

## THE DEPENDENCE OF THE REGION'S ECONOMY ON THE LEVEL OF THE AGGLOMERATION CORE AS AN EXAMPLE OF ASTANA

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In international and national system of economic relations Astana agglomeration location directly depends on its core - Astana. Development of Astana agglomeration, taking into account available competitive advantages, as well as the opportunities and threats, is aimed at ensuring the sustainable social, economic and infrastructure development. Improving the population quality of life is provided by the maximum utilization of internal and external factors, ensuring of the dynamic development of the economic and social spheres while preserving the reproductive capacity of the natural complex and improvement of the environment. The purpose of the Astana agglomeration is to determine the main directions of economic positioning of Astana as the single point of country's economic growth.

“Cities, just like people, have their own destiny”  
Nursultan Nazarbayev

The capital Astana is a special city, arising among steppe, which today is called the heart of Eurasia. Within a short time period Astana rapidly established itself as the cultural, geopolitical, economic center of not only Kazakhstan, but also the entire region. But most importantly - our capital becomes a start point of Kazakhstan's modern format.

An international exhibition EXPO-2017 to be held in Astana - the core of the agglomeration - is one of the key projects in Kazakhstan, which will improve the international position of our state. The initiative of organizing such a big event in the capital of our country belongs to the Head of State. It is expected that more than 2 million people will be able to visit the exhibition. The city was the center of Akmola region for a long period of time. In this regard, existing trade and labor flows between the former regional center and adjacent localities are intense. The solution of regional problems of agglomeration rural areas is based on program-target method taking into account the main directions of the Strategic Plan of Development of Kazakhstan till 2020, forecast diagrams of spatial development of the country, state and sectoral programs and the Strategic Plan for Sustainable Development of Astana city until 2030. The forecast of socio-economic development of Akmola region rural areas for the years 2014-2018, was developed in accordance with the Rules of the development of socio-economic development approved by the Government of Kazakhstan dated April 6, 2012, 423 [1].

There are different criteria for the selection of urban

agglomerations: urban population density and continuity of urban development is used, the presence of a large core-city and a certain number of satellite towns, the intensity and range of labor and cultural and community ties, mutual eurythmy of most cyclical processes in the systems of settlement and et al. Traditionally established or agglomeration under formation stands around the city with population more than 100 thousand. people, if in the zone of an hour accessibility there is still at least two satellite towns. Agglomeration is considered to be established if at least 10-20% of the urban agglomeration population live in satellite town.

In the description of the basic properties of the stages of formation and development of agglomerative systems the territorial and functional features will be described separately [2].

Space-planning features of agglomerated areas. Initial agglomeration can be of two basic types: monocentric (small settlements are concentrated around one large city – these are majority in the world) or polycentric (when the settlements are concentrated around a few cities of approximately equal significance).

Functional reflection of agglomeration spatial-planning properties is hierarchy of stages of dominating functional properties of this type of urban systems.

1. Industrial agglomeration. This is initial functional phase of agglomerative development. This type of agglomeration is characterized by the fact that the basic function and the

connecting factor is industry and industrial cooperation. At this stage, single labor, land, real estate and other resources markets have not yet been formed.

2. In the second phase agglomeration enters into the stage of transformation. Strong growth in the service sector and the labor market takes place in the agglomeration core. A powerful centripetal flow of labor migration occurs, the consequence of which is the emergence of a single diversified labor market. Pressure on transport infrastructure connecting the agglomeration core area and its sub-centers increases.

3. The third stage of development is a dynamic agglomeration. At this stage, the removal of a number of functions occurs: production, consumption and entertainment centers - on the periphery of the agglomeration. A single rapidly developing market of residential, commercial and industrial real estate emerges. Demand for land and basic infrastructure grows. Agglomeration is already functionally adjacent at this stage.

4. The fourth stage of development - developed post-industrial agglomeration. There is a further development of additional chordate links between the sub-centers of agglomeration. Dramatically increases capacity and diversity of the markets, together with the demand for all kinds of infrastructures within the agglomeration area [3]. Speaking about the economic development of agglomeration, sometimes it is tend to mention its basic specialization. Thus, the development of relatively small agglomerate systems - up to 1.5-2 million of inhabitants (population odder most suitable for Kazakhstani cities, having perspectives for the agglomeration) - conditionally can be described using three frameworks affecting the agglomeration specialization and its of its territorial development. These frameworks were identified based on the data of existing developed agglomerations and used to identify agglomerations - future leaders of development [4].

Urban systems developing in different frameworks are different, inter alia features of the real estate market, infrastructure, architecture.

It is clear that even the average size agglomeration often has several common scale specializations, which are either separated into its districts (as in the case of large American agglomerations), or represent a kind of overlapping networks (as in the historic centers of European nuclear agglomerations). The main principle is correlation and synergy of development industries.

