



Emerging multilevel governance in forestry and land-use in Belarus (Summary)

Scientific report

2017



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Introduction

The main mission of the publication is to give impetus to the development in the field of environmental governance taking into account the EU experience in this area, to draw attention to this problem, to structure knowledge in the theory and practice of sustainable environmental governance and management.

Educational institution «Belarusian State Technological University» started to implement the project «**Land-use systems in the European Union: science, management and policy**» (LUSY) **Erasmus+ Jean Monnet Modules** in 2014 (553575-EPP-1-2014-1-BY-EPPJMO-MODULE). This project is funded by The European Union.

Jean Monnet Activities are designed to promote excellence in teaching and research in the field of European Union studies worldwide. The activities also foster the dialogue between the academic world and policy-makers, in particular with the aim of enhancing governance of EU policies.

The LUSY project consists of three modules (Module 1: Land-use science, management and governance – EU experience; Module 2: Forestry governance – EU experience; Module 3: Landscape planning – EU experience).

The general ideology of the LUSY based on green economy and multilevel governance in forestry and land-use.

The research discusses the approaches and methods of constructing a multi-level governance system in forestry and land use in Belarus regarding EU experience, shows the role of ecological-economic concept for sustainable environmental governance to build an effective system of forest and land-use governance. This publication is addressed to master's students and students.

The concept of “multi-level governance” easily qualifies as among the most important recent “cutting-edge” conceptual contributions but originally the term is concerned politics.

EU experience in forest and land-use governance show us importance to create and implement Conventions, Directives, Strategies, Operational Policies and legislation, management services, programs – all these documents are the step towards integrative and strategic collaboration in forestry and land use.

Environmental governance is a socio-ecological-economic in Belarus, the main tools of which are: sustainable forest management; agroforestry integration; organic production; landscape planning; model forest.

The forest policy in Belarus is based on international agreements on sustainable forest governance. There are 6 criteria of sustainable forest management.

Institutional framework for sustainable development in forestry is based on administrative weakening of state influence on economic processes in the forest, effective development of forestry is the forest business.

Economic basis for the development of forest regions – forest integration on the basis of “green” and nature-orientated technologies. In regard to sustainable



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development of such areas is necessary to maximize the use of commercial interest, flexible financial instruments, professional skills and local culture.

In Belarus there is no system of legislation which determines the order of organic production. However, the Concept of organic agriculture development is adopted, and the draft law is posted on the Ministry of agriculture and food website for discussion with experts, ministries and departments, public organizations, organic producers and other stakeholders. Despite the lack of standards governing organic production, many producers of organic products already certified products and their companies, they ask foreign certifiers who are accredited for certification in the Republic of Belarus.

As shown, an effective instrument for ecologic-oriented regional management is a landscape planning. Developing the partnership in terms of socio-ecological-economic interests implementation, model forest contributes to the implementation of the sustainable forest management in a particular area.

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The Department of Management, Business Technologies and Sustainable Development at BSTU, where implemented the project, expresses gratitude to Rector of the University **I. Voitau** and Vice-rectors **O. Dormeshkin** and **A. Sakovich** for helping in the organization and management of the project and to the staff of the Education Office, Control Office, International Relations Office, Financial Office and Accounting Department.



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1 Multilevel governance in forestry and land-use in the European Union

One of the most important manifestations of 21 century's trends is the emergence of the concept of "multi-level governance" (MLG) in the science literature. This is a concept that was initially formulated for and directly applied to the European Union, the unique new supranational governance form that has evolved in Europe since the signing of the Maastricht Treaty in 1992. It has since been popularized and widely disseminated and applied to other structures that are the objects of study in the different subfields, for example in forestry and land-use. As a result, the concept of "multi-level governance" easily qualifies as among the most important recent "cutting-edge" conceptual contributions but originally the term is concerned politics [1].

Multilevel governance is

- dispersion of central government authority (*Hooghe and Marks 2001*) or also
 - *polycentric governance*, where many centers of decision-making that are formally independent of each co-exist and collectively deal with an environmental issue or natural resources (*McGinnis 1999*)
 - ...increasing prominence of non-state actors in political decision-making is commonly described as a core feature of *multilevel (polycentric) governance* (*Bache and Flinders 2005*)
 - ...flexible and competent decision-making
- Briefly we can show the concept of "multi-level governance" (MLG) in figure 1.

