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## **Urban agglomeration: developing approaches to a new phenomenon**

### **Abstract**

*Object:* the article studies the essence and features of urban agglomerations (hereinafter referred to as UA), the system of interrelation with neighbouring districts and cities. In addition, the authors of the article considered scientific and theoretical approaches to the concept of urban agglomerations, different stages of development and factors affecting them.

*Methods:* the study was conducted using the following methods: general scientific dialectical method of cognition, which was chosen to determine the essence of urban agglomerations in general and the factors affecting their economic development — system approach, since urban agglomerations are a set of interconnected and mutually conditioned territories with a certain centre, i.e. shows signs of coherence;

The comparative approach is central and necessary in this study to identify the common constituents of urban agglomerations.

*Findings:* the research showed that UAs are a product of human activity. They are created by people who prefer to live, work and rest in close proximity to each other. UAs are also formed due to economic-political, and social norms of society development, but they can differ from each other depending on the specific territory, which is influenced in a complex by specific factors of a certain region. The factors can include political-economic, cultural-social, communication innovation-technological, transport, infrastructure, housing and utilities, production, natural-climatic, environmental and other factors that attract the population and improve the quality and conditions of living.

*Conclusions:* Foreign authors tend to emphasize economic and demographic aspects of UAs. They often define urban agglomerations as a continuous territory consisting of one or more cities, towns, villages and neighboring territories, focusing on physical aspects. Kazakh scientists believe that UA is an association of territories based on political, economic, production, social, cultural, national, religious, and environmental attributes or factors. However, despite the divergence in scientific circles, many scientists come to a common opinion that UA should be studied in a complex and systematic way depending on the territory under study. Each scientist has his or her own opinion and this topic has not been fully explored yet, today there is no single definition of the essence, and features of UA, so this topic always causes disputes and disagreements and is the object of current research.

*Keywords:* urban agglomeration, specific territory, core, districts, formation, development, the Republic of Kazakhstan.

### **Introduction**

The development of UAs in modern times is dynamic and actively developing, their volumes, types, composition are constantly increasing, it can be stated that today is the time of development of UAs, therefore it is possible to understand the scientific approaches of various scientists, researchers, who approach the essence of UAs in different ways. The composition of American, Asian, European, and Russian UAs has an important role, each of which has its own features, and signs that have been formed for decades, and were influenced by stable ideological, historical, national-religious, climatic, resource factors, as well as modern dynamic trends of urban development. The study of differences and common features of foreign and Kazakhstani UAs is relevant, as it will give the opportunity to identify the complexity of processes occurring in UAs from the experience and knowledge gained, help to find systemic effective levers for planning, management, integration and reduction of possible risks in the development of agglomerations.

### **Literature Review**

The study of urban agglomerations is a complex and multifaceted process. In order to understand the different approaches to defining urban agglomerations, the authors analyzed a variety of documents, includ-

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ing legal acts, statistical data, and research papers. The most significant documents analyzed were publicly available legal laws and regulations on urban agglomerations. These documents included urban agglomeration development in Kazakhstan, documents specializing in legal justification and regulation, and other instruments, legislation and market mechanisms that ensure the implementation of development policies and support the overall economic sustainability of urban agglomeration economies. In order to expand the horizon of works accepted for analysis, the authors also took articles and works of domestic researchers such as Gvozdeva M. A., Kazakova M. V., Pospelova E. A., (2016), Krugman P. (1980), Edward Glaeser (2009), Neshchadin A., Prilepin A. (2010); Muldagalieva K. M (2017), Akhmetova Z. V., Ashirbekova L. J., Galymkyzy G. (2018), Daueshova A. E. (2014); Kidrisheva S. B. (2021); Statnykh E. A., Khandarkhaev A. S. (2016), Bogolyubov S. A., Boltanova E. S., Vypkhanova G. V. (2013), Merzlov D. I. (2020), Yelin A. A. (2023), Vasilyeva A. A. (2020) and others. In their totality, the above-mentioned materials of various authors gave an idea of UA and the subsequent dynamics of their further development.

### **Methods**

The article applied different research methods such as dialectical, and historical method of cognition, which was chosen to determine the essence of UAs in general and identify their impact on economic development. Systemic approach, as the global development of urban agglomerations is a set of interrelated and interdependent elements, i.e. it shows the signs of systemic nature. Comparative approach, which is central and necessary in this study for identifying common features of urban agglomeration development. The authors believe that the study has provided a comprehensive overview of the different approaches to defining urban agglomerations. The findings of the study will be useful to policy makers, researchers and other stakeholders interested in the development of urban agglomerations.

### **Results**

The development of urban agglomerations has always been the basis for the development of individual territories. The growth of an urban agglomeration can be a sign of a nation's prosperity, while its decline can be a sign of its collapse. The complexity and abundance of structural components that constitute the system of urban agglomerations make them a subject of constant scientific interest. By analyzing these features, trends and unique characteristics can be identified. Urban agglomerations are a key factor in the development of individual territories. The complexity and abundance of structural components that compose urban agglomerations make them a subject of constant scientific interest. By analyzing the features of urban agglomerations, identified trends and unique characteristics. The authors examine the features and stages of development of these urban agglomerations and compare them with each other. The results of this comparison will give a detailed picture of the development of urban agglomerations. This article is devoted to the study of European, American, Asian, Russian, Kazakhstani and other urban agglomerations.

It is estimated that by 2050, 68 per cent of the world's population will live in cities. This means that the world's urban population will grow, and urban agglomerations will become even more important centers of economic and social activity. Urban agglomeration is an area that includes a core city (or several such cities) and a set of settlements united by economic and social ties.

UAs are areas that have a main city and other nearby settlements that are urbanizing all the time. These areas are important because they are major centers of diverse activities and social life.

The term "agglomeration" was first used in 1973 by the French geographer Rouget (Gvozdeva et al., 2016). Paul Krugman argued that agglomerations arise due to economies of scale, as well as due to the division of labour and specialization in certain types of production within the same locality (Krugman, 1980).

At the beginning of the 21st century, foreign scientists and economists interpreted the essence of agglomeration as follows: Edward Glaeser (Glaeser 2009) argued that agglomerations are the result of economic advantages in cities, such as better quality of life, greater access to resources and a higher level of specialization and competition between firms. Neshchadin A. and Prilepin A. considered agglomeration as "an objective process of regional development that ensures the formation of economic growth points, uniform development of territories and integrated, safer and more efficient development of infrastructure to achieve the main goal of socio-economic development", i.e.: the creation of comfortable living and working conditions for the population and businesses" (Neshchadin & Prilepin, 2010).