Development of Astana agglomeration, taking into account available competitive advantages, as well as the opportunities and threats, is aimed at ensuring the sustainable social, economic and infrastructure development. Improving the population quality of life is provided by the maximum utilization of internal and external factors, ensuring of the

dynamic development of the economic and social spheres while preserving the reproductive capacity of the natural complex and improvement of the environment.

Annually significant funds from national budget are allocated for the construction and reconstruction of educational objects, development of transport infrastructure, engineering and communication networks in areas of individual housing construction, loans are allocated for housing [5].

City continues to be a center of attraction of human capital, while leading in the level of income of the population (in 2014 in Astana average monthly salary was 169,375 tenge, in 2013 – 168,382 tenge). In terms of sector fields there is a different level of the average monthly wage and the different rates of growth. For example, the highest growth rate of 32% in the construction sector, 27.2% - in the field of administrative and support services, as well as in organizations of art, entertainment and recreation. Reduction in average salary in the amount of 7.2% is observed in the financial and insurance activities, nevertheless remains high compared with the wages of other sectors [6].

Currently Astana is one of the densely populated regions of the country, the density of the population (as of October 1, 2014) is more than 1190 people per 1 square km, and in rural agglomerations within 4-5 people per 1 square km. The basics of the city and rural agglomerations economy are: trade, transport and communications, construction and agriculture. As contribution to the gross domestic product trading sector of the economy of Kazakhstan Astana agglomeration (mainly due to the agglomeration core Astana) takes the second place among the regions and cities of national significance after Almaty. The total regional product of the two cities of Almaty and Astana is more than half of the total scope of trade in Kazakhstan. By the volume of retail trade turnover Astana also ranks second in the country [7].

Astana is country leader in terms of construction. One fifth of all commissioned residential property in Kazakhstan accounts for Astana. For more than five years Astana agglomeration has been leading in terms of the commissioning of residential buildings.

Agglomeration's industrial production is mainly concentrated in producing construction materials, food / beverages and mechanical engineering. The leading position in Kazakhstan Astana agglomeration takes for the production of structural metal products, concrete ready for use, and construction of concrete products. Also there is relatively high proportion of agglomeration core in production of metal structures, radiators and central heating boilers and materials handling equipment. At the same time, Astana agglomeration is one of the wealthiest in the country in stocks of raw materials for cement

production (Tselinograd area, stocks of raw materials is around 1,700 million tons), which creates a real basis for the development of the cement production and release of its products. There are also sufficient stocks of common minerals, particularly building stone, natural gravel, brick clay of igneous rocks, etc., which are successfully being used in the construction industry of Astana agglomeration. Estimated reserves as of November 1, 2014 amounted to 22,522 thousand cubic meters in Shortandy region, 68,078 thousand cubic meters in Tselinograd region [8].

The investment potential of the capital has grown many times over the period since 1997: from 19.3 billion tenge in 1997 to 547.5 billion tenge in 2013. In total over these years more than 4.7 trln.tenge was drawn into investment in the economy of Astana. In the structure of investments in Astana agglomeration Astana share is 95% and the share of rural areas is 5%, including the share of Arshalynskiy region is 1.5%, Tselinograd 2.7% and Shortandy 0.4%.

The share of industrial products manufactured by the agglomeration core area account for 90%, manufacturing -93%, agriculture - 6.4%, retail trade - 81%

Due to the stimulation of economic activity of the population through the mechanisms of state support in key development programs, the share of small and medium-sized businesses in the gross regional product increased to 45%. International positioning of the agglomeration area can be judged by the data characterizing the export potential of the Astana agglomeration, which has been steadily growing. In the structure of foreign trade turnover the share of exports to far overseas countries took 81%, with the CIS countries - 19%. In the structure of imports by non-CIS countries account for 94%, CIS 6% [9].

Development of the agglomeration core is focused on the creation of a competitive economy with a high share of innovative products in the total volume of production, developed sectors of processing industry (production of construction materials, food processing and so on.), small businesses, providing a significant proportion of the gross domestic product of the city, and developed tourism [10].

Astana has a strong intellectual and scientific base. There are 15 higher educational institutions, research organizations, fundamental research in the field of medicine, the development of space technology, the latest software, resource-saving technologies, and others are conducted.

A significant development took place in the infrastructure to support innovation - technology parks, business - incubators, innovation entrepreneurship support centers. This will eventually provide Astana city with the status of the main generator of scientific ideas, innovations, and technology transfer in the capital region and in the country as a whole.

Due to its unique location in the heart of Eurasia, along the

path of the Silk Road, the diversity of natural and climatic conditions Astana has a powerful tourist and recreational potential contributing to the development of health and sports tourism.

