STATE REGULATION OF AGRARIAN-CONSTRUCTION CLUSTERS UNDER CONDITIONS OF DEMENCIA OF RURAL DEVELOPMENT

Abstract. The article is devoted to establishing priority directions of the development of the regulatory-stimulating mechanism for the implementation of modern economic interests of agrarian-construction clusters i.a., in agro-industrial construction in the rural area.

A group of agrarian-construction clusters is separated, whose activities, as rural areas, within which the territorial communities develop and function, advance, requires a new spatial rethinking and updating approaches to processes of arranging the provision of state support (assistance).

Definitional approaches to the interpretation of rural development processes and a list of needed works depending on the goals of the renovation and local conditions for its conducting are set.

Subject to balancing the social-agrarian-construction priorities of a specific territorial location, a process of developing tools for the implementation of programs of state support (assistance) for the renovation of rural areas is staged.

Methodological principles are formulated, for evaluating, at macro and meso-economic levels, an appropriateness of state support (assistance) for construction-
infrastructure initiatives of agrarian-construction clusters of a specific territorial location based on the ranking and biological classification of investment-construction projects, which includes both traditional (budgetary-financial and socioeconomic) and ecological-construction criteria, which are determinant in the algorithm of decision making on state support (assistance) for the implementation of investment-construction projects involving agrarian-construction clusters subject to the need to renovate rural areas and the involvement of agro-lands in a market model of their free circulation. This caused the formation of an integrated construct of collaboration of mechanisms of state support (assistance) for projects of industrial construction in the countryside, implemented by efforts of agrarian-construction clusters, with the national economic, social, food, construction and financial-budgetary priorities and capabilities of a specific territorial location, incl. the same in respect of further institutional development of the institute of social dialog involving a public-private partnership.

**Keywords:** agrarian-construction clusters, state regulation, dementia of rural development, rural agglomerations, territorial community, agro-industrial and social projects.

**Problem setting.** Stabilization and further development of agrarian and construction sectors of the national economy are impossible without strengthening a regulatory function of the state characterized by a turbulence of economic and business relationships, an unpredictability of a market situation, incites its entrepreneurial forms to continuously improve a material-technical base, increase the efficiency of own work, activate innovative changes throughout the whole value added chain, provide a proper level of competitiveness subject to a new economic reality, which is significantly accelerated by the Europe-oriented integration, the sharpening of a competitive struggle in world food markets, the decentralization and the COVID-19 coronavirus infection pandemic.

As of today, a low efficiency, fragmentariness are evident, as for the impact of the state on the activities of agrarian-construction clusters functioning in rural areas, namely, in production and sales processes subject to lockdowns caused, inter alia, by a lack of practical experience, insufficiency of scientific-methodological support as well as by a domination of political conjunctural interests in the encouragement of them to socioeconomic initiatives and infrastructural support of the village that ultimately does not provides the achievement of desired results.

In this connection, a problem of justification of the strategy for the formation and development of national agrarian and construction policies in the form of state support (assistance) for cluster establishments, means of bringing their business strategies onto a socially colored functioning vector, remains a topical and timely
issue and, to be faster addressed, needs performing systematic theoretical and methodical developments on creation of favorable conditions at the current stage of development of the agrarian sector, in general, and socio-orientation and agro-industrial modernization and recovery of rural areas as a zone of core business activities of agrarian-construction clusters, in particular. Hence, the need is obvious for innovative approaches to the institutes of state support (assistance) for agrarian-construction clusters, which would promote implementation of the potential of comparative natural-resource advantages of Ukraine and multiply competitive capabilities of national goods producers in the domestic and external markets with the unconditional compliance with the fundamentals of balanced rural development.

**Analysis of previous research and publications.** A broad scientific discourse of the state regulation in a general sense and in the agro-sector and construction industry has been, in particular, in papers of such domestic and foreign scientists: V. Andriichuk, O. Bilorus, O. Boridina, V. Heets, M. Demianenko, V. Zbarskyi, K. Ingersent, S. Kvasha, J. Cochrane, O. Krysalnyi, Yu. Luponko, R. Motoryn, V. Osetsykyi, B. Paskhaver, K. Rayner, P. Sabluk, V. Trehobchuk, M. Tracey, M. Khvesyk, O. Shpykuliak, O. Shubravska, V. Yurchushyn et al.


Recently, papers of many domestic and foreign scientists have been devoted to the matters of the formation, efficiency and prospects of the development of cluster structures. Among them, it is worth referring to studies by W. Anderson, T. Kompaniets, M. Kropvyko, V. Tkachenko, M. Porter, V. Fedorenko.

