

STAGES OF THE FORESTRY CLUSTER MANAGEMENT**TATYANA SASNOVICH, ELENA MALEY****Polotsk State University, Belarus**

The article deals with a topical issue for forest industry, namely the formation of forest industry cluster management process based on the basic functions of management. The author identified and justified the need to use the basic functions of management as the components of forest industry cluster management process. On the basis of the conducted research the author suggests four phases of forest industry cluster management process, defines and formulates the essence of subjects and objects, which are the elements of forest industry cluster management process.

World experience of the developed countries proves both the efficiency and the inevitable regularity of clusters emergence. So scientific works of foreign and domestic economists are devoted to researches in the field of the theory of a cluster and its management. Among the foreign representatives the most outstanding one is M. Porter who developed the theory of clusters, to the Russian scientists considering this subject we can refer A.P. Gradov, S. V. Ubel, A.V. Evseenko and others [1].

In the last ten years the formation of clusters has become an important part of the state regional development in many countries of the world. And the Republic of Belarus is not an exception where the creation of a number of industrial clusters is planned [1]. Thus in the Republic of Belarus a number of experts such as V.S.Fateev, D. I. Alyokhin, G. A. Yasheva and others are engaged in the problem of clusters formation and management.

One of the most promising cluster creations, in our opinion, is forestry cluster. It is caused by the high potential of timber industry complex of the Republic of Belarus. However it should be noted that the resources of the forest industry are used insufficiently in view of low innovative activity, outdated material base, lack of cooperation communications and coordinated actions of the enterprises that in turn, doesn't allow to set the debugged production chain on high-level processing of wood.

Due to the creation of timber industry cluster the real basis for interbranch use of forest resources will be provided as this cluster will not only create a set of enterprises of different branches located on the certain area, but also will provide a combination of firms and organizations having technological, economic, social, institutional and other relations which will enable to increase the competitiveness of forest industry enterprises.

It should be noted that the experience of various countries gives evidence of the lack of uniform and unified stages on clusters creation, development and management.

Thus, the research objectives are the development of reasonable stages of clusters management including the accurate description of management functions and their contents in relation to the forest industry.

The concept «forest industry cluster» is considered in this article as the set of interconnected enterprises, organizations, institutions of forestry united in the production chain within which the final product of forestry and a value added is created by means of structural association of technical, technological, organizational, administrative and institutional innovations in the forestry branch.

It should be noted that any organizational form of enterprises associations needs management. So, the author offers a management process of a timber industry cluster on the basis of the main functions of management. The management process itself has the object, the subject and realization stages in its structure.

The main objective of managerial bodies in a forestry cluster is the effective implementation of operating impacts on forestry organization which in this case act as the objects of management. The control of the organizations of forestry is exercised at the level of the state, region, cluster, branch and economic agent.

The subjects of management are understood as the governing bodies operating at various hierarchical levels and performing the functions of forestry organisations management. Internal managerial bodies act on the microlevel, i.e. directly in the organizations. External governing bodies work on state, regional and district levels [2].

The object of management is forestry organizations and the processes of their functioning and development in a cluster.

It should be noted that the prerequisite of ensuring the effective management of functioning and development of the organizations of forestry is their research and the system analysis.

In our opinion such researches can be made on the following algorithm:

- characteristic of all-system and individual properties of forestry of the Republic of Belarus as a system;
- identification of the functions of the system which is a backbone factor;
- identification of system resources;

- studying the structure of the system as the set of interconnected elements forming it (the organizations and establishments of forest branch);
- determining the final products of system activity;
- determining the criteria of efficiency from the point of view of forestry functioning as a whole, and also of its elements.

Forestry organizations in a cluster possess some characteristic features.

First, these organizations are territorially determined systems attached to the concrete region on which territory they function.

Secondly, the organizations of forestry are open systems which closely interact with the environment;

Thirdly, the organizations in a cluster are big systems with the difficult organization, the internal environment of which includes a number of subsystems.

Thus, forestry organizations in a forestry cluster as an object of management represent big open territorially caused social and economic systems in total forming the main structure of a cluster.

Let us consider peculiarities and stages of management of forestry organizations in a timber industry cluster from positions of external-related governing bodies.

Management has to be built within certain logic of management functions interaction, caused by the sequence of management process as functions of management are the components of any management process regardless of features (size, purpose, form of ownership, etc.) of the organization or organizational associations, such as clusters [4].

The management of a forestry cluster based on functions of management consists of four stages: planning; organization and motivation; control; coordination and regulation.

At the first stage of management process it is necessary to implement the following administrative functions:

- identification of a forestry cluster, the analysis of current state of the organizations of forestry and identification of the factors defining possibilities of management;
- forecasting, comparison of alternative options, choice of the best of them and planning including statement of the purposes of management, determining the directions of development;
- formation of the mechanism of management, making decisions on the ways of goals achievement.

It should be noted, management process is impossible without its accurate organization, operation of the mechanism of control which is exercised at the second stage and provides the implementation of plans and programs by means of streamlining, coordination and regulations of performers' actions, and also the formation of management organizational structures. The motivation proceeding from the interests and motives of their behavior [5] is also important.

Such functions of management as control and assessment of forestry organizations functioning efficiency act at the third stage of management process by means of which the feedback between the subject and the object of management [5] is supported.

At the final, fourth stage of management the function of coordination and regulation is carried out aimed at the optimization of forestry organization functioning by elimination of deviations, and also at the consolidation of positive results [5].

The author suggests the interrelation of functions of management and stages of management of a Forestry cluster in table 2.

The advantages of the developed management of a Forestry cluster lie in systematization of internal and external impacts on the organizations (enterprises) which are a part of a cluster, by means of division of management process into stages with the specified activities contents on the basis of classical functions of management.

In conclusion it is noteworthy to say that the Forestry cluster and the organizations of its rational management is one of the most promising directions of the development of regions and the country as a whole.

On the basis of this conclusion the following main theoretic-methodological results are received:

- the importance and the need of creation of a Forestry cluster are proved;
- the concept "timber industry cluster" is formulated;
- stages of management process with a timber industry cluster on the basis of the main functions of management are distinguished;
- the contents of stages of timber industry cluster management are concretized.

The suggested stages of management of a Forestry cluster enable to reveal accurate interrelations between the objects and the subjects of management due to what the effective functioning of a cluster is provided.

Economics

Table 2 – Interrelation of functions of management and the developed stages of management of a Forestry cluster

Name of the function of management and management stage	Content of function of management	The characteristic of functions of management (management stages) for a Forestry cluster
1. Planning – 1 stage of management	formulation of the purpose, mission, tasks, plans.	<p>Purpose: formation of the Forestry cluster focused on the use of innovations as the basis of production efficiency increase, competitiveness of products.</p> <p>Mission: preservation and reproduction of the woods as the source of raw materials, providing the needs of the economics for wood and not wood production, and as the most important nature forming component of surrounding environment on the basis of rational and filled forest exploitation.</p> <p>Tasks: modernization; development of new types of production; personnel training; forestry informatization; introduction of innovative technologies.</p> <p>Plans: Formation of the development plan of a Forestry cluster and its adaptation to changes.</p>
2. Organization – 2 stage of management	formation of structure of a Forestry cluster	<ul style="list-style-type: none"> – establishment and involvement of key participants of a Forestry cluster (Ministry of forestry of RB; universities and research establishments: EI "PSFC", EI "BSTU" (silvicultural faculty); SFBM "Polotsk Forestry"; JSC Vitebskdrev (Bellesbumprom Concern), Bellesbumprom-export Unitary Enterprise, ARS "Bellessnab" and others – formation of business infrastructure of a Forestry cluster (banks and other credit institutions; marketing and advertising companies; consulting companies; insurance company and others); – drawing up the economic-sound map of a Forestry cluster.
3. Motivation – 2 stage of management	Activization of the personnel working in the organizations of a Forestry cluster	<p>Activization of the participating organizations of a cluster by means of:</p> <ul style="list-style-type: none"> – their commercial interaction; – carrying out educational trainings at universities and research establishments, such as EI "PSFC", EI "BSTU" (silvicultural faculty); – introductions of innovations and technologies for development of basic elements of a cluster; – development of mechanisms of encouragement and remunerations.
4. Control – 3 stage of management	Assessment of achievement of the objectives and problems of activity	<p>Carrying out the state forest control and supervision of the activity of a timber industry cluster.</p> <ul style="list-style-type: none"> – Carrying out state examination of projects. – Monitoring of financial and economic activity of basic elements of a cluster.
5. Coordination and regulations – 4 stage of management	Coordination of all links of a timber industry cluster by establishment of rational communications; preservation of orderliness position.	<ul style="list-style-type: none"> – formation of social, political and economic relations in a cluster; – formation of interorganizational networks; – interaction between cluster elements is established, resources maneuvering is carried out, the unity and coordination of all stages of management process (planning, the organization, motivation and control) is provided.

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ECONOMICS AND ENVIRONMENTAL MANAGEMENT IN THE IMPLEMENTATION OF THE CONCEPTS OF SUSTAINABLE DEVELOPMENT TO FOREIGN ENTERPRISES

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The article analyzes the international companies' implementation of the concepts of sustainable development aimed at economic and environmental regulation.

Within the framework of sustainable development of the economic system of the Republic of Belarus the regulation of economic-ecological relations are of high practical value. Along with the positive trends in the regulation of economic and ecological relations, the world community constantly faces global problems and threats, the likelihood of which is increasing in recent years. The practice of recent years has shown the need for scientifically-based approaches to issues of economic and environmental regulations at micro, meso and macro levels.

Since the United Nations Conference of the year 1992 (3-4 June) in Rio de Janeiro, known as "Earth Summit", many foreign enterprises in addition to economic efficiency of their activity simultaneously try to care for the environmental component of their activities, both in terms of environmental protection and natural resources efficiency.

In April 2000, European Commission officially declared the new instrument, namely the "threefold model", of reporting on sustainability presented by John Elkington [5]. According to this company's accounting system the analysis is not all about economics and profit-making, it also takes into account both social and environmental costs. The results of corporate operations are estimated by three aspects which for greater visibility are shown in figure 1 (fig. 1).

So, in today's world no company regardless its size can ignore the ecological component of its activity. The growth of consumer's needs and education as well as new conditions requires more advanced enterprises' strategies. Companies are trying to find new ways of development and for the most part it is an eco-friendly policy. After all, the effective use of environmental perspectives can help to reduce costs and risks and to improve the goodwill of the business entity. In terms of this work, let us analyze the largest businesses with a steady image on the world stage. Thus, the international brand consultancy *Interbrand* has published a list of the most environmentally friendly brands of the year 2012 in Best Global Green Brands Report (Table 2).

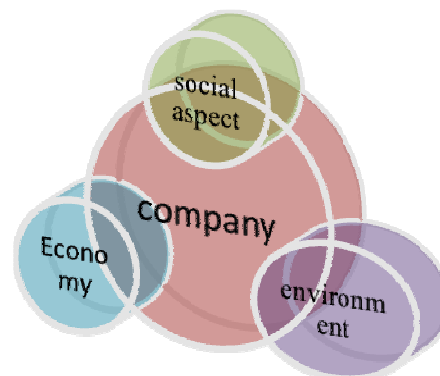


Fig. 1. Essence of John Elkington's "threefold model"

This top list presents global companies, which have lately distinguished themselves by their environmentally oriented strategies, products and technologies. The largest world's fast-food giant McDonald's took the 45-th place in the ranking and showed the highest negative coefficient which is –16.5. Among the analyzed companies a large in the sphere of information technologies US company *HP* occupied the 5-th place in the overall ranking and can be proud of the highest positive coefficient of 11.72, that was received thanks to its efficient environmental policy.