The theoretical approaches of Kazakh scientists to the definition of urban agglomeration also differ. Thus, K. M. Muldagalieva defined urban agglomeration as an economic factor of development, which is formed mainly around the core city (Muldagalieva, 2017). Akhmetova, Ashirbekova and Galymkizy defined

urban agglomeration as the formation of a developed urban space, which leads to the consolidation of a full-fledged urban standard of living in the agglomeration (Akhmetova et al., 2018). Daueshova A. E. defined urban agglomeration as a complex system that includes many elements (Daueshova, 2018).

In Kazakhstan, the study of the phenomenon of UA development becomes especially relevant in connection with the country's transition to a non-resource-based economic model, in connection with this circumstance, UAs become development centers, where resources that improve the living standards of Kazakhstanis are concentrated (Kidrisheva, 2021).

The law of the Republic of Kazakhstan states that UAs are defined as a local system consisting of the capital or a city of republican significance or a city of regional significance and settlements located around them that meet the criteria, urbanized settlements located around one or more agglomeration centers with gradual absorption into one (Zakon Respubliki Kazakhstan, 2023).

However, this definition does not fully capture the essence of urban agglomerations. They are more than just a collection of cities and towns. They are also complex systems that reflect the political, economic, infrastructural, technological, cultural, innovative, financial, international and institutional frameworks that support their growth and development.

Based on the above, there is no single agreed definition of urban agglomerations. Different authors have different views on the essence of urban agglomerations. However, they all agree that urban agglomerations are important centers of economic activity, innovation and culture. It is also important for the development of the surrounding region and it is important to note that urban agglomerations are important for the economic growth of the region and, more generally, for the state.

As socio-economic processes develop, some urban and rural settlements are transformed into urban agglomerations. This is because they are becoming more interconnected and interdependent. As a result, the definition of urban agglomerations will need to continue to evolve to reflect the changing reality.

Thus, urban agglomerations are important for the development of Kazakhstan. They are centers of economic activity, innovation and culture. They are also important for the development of the surrounding region and they continue to change dynamically depending on real conditions. In determining the core of UAs, population density, infrastructure, transport and logistics links and their provision between settlements are identified, as for example labour links often live in close settlements from the core, but work in the centre of UAs and vice versa live in the centre, but work in industrial suburbs and here it is important to have a close relationship within the territory, where it is important to have a close relationship with transport, social facilities, infrastructure and they are necessary for the holistic system of UAs and its management (Daueshova, (2014a, 2014b); Statnykh & Khandarkhaev, 2016).

Moreover, UAs can be of two types: monocentric and polycentric. Monocentric UAs have one central city, while polycentric agglomerations may consist of two or more UA cores.

In conditions of dynamically and actively developing agglomerations, these types absorb each other into a single UA.

There are also other characteristic features of UA as the distance to the nucleus. Thus, the first type of UAs with a distance of not more than 1.5 hours to the centre are characteristic of more developed UAs and with a distance of more than 2.5 hours to the city centre belong to the 2nd less developed type of agglomerations.

During the study it was revealed that UA develops in the conditions of urbanization associated with the emergence of a new status (e.g. the capital Astana or the development of some kind of industrial production, the centre of education, cultural events, etc.), as well as the active development of all resources and structures expands the size of UA (Kidrisheva, 2021).

The functions of agglomerations include: formation of an attractive and favorable environment for people to live and work; acceleration of economic and social development of the region; stimulation of production growth and the possibility of increasing production through the joint use of resources; increasing competitiveness and improving the quality of products and services; increasing the efficiency of natural resources and reducing the negative impact on the environment.

Based on the research, it was found that the positive factors of agglomeration development include the concentration of consumers in the areas where production facilities are located, where a high level of demand ensures the effect of scale of production and stimulates high investment activity. This factor is more important for service industries and industries oriented to the production of consumer goods. At the same time, producers of intermediate products can also benefit from this factor if specialized in the production of materials and components for the leading branches of specialization of the corresponding urban cluster; availabil-

ity of labour resources. At the initial stage of agglomeration development, the inflow of low-skilled labour force from rural areas creates conditions for the development of labour-intensive industries that do not require a long period of professional training. In the future, as cities develop their sectoral specialization, they become “magnets” for skilled workers and specialists working in the sectors of specialization. And the formation in agglomerations of their own training infrastructure of the relevant industries makes them more attractive for investment in the creation of new capacities in the industries of specialization; the possibility of saving on the density of production, associated with the distribution of fixed costs of doing business to a wider range of economic agents, lower unit costs of intermediate products and the distribution of costs to finance transport, housing and communal and social services, recreational infrastructure of the medium-sized cities, and the development of the infrastructure of the city. This is determined by the possibility both for the development of new products and technologies, and the transfer of innovations introduced by leading international companies; a high level of awareness about the activities of competing companies and partners, informal contacts between company owners and highly qualified specialists, transitions of specialists from one company to another, as well as the possibility of flexible formation of technological partnerships taking into account changes in market conditions and recent successes in the scientific and technical field; the development of cluster relations due to the formation of a complex of interconnected industries on a compact territory, included in a homogeneous value chain, i.e. constituting a number of successive links of the economic process aimed at the production of a certain product.

This combination of favourable factors leads to positive agglomeration effects, which are economic and social benefits from the territorial concentration of industries and other economic facilities.

In addition to the main features of the study, the authors focused the research article consideration of different models of UAs that are developing in the world.

*Asian urban agglomerations* are home to the largest urban agglomerations in the world.

The People's Republic of China is becoming one of the world's leading economies with each passing year, and UAs centered in China, and many Asian UAs are in the People's Republic of China, have high population growth rates that are many times higher than other countries. The largest UA is in China, Guangzhou, which includes Foshan and Shenzhen, with more than 57 million people and above Japan, which led all UAs in population in the last century, Tokyo with about 40 million people. In this case, an important condition is the concentration of all the best resources, specialization, innovativeness, growth of production capacities, international relations, effective application of all resources while increasing the favourable living in the territory of UA (Kidrisheva, 2021).