However, general and integrated research of the matters of the state regulation of agrarian and construction clusters in rural areas have not found their broad scientific arrangement and reflection that has become a foundation for setting the purpose and objectives of this research.

**Purpose of the article.** Rationale of measures of the state regulation for the arranged functioning of agrarian-construction clusters as a tool for the activation of sustainable development under the conditions of a new economic reality.

**Presentation of basic material.** A new economic reality changes a vector of the development of the economy, to one degree or another, towards a post-industrial stage and modernizes the industrial structure and spatial organization of territorial formations towards clustering including rural agglomerations (rural agglomeration as a single living space of rural residents should be understood to mean a form of synchronized cooperation of territorial communities in matters of economic development, culture and tourism, planning of their areas, organization of public transport and protection of public order, joint maintenance and use of roads, a public system, including but not limited to, of water supply and disposal, treatment with
solid household waste etc., social infrastructure in the form of kindergartens, schools, houses of culture etc., and agro-industrial construction).

A considerable portion of agrarian-construction clusters in traditionally oriented agrarian regions was formed and existed, for a long time, under the conditions essentially different from the current ones. In the recent years, the rates of changes in production and transport infrastructure in the rural environment, in general, are noticeably accelerated, ecological regulation of activities of enterprises is strengthened. In addition, in self-sufficient communities (cores) of rural agglomerations, a competition is increased for resources – the area, communications, water and energy supply etc. As a consequence, in some cases, the conditions, which have not changed, do not meet the activities of agrarian-construction clusters, in other cases - the activities of enterprises within agrarian-construction clusters do not meet the new conditions of the rural environment creating the “contours” of a new socioeconomic normality of the development of agricultural and non-agricultural activities in the rural area. In this connection, a spatial organization of rural development in dynamic agglomerations (within which territorial communities advance and function) requires permanent control over the allocation of funds of state support (assistance) for agrarian-construction clusters as functional entities of rural agglomerations.

It makes sense to separate four groups of agrarian-construction clusters, whose activities, to the degree of the development of rural agglomerations, within which territorial communities advance and function, require a new spatial rethinking and updating approaches to processes of organization of state support (assistance) [15–16; 22]:

1) agrarian-construction clusters, which activities are associated with powerful man-made impact on the environment (a large volume of emissions into the atmosphere and discharges into water areas, electromagnetic, noise, vibration pollution);

2) land-, material-intensive, energy- and water-consuming agrarian-construction clusters, i.a., those including food processing industry enterprises;

3) agrarian-construction clusters, which are dissonant with an architectural-planning aspect of the dynamic rural environment;

4) agrarian-construction clusters, which occupy areas, which can be used more effectively under a different scaling of state support (assistance).

A spatial transformation of agrarian-construction clusters, in the case of the above inconsistencies of their positioning in the rural environment but in the case of the appropriateness of retaining within the structure of the economy of the agglomeration is carried out in the center – periphery direction. In this case, as a rule, two problems arise [2]. The first one is associated with the fact that areas of a new localization of the agrarian-construction cluster are far from having sufficient agro-industrial and social infrastructural support. The other problem is a transport
A spatial transformation of the agrarian-construction cluster forms new conditions for the provision of the employment. An availability of jobs, their territorial organization for large clusters is a serious issue. Thus, a spatial transformation of the cluster can lead to considerable time spending on transport.

The other feature of a new spatial organization of the agrarian-construction cluster is developing agro-industrial and social infrastructure projects. While the administration of the territorial community plans to develop territories and their state support (assistance) in one direction, business structures of various types of activities can count on the other directions.

Aligning wishes of the agrarian-construction cluster and plans of development of territories and their support from the administration of the territorial community [8–9] can and must take place on a regular basis. Entities making a final decision, may become both the collegial bodies of administration and the territorial subdivisions of administration of rural territorial communities themselves, which have already developed the initial plans.

Under such conditions, the importance of a human factor increases, in implementing programs of a spatial organization of rural areas [17] and establishing the priority of state support for agro-industrial construction projects. It is practically impossible to avoid this impact. In this connection, the most important requirement for the implementation of new programs of a spatial organization of territories is the justification of decisions, their economic efficiency and managerial rationality.

Developments of such kind require establishing independent commissions or forming other institutions, within the scope of responsibility of which the collection, analysis and complete monitoring of information on the development of regional infrastructure, the change in the load on rural networks under the conditions of agglomeration growth, the analysis of plans of compacting development for large territorial communities and directions of social and residential development of rural agglomeration territories will fall [23].

