagnostic studies. Their production is located in Berdsk.
 - The State Research Center of Virology and Biotechnology VECTOR (SRC VB VECTOR) located in Koltsovo is one of the largest Russian research and produc-

tion biotechnology complexes. VECTOR's scientific interests lie in studying infectious pathogens in order to fight diseases and provide biological security to population. Its basic activity is aimed at fundamental and applied research in molecular biology, virology genetic engineering, biotechnology, epidemiology and ecology. Experimental and scientific facilities of the Centre are unique in Russia and allow advanced investigations to be carried out on any dangerous viral pathogens of man and animals. Nowadays this biotechnology cluster comprises 15 small and medium-sized innovative enterprises including the Research Institute of Molecular Biology, Research and Design Technological Institute of Biologically Active Substances, Pilot Plant, Supplying and Trading Company «Vector-Farm», Pilot Agricultural Enterprise and other companies able to collaborate and compete with each other.

Training of highly qualified specialists with higher education for their further work in the field of biotechnology and in chemical production of a biotechnology cluster may be provided by Novosibirsk universities, among them – Novosibirsk State University, Novosibirsk State Agrarian University and Novosibirsk State Medical University. Engineering and technological training of specialists in the field of «Biotechnology and medical devices and systems» for the their work in Production Association «Sibbiopharm» Ltd and other cluster's enterprises may be conducted in a special group of the Novosibirsk State Technical University. Secondary level specialists in this field are prepared for the entire country in Anjero-Sudzhensk general educational institution. Biotechnology equipment operators, instrumentation mechanics and other workers – specialists in demand – may be prepared in vocational school № 56 in the town of Berdsk.

Novosibirsk Technopark in Akademgorodok will ensure the development of cluster's service structures for promoting innovation and attracting investment.

2. Wood processing and building construction cluster consisting of logging operations, manufactures of technological equipment for wood processing, designing and building construction enterprises and exhibition grounds. The basis for the formation of such a cluster may become Closed Joint Stock Company «Russkaya Usadba» (Berdsk).

3. Cluster «Len», the development of which is one of the possibilities to maintain and generate the sustainable growth of the Russian consumer goods industry. This cluster should be composed of flax stations, flax farms and mills, flax combing factories, textile and knitwear industry enterprises, model house, trade and distribution network, research and design institutes and engineering companies. The boundaries of this cluster extend beyond Novosibirsk oblast; its area in Novosibirsk oblast includes Maslyaninsky, Cherepanovsky, Iskitimsky, Suzunsky and Toguchinsky districts.

4. Transport-and-logistics cluster, the formation of which is predetermined by a range of factors, such as oblast's geographical location at the intersection of transport routes of all kinds, available and emerging modern infrastructure of this cluster. Its effective development will help to streamline commodity flows, passenger flows and strengthen Novosibirsk oblast position in the development of interregional links.

5. Construction cluster. The cluster approach to the development of the construction industry aims to optimize its structure and relationships between elements of the cluster. Construction cluster is composed of design companies, enterprises producing construction materials, low-stored private houses, construction itself, public waste utilities, training institutions and institutional structure that ensure the continuity of the construction process (committees for land resources, financial institutions).

6. Recreation and travel cluster. In Novosibirsk oblast, many of the municipalities plan to develop tourism and recreational business. In Maslyaninsky, Iskitimsky and Toguchinsky districts that have exceptionally favorable conditions for the development of winter sports

the construction of a modern ski resorts («Urmanka» and «Novososedovo») has begun. Over many years «Karachi» resort works on the basis of mineral and curative water springs in Chanovsky district and it has all prerequisites for transformation into a modern resort of state importance. The same applies to Dovolensky and Krasnozyorsky districts. In Kolyvansky district prerequisites for tourism development are related to a large number of its historical monuments, old wooden architecture, a convent and beautiful natural landscapes of this area. The development of recreational and tourist zone is recognized to be one of the priority strategic directions of economic growth of Berdsk due to objective competitive advantages of this territory.

While all federal subjects try to engage their recreational potential in the economic development, the competitiveness of this sphere of Novosibirsk oblast may be ensured only through the innovation development of preventive health care and health rehabilitation and the provision of quality services that may ensure wholesome rest and enjoyable vacation.

Another factor contributing to the development of recreation and tourism industry is the attractiveness of this sphere primarily for the small and medium-sized business entities, supporting the development of which is a part of the national strategic economic policy.

