THE CLUSTER APPROACH: THE EFFECTIVENESS OF THE IMPLEMENTATION IN THE FOREST COMPLEX OF BELARUS

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Modern forest complex of Belarus includes two interrelated sub-complexes – forestry and timber processing. Forestry sub-complex is mainly represented by provincial forestry associations, subordinated to the Ministry of Forestry (MoF) and other forestry shareholders, while the timber industry is represented by the «Bellesbumprom» concern (composed of 56 companies of one holding with open and closed joint-stock companies, private and joint ventures, the share in the production of forestry in Belarus is about 40 %) and other non-specified business combinations. According to the classification features, highlighted by the economists [1, 2], these agglomerations can be seen as industry clusters. However, the concept of the «cluster approach» in the economy, as noted by Professor V. S. Fateev [1], is so capacious in the present conditions that it is not just made as a union of subjects on the certain area but as a kind of technology that makes it possible to achieve a highly dynamic growth and innovation. It is believed that the priorities in the development of the cluster approach is by a «brand», and we can agree with that. Due to analysis of the system of views and ideas on the cluster approach in the economy, an increased attention not only to the innovative method of management, but also to the environmental responsibility can be observed.

Efforts and concrete negotiations of the practitioners, the managers on the coordinated interaction of the two above mentioned sub complexes are complicated over many decades by presence of the significant problems in matters of time-division effects of the resource base (for example, to attach woodworking plants to forestry or timber system of enterprises), price (rent), tax and mainly environmental aspects of relations. Wide scientific studies on the development of cooperative relations indicate that the main factors, preventing the integrated application of forces and intensive development of cleaner production, are in the areas of undeveloped mechanisms for cooperation, inefficient organization of finance. To ensure continuity of forest exploitation and ecological functions of forests it is important to have stable sources of funding forestry activities (note that the receipt of funds from the forestry activities do not allow to completely cover relevant costs). Under the present conditions this problem is complicated by the lack of coverage of financial flows within the cluster initiatives, equal conditions of competition, undeveloped institutional environment and others.

The scheme of the formation of ecologically oriented forestry involves the combination of the structure of forest MoF (understood mainly as a tree-usage) and forestry activities (a forestation, reforestation and others),

creation of conditions for the conservation of biodiversity in the forests. Within the perspectives in innovative development a significant place must be given to one of the strategies to implement the cluster approach not only in the aspect of the industry, but also at the regional-governmental levels. By 2015, according to the policy documents, only the wood in the hard-to-reach areas will be sold on the vine, the amount of which will be about 800 000 m^3. By implementing this type of industry approach (forest harvesting) towards development of forestry subjects, and, due to the fact that forest resources are located in the exclusive property of the state, the mechanisms, which can consistently be the base to the cluster approach, should be determined (from the enterprise to the entire complex).

In 2013, the enterprises of concern «Bellesbumprom» for all types of cutting were given 2045.1 thousand of merchantable (or 12 % of total release countrywide) wood, including 1486.8 thousand $m^3$of industrial (15 % of total release of industrial) wood. The enterprise group released 1694.2 thousand m^3 of merchantable wood by stumpage value, which includes 1236.0 thousand m^3 of industrial wood. The calculated cut-over land of Belarus in 2013 was mastered by 89 % (8335.4 thousand m^3). Release of conifer woodis amounted to 3955.9 thousand m^3, of hardwood – to 145.5 thousand m^3 and of softwood – to 4234.0 thousand m^3. The enterprises of «Bellesbumprom» concern made transactions on the stock exchange in the amount of 592.9 thousandm^3 of industrial prefabricated wood. The highest demand among foreign buyers is enjoyed by the balance figures, realized in amount of 414.5 thousand m^3 (70 % of the sales volume) of merchantable wood and 163.6 thousand m^3 (28 %) of industrial raw materials. In addition, 14.5 thousand m^3 of rounded wood materials were sold for export. Also 57 % of prefabricated wood was sold under a commission agreement through unitary enterprise «Bellesbumpromexport», 27 % – through the state enterprise «Belarustorg», about 1 % was realized through direct contracts by group of companies and 15 % – by other business facilities. Thus, compared to the same period of 2012, the volume of supply on export increased by 14.0 thousand m^3.

Over 2013 forest managers exported 1152.5 thousand m^3 of rounded wood. This material could be sent to processing within the country, for example, to a concern. However, the practicality of such organizational and economic solutions is not justified by the practical needs of woodworking enterprises, and, by the way, financial condition of «Bellesbumprom» does not give any prerequisites for ensuring of high efficiency of such sales. Forest enterprises need financing sources, and they can only get them through sales of core activity products – raw wood, when only highly profitable relationships with internal and external customers are supported.

The issue of providing concern enterprises of Vitebsk region in Belarus with the necessary raw materials was considered in 2006 and was resolved in favor of the processers. The whole problem was that concern's enterprises, that serviced MoF institutions, should prepare the wood, purchased by forestry enterprises on the stock exchange, then form the price for service using the formed pricing system including VAT, and only then buy the same raw materials in prefabricated form through the same stock exchange from forestry enterprises. Thus, the price of wood raw material for forestry concern organizations includes fall in profits due to lower prices of services for logging and transportation (in sum they are about 40 % of the payment for the material) in comparison with what processes could earn on the procurement of raw materials on their own. The need to apply the cluster approach for solving the problems of providing raw materials is justified by the contradictory information on the objectives and the means by which the organization of two state-sectoral clusters are willing to implement the strategy of sustainable forest management. The variety of purposes and tasks that can be solved in forest usage and forest management, as well as the need for sustainable forest sector development, requires justification of cluster initiatives, which will focus on maximizing the index of ecological and economic return. There are fears that at low economic returns processing plants will not be able to provide ecological returns.

World experience shows that cluster strategies are the tool (technology) of creating favorable economic environment for development. Acting as an organizational form, cluster usually ensures subsystems' economic growth, extended reproduction, natural resource sustainability. Skipping the definitions of the cluster (they are adequately presented in [1]), we shall note that it is preferable to lay the background for making the most effective governmental administrative decisions in the models of regional clusters. One of the cluster analysis setups with the orienting on the allocation of some geometrically remote groups within which objects are similar (which was initially used by M. Porter in the definition) can serve as an additional factor of cluster formation (with clear geographical outlines).

Solving the major problems of clustering in the forest complex involves consideration of specific features, that allows to form a unified management systems. Firstly, financial and economic calculations must be linked with strategic decisions of objects development. Secondly, it is needed to focus on making economically justified decisions with an access to the «trajectory» of sustainable development and increasing ecological and economic returns. One of the main problems on the country level is low level of raw wood complex usage. At the present point of time practice has not yet received financially and economically concretized recommendations for increasing the effectiveness of the forest complex subjects within certain territorial structures. Studies conducted by specialists of SSI «INAH of Economy Ministry of the Republic of Belarus» showed that there are 10 areas with the highest concentration of enterprises of woodworking and pulp-and-paper industries in the Republic of Belarus, that process yearly more than 200 thousand m^3 of merchantable wood. These enterprises are placed in Ivacevichi (23 woodworking enterprises), Pinsk (29), Vitebsk (63), Gomel (61) Svetlogorsk (14), Mostovsk (8), Borisov (47), Minsk

(181), Bobruisk (33) and Mogilev (55) [4, p. 24]. It is necessary to determine not only possibilities of consumption of raw wood material for mentioned regions, but also the internal priorities of those enterprises that can give the so-called "innovations competence effect". For specific conditions the direction of diversification of capital should be considered. This implies a set of problems with implementation of the cluster approach in the forest complex of Belarus. Forest management is inseparably linked with the term of purpose. Maximization of ecological and economic return may serve as this purpose. Cluster initiatives also play significant role. Here are some requirements for the effective implementation of the cluster approach.

First requirement is the forest product's specificity. Problem with profitability consists in product's price elasticity, in need for transport resources (availability and capacity of machinery and roads for supplying with raw materials). Fee for resources (hereinafter – the stumpage fees) stands as an object of constant structuring of economic interest with account of the non-material component (environmental). The second requirement is the institutional environment for innovative development. At the turn of the last century the «institutional vacuum», associated with the destruction of formal and non-formal norms and rules of economic behavior, appeared. Now it is possible to overcome it only in conditions of task-oriented modernization of most enterprises, usage of modern machinery, technologies and methods of increasing production levels, improvement work organization etc. The most important step in the formation of the cluster approach should be the study of the product market in the world arena in order to obtain information on the needs, demand, prices and consumer's preferences.

Increasing of ecological and economic returns within regional clusters is needed to be provided following the principle of paid environmental usage. Due to this fact we propose to include the system of reserve coverage of direct forest management expenses at the cost of stumpage fee to the model of interactions between forestry (logging) sub complex and woodworking enterprises. In general, it will be possible to create equal objective conditions for forestry enterprises, if comparison of the fee for sold raw wood material to the cost of carrying out the activities is carried out. Relationship with the state may be built on the allocation of the best, worst and average sources of natural resources. Those suppliers, which will sell the best raw materials, will be able to earn additional income. These general contributions, known from the theory of rent relations, can find certain expression in the cluster approach model, where the best content and the local protection of natural resources will become the concern of the enterprises of a given region.

The benefits of regional cluster approach in the forest complex are as follows:

1) assurance of interactions based on the of costs coverage, primarilythrough stumpage fees (direct method, related to the formation of highly productive, ecologically sustainable and viable forests);

2) coverage of all overhead costs for reforestation, forest protection, conservation activities carried out in the «region–industry–enterprise» triad (if forestry enterprise can't cover these costs at the expense of sales of prefabricated wood per 1 ha through stumpage fees, then it is advisable to claim subvention from the State);

3) list of the max possible amount of activities in all spheres of forestry development should be supported at the expense of safe fund, formed within the forest industry (like innovation funds with long creation time).

Cluster (system) initiatives should communicate with the national interests of forming an effective competitive landscape. This approach, when the local management produces and sells products (resources) and forms its prices, covering all its costs by reducing expenses and using effective sales methods, should be base for strategic planning, that will direct forest enterprises to the way of increasing economic self-sufficiency and profitability. Innovative development requires clusters to be based on a natural resources sustainability and accounting all-round interests of all participants of the forestry sector.

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