*European agglomerations* are usually monocentric, i.e. they have one central city. However, some of them are polycentric, i.e. they have several central cities of equal size and importance, and are characterized by conurbation, which is a polycentric urban agglomeration in which several cities of more or less equal size and importance act as nuclei, with no clearly defined main urban centre. The most significant conurbations in Europe are polycentric urban agglomerations. Sufficiently developed urban agglomerations in Europe include six structural-territorial zones: the historical core of the city; the central zone, the city with less developed territory, the “Big City” with the first suburban area.

Recently, scientists from the European Union have started to identify interstate megacities. These megacities are much larger than usual urban agglomerations and can be classified as urbanized zones. One of such megacities has an area of 230,000 square kilometers and occupies the urbanized territories of five European countries: England, Germany, France, Belgium and the Netherlands. European agglomerations are thus complex systems that can be monocentric or polycentric. They are important economic and social centers, and some have developed into interstate megacities.

The Anglo-Saxon-American model of urban agglomerations is characterized by a combination of a city and its surroundings, also known as “city-district” agglomeration. The United States was the first country to implement this model 60 years ago. In 2010, there were 366 metropolitan areas and 576 microcities in the United States, with 94% of the population living in them. By 2023, there were 172 Combined Statistical Areas with a total population of about 338 million, of which 280 million lived in urban areas. The main types of agglomerations in the U.S. are metropolitan areas and metropolises. A metropolitan agglomeration must have at least one core with a population of more than 50,000 and an adjacent area. At least 25% of the area's working-age population must work within the core agglomeration. A micropolitan agglomeration must have at least one nucleus with a population of less than 50,000 and an adjacent territory. At least 25% of the district's working age population must work within the central micropolitan area. In 2023, two agglomerations in the United States were ranked among the thirty largest agglomerations in the world. The Greater New

York City agglomeration is the eleventh largest in the world with a population of nearly 22.1 million. Los Angeles is the second largest metropolitan area in the United States. It ranks seventeenth in the world with a population of over 13 million. Thus, the Anglo-Saxon-American model of urban agglomerations is characterized by a combination of the city and its suburbs, and the two largest agglomerations in the US are Greater New York and Los Angeles.

The number of urban agglomerations in Africa, which are among the largest in the world, is constantly increasing. This is due to high rates of population growth, in both rural and urban areas. The number of large cities has grown rapidly in all geographical regions of the world, but particularly rapidly in Africa and Asia. Africa is the region with the highest level of urbanization. By 2020, Africa will have three of the world's thirty largest UAs: Cairo, Lagos and Kinshasa (Statnykh & Khandarkhaev, 2016). The number of urban agglomerations in Africa is constantly increasing and these agglomerations are among the largest in the world. This is due to high population growth rates, both rural and urban.

In Latin America, the largest urban agglomerations are located in Brazil, Mexico and Argentina. These agglomerations are home to a significant proportion of the population of these countries. The Russian model of agglomerations has its own peculiarities, so it includes the Moscow agglomeration (12.6 million people) — the largest in Russia and one of the largest in the world. It is centered in the city of Moscow and includes a number of other large cities such as Zelenograd, Mytishchi and Korolev. The Moscow agglomeration is a major economic and cultural centre of Russia. The next largest agglomeration in Russia is the St. Petersburg agglomeration (5.9 million people). It is centered in the city of St. Petersburg and includes a number of other large cities such as Kolpino, Pushkin and Gatchina. The St. Petersburg agglomeration is a major economic and cultural centre of Russia. In addition to the two largest agglomerations, the Nizhny Novgorod agglomeration (3.2 million people) can be named: Nizhny Novgorod agglomeration is the third largest agglomeration in Russia. It is centered on Nizhny Novgorod and includes a number of other large cities such as Kstovo, Bor and Sarov. The Nizhny Novgorod agglomeration is a major economic and cultural centre of Russia. The Novosibirsk agglomeration is the fourth largest in Russia. It is centered on the city of Novosibirsk and includes a number of other large cities such as Berdsk, Ob and Iskitim. The Novosibirsk agglomeration is a major economic and cultural centre of Russia. The Ekaterinburg agglomeration is the fifth largest in Russia (2.4 million people). It is centered on the city of Yekaterinburg and includes a number of other large cities such as Verkhnyaya Pyshma, Nizhnyaya Pyshma and Kamensk-Uralsky. The Ekaterinburg agglomeration is a major economic and cultural centre of Russia. There are many other agglomerations in Russia, each with its own unique character and development potential. The development of Russian agglomerations is a key priority for the Russian government. The government is investing in infrastructure, education and healthcare in agglomerations to make them more attractive places to live and work. The government is also promoting cooperation between cities in agglomerations to improve economic efficiency and sustainability. Russian agglomerations are expected to continue to develop in the coming years. This will lead to the growth of these agglomerations in terms of population, economic activity and cultural influence.

The Kazakhstani model of urban agglomerations includes five urban agglomerations, of which the first level is Almaty, Astana and Shymkent. The second level includes Aktobe and Karaganda (The 30 largest urban agglomerations, 2018). Currently, there are five urban agglomerations in Kazakhstan with a total population of more than 8 million people. Almaty agglomeration is the largest in Kazakhstan and is concentrated in the city of Almaty (2.8 million people). It includes a number of other large cities such as Taldykorgan, Kapshagai, Yesik. Almaty agglomeration is a major economic and cultural centre of Kazakhstan. The Shymkent agglomeration (1.7 million people) is the second largest in Kazakhstan and is centered in the city of Shymkent. It includes a number of other large cities such as Turkestan, Shakhtinsk, Arys. Astana agglomeration (1.4 million people) is the third largest in Kazakhstan and is centered in the city of Astana. It includes a number of other large cities such as Kokshetau, Ekibastuz. Almaty, Astana, Shymkent agglomerations are major economic and cultural centers of Kazakhstan.

Karaganda agglomeration (1.2 million people) is the fourth largest in Kazakhstan and is centered in the city of Karaganda. It includes a number of other large cities such as Temirtau, Saran. Karaganda agglomeration is a major economic, industrial centre of Kazakhstan.

