CLUSTERING IN SPATIAL PLANNING FOR SUSTAINABLE DEVELOPMENT

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Introduction. It is important to choose integration models of doing business aimed at increasing their competitiveness in the context of globalization processes which covers not only the economy of states but also the economy of regions. One of these types of modern innovation structures are cluster models of organization of economic activity as a type of network structures that have proven their high efficiency in different countries.

International experience proves the expediency of using cluster structures in increasing the sustainability of the economy and especially in increasing the sustainable development of regions. Clusters should be an effective tool in overcoming the negative factors that hinder the development of the regions of Ukraine and the country as a whole (Industry4Ukraine, 2021).

Presentation of the main research. There are a significant number of definitions of the term "cluster" in both foreign and domestic publications, which in some way reflect the theory and practice of clustering processes. The first theoretical views on clusters were based on industry combinations, and today clusters are considered as innovation-territorial associations that are better coordinated with the sources of competitive advantage, cover foreign economic relations, relations between industries, technology, information, marketing etc.

The research allows to formulate the following author's interpretation of this definition: Cluster is a territorial-industrial form of optimization of the region's economy, which is based on a poly-structural model of integration of economic entities in order to synergistically use the potential of a single resource, material and technical base to increase production and expand economic activities to ensure sustainable regional development (Sarana, Lutsenko, 2018). Thus, the usage of a cluster approach of forming an effective strategy for sustainable development of the regions aims to solve an increasingly wide range of tasks, in particular:

- analysis of the region's competitiveness;
- development of regional development programs;
- stimulation of innovative activity in the region;
- ensuring the interaction of large and small businesses, etc.

Cluster structures represent a territorial and spatial form of production organization and optimization of the region's economy, focused on innovative development in both scientific and industrial activities. The authors proposed the concept of "autonomous specialized poly-structural cluster", which, in contrast to the existing ones, involves a combination of economic entities not on the basis of belonging to one industry through the manufacture of relevant products and services, but also on the basis of belonging to a single resource center cluster, which provides an opportunity to use a set of resources of natural and man-made origin for the manufacture of products and services of various industries.

The autonomy of such a cluster is self-sufficiency of the most important resources (energy, water and land), their location directly on the cluster and the possibility of their integrated use in case of any need for maximum efficiency. The specialization of the above cluster is the availability of resource potential of the region belonging to a particular industry. The poly-structure of such a cluster is the use of specialized mining resource potential for production and provision of services of various industries.

A graphical interpretation of the above concept on the example of a mining region is given in Figure below.
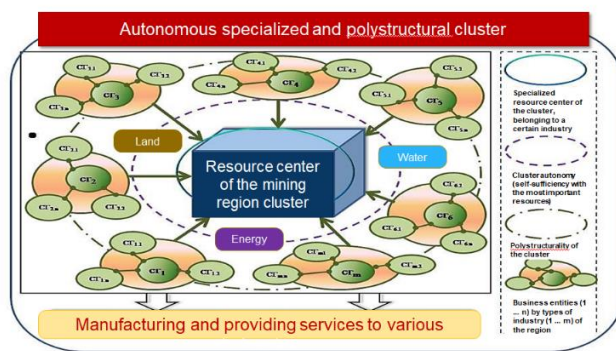
Conclusions. Today, the issues of studying the nature of the association of the subjects of the regional cluster, the principles of formation and interaction, its basis are very important. Usually a regional territorial production cluster is formed as a mono-structural model, which is based on a single production area, a single production chain, process, a single innovative technology and so on.

According to the authors, according to the above definition of "cluster", the most effective should be a parallel, ie, poly-structural approach to grouping enterprises. In such a cluster, enterprises are united not on the principle of belonging to one production chain, but on the principle of belonging to a single material and technical base,

on which the production of several types of products or services can be carried out at once.

Figure 1

Graphic interpretation of an autonomous specialized poly-structural cluster on the example of a mining region

This will allow a more rational and full use of the "basis" of the cluster, to form a several times expanded range of business projects and effectively implement them, which will stimulate the regional economy and ensure sustainable development of regions.

References

Industry4Ukraine (2021). Cluster Development Program_2027. URL: https://webcache.googleusercontent.com/search?q=cache:F0S6fLGb1h4J:https://mautic.appau.org.ua/asset/166:proekt-nacprogrami-klasternogo-rozvitku-do-2027-1pdf+&cd=8&hl=uk&ct=clnk&gl=ua (accessed on 12.11.2021).

Sarana, L. A., Lutsenko, N. O. (2018). Cluster policy as a tool for improving the competitiveness of the regional economy. *Electronic scientific journal "Pryazovskyi economic herald"*, 3(08), 107-110. URL: http://pev.kpu.zp.ua/journals/2018/3_08_uk/22.pdf