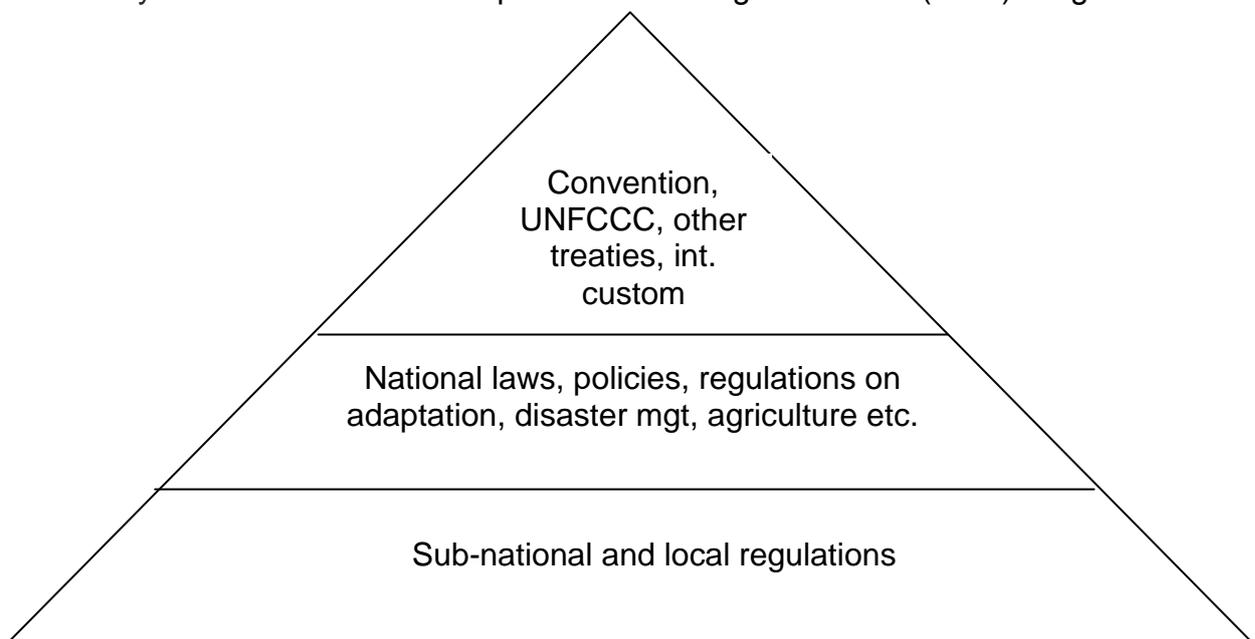


Figure 1. Multilevel governance – institutional base



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In the beginning environmental policy concerned mostly human health and was largely fragmented and dependent on the national law. The key driving forces behind the development of the initial EU environmental policy were international obligations (Baker, 2003; 2008; Jordan, 2008) initiated mainly by the UN Earth Summit in 1992 and the growing pressure of the global economy, in particular the depletion of natural resources. EU environmental policy was responsive to these pressures. The turning point came in the late 1980s, when a more strategic approach was adopted by the EU, in particular with regard to sectoral integration initiated by the European Council meeting in 1988, known as the Cardiff Process. An important step towards integrative and strategic collaboration was the adoption of the European Landscape Convention (Council of Europe Treaty Series no. 176) in 2000. Effective from January 2004, it promotes the protection, and co-operation management, of European landscapes and constitutes the first international treaty to be exclusively concerned with all dimensions of the European landscape. The ongoing processes of globalisation and European integration have shifted authority away from national states up to the European level and down to sub-national levels, with an increasing role of non-state actors. Governance becomes organized through multiple jurisdictions and can no longer be understood as a central state monopoly (Hooghe and Marks, 2003). This poses a challenging question as to how traditional institutional systems concentrated around a central state can adapt to new roles, where direct control over decision-making is shrinking but demand for coordination of the complex social arena is expanding. Key issues here relate to ensuring democratic decision-making in the process of transformation from traditional governments to governance.

Forest and water governance, biodiversity, landscape planning, agroforestry, ecosystem services are in the primary focus of our analyses [2].

Nowadays in the EU the idea of **multilevel governance in forestry and land-use is very popular and important**. From one hand multiple-use of resources (refers to the management of land or forests) gives owners opportunity to obtain 3 kind of effects: ecologic, economic and socio – this is an example of sustainable development in forestry and land-use.

We list key official EU documents regulating the issues of ecologic governance:

1. *Forests Strategy* (World Bank 2004) and *Operational Policy on Forests* (OP 4.36).

The strategy was founded on three equally important and interrelated pillars:
– harnessing the potential of forests to reduce poverty in a sustainable manner;

- integrating forests more effectively into sustainable development;
- protecting vital local and global environmental services and values.

Addressing these three pillars together makes the Forests Strategy complex and multifaceted [3].

The World Bank Forests Strategy (World Bank 2004a) and World Bank' Operational Policy on Forests (OP 4.36) included projects emphasizing biodiversity



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considerations in forest plantations and productive landscapes, project components that develop forest certification systems, and certification to prevent illegal trade of timber and forest products, arrangements for plantations, and so forth.

2. The Committee of the Regions understands **multi-level governance** as to mean coordinated action by the EU, its Member States and local and subnational governments, based on partnership and involving operational and institutional cooperation in all phases of the policy cycle, from drafting to implementing policies.

This principle should apply to the governance of biodiversity and ecosystem services. In many Member States, **local and subnational governments have substantial legislative, administrative and funding responsibilities for biodiversity**. They have a critical role to play in ultimately implementing the *EU Biodiversity Strategy and the CBD Strategic Plan* on the ground and thereby assisting national governments in achieving their EU and international commitments. As a result of ongoing decentralisation in many Member States, local and subnational governments have increasing responsibility for the implementation of biodiversity-related policies.

The EU Biodiversity Strategy to 2020 was adopted in 2011 and outlines the EU's political focus up to 2020, while stepping up the Union's contribution to fulfil the international biodiversity commitments. In addition, a number of relevant policy areas and EU directives are directly targeted in the strategy namely: agriculture, forestry and fisheries.

The strategy includes six major targets addressing the main pressures on nature and ecosystem services in the EU and beyond [4]:

Target 1: Fully implement the Birds and Habitats Directives

Target 2: Maintain and restore ecosystems and their services

Target 3: Increase the contribution of agriculture and forestry to maintaining and enhancing biodiversity

Target 4: Ensure the sustainable use of fisheries resources

Target 5: Combat Invasive Alien Species

Target 6: Help avert global biodiversity loss

These targets are supported by 20 key actions for implementation. Most of these are of direct relevance to the subnational/local levels, like:

– the completion and management of the Natura 2000 network;

– green infrastructure deployment;

– the link between rural development and biodiversity policies;

– actions envisaged on no net loss of biodiversity and ecosystem services.

3. *Natura 2000*. *Natura 2000* – this is a key tool for biodiversity conservation in the EU, aimed at preservation of valuable species of animals and plants, their habitat (1979 Birds Directive and 1992 Habitats Directive).

4. *Water Framework Directive*;

5. *the Convention on Biological Diversity*.