Social and residential development indirectly forms an additional load on architectural-construction infrastructure of a specific location of the region. Direct loading of transport networks is a result of growing residential quarters, however, a process of their populating is not a one-time process. New quarters can load regional networks both in the year of the commissioning of the housing and within 2-3 years of settling residential areas.

Compacting development is, in general, an additional load on the regional networks. But compacting is carried out by the decision of the territorial community [8–9], which must further coordinate this decision with the commission, which must include representatives of local agrarian-construction clusters.

So, a new spatial organization of agrarian-construction clusters, a change in
assigning territories of a growing agglomeration is a separate difficult task. Problems of tension in using the regional infrastructure can become an insuperable factor in developing any cluster. Addressing similar tasks is a problem of both state bodies and private capital. To address it, it seems appropriate to organize separate subdivisions within the structure of regional bodies of power (territorial communities), those duties will cover regulating both planned decisions and specific situations associated with the outlined problem.

Regional power (of territorial communities) addressing integrated tasks of the spatial organization of territories subject to existing agrarian-construction clusters may not leave out the necessity to maintain the motivation of its road transport structures providing freight flows within a rural agglomeration [4–5; 13]. Their flexibility and universality are most often a determinant factor for the development of agrarian-construction clusters.

A spatial organization of the rural agglomeration is determined, first of all, by institutional factors, a special role among which is played by:
– a system of territorial planning and constructional regulation of the land use and development;
– mechanisms of cooperation of the center of the agglomeration with the periphery in terms of spatial development;
– mechanisms of a public-private partnership in the matters of the development of depressed local rural zones.

The current system of territorial planning does not give an answer to many questions of the development of rural agglomerations. In particular, processes of the improvement of the production structure of self-sufficient territorial communities, which, on a layout plan, spatially go beyond their territorial bounds, are curbed by the latter. Without clear legal ideas of functions and a spatial structure of the rural agglomeration, addressing the issues of the development of their depressed periphery becomes significantly complicated. As, because of the deficit of agricultural lands in the central regions of the urban agglomeration, developing its production component in the spatial aspect is predominantly oriented on a peripheral belt (rural agglomeration), the interaction of the city and the oblast [14], becomes inevitable in spatial transforming productions from the center, placing new clusters, improving engineering, transport and water infrastructure.

Many experts [5; 8; 14] hold a quite reasonable, in our view, opinion that the relationships between the territorial communities are built on the foundations of unconstructive competition rather than cooperation. Such status significantly curbs the spatial development of the rural agglomeration that, first of all, complicates reconstructing old industrial areas, improving engineering, transport and water infrastructure.

The absence of the so-called planning matching leads to the concentration of
residential development near city borders that often occupies territories where, enterprises of the agrarian-construction cluster could be placed, with the high transport-economic efficiency.

For example, shortcomings of cooperation between the Kyiv City and the Kyiv Oblast have an adverse impact on the efficiency of the spatial organization of the Kyiv agglomeration and territorial communities on these territories [13]. Thus, if the capital city and the agglomeration become the most powerful territory, the other ones will be in the stagnation state, receiving no assistance. And a self-sufficiency of exactly these territories near the Kyiv C. brakes, in a certain way, the matters associated with the establishment of territorial communities.

As one of the ways of addressing a problem of interaction of both the Kyiv C. and Kyiv Oblast, and for similar locations in terms of rationalization of the spatial organization of the peripheral belt of the (rural) agglomeration, it is possible to offer a block of inter-related programs or other institutions aimed at concentrating financial resources to provide re-development, incl. the same within water facility construction projects involving agrarian-construction clusters of certain regions that requires creating respective institutional forms of combining water resource consumers, bodies of local self-government, financial-credit institutions and specialized construction and installation organizations based on the public-private partnership contracts [4].

To address set tasks, it is necessary to consistently implement independent blocks characterizing the composition of stages of planning and alignment of programs of state support for the renovation of rural areas within the re-development projects being implemented around the agglomerations (Fig. 1).

In forming agrarian-construction clusters, together with local bodies of power, under the conditions of the market economy, as known, the business is directly involved. Traditional controversies between the interests of the business and the location, which not infrequently arise during placing clusters, are often removed by a public-private partnership.

As a number of examples of the development practice showed [1; 3–4; 19], a public-private partnership can be successfully used in forming agro-industrial, incl. water facility construction and implementing social infrastructural projects.