Aktobe agglomeration is a relatively young agglomeration, formed only in the early 2000s. Its centre is the city of Aktobe, which is the fifth largest city in Kazakhstan. The agglomeration also includes the cities of Uralsk, Khromtau, and Makhambet. The population of Aktobe agglomeration in 2023 will be about 1 million people. The population is expected to grow in the coming years as the agglomeration is home to a number of industries, including oil and gas, mining and agriculture. The development of Aktobe agglomeration is a key

priority for the Government of Kazakhstan. The Government is investing in infrastructure, education and healthcare in the agglomeration to make it a more attractive place to live and work. The government is also promoting cooperation between cities in the agglomeration to improve economic efficiency and sustainability. The development of the Aktobe agglomeration is expected to continue in the coming years. Aktobe agglomeration is a strategically important region for Kazakhstan. It is located in the west of the country, close to the border with Russia. Aktobe agglomeration is home to a number of natural resources, including oil and gas. The agglomeration is also a major transport hub with rail, road and air links to other parts of Kazakhstan and Russia. The development of the Aktobe agglomeration is expected to play a key role in the economic development of Kazakhstan in the coming years. The agglomeration has the potential to become a major economic centre in the region with a strong industrial base and growing population.

The development of Kazakhstan's agglomerations is a priority for the Government of the Republic of Kazakhstan and this will lead to the growth of these agglomerations in terms of population, economic activity and cultural influence (Table).

Table. Kazakhstan model of formation and development of different models of agglomeration processes

Features/opportunities	Advantages	Disadvantages
<p><i>Centralised planning.</i> Remains largely planned and designed by central government. It leads to a high degree of uniformity in the layout and design of cities.</p> <p>It is still orientated towards <i>raw materials</i>. This leads to the development of large industrial cities with a high concentration of pollution, only recently orientated towards services and manufacturing.</p> <p><i>Regionalism.</i> It increasingly takes into account regional differences. This leads to a more diversified and sustainable approach to urban development.</p>	<p><i>Economic efficiency.</i> Achievable by concentrating industry in large cities, allowing for economies of scale.</p> <p><i>Public transport.</i> Well-served by public transport. It allows people to get around without a car.</p>	<p><i>Pollution.</i> Kazakhstan's urban agglomeration model is still highly polluted. This is due to heavy industry orientation, raw material orientation and lack of environmental regulations.</p> <p><i>Monotony.</i> It is often monotonous. This is due to the high degree of uniformity in the layout and design of cities.</p> <p><i>Lack of choice.</i> Offers city residents little choice. This is due to the fact that most people live in social housing and have to work in the public sector.</p> <p><i>Regional disparities.</i> Significant regional disparities. This means that some regions are more developed than others, leading to inequality.</p> <p><i>Economic stagnation.</i> The city has been in stagnation for many years. This has resulted in reduced investment in urban infrastructure and deterioration of the quality of life.</p> <p><i>Political instability.</i> The Republic of Kazakhstan has experienced a number of political crises in recent years. This has made it difficult to undertake long-term urban development planning.</p> <p><i>Environmental degradation.</i> Kazakhstan faces a number of environmental problems such as air pollution, water pollution and deforestation, this is particularly evident in Almaty agglomeration, Aktobe agglomeration had fires. These problems will need to be addressed to ensure sustainable urban development.</p> <p>Underdevelopment of engineering communications, all communications are in worn-out and emergency condition — electricity, heat, water supply, gas supply, transport roads, etc.</p>
<p><i>Note — compiled by the authors</i></p>		

The development of urban agglomerations in Kazakhstan has been uneven. Almaty, Shymkent, Astana are the most developed agglomerations, while the other three agglomerations are less developed. This is due to a number of factors, including the availability of investment, the level of infrastructure, and the economic potential of the regions. There are problems in the formation and development of urban agglomerations in Kazakhstan, these include environmental pollution. Urban agglomerations are the main sources of environmental pollution due to the high concentration of industrial activity and traffic, traffic jams and this is due to rapid population growth and lack of investment in transport and engineering infrastructure, which has high wear and tear, including energy, water, heat supply, social inequality is a growing problem in urban agglomerations of Kazakhstan, due to the high cost of living in these areas and the lack of affordable housing.

### Discussions

However, the government of Kazakhstan has implemented a number of policies to address the challenges facing urban agglomerations. These policies include investment in infrastructure: The government has invested in infrastructure projects such as roads, railways and airports to improve transport and reduce congestion, measures to improve the environment, housing for citizens with consideration and protection of so-

cial strata of society. The development of Kazakhstan's agglomerations is a key part of the country's economic development strategy. The Government intends to invest in these agglomerations to make them more attractive places to live and work. This will help to attract investment and create jobs, which will ultimately benefit the whole country.

Summarizing the above mentioned in the article it can be emphasized that the analysis of world trends shows the following indicators of the structure of urban agglomeration development, including Kazakhstan:

- Megacities: 46%
- Large cities: 23%
- Medium-sized cities: 3,6%
- Small cities: 5,1%
- Very small cities: 11,6%
- Rural settlements: 6,4%.

If to divide into three groups according to the growth rates among urban agglomerations, then Asian and African UAs are ahead in high growth rate, Latin American and North American UAs belong to the average growth rate, and Western Europe belongs to low growth agglomerations (Bogolyubov et al., 2013) (Fig. 1).

2007	Top 600 urban agglomerations in the world	2025
22% — 1.5 billion people	Proportion of world population	25% — 2,0 billion people
48% — \$30 trillion, of which CCI-100 cities — 38% 20,000 USD.	Share of global GDP	60% — \$64 trillion.
485 million households (\$12,000 — on average worldwide)	Average GDP per capita	32,000 USD. 735 million households

Figure 1. Growth dynamics of the world's largest urban agglomerations.

Note — compiled by the author based on the source (Merzlov, 2020).

Prospective projections of the distribution of new world urban agglomerations against the background of existing ones are presented in Figure 2.