6. *The United Nations Environment Programme (UNEP)* which implemented the initiative of transition to a green economy (the Green Economy Initiative (GEI)),



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consists of a global research and technical support at the country level. UNEP defines green economy "leads to improved human wellbeing and social equity while substantially reducing environmental risks and ecological scarcity" (UNEP, 2011) [5];

7. *The 7th Environment Action Programme* (EAP) submitted to the European policy in the field of the environment up to 2020. It identifies three key objectives:

- to protect, preserve and enhance the natural capital of the EU;
- to turn the EU economy into a resource-efficient, green and competitive low-carbon;
- to protect EU citizens from environmental loads and health risks and to create conditions of well-being.

Four so-called "favorable conditions" will help to achieve these objectives:

- more effective enforcement of legislation;
- raising awareness by improving knowledge systems;
- increase investment in environmental and climate policy;
- the full inclusion of the environmental requirements of other strategies [6].

Land Use Decisions at European Union Level is European Spatial Development Concept (ESDC).

More importance of sectoral policy fields in land use planning:

- Common Agricultural Policy (CAP);
- Transportation policy (e.g. TEN – Trans European Networks);
- Regional policy;
- Nature conservation (Nature 2000 network);
- Water management (EU Water Framework Directive, EU Flood Directive).

Land management encompasses all activities associated with the management of land and natural resources that are required to achieve sustainable development. The concept of land includes properties and natural resources and thereby encompasses the total natural and build environment.

The organisational structures for land management differ widely between countries and regions throughout the world, and reflect local cultural and judicial settings. The institutional arrangements may change over time to better support the implementation of land policies and good governance. Within this country context, the land management activities may be described by the three components: Land Policies, Land Information Infrastructures, and International Federation of Surveyors

This Land Management Paradigm is presented in Figure 2 below (*Enemark et al., 2005*).

Land policy is part of the national policy on promoting objectives including economic development, social justice and equity, and political stability. Land policies may be associated with: security of tenure; land markets (particularly land transactions and access to credit); real property taxation; sustainable management and control of land use, natural resources and the environment; the provision of land for the poor, ethnic minorities and women; and measures to prevent land speculation and to manage land disputes.



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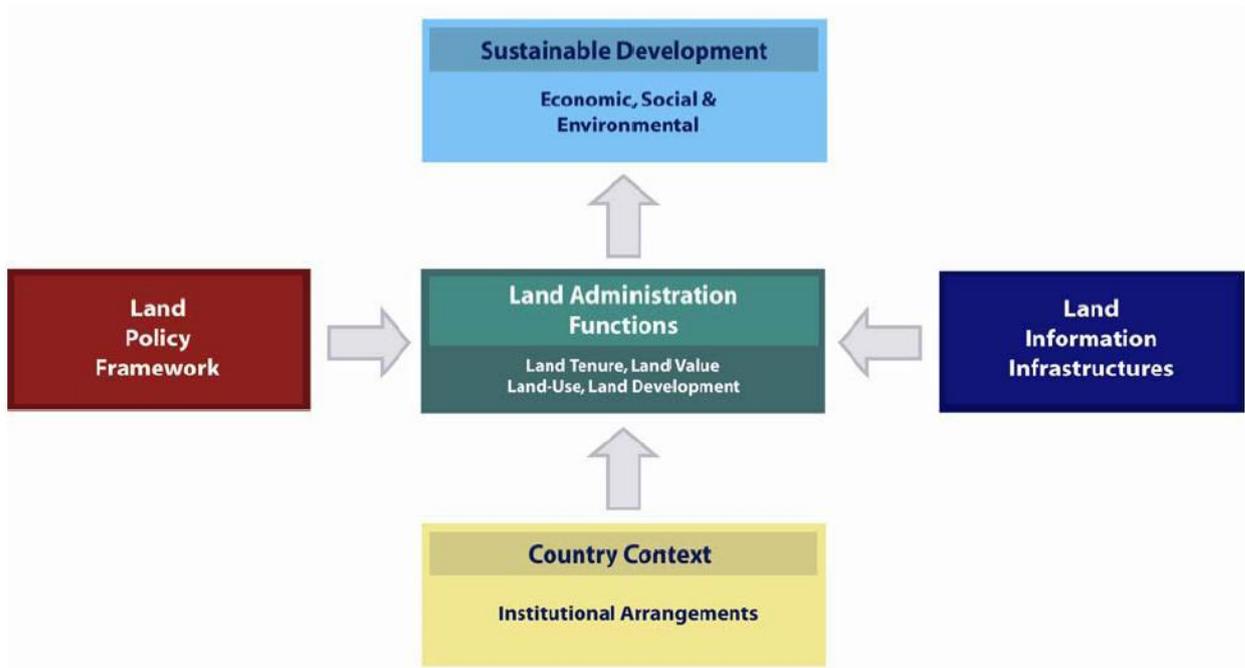


Figure 2. The land management paradigm [7]

The operational component of the land management paradigm is the range of land administration functions that ensure proper management of rights, restrictions, responsibilities and risks in relation to property, land and natural resources. These functions include the areas of land tenure (securing and transferring rights in land and natural resources); land value (valuation and taxation of land and properties); land use (planning and control of the use of land and natural resources); and land development (implementing utilities, infrastructure and construction planning).

The land administration functions are based on and are facilitated by appropriate land information infrastructures.

The land information area should be organised to combine cadastral and topographic data, and link the built environment (including legal and social land rights) with the natural environment (including topographical, environmental and natural resource issues). Land information should, this way, be organised as a spatial data infrastructure at national, regional/federal and local levels based on relevant policies for data sharing, cost recovery, access to data, data models, and standards.

The four land administration functions (land tenure, land value, land use, land development) are different in their professional focus, and are normally undertaken by a mix of professions, including surveyors, engineers, lawyers, valuers, land economists, planners, and developers.





The interrelations appear through the fact that the actual conceptual, economic and physical uses of land and properties influence land values. Land value is also influenced by the possible future use of land as determined through zoning, land use planning regulations, and permit granting processes. And the land use planning and policies will, of course, determine and regulate future land development.