Basic re-development facilities are placed in the so called grey belt (rural development dementia zones) [6] – a territorial set of depressed zones adjacent to territorial communities. Here, the areas freed from ruined and abandoned stock breeding complexes, tractor facilities, warehouses change their functional load, as a rule, for more efficient – in economic, social, rarer ecological aspects – types of land use.
Because of functional-planning, socioeconomic and topological peculiarities of agrarian-construction clusters of central and semi-peripheral regions of large agglomerations, one of the most topical current problems of their territorial organization is to provide strategical directions of support for sustainable dynamics of
rural development, in particular, within the framework of modern approaches to the formation of state support (assistance) for rural area renovation processes [11].

Renovation of rural areas is a topical issue for many depressed zones adjacent to territorial communities. So, we can lose unique agro-industrial facilities, which are not renovated today. Many such facilities, including water facilities are in an extremely abandoned state now. Renovation processes in such rural areas, in this case, are capable to promote an inflow of investments for the restoration and support of such facilities, in particular, involving agrarian-construction clusters.

Any state program of support (assistance) for the renovation of rural areas is based on the advanced world experience of design and implementation of general development of agrarian-construction clusters [11]. Thanks to these measures, modern, long-lasting, comfortable and reliable both social and agro-industrial facilities, and facilities of individual residential zones in the countryside are created, which also decades later will meet the requirements for cost effectiveness, ecological performance and safety.

By state support (assistance) for the renovation of rural areas we offer to understand a system of measures (their point correction or concentration in respective directions) associated with the state stimulation of transformation of an economic function of the area subject to the need for re-development of rural agglomerations involving stakeholders that will enable to combine various mechanisms of state support (assistance) for agrarian-construction clusters, subject to national priorities in agrarian and construction policies, transformational processes in the countryside, in general, and in agro-industrial construction, in particular. And by renovation processes of rural development it is offered to understand a system of measures associated with a change of the economic function of the area. The above measures, depending on the objectives of the renovation and local conditions of its implementation may include the following kinds of works:

– area preparation for renovation measures (demolition of structures, removal of utility networks and services, removal of excess and contaminated soils, surface relief formation);
– area re-cultivation and re-habilitation;
– engineering support (incl. water facility support);
– communication (incl. road) and planning arrangement.

Efficiency and appropriateness of further state support (assistance) [4; 8–9; 12; 15; 20] for the renovation of rural areas, tools of re-development involving agrarian-construction clusters are determined by the collaboration of financial-economic, architectural-planning and ecological factors and functional potential of the location under renovation (Fig. 2).

A functional potential of a re-development facility involving agrarian-construction clusters consists of resource, demographic (labor), ecological
potentials and an economic-resource reserve of the territorial location.

The agrarian-construction cluster of rural agglomerations is a combination of territorially localized social, economic, organizational (institutional), technological, ecological, demographical and other links, processes and relations, which, in aggregate, condition a functionality of areas.

Fig. 2. Collaboration of Mechanisms of State Support (Assistance) for Agrarian-Construction Clusters and Industrial and Social Construction in Countryside

*Source: Dawn up by authors.*

Indicators reflecting said links, processes and relations can be reduced to a system of basic evaluation potentials – resource, ecological and demographical potentials, which, combined with an economic-resource reserve of the territorial location determine a functional potential of the latter (Fig. 3).
A functional potential of a re-development facility of the agrarian-construction cluster reflects a set of possible directions of its socioeconomic development under the conditions of a new economic reality [7; 15]. Implementation of said directions is determined by the following basic factors:

- a factor of the closest neighborhood of the agrarian-construction cluster, conditioned by socioeconomic, ecological and other linter-location links.

- social-resettling factors reflecting the forms of resettlement (dispersity or compactness), a demographical structure, mentality of the population, a level of its welfare and taxpaying ability, a ratio of a social-professional structure and a job structure;

- topological factors: agrarian-construction cluster’s sizes and configuration, by which not only an external form is understood but also a topological characteristic of elements of its economic structure, their mutual placements and relationships, agro-industrial and social infrastructure, which established, in particular, within the framework of water facility construction projects involving a cluster.

In determining a functional potential of a re-development facility involving the agrarian-construction cluster, the regional interests should be also taken into account – ideas and intentions of an area facility (in this case, – of the territorial community) concerning goals and tools of its socioeconomic development, preservation of its natural and cultural heritage and provision of ecological safety for the population. Taking local interests into account should be included in the methodical tools of research for the re-development purposes. In this case, the interests of land possession and land use act as system-forming interests.