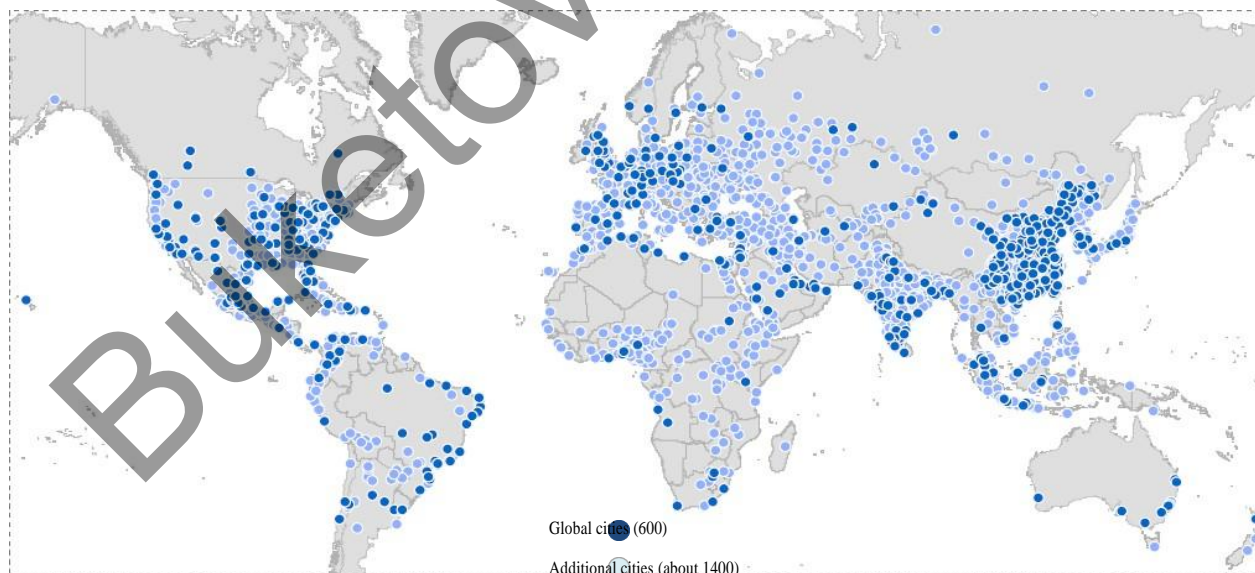


Figure 2. Prospective projections of global urban agglomerations (600 units) and additional emerging cities (about 1,400 units).

Note — compiled by the author based on the source (Merzlov, 2020; Yelin, n.d.; Vasilyeva, 2020).

It is important to research carefully to maximize their benefits and minimize their costs. This can be achieved by investing in infrastructure, planning sustainable development and promoting social inclusion.

By adopting the experience of foreign countries, Kazakhstan can identify the main directions of development in this area. However, it is important to take into account the specifics of the country that Kazakhstan wants to learn from, as well as the peculiarities of Kazakhstan in adapting the ready-made system to the national conditions of urban agglomeration development.

### Conclusions

The study revealed the peculiarities of foreign and domestic approaches to agglomeration processes. The authors emphasize that agglomerations are characterized by a high concentration of population, specialization, regional and urban development, comfortable living conditions and successful business activities. They are complex economic systems that require effective management to minimize risks. Agglomerations are large centers with significant competitive advantages, capable of accumulating and efficiently using resources, ultimately improving the quality of life of the population. In the study of the peculiarities of foreign experience in the development of urban agglomerations, it was revealed that the greatest and most intensive development of agglomeration processes occurs in the Asian model. In these countries, agglomerations attract more efficient use of resources, innovation, technological development and better living and working conditions.

The European and American agglomerations development models differ from each other. In Europe, agglomerations usually develop polycentrically, while in America a monocentric model prevails. The American model is characterized by a larger scale.

The Kazakhstan and Russian models of agglomeration development are similar to each other. In these countries, agglomerations are mainly developed as industrial zones with typical buildings and structures. After the collapse of the Soviet Union, the development of urban agglomerations in Kazakhstan was uneven. The construction of agglomerations was carried out chaotically, which led to congestion, lack of housing, undeveloped social, engineering and logistics infrastructure, and environmental problems. A new management and economic approach is needed to improve urban agglomerations in Kazakhstan. This will give an impetus to their development.

### References

- Glaeuer Edward. The Wealth of Cities: Agglomeration Economies and Spatial Equilibrium in the United States [Electronic resource] / Edward Glaeuer // *Journal of Economic Literature*. — 2009. — Vol. 47, N 4. — P. 983–1028. Access mode: <https://clck.ru/366UJT>. DOI:10.1257/jel.47.4.983.
- Krugman P. Scale economies, product differentiation, and the pattern of trade [Electronic resource] / P. Krugman // *The American Economic Review*. — 1980. — Vol. 70, N 5. — Access mode: <https://clck.ru/366UK4>.
- 30 крупнейших городских агломераций в 1950–2035 гг. — ООН. — 2018. — [Электронный ресурс]. — Режим доступа: <https://population.un.org/wup/>.
- Ахметова З.Б. Проблемы развития городских агломераций в Республике Казахстан / З.Б. Ахметова, Л.Ж. Аширбекова, Г. Ғалымқызы. — 2018. — [Электронный ресурс]. — Режим доступа: <https://clck.ru/366UDo> — С. 1–13.
- Боголюбов С.А. Правовое обеспечение благоприятной окружающей среды в городах: науч.-практ. пос. / С.А. Боголюбов, Е.С. Болтанова, Г.В. Выпханова и др.; отв. ред. Н.В. Кичигин. — М.: Ин-т законодательства и сравнительного правоведения при Правительстве РФ, 2013. — 333 с.
- Гвоздева М.А. Подходы к определению агломерации / М.А. Гвоздева, М.В. Казакова, Е.А. Пospelova // *Журн. «Российское предпринимательство»*. — 2016. — Т. 17. № 24. — С. 3505–3514. — [Электронный ресурс]. — Режим доступа: <https://clck.ru/366UKa>. DOI: 10.18334/tp.17.24.37221.
- Дауешова А.Е. Формирование городских агломераций в Казахстане — фактор регионального развития / А.Е. Дауешова // *Сб. докл. 1-й Междунар. науч.-практ. конф. для молодых ученых «Интеллектуальное лидерство: новые ориентиры развития»*. — Астана: Академия государственного управления при Президенте РК, 2014. — С. 74, 75.
- Дауешова А.Е. Теоретические подходы к определению понятия «городская агломерация» / А.Е. Дауешова // *Тр. Междунар. науч.-практ. конф. «Проблемы и перспективы развития государственных институтов в современных условиях»*. — Усть-Каменогорск: ВКГУ им. С. Аманжолова, 2014. — С. 66–71.
- Дауешова А.Е. Управление городскими агломерациями в контексте регионального развития (науч. рук. А.Б. Майдырова). — Астана, 2018. — С. 141. — [Электронный ресурс]. — Режим доступа: <https://clck.ru/366UD9>.
- Елин А.А. Города как драйверы экономического роста / А.А. Елин. — [Электронный ресурс]. — Режим доступа: <https://clck.ru/366Umo>.
- Закон Республики Казахстан. О развитии агломераций». № 181–VII З РК. 01. 2023. — [Электронный ресурс]. — Режим доступа: <https://clck.ru/366UBf>.

- Кидришева С.Б. Доступность информации как инструмент открытости государственного управления. Образовательная программа магистратуры «Государственная политика» по направлению подготовки 7М041 — «Бизнес и управление» / С.Б. Кидришева. — Нур-Султан, 2021. — [Электронный ресурс]. — Режим доступа: <https://clck.ru/36iU5W>.
- Мерзлов Д.И. Развитие агломераций в кризисные периоды: дис. ... канд. экон. наук. Спец. 08.00.05 — «Экономика и управление народным хозяйством (региональная экономика)» / Д.И. Мерзлов. — СПб., 2020. — С. 181. — [Электронный ресурс]. — Режим доступа: <https://clck.ru/366UoQ>.
- Мулдагалиева К.М. Развитие агломераций в Республике Казахстан как новой формы современной организации расселения населения на примере Шымкентской агломерации / К.М. Мулдагалиева // Журн. научные исследования. — 2017. — № 4(15). — С. 36–39. — [Электронный ресурс]. — Режим доступа: <https://clck.ru/366Uhc>.
- Нешадин А. Городские агломерации как инструмент динамичного социально-экономического развития регионов России / А. Нешадин, А. Прилепин // Науч. журн. «Общество и экономика». — 2010. — № 12. — С. 17. — [Электронный ресурс]. — Режим доступа: <https://clck.ru/366UNA>.
- Постановление Правительства Республики Казахстан «Перечень и состав агломераций утвердили в Казахстане» КазТАГ. — Астана, 2023. — [Электронный ресурс]. — Режим доступа: <https://clck.ru/366Um6>.
- Статных Е.А. Агломерация как способ инновационного развития территорий на примере г. Улан-Удэ [Текст] / Е.А. Статных, А.С. Хандархаев // Вестн. Бурят. гос. ун-та. Экономика и менеджмент. — 2016. — № 2. — С. 47–60.
- Трансформация права в цифровую эпоху: моногр. / под ред. А.А. Васильева. — Барнаул: Изд-во Алтай. ун-та, 2020. — 432 с. — [Электронный ресурс]. — Режим доступа: <https://www.asu.ru/files/documents/00023452.pdf>.

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### **Қалалық агломерация: жаңа құбылысқа көзқарастарды дамыту**

**Аңдатпа:**

**Мақсаты:** Мақалада қалалық агломерациялардың (бұдан әрі — ҚА) мәні мен ерекшеліктері, көршілес аудандар және қалалармен өзара байланыс жүйесі зерттелген. Авторлар мақалада қалалық агломерациялар түсінігіне ғылыми-теориялық көзқарастарды, әртүрлі даму кезеңдерін және оларға әсер ететін факторларды қарастырған.

**Әдісі:** Мақалада зерттеу келесі әдістерді қолдана отырып жүргізілді:

Жалпы қалалық агломерациялардың мәнін және олардың экономикалық дамуына әсер ететін факторларды анықтау үшін таңдалған танымның жалпы ғылыми диалектикалық әдісі — жүйелік тәсіл, өйткені қалалық агломерациялар белгілі бір орталығы бар өзара байланысты және өзара тәуелді аумақтардың жиынтығы болып табылады, яғни ол үйлесімділік белгілерін көрсетеді.

Қала агломерацияларының ортақ құрамдас бөліктерін анықтау үшін осы зерттеуде орталық және қажет салыстырмалы құқықтық тәсіл қолданылды.

**Қорытынды:** Зерттеулер ҚА адам әрекетінің өнімі екенін көрсетті. Оларды бір-біріне жақын жерде тұруды, жұмыс істеуді және демалуды қалайтын адамдар жасайды. ҚА-да қоғам дамуының экономикалық-саяси, әлеуметтік нормаларына байланысты қалыптасады, бірақ олар бір-бірінен белгілі бір аймақтың нақты факторлары әсер ететін нақты аумаққа байланысты ерекшеленуі мүмкін. Факторларға саяси-экономикалық, мәдени-әлеуметтік, коммуникациялық инновациялық-технологиялық, көліктік, инфрақұрылымдық, тұрғын үй-коммуналдық шаруашылық, өндірістік, табиғи-климаттық, экологиялық және халықты қызықтыратын және өмір сүру сапасы мен жағдайын жақсартатын басқа да факторларды жатқызуға болады.

Шетелдік авторлар ҚА-ның экономикалық және демографиялық аспектілеріне ерекше мән береді. Олар көбінесе қалалық агломерацияларды физикалық аспектілерге назар аудара отырып, бір немесе бірнеше қалалардан, елді мекендерден, ауылдардан және көрші аумақтардан тұратын үздіксіз аумақ ретінде анықтайды. Қазақстандық ғалымдар ҚА-ны саяси, экономикалық, өндірістік, әлеуметтік, мәдени, ұлттық, діни және экологиялық атрибуттар немесе факторларға негізделген аумақтардың бірлестігі деп есептейді. Дегенмен ғылыми ортадағы алшақтыққа қарамастан, көптеген ғалымдар ҚА зерттелетін аумаққа байланысты кешенді және жүйелі түрде зерттелуі керек деген ортақ пікірге келген. Әр ғалымның өзіндік пікірі бар және бұл тақырып әлі толық зерттелмеген, бүгінгі таңда ҚА-ның мәні мен ерекшеліктерінің біртұтас анықтамасы жоқ, сондықтан бұл тақырып әрқашан даулар мен келіспеушіліктерді тудырады және қазіргі зерттеу нысаны болып табылады.

**Қорытынды:** Зерттеу нәтижесінде агломерация процестеріне шетелдік және отандық көзқарастардың ерекшеліктері анықталды. Авторлар агломерацияларға халықтың жоғары шоғырлануымен, мамандануымен, аймақтық және қалалық дамуымен, жайлы өмір сүру жағдайларымен және табысты кәсіпкерлік қызметпен сипатталатынын атап көрсетеді. Олар тәуекелдерді азайту үшін тиімді басқаруды қажет ететін күрделі экономикалық жүйелер. Агломерациялар — ресурстарды жинақтауға және тиімді пайдалануға, сайып келгенде,

халықтың өмір сүру сапасын жақсартуға қабілетті, айтарлықтай бәсекелестік артықшылықтары бар ірі орталықтар. Қалалық агломерацияларды дамытудың шетелдік тәжірибесінің ерекшеліктерін зерттеу барысында агломерация процестерінің ең үлкен және қарқынды дамуы азиялық модельде болатыны анықталды. Бұл елдерде агломерациялар ресурстарды тиімді пайдалануды, инновацияларды, технологиялық дамуды және жақсы өмір сүру мен жұмыс жағдайларын тартады.

Еуропалық және американдық агломерацияларды дамыту үлгілері бір-бірінен ерекшеленеді. Еуропада агломерациялар әдетте полицентрлік дамиды, ал Америкада моноцентрлік модель басым. Американдық модель үлкен масштабпен сипатталады.

Агломерацияны дамытудың қазақстандық және ресейлік үлгілері бір-біріне ұқсас. Бұл елдерде агломерациялар негізінен типтік ғимараттары мен құрылыстары бар индустриялық аймақтар ретінде дамыған. Кеңес Одағы ыдырағаннан кейін Қазақстандағы қалалық агломерациялардың дамуы біркелкі болмады. Агломерациялар құрылысы ретсіз жүргізілді, бұл кептелістерге, тұрғын үйлердің болмауына, әлеуметтік, инженерлік-логистикалық инфрақұрылымның дамымауына, экологиялық проблемаларға әкелді. Қазақстандағы қалалық агломерацияларды жақсарту үшін жаңа басқару және экономикалық тәсіл қажет. Бұл олардың дамуына серпін береді.

**Кілт сөздер:** қала агломерациясы, үлестік аумағы, өзегі, аудандары, қалыптасуы, дамуы, Қазақстан Республикасы.

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### **Городская агломерация: развивающиеся подходы к новому явлению**

**Аннотация:**

**Цель:** В статье исследованы сущность и особенности городских агломераций (далее — ГА), система взаимоотношений с соседними районами и городами. Кроме того, авторы статьи рассмотрели научно-теоретические подходы к понятию городских агломераций, различные этапы развития и факторы, влияющие на них.

**Методы:** Исследование проводилось с использованием следующих методов: общенаучный диалектический метод познания, который был выбран для определения сущности городских агломераций в целом, и факторов, влияющих на их экономическое развитие; системный подход, поскольку городские агломерации представляют собой совокупность взаимосвязанных и взаимообусловленных территорий с определенным центром, то есть проявляют признаки согласованности.

Сравнительный подход является центральным и необходимым в данном исследовании для выявления общих составляющих городских агломераций.

**Результаты:** Исследование показало, что ГА являются продуктом человеческой деятельности. Их создают люди, предпочитающие жить, работать и отдыхать в непосредственной близости друг от друга. ГА также формируются за счет экономико-политических и социальных норм развития общества, но они могут отличаться друг от друга в зависимости от конкретной территории, на которую в комплексе влияют специфические факторы определенного региона. К факторам можно отнести политико-экономические, культурно-социальные, коммуникационные инновационно-технологические, транспортные, инфраструктурные, жилищно-коммунальные, производственные, природно-климатические, экологические и другие факторы, привлекающие население и улучшающие качество и условия жизни.

Зарубежные авторы склонны подчеркивать экономические и демографические аспекты ГА. Они часто определяют городские агломерации как непрерывную территорию, состоящую из одного или нескольких городов, поселков, деревень и соседних территорий, уделяя особое внимание физическим аспектам. Казахстанские ученые считают, что ГА — это объединение территорий по политическим, экономическим, производственным, социальным, культурным, национальным, религиозным и экологическим признакам или факторам. Однако, несмотря на разногласия в научных кругах, многие учёные приходят к единому мнению, что ГА следует изучать комплексно и системно в зависимости от изучаемой территории. У каждого ученого есть свое мнение и эта тема еще до конца не исследована, на сегодняшний день не существует единого определения сущности и особенностей ГА, поэтому эта тема всегда вызывает споры и разногласия и является объектом текущих исследований.

**Выводы:** В результате исследования выявлены особенности зарубежного и отечественного подходов к агломерационным процессам. Авторы подчеркивают, что агломерации характеризуются высокой концентрацией населения, специализацией, региональным и городским развитием, комфортными условиями жизни и успешной предпринимательской деятельностью. Это сложные экономические системы, которые требуют эффективного управления для минимизации рисков. Агломерации — это крупные центры, обладающие значительными конкурентными преимуществами, способные аккумулировать и эффективно использовать ресурсы, в конечном итоге улучшая качество жизни населения. При изучении особенностей зарубежного опыта развития городских агломераций выявлено, что наибольшее и наиболее интенсивное развитие агломерационных процессов происходит в азиатской модели. В этих странах агломерации привлекают

более эффективное использование ресурсов, инновации, технологическое развитие и лучшие условия жизни и труда.

Модели развития европейских и американских агломераций отличаются друг от друга. В Европе агломерации обычно развиваются полицентрично, тогда как в Америке преобладает моноцентрическая модель. Американская модель отличается масштабностью.

Казахстанская и российская модели развития агломераций схожи между собой. В этих странах агломерации развиваются преимущественно как промышленные зоны с типовыми зданиями и сооружениями. После распада Советского Союза развитие городских агломераций в Казахстане происходило неравномерно. Строительство агломераций велось хаотично, что приводило к перегруженности территорий, нехватке жилья, неразвитости социальной, инженерной и логистической инфраструктуры, экологическим проблемам. Для улучшения городских агломераций в Казахстане необходим новый управленческий и экономический подход. Это даст толчок их развитию.

**Ключевые слова:** городская агломерация, удельная территория, ядро, районы, формирование, развитие, Республика Казахстан

### Список литературы

- (2018). 30 krupneishikh gorodskikh aglomeratsii v 1950–2035 godakh [The 30 largest urban agglomerations in 1950–2035]. Retrieved from <https://population.un.org/wup/> [in Russian].
- (2023). Postanovleniie Pravitelstva Respubliki Kazakhstan «Perechen i sostav aglomeratsii utverdili v Kazakhstane» [Resolution of the Government of the Republic of Kazakhstan “The list and composition of agglomerations approved in Kazakhstan”]. KazTAG–Astana. Retrieved from <https://clck.ru/366Um6> [in Russian].
- (2023). Zakon Respubliki Kazakhstan. O razvitii aglomeratsii [The Law of the Republic of Kazakhstan. On the development of agglomerations № 181–VII LRK]. Retrieved from <https://clck.ru/366UBf> [in Russian].
- Akhmetova, Z.B., Ashirbekova, L.Zh., & Galymkyzy, G. (2018). Problemy razvitiia gorodskikh aglomeratsii v Respublike Kazakhstan [Problems of development of urban agglomerations in the Republic of Kazakhstan]. Retrieved from <https://clck.ru/366UDo>, 1–13 [in Russian].
- Bogolyubov, S.A., Boltanova, E.S., Vyphanova, G.V. and others (2013). Pravovoe obespechenie blagopriatnoi okruzhaiushchei srede v gorodakh: nauchno-prakticheskoe posobie [Legal support for a favorable environment in cities: a scientific and practical guide]. N.V. Kichigin (Ed.). Moscow: Institut zakonodatelstva i sravnitel'nogo pravovedeniia pri Pravitelstve RF [in Russian].
- Daueshova, A.E. (2018). Formirovanie gorodskikh aglomeratsii v Kazakhstane — faktor regionalnogo razvitiia [Formation of urban agglomerations in Kazakhstan — a factor of regional development]. *Sbornik dokladov Pervoi mezhdunarodnoi nauchno-prakticheskoi konferentsii dlia molodykh uchenykh «Intellectualnoe liderstvo: novye orientiry razvitiia»* — Collection of reports of the 1st international scientific and practical conference for young scientists “Intellectual leadership: new guidelines for development” Astana: Akademiia gosudarstvennogo upravleniia pri Prezidente RK, 74, 75.
- Daueshova, A. E. (2014). Teoreticheskie podkhody k opredeleniiu poniatii «gorodskaiia aglomeratsiia» [Theoretical approaches to the definition of the concept of “urban agglomeration”]. *Trudy Mezhdunarodnoi nauchno-prakticheskoi konferentsii «Problemy i perspektivy razvitiia gosudarstvennykh institutov v sovremennykh usloviakh»* — Proceedings of the International Scientific and Practical Conference “Problems and prospects of development of state institutions in modern conditions” Ust-Kamennogorsk: Vostochno-Kazakhstanskii gosudarstvennii universitet imeni S. Amanzholova, 66–71 [in Russian].
- Daueshova, A.E. (2018). Upravlenie gorodskimi aglomeratsiiami v kontekste regionalnogo razvitiia [Management of urban agglomerations in the context of regional development]. Astana. Retrieved from <https://clck.ru/366UD9>, 141 [in Russian].
- Glaeser, Edward (2009). The Wealth of Cities: Agglomeration Economies and Spatial Equilibrium in the United States. *Journal of Economic Literature*, 47, 4, 983-1028. DOI:10.1257/jel.47.4.983. Retrieved from <https://clck.ru/366UJT>
- Gvozdeva, M.A., Kazakova, M.V., & Pospelova, E.A. (2016). Podkhody k opredeleniiu aglomeratsii [Approaches to the definition of agglomeration]. *Zhurnal «Rossiiskoe predprinimatelstvo» — Journal of Russian Entrepreneurship*, 17, 24, 3505-3514. DOI: 10.18334/rp.17.24.37221. Retrieved from <https://clck.ru/366UKa> [in Russian].
- Kidrisheva, S. B. (2021). Dostupnost informatsii kak instrument otkrytosti gosudarstvennogo upravleniia [Availability of information as a tool for open government]. *Master's thesis*. Nur-Sultan. Retrieved from <https://clck.ru/36iU5W> [in Russian].
- Krugman, P. (1980). Scale economies, product differentiation, and the pattern of trade. *The American Economic Review*, 70, 5. Retrieved from <https://clck.ru/366UK4>.
- Merzlov, D.I. (2020). Razvitie aglomeratsii v krizisnye periody [Development of agglomerations in crisis periods]. *Doctor's thesis*. Saint Petersburg. Retrieved from <https://clck.ru/366UoQ> [in Russian].
- Muldagalieva, K. M. (2017). Razvitie aglomeratsii v Respublike Kazakhstan kak novoi formy sovremennoi organizatsii rasseleniia naseleniia na primere Shymkent'skoi aglomeratsii [Development of agglomerations in the Republic of

- Kazakhstan as a new form of modern organization of population settlement on the example of Shymkent agglomeration]. *Zhurnal «Nauchnye issledovaniia» — Journal of Scientific Research*, 4(15), 36–39. Retrieved from <https://clck.ru/366Uhc> [in Russian].
- Neshchadin, A. & Prilepin, A. (2010). Gorodskie aglomeratsii kak instrument dinamichnogo sotsialno-ekonomicheskogo razvitiia regionov Rossii [Urban agglomerations as a tool for dynamic socio-economic development of Russian regions]. *Nauchnyi zhurnal «Obshchestvo i ekonomika» — Scientific Journal Society and Economics*, 12, 17. Retrieved from <https://clck.ru/366UHA> [in Russian].
- Statnykh, E.A. & Khandarkhaev, A.S. (2016). Aglomeratsiia kak sposob innovatsionnogo razvitiia territorii na primere goroda Ulan-Ude [Agglomeration as a way of innovative development of territories on the example of Ulan-Ude]. *Vestnik Buriatskogo gosudarstvennogo universiteta. Ekonomika i menedzhment — Bulletin of Buryat State University. Economics and Management*, 2, 47–60 [in Russian].
- Vasilyeva, A.A. (Ed.). (2020). Transformatsiia prava v tsifrovuiu epokhu: monografiia [Transformation of law in the digital era: monograph]. Barnaul: Izdatelstvo Altaiskogo universiteta. Retrieved from <https://www.asu.ru/files/documents/00023452.pdf> [in Russian].
- Yelin, A.A. Goroda kak draivery ekonomicheskogo rosta [Cities as drivers of economic growth]. Retrieved from <https://clck.ru/366Umo> [in Russian].

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