Sound land management is the operational processes of implementing land policies in comprehensive and sustainable ways. In many countries, however, there is a tendency to separate land tenure rights from land use rights. There is then no effective institutional mechanism for linking planning and land use controls with land values and the operation of the land market. These problems are often compounded by poor administrative and management procedures that fail to deliver required services. Investment in new technology will only go a small way towards solving a much deeper problem; the failure to treat land and its resources as a coherent whole.

With regard to Europe, and talking about informal urban development, there is also still some way to go. Many countries in Europe, especially in the southern and eastern regions, are facing problems in this regard. To deal with this it is important to understand the cultural diversity within the European region and also the deriving diversity of planning systems within the European territory.

Forest sector governance and land use refer to the ways in which officials and institutions (both formal and informal) acquire and exercise authority in the management of the resources of the sector to sustain and improve the welfare and quality of life for those whose livelihoods depend on the sector. Good governance is fundamental to achieving positive and sustained development outcomes in the sector, including efficiency of resource management, increased contribution to economic growth and to environmental services, and equitable distribution of benefits.



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2 Environmental governance scheme for the implementation of organic agriculture system and mechanism of agroforestry integration in Belarus

In a broad sense, the content of environmental governance are environmental (environmental-economic, economic-environmental) governance relations arising between people about the preservation of the environment quality, the restoration and protection of environmental systems, the production greening, the development of the "green" economy.

The formation of a model structure of environmental governance, taking into account the emphasis on organic production and agroforestry integration, is expressed in General terms by the following scheme (figure 3).

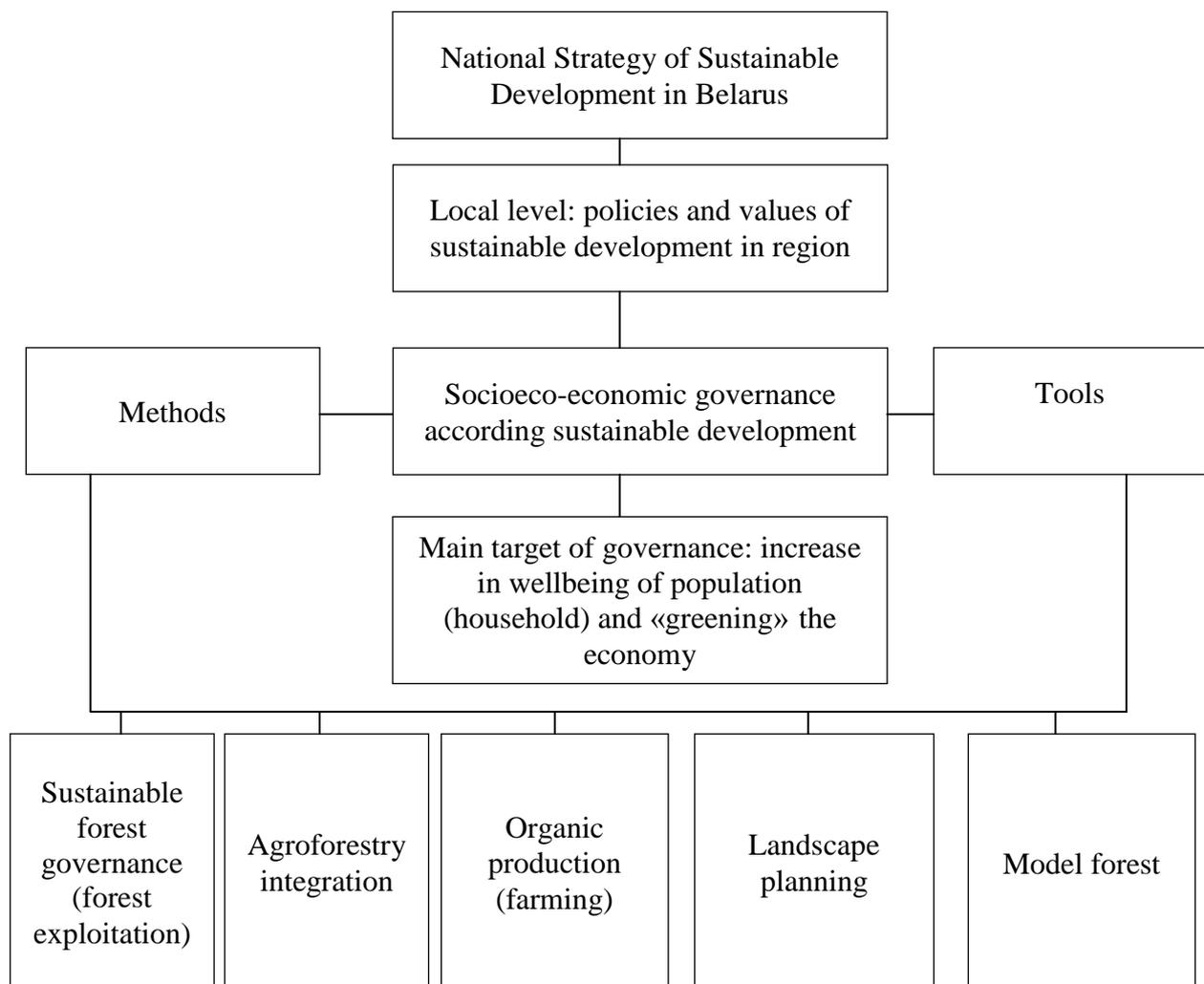


Figure 3. General scheme of environmental governance structure formation in agro-forest region



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As can be seen from the presented figure, environmental governance is essentially socio-ecological-economic (expressing a triad of goals and interests of sustainable development), emphasizing for forest regions such methods and tools as:

- sustainable forest governance (in forest exploitation);
- agroforestry integration;
- organic production (farming);
- landscape planning;
- model forest.