The most promising directions of development of tourism in Astana, in terms of capacity and growth, comes to inbound tourism of a sports nature and domestic tourism of recreation nature, as well as tourism connected with the development of Borovoe area and nature reserve park in Kurgaldzhino.

Astana city objectively has a strong influence over urbanization processes in the region, attracting the labor resources not only from the surrounding small towns and rural areas, but also from the whole republic. The basic structure of the migrant population is formed of the inter-regional migrants, which accounts for 90% of all arrivals to the city.

However, the flow of population from country's other regions is haphazard and there is no account of the existing possibilities of social and engineering infrastructure and the labor market.

In this regard, the main problematic issues of Astana as the agglomeration core are now its physical overcrowding and congestion, reduced quality of the environment, high levels of unemployment among the internal migrants. To solve the problems of Astana city Kazakhstan Government started implementing measures for the integrated development of the Astana agglomeration by forming networks of counter-magnet cities on the territory of Akmola oblast (Arshaly, Tselinograd, Shortandy regions), the elimination of the violations in the building development of the city and suburban areas.

Rural areas of Akmola oblast, that are part of the Astana agglomeration, are one of the largest regions in the country with an area of 1400 hectares and 116 thousand population as of January 1, 2014.

Geographical location of the region in a favorable natural and climatic zone, availability of fertile land and water resources, the passage through its territory of transport corridors, determine the current area specialization[10].

Rural areas of Akmola oblast, part of the Astana agglomeration, are characterized by agro-industrially oriented economy and is actually part of the food belt of Astana. Agriculture in these areas produces 13.0% of gross output of agriculture in the region. During 2013 produced gross agricultural output accounted for 22 bln. Tenge or 111.5% compared to the previous year. The share of agricultural products processing covers 10-15% out of the total volume of industrial production.

The tourism potential of the agglomeration is characterized by existence of a natural and recreational resources (more than forty large and small lakes, including Baidaly, Batpakkol, Krasnoe, small Saryoba, Shelkar, lake Big

Saryoba), Vyacheslav reservoir, monuments of nature; unique flora and fauna and cultural-historical (burial mount) complexes, museums and theaters, mausoleums and mazars, architectural constructions of the late period). Currently, a development program for the city of Astana, developed and approved by the decision of the maslikh at session of Astana on December 29, 2010 №421 / 55-IV is being executed.

The purpose of the Astana agglomeration is to determine the main directions of economic positioning of Astana as the single point of country's economic growth, providing financial, innovative-educational, transportation and logistics, retail, technology and tourism services.

The main objectives are:

- integration of the development of Astana city and the core surrounding areas of Akmola oblast (Arshaly, Tselinograd and Shortandy regions);
- providing Astana agglomeration integration into national, regional and global markets through the identification and development of promising niches of Astana agglomeration economic specialization;
- promoting inter-regional and cross-sectoral interaction between Astana and Akmola oblast rural areas economy on the basis of cluster approach;
- attracting local and foreign investments into the region's development and implementation of breakthrough projects by development institutions;
- advanced development of life-support infrastructure, aimed at improving population life quality and growth of regional and international attractiveness of the region;
- acceleration of the socio-economic development of the agglomeration area through the effective distribution of the productive forces of the region (development of the conceptual foundations of Astana oblast integrated urban development schemes, including counter-magnet cities).

Development of Astana city and Akmola oblast as a single Astana agglomeration will be based on existing and potentially implemented competitive advantages inherent to the city and the regions, providing additional impulse for joint accelerated interconnected and comprehensive development.

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### ЗАВИСИМОСТЬ ЭКОНОМИКИ РЕГИОНА ОТ УРОВНЯ РАЗВИТИЯ ЯДРА АГЛОМЕРАЦИИ НА ПРИМЕРЕ Г.АСТАНА

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Место Астанинской агломерации в международной и национальной системе экономических отношений зависит напрямую от его ядра – г. Астаны. Развитие города Астаны и сельских районов Акмолинской области как единого целого Астанинской агломерации будет опираться на имеющиеся и потенциально реализуемые конкурентные преимущества, специфически присущие городу и районам области, позволяющие получить дополнительные импульсы для совместного ускоренного взаимосвязанного и комплексного развития. Развитие Астанинской агломерации, с учетом имеющихся конкурентных преимуществ, а также возможностей и угроз, направлено на обеспечение устойчивого социального, экономического и инфраструктурного развития. Повышение уровня и качества жизни населения предусматривается путем максимального использования внешних и внутренних факторов, обеспечения динамического развития экономической и социальной сферы при сохранении воспроизводственного потенциала природного комплекса и оздоровлении окружающей среды. Целью развития Астанинской агломерации является определение основных направлений экономического позиционирования города Астана как единого центра экономического роста страны.