Prospects for Formation and Development of the Geographical (territorial) Industrial Clusters in West Kazakhstan Region of the Republic of Kazakhstan

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ABSTRACT

The purpose of this research is to develop and implement an economic and geographic approach to forming and developing geographic (territorial) industrial clusters in regions of Kazakhstan. The purpose necessitates the accomplishment of the following scientific objectives: to investigate scientific approaches and experience of territorial economic development; to investigate the developmental trends and territorial concentration of the economy in the West Kazakhstan region; to determine the prospects of formation and recommendations regarding the development of geographic (territorial) industrial clusters in the West Kazakhstan region. The general methodology of the present research is based on philosophical and ecological-geographic ideas and concepts, which, in turn, are based on the concept of sustainable development of an area and the principle of polycentric development of production forces in the country. The given paper presents an economic and geographic approach to the formation and development of geographic (territorial) industrial clusters in Kazakhstan regions. Recommendations are developed regarding territorial and structural transformation and modernization of the West Kazakhstan region economy, based on mobilization and an effective use of natural resources, new forms of productive forces territorial organization (geographic (territorial) industrial clusters).

Introduction

Market relations, economy openness, occurring integration processes in the world and aggravating social and economic competition both within the Republic of Kazakhstan and beyond its borders dictate the need for defining priority courses for territorial and structural transformation and modernization of the country regions' territorial development, which has to result in efficiency increase of the territorial organization of economy, population life quality, decrease of territorial asymmetry in the social and economic development level (Kelinbaeva, 2010).

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Increase of the country's competitiveness demands the involvement and mobilization of territorial resources due to the transformation, modernization and evolution of territorial economy organization and country regions population (Abdymanapov et al., 2016).

Nowadays, Kazakhstan pays much attention to innovative industrial development of its regions. The evidence thereof includes the implementation of public programs and policies, such as enhanced innovative industrial development of Kazakhstan for 2010-2014, the Territorial Development of the Republic of Kazakhstan up to 2015, "Business Road Map 2020", "30 Corporate Leaders of Kazakhstan", Development of Agriculture in the Republic of Kazakhstan for 2013-2020 (agribusiness - 2020) and others.

It is necessary to introduce new approaches to the territorial organization of the economy of Kazakhstan regions in order to achieve the objectives for further development of economy branches and increase of their competitiveness (Avtonova, 2013; Babkin, 2014). Thus, the Territorial Development Strategy of the Republic of Kazakhstan up to 2015 defines the overall direction of the country's economy with the use of the cluster approach. This document states: "Regional clusters shall be created for the economy areas in which regions specialize and they will cover not only the existing administrative territorial units, but also neighboring districts and areas. The created clusters shall meet the following requirements: there shall be a competitive environment and, at the same time, cooperation of cluster participants, geographic concentration, specialization in one economic area (for example, the tourism cluster), diversity of the participants group, permanency and openness to innovation" (Strategy of territorial, 2006).

The problem of this research is to form the most efficient substantiation of new forms of territorial organization of production forces (geographic (territorial) industrial clusters), based on the mobilization and efficient use of natural resources in a given region. This predetermines the contribution of this research in developing the world science, which consists in using the herein offered scientific solutions not only as a generalization of Kazakh and international experience of developing the territorial organization of production, but also with regard to the regional specificity, which can be of use when analyzing other countries and regions.

The practical value of this research is that it forms concrete recommendations regarding the development of the West Kazakhstan region, based on the substantiation of the necessity and format of development of geographic (territorial) industrial clusters in this region, which can be of use both at the national and practical corporate level. **Literature Review**

The works of V. Avtonova (2013), V. Babkin (2014), E. Dahmen (1950) are devoted to the issues of clustering. The peculiarities of formation and development of clusters in the West Kazakhstan region of Kazakhstan Republic are found in the works of E. Arkhipova (2010) and O. Koriakina (2011).

The theory of geographic (territorial) industrial clusters is associated with the American economist M. Porter (2008) and his follower M. Enright (1996). The cluster approach forms a basis for constructive dialogue between representatives of business and the state. It allows increasing the interaction efficiency of the private sector, the state, trade associations, scientific and educational institutions within the innovative process, during the increase of economy competitiveness (Nugerbekov, 2008). As correctly noted by V.A. Yermolaeva (2008): "…in an area of regional clusters formation it is possible to create optimal conditions for the formation of new companies, associated with the existence of manpower of the appropriate classification, specific taxation modes". According to Yu.G. Lavrikova (2009): "Formation of clusters in the region territory not only allows solving

branch problems, but also promotes multipolar distribution of growth points in the region territory and thereby provides uniformity and balance of territorial development".

Region competitiveness is considered by modern scientists in three areas: cluster approach, innovation system establishment and gradual entrepreneurship development. In accordance with the cluster concept, the competitive ability of a certain region depends on the availability of a cluster of interrelated economy areas.

The basic interpretations of the term "cluster" within this area are as follows:

A cluster represents a system, consisting of a core or knot (anchor), around which satellites are concentrated (Avtonova, 2013).

A cluster (innovation territorial cluster) is a formation that meets the following requirements: produced items (services) quality improvement; cost reduction (Babkin, 2014).

A cluster is a group of geographically localized interrelated companies, suppliers of equipment, components, specialized services, infrastructure, scientific-research institutes, higher educational establishments and other organizations, which complement each other and strengthen the competitive advantages both of individual companies and the cluster as a whole (Fedoseeva, 2013).

A. Marshall (1993) was the one of the first to suggest the idea of specialized industrial localization. His characteristics of local concentrations of specialized activity (clusters) include three basic blocks: the availability of accessible qualified labor; expansion of the supporting and additional areas; specialization of different companies on the different stages and segments of the industrial process.

The prototypes of enterprise clusters are present in publications, devoted to the analysis of the activity of huge Swiss corporations. For example, E. Dahmen rationalizes the creation of "development blocks" and underlines the importance of connection fixation between the ability of one sector to develop and the ability of another sector to achieve progress (Dahmen, 1950).

Having studied competitive ability, M. Porter states that highly competitive companies of one area have property concentrated in certain territorial frameworks (city, region). The cluster definition of M. Porter is one of the most universal ones: a cluster is a group of interrelated companies, which are located close geographically (suppliers, producers, etc.) and organizations related to them (educational establishments, state authorities and infrastructural companies), which act in the certain area and complement each other (Porter, 2008).

Aim of the Study

The purpose of this research is to develop and implement an economic and geographic approach to forming and developing geographic (territorial) industrial clusters in regions of Kazakhstan. **Research questions**

Which areas of economic development exist in the West Kazakhstan Region?

What are the prospects of forming industrial clusters in the West Kazakhstan Region?

Method

The general methodology of the present research is based on philosophical and ecological-geographic ideas and concepts, which, in turn, are based on the concept of sustainable development of an area and the principle of polycentric development of production forces in the country. The research used general scientific methods: systems approach, generalization, geographical modeling and

design. The economic and geographical analysis and assessment of the area were based on the collection and processing of raw information, statistical, comparative-geographical, and mathematical methods, systematization and logical generalization, prediction, and the analytical-constructive method.

The herein applied methodological principle of polycentric development of territories is based on the principles of consistency and combined use of raw materials, transport, labor and energy resources, cyclic recurrence of material flow, restricted impact of production of the environment and society, and rational organization of technological processes. **Data, Analysis and Results**

Many developed countries actively create clusters as a means of developing regional and national economies (Bolumole, Closs & Rodammer, 2015). Interest in the cluster-based innovative development grew constantly in the second half of the twentieth century until it exploded first in North America and Europe and then reached other industrial countries in the 1980-1990s. This interest was generated primarily by the successful consolidation of Silicon Valley companies (California, USA). Venture capital investments in the Silicon Valley cluster increased from 2 billion US dollars to 68.8 billion US dollars from 1991 to 2001. California's example was followed by other USA states, which implemented respective programs of cluster-based development: hundreds of cities and regions in the USA are implementing their respective cluster-based strategies (Axtell, 2013).

The Japanese economy is an interesting example of cluster creation. In 1983, the country passed a bill that approved the concept of technology parks and supported the establishment of integration centers for industry, science, and authorities. A typical Japanese cluster (of which there are more than 600) consists of one main company that uses the services of two or three levels of companies, which are usually located geographically close to it. For instance, the Toyota automobile cluster has a multilevel network that consists of 122 direct suppliers and almost 36,000 subcontracted small and medium-sized businesses (Nakamura, 2008).

There are many examples of cluster-based agglomerations of companies that achieved great success and worldwide recognition. For instance, Finland prioritized cluster-based economic development in the 1990s and carried out an extensive research, the results of which were published in 1995 under the title "Advantage Finland". "the Future of Finnish Industries". At present, the forestry, information, and telecommunication clusters are crucial for the Finnish economy, since they form the main export volume and a considerable part of the country's GDP. For example, Finland is the leader in manufacturing equipment for the pulp and paper industry and controls 40% of the world market of pulp-manufacturing equipment and about 30% of the market of paper-manufacturing equipment. The competitiveness of the metallurgical and machine-building clusters in Finland is improved by enhancing the specialization and increasing the surplus value of the final product (Pyatinkin & Bykova, 2008).

In general, when analyzing the international experience of cluster-based organization of production, it is worth noting that the formation and development of clusters produces integral advantages:

- improves the competitiveness of the economy;
- activates innovation and real coordination of the interests of authorities, business, science, and education when preparing a strategy of development both at the level of a standalone company, cluster member and the regional and national level.

However, despite the obvious advantages of cluster-based organization of regions in a post-soviet economy, both for a specific region and the country overall,

various obstacles to this process exist: poor infrastructure, insufficient capital and skilled workers, lock-in effect, i.e. certain companies can be more competitive, compared to cluster-based ones, lack of interest of authorities, failure to understand the advantages of the cluster-based approach.

Bases of the modern territorial organization of economy and population of the West Kazakhstan region are laid during development of the centralized, monopolized state economy. Due to uneven placement of productive forces and population movement, the northern administrative districts of West Kazakhstan region historically have a higher level of economic and social development, than the administrative districts located in the south, the east, the west and the southwest. For instance, economic and geographic monitoring of tendencies and features of the West Kazakhstan region territorial development for 1997-2011 is indicative of a dynamic economy progress (Table 1) with the strengthening of territorial localization of economy and population.

This polarization in the economy and population territorial organization causes territorial asymmetry in the level of social and economic development of administrative districts, hinders the formation of a complete territorial socioeconomic system and reduces the competitiveness of the West Kazakhstan region.

In order to demonstrate territorial differences in the level of social-economic and environmental development, the typology of West Kazakhstan region administrative districts was conducted. The methods of rank-score estimation of social-economic development, developed by the Ministry of economic development of the Russian Federation were taken as the typology basis (Ibragimova, 2006).

Table 1. The dynamics of gross regional product and development of West Kazakhstan region economic sectors for 1997-2011

	1997	2000	2003	2006	2009	2011
Gross regional product (millions of U.S. dollars)	0.70	0.77	1341.97	4063.12	5583.60	9026.99
Gross regional product per capita (U.S. dollars)	1.1	1.3	2228.8	6668.5	9023.3	14839.7
Industry (millions of U.S. dollars / %)	0.08 / 11.4	0.20 / 26.0	290.33 / 21.6	1966.34 / 48.4	2918.70 / 52.3	4794.06 / 53.1
Agriculture, hunting, forestry and fishing (millions of U.S. dollars / %)	0.18 / 25.7	0.05 / 6.5	95.37 / 7.1	139.08 / 3.4	218.20 / 3.9	323.87 / 3.6
Construction (millions of U.S. dollars / %)	0.02 / 2.9	0.17 / 22.1	187.76 / 14.0	374.36 / 9.2	355.00 / 6.4	346.71 / 3.8
Transport and telecommunications (millions of U.S. dollars / %)	0.07 / 10.0	0.10 / 13.0 11.1	148.00 / of U.S. dollars	354.74 / 8.7	358.90 / 6.4	570.73 / 6.3
Trade (millions of U.S. dollars / %)	0.16 / 22.9	0.06 / 7.8	138.00 / 10.3	249.66 / 6.2	385.00 / 6.9	464.16 / 5.2
Other services (millions of U.S. dollars / %)	0.19 / 27.1	0.19 / 24.6	482.51 / 35.9	978.94 / 24.1	1347.80 / 24.1	2527.46 / 28.0

Sources: (Department of statistics, 2014).

These estimation methods include 12 basic indicators. On the assumption of absence of some indicators within the profile of West Kazakhstan region

administrative districts, they are replaced by other criteria with the addition of the environmental component, while the number of basic indicators increased from 12 to 18.

The system of basic social-economic and environmental development indicators includes the following indicators:

1. **Economic:**
   1.1. The volume of industrial production per capita (USD);
   1.2. The integral indicator of production of basic agricultural product types (corns, potatoes, vegetables, melons and gourds, meat, milk, wool) per capita (kg);
   1.3. Investments in the basic capital per capita (USD);
   1.4. The general volume of retail goods turnover per capita (USD);
   1.5. The volume of provided services per capita (USD);
   1.6. The percentage of persons employed at small enterprises (of general number of persons working in the economy);
   1.7. The balanced cost of basic funds per capita (USD); 1.8. The transport infrastructure density (Engel coefficient);

2. **Social-demographic:**
   2.1. Natural population growth coefficient (per 1000 inhabitants);
   2.2. Population migration effectiveness coefficient (%);
   2.3. Unemployment level (%);
   2.4. The percent correlation of the average per capita income and the average per capita minimum wage;
   2.5. Accommodation put into service (sq. m of total area per 1000 inhabitants);
   2.6. The number of hospital beds (per 1000 inhabitants);
   2.7. The provision of population with medical staff (the number of doctors and average medical staff per 1000 inhabitants);
   2.8. The graduation of specialists by the higher and state secondary special educational establishments (per 1000 inhabitants); 2.9. The number of registered crimes (per 1000 inhabitants);

3. **Environmental:**
   3.1. Pollutant emission into atmosphere by stationary sources (emission density coefficient) (VUJIĆ et al., 2015).

The population migration effectiveness coefficient is determined as follows:

$$\frac{R\ E_M}{N_A} \square 100\%$$

where E_M is the migration effectiveness; R is the migration rate; N_A is the number of arrived persons (Kozeva, 2007).

The coefficient of emission density of hazardous substances into the atmosphere is calculated according to the following formula:

$$C_{atm} \square\ A$$

$$\sqrt{\overline{S \square N}}$$

where A is the hazardous substances emission into the atmosphere; S is the territory area, km²; N is the average annual number of population, people (Zhidkikh, 2003).

The estimation of the social-economic and environmental development in accordance with the range-point methods is performed in three stages:

1) The range of each specific administrative district is determined by each of the 18 basic indicators, starting from the best value and finishing with the worst one; the range of average region value, according to the indicators, is determined, too.

2) The point estimation ($Grade_1{}^i$) by each individual indicator for each administrative district is calculated as follows:

$$Grade_1{}^i \square Range_1{}^R \square Range_1{}^i$$

where $Range_1{}^R$ is the range of the average district value in the general ranking; $Range_1{}^i$ is range of i th administrative district in the general ranking.

3) When applied to each administrative district, the aggregate of all eighteen specified basic indicators is added the stated point estimations and then divided by 18:

$$ComplexGrade_1{}^i \square \frac{\displaystyle\sum_{i\square 1}^{18} Grade_1{}^i}{18}$$

The calculation of the social-economic development level, taking into account the pollution of atmosphere, shows that a relatively high level of development is typical for the territory of Uralsk city administration and the Burlinsky district (Figure 1).
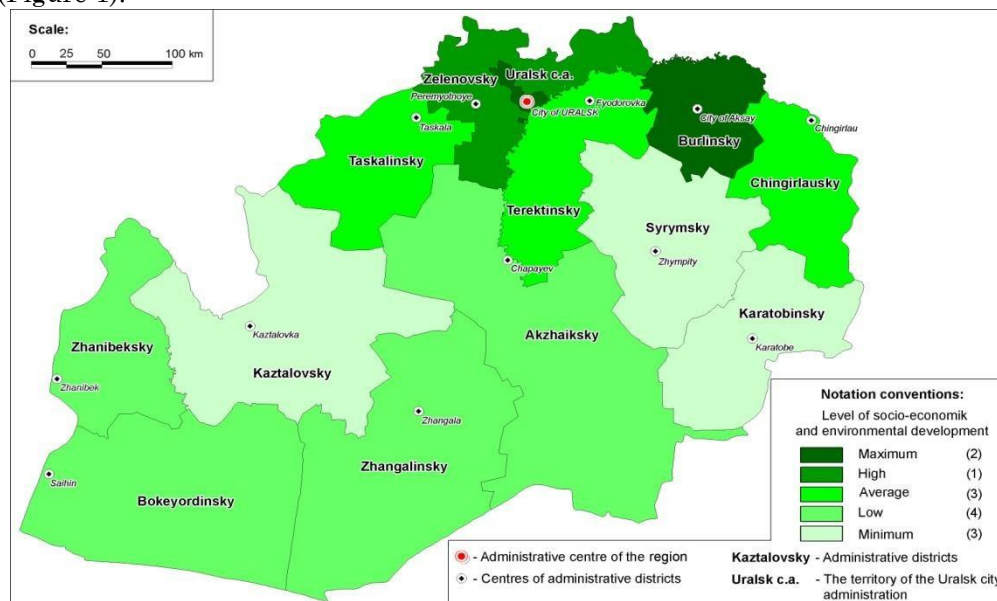

Figure 1. West Kazakhstan region administrative districts typology, according to the socialeconomic and environmental development level (2011). Drawn by the author with reference to (Department of statistics, 2014).

The Zelenovsky district is distinguished by a high development level, surpassed only by the indicators of the Uralsk city administration territory and the Burlinsky district.

The Terektinsky, Taskalinsky and Chingirlausky districts have an average social-economic and environmental development level due to the available industrial objects, development level of the transport infrastructure, agriculture, service industry, accommodation put into service, etc., compared with the administrative districts, located in the south, west, southwest and east (Syrymsky, Karatobinsky) of the West Kazakhstan region.

The Akzhaiksky, Zhangalinsky, Bokeyordinsky and Zhanibeksky districts have a low development level. The minimal of social-economic and environmental development indicator is typical of the Kaztalovsky, Syrymsky and Karatobinsky districts. In these administrative districts, the industry, trade and services are weakly developed, while the economy is dominated by extensive agricultural production and there exist a number of social-demographic problems.

The of growth rates analysis, according to the system of absolute indicators, which were used during the range-point estimation, showed that all administrative districts of the West Kazakhstan region shoed an overall positive tendency in 1997-2011. At that, the positive dynamics of the administrative districts development is characterized by mildly stable growth (Table 2).

Thus, the inertial process of economy and population territorial localization in the northern West Kazakhstan regions continues and is the result of territorial differentiation of the available natural-raw material resources, irregular productions localization and population distribution, as well as the effect of historical-geographic and economic-geographic factors.

Table 2. West Kazakhstan region administrative districts typology, according to the rates and dynamics of growth for 1997-2011

	High growth rate	Aboveaverage growth rate	Below-average growth rate	Low growth rate
Positive dynamics of development with mildly stable growth	Burlinsky, Zelenovsky, Terektinsky, Uralsk city administration territory	Akzhaiksky	Bokeyordinsky, Zhanibeksky, Zhangalinsky, Karatobinsky, Syrymsky, Taskalinsky, Chingirlausky	Kaztalovsky
Total	4	1	7	1

The prospect of developing the oil and gas extraction industry of the West Kazakhstan region is defined by existence in its territories of undeveloped small oil and natural gas fields. For example, oil fields have been prospected in the territory of the Karatobinsky, Zelenovsky, Taskalinsky, Zhangalinsky districts. Natural gas fields are available in the subsoil of the Kaztalovsky and Akzhaiksky districts (Figure 2).

In the long term, the development of these fields with the involvement of foreign capital will have a social effect and will reduce territorial disproportion in the district's oil and gas extraction industry.

The West Kazakhstan region has high potential for creating a petrochemical complex and developing the mechanical engineering industry. For this purpose, it is necessary to solve problems of territorial organization of the oil and gas extraction, gas-processing industry and mechanical engineering. In the territorial organization of the oil and gas extraction and gas-processing industry (the Burlinsky district) as the leading branch of the West Kazakhstan region economy, and the mechanical engineering industry (Uralsk), it is expedient to use the

cluster approach, since these branches are territorially localized, which will allow adjoining enterprises and companies to effectively interact in order to receive maximum economic benefits.

Prerequisites for the formation of a petrochemical cluster are present in the territory of the West Kazakhstan region – in the city of Aksay of the Burlinsky district (Figure 3).

The market estimation of raw hydrocarbon deposits of Karachaganaksky gas condensate deposit was conducted based upon the methods of estimation of the natural-resource potential, suggested in the work of R.M. Safiullina (2010). The Karachaganaksky gas condensate deposit will provide hydrocarbon raw materials for the Aksay petrochemical cluster.

The present reserves of liquid hydrocarbon raw material in the Karachaganaksky oil and gas condensate deposit will be sufficient for 65-70 years with an annual production of 11.6 million tons. The total income from the present reserves of the oil and gas condensate at the value of 115 USD per barrel (as of May 27, 2011) is 665 billion USD.

With an annual production of up to 15.1 billion cubic meters, the Karachaganaksky natural gas deposits will be sufficient for 85-90 years. The total income from natural gas deposits at the cost of 152.5 USD per 1,000 cubic meters (as of May 20, 2011) will be 8.8 trillion USD.
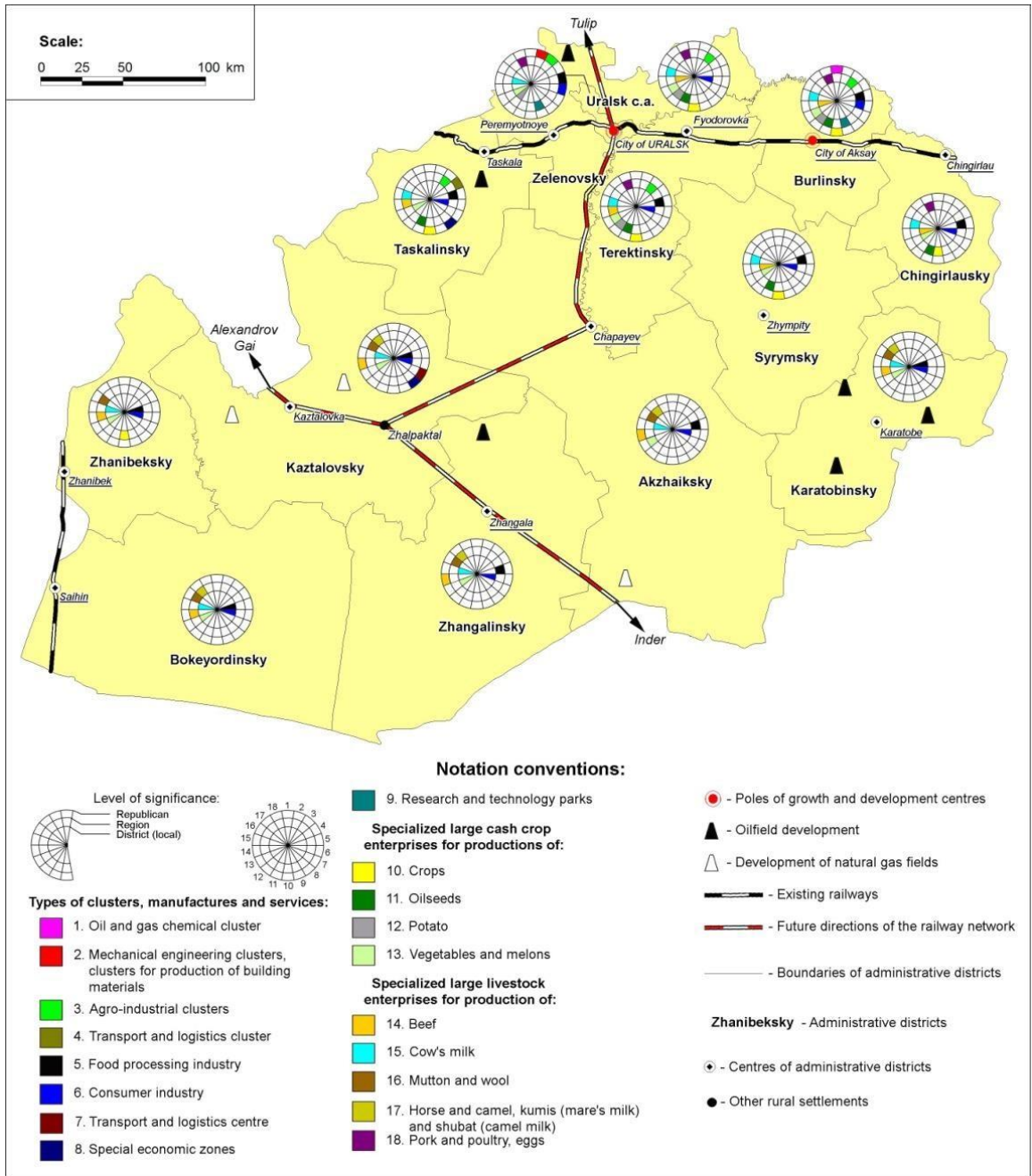
Figure 2. Priority courses of territorial and structural transformation and modernization of the West Kazakhstan region economy (drawn by the author).
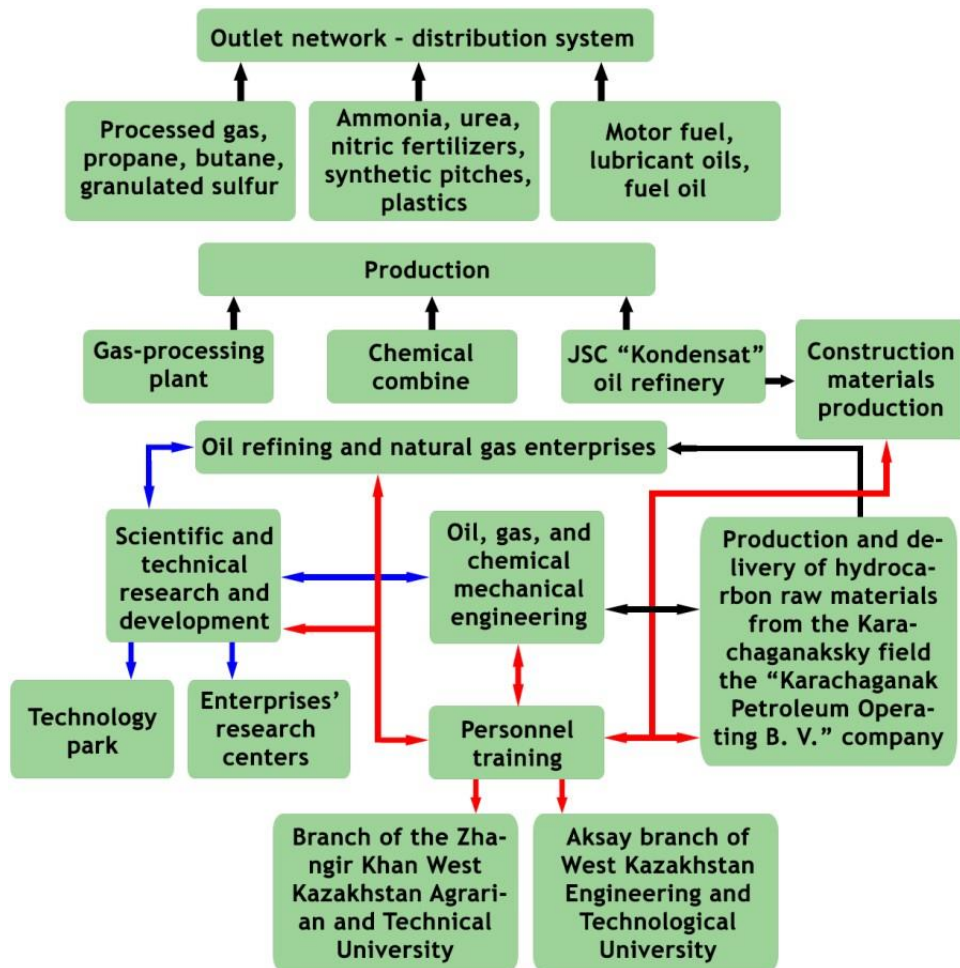
Figure 3. The Aksay petrochemical cluster (drawn by the author).

The project for the creation of a cluster of oil and gas mechanical engineering companies is already realized and presents an integration of seven industrial enterprises (JSC "West Kazakhstan Machine-Building Company", JSC "Zenit" Uralsk factory, JSC "Omega" instrument engineering factory, JSC "KazArmaProm", JSC "Uralskagroremmash", production cooperative (PC) "Uralsk Foundry-Mechanical Plant", SPP "Metalloizdeliya" (LLC, limited liability company) and JSC "Gidropribor" Scientific Research Institute. To conclude, the author suggests: 1) integrating into a cluster two educational institutions with a view to training appropriate personnel; 2) strengthening scientific and technical research and development with the assistance of the "Algorithm" science and technology park and with the financial support of the "Gradiyent" investment center (Figure 4). The purpose of this cluster is to combine the efforts of industrial enterprises, educational institutions and scientific institutions for the joint development and production of competitive products.
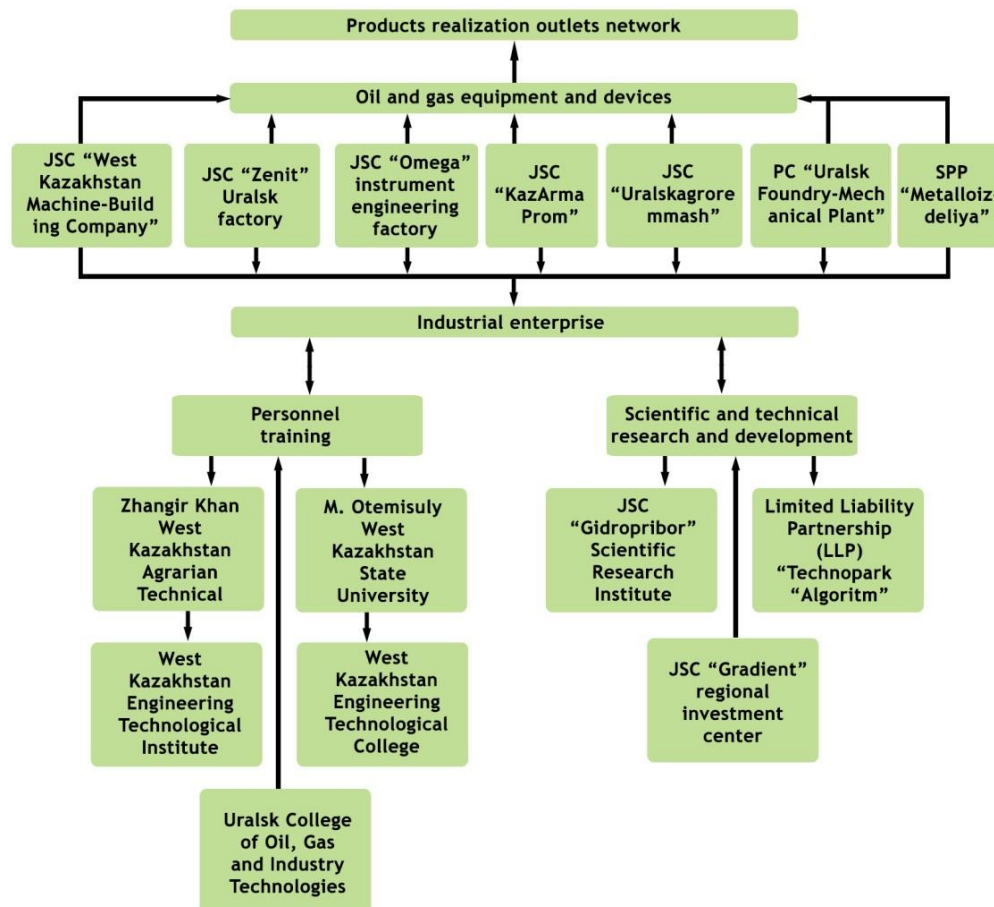
Figure 4. The Uralsk petrochemical machine-building cluster (drawn by Strategy of development, 2015).

The dynamic development of the oil and gas subsector of the industry in the Kazakhstan sector of the Caspian Sea, the revival of river navigation and the wear and tear of the country's vessel fleet, the need for high-speed warships for the armed forces of Kazakhstan, facilitated an increase in the demand of low-tonnage vessels. Shipbuilding was development in Uralsk. There are prerequisites for creation of a shipbuilding cluster. JSC "Zenit" Uralsk factory, which specializes in the production of vessels with a displacement of up to 500 tons (Fig. 5), can become the main base for this cluster's formation.

In Uralsk, the cluster territorial organization of productions is possible also in the agro-industrial complex and light industry, in the construction industry, on the condition of companies' integration and cooperation, modernization and development (based on the introduction of advanced technologies) of these subsectors and increase in the range of produced high-quality goods and sales markets expansion.
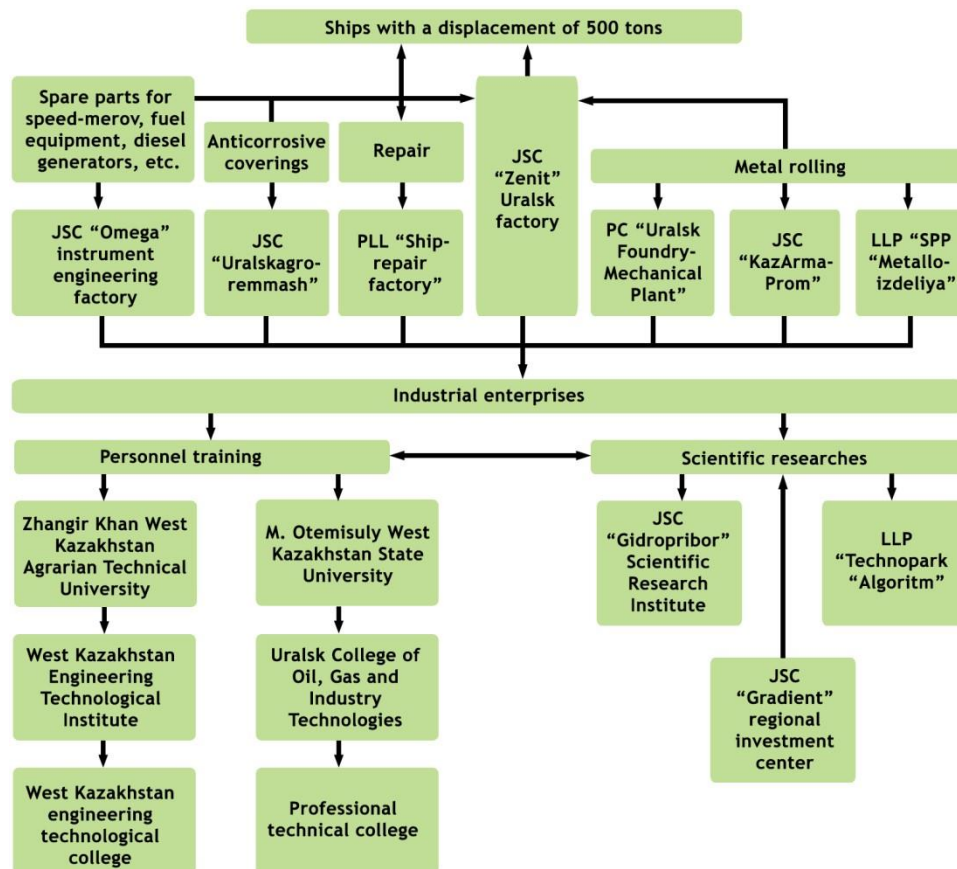
Figure 5. The Uralsk shipbuilding cluster (drawn by the author).

The author suggests creating a regional agro-industrial cluster, which will unite farms of the Zelenovsky, Terektinsky, Taskalinsky districts, and the Uralsk city administration territories, food and light industry enterprises, Uralsk scientific and educational institutions (Figure 6).

The main aim of the regional agro-industrial cluster is the system integration of rural (farmer) economies, industrial enterprises, educational establishments, scientific institutions with a view to producing diversified high-quality food products with high added cost and the expansion of export possibilities of the West Kazakhstan region agro-industrial cluster. Personnel are required for an effective functioning of the regional agro-industrial cluster – middle ranking specialists – from colleges of the Uralsk city administration territory, Zelenovsky, Terektinsky and Taskalinsky districts. Highly skilled personnel are trained by three universities in city of Uralsk. This cluster will become a basis for the formation of an industrial and agrarian power production cycle and will allow raising the agroindustrial complex to a new level, which will influence the modernization of the West Kazakhstan region economy territorial structure.
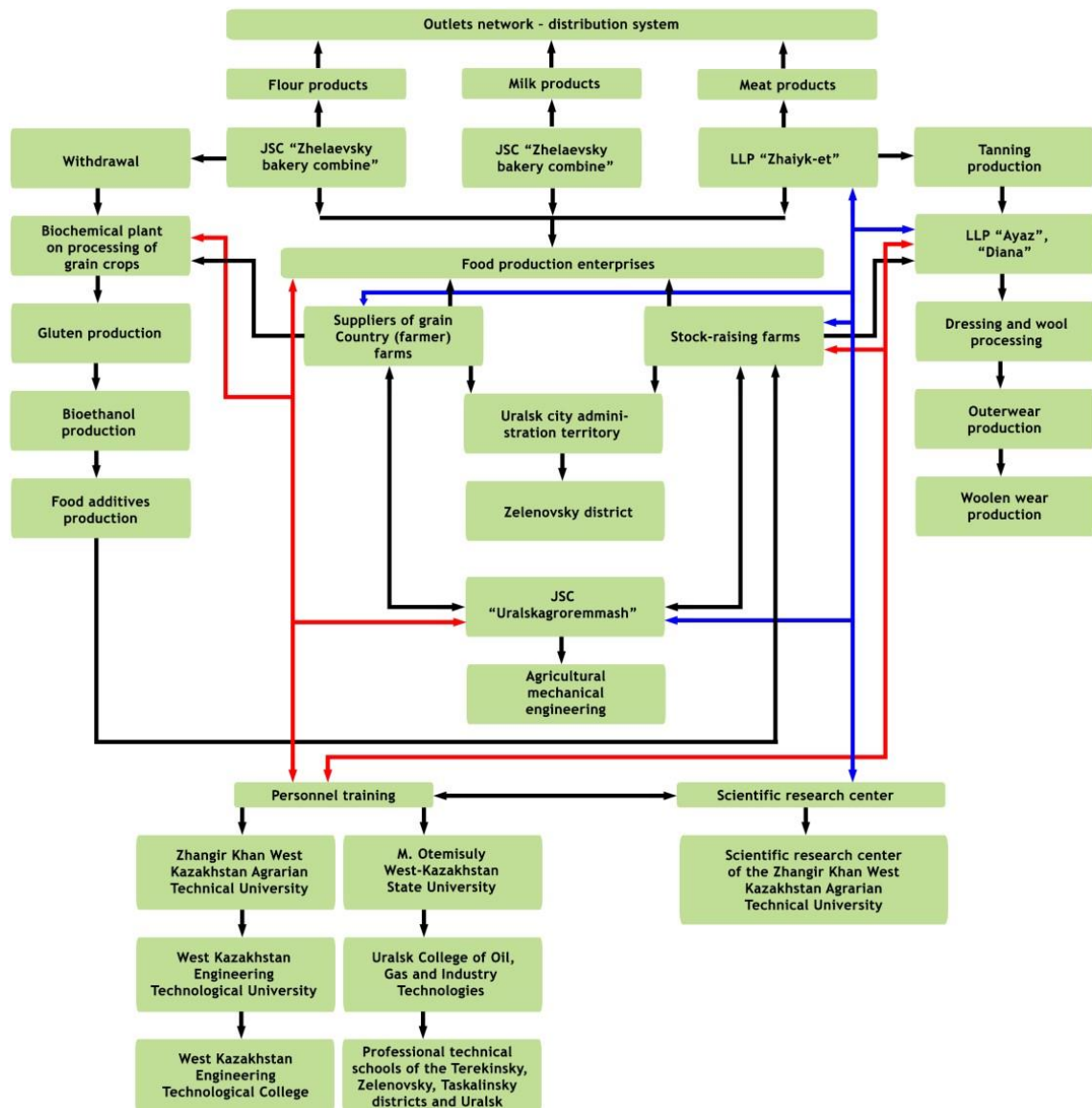
Figure 6. The regional agro-industrial cluster (drawn by the author).

It is necessary to stimulate food industry development based on local agriculture, with introduction of new production technologies, in the West Kazakhstan region administrative districts, located in the south, southwest, east, west and north (Taskalinsky, Terektinsky), where a low industrial development level is observed (Fig. 2). Further development of the food industry in these administrative districts will increase enterprises' competitiveness and will allow advancing the production on not only the regional market, but also markets of the neighboring regions (Atyrau, Aktobe) and bordering Russian territories.

Local agriculture can provide raw materials not only for the food industry, but for textile and clothing industries, as well. Therefore, it is necessary to provide the investment appeal of administrative districts, while local governing bodies have to promote the process of organization and development of specified subindustries. Thus, enterprises have to be formed within the development of small and medium-sized business.

The northern administrative districts of West Kazakhstan region have competitive advantages over other administrative districts. It is necessary to accelerate industrial development of the administrative districts located in the south, southwest, west and east, which have untapped capacity for the solution of

these territories' social and economic problems. It concerns the development of new small oil and natural gas fields, the development of food and, which will allow pursuing the policy of productive forces' territorial deconcentration.

Taking into account the suggestions regarding the territorial organization of the industry in the long term can facilitate the deconcentration of industrial production, territorial and structural transformation and modernization of the West Kazakhstan region economy. It will influence the formation of a uniform territorial social and economic system of the West Kazakhstan region, capable to compete under modern market conditions at both the intra-republican and the international level.

Discussion and Conclusion

The positive effect of clusters on the development of regions was proven on many occasions by many researchers from various countries, which substantiates scientifically the intensification of cluster formation in the national industry. For instance, recent studies show that the strength of local clusters significantly affects the performance of regional economies. Delgado, Porter, and Stern (2008) found that industries located in a strong cluster registered higher employment and patenting growth. In addition, they found that new regional industries emerged where there was a strong cluster. They believe that the growth rate of an industry within a region may be increasing in the "strength" (i.e., relative presence) of related industries and prove that strong clusters are related to the establishment of new subsidiaries of existing companies and are a guarantee of their survival.

Spencer (2000) achieved a similar result. He found that regions with a high employment rate in clusters had better economic results (income rate, employment indices), compared to regions with a low rate of cluster employment.

Territorial development efficiency of a region depends on the existence and functioning in the territory of a pole (poles) and center (centers) of growth. The issue in the development of poles and growth centers in the West Kazakhstan region territory is low urban saturation (47.7% in 2011) and a poor development of city moving system (2 cities). Currently, the poles and growth centers in the West Kazakhstan region are the cities of Uralsk and Aksay. In order to transform, modernize these cities and increase their role in the territorial economy structure of the West Kazakhstan region, said cities need to develop new, competitive industries demanded by the region, modernize available capacities, which has to be accompanied by investments attraction and innovative technologies introduction, uniting enterprises and establishments into a single node in the form of territorial industrial clusters.

Thus, West Kazakhstan region cities have to facilitate the development of the polycentric organization of the Kazakhstan territory. "Polycentrism" implies a uniform territorial distribution of urbanized districts and large cities, between which a relations system is formed, based on equal cooperation and functional complementarity (Kelinbayeva, 2010).

Proceeding from idea of polycentric development, the West Kazakhstan region cities of Uralsk and Aksay should not compete against each other. Each city should perform its individual function in the social and economic development of the region, complementing each other by virtue of strong cooperation, forming stable network relations between the urbanized districts of the region. A functional distribution of roles between the cities of Uralsk and Aksay will allow increasing the competitiveness of the urbanized zone and the entire territorial social and economic system of district, while simultaneously defining a place and role of the West Kazakhstan region in the polycentric development of Kazakhstan and in the territorial division of labor.

Without science and technology parks, it is impossible to organize completely the territorial industrial clusters suggested and considered above, to modernize and construct new production objects, to increase the competitiveness of West Kazakhstan region enterprises.

The strengthening of the role and value of the city of Uralsk as a growth pole in the West Kazakhstan region territorial development, on the condition of implementation of the considered territorial industrial clusters concept, will develop most production objects and the services sector. The territorial and system organization of the city economy will provide a reviving effect that will influence the territorial social and economic development of the West Kazakhstan region.

The territorial and structural transformation and modernization of the West Kazakhstan region economy requires further development of the second growth pole – the city of Aksay. Solving a number of major problems is necessary for development city of Aksay as the northeast growth pole of the West Kazakhstan region.

All the above-mentioned problems are interconnected. The creation of a petrochemical industrial cluster will help attract investments and introduce innovations into the production, create new jobs. In turn, the creation of additional jobs will attract people, which will influence the city population and facilitate the development of social infrastructure, etc.

The solution of territorial problems, the formations of a uniform territorial social and economic system, the increase of economy competitiveness and population life quality requires a territorial and structural transformation and modernization of the West Kazakhstan region economy. During the territorial and structural transformation and modernization of the West Kazakhstan region economy it is necessary to develop new oil and natural gas fields, form territorial industrial clusters, which will become the basis for further development of poles and growth centers, improve and construct transport, production, social and market infrastructures, in terms of the agrarian sector, develop farms specializing in large production of crop and livestock, stimulate development of small and medium-sized businesses, increase the enterprises' innovative activity by creating science and technology parks and promoting close cooperation between them.

Implications and Recommendations

Experience shows that cluster-based industrial management is becoming an effective means of influencing governmental authorities to solve problems related to the socioeconomic development of regions. The effective regional modernization strategy should be based on chains of creation of surplus value, which have already emerged in the region or are currently emerging. The methodological framework of its development should include innovative chains of creation of surplus value in the regions, rather than artificially established priorities.

The presented research developed and implemented an economic and geographic approach to forming and developing geographic (territorial) industrial clusters in regions of Kazakhstan.

Geographic (territorial) industrial clusters can facilitate further development of the cities of Uralsk and Aksay as growth poles and development centers of not only the West Kazakhstan region, but also the Western economic region of Kazakhstan. A more widespread use at the state level of geographic (territorial) clusters as forms of territorial economy organization will increase the competitiveness of the Republic of Kazakhstan economy and strengthen its positions in world international relations system.

Thus, the cluster-based approach to the territorial production organization improves the competitiveness of companies located in a specific region, maintains an efficient business climate, which improves the advantages of involved

companies, and provides for a comprehensive use of the potential of the entire country.

Disclosure statement

No potential conflict of interest was reported by the authors.

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