A rural area is an operational basis for the re-development [12; 20; 23]. Depending on its functional potential, rural areas perform, in the spatial structure of
the agglomeration, productive, residential and environment-forming functions. Note that environment-forming functions have not been practically taken into account in spatially localized planning so far. A matter of the formation of the ecological setting within not large spaces is usually addressed by using the ecological infrastructure (predominantly, various water treatment facilities) but re-development in rural areas has never provided establishing facilities with the functions of ecological character yet. In fairness, not numerous examples of arranging green plantings in comparably not large areas of demolished facilities of agricultural purpose should be mentioned, but it was carried out not in the manner of re-development.

Depending on the character and composition of measures, a number of varieties of re-development in rural areas can be separated.

1. A complete change of the area in the spatial transformation of the rural area involving the agrarian-construction cluster. Re-cultivation and, if needed, re-habilitation of rural areas in the interests of a potential land user is carried out. In this case, a residential development and organization of recreational areas and loft spaces with various functionalities should be included with the most prospect types of using re-development areas.

2. Preservation of ruined and abandoned stock breeding complexes, tractor facilities, warehouses and structures, adopting them to the other types of the use and partial re-cultivation of the territory.

A set of discovered judgements and topicality of scientific-practical tasks cause the need to develop tools for the implementation of programs of state support (assistance) for the renovation of rural areas.

In this connection, we consider the following stages to address this task based on the balance within social-agrarian-construction priorities and interests at the specific territorial location [1; 9; 12; 15–16; 18; 20–22]:

Stage 1. Analysis of dynamic characteristics of changing in parameters of state support for re-development projects in rural areas in a retrospective. An important requirement of this stage is to form an idea of a starting point for conducting procedures associated with the implementation of re-development projects and the participation of agrarian-construction clusters in them.

Stage 2. Formation of a forecast of indicators of changing in key components of the regional gross product of a certain location.

Stage 3. Search and analysis of cause-effect links between innovation and investment activities as a result of state support (assistance) for re-development projects within the framework of renovation of rural areas.

Stage 4. Determination of the effect and additional results, which will be received by the agrarian-construction cluster of a certain rural location as a result of changing in the purpose of the land use of a growing agglomeration. An important requirement of implementing programs of state support (assistance) for the
renovation of rural areas associated with implementing re-development projects and participated by agrarian-construction clusters in them, is a result, which will be received by the entities entering into new relationships in changing in the purpose of areas. It is important that the sum of positive effects is higher than an agrarian-construction cluster’s single decision on the spatial transformation.

Stage 5. Fixation of results of the change in key indicators of sustainable development of the agrarian-construction cluster and industrial and social construction in the countryside subject to an Agro 4.0 modularity. Reducing in the fixed costs and eventual reducing in the variable costs enable to predict an increase in an average weighted level of profitability of the agrarian-construction cluster of a growing rural agglomeration.

State support for the implementation of re-development projects within the framework of the renovation of rural areas, subject to participation of the agrarian-construction clusters is intended to increase the rates of growth of the regional gross product of a certain location through activating and increasing a throughput capacity of sales and supply channels in economic relationships at the regional and inter-area levels.

**Conclusions.** As a result of the in-depth analysis of priority directions of the development of the regulatory-stimulating mechanism of the implementation of modern economic interests of agrarian-construction clusters, incl. the same in agro-industrial construction in the rural area, interrelated with the stimulation (direct and indirect) of industrial and social construction in the countryside, a number of destructs were ranked, which concurrently prevent to form an efficient system of state support (assistance) for agrarian-construction clusters, and, on the other hand, provide their economic statics during a period of economic shocks (as a result of a corona crisis (COVID-19), delaying in the completion of the agrarian reform, increasing, at high speed, in the areas of depressed rural development. Among them: low efficiency of agricultural production; insufficient stimulating impact of the agro-enterprise taxation system; imperfection of mechanisms of credit support for the industry; insufficient stimulation of the implementation of investments in agro-production; reduction in the provision of agricultural machinery and critical wear of fixed production assets; imperfectness of infrastructure and mechanisms of the regulation of food market conjuncture; sharpening of social problems in the rural area; absence of programs of support for industrial construction in the countryside and provision of the rural society with individual housing etc. This, combined with a cognitive diagnostic model of mutual influences of results of activities of agrarian-construction clusters and best practices (supranational and regional) of the state stimulation of industrial and social construction in the countryside enabled to form a new methodological basis of the multi-aspectness of the state regulatory impact on the resultiveness of the functioning of the institutional set of agrarian-construction
clusters expressed in terms of the integrated evaluation of the territorial reserve and optimum-structures of agricultural production, stimulation of digitalized food distribution channels, development of industrial and social infrastructure in the countryside, with a broad involvement of small and medium agro-producers.

References:


