RUDECO
Vocational Training in
Rural Development and Ecology

Module № 6

Environmental Regulations and Laws for Rural Areas

Responsible University

Stavropol State Agrarian University

159357-TEMPUS-1-2009-1-DE-TEMPUS-JPHES

This project has been funded with support from the European Commission. This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

УДК 502.3
ББК 20.18
Э61

ISBN 978-5-906069-72-6

Environmental regulations and laws / Vladimir Trukhachev, Izolda Lysenko [and others]. Series of training manuals "RUDECO Vocational Training in Rural Development and Ecology“. M., 2012. – 106 p.

RUDECO
Vocational Training in
Rural Development and Ecology

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November 2012

Preface

The module was developed in the frame of the Tempus project «Vocational Training in Rural Development and Ecology» (RUDECO).

The purpose of the module «Environmental regulations and laws in the rural areas» is training of human resources to strengthen the capacity and stimulate actions on law enforcement and monitoring of the compliance with environmental legislation in the rural areas, efficient and reasonable management of the environment.

This module is designed for employees of the municipal administration, environmental, agricultural structures, representatives of agricultural enterprises and entrepreneurs.

The content of this module is chosen in such a way as to «cover» all issues of environmental regulation processes presented in the other 11 modules of the Tempus RUDECO project.

In co-operation with eleven Russian high educational institutions, the Russian Federal Ministry of Agriculture, regional administrations and practise partners from the public and private sector in Russia, and EU partners from Germany, France, Poland and Slovak Republic, 12 different modules have been developed covering a wide range of topical questions in the field of sustainable rural development. These modules are:

- **Sustainable development: key terms and theoretical basis** (Introductory Module 1, Russian State Agrarian University-Moscow Timiryazev)
- **Sustainable rural development: approaches for regional and local programmes elaboration** (Module 2, Russian State Agrarian University-Moscow Timiryazev)
- **Ecolabeling and marketing of environmental and regional products from rural areas** (Module 3, Orel State Agrarian University)
- **Eco-tourism and tourism in rural areas** (Module 4, Buryat State Agrarian Academy of Agriculture)
- **Conversion of conventional farming into organic farming** (Module 5, Yaroslavl State Agricultural Academy)
- **Environmental regulations and laws** (Module 6, Stavropol State Agricultural University)
- **Ecological related problems of intensive agriculture** (plant and animal production) (Module 7, Omsk State Agrarian University)
- **Participatory approach in rural development** (Module 8, Kostroma State Agricultural Academy)
- **Reducing pollution in rural areas caused by agricultural, industrial and municipal solid waste** (Module 9, Novosibirsk State Agrarian University)
- **Sustainable use of water resources in rural areas** (Module 10, Samara State Agricultural Academy)

- **Food safety and product quality control** (Module 11, Moscow State Agroengineering University named after Goryachkin V.P.)
- **Management of biological resources of rural areas** (Module 12, Tambov State University)

Listeners should start learning from the introductory module on the terminology and theoretical foundations of sustainable development, which is the conceptual and methodological basis for the above mentioned thematic modules. For training on the above mentioned areas participants can contact all universities-developers.

This tutorial for «Environmental regulation and laws in the rural areas» was prepared by experts from the Stavropol State Agrarian University (Cherepanov V.A. - Doctor of Law, Professor, Lysenko I.O. - Doctor of Biology, docent, Okrut S.V. - Candidate of Biology, docent, Mandra Y.A. - Candidate of Biology), Tambov State University named after G.R. Derzhavin (Emelyanov A.V. - Candidate of Biology, docent), and colleagues from the Association for Sustainable Development of Poland (Professor Jan Szyszko, Professor Axel Schwerk).

Readers whose activity is connected with the subject of the module № 6, «Environmental regulation and laws in the rural areas» should also review the other modules of the project. The reason is that the current module is integrated, its subject is closely related to the modules № 1 – 12 (is complementary to their content in terms of issues of legal regulation)

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Introduction

Control mechanisms and environmental management play a primary role in ensuring environment protection and efficient management of natural resources.

The purpose of the environmental management of the rural areas is to ensure compliance with the rules and requirements that limit the harmful effects of production processes and products on the environment and ensure sustainable use of natural resources, their restoration and reproduction. The value of environmental management and conservation is that environmental rights and interests of the individual are implemented through the consistent compliance with the requirements of the law with respect to natural resources management and environmental protection against harmful impact.

This handbook is aimed at disclosure of the essence of state regulation of environmental activities. To achieve this goal it is necessary to address the following objectives: to determine the theoretical and methodological aspects of management in the field of safety and environmental protection, as well as mechanisms and tools for these activities; consider the legal framework to protect the environment, to study the structure, powers and functions of the federal environmental management and activities of natural resource use. Subjects of environment protection and natural resources management are: the state, its agencies, municipalities, organizations, institutions, companies, social movements and associations, citizens.

The study of the module "Environmental regulation and laws in the rural areas " should be carried out in two areas: theoretical knowledge (part 1) and practical skills, solving the environmental problems (part 2).

PART 1
Theoretical Bases

1 Place of environmental regulation and legislation in sustainable development of rural areas

1.1 Introduction: problem setting

The yearly increasing level of human influence on the environment presupposes the increase of responsibility of each person as well as the community at large for its condition.

The importance of the problem is primarily connected with the fact that the rural territories in Russia take two-thirds of its territory. 39,2 million people (27% of the total population) live there. About 150 thousand rural settlements are united into 24 409 village administrations and 1 865 administrative regions. Rural areas are a united social and economic, territorial, natural, historical and cultural complex that includes rural population, set of social relations connected with its life activity, of territory and tangible objects located there. (Sustainable development of rural…, 2005).

According to the definition of the Academician of RAAS A.V. Petrikov, rural areas perform the following national economic functions: *production function* means the satisfaction of needs of the society for food and raw materials for production, products of wood and hunting industries as well as products of other branches and types of economic activity; *social and demographic function* means reproduction of rural population, providing labor resources to agriculture and other branches of economy; *cultural function* means creation of spiritual values, preservation of national cultural traditions and nature sanctuaries, historical and cultural monuments located in rural territories by rural population; *nature conservation function* means maintenance of ecological equilibrium in agrocoenosises and throughout the country, cultural landscape protection, maintaining national and natural parks, nature reserves, wildlife preserve and etc.; *recreational function* means arrangement of conditions for rest and recovery of urban and rural population health; *spatial and communication function* means allocation of spatial basis and maintenance of engineering services: roads, power and communication lines, water supply system, gas and oil pipeline; *function of social control of the territory* means assistance of rural population to state and municipal authorities in ensuring of public order and security in rural (especially rarely populated) areas, guarding of border areas, mineral resources, water, land and forest resources, flora and fauna.

The modernization of the county in the 20^{th} century leaded the rural area to the severe systemic crisis that deepened in 1990-s. Academician of RAAS A.V. Petrikov points out four main directions of the rural crisis: 1. *Worsening of demographic situation in the rural territories*. Rural population decreases everywhere. It is caused by the growth of population loss due to natural causes as well as by migration loss. 2. *Low living standard and high level of unemployment of rural population*. The employment rate in the rural areas is lower than in the urban ones. Nowadays almost every third person registered by placement service as an unemployed is a countryman, meanwhile, in 1992 that rate was only every fifth. On money income 65,6% of rural population live below the poverty line as against 40,7% of urban population. The salary in agriculture is equal to 39,4% on the all-Russia level. 3. *Decrease of life quality in rural areas.* The living conditions of rural population still remain unattractive. Existing social and engineering infrastructures do not meet the modern requirements. 4. *Decay of the evolutionarily developed system of rural settlement.* Although the number of rural settlements increased in the period between population census of 1989 and 2002,

the unit weight of small settlements with population below 10 people has doubled. 8,4% of the settlements have no permanent population. (Sustainable development of rural…, 2005).

1.2 Concept of sustainable rural development

The main conceptions of sustainable development of mankind were developed at the UN conference on ecology and development in 1992 in Rio de Janeiro. The sustainable development can be schematically defined as the triune process of «nature-population-economy» interaction. The prosperity of recent and future generations is stated as the goal-setting, its basis is natural ecological life support systems, production is the engine of development (Sustainable development of rural…, 2005).

The principles of sustainable agricultural and rural development (SARD) were stated and adopted at the 1996 FAO (UN Food and agricultural organization) session in Rome. According to the experts, the main objective of sustainable agricultural and rural development is the increase of the level of food production in sustainable way and ensuring food security (Petrikov A.V., 2001).

Sustainable rural development is defined as sustainable development of rural community ensuring: (1) carrying out its national economic functions (production of food, agricultural raw materials, other non-agricultural goods and services, as well as public goods, rendering recreational services, saving of rural way of life and rural culture, social control of territory, preservation of historically developed landscapes); (2) extended reproduction of population, growth of level and increase of its life quality; (3) maintenance of ecological equilibrium in biosphere.

Sustainable agricultural development and sustainable forestry are components of sustainable rural development.

Sustainable agricultural production development is defined as a system of its organization that permanently and sufficiently provides the urban population with food and industrial commodities in conditions of economic effectiveness without any damage to the environment based on advanced environmentally oriented technologies (Sustainable development of rural…, 2004).

Sustainable forestry is defined as a system of its organization that permanently and sufficiently satisfies mankind’s needs of biochemical resources provided from forestry in conditions of acceptable efficiency of practical use of forest resources based on advanced environmentally oriented technologies without any damage to the forests over the long term. The emphasis of this is not just on the need to resume use of forest resources, but also on the development of these resources due to population growth and, accordingly, their use in large quantities by the next generations (Sustainable development of rural ..., 2004).

Sustainable rural development is a more complex concept than the sustainable development of agriculture and forestry, as not all of the activities in rural areas directly relate to agriculture and forestry. Moreover, in recent years non-agricultural activities are becoming more developed all over the world.

Sustainable development implies the formation of a self-developing and distinctive social, ecological and economic territorial system that could counteract human overburden and destruction of the landscape, ensuring the preservation of cultural values, long-term use of all natural resources

for agriculture, local industry, handicrafts, fisheries, tourism, recreation, and other areas of economic activities leading to the achievement of decent living conditions.

Programs for the sustainable development of rural areas are adopted at the national level in the U.S. and Canada, and both at national and international level in the EU a long time ago. In Russia the need for decision-making at the state and regional levels is realized particularly very slow. On April 1, 1996 the Russian President Boris Yeltsin signed the decree «On the Concept of transition of the Russian Federation to sustainable development». However, the problem of sustainable development of rural areas was not even noted there. In subsequent years, due to the scientific community, some progress in the relation of the authorities to sustainable rural development was made.

In the Statute of the Ministry of Agriculture of Russia approved by the Government of the Russian Federation, June 28, 2004, the functions of the Ministry of development of public policy and legal regulation in the field of sustainable rural development were stated. December 29, 2006 the federal law «On the development of agriculture» was adopted. Article 5 of the Act states: «The State Agricultural Policy is an integral part of the national social and economic policy aimed at the sustainable development of agriculture and rural areas. Sustainable development of rural areas means their stable social and economic development, increasing agricultural production, improving the efficiency of agriculture, achievement of full employment of the rural population and the increase in its living level, rational use of the land».

The Russian Institute of Agrarian Problems and Informatics named after A.A. Nikonov with participation of scientists of the Moscow Agricultural Academy named after K.A. Timiryazev prepared «The concept of sustainable development in rural areas of the Russian Federation». It gives the following definition of sustainable development: «stable social and economic development, which does not disturb its natural basis and ensuring continuous progress of society. Transition to sustainable development means a gradual provision of purposeful self-organization in the economic, social and environmental spheres. In this sense, sustainable development is characterized by economic efficiency, environmental safety and social justice»[1].

Sustainable rural development is possible in: macroeconomic stability and increase of gross domestic (regional) product; economic growth in agriculture; development of non-agricultural employment in rural areas; achievement of rural social conditions of income and public goods equal to the city; formation of rural civil society institutions that protect economic and social interests of various groups of the population; implementation of programs to improve the environmental situation in the rural areas.

An urgent task is to overcome dissociation of authorities between management and rural areas to ensure better coordination in rural development between: (1) federal departments and agencies, (2) federal, state and local governments, (3) state and municipal authorities, public and commercial organizations, businesses and public facilities[2].

Pilot projects of key areas on the transition to sustainable development are of great information and methodological interest. In Russia first among them was the project «Nevel XXI – a model

[1] http://www.mcx.ru/index.html?he_id=800 amp;doc_id=5002
[2] http://www.mcx.ru/index.html?he_id=800 amp;doc_id=5002

of sustainable development at the local level», implemented in 1994 – 1997. Initiated by the Institute of Geography, Russian Academy of Sciences in cooperation with the State Agricultural Academy of Velikye Luki and administration of Nevelsky district of the Pskov region, it includes the study of social ecological and economic problems of the region. The research results were discussed at three international conferences, and were published in three issues of the series «Nevel XXI – a model of sustainable development»: 1) «The initiative of the local administration to support program of the XXI Century», 1994, 2) «Environment and driving force for development», 1996, 3) «Resources and development in conditions of establishment of local government», 1997. Results of work were summarized in the manual by V.P. Stasov, G.V. Sdasyuk, V.A. Emelyanov «The transition to sustainable agriculture and rural development: the local level» (Sustainable Agriculture ..., 2005).

In 1996 – 2000 Centre for Sustainable Rural Development of MAA named after K.A. Timiryazev with participation of German experts, scientists and RAS specialists comprehensive approach to the development of the three municipalities in the Yaroslavl region was implemented. On the Russian side the project was overseen by the administration of the Yaroslavl region, on the German side – by the German Society for Technical Cooperation.

While three Russian-German projects, a large set of works was done on the development of: the concept of sustainable development at the level of the municipality with the involvement of the local population, methods for environmentally grounded land-use planning in Four Rural Administrations of Pereslavsky municipal district of the Yaroslavl region, the conceptual framework for sustainable rural development in the Russian Federation, programs of the «Social ecological and economic sustainable development of rural areas, focused on local self-government». In 2001 – 2003 work extended to Uglich and Yaroslavl Rostov region municipalities (Sustainable Rural Development ..., 2004) was carried out.

Pilot projects to test the concept of sustainable development of rural areas are implemented in a number of regions of the Russian Federation. Since 1999, the Russian Institute of Agrarian Problems and Informatics named after A.A. Nikonov, RosAgroFond, Foundation «Agromir» implements the pilot project «Development of mechanisms for sustainable rural livelihoods, increase of employment and income in rural areas» in Leningrad and Orel regions, with the support of local governments with technical assistance from the Department for International Development, UK.

Thus, the concept of sustainable agriculture and rural development is developing in Russia.

1.3 Test for self-assessment

1. What are the reasons of researching the issues of environmental regulation and legislation in achievement of sustainable rural development?
2. What territory may be considered as rural?
3. What are the national economic functions of rural territories?
4. What are the basic trends in rural crisis?
5. Give the prerequisite of development of the concept of sustainable rural development.
6. Justify the foundations of the concept of sustainable rural development.

2 Nature management and environmental protection in rural areas

2.1 Complex state regulation in environment protection

Complex character of ecological problems requires complex state regulation in environment protection. Below we mention the functions of such regulation. Ecological forecast of environmental quality and its change is influenced by the concrete environmental policy.

Ecological planning, i.e. development of strategy and detailed programs on environment protection and resources conservation includes:

- Regulation of economic activity by legal norms.
- Management of ecological activity – organizational influence on realization of ecological programs.
- Ecological monitoring – observation of environment, registration of existence, quality and expenditure of natural resources.
- Environmental control – efforts to determine conformity and noncompliance of environment with established legislation requirements.
- Environmental education, providing the population with environmental information and formation of social consciousness of change of consumer culture.

Now we shall mention the main ecological economic principles upon which the environmental policy in the developed countries is based.

The opportunity cost principle

This principle requires that the opportunity cost was taken into consideration in use of scarce resource. The opportunity cost is equal to the difference between the profits that we make using environment as a receiver and a receptacle for waste products and using the same area as cultivated land. It must be noticed that the principle also operates inverted, i.e. environment protection has a value from the view of nonuse of environment in economic purposes.

The «polluter pays» principle

According to the recommendation of the Organization for economic co-operation and development of 1972 the «polluter pays» principle means that «the costs of pollution must be borne by those who cause it by authority decision». The «Council Recommendation 75/436/EURATOM ECSC (European Coal and Steel Community), EEC of 3 March 1975 regarding cost allocation and action by public authorities on environmental matters» defines a notion of the principle and guideline for its application. Charging of the expenses for measures against pollution and other adverse environmental impact to direct offenders makes them to look for the ways of decrease of pollution in market conditions, use more acceptable technologies in terms of ecology, take steps to more rational natural resources utilization.

Modern interpretation of the «polluter pays» principle may be expressed in two main propositions:

- polluter must bear all expenses for environment protection activities;
- polluter has a right to meet his expenses for environment protection through the prices for his production.

It should be noted that practical application of the «polluter pays» principle shows a great number of departures from theoretical postulates.

The principle of long-term outlook

The cost of environmental degradation or environmental protection cannot be researched statically. Pollutants are accumulated over time and after that the full damage can reveal itself. Not only the damage, but the cost of environmental protection must be examined in perspective. Environmental activities are very capital-intensive. Accumulation of anti-pollution capital (for example, construction of waste treatment facilities and sewage) requires several years. Adaptation of production processes, change of sectoral structure, relocation of firms requires one or two decades. That is a reason why environmental policy must be permanently conducted. Nowadays sometimes we witness the opposite situations. Old dumps are an extreme example of unconsidered environmental policy not taking the future damage into account.

The interdependency principle

Environmental policy must consider interdependency between environments, technologies of production, pollution and waste reduction, between pollutant themselves.

Environmental policy of the USA and some European countries at early 70-s focused on air and water quality management and neglecting soil and dumps of solid waste polluted with dangerous substances can be given as an example/

The «user pays» principle

The «user pays» principle is an application of the «polluter pays» principle relating to resource exploitation, though not quite adequate. It requires that a user of any natural resource pays in full for its exploitation and subsequent recovery.

2.2 Methods of nature management

It is known that one of the main problems in environmental protection policy implementation is connected with the choice between compulsion, one the one hand, and stimulating, on the other hand. In fact the complex approach is generally used as the majority of tools have dual origin. Classification of existing mechanisms of nature management is shown in Fig.1.

The analysis of organizational legal bases of nature management in our country and abroad leads to the conclusion that there are general trends in nature management: firstly, gradual transition from administrative tools to economic and market measures, secondly, the majority of methods are not used in their pure form as each of them has features of both mechanisms, that indicates their interconnection and interconditionality. So, the special internationalization methods in the wide sense (Kyoto Protocol) including, for example, flexibility mechanisms combining requirements and re-

strictions with market mechanisms of regulation were developed in conditions of globalization of nature management processes.

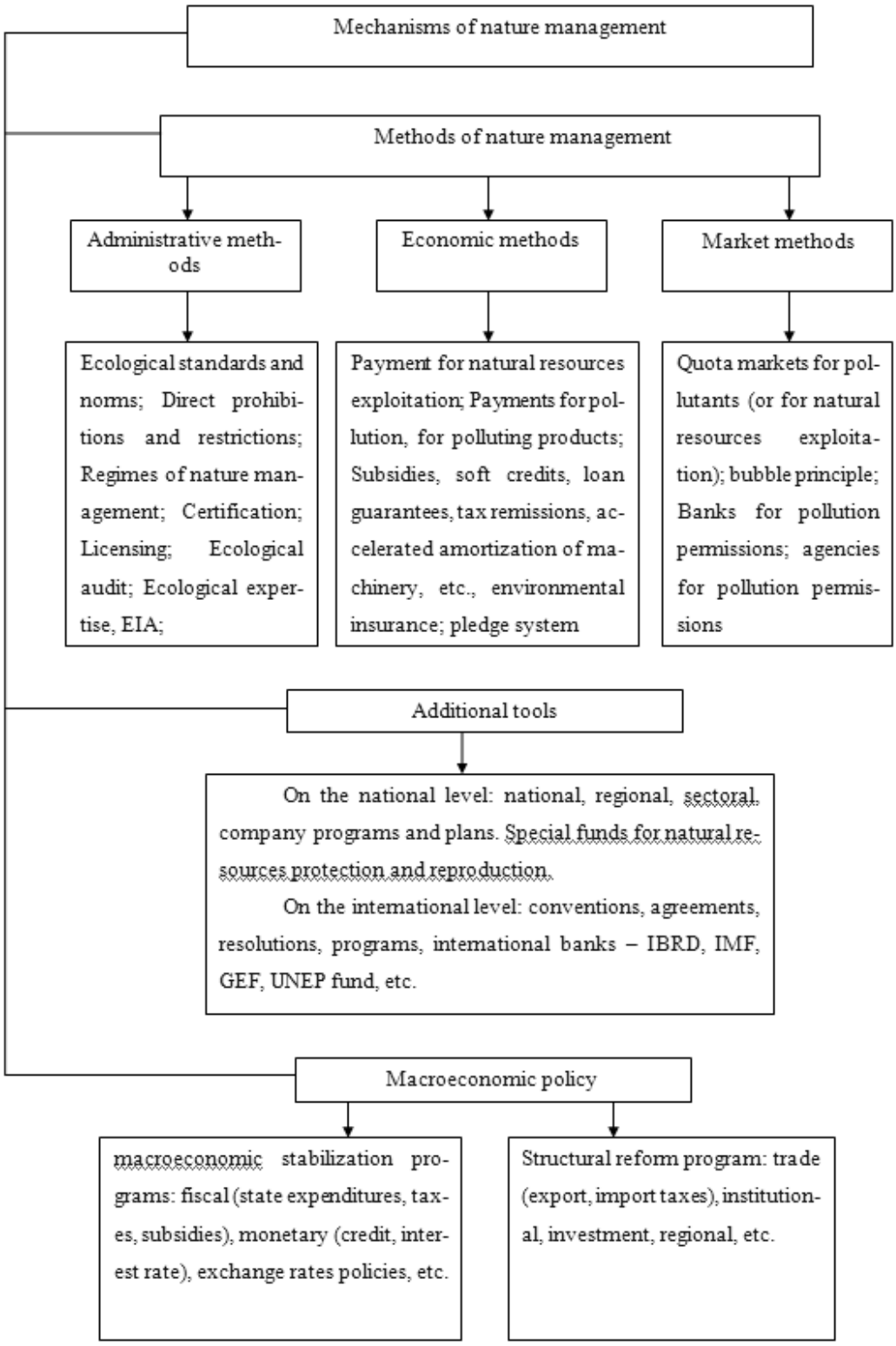

Fig. 2.1 Classification of existing mechanisms of nature management

Economic mechanism of environment protection has special tools of influence on material interests of users of nature.

Limitation of nature management – payment for over-exploitation of natural resources and environmental pollution exceeds by several times the payments for exploitation and pollution within the framework of norms (limits) established for a company.

Payments for nature exploitation – payment for exploitation of almost all kinds of natural resources, environmental pollution, production of waste disposal and for other types of influence. Payment for exploitation and pollution does not exempt a user from carrying out measures on environment protection and compensation for damages.

Financing of nature protection activities – provision of monetary funds for nature protection activities. The sources of financing may include enterprise's own funds (profit), budget funds, bank credits, environmental funds and others. Establishment of environmental funds is one of the new economic methods of nature management. Funds are understood as institutions designed to provide financial assistance, as monetary funds themselves and as their sources. For example, environmental funds receive payments for nature exploitation from all enterprises and later they distribute these means for the most urgent and expensive nature protection activities. In addition, enterprises may make contributions to environmental insurance funds. In this case, if some environmental emergency occurs and an enterprise has to pay heavy fine and repair the damage done, an insurance fund will support it.

Financial stimulation of nature protection activities – providing profitable conditions for users of nature in nature protection activities. Financial stimulation includes not only incentives, but also penalties.

Financial incentives measures:

- fixing the tax benefits (taxable income decreases by a value partly or totally equal to nature protection costs);
- exemption from taxation to environmental funds and nature protection property;
- use of promotional prices and premiums for environmentally safe production (vegetables with reduced content of nitrates, pesticides and other noxious substances cost more, so it is more profitable to sell and grow them);
- use of soft lending for enterprises effectively protecting environment (reduce of interest or interest-free crediting).

Financial penalty measures:

- imposition of surtax for environmentally harmful products and products manufactured using environmentally harmful technologies (i.e. products which production or consumption is dangerous for people's health or environment);
- fines for ecological offences.

Many experts of developed countries, including lawyers, consider environmental problems as economic ones. That attitude corresponds with the fact that nowadays there is a weakness in administrative regulation of economy in many countries, especially in the USA. Economic measures are targeted, they unequivocally determine the requirements to the managed object, however in contrast to administrative orders they take into account that control objects consciously set themselves the goals and consciously seek to achieve them. That is why the essence of economic methods lies

in organization of managed objects' activity by creation of advantages in consumption. That is how management by economic methods differs from stimulation that envisages incentives and sanctions of non-economic matter.

2.3 Test for self-assessment

1. What are the features of complex character of state regulation in environment protection?
2. Describe the opportunity cost principle.
3. What main propositions is the modern interpretation of the "polluter pays" principle based on?
4. What is the disadvantage of the principle of long-term outlook?
5. What does the interdependency principle means?
6. Give the methods and mechanisms of nature management in rural territories.

3 Environmental law as a mechanism of environmental management and environmental protection

3.1 Concept and subject of environmental law

Environmental law as any other branch of law is a totality of legal norms regulating certain social relations. These social relations regulated by environmental law form the subject of environmental law as a branch of law.

In that connection, environmental law is a totality of legal norms regulating:

- social relations of environment protection from adverse impact of economic and other activities;
- social relations of efficient exploitation of natural resources.

It must be noted that many environmental legal norms have an «adjacent» character. They regulate environment protection relations, on the one hand, and other relations of the branch (land, water, forest, etc.), on the other hand. In that connection, environmental law is considered as a complex branch of law including merely environment protection norms as well as norms of others adjoining branches of law (land, forest, water, etc.).

3.2 Sources of environmental law

Sources of environmental law are normative legal acts through which environmental legal norms are established and validated. All sources of environmental law can be divided into federal, federal and regional, regional, local (Fig 3.1.).

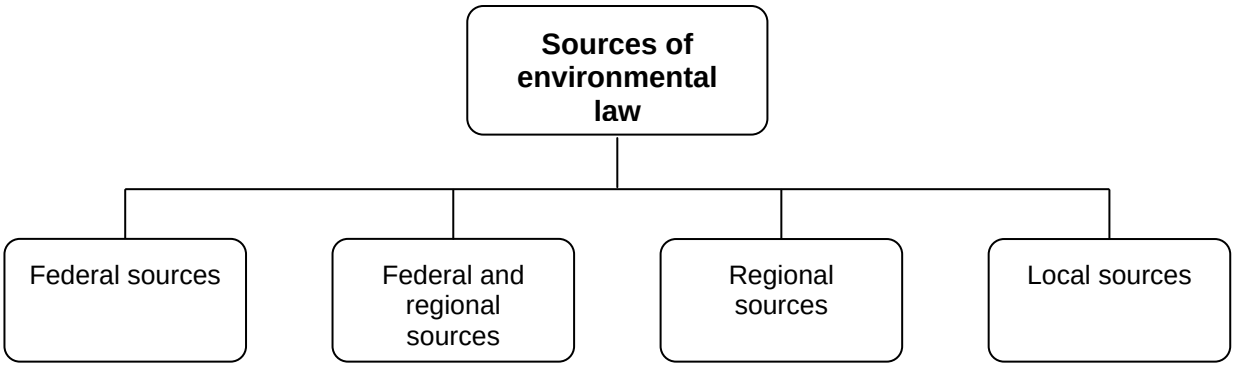

Fig. 3.1 Sources of environmental law

Federal sources of environmental law.

Among federal sources of environmental law are:

- Constitution of the Russian Federation;
- international agreements of the Russian Federation, universally recognized principles and norms of international law;
- federal laws;
- normative acts of President, Government of the Russian Federation and federal ministries.

Among the federal laws regulating land protection relations, in the first place, we will highlight special federal laws directly focused on environment protection (Fig. 3.2).

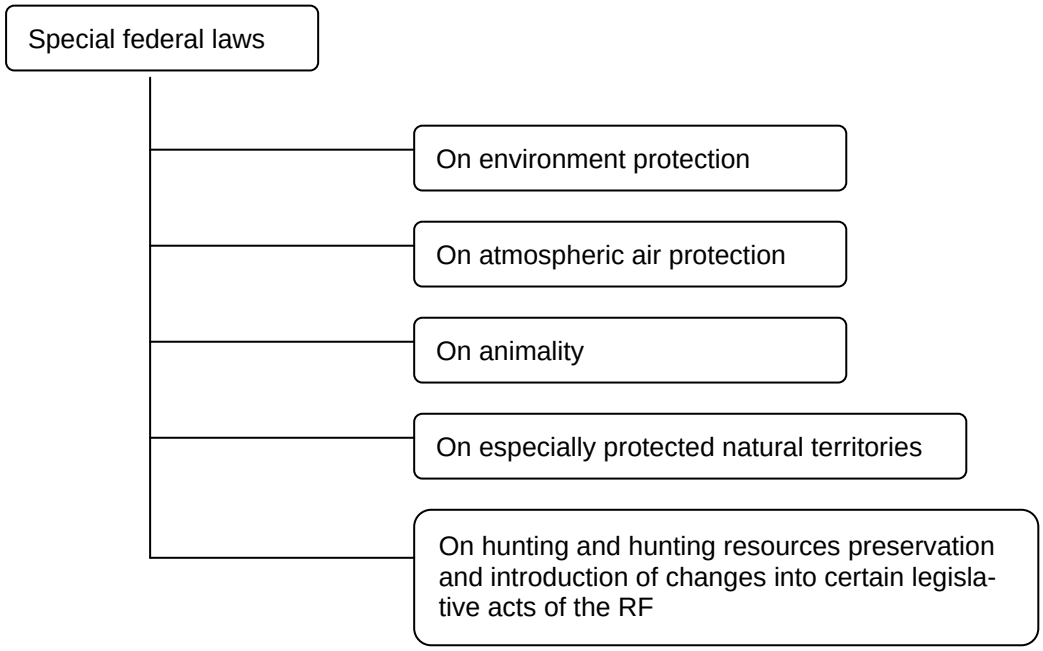

Fig. 3.2 Special federal laws focused on environment protection

When considering the federal legislation the important problem about the division of authorities between the Russian Federation and Federal regions on the questions under the joint authority of the Russian Federation and its regions relating to environment protection arises. After 2003 the federal reform significantly reducing the competence on the regions of the Russian Federation was carried out in our country. As a result the maximum amount of authority was concentrated on the level of federal government bodies.

Authorities in water relations which dynamics is distinctive and contradictory are of special importance for the arid Stavropol region. All water bodies (except pounds and flooded careers) were transferred to federal ownership and water tax was assigned to the federal budget by the Federal Law of August 22, 2004 № 122-FL «On amendments of certain legislative acts of the Russian Federation and admission of certain expired legislative acts in relation to enactment federal laws «On amendments and addenda to the Federal law «On general principles of organization of legislative (representative) and executive bodies of state authority of the regions of the Russian federation» and «On general principles of organization of local self-government in the Russian Federation». The whole water resources complex of the Stavropol region and water tax is within the federal responsibility. The complex includes Kuban, Kuma, Egorlik rivers, Sengileevskoye, Novotroitzkoye, Otkaznenskoye reservoirs, vast system of canals and other constructions participating in water supply of human settlements and land irrigation.

Powers to protect the determined objects, prevent adverse impact and eliminate its consequences, however, without recovery of previously taken sum of water tax were delegated to the state authorities by the Water Code of June 3, 2006 № 74-FL.

Nearly 650 million rubles of water tax sums accumulated in regional budget were annually allocated by state authorities of the Stavropol region to reconstruction and protection of water bodies and water supply system. The question arises: who is responsible now for worn out hydrotechni-

cal constructions? As a result, state the authority of the Stavropol region is responsible for life support of population, but it cannot have any effect on negative processes within that area.

Legislative package regulating the reform of federal relations was adopted without any serious examination of public needs and social expectations, without regard to the opinion of the regions of the Russian Federation on crucial issues in separation of state authorities in the country. The majority of suggestions of the regions were not reflected in the laws. That provoked regions' resentment and negative attitude towards limitation of their competence. It is confirmed by the results of inquiry among the heads of regional legislative (representative) authorities located in the Southern Federal District conducted by Stavropol center for law monitoring under the direction of the author – Professor V.A. Cherepanov.

Six of twelve regions of the RF supported the necessity of clear distinction of authorities between the center and the regions. However, eight of twelve regions suppose that the amount of their authorities is excessively reduced. All heads of legislative (representative) bodies spoke against significant limitations of the competence of the regions of the Russian Federation in land and resources protection.

Ten of twelve regions suppose that the article 72 of the Constitution of the Russian Federation fixing the objects of joint conduct of the Russian Federation and its regions was revised.

In summer 2011 the President of the Russian Federation D.A. Medvedev proclaimed a course towards decentralization of the powers between the levels of public authority in favour of the regions of the Russian Federation and local self-government. Executive committees for preparation of relevant proposals were formed by his order.

Federal and regional sources of environmental law.

Among the federal and regional sources of environmental law are agreements between the Russian Federation and its regions. There are two types of such agreements.

Firstly, it is the Federal agreement. The Federal agreement includes three agreements on division of the objects of powers and conduct signed between federal state authorities and state authorities of the regions of the Russian Federation on March 31, 1992. It does not contradict the Constitution of the Russian Federation of 1993.

Secondly, it is the agreements with concrete regions of the Russian Federation (republic, oblast, etc.) where the powers of the Russian Federation and its regions are limited taking into account the regional features.

42 such agreements were signed during the period from 1994 to 1998. From the standpoint of the environment protection activities the Agreement between federal state authorities and state authorities of the Republic of Buryatia signed in 1995 is of particular interest.

The Article 2 of this Agreement states the following:

«Taking into account that the territory of the Republic of Buryatia is the water-shed area of lake Baikal, recognizing the environmental uniqueness of its natural resources and considering it as national treasure of the Russian Federation, the authorities of the Russian Federation are to: a) de-

velop and adopt the Federal law on Baikal lake, other normative legal acts on creation of special conditions of natural resource use and environment protection in the region of Baikal lake; b) develop and adopt long-term federal programs for preservation, reconstruction and enhancement of environment in the region of lake Baikal; c) finance the costs related to the functioning of some objects of life activities of the republic of Buryatia, the water-shed areas of lake Baikal and allocate means for establishment of Baikal environmental fund.…»

According to the Agreement the special federal law «On protection of Lake Baikal» was enacted. It fixes a number of general environment protection statements.

However, many agreements signed between the Russian Federation and its regions contradicted the Constitution of the RF. That is the reason why after 2000 they were terminated and a number of new principles of agreement process were legally established. These principles consist in the following.

An agreement may be concluded only if it is stipulated by economic, geographical and others features of a region of the Russian Federations and only to the extent to which these features specify other, than separation of powers fixed by the federal laws. An agreement shall be approved by a federal law, has legal force of a federal law and may be changed only through introduction of alterations and amendments. In connection with the foregoing, norms of an agreement are special norms. They are exception to general norms fixed by other federal laws.

To date, only one agreement was signed based on the new principles: Agreement on division of objects of competence and powers between state authorities of the Russian Federation and state authorities of the Republic of Tatarstan approved by the Federal law of July 24, 2007 № 199-FL (hereinafter referred to as Agreement).

Chapter 2 of Article 2 of the Agreement states the following: «Taking into account that exploitation and protection of land, natural, water, forest and other resources in the Republic of Tatarstan is a basis of life activity of its multinational population, the Government of the Russian Federation and the Cabinet of Ministers of the Republic of Tatarstan sign agreements providing joint solution of general issues related to economic, environmental (as a result of long exploitation of oilfields considering technological and geological conditions of hydrocarbon production), cultural and other features of the Republic of Tatarstan.

However, the Agreement provides no significant regulation of environment protection relations.

Value and facilities of agreements in environment protection regulation will be covered in the third part of this lecture.

Regional sources of environmental law.

Among them are laws and other normative acts of regions of the Russian Federation. For example, a number of special laws focused on environment protection were enacted in the Stavropol region:

- On especially protected natural territories in the Stavropol region;
- On certain problems of atmospheric air protection;

- On exploitation of forests in the Stavropol region;
- On certain issues of regulation of relations in hunting and hunting resource protection;
- On some problems of land relation regulation;
- On ensuring fertility of agricultural land in the Stavropol region;
- On certain issues of regulation of subsurface use in the Stavropol region;
- On administrative offences in the Stavropol region.

Local sources of environmental law.

Among them are normative legal acts of local self-government containing environmental legal norms. Various municipal normative acts are adopted in land protection. The most common of them are: (Fig. 3.3).

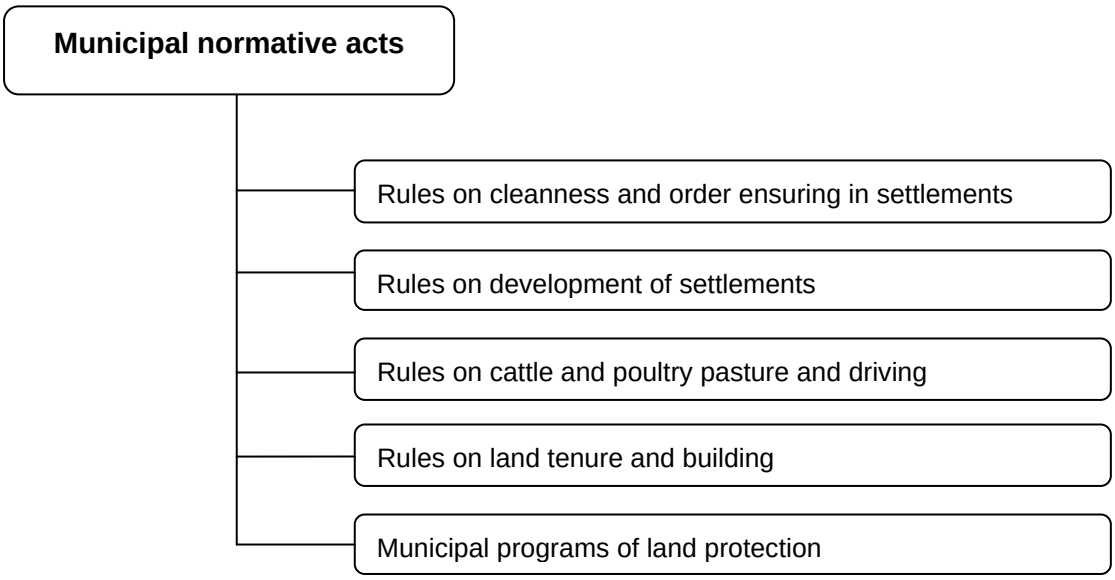

Fig. 3.3 Municipal normative acts in land protection

3.3 Caucasian Mineral Waters as an object of environment protection regulation

Taking into account all issues discussed above we will examine the concrete issue of environment protection regulation at Caucasian Mineral Waters.

Caucasian Mineral Waters were awarded with the status of an especially protected natural territory with four resort towns that have legal status of resorts of federal importance.

Caucasian Mineral Waters (hereinafter referred to as CMW) are national heritage of the whole multinational population of the Russian Federation and are intended for its treatment and rest. This purpose of CMW causes the necessity of establishing there a number of special legal regimes in the following areas.

Special legal regime of realization of economic activity

Federal law «On natural healing resources, health and medical areas and resorts» defines tree zones of sanitary protection and fixes relevant regimes of their possible exploitation.

In the first zone all types of economic activity except works related to research and use of healing resources for treatment are forbidden. In the second zone placement of objects and constructions not directly connected to treatment and rest is not allowed. In the third zone placement of enterprises and realization of economic activity leading to environmental or natural healing resources pollution and exhaustion is restricted.

There is a rather complicated situation with realization of land protection requirements at CMW. It can be illustrated on the example of the resort town Pyatigorsk.

About 560 ha lies within the first zone, it is equal to 4 % of the whole town territory. All sanatoria, a lot of apartment houses including blocks of flats, commercial objects, communication and transport facilities is located there. However, as it was mentioned, all types of economic activity except works related to research and use of healing resources for treatment are forbidden.

The second sanitary zone includes over 6 000 ha, that is equal to 40 % of town territory. However, the placement of objects and constructions not directly connected to treatment and rest is not allowed there.

The third zone includes over 54 % of the town territory. There the placement of enterprises and realization of economic activity leading to pollution and exhaustion of environmental or natural healing resources is restricted.

Thus, the current situation does not meet the applicable environment protection regulation. The existing zonation of the area of sanitary protection of the federal resort done in 1985 is outdated and it has not been applied yet.

The problem may be solved by establishing a special legal management regime for each of 4 the CMW resort towns considering their features. These regimes will include only those activities that are necessary for rest and treatment and is not harmful for natural healing resources of the CMW (mineral springs, therapeutic mud, healing climate, etc.).

For that, firstly, it is necessary to review environment protection requirements of each sanitary zone; secondly, define the zones and apply them. On that basis, compulsory removal of economic objects that do not meet the legal regime of environment protection zones and not aimed to medical treatment can be done.

Obviously, it will require significant budget funds and changes of town policy in all spheres of life.

Not the increase of fiscal objectives or self-sufficiency of tax potential, but the development of a medical treatment complex that in relation to restriction of economic activity must be largely subsidized from federal and regional budgets is of prime importance. The necessity of compensation of shortfall in income caused by restriction of economic activity requires establishing a special compensating tax and budget regime in which, for example, fiscal charges accumulating on the ter-

ritory of CMW to the federal budget may be left in the region and be used exclusively for medical treatment.

The purpose of CMW causes the necessity of establishing *a special regime of land tenure and town building*, which:

- establishes special order of allocation of land plots and town building in different zones of sanitary protection by introduction of special state standards, norms and rules of land tenure and building in different sanitary zones;

- uses compulsory (with redemption) confiscation of land plots of owners and users in the first environment protection zone as well as other economic objects that do not meet legal requirements established there.

Finally, it is necessary to limit migration flows to CMW that have greatly increased in the recent years. Great migration flows exert significant pressure on social infrastructure, lead to additional budget expenditures, worsen the environmental situation, create conditions for intensification of national relations and, in the end, contradict the purpose of CMW – population treatment and rest. Especially protected natural territory intended for treatment and rest becomes a place of residence for large number of migrants from other regions of the Russian Federation and CIS countries. That leads to the necessity of establishing the special regime of residence that stipulates the state regulation of migration at Caucasian Mineral Waters and fixes quotas on choice of residence in this region.

Obviously, these special legal regimes at CMW cannot be established within the framework of existing federal legislation as it will contradict the general norms fixed by the federal laws. If we adjust these contradictions, the specifics of CMW will not be considered and, consequently, such law will be inefficient for regional development.

Since 1996 the State Duma has been considering the federal draft bill «On resort region of Caucasian Mineral Waters» that was adopted at the second reading by the State Duma October 15, 2003. However, further work on it was ceased.

Conclusion of an agreement between the Russian Federation and Stavropol region fixing all four special legal regimes looks like a real solution. This agreement approved by the Federal law, firstly, will have the validity of federal law, secondly, will fix a different division of powers in economy, land tenure, town building, subsoil use, migration, tax and budget relations at CMW.

Summarizing the foregoing, two main trends in development of environment protection regulation may be defined:

- decentralization of powers in environment protection;
- expansion of regulation of environment protection regulation by agreements.

3.4 Test for self-assessment

1. What is environmental law?
2. What are sources of environmental law?
3. What do federal sources of environmental law include?
4. How have the powers of the Russian Federation and its regions in environment protection been divided according to the federal reform?
5. What do federal and regional sources of environmental law include?
6. What do regional sources of environmental law include?
7. What do local sources of environmental law include?
8. What are the features of environment protection regulation at Caucasian Mineral Waters?
9. What special legal norms have to be established at Caucasian Mineral Waters and why?
10. What legal opportunities are there for agreement regulation of environment protection relations at Caucasian Mineral Waters?

4 Administrative methods of environmental management and environmental protection in rural areas

4.1 Administrative environmental management: general statements

Experience of many developed countries demonstrates that the government plays an important role in formation of market economy, as well as in organization of its efficient functioning. Even in those countries where the principle of government non-interference in economy is enunciated (for example, the USA), in practice it significantly influences economic development. That is particularly true for such an uncommon area as natural management where the range of government influence may be rather wide – from direct administrative compulsion to formation of institutional conditions for market self-regulation of some areas of environment protection.

Administrative control of environmental management and protection is a component of social management, one of the most important functions of the Russian Federation. It generally manifests itself as government organizational activities on regulation of maintenance of requirements in environment protection by business entities.

The main principle of administrative environmental management is one of permission and prohibition (management is executed by means of introduction of instructions for compulsory implementation (legal acts) and control of compliance with these instructions). Herewith, management is executed directly or by notified bodies.

Concerning the methods (mechanisms) of administrative environmental management and environment protection in rural territories, we can define the following:

- environmental load rationing and standardization;
- licensing and limitation of environmental management;
- methods of management of organizational and economic activities (environmental monitoring, control of environment protection activity of users of natural resources, environmental expertise and audit, organization of scientific and research work, environment renovation and protection activities, international environment interaction, etc.).

Therefore, effective operation of state authority in environment management in rural territories must promote implementation of plans, programs, activities in environmental management and environment protection and environmental security in general; maintenance of requirements of environmental law by all enterprises regardless of their form of ownership; achievement of sustainable development of rural territories.

4.2 Legal fundamentals of environmental load rationing and standardization

The central place in administrative regulation belongs to the system of environmental standards that implies establishment of norms and requirements being uniform and obligatory for all objects of management environmental.

According to environmental legislation of the Russian Federation environmental load rationing is performed for the purpose of state regulation of anthropogenic influence on the environment ensuring the maintenance of favourable environment and environmental security of the population

(Article 19 of Federal law «On environment protection»). The purpose determined in that way implies establishment of boundary conditions (standards) on the influence, environmental factors and replies of ecological systems.

The Federal Law «On environment protection» classifies as standards on environmental quality:

- standard on allowable emissions and dumping of substances and microorganisms;
- standard on production and consumption waste generating and disposal limits;
- standards on allowable physical impacts (heat quantity, noise, vibration, electromagnetic field strength, ionizing radiation levels and other physical impacts);
- standards on allowable removal of environmental components;
- standards on allowable anthropogenic stress on environment;
- standards on other allowable impact on environment in carrying out economic and other types of activity established by legislation of the RF and legislation of the regions of the RF for environment protection.

Standards (norms) of environmental quality regulating the allowable state of air, water basins, soils and other natural environments. They are fixed according to the level of pollution load in natural and anthropogenic environments that must not exceed maximum allowable content (MAC) for each pollutant. As the possible effect depends on exposure time, i.e. on the dose, there are two types of standards of maximum allowable concentration: daily average and one-time maximum.

Standards (norms) of environmental impact of certain production process – emission standards – regulate the level of emission (dumping) from the particular point source (pipe) after use of purification equipment.

In this regard, the following types of standards are indicated in the Russian practice of prevention of adverse environmental impact: sanitary and hygienic (maximum allowable concentration, tentative safe exposure level, etc.), production and economic (maximum allowable emissions, limit reset, waste limit, etc), complex environmental standards.

It must be noted that *production and economic standards* (standards of allowable impact) are applicable at certain enterprises and *can be an effective economic «leverage»* in maintenance of natural and resource potential in rural territories.

For example, the following scheme of economic leverage is shown in the table 4.1. According to the Decree of the Government of the RF № 632 «On approval of the procedure of payment and its limit sizes fixing for environmental pollution, waste disposal and other types of adverse impact» (28.08.1992) 2 types of general fee ratios were determined:

for emissions, discharge, disposal of wastes within the limits of allowable impacts;

for emissions, pollutants discharge, waste disposal within the established limits (temporary approved discharges, temporarily agreed emissions).

Table 4.1 Example of economic leverage – rationing of environmental impact

Multiplying ratios of payments for negative environmental impact (depending on rationing)		
Within (MPE, maximum allowable discharge)	Within the (temporary approved discharges, temporarily agreed emissions)	Overlimit and lack of established standards
-	x 5	x 25

Payment for negative environmental impact within the established limits is fixed by multiplying relevant payment rates by 5, and in cases of above-limit pollution or lack of limits and established standards by 25.

In addition, it is important to note that the beginning of market reforms throughout the former USSR requires implicit compliance with the uniform norms and rules developed by the international community. The International Standards Organization (ISO), bringing more than 100 countries together, develops not only uniform standards of control methods for environmental quality, but also for environmental management – standards of ISO 14000 including requirements and instruction for exploitation of environmental management system, instruction for environmental audit, general principles of environmental marking, principles of estimation of production validity cycle (from purchase of raw materials, including production, exploitation and utilization, impact on the population and condition of ecosystems) and others (fig. 4.1)

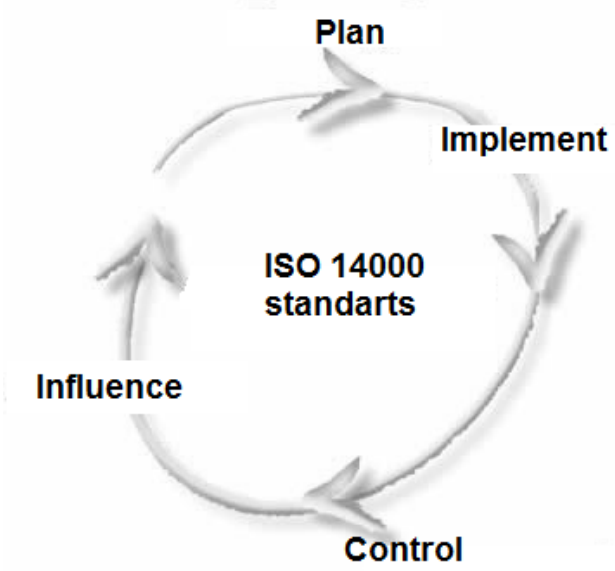

Fig. 4.1 Scheme of ISO 14000 standards operation

Studying, adoption and «phasing-in» of international system of ISO 14000 standards will promote the improvement of system of environmental management in our country.

4.3 Licensing and limitation of environmental management

Environmental management is carried out by withdrawal of substance from nature and carrying in pollutants. Accordingly limitation is carried out by setting the limit norm of resource withdrawal as well as emission standards and discharge norms and waste emplacement.

The limits serve as regulators of environmental management. Limitation is a system of environmental and economic restrictions in territories, terms and volumes of limit levels of exploitation (withdrawal) of natural resources, emission and discharge in environment and waste emplacement.

The limits are fixed on the size of land plots for construction of motorways and railways, pipelines, soil-reclamation canals, etc. There are also limits on water consumption in irrigated cropping, for industrial and agricultural projects. Limits on exploitation of forest resources are determined as annual maximum rates of wood-felling. There are quotas for fishing and hunting. Quality standards for environment serve as limits on emission and discharge of pollutants.

Licensing of environmental management is a system of environmental substantiation and control of anthropogenic activities, realization through issue of special permissive documents – licenses. Licensing of environmental management is the most important part of environmental management. The licenses summarises the types and limits of anthropogenic activities, environmental requirements for exploitation of natural resources. There are about 30 licensed types of environmental management.

This is an element of administrative and legal management, as a license fixes specific conditions and limitations of use of nature resources, but the license is an element of economic (market) control as it can be sold at auction (water use agreement).

The task of a state licensing system is to ensure the realization of state programs, to protect social, economic and environmental interests of the population, to carry out antitrust policy in environmental management, protect the rights of users of natural resources. License is a legal document by which the state authorities regulate and manage the environmental management and control observance of the terms of license agreements by users of natural resources. The license sets payment rates for natural resources. Licensing should provide the optimum combination of interests of the state, the regions and the companies that use natural resources

Licensing of activity in environmental management and environment protection is carried out in accordance with the order № 957 of the Governmental of the Russian Federation dated 21.11.2011 «On licensing certain types of activity» and other sectoral documents regulating land use, water use, forest management, subsurface, etc.

Thus, the main principle of administrative environmental management is a permissive-prohibitive one. The core of the principle is that the relevant authorized bodies of the government set limits on the use of natural resources, emission (discharges) of pollutants, waste disposal, etc. and in accordance with them issue the licenses for environmental management to the business entities (licenses for logging (logging ticket), for special water use, for emissions of air pollutants, etc.). In addition, the stated power structures have the right to suspend the activities of enterprises in the case of non-compliance with the norms of environmental security, draw up reports and to impose administrative penalties on citizens and officials for violations of environmental laws.

4.4 Administrative system of management and economic activities for state implementation of environmental policy

Administrative methods of environmental management also suggest formation of system and carrying out control of organizational and economic activities for implementation of the state environmental policy. Such activities include: environmental monitoring, registration and control of environment protection activity of users of natural resources, environmental assessment and audit, organization of scientific and research work, carrying out environmental renovation and nature conservation, international environmental cooperation, etc.

Environment impact assessment (EIA)

The Article 32 of the federal law «On environment protection» is devoted to environment impact assessment (EIA) for the proposed economic and other activities that may have a direct or indirect impact on the environment. EIA is performed in the development of all alternative variants of pre-project documentation including pre-investment and project documents, justifying planned economic or other activity with participation of non-governmental organizations.

Assessment of natural, economic and social impact must be based on the benefits of the project and the cost of implementing it. Experience of developed countries shows that the influence of major regional projects (construction of power plants, highways, creation of water reservoirs) should be considered in three time intervals:

1. construction period (environment is disturbed by excavation equipment, temporary site buildings and roads, and the quality of the environment degrades due to the destruction of soil resources and pollution of the atmosphere and hydrosphere);

2. the period of completion of construction (major change of environment; inundation of river valleys to create reservoirs, changes in river channels, moving the road network, with the construction of large industrial complexes land and water resources are destroyed, as well as air atmosphere is polluted);

3. the consummation of the object (its removal by the end of life can have greatly damaging effects on the environment).

EIA is organized and performed while preparation of programmes and plans of social and economic development, schemes of complex use and protection of natural resources, documentation for the development of new machinery, technology, materials, pre-project grounds of investments in building, technical and economic grounds and building projects of new, reconstruction, expansion of existing economic and other facilities and complexes (Fig. 4.2).

The result of the EIA is the conclusion of the customer on the tolerability of the impact of the planned activities on the environment. Information about the state of the environment used in the EIA, is prepared by the methods of measuring meeting the requirements of Russian legislation and regulations to ensure the uniformity of measurements. The EIA results are submitted by the customer for the state ecological expertise.

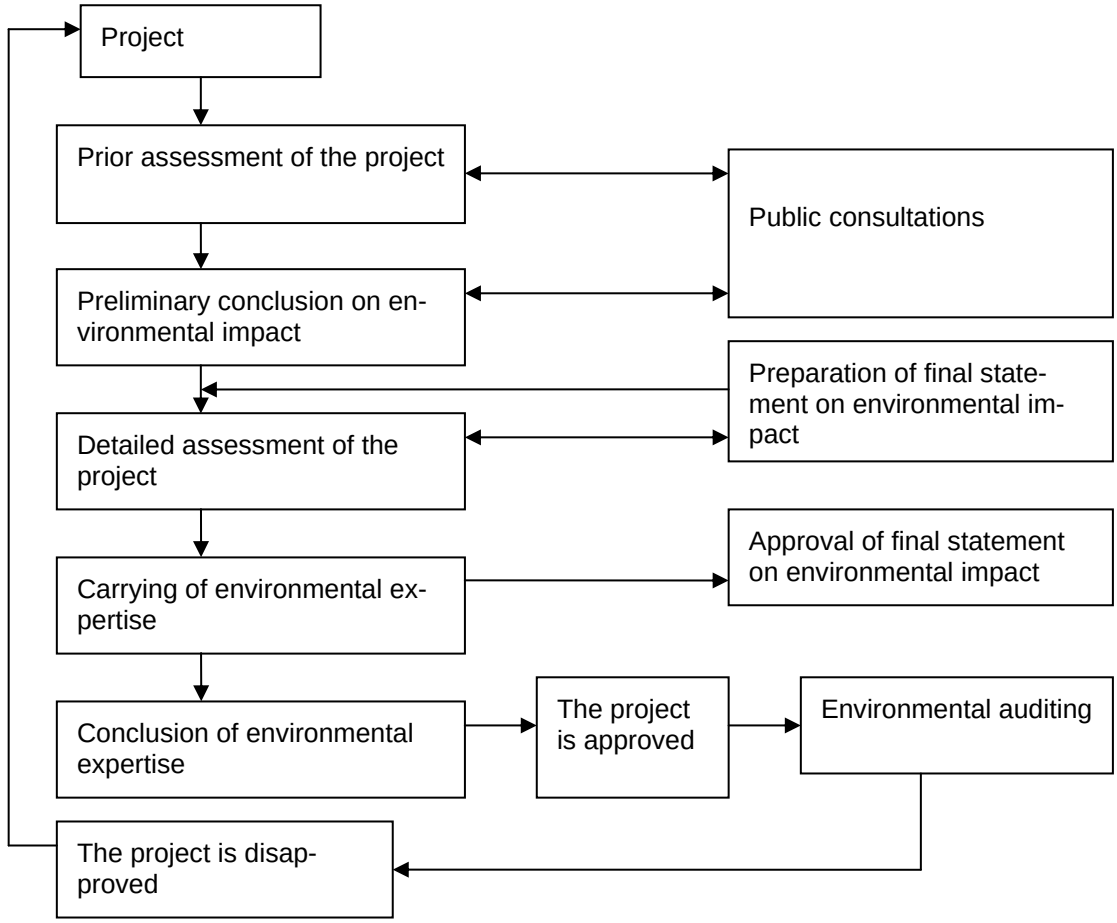

Fig. 4.2 Scheme of environment impact assessment

Environmental expertise

Environmental expertise is performed in order to ascertain the compliance of planned economic and other activities with requirements of environment protection. The procedure of environment assessment is established by the federal law № 174-FL of 23.11.1995.