It should be noted that the greatest attention is paid to the instruments of sustainable forest governance and organic production – as the basis for further research and the environmental governance system development of agricultural landscapes on the basis of technology of organic crop production and agroforest integration.

Each of the special methods and tools, being in the formed institutional environment of sustainable development, has a specific content and expression, fitting into the General system of regional governance.

2.1 Concept of sustainable forest governance

For Belarus, the state of forest resources plays a special role in the system of sustainable environmental governance. The objective of sustainable forest governance and forest management is formulated at the international level as follows: sustainable forest governance and forest management (forest exploitation) mean the governance and use of forests in ways and on scales that preserve their biological diversity, productivity, life-potential, ability to perform currently and in the future appropriate environmental, economic and social functions at the local, national and global levels without prejudice to other ecosystems [8].

Figure 4 shows the criteria for sustainable forest governance at the international level, in the Russian Federation, in the Republic of Belarus.

The criteria established at the international level and in the Republic of Belarus are fundamentally similar. Their main difference for Belarus is that in the world practice the criteria for radiation forestry are not proposed. The global catastrophe at the Chernobyl nuclear power plant had serious consequences for Belarus: in the Republic there were territories contaminated with radionuclides, so the allocation of criteria for radiation forestry for our country is necessary.

The use of criteria to account the forest resources of Belarus and their impact on the environment is quite realistic, as to determine the indicators of most of them do not require special information, enough data obtained during the forest management works.

So, the proposed criteria and indicators of sustainable forestry of the Republic of Belarus after the refinement, including adding the indicators of the economic



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situation in different forest units can be applied for the analysis of the forest units' activities for the sustainable forest governance development in the region. The definition of most of them does not require special information, enough data obtained during the forest management works. However, in the beginning it is necessary to develop state official (normative) documents, both for forestry in Belarus and for forest units.



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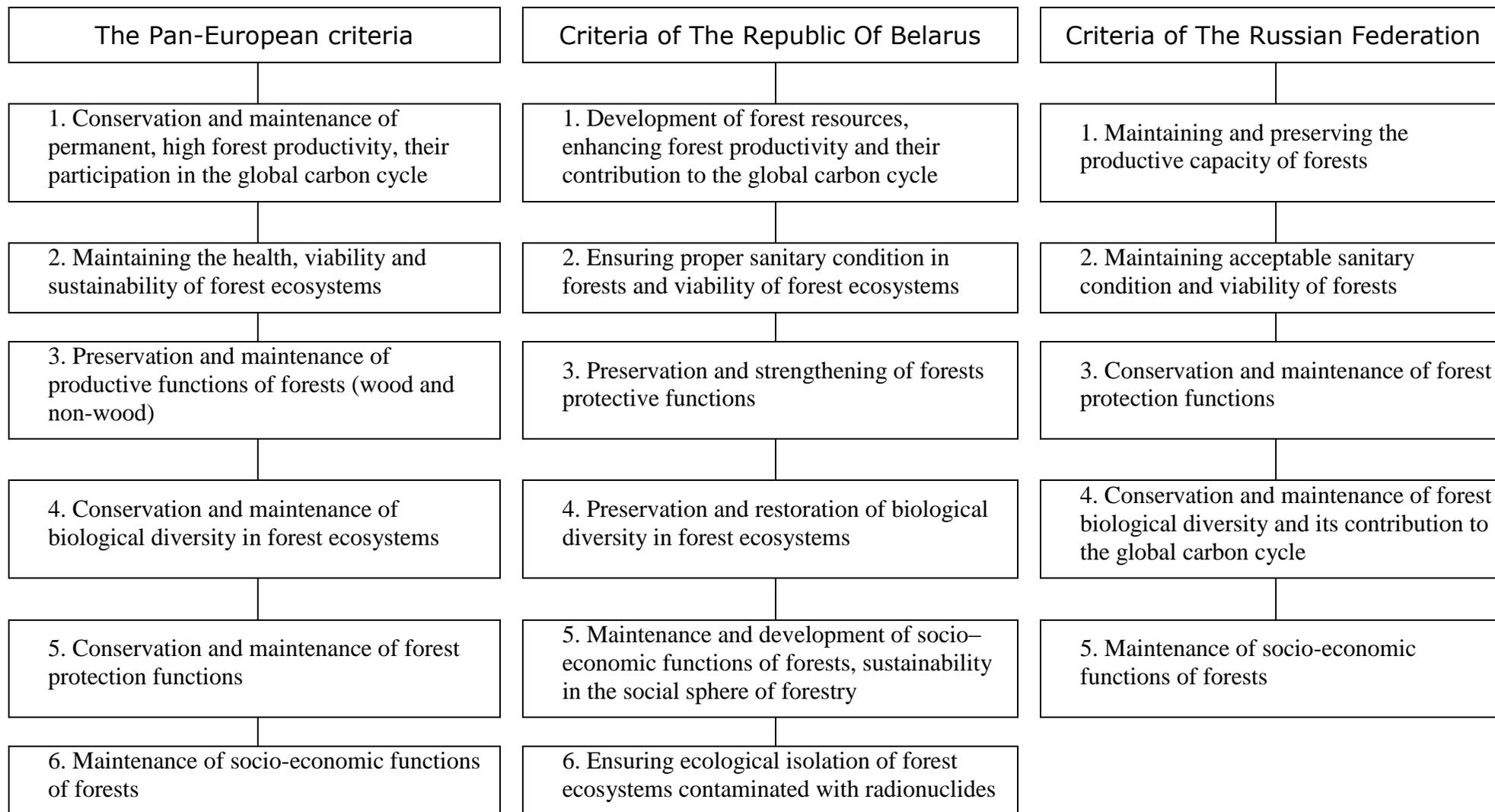


Figure 4. Criteria of sustainable forest governance



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2.2 Formation of the organizational forestry model

The experience of developed foreign countries shows a general tendency of gradual transition from state forest management to state forest governance, from direct management of the forest industry to its indirect economic regulation.

The allocation of forest governance functions from the state forest management system in Belarus is an important political task, the solution of which changes in the industry minimizes the abuse of resources in the management system, develops a private initiative and determines a more effective way of forestry development.

There are many options for the forest development in the world, and each of them, taking into account the general provisions of governance and management, comes from local traditions, the level of culture and value guidelines of the nation.

In economically developed forest countries, the transformation of state forests and forestry is taking place (taking into account the legal culture and maturity of political relations) in the direction of weakening the administrative influence of the state on economic processes in the forest and strengthening the functioning of the two interconnected subsystems:

- institutional (governance of forests as the property of);
- subinstitutional (governance of economic processes).

The first subsystem is represented by the state forest service (legislative and regulatory initiative, supervision and control functions).

The second subsystem is represented by forest state and (or) forest private companies to which the state delegated the right of forest management for the purpose of implementation of all complex of procurement and forestry works for extraction of the corresponding benefit. Depending on the built-up relations, ownership rights to the harvested products can remain with the owner of the resource or be transferred under certain conditions to the forest user.

Summarizing the experience of development and implementation, scenarios for forestry development in many countries (Germany, Poland, Finland, Ukraine), as well as based on the proposals of Belarusian scientists and practitioners, we can conclude that the most acceptable for Belarus, in our opinion, the organizational models that provide:

- integrity of forest governance system and its financial independence from economic activity in the forest;
- development of subcontracting relations on a competitive basis between the owner of resources (customer) and the contractor of logging and (or) forestry works;
- formation of a commercial relations' system with an orientation to the state ownership of the final product from its resources.



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The proposed organizational models are presented in [9].

The system of the priority directions and specific mechanisms (actions) aimed to efficiency increase in forest reproduction and use forest resources defines [10] by:

1. Transition from state forest management to state forest governance, formation of an effective state forest governance system and an effective forest business system, making maximum use of the experience of Finland and Poland.
2. The development of the Law on Forest policy.
3. Development of methodological tools for valuation of natural capital and ecosystem services taking into account the current forest cadastre system.
4. The justification of budget financing standards in forestry according to the forest ecological and environmental functions.
5. Justification of the main directions of capital investment in deep processing of wood.
6. Permanent system of professional development creation and educational level of forestry workers in the country.
7. Institutional base creation for forest business development in the country.

2.3 Strategy for enhancing the real value of forests to local communities (agroforestry integration)

The strategy for increasing the real value of forests for local communities lies in the integration of forest resources and the growth of entrepreneurial activity in rural areas.

In a concentrated form, this framework can be expressed by the concept of agroforestry integration, which is the interconnected functioning of forestry and agriculture, based on the joint economic interest in the use of local natural resources and the development of innovative production and services that provide high social, environmental and economic results. The natural basis of integration processes should have the natural resource potential, and the organizational and economic basis - forest, agricultural business and social sphere, complementing each other in the process of interaction with the administrative impact of local authorities.

Forestry integration should be considered not only from the standpoint of economic benefits, but also from the point of view of strengthening the power of nature over people, over the formation of their aesthetic perception of the environment and the development of civil society, from the standpoint of the importance of the recreational functions' implementation and expansion of recreational activities, as the most popular areas of development in rural areas.



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At the same time, it is necessary to use not only the recreational potential of forests, rivers, lakes, traditionally considered places of recreation, but also the potential of rural areas with their territories, museums, cultural institutions, religious sites, ancillary and traditional folk crafts, the opportunities of agricultural organizations and rural residents, forestry, fisheries, farmers, rural estates and bees in the provision of certain services. The important component of agricultural tourism should be cultural, educational programs, familiarization with the experience of conducting large-scale agricultural production, familiarization of citizens with the transfer of agriculture on an industrial basis, with where and how bread grows, where dairy and meat products come from, how it is processed, what advanced technologies are used to produce that goods.

In the context of the above, it seems expedient to develop a comprehensive approach to the organization of tourism as a kind of recreation, combining historical, cultural, agro-, eco- and hunting tourism with organizing and coordinating the role of regional centers for tourism. In the end, can be worked out tourist and recreational activity programs, and recovery activities should develop into a kind of effective leisure and vitality of the people, at the same time providing additional money in budgets of regions.

2.4 Organic agriculture

The concept of environmentally friendly agricultural products production began in the middle of the last century, that is approximately simultaneously with the beginning of the development of practical ecology. The basic premise of this concept was the necessity of finding alternatives to the traditional, and especially intensive agricultural production that contributes to an active and growing impact on the environment. Today, organic agriculture is a global trend, it is practiced in 160 countries. 84 countries have their own laws about organic farming, in dozens of countries laws are developed. According to economists, if the turnover in the field of organic agriculture is now 85-90 billion dollars a year, by 2020 this figure will reach 200-250 billion dollars.

The main ideas that determine organic agricultural production in a broad sense include the following:

- conducting agricultural production in accordance with the laws of nature;
- to achieve the highest closed nutrient cycles in agriculture;
- preservation and improvement of soil fertility;
- keeping of animals in accordance with their specific features and needs;
- protection of surface and groundwater;
- maintenance and preservation of biodiversity.



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According to this ideology, organic agricultural production should include the following components:

- national registry of legal and illegal medicines;
- system of certification and inspection control (audit);
- appropriate system of product sales or market;
- mandatory development of animal husbandry;
- preferential use of organic and natural fertilizers;
- development of sustainable landscapes;
- use of bio-mark for marking products.

With the development of organic agriculture, standards for the production and circulation of organic products have been improved and created, which can be divided into 4 groups [11]:

- private standards: Demeter (since 1924), Bioland (since 1971), Biokreis (since 1979), Naturland (since 1982), Ecofin (since 1985), Öcosiegel (since 1988), Ökologischer Landbau (since 1989), Biopark (since 1991), etc.

- national standards: national organic program of the Ministry of agriculture in USA (USDA). The Japanese environmental market is represented by the Japanese agricultural standards, JAS.

- international framework standards, among which the IFOAM. Their aim is to harmonize the various certification programmes by creating a universal framework for environmental standards worldwide. Currently, they cannot be used directly for certification, and they are not important for environmental enterprises of tropical countries. However, they can be useful in understanding the underlying principles and versions of all environmental certification programmes. The functions of the basic IFOAM standards are described here as "standards for standards".

Directive (EEC) No. 2092/91 of 24 June 1991 on organic production and indications referring thereto agricultural products and foodstuffs acted in the EU until 2007 and played a decisive role in terms of organic production and food labeling and certification.

Regulation (No. 2092/91) includes a number of rules and regulations and clearly defines how agricultural and food products, which are marked as ecological, are to be grown and produced.

Thus, for the first time in the legislation it was established that the products of ecological agriculture differ precisely by the control of the method for production itself, and not only by the control of the presence of residues of harmful substances.

A new stage in the development of organic agriculture came with the adoption of the next EU normative documents "EU DIRECTIVE No. 834/2007 of 28 June 2007 on organic production and labelling of organic products and the repeal of Directive (EC) No. 2092/91" and "COMMISSION DIRECTIVE (EC) No. 889/2008 of 5 September 2008 establishing the rules for the application of Directive (EC) No. 834/2007 on organic production and labelling of organic products with respect to organic production, labelling and control [12, 13].



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International Standard European organic Regulation (EC No. 834/2007) sets out requirements for environmental farm so-called "Organic agriculture-a closed cycle" (OJSC).

In the Republic of Belarus there is practically no production of environmentally friendly food products. Such products are necessary primarily for school, educational, preventive and other health institutions. Unlike the highly developed countries of Western Europe, there are no environmentally friendly food products in the trading network.

In the Republic of Belarus there is no system of legislation that determines the order of production and handling of organic products. However, back in 2012, the Ministry of agriculture and food approved the "Concept and prospects for the development of bio-organic agriculture for the production of healthy, environmentally friendly food products in the Republic of Belarus". The concept is the basis of the developed draft law on production and circulation of organic products. The draft law is currently published in the press and posted on the website of the Ministry of agriculture and food for a wide discussion by specialists of the ministries and agencies concerned, public organizations, producers of organic products of various forms of ownership.

There are also no standards regulating the production of organic products, the rules for processing, marking and delivery to the consumer, as well as bodies carrying out inspection control during the production of organic products and certification of production and the products themselves, including the processes of processing, marking and delivery to the consumer.

However, many manufacturers of organic products have already certified and certify organic products and their production by companies-certifiers from near and far abroad, accredited for certification in the Republic of Belarus. These are mainly farms. For example, in agricultural enterprises with state property of the Minsk regional "Agricultural complex "Zhdanovichy" in 2016 the production of certified vegetables covers an area of 13 hectares, in 2018 it is planned to certify and produce the company's products. Certification is carried out by Ukrainian company-certifier – "Organic Standard". Certification is carried out according to the EU standard equivalent to the requirements of EU Directive 834/2007 and Directive 889/2008.

2.5 Concept of landscape planning and model forest

The problem of sustainable development is a communication and interaction between **social and economic development** and **quality of environment**, in the conditions of an increasing resource limitation.

Recently the most actual aspect of a sustainable development – regional, allowing structurally to solve actual problems in the field, especially in the course of formation of ecological (social-ecological-economic) governance.



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As practice showed, the effective tool of the ecological-focused regional governance is **landscape planning**.

Landscapes as natural complexes and components of environment define natural base of a sustainable development and demand the closest attention of the public, business, state bodies and local government.

1 . **Landscape planning – set of methodical and organizational tools** of the spatial organization of social activity aimed at providing sustainable environmental management and preservation of the main functions of landscapes as systems of life maintenance.

2 . **Landscape planning – communicative process** in which it is important to involve all stakeholders: authorities, public organizations, local population and etc.

In such context **landscape planning – the public phenomenon**.

Public participation in ecologically significant decisions (as a subject of influence – an element of operating system) assumes the active position of public organizations, their representatives, interested persons for cooperation on the partner beginnings with government bodies and business.

Aarhus Convention rather widely treats the concept «ecologically significant decisions» that predetermines variety of involvement methods.

Aarhus Convention formulated norms and the principles of ensuring participation of the public in the course of adoption of ecologically significant decisions. The interaction protocol acts as a norm or the rule.

The public position will be productive if ecological equilibrium and natural complexes (landscapes) producing are equal provided.

Landscape planning in the region of BL "Neman" has to take into account opinion the most important of the population, representatives of institutions, the organizations, local authorities that will allow:

- to develop cooperation with the population on the basis of understanding existing regional problems, and also the purposes of project BL "Neman";
- to reach the coordinated participation of local communities in sustainable resource management of BL "Neman";
- to form public opinion for preparation of protection and joint actions with it on landscape planning;
- to make reasonable social-eco-economic administrative decisions on landscape development.

Currently, the popular and practically in-demand idea is the model forest (from the English Model Forest), especially in the context of the landscape approach to realize the interests of sustainable development at the local level.

The concept of the model forest in general terms "includes" the basic principles of sustainable nature management: the primacy of nature; normative nature management; socialization of nature; ecologization of nature management.

The above-mentioned principles are the common methodological support, which can be reflected in the practical scheme for implementation.



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By its design, the model forest is a socio-ecological and economic system, the functioning of which is provided by a strong institutional basis for sustainable nature management and a developed system of public interests.

In order to have a sustainably produced forest, it is necessary to have not only an adequate ecological but also a social environment. As the practice of nature management shows, it is the developed economic interests and the social base for meeting the environmental and resource needs.

The concept of "model forest" is a voluminous and multidimensional one:

- model forest is the position and active actions of the group and organizations that share the concept of sustainable forest governance;
- model forests are an association of people, due to the need to develop and implement new approaches to sustainable forest governance that are appropriate to the particular region;
- a model forest is a huge laboratory in which the development, implementation and monitoring of advanced forest management practices and technologies is carried out.

In the working (constructive) plan: the model forest is a regional forest management system based on partnership and innovation, combining professional and public interests, ensuring that the goals of sustainable nature management and adequate silvicultural systems are met.

The model forest is a social rather than a technical project that takes into account the scheme of normal forest as the base for further constructive changes in the interests of sustainable development and the formation of plantations with high ecological and economic efficiency of production.

Effective tools for implementing the concept of "model forest":

- a partnership system (a productive link between local authorities and the public);
- strategy of coordinated actions of the main land users;
- socio-ecological and economic system of land use management, satisfying the interests of all participants in the process.



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Conclusion

The analysis of the EU multi-level governance in forestry and land management showed that the main concept at this stage is sustainable development on the basis of the green economy. For Belarus, environmental management is socio-ecological-economic, the main tools of which are: sustainable forest governance; agroforestry integration; organic production; landscape planning; model forest.

The goal of sustainable forest governance lies in the governance and use of forests in such ways and to such an extent that preserve their biological diversity, productivity, life potential, the ability to execute in the present and in the future ecological, economic and social functions at local, national and global levels without damaging other ecosystems. Belarus' forest policy is aimed at sustainable forest governance and is based on international agreements on sustainable forest governance.

The formation of the institutional framework for sustainable forest development necessitates strengthening the function of forest governance as property and weakening the administrative influence of the state on the economic processes in the forest, while creating conditions for the effective development of forest business on the basis of contract and lease relations.

The reform of the organizational structure in forest management needs to be based on a combination of the principle of economic activities commercialization in the forest (and forest business development) and the principle of financial autonomy and institutional benefits of the forest governance system (above commercial activities in the forest).

There is a need to develop a project for implementation "green" economy of forest regions on the basis of the cultural concept devoted the model forest and the landscape planning with the involvement of leading scientists, designers, practitioners and the public.

The economic basis for the development of forest regions is forest – border integration on the basis of "green" and nature-oriented technologies. With regard to the sustainable development of such territories, it is necessary to maximize the use of commercial interest, using flexible financial instruments, entrepreneurial skills, the dominant of high culture and professionalism.

The food situation in the world markets shows the growing interest of consumers in healthy and nutritious food, which also ensures, among other things, the preservation of the natural environment. In many countries of the world, and especially in the USA and the European Union, there are important markets of organic agricultural products and foodstuffs, and also the corresponding infrastructure of certification, marketing and realization is created and successfully functioned.



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The survey showed that the international Federation of organic agriculture movements (IFOAM) plays a leading role in the formation of standards and international accreditation of organizations. In order to ensure that agricultural products fully comply with organic principles, IFOAM has carried out work to verify that numerous standards comply with the basic rules of the organization. This has also been done to ensure that consumers are better guided in the many regulations. As a result, a family of IFOAM standards was formed. It includes standards developed by organic associations on different continents. They all share a commitment to a single methodology of organic production.

The analysis of the standards testifies that all of them are the normative documents defining normative requirements concerning production of organic production, the certification.

Landscapes as natural complexes and components of the environment determine the natural basis of sustainable development and require the most attention of the public, business, government and local self-government.

Model forests are created for practical implementation of sustainable forest governance ideas.

By developing partnerships in the implementation of socio-ecological and economic interests of each participant, model forest contributes to the implementation of sustainable forest governance in a particular area.



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References

1. The Concept of Multi-level Governance in Studies of Federalism / Michael Stein, Lisa Turkewitsch. Concordia University, Montréal, Québec, Canada, 2008. 35 p.
2. From Government to Governance? New Governance for Water and Biodiversity in Enlarged Europe /T. Kluvankova–Oravska et al.. Alfa Printing, 2010. 234 p.
3. Forests Sourcebook: Practical guidance for sustaining forests in development cooperation World Bank. Washington, DC. 2008. 402 p.
4. Multi-level governance of our natural capital: local and subnational governments' contribution to the EU Biodiversity Strategy 2020 and the Aichi Biodiversity Targets
5. Measuring the value of forests in a green economy. Forestry and Timber Section. United Nations Economic Commission for Europe. Food Agriculture Organization of the United Nations. Geneva. 2016. 30 p.
6. Living well, within the limits of our planet. European Commission. Publication Office. 4 p.
- 7 S. Enemark Integrated Land-Use Management for Sustainable Development, 2007. Denmark
8. Ravino, A.V. Ecological-economic assessment of forest resources in the Republic of Belarus [Text]: PhD thesis: 08.00.05. - Minsk, 2001. - 192 p.
9. Forest Governance / A. V. Neverov, A. D. Shkarubo, N. A. Lukashuk [et al.]; under the total. Ed. A. V Neverov. Minsk: Pachatkovaya School, 2014. 400 p. [In Russian]
10. Sustainable development strategy of Belarus: environmental aspect / E. A. Antipova [et al.]. Minsk : FUAinform, 2014. 336 p.
11. Pozniak, S. S. Organic agriculture: monographie/ S. S. Pozniak, Ch. A. Romanovsky; under the General editorship of candidate of agricultural Sciences S. S. Pozniak. Minsk: MSEU name of A. D. Sakharov, 2009. 327 p.
- 12 EU DIRECTIVE No. 834/2007 of 28 June 2007 on organic production and labelling of organic products and repeal of Directive (EC) No. 2092/91
- 13 COMMISSION DIRECTIVE (EC) No. 889/2008 of 5 September 2008, establishing rules for the application of Directive (EC) No. 834/2007 on organic production and the marking of organic products with respect to organic production, labelling and control



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