The formation of regional clusters is the second direction of the cluster approach to the development of productive forces. In a «Strategy of Socio-Economic Development of Novosibirsk Oblast until 2025» municipal units are combined into regional clusters based on the following characteristics: location in physical proximity to each other and close to major transportation routes, relative homogeneity of economic specialization, transportation linkages and economic ties between municipal units, economic potential, level and quality of population life.

The need for regional clusters formation is caused by the necessity to create and support viable points of growth throughout the area of Novosibirsk oblast. Market capacity and available resource base of a single municipal unit do not allow it to have a modern cost-effective brick factory, its own meat-preserving factory or a dairy plant but this problem can be easily solved if this municipal unit is combined with several other ones within a regional cluster. Regional agribusiness clusters seek to create a manufacturing and marketing basis for farmers which should ensure an uninterrupted supply of material resources (seeds, fuel and fertilizers), repair and maintenance of equipment and marketing.

Thus, the basis of regional economic policy of Novosibirsk oblast is formed by a system of principles through the prism of which management decisions at regional and municipal levels should be considered.

1. Cluster approach principle. The implementation of this principle involves identifying highly integrated territorial-sectoral and regional structures (clusters) united on the basis of shared interests in achieving common goals under conditions of severe competitive environment. The cluster approach ensures the informal association of regions and their coordinated development, exchange of innovation, identification of specialization of enlarged regions taking into account available resources and the needs of the market.

2. Principle of social development orientation ensuring the employment growth, creation of highly paid jobs, construction of social infrastructure and development of the service sector.

3. Principle of public-private partnership (participation in investment, state guaranteed bank loans). The participation of regional and municipal authorities in economic development will increase the investment attractiveness of the territories and will facilitate the flow of private investment, as investors will receive an objective confirmation of local authorities being interested in providing support to specific sectors of regional economy.

4. Differentiated regional investment policy. The essence of this policy is that in regions with a higher investment grade rating the key objective of economic governance is to find investors and to create comfortable conditions for them, strengthen investment pro-

motion and simplify procedures for investors. In regions with low investment potential required are direct budgetary allocation for the development of social and industrial infrastructure and co-financing of enterprises construction and reconstruction.

5. Region – oriented policy. This principle means supporting local production of quality goods and services, promoting them on the market and local producers participating in executing regional and municipal orders.

The application of these principles is possible only in the case of far-reaching introduction and proactive realization of innovative technologies not only into the economy but also into economic management itself.

MECHANISMS ENSURING REGIONAL ECONOMIC POLICY IMPLEMENTATION

Among the mechanisms ensuring regional economic policy implementation there should be distinguished the following tools providing:

- development and implementation of the projects aimed at addressing the key issues of long-term territorial development;
- development of mechanisms of investment projects initiation, their selection and implementation including their supervising;
- creation of Investment Council of the Governor of Novosibirsk oblast for considering investment projects and evaluating their effectiveness;
- monitoring the implementation of territorial component of the long-term program of development of Novosibirsk oblast productive forces;
- adoption and implementation of a new legislation and improvement of the existing one with regard to the governance of economic development of Novosibirsk oblast and its municipal units.

The legislative framework of Novosibirsk oblast allows the use of a whole range of tested mechanisms to provide a support for the implementation of Novosibirsk Oblast Productive Forces Development and Distribution Program. The main mechanisms include:

- subsidizing of interest rate on bank credits;
- granting public credit at the expense of the oblast budget;
- granting property tax exemptions;
- pledge of Novosibirsk oblast public property;
- formation of authorized capital of enterprises that are being established out of regional budget funds;
- funding of investment projects from the regional budget on a competitive basis;
- bond issues secured by the state guarantees;
- funding of engineering infrastructure development
- the establishment of a fund for small and medium business support;
- exemptions with regard to property tax and profit tax during a project payback period for major priority projects;
- financing of investment projects implemented by enterprises under leasing conditions;
- reimbursement of the cost of equipment and material resources produced in the region;
- creation of special economic zones of regional level aimed at innovative activities development;
- providing organizational support to investors willing to get federal support;

- establishment of foundation to support innovation in the social sphere and its use on a competitive basis;
- non-financial forms of support of investment activity (informational, organizational and legal support);
- development of vocational and technical education system with regard to the implementation of large-scale investment projects.

The active involvement of public and civil society institutions in the implementation of long-term strategic development goals and objectives of Novosibirsk oblast as a whole is a very important direction of regional economic development. Community participation in discussions of the program will help both to prevent the alienation of population from the local authorities and to form new effective forms and mechanisms of civil society.

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