State environmental expertise (SEE) is based on the principles of its obligation, scientific validity and legitimacy of its conclusions, independence, non-departmental in organizing, wide publicity and public participation.

State environmental expertise is obligatory for:

- pre-planned documents, projects of general development plans for cities, free economic areas, territories of special regimes of environmental management and anthropogenic activities;
- technical and economic study and projects for construction, reconstruction, development, modernization, liquidation of enterprises, facilities, buildings and structures, regardless of their estimated cost and identity;
- projects of complex schemes of conservation and use of land, water, forest and other natural resources;

- materials of integrated environmental study of the areas to give them a legal status of protected areas, environmental disaster zone or zones of ecological emergency, specially protected area, and program for the rehabilitation of these areas;
- materials, proving the environmental requirements for new equipment, machinery, materials and substances that have an impact on the environment, including those purchased abroad;
- materials to create joint enterprises with foreign companies that use natural resources;
- materials of environmental studies of licenses and certificates;
- projects of normative technical and methodological documentation in the field of environmental protection and rational use of natural resources.

The expertise of materials for SEE is completed by drawing up a final statement of an expert commission that contains assessment and conclusions on implementation of the subject of environmental assessment. Positive conclusion of the expert commission is one of the necessary documents for project financing and crediting. In case of negative conclusion of the expert commission the documents may be improved according to comments and suggestions stated in the conclusion and be presented to re-examination.

Environmental assessment of projects is a compulsory part of the general project assessment. It must establish that the company will not excessively impact on the environment and affect the operation of neighbouring businesses, breaking the technological process through the environment. Environmental assessment of projects involves the assessment of long-term impact on natural resources, natural conditions, factor of further economic development and living conditions. The facility can be profitable and environmentally beneficial at present, but unprofitable and environmentally not justified in a long time interval. An example is a hydroelectric power station. Water storage basins constructed for a period of not less than 100 years and occupying large territory will become unprofitable after invention of other more compact sources of energy. And it is almost impossible to remove hydroelectric power stations. For this reason the environmental expertise must be forward-looking and take into account the costs of removal of the facility at the end of its service life.

The impact of an enterprise on the environment is determined by environmental regulations, which fix the maximum degree of interference in environmental systems that ensure conservation of their structure and dynamic properties. Natural norms and standards for design and construction are used to develop project documentation. They are based on theoretically substantiated and legally prescribed limit values of the environmental impact. In Russia, the most developed natural norms and standards for design and construction are ones of design of measures to prevent water, air, land, subsoil pollution, and to control noise. Norms and standards for flora and fauna protection are either less developed or do not exist at all.

Declaration of environmental impact is worked out as a result of the environmental assessment of the project. It shall contain all the harmful effects of the implementation of this project: economic and environmental evaluation of alternatives; relationship between the local environment management and its change in perspective; irreparable harm.

The conclusion of the expert committee is a public document containing the substantiation of tolerability of the impact of the subject of the expertise on the environment.

Environmental passport

The environmental passport of an enterprise is a comprehensive document containing characteristic of relations between the company and the environment. The environmental passport provides general information about the company, used raw material, description of technological schemes of main products manufacture, waste water treatment schemes, as well as characteristic of gas emissions and solid waste. The second part of the passport contains a list of planned activities aimed at reduction of load on the environment with indication of time, the costs, unit and total volumes of harmful substances emissions. According to GOST 17.0.0.06-2000 standard the ecological passport of nature user shall include the following structural elements:

- general information about the nature users;
- environmental and economic indicators, including capital and operating costs for environmental protection, as well as environmental and natural resource payments;
- information about the output;
- brief description of the production, including the characteristics of the equipment in workshops, manufacturing processes and operations showing with the indication of disposal site;
- characteristics used in technological processes and production of raw materials;
- information on the consumption of energy (fuel, electricity, compressed air, heat);
- environmental production indicators;
- information on land use, including key indicators of company's land, its functional purpose and state;
- information on licenses for environmental management and environment protection activities;
- environmental management plan for the production and manufacturing processes.

The environmental passport reflects several important points. Firstly, the transition from the study of the environment to a detailed differential analysis of the causes of these changes. Secondly, the transition from the consideration of total emissions to specific indicators related to product unit of and compared with the best performance achieved in the world.

The ecological characteristics of the company involves the assessment of the progressiveness of the used technology, completeness of use of raw materials and fuels, used schemes of waste water and gas emissions treatment, characteristics of exhaust gas flow, waste water and solid waste, as well as the overall economic assessment of the damage inflicted by an enterprise on the environment and differentiation this assessment by type of products and manufacturing processes.

Environmental accounting

In Russia every company that uses natural resources or pollutes the environment must provide the following documents of state recording to specifically authorized environment protection bodies:

- reports on the effects on the atmosphere, including inventory of the sources of air pollution and the project of limiting emissions, monitoring schedules of emissions for compliance with control MPE project on the border of sanitary protection zone of enterprises (annually), as well as statistical reporting form 2-TP (air);

- reports on pollution of water bodies including the projects of maximum allowable discharges into water bodies, waste water monitoring schedule and statistical reporting form 2-TP (water);

- reports on waste management, including the design of waste generation and disposal limits, data on waste generation and layout of temporary emplacement with implemented project of temporary storage, as well as contracts, acts and tickets of waste delivery to landfills and statistical reporting form 2-TP (waste);

- if needed the statistical reporting form 4-OS «Report on current expenditure for environment protection and environmental payments», 18-KS «Report on capital investment for environmental protection and rational use of natural resources are submitted».

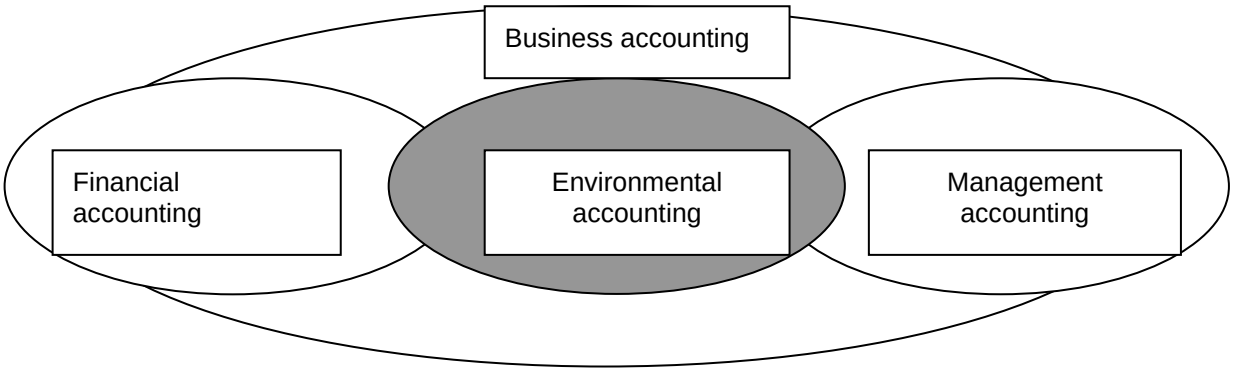

Fig. 4.3 Place of environmental accounting in reporting and accounting system of an entity

Environmental audit

Environmental audit is a management tool in the field of environmental protection and management. The term «audit» in English means «examination of accounts» hence «eco-audit» is «internal environmental reporting», «comparison of the environmental situation of the company with the requirements of environmental legislation», «a procedure for systematic testing the potential environmental risk", etc. The official definition of environmental audit is given in the Federal Law of 10 January 2002, № 7-FL «On environment protection». Environmental audit is an independent, comprehensive, documented assessment of compliance with the requirements by business and other entities, including compliance with standards and regulations in the field of environment protection, the requirements of international standards and recommendations to improve such activities.

Environmental audit is a procedure of authentication of compliance of the enterprise (entity) activity with legal requirements to ensure technogenic safety of the environment and environmental security of the company, the reliability of its financial obligations, financial reporting and accounting records of payments for environmental management, performed by an environmental audit company (or environmental auditor) to improve human and environmental safety and investment attractiveness of enterprises. Environmental auditing is environmentally oriented activities carried out by independent audit firms and auditors, and which includes organizing and performing environmental audits of enterprises and providing them with audit services (fig.4.4).

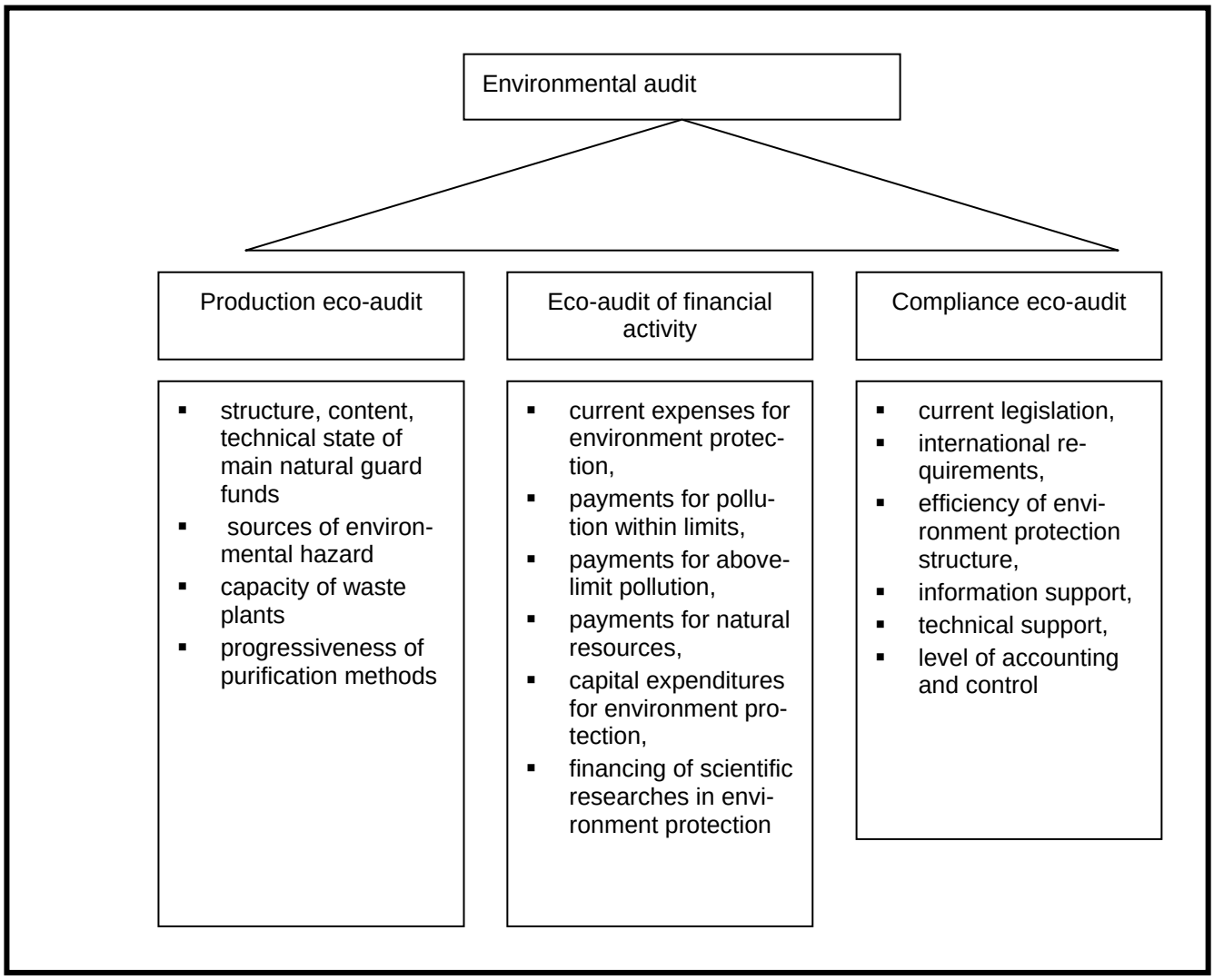

Fig. 4.4 Content of environmental audit of industrial enterprises

Norms of the Federal Law of 30.12.2008 № 307-FL «On Auditing» may be applied to environmental audit. The basic regulatory framework for determining environmental audit procedures is the Russian standards GOST R 14000.

Thus, we see that there are a lot of administrative mechanisms of environmental management and environment protection, and at the moment all of them work. Still, the main feature is that these mechanisms are mostly prescribed for the production (industry, agriculture). The areas of environment protection, resource reproduction require enormous work on developing relevant regulations governing environmental relationships.

4.5 Test for self-assessment

1. What are the main methods of administrative and legal environmental management and environment protection?
2. What environmental quality standards do you know?
3. Explain how the production and business standards can operate as an economic lever in environmental management.
4. What is the limitation of environmental management?
5. What is the licensing of environmental management?
6. Describe the EIA procedure.
7. What is an environmental assessment?
8. What are the purposes of environmental audit?
9. What document regulates the development of the ecological passport?
10. What is the role of environmental accounting?

5 Progonostics and planning of environmental activities in rural areas

5.1 Planning of environmental management in rural territories

For any business activity careful planning is essential for success. Planning of rational environmental management is establishment of the optimal rates and proportions between the individual relatively isolated components of the process: between rates of use, protection and restoration of natural resources.

The purpose of planning is to satisfy the needs for natural resources, properties and qualities of the natural objects while preserving and increasing the natural resource potential of the area.

The necessary condition of realization of the plan targets is their legal and regulatory support, bearing in mind the principle of rigour, obligation of obedience of the law and regulations in environmental management, commitment to technological and labor discipline.

Admitting the need of an systematic, continuous planning of environmental management, we face the need of isolation of immensity of the process, bearing in mind the strategic and tactical planning (Fig. 5.1). Strategic planning is related to the fact that the planning of environmental management includes the need of taking into account possible long-term effects, and they cannot be simply «dismissed». For example, the humanity «understands» the risk of the greenhouse effect, increasing the «ozone holes», the risk of reduction of forest cover on the planet, pollution of the oceans, etc. This is conditioned by the fact that their consequences will impact for a very long time (as long as nature will not «cure itself» or people will not help ...) and they cannot be abolished or fixed in the terms defined by a generation.

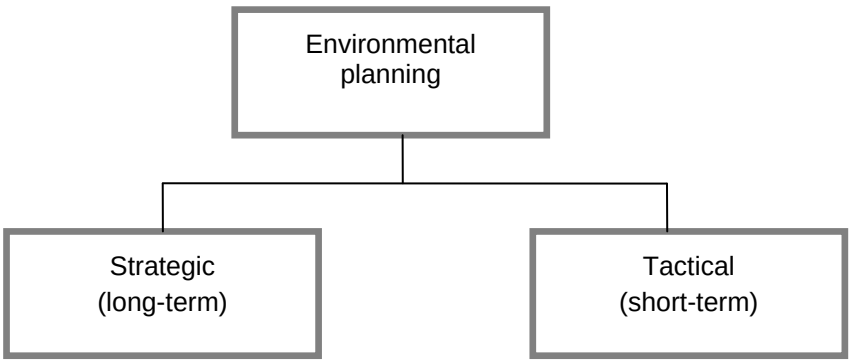

Fig. 5.1 Types of environmental planning

Tactical planning is more immediate and brief, and its results can be found quickly, and this type/stage of planning is a constituent element of the strategic planning, supplements, helps to implement it. Since the separation is rather arbitrary, it is necessary to admit their interrelation and interdependence. It must be noted that tactical planning is more suitable for «securing funds» to achieve the goals.

From our point of view, a summary of the scheme of environmental planning for rural areas is as follows:

1. Initial Environmental Assessment: involves the assessment of the initial situation, in the course of which four directions are studied: the identification of environmental aspects, assessment of the probability of emergencies and their consequences for the environment and the local population, and analysis of legal requirements and other regulatory requirements, which environmental protection activity must comply with; assessment of the present environmental management practices in similar areas (its strengths and weaknesses) and procedures for environmental management.

2. Assessment of environmental aspects – elements of the organization, its products or services that can interact with the environment. Environmental aspects are emissions to the air, discharges to the water, discharges to the land, the use of raw materials and natural resources, local environmental issues. For a more comprehensive definition of environmental aspects, we recommend the following approach: to choose meaningful ones from the list of selected aspects – those that have a major negative impact on the environment. For this purpose it is necessary to establish criteria for determining significant environmental aspects, to determine the significance, to draw up a register of significant environmental aspects. For this the following factors may be considered: the scale and severity of the impact, probability of occurrence of an event, duration of impact, the legislation, the complexity of measuring the impact, existing customer expectations. Effective work to assess the environmental aspects and impacts will help to control the impact of an organization on the environment.

3. The next stage is the identification and analysis of the requirements of legal acts and other documents that are relevant to the identified environmental aspects. These requirements should include the requirements of national legislation and international agreements; requirements of state and regional regulations, requirements of local authorities, other requirements (agreements with community organizations, agreements with customers, the voluntary codes fixed by practice).

4. During the development of the plan of environment protection activities it is necessary to define environmental objectives, which take into account the legal requirements, significant environmental aspects, technological and financial resources, and the demands of stakeholders. Typically, goals and objectives should be fixed for long-term planning period (3 – 5 years), but as an objective may be set for a shorter period. The developed goal should be environmentally significant, i.e. should be primarily set in relation to the impact on the environment and / or the priority environmental issues. Achievement of the goal is assessed using indicators, for which specific time limits are established.

Development of environmental objectives and goals are interrelated. Thus, the environmental goals are set with account abilities of regional and local authorities to achieve them - that is, taking into account the capacity of individual enterprises and institutions, the impact of measures that can be taken for the control of certain aspects. It is advisable to formulate environmental objectives as requirements. Meeting these requirements will guarantee the achievement of the objectives.

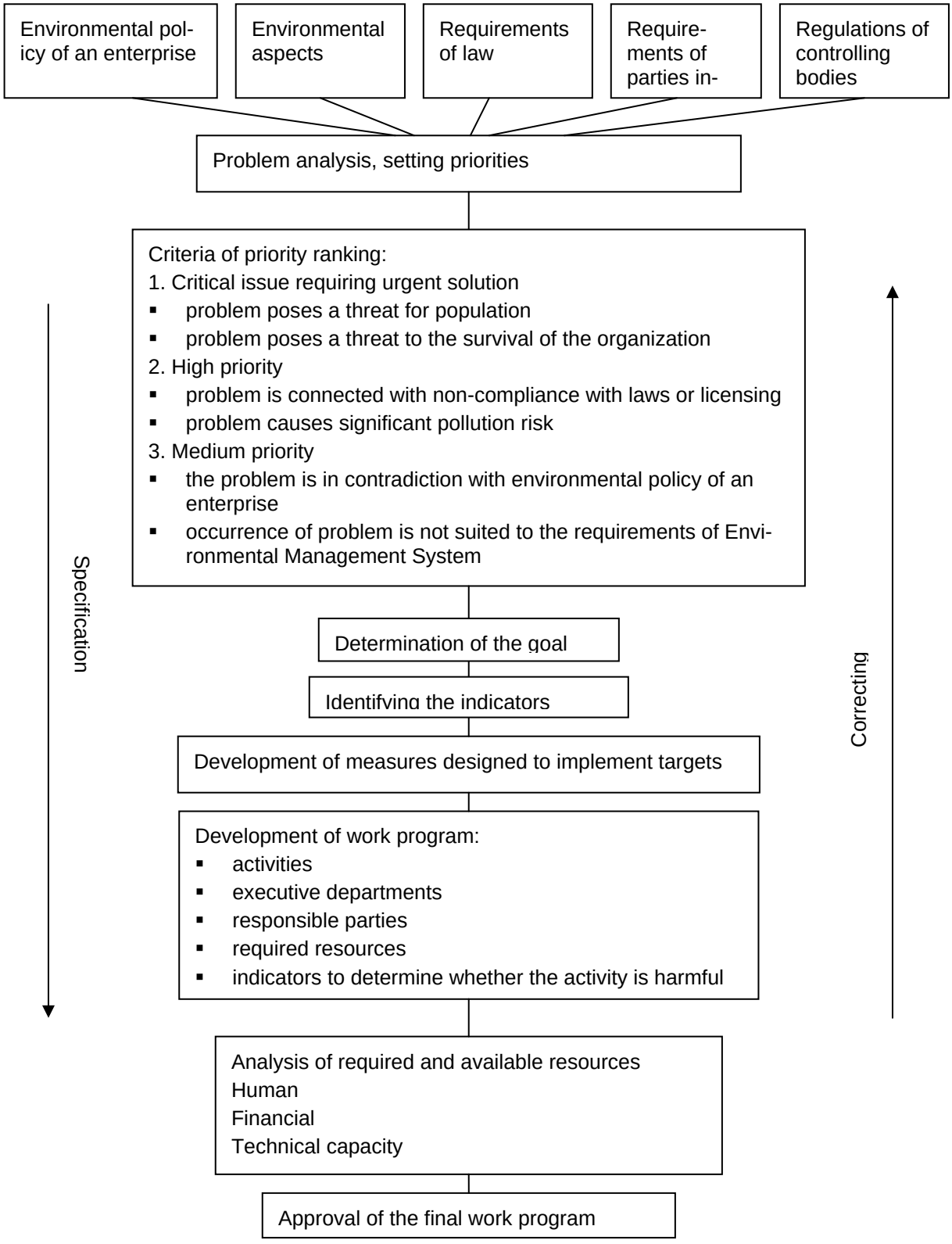

Fig. 5.2 Scheme of planning of environment protection activities in rural territories

5. After the development of all the above mentioned activities it is necessary to make a program to achieve environmental objectives and goals for assessing the availability of the required resources, the implementation of the program, coordination of activities, their necessity and sufficiency. This should take into account the restrictions, significant risks, the planned and most likely future changes in order to adequately and promptly response to changes of the situation during the

implementation of plans. At the development stage of the program it is important to carefully assess the efficiency and effectiveness of planned activities and to revise or eliminate those that are not coincident with methods and plans of work, or will not contribute to an increase of the planned environmental performance.

The entire stage of environmental planning is schematically shown in Figure 5.2.

Thus, the proposed scheme of planning of environment protection activities in rural areas is based on the principles of environmental management planning for the individual enterprise. In our opinion, this approach will facilitate the development of current programs for conservation of natural resource potential and the sustainable development of rural areas.

5.2 Prognostics of environmental management in rural territories

Prognostics is a set of methods that allow within a phenomenon or a process to make certain judgments about its future development on the basis of retrospective analysis of external and internal relations, inherent in the objects, as well as their likely changes.

Environmental prognostics is prediction of possible behaviour of natural systems, determined by natural processes and human impact on them:

Prognostics of environmental management on coverage, scale of phenomena refers to complex forecasts, as the problem of environmental management is interdisciplinary, interregional and universal.

Prognostics of environmental management includes private forecasts: by industry, by individual industries, by the use of certain resources, and even by certain properties of resources.

Because of the objective nature of the complexity prognostics of environmental management must include possibilities of national use and high potential efficiency of integrated use of natural resources, facilities.

To be more objective prognostics of environmental management evidently must be based on objective economic laws operating in the society.

Main principles of prognostics of environmental management:

1. System principle. Principle of systemacity involves continuity of prognostics in time and space based on the analysis, consideration of the factors that determine the environmental development. Systemacity involves interconnection and interdependence of: the methods, hierarchical levels, phasing, sequence, precedence.

2. The principle of objectivity, scientific validity.

3. The principle of matching, confirmation, adequacy: the coincidence of theoretical models (simulation) with the practical phenomena.

4. Variance, alternative. For example, even in the process of drafting of the environmental impact assessment (EIA), projects and reports usually require an alternative variant of proposed solutions, and expected consequences.

Alternative options will exclude the error in forecast and increase the probability of selected, expected phenomena, results. In assessing the actuality of alternatives balance calculations on alternatives (of course, taking into account the restrictions, criteria) will help.

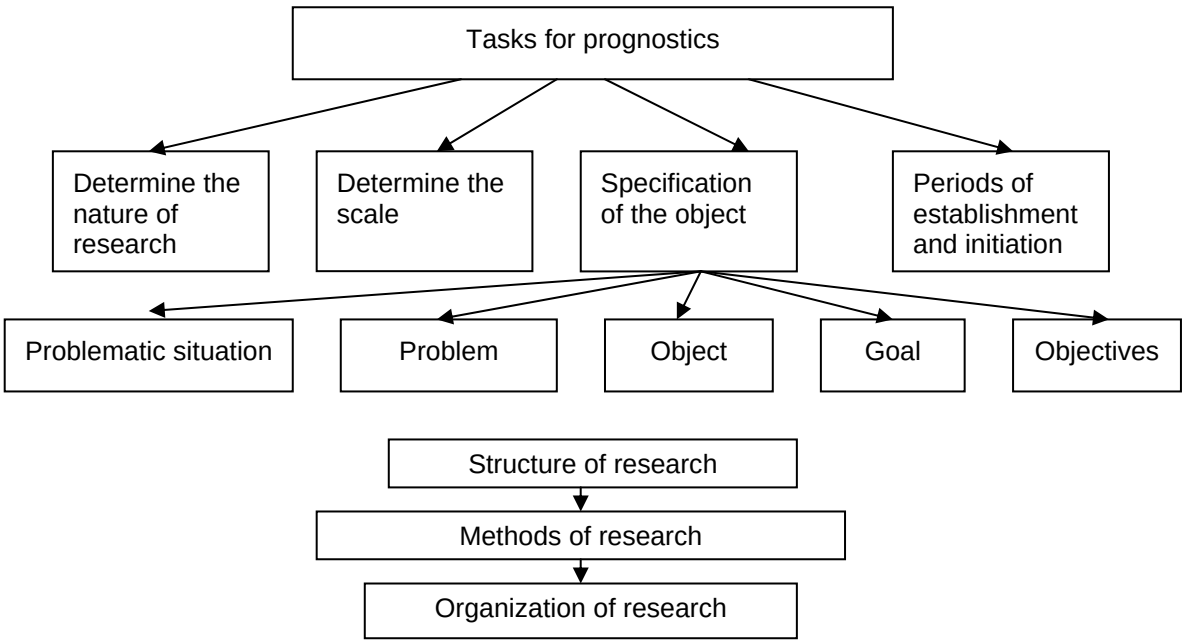

Fig. 5.3 Scheme of organization of prognostics of environmental management

Consideration of concepts (categories) of prognostics principles is directly related to the concept, category of «approach» to prognostics.

The following approaches can be distinguished:

- historical, where historical stage of phenomenon or prognostics development is assessed;
- integrated approach;
- system approach;
- structural approach.

In many respects forecasting is preceded by information base. It includes:

- forecasting experience (the basis for the expert prognostics);
- extrapolation of already available and potential information to predict (as a trend was identified based on the study of the previous events);
- models, which are based on normative parameters of possible predictive effects.

Reaction of predictions, prognostics results can be used in the following areas, for the following purposes:

- substantiation, scientific analysis of perspective directions, long-term environmental management programs;
- establishment of objective relations in social and economic development and meeting the needs the natural resources;
- study (by environmental factors) of alternatives of social and economic development;
- substantiation of prospective use of natural resource potential of rural areas.

5.3 Test for self-assessment

1. What is the planning of environmental management? What are its main features?
2. What types of environmental planning do you know?
3. Describe the scheme of environmental planning in rural areas.
4. What is the prognostics of environmental management?
5. Describe the principles of planning of rational environmental management and environmental protection.
6. Describe the scheme of prognostics of environmental management in rural areas.

6 Environmental control and legal responsibility for environmental law violations in rural areas

6.1 Concept and types of environmental control

Environmental control is a system of measures aimed at the prevention, detection and suppression of violations of the law in the area of environment protection, enforcement of economic and other activity requirements by agents, including standards and regulations in the field of environmental protection. The Federal Law «On Environmental Protection» distinguishes three types of environmental control (Figure 6.1).

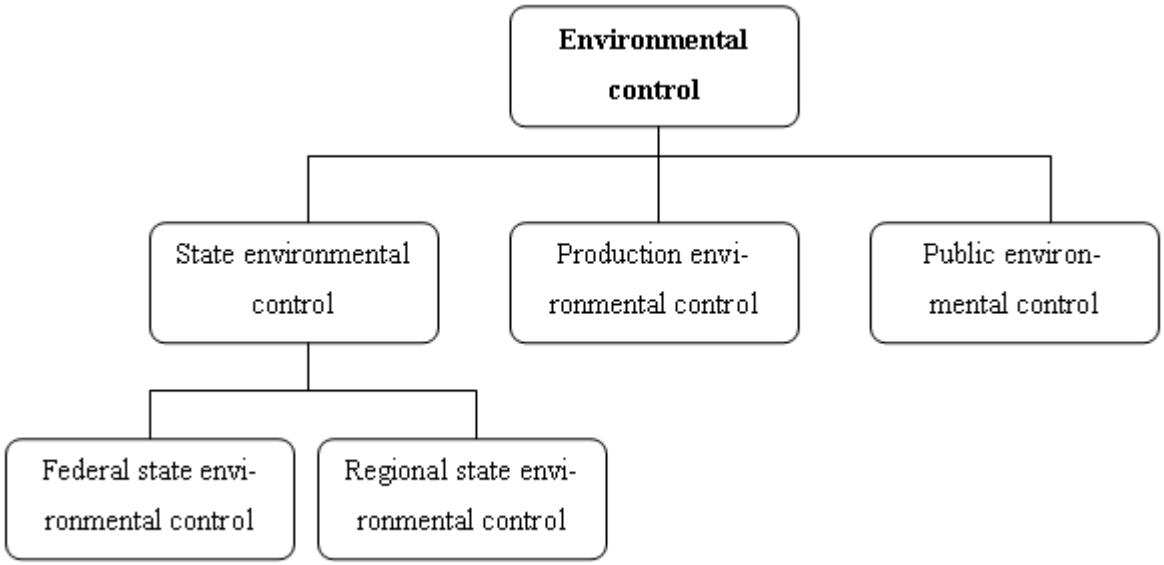

Fig. 6.1 Types of environmental control distinguished by the Federal Law «On environment protection»

In 2011, the term «State environmental control» was replaced by the term «State environmental supervision» in the Federal Law «On Environment Protection», but these terms are often used as identical.

State environmental supervision is divided into federal environmental supervision, performed by the authorized federal executive bodies and regional environmental supervision, carried by the executive authorities of the Russian Federation, according to their competence.

Depending on the subject of environment protection different types of state environmental supervision are identified. We will denote its basic types, which are used in rural areas:

- state land supervision;
- state supervision of waste management;
- state supervision of air protection;
- state supervision of water bodies protection;
- federal state forest supervision;
- federal government supervision of the protection, reproduction and use of wildlife and their habitats;
- federal state control (supervision) in fisheries and protection of water resources;

- federal state hunting supervision;
- state supervision for the protection and exploitation of protected areas;
- state supervision of geological study, rational use and conservation of resources.

According to the rules of the state control of environment protection (state environmental control) approved by the RF Government Decree of January 27, 2009 № 53, following regulations on the performance of certain types of state environmental control were adopted (Fig. 6.2).

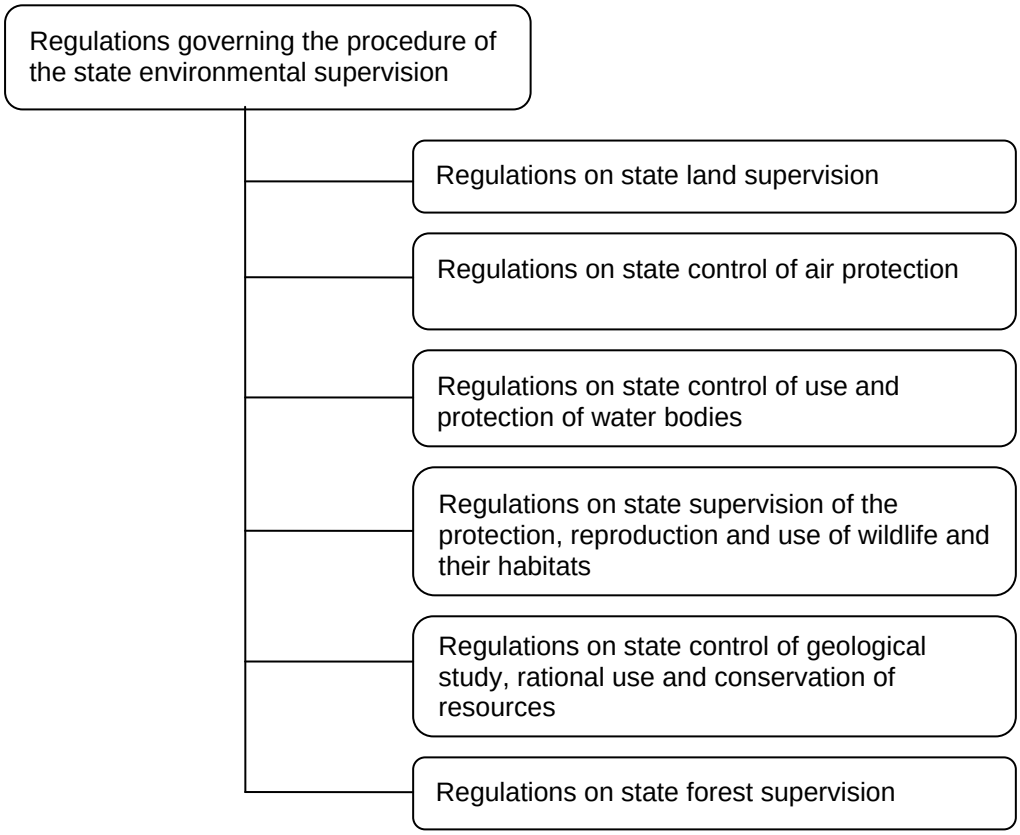

Fig. 6.2 Regulations governing the procedure of the state environmental supervision

Federal state environmental oversight

Federal state environmental oversight in rural areas is implemented by three federal agencies.

The Federal Service for Supervision of environmental management (Rosprirodnadzor) directly exercises environmental monitoring at all facilities of federal importance through its regional offices.

The territorial offices of Rosprirodnadzor operate in the regions of the Russian Federation, particularly, in the Stavropol region – Rosprirodnadzor Office in Stavropol region, which, for example, in the first half of 2011 performed 56 inspections. As a result, 151 violations were revealed, including:

- geological control – 15 violations;

- water control – 61 violations;
- air protection – 30 violations;
- waste management – 40 violations;
- specially protected areas of federal importance – 3 violations;
- protection of wildlife in protected natural areas of federal importance – 2 violations.

Besides Rosprirodnadzor there are two other federal agencies that carry out specialized environmental control in various sectors of activity.

The Federal Service for Environmental, Technological and Nuclear Supervision (Rostekhnadzor) under environmental features controls management of radioactive waste.

In the conduct of its functions Federal Service for Veterinary and Phytosanitary Supervision (Rosselhoznadzor) shall perform:

- veterinary and epizootic supervision;
- state supervision in the field of plant quarantine;
- state land supervision of agricultural lands.

The territorial offices of Rosprirodnadzor operate in the regions of the Russian Federation, particularly, in the Stavropol region – Rosprirodnadzor Office in Stavropol region, which, for example, in February 2012 performed 62 revisions of compliance with the requirement of protection and exploitation of agricultural lands. As a result:

- 5 administrative cases were opened:

  a) 3 cases for cogging of farmland with weed vegetation;

  b) 2 cases for damage of forest shelter belts;

- previously identified violations were corrected:

  a) damaged forest belts on the area of 0,2 hectares were restored;

  b) weeds on the area of 0,25 ha were removed.

Regional environmental supervision

Regional environmental supervision at the facilities of regional significance and under delegated powers is performed by the federal executive authorities of the regions of the Russian Federation in the sphere of environment protection, in the Stavropol region, for example, by the *Ministry of Natural Resources and Environment Protection of the Stavropol Territory*.

Industrial environmental control

To ensure the implementation of environment protection measures, sustainable management and restoration of natural resources in the process of economic and other activity on environment protection, as well as to meet the requirements of environmental protection established by the legislation in the field of environment protection enterprises organize industrial environmental control.

Enterprises are obliged to submit details of the persons responsible for performance of industrial environmental control, of organization of industrial environmental control, and the results of industrial environmental control in the relevant agency of *state environmental supervision*.

Public environmental control

Public environmental control is carried out by voluntary associations and other non-profit organizations in accordance with their charters, as well as by citizens in accordance with the law.

Results of the public environmental control, submitted to state and local authorities, are subject to consideration.

In the Stavropol region, for example, territorial subdivisions of Russian Public Ecological Organization «Podorojnic» operate. They actively participate in environment protection. November 29, 2011 Trunovsky Magistrates court of the Stavropol region partially satisfied the claim of the local branch of the Russian Public Ecological Organization «Podorojnic» to recalculate fees for providing public utility services of inadequate quality (poor quality of drinking water) and compensation for non-pecuniary damage.

6.2 Concept, types and structure of environmental offenses

Environmental offense is an illegal act which causes or poses a real threat of environmental damage or violates the rights and interests of citizens to a healthy environment.

In the analysis of environmental offenses to its full characteristics the structure, or – what is the same – composition of offense is distinguished (Fig. 6.3).

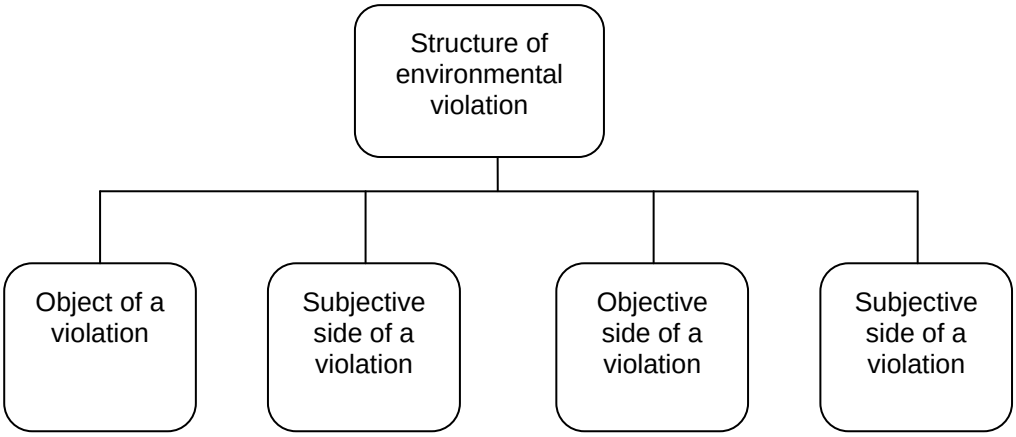

Fig. 6.3 Structure of environmental violation

The object of environmental offenses is public relations on the environment as a whole and its individual components, regulated and protected by the law.

The subjects of environmental crime can be legal entities and individuals, including foreign legal entities and citizens who have committed offenses related to environmental management and environmental protection in Russia or on territory under its jurisdiction.

The composition of the subjects varies depending on the type of environmental offenses. Thus, the subjects of disciplinary action are officials and employees, the subjects of criminal liability are officials and citizens, the subjects of administrative liability are legal persons, officials and citizens.

In accordance with the current legislation administrative and criminal liability of individuals for environmental offenses comes from the age of 16. In civil proceedings citizens have limited liability from the age of 14 to 18, full – from the age of 18. In this age a person becomes fully capable. Labor legislation does not set age limits on the application of disciplinary and financial responsibility of persons guilty of environmental violations in the labor sphere.

To the objective side of environmental offense is characterized by three elements (fig. 6.4)

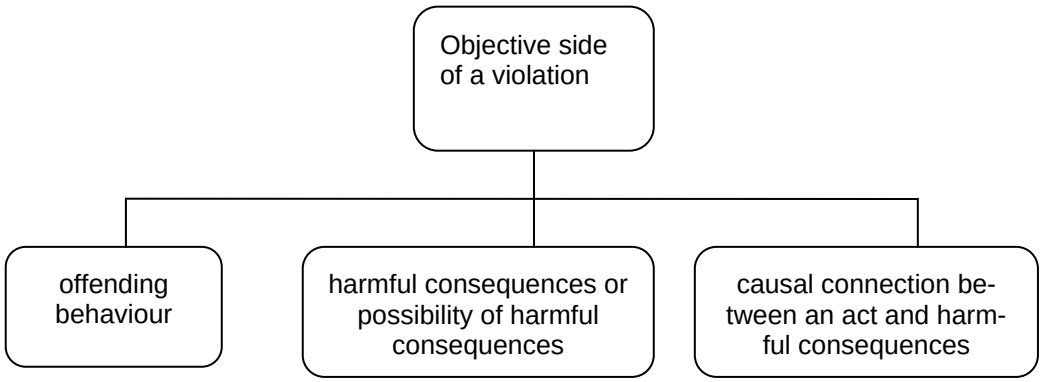

Fig. 6.4 The objective side of environmental offense

Committing environmental offense is not always accompanied by damage. Under certain conditions, no harm could come, but there was a real risk of its occurrence. For example, after agrochemical work agrochemicals were left in the field, instead of being transported to the repository, as required by the certain rules. Under certain circumstances (if it was rain or abandoned chemicals were eaten by animals) significant environmental harm might be caused.

In this regard, Article 8.3 of the Code of Administrative Offences of the RF provides administrative responsibility for violation of the rules of storage, application, and other handling of pesticide and agricultural chemicals, which can cause harm to the environment.

The subjective aspect of environmental offense is characterized by guilt of the offender. Guilt is understood as mental attitude of the offender to his unlawful behaviour. Offense can only be guilty of wrongful act. In the absence of guilt, the behaviour cannot be considered as an offense (Fig. 6.5).

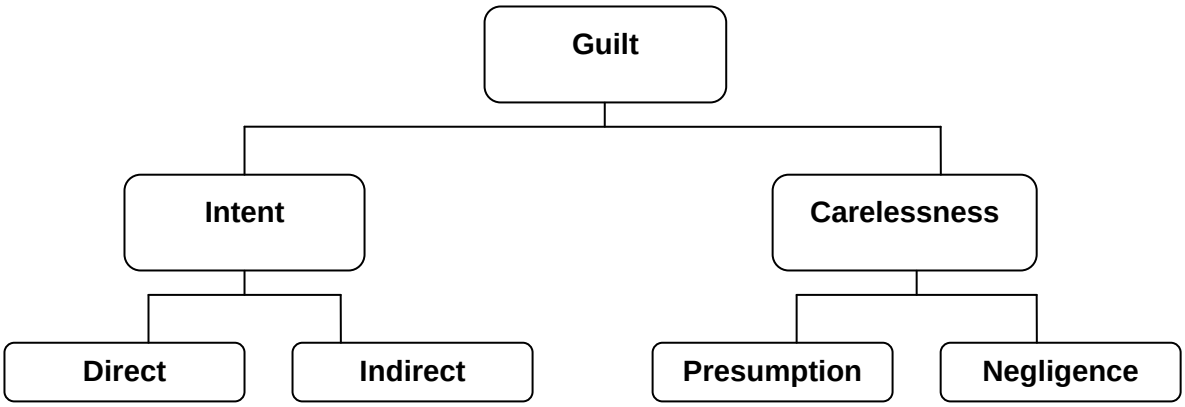

Fig. 6.5 Subjective aspect of environmental offense

There are two forms of guilt: intent and negligence.

There are two types of intention: direct and indirect. In case of direct intent offender understands socially harmful consequences of his behaviour and wishes their occurrence, for example, illegal hunting or fishing. In case of indirect intent violation offender anticipates socially harmful consequences of his behaviour, does not wish them, but knowingly permit (e.g., the employer dumps toxic waste of production in the forest, i.e. not in the prescribed place).

Carelessness is also of two types: presumption and negligence. *Presumption* occurs when a person, who violates environmental requirements, anticipates socially harmful consequences of his activities, but lightly expects to avoid them. *Negligence* is manifested in the fact that the person does not foresee harmful consequences, *although he had to and could anticipate them*.

Some environmental offenses may be committed in any form of guilt, for example, offenses that cause pollution of the atmospheric air or water – Articles 8.13 and 8.21 of the Code of Administrative offenses (hereinafter the Administrative Code), others – only in the form of intentional guilt: illegal hunting or fishing – Article 8.37 of the Administrative Code, illegal hunting – Article 258 of the Criminal Code of the Russian Federation (hereinafter – the Criminal Code). Some offenses can be committed by negligence, such as careless handling of fire in the forest, caused destruction or damage to forests provide criminal responsibility according to Article 261 of the Criminal Code. There are two types of law violations: crimes and offenses (Fig. 6.6).

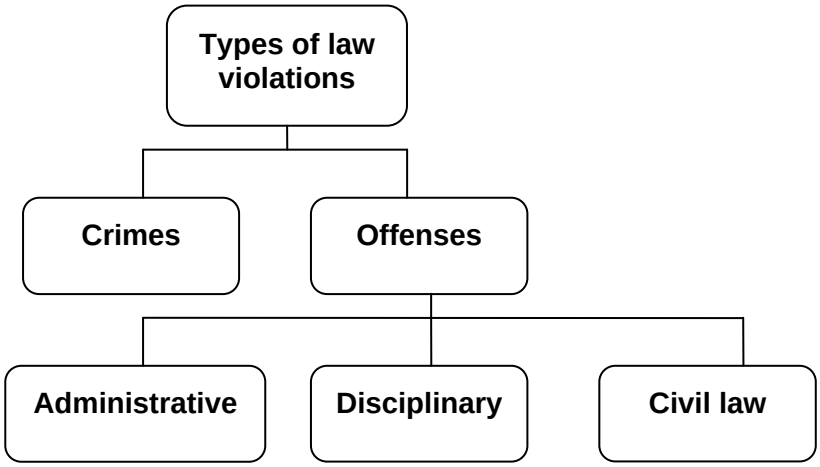

Fig. 6.6 Types of law violations

Taking into account degree of public danger environmental violations are divided into offenses and crimes. The first are less socially dangerous acts in comparison with the second and are disciplinary, administrative and civil offenses.

Crime is a malicious socially dangerous act, prohibited by the Criminal Code of the Russian Federation under penalty

Administrative offenses, possessing characteristics of public harm, at the same time differ from the crimes by the degree of hazard, and in this regard are not considered as socially dangerous. Administrative offense is unlawful, malicious action (inaction) of a natural or legal person for which the Code of Administrative Offences of the Russian Federation or regional laws fix administrative responsibility.

Disciplinary offense is malicious unlawful non-performance or improper performance by an employee of labor duties related to the use of natural resources or impact of economic activity on the environment. There is a special subject in disciplinary offense – employee.

For example, with agricultural fertilizer a worker damaged the land belonging to the enterprise while its fertilizing. What offense had he committed: administrative or disciplinary? Administrative offense is an offense not related to the performance of official duties or employment. Thus, in this case there is serious disciplinary offense.

Environmental civil offense is malicious of illegal activity, harming the environment. After commission of such offense an offender is obliged to compensate the damage.

Depending on the nature of civil offense treaty and non-treaty violations can be distinguished. The first is related to the violation by civil contracting party, the latter – to non-compliance with legal requirements.

In summary, it must be emphasized that human behaviour is considered as an environmental offense only if in its actions all the elements of the offense are contained, i.e. object, subject, objective and subjective sides of the offense. In the absence of at least one element of the behaviour of the person can not be qualified as an offense, and, therefore, may not result in legal liability.

As a general rule, the basis of legal liability is an offense committed by the subject, although there is one exception, the so-called no-fault legal responsibility.

Article 1079 of the Civil Code of the Russian Federation (hereinafter contain – Civil Code) states that entities and individuals whose activities are associated with increased risk to others must compensate the damage caused to a source of danger, unless it is proved that the damage was caused due to an irresistible force or the intent of the victim. The sources of increased danger include explosive substance, potent toxins, construction activities, etc.

However, as a general rule, legal liability comes for committing environmental offenses. Thus, in the commission of environmental offenses, the person who committed it must be brought legal responsibility.

6.3 Concept and types of legal liability for environmental offense

Legal responsibility is an obligation of the person who committed the offense, to undergo measures of state and legal coercion. Punishment is the actual enduring adverse effects on the offender, containing punishment.

In accordance with the types of environmental offenses are four types of legal liability (Fig.6.7).

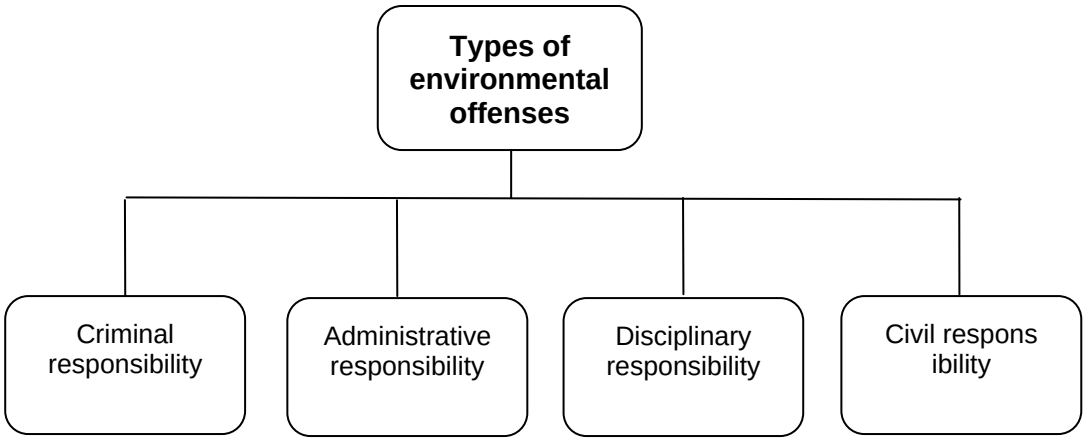

Fig. 6.7 Types of environmental offenses

Civil liability for environmental offenses is to entrust the responsibility on the offender to compensate the injured party for material or moral damage caused by the violation of legal environmental requirements. Civil liability may rest on the offender along with the use of disciplinary, administrative and criminal sanctions.

Article 1064 of the Civil Code contains the general rule that the harm caused to the person or property of a citizen, as well as damage to the property of a legal entity shall be compensated in full by the person who caused the harm.

Damage to the environment is an adverse change in the environment by pollution, which led to the degradation of natural ecosystems and the depletion of natural resources.

Article 77 of the Federal Law «On Environment Protection» established that damage to the environment caused by the subject of economic and other activities shall be compensated in accordance with the duly approved rates and methods of calculating the amount of damage to the environment, and in their absence, based on actual costs of restoration of the environment, taking into account the losses incurred, including lost profits.

Compensation for damage to the environment caused by the violation of environmental legislation is voluntary or by the court or tribunal. Considering the specifics of environmental damage, the legislature fixed that the claims for compensation for damage to the environment caused by the violation of environmental legislation may be brought within twenty years.

Disciplinary liability. Disciplinary liability for environmental offenses as a separate form of legal liability is covered by labour legislation and arises for the employee or official from violation

of discipline committed by them.

Disciplinary offense is determined, as we have said, as illegal malicious or improper performance of the employee labour duties related to the use of natural resources or the impact of economic activity on the environment.

For a disciplinary offense, i.e., non-performance or improper performance of his job duties by an employee through his fault, the employer has the right to apply the following disciplinary sanctions: warning; reprimand, dismissal on relevant grounds.

The Labour Code of the Russian Federation (hereinafter – the Labour Code) along with disciplinary liability provide financial responsibility, which means that the employee has to compensate property damage caused by his fault to the company, organization as a result of improper performance of his job duties.

Financial liability covered by the Labour Code, should be considered as a special civil liability, although there are different perspectives in the legal literature.

Labor law sets two types of liability for an employee: limited, which is expressed in the duties of an employee to compensate the damage, at no more than his average monthly earnings (Article 241 Labour Code of the RF) and complete – in the cases determined in Art. 243 of Labour Code.

Recovery of compensation for damages from the guilty employee not exceeding the average monthly earnings, is made at the direction of the employer. The order can be made not later than one month from the date of final determination of the size of the damage caused by an employee. If a month's time has expired or the employee does not agree to voluntarily compensate for the damage to the employer, and the sum of the damages to be collected from the employee exceeds its average monthly earnings, the punishment can only be prescribed by the court.

Financial liability for environmental offenses in full damage is rested on the employee in the following cases:

- when an employee is rested with the liability in full for the damage caused to an employer in the performance of his employment duties;
- in case of intentionally caused damage;
- when damage was caused under the influence of alcohol, drugs or other toxic substances;
- if damage was caused as a result of criminal acts of an employee and it was established by the court;
- If damage was caused as a result of administrative offense fixed by the appropriate state agency;
- if damage was caused as a result of non-performance of the employment duties.

The Article 239 of the Labour Code of the RF covers circumstances excluding financial responsibility of the worker: if the damage was caused by force majeure, as a result of normal economic risk, absolute necessity or self-defense or non-performance of responsibilities by an employer to ensure proper storage conditions for the property entrusted to the employee.

Criminal liability for environmental offenses. Environmental crime is described in chapter

26 of the Criminal Code of the RF, which sets 17 compositions of environmental crimes. Criminal responsibility occurs, in particular, for:

- violation of requirements of environment protection in the operations (Article 246);
- violation of the rules for handling environmentally hazardous substances and wastes (Article 247);
- water pollution (Article 250);
- air pollution (Article 251);
- pollution of the marine environment (Article 252);
- damage to the land (Article 254);
- violation of the rules of protection and use of mineral resources (Article 255);
- violation of the rules of protection of fish stocks (Article 257);
- illegal hunting (Article 258);
- destruction of critical habitat of organisms listed in the Red Book of the Russian Federation (Article 259);

Administrative liability comes for commission of administrative offense (the offense does not pose a great danger to society).

Criminal responsibility is established only by federal law – the Criminal Code of the Russian Federation, and administrative environmental offenses as set by federal law and the laws of the Russian Federation.

The components of administrative environmental offenses are covered by the Code of Administrative Offences and regional laws.

The Code of Administrative Offences contains the special chapter 8 «Administrative Violations in the field of environment protection and natural resources», which includes 41 articles, establishing the responsibility for various types of environmental offenses.

Administrative liability arises, in particular:

- for mismanagement of pesticides and agrochemicals;
- for damage to the land;
- for violations of conservation of mineral resources and hydro resources;
- for violation of requirements of water bodies protection;
- for violation of requirements of air quality;
- for destruction of habitats of animals;
- for violation of requirements of forests protection;
- for violation of wildlife use.

Administrative penalty is a monetary penalty, stated in roubles and set to citizens in an amount not exceeding five thousand roubles; for officials – fifty thousand roubles; for legal entities - one million roubles.

Administrative fines for environmental offenses covered by the Administrative Code shall be imposed by the authorized state bodies responsible for state environmental control in accordance with their competence.

As noted, the administrative responsibility is established not only by the Administrative Code, but also by regional laws. For example, the law of the Stavropol Territory «On Administrative Offences in the Stavropol Territory» has chapter 7, «Administrative violations in the field of environment protection and management», administrative responsibility for these environmental offenses is established (Fig. 6.8).

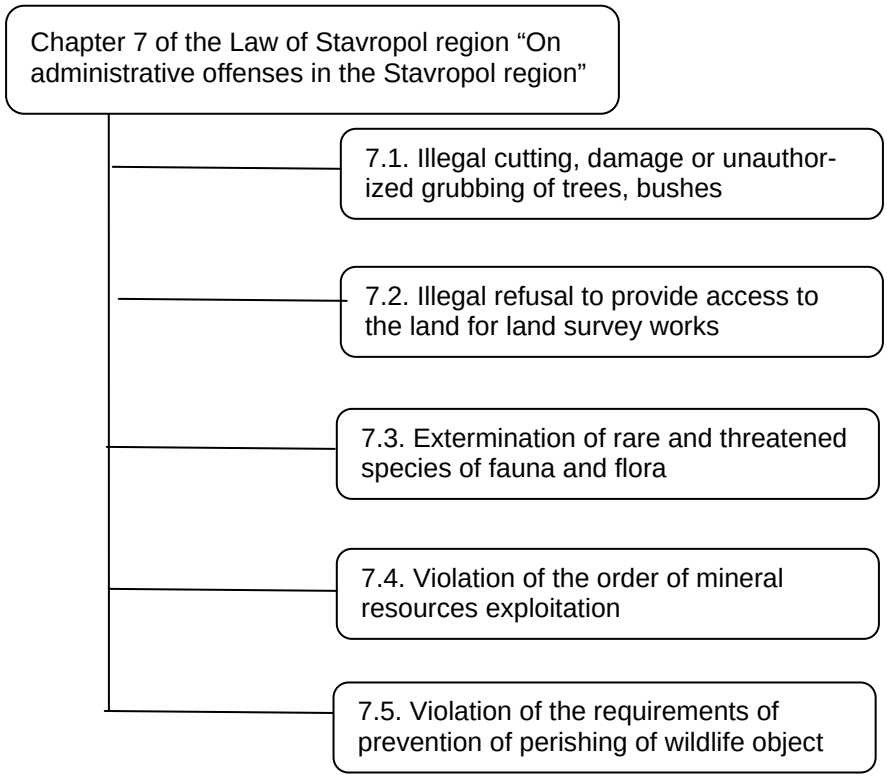

Fig. 6.8 Administrative violations in the field of environment protection and management

The cases on these administrative offenses are considered, first, by the Ministry of Natural Resources and Environment Protection of the Stavropol region (Articles 7.3 – 7.5. and 7.6. – in terms of non-compliance or violation of the prohibition of restrictions on citizens staying in forests established by normative legal acts of the Stavropol region).

Second, cases of administrative violations are considered by Administrative commissions in rural areas (Article 7.1. and 7.6. – in terms of non-compliance or violation of the prohibition of restrictions on citizens stay in the forests, set by municipal legal acts).

Besides these offenses, contained in a special environmental section, this Law also provides other compounds of offenses that threaten environmental attitudes. Any cases on these offenses are considered by administrative commissions in rural areas; that is of particular interest, based on the theme of this lecture (Fig. 6.9). It outlines all compounds of environmental offenses that are under the jurisdiction of the administrative committees in rural areas, including those already discussed Article 7.1. and 7.6 of the Law the Stavropol region «On Administrative Offences in the Stavropol region».

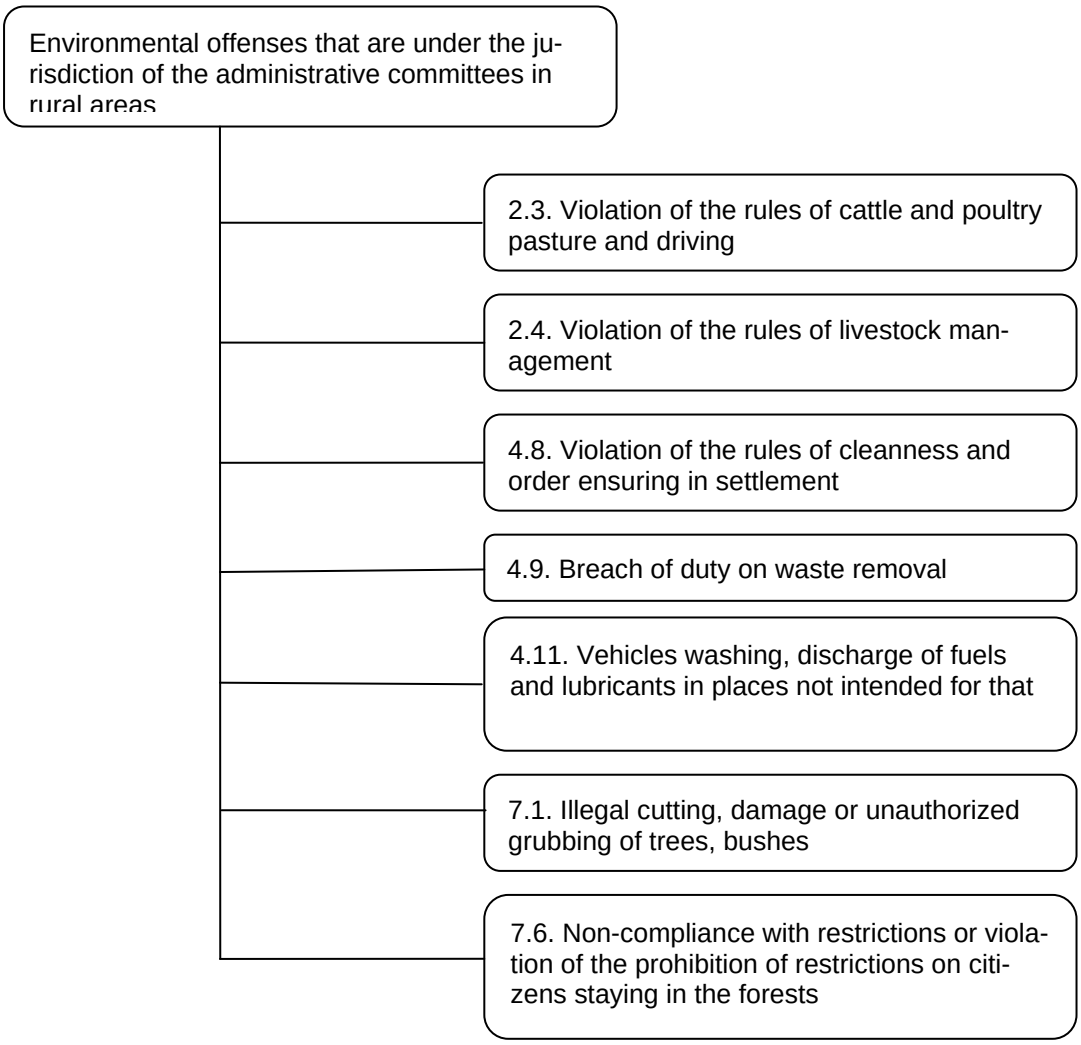

Fig. 6.9 Environmental offenses that are under the jurisdiction of the administrative committees in rural areas

Thus, not only government agencies, but also the rural administration has certain competence in the field of environmental management. In this connection we may talk about the municipal environmental control, although it is not specifically highlighted in the federal law «On Environment Protection».

In this regard, the final scheme of this lecture is as follows (Fig. 6.10).

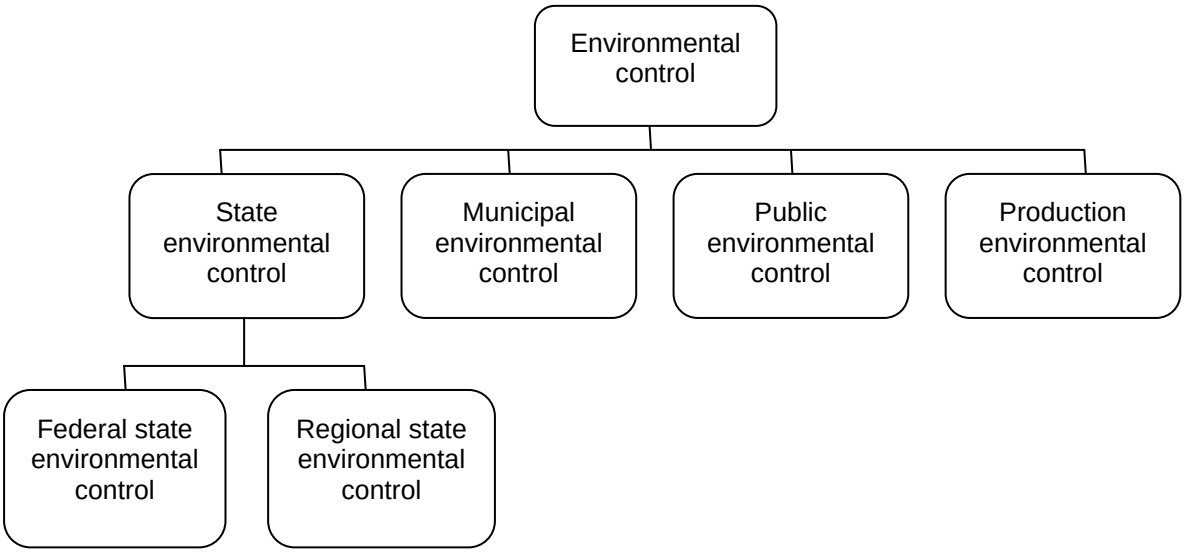

Fig. 6.10 Existing types of environmental control

Thus, workers in rural administration in order to protect the environment can seek the help of public bodies carrying out federal and regional environmental supervision and act independently, performing municipal control within certain law of the Russian Federation on Administrative Violations.

6.4 Test for self-assessment

1. What is environmental monitoring?
2. What types of environmental controls are identified by federal law?
3. What federal authorities carry out environmental monitoring in rural areas?
4. What is regional environmental monitoring and who performs it?
5. What is industrial environmental monitoring?
6. What is public environmental control?
7. What is an environmental violation?
8. What is the structure of environmental violation?
9. What are the different types of environmental violations?
10. What is the legal responsibility?
11. What are the types of legal liability for environmental offenses?
12. What is the difference between civil liability for environmental offenses and financial liability?
13. What administrative responsibility for environmental offenses is established by laws of the Russian Federation?
14. What is the municipal environmental control?
15. What cases on administrative offenses are under the jurisdiction of the administrative committees in rural areas?

PART 2
Practical Application

7 Organization of environmental regulation and law compliance in land tenure in rural areas

Type of educational activity: Practical training of «brainstorm session» type (in the form of group discussion of issues arising in land protection at local administration level in rural territories (administration of municipal area and rural settlement), and searching for the solutions).

Objective of practical training: to give the participants the notion of legal regulation and law-enforcement practice in land tenure at the level of local administration in rural territories.

Plan of practical training:

1. Introduction to practical training.
2. Group discussion on the content of forest shelter belt on an example of Stavropol region.

7.1 Introduction to practical training

The objective of this stage is to provide the participant with necessary information about the organization of land protection on the level of local administration in rural territory using multimedia equipment.

Organization of land protection on the level of local administration in rural area is regulated by the complex of regulatory legal acts (Fig. 7.1).

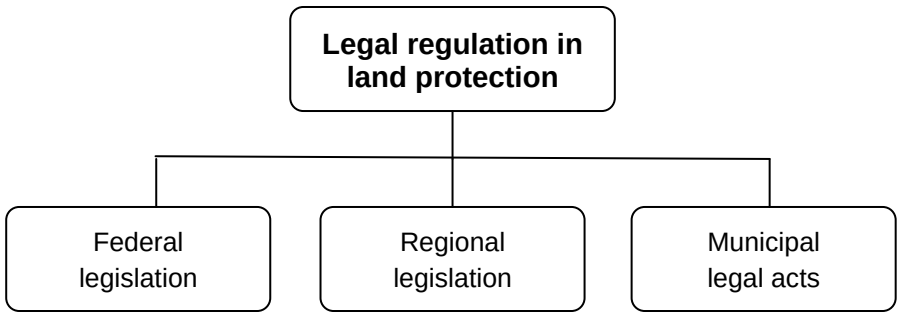

Fig. 7.1 Legal regulation in land protection

Among federal normative acts we will highlight the Federal law «On Environment Protection», the Federal law «On general principles of organization of local self-government in the Russian Federation» and the Land Code (Fig. 7.2).

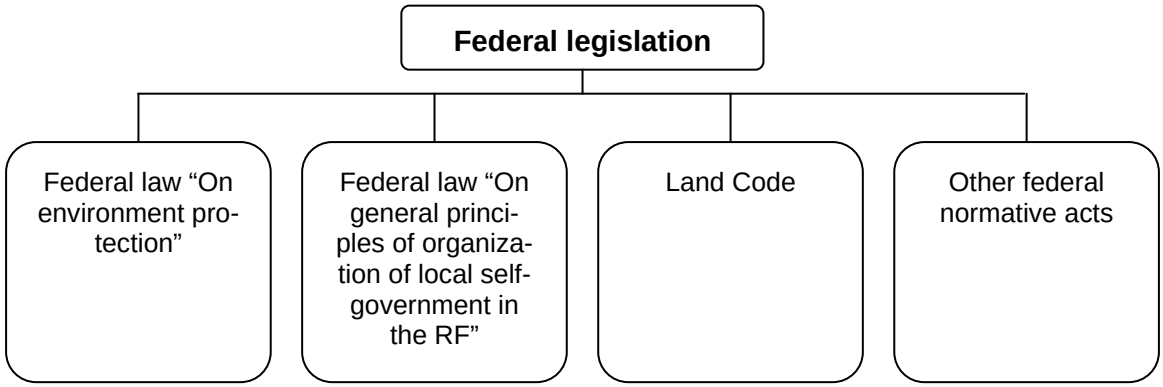

Fig. 7.2 Federal normative acts in land protection

3 types of environmental control not including municipal environmental control are determined in the Federal Law «On environment protection» (Fig.7.3).

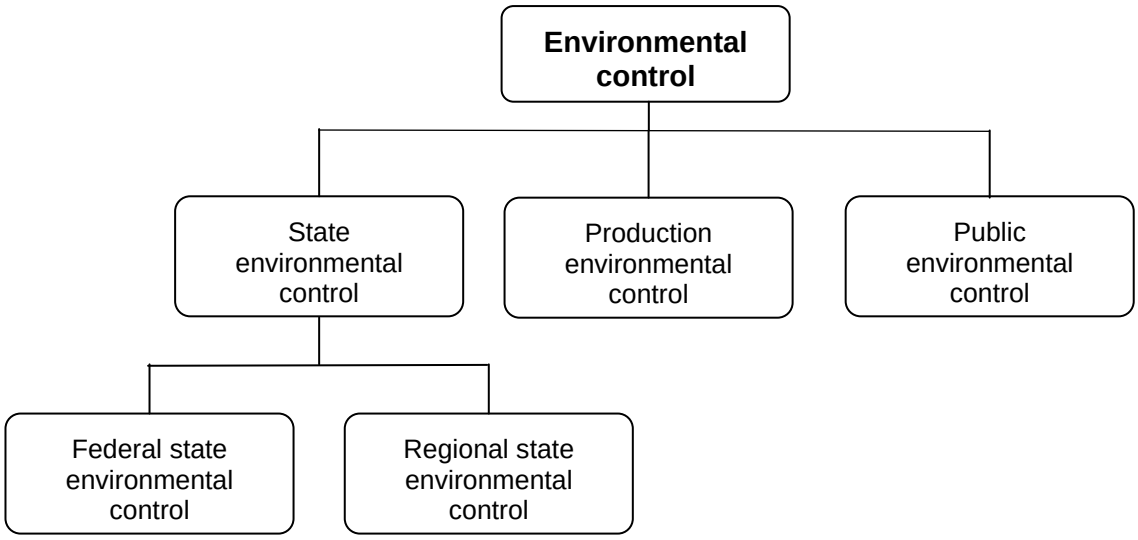

Fig. 7.3 Types of environmental control determined by Federal law «On environment protection»

According to the Federal law «On environment protection» local questions related to environment protection include:

- for rural settlements – organization of collection and removal of domestic waste and garbage;
- for municipal regions – organization of inter-settlement measures for environment protection and organization of domestic and production waste recycling.

The stated local questions of rural settlements related to environment protection are supplemented with land control over tenure of settlement land by the Federal law «On general principles of organization of local self-government in the Russian Federation».

Land Code of the RF highlights municipal land control over land tenure on the territory of municipal unit. The Federal law «On promulgation of Land Code of the RF» establishes that lands,

the state ownership of which is not delimited, are to be disposed by local self-government of municipal and urban districts. So the competence of rural local administrations in land tenure was significantly expanded.

Regional normative acts in land protection are considered on an example of the Stavropol region. In the Stavropol region 3 laws were enacted in that sphere (fig.7.4).

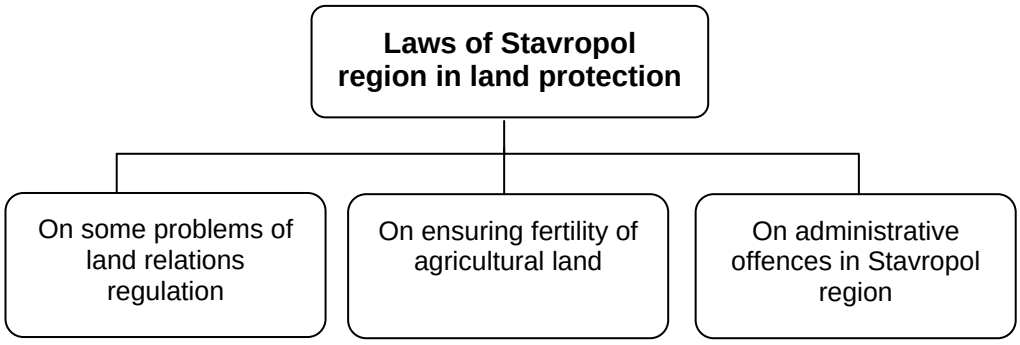

Fig. 7.4 Laws of the Stavropol region in land protection

A number of powers of rural administrations in land protection were fixed by the Law of the Stavropol region «On some problems of land relations regulation»:

- till state ownership of the land is delimited state-owned land is to be categorized by local self-government of municipal and urban districts.
- lands occupied with forest shelter belts are to be handed over without compensation to agricultural producers.

The Law of the Stavropol region «On ensuring fertility of agricultural land in Stavropol region» establishes obligations of landowners to ensure fertility of land, in particular:

- to prevent land pollution, littering, degradation, reduction of soil productivity;
- to have passport of soil quality of land;
- to use production methods providing reproduction of soil fertility and excluding adverse impact on environment;
- to keep forest shelter belts in good condition.

The Law of the Stavropol region «On administrative offences in Stavropol region» establishes liabilities for a number of offences in land protection (Fig. 7.5).

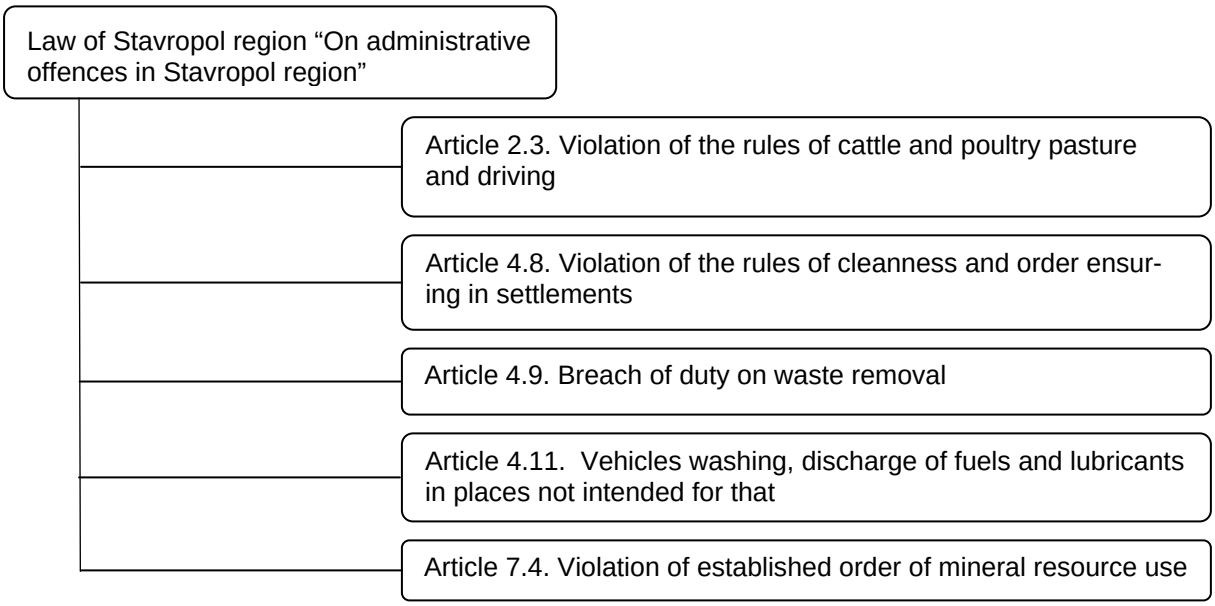

Fig. 7.5 Administrative responsibility for offences in land protection

Therefore, according to federal and regional legislation 3 main groups of powers of rural administrations in land protection can be distinguished (Fig.7.6).

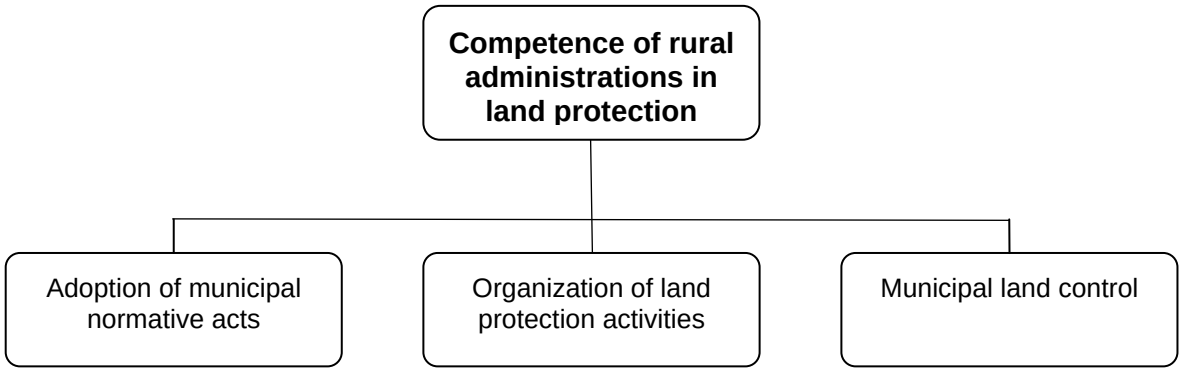

Fig. 7.6 Competence of rural administrations in land protection

Different municipal normative acts are adopted in land protection. The most common among them are presented in figure 7.7.

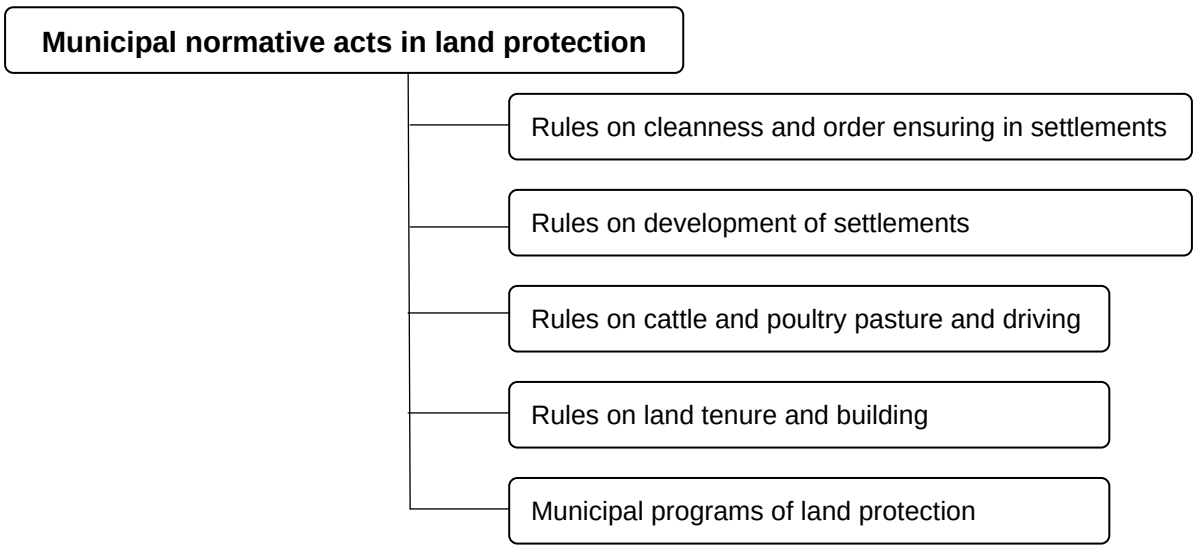

Fig. 7.7 Municipal normative acts in land protection

Local administrations within their competence organize a wider range of activities ensuring implementation of federal, regional and municipal normative acts in land protection, including the following measures:

- organization of sanitary purification of territory: land protection against pollution, unorganized garbage and waste dumps, efforts for their destruction;
- organization of collection and removal of domestic waste and garbage;
- organization of domestic and production waste recycling;
- preserving soil fertility, revegetation of disturbed lands;
- detection and recommenced use of unused land;
- maintenance of forest shelter belts.

These activities can be combined in the framework of municipal programs of land protection. Thus, for example, in Luninskoye rural settlement, Kaliningrad region, Program of environmental enhancement of Luninskoye rural settlement for 2010-2015 was adopted. It is aimed to the creation of favorable environment and preservation of natural wealth on the territory of Luninskoye rural settlement, prevention of ecologically adverse impact of economic activity in order to ensure health, active and long life for its citizens.

Land protection activities were collected in special chapter called «Land care». The initial problem was formulated in the following way: adverse impact of wastes on environment expressed in littering of lands, forests and green belt in rural territories, sanitary deterioration of rural territories, requires creation of rational system for waste management. In order to solve this problem it was suggested to develop a scheme of sanitary purification of settlement territory as well as to create the Municipal Unitary Enterprise «Chistota» for solid domestic waste collection, removal and recycling.

7.2 Group discussion of issue on the content of forest shelter belts on an example of Stavropol region

Objective of this stage: to give the participants skills of decision-making in particular practical situations in land protection in rural settlements.

Theses of training material used at the 2nd stage

During the years of transition of land relations in the Stavropol region 4 forms of ownership were developed: private, federal, regional and municipal.

However, agricultural lands occupied with forest shelter belts still are not delimited and are state-owned.

In the Stavropol region there are 141 thousand hectares of such land or 2,1 % of the total regional territory. Herewith the area of forest shelter belts is 1,5 time larger than the area of all forests in the region.

It is well known that forest shelter belts are of paramount importance in land protection against desertification, soil deflation, in crop protection against eastern dry hot winds and in creation of favourable microclimate for plant-rising.

However their present condition causes alarm. Progressive soil degradation in Stavropol region remains one of the most urgent problems of agriculture. One of the reasons is reduction of forest shelter belts. Although according to the Law of the Stavropol region «On ensuring fertility of agricultural land in Stavropol region», as it was mentioned above, individuals and legal entities having forest shelter belts on their territory are to keep them in good condition, the situation of their preservation is complicated.

In order to improve that situation it is necessary to form land plots occupied with forest shelter belts, bring them on cadastral charge, identify the owners of forest shelter belts and lands occupied by them. Nowadays the majority of them are ownerless.

Within the delimitation of state land ownership land plots occupied by forest shelter belts can be defined as property of the Stavropol region, property of municipal units or property of agricultural enterprises using adjacent agricultural lands.

According to the Law of the Stavropol region «On some problems of land relations regulation» municipal – or state-owned lands occupied by forest ranges are to be costlessly transferred to ownership of legal entities – agricultural commodity producers and citizens managing farms.

Forest shelter belts can be transferred to ownership of interested landowners and users by local authorities of municipal districts. According to the Federal law «On promulgation of Land Code of the RF» their powers include disposal of state-owned lands.

So, a real problem connected with missing ownership of forest shelter belts emerged in the Stavropol region. Its solution requires identification of the forest shelter belts owner who would organize the whole complex of activities for caring, protection and replacement of dead trees and bushes. Otherwise, Stavropol will have no forests shelter belts. That will lead to deterioration of the environmental situation and decrease of crop fertility.

In order to solve this particular problem emerged in land protection in the Stavropol region its group discussion is held. During the discussion the participants will be proposed to formulate and justify the proposal concerning the delimitation of state ownership of agricultural lands occupied with forest shelter belts to the regional ownership by their transfer to the ownership of the Stavropol region, municipal units or landowners.

The participants of the practical training are divided into groups of three or four and develop and report their solution for a general discussion. During the «brain storming» both, positive and negative aspects of forest shelter belts transfer to one form of ownership or another are discussed.

For example, among the positive aspects of forest shelter belts transfer to the ownership of landowner are:

- protection of lands from wind erosion;
- creation of favourable microclimate for plant-raising;
- increase of land productivity;
- opportunity of obtaining long-term loans against the pledge of land plots occupied with forest shelter belts.

Among the negative aspects of forest shelter transfer to the ownership of landowners are the necessity of financial expenditures for land plot forming and its cadastral registration as well as for maintenance and protection of forest shelter belts.

The results of a round table held in the State Duma of the Stavropol region involving representatives of administrations of municipal units are used during the discussion. During the organization of the round table the question presented for discussion by the participants of the practical training was put to the representatives of district administrations of Stavropol region. 34 district administrations proposed their solutions. Their solutions are disposed in the following way:

- to transfer lands occupied with forest shelter belts to the ownership of Stavropol region – 17 suggestions;
- to transfer lands occupied with forest shelter belts to the ownership of landowners – 6 suggestions;
- to transfer lands occupied with forest shelter belts to the ownership of municipal units – 1 suggestion.

At the final part of the training the positive and negative aspects of each way of solution of the problem are considered and preferential voting for the determination of the optimal ways of problem solution from participants' point of view is taken.

This practical training was developed in the framework of educational seminar on Tempus RUDECO «Vocational training in rural development and ecology» project. High activity and interest of the participants was noted. They formulated 2 ways of the problem solution:

the 1st way – to transfer lands occupied with forest shelter belts to the ownership of the Stavropol region and entrust the Ministry of natural resources and environment protection of the Stavropol region disposing of the system of forestries on the territory of the Stavropol region with a duty of maintenance and protection of forest shelter belts.

the 2nd way – to form land plots with forest shelter belts on them and bring them on cadastral charge at the expenses of the budget of the Stavropol region and then to transfer them to the ownership of landowners free of charge and entrust them with a duty of maintenance and protection of the forest shelter belts. To develop and set in a law a mechanism stimulating landowners for forest shelter belts maintenance and protection activities, for example, through provision of tax benefits and subsidies for partial recovery of costs incurred.

8 Application of environmental regulation methods to foster organic agriculture for the achievement of sustainability of rural areas

Type and purpose of educational activity: Purpose of the practical training**:** to give the participants the notion of legal regulation and law enforcement practice in biological farming.

Plan of the practical training:

1. Introduction to practical training.

2. Problematic tasks for solution in groups.

8.1 Introduction to practical training

Biological and organic farming is a specially formed system of environmentally friendly farming, in which biodiversity, biological cycles and soil biological activity is developed and maintained.

It is based on minimal use of external means of production, using methods that restore, preserve and maintain ecological harmony. On the one hand, organic farming offers consumers the safest products on the other - it contributes to the protection of agro-ecosystems against pollution.

World share of farms involved in bio-organic farming is small: 4 to 5% in the U.S., 6% – in Germany, 5 % – in Sweden. However, their number is constantly growing, and experts predict that within 5 – 6 years the number of «organic» farms in the EU will increase to 30 %. Russia is also solving the question of the «biologization» of modern agriculture, which implies the use of biological agents of crop yield increase and soil conservation. Moreover, both the theoretical and practical basis for this exist, because soil fertility research was started by I.E. Ovsinsky, V.R. Vilyams and P.A. Kostychev in the early 20th century. It was continued by A.M. Igonin and V.P. Ushakov, who formulated the principles of agriculture as: «Return more than take». Today, Yu.I. Slaschinin, N.I. Kurdyumov continue working on improving biological farming.

Basic European legislation was adopted in 1992. It legalized organic farming and prescribed the necessary rules of production, processing, labeling and sales. Following Europe, dozens of countries introduced their own national legislation on biological farming. Government programs on creation of national certifiers for biological agricultural production were implemented.

The basic premise for the biological or organic agriculture is healthy soil. Therefore, to raise the productivity plants are not fertilized. It is necessary to contribute to the activation of life processes in the soil itself.

Biological (organic) farming is not an invention of recent years. It is based on the principles of the so-called biodynamic farming, which was developed by the founder of anthroposophy, Rudolf Steiner (1861 – 1925) at the beginning of the 20th century. Everything in biodynamic farming is based in accordance with the laws of nature and considering the fact that everything in nature is interconnected. In biodynamic farming necessarily takes into account the natural cycles of biological-

environmental energy. They interact with each other and live in close contact. In biodynamic farming meadows are combined with pasture, orchard and garden - with a pond, etc. Household lives by the principle of self-sufficiency: to consume of the outside world as little as possible, to use its own resources, to produce as many products as possible. The farm exists using these products. Plants, animals are grown without any chemicals.

Biodynamic farming necessarily takes into account the natural cycles of biological energy. Time to plant, care for the plants, harvesting is calculated according to certain parameters. Biocompatibility of different plants is also considered.

Thus, the biological (organic) farming is closed agricultural production, as close to nature as possible, making no actions against nature.

Organic products are products of agriculture and food industry, which are made in accordance with established rules (standards), fixing of using (minimizing) of pesticides, synthetic fertilizers, growth regulators, artificial food additives, as well as eliminating the use of genetically modified products (GMP).

For example, in agriculture instant mineral fertilizers are not used in the fields and pest control is performed using physical and biological methods: ultrasound, noise, light, traps, temperature regimes.

In animal husbandry special attention is given to feeds (no preservatives, growth promoters, agents increasing appetite) and no stress detention conditions and transportation, growth hormones and antibiotics are also prohibited.

In the processing and production of the finished products – refining, salinity and other methods reducing the nutritional value of the product are prohibited , as well as addition of artificial flavors, colors (other than those specified in the standards).

8.2 Problematic task for solutions in groups

Task 1: Energy conservation in agriculture

In our country one crop of vegetables is grown in a year, because plants do not have enough heat and light. When plants are grown in greenhouses its necessary to additionally highlight plants: daylight period in autumn and winter is very short. Light is a key factor in the harvest, therefore, a lot of light is needed. Imagine that you were appointed as a director of a large greenhouse. Take a good look at the picture of the greenhouse. What, in your opinion, is the paradox of its using? Suggest an alternative for infrastructure improvements of the greenhouses.

Task 2:

Sustainable development of agriculture depends on the conditions in which the population lives in rural areas. Now eco houses or active houses are built. Imagine that you are an architect, given the task to design such a house. What suggestions can you give to the maximize greening of your project? What disadvantages can Green Buildings have?

Task 3:

Lilia Anisimova is a hero of our time. She is engaged in serious research, as a researcher of Ufa Centre of RAS. Her research interests include organic farming and production of organic products. Under her leadership the unique biological product «Fenox» was created, which now allows to neutralize (98%) toxic substances in soil and water. 7 unique strains of destructor bacteria decompose dangerous xenobiotics into carbon dioxide and water. «One of the happiest days of my life was the one when I discovered the unique properties of bacteria-destructors that clean soil from pes-

ticides. Due to them very soon any cottager will be able to buy cheap biological product, dilute it with water, treat their few acres and be sure that the harvest will be clean». Bacteria themselves are completely non-toxic and non-pathogenic, so that their use is safe for humans and animals. The technology allows us to solve the problem of large quantities of pollutants and return to the land. In world practice, innovation is the development not older than 3 years. Since its invention by Lilia Anisimova it has already grown up to 8 years old, «and the farmers still do not want to understand their benefits». What is required for the implementation of this product?

Task 4:

The international study by the World Wildlife Fund (WWF) has shown that the blood of a modern person contains at least 18 chemicals that are not found in the human body in its natural environment, and acquired through the use of food. Most of the products are produced with the use of preservatives, synthetic colors, flavors, flavor enhancers and texturators, which influence on the human body was studied very little. The presence of these substances in products for daily use causes concern for many health care organizations around the world. As a result, the demand for organic products in the world is growing 16 – 25 % per year, and in some countries, the annual growth of organic food consumption is up to 60%. Organic farming movement in Russia has not yet become widespread. Why?

Task 5:

Growing vegetables on the roof allows to use this usually unused space with maximum advantage. The New York «BrightFarms» company, builds greenhouses on the roofs and calculates the profit by reducing «food kilometers» to zero by growing vegetables right where people buy them – at the supermarket.

«BrightFarms» intends to launch the first three greenhouses next summer. According to them, these technologies have the obvious benefits.

1. Vegetables are grown in greenhouses for hydroponics.
2. Greenhouses are made so that they collect precipitations, plants are almost completely satisfied with water and the storm sewers are unloaded.
3. Vegetables are grown whole year round and therefore space is used more efficient.
4. Greenhouses are heated by heat from stores ventilation. Solar panels are installed for operation of appliances and equipment. Climate control system is used in the greenhouse.
5. Pesticides are not used in the production.
6. Which of the «advantages» can be attributed to the shortcomings? How can they be removed?

Task 6:

December 15, 2011 good news were spread all over the world: Russia joined the World Trade Organization after 18 years of negotiations. A few days remained until the moment when we become a part of a «common market». Access to the Russian market will be open to all, that is very important for the growth of the world economy. Especially because all the BRICS member countries, except Russia, have already come to the WTO and show high rates of economic growth. Why in the Russian political and economic circles this event and its consequences are treated diametrically opposed? Why accession to the WTO is consistently associated by many entrepreneurs with the «shock therapy» («holiday price») of 1991 and 1998 default? Why are most of the leaders of agriculture already called this decision a «doomsday» for the Russian countryside? Will we move to a new innovative way of development or will we continue the policy of sale of minerals resources?

Task 7:

Agriculture and farming as they currently exist are economically, energetically and environmentally flawed, because considering the use of machinery and vehicles, and a huge number of waste and energy it consumes more than it produces. People aggressively tuned to nature, struggle against it, instead of cooperation. And this is a dead end. Harmony with the planet and nature is possible only if we give up the leading role, recognize and accept the fact that we are a part of the biological ecosystem and are interested in the preservation and augmentation of natural wealth and purity of our planet like no one else. Conscious cooperation with nature, with the use of achievements of science and technology, finally will bring us such wealth that we could not even dream of.

The term «permaculture» is derived from the English – Permanent agriculture – continuous and constantly renewed. Franklin Hiram King in 1911 in his book «Farmers of Forty Centuries, or Permanent Agriculture in China, Korea and Japan», wrote on the permanent agriculture, as agriculture with inexhaustible resources. The most famous devotee of permaculture is Australian scientist Bill Mollison, who organized permaculture courses in many countries in 1981. Due to Mollison permaculture ideas extended from agriculture to eco-villages. Japanese philosopher and farmer Masanobu Fukuoka, in his book «The One-Straw Revolution» wonderfully described the philosophy of permaculture. In Russia and Ukