

Features of management agglomeration processes. Características de los procesos de gestión de la aglomeración.

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ABSTRACT

The agglomeration process is a complex socio- economic, spatial phenomenon that requires special approaches to management. Today, agglomerations are transforming the urban environment, creating a diverse set of problems, the solution of which requires the improvement of mechanisms and the creation of new tools for managing the development of agglomerations. The theoretical aspects of agglomeration formation are considered in the article. Attention is paid to the components of the process of modern development of urban agglomerations. Peculiarities of urban agglomerations allocation and basic models of agglomeration development management are considered. Particular attention is paid to the functioning and management of recreational agglomerations. Recreational agglomerations are a special type of agglomeration formations that have special features and require a specific management apparatus. The article allows to expand the idea of the essence of recreational agglomerations, serves as the first basis for further study of its structural and functional patterns of development.

Keywords—urban, urban system, agglomeration, urban agglomeration, recreational agglomeration, innovation process.

RESUMEN

El proceso de aglomeración es un fenómeno espacial y socioeconómico complejo que requiere enfoques especiales de gestión. Hoy en día, las aglomeraciones están transformando el entorno urbano, creando un conjunto diverso de problemas, cuya solución requiere la mejora de los mecanismos y la creación de nuevas herramientas

para gestionar el desarrollo de las aglomeraciones. Los aspectos teóricos de la formación de aglomeraciones se consideran en el artículo. Se presta atención a los componentes del proceso de desarrollo moderno de las aglomeraciones urbanas. Se consideran las peculiaridades de la asignación de aglomeraciones urbanas y los modelos básicos de gestión del desarrollo de aglomeraciones. Se presta especial atención al funcionamiento y gestión de las aglomeraciones recreativas. Las aglomeraciones recreativas son un tipo especial de formaciones de aglomeraciones que tienen características especiales y requieren un aparato de gestión específico. El artículo permite ampliar la idea de la esencia de las aglomeraciones recreativas, sirve como primera base para un estudio más profundo de sus patrones estructurales y funcionales de desarrollo.

Palabras clave: urbano, sistema urbano, aglomeración, aglomeración urbana, aglomeración recreativa, proceso de innovación.

INTRODUCTION

Urban agglomerations usually understood as a group of cities and other settlements between which there are stable relations. Referring to the European experience, some scientists considers the concept of agglomeration, as follows:

Oxford Dictionary of Geography interprets the concept of agglomeration as "A concentration of economic activity in related industries in a geographical area, caused, in particular, by the peculiarities of foreign economic policy, namely the quantity and quality of skilled labor, growing economies of scale, cumulative effects, features of the local planning system and random factors." (Rogers et al, 2013). Institut National de la Statistique et des Etudes Economiques defines Agglomeration as "An association of cities; continuously urbanized territory" (UN declaration, 2001).

According to the UN Declaration: "On cities and other settlements in the new millennium, An agglomeration is an area that extends beyond the administrative boundaries of primary cities, encompassing two or more administrative units, having local authorities, having its own development potential setting different priorities, and not coordinating its activities" (Yarotskaya, 2012). In the opinion of Yarotskaya E, "An urban agglomeration is a collection of settlements that are the fastest growing and consist of dozens or even hundreds of settlements, closely interconnected. The emergence of agglomerations is a qualitatively new stage in the evolution of the city, when settlements are transformed into a system with blurred borders" (Pandas, 2018).

In terms of planning, agglomeration is the simplest, elementary form of group resettlement, which is a set of separate stable planning formations, combined in economic and transport terms, but do not always form a holistic spatial system

associated with a common planning and spatial plan. As it develops, a large city attracts smaller settlements into the sphere of its influence, stimulates their development, transfers to them part of its functions, forming agglomerations.

Two main types of agglomerations prevail: one develops on the basis of large cities, the other is formed in areas of intensive industrial development on the basis of a uniformly formed network of settlements. In the first case, a large city with a multifunctional structure, stands out in size among the surrounding settlements, loses its isolation and is a major part of the monocentric agglomeration. In the second case, a polycentric agglomeration is formed, consisting of several points equal in size and population.

Settlements of various sizes, included in the agglomeration, will acquire new qualities, becoming part of a single planning and spatial system. It is possible, on the one hand, to take advantage of large cities, reduce disadvantages, and on the other hand to create more favorable conditions for their development. However, in order to realize all the advantages that the formation of urban agglomerations can give, it is necessary to eliminate the shortcomings in the structure that exist in the existing planning formations. Agglomerations should not be a mechanism of coexistence of adjacent settlements, but to create a holistic planning system that would unite all territorial units and could develop on the basis of a system of modern spatial requirements.

THEORETICAL FRAMEWORK OF THE RESEARCH

The creation of agglomerations must meet the conditions of optimal resource provision of life and sustainable development of territories and should be based on a set of factors and criteria, which include the following: spatial, demographic, social factors, economic factors, engineering infrastructure, industrial infrastructure, recreational criteria (Pivovarov et al, 1999). The development of modern urban agglomerations is manifested in the intensive socio-economic, technological and infrastructural development of large urban centers and adjacent suburban areas. This process has a number of components:

- erosion of the boundaries of urban settlements that form an agglomeration, merger and increase the capacity of markets, namely labor markets, land and capital, consumption and entertainment centers, providing intensive exchange of resources in the city and suburban areas
- formation of suburbanized territories and creation of a personal resettlement network
- the presence of labor pendulum migration between cities
- the emergence of industrial, commercial, entertainment, recreational, tourist and transport and logistics complexes in the suburbs

In research work by foreign and domestic scientists have shown that the development of agglomerations is associated primarily with economic benefits – the so-called agglomeration savings – cost savings due to combining different activities in one place, the refusal of duplication of functions in the agglomerations. Agglomeration allows to take out some functions outside the city, to create transport accessible specialized (office, trade and entertainment, educational, exhibition, etc.) complexes on all territory of the agglomeration. Thus, the formation of the agglomeration allows solving a number of problems of the big city due to its unloading and at the same time to bring the level of development of the surrounding settlements to the city. The big city finds its complement in the agglomeration and at the same time acquires opportunities to solve its problems, such as the location of production, resettlement of people, the creation of places of mass recreation, the location of complex transport facilities and utilities.

At the same time, in the process of agglomeration, a developed urban space is formed, which leads to the consolidation of a full-fledged urban standard of living in the agglomeration, and the number of settlements with the most socially attractive environment increases. Smoothing the disparity in the development of the agglomeration between the city center and the suburbs and strengthening agglomeration ties by creating new forms of business in new areas creates a more comfortable environment for business development, improves quality of life (Fig. 1).

Currently, a fairly wide list of criteria for the allocation of urban agglomerations is used:

- the presence of a city-center of a certain population
- urban population density
- continuity of construction
- intensity and distance of labor and cultural and domestic trips between the city center and other settlements of the agglomeration
- share of employees outside the place of residence
- the number of satellite cities and the intensity of their connection with the city center
- number of telephone conversations with the center
- the presence of economic and industrial relations
- unified infrastructure systems and others (Artobolevskiy et al, 2011).

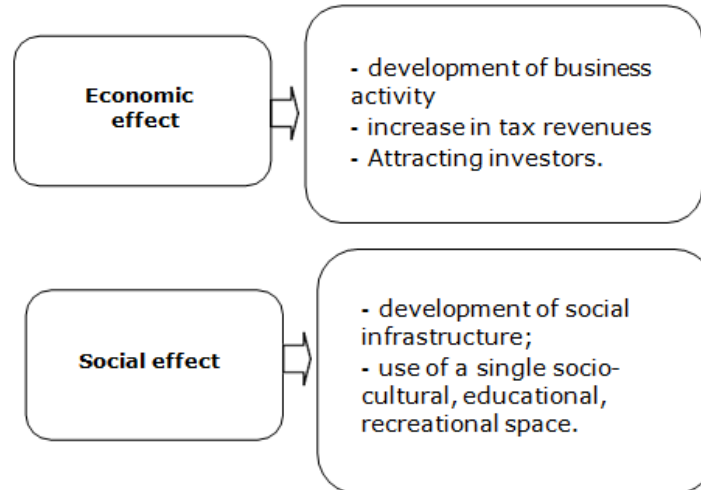


Fig. 1. Sample of the effects of agglomeration development

It should be noted that in developed countries, the development of agglomerations continues, moving to a new level – gentrification (Volchkova et al, 2015) that is, the development of old areas of the city. That is, in developed countries, agglomeration is carried out in depth, there is an improvement of the formed agglomerations. However, many experts note that in developed countries, agglomerations have significant potential for business development.

METHODS

The methodological and theoretical basis of the study was formed by scientific, statistical, regulatory materials. A comprehensive study of this issue should be based on a retrospective review of agglomeration processes with the identification of the main regularities and include the main aspects for the development of an integrated mechanism for their management, namely:

1. Study of global trends in the formation and development of agglomerations.
2. Analysis of the characteristics, factors, models of the development of urban agglomerations.
3. Study of the socio-economic efficiency of agglomeration development processes, theoretical and methodological approaches to assessing the development of agglomerations.
4. Study of methods for assessing the development of agglomerations.
5. Development of a proposal for improving the management of agglomeration processes in order to effectively regulate the development of agglomerations.

ANALYSIS OF RESEARCH RESULTS OR SCIENTIFIC PROBLEM

An important task is to develop a mechanism (system) for managing the formation and development of urban agglomerations. Managed development of urban agglomeration allows:

- To develop a system of adverse labor market based on the diversification of the economy and specialization
- optimize the transport system
- optimize and comprehensively develop land use
- to form an urbanized, natural-ecological (recreational) and cultural-historical framework of the territory;
- implement priority infrastructure projects;
- to optimize and develop balanced communal, social, educational and trade and entertainment infrastructure
- to create and enlarge the consumer market of goods and services (Olifir et al, 2020)

In the practice of urban agglomeration management, it is necessary to use several management approaches simultaneously, the choice of which depends on the specifics of the tasks. According to the developed management system of urban agglomerations (Olifir et al, 2020) allocate in management:

- Strategic level (Master Plan, Strategy)
- Territorial level (Programs (development of territories, support of small and medium business, development of infrastructure etc.)
- Operational level (Projects (infrastructure, investment, economic, socially significant, etc.).

Currently, in world practice there are 4 main models of management of agglomeration development:

- 1) one-level model – the creation of a single municipality, covering the entire territory of the agglomeration, as a result of the merger of independent municipalities or the inclusion of the adjacent lands in the city municipality
- 2) "Contractual" model – municipalities agree on the basis of agreements concluded on the coordination of the overall development strategy, cooperation in the implementation of infrastructure projects and the provision of services by separate independent municipalities in the agglomeration
- 3) Two-level model – the formation of the governing body of the agglomeration level along with the preservation of lower-level municipalities (existing municipalities transfer to the upper, agglomeration level part of their powers, but continue to address some issues of local importance);

- 4) the model of regional governance – instead of creating additional municipal structures, the function of coordinating activities within large cities can take over the authority of regional importance.

The task of urban agglomeration management is to create the necessary conditions for optimal spatial (territorial) organization. Thus, with increasing area (expansion) of urban agglomerations increases the spatio-temporal distance of labor and cultural and domestic migrations. Therefore, the management of each individual agglomeration should be carried out taking into account its specific properties and features.

Consider a specific type of agglomeration, such as recreational. Recreational agglomerations, as a special type of agglomeration formations, have their own unique features:

1. Expansion of the agglomeration in the holiday season, from May to September, and reduction in the off-season.
2. The presence of a specific type of relations: tourist and recreational, in contrast to other functional types of agglomerations, where the leading place is occupied by economic, labor, social ties of the population.
3. The use of the principles of ecological zoning with the distance of recreational areas from industrial facilities to the maximum distance.

The combination of recreational, industrial, settlement, administrative and other functions formed in the settlement historically in recreational settlements leads to competition in terms of resources (land, labor, natural, logistical, etc.) and to the development of social conflicts (Preobrazhenskiy, 1975). Intensive recreational and rural use of the agglomeration is often accompanied by significant man-made loads and associated environmental problems, which threatens the recreational potential of the agglomeration. The functional multidisciplinary nature of recreational agglomerations causes a high degree of tension in their socio- economic structure and there is a set of conflict situations associated with the scarcity and special value of areas in the immediate vicinity of recreational resources. At the heart of the group of social conflicts are the contradictions between the interests of local residents, the business community, tourists and others. This is due to a number of reasons:

- insufficient development of social infrastructure, not designed for seasonal growth of recreational agglomerations
- development of tourism in isolation from the interests of the local population;
- excessive commercialization of the tourism sector;

- high level of unorganized tourism;
- differences in the way of life of locals and tourists;
- exacerbation of social problems.

There is a need to develop an effective mechanism for managing the agglomeration, which will reach a fundamentally new and high-quality level of territorial organization. Namely:

1. The need to lay a new main transport corridor at a distance from the coastal zone, which will open additional opportunities for the use of recreational potential of the region.
2. Development of the concept and complex long-term program of sustainable spatial development of urban agglomerations with recreational features that mobilize the efforts of the state and business. These include a more complete development of all recreational components of the territory, the renewal of the tourism industry and the development of the real estate market, and soon.
3. Coherence and improvement of the system of administrative-territorial organization, which will contribute to the growth of economic efficiency, increase competitiveness, investment attractiveness of the respective settlements and agglomeration in general.

The implementation of the proposed management approaches requires the initiative and active participation of local authorities in the agglomeration, in integration with the interests of business, the population and the scientific community for the benefit of achieving common goals (Preobrazhenskiy, 1975).

CONCLUSION

Currently, in many countries there is a lack of proper legal support for agglomeration processes, lack of experience in managing agglomerations, insufficient training in various aspects of urban agglomerations. Sustainable development of agglomerations requires not only new management approaches, but also the improvement of legislation. Management of the urban agglomeration should be carried out in the direction of innovation and information, based on openness and comprehensiveness, which involves four components: government, business, the scientific community and the local population. Joint development and implementation of economic, infrastructural and socially significant projects contributes to the creation of a positive image of the agglomeration, the effective functioning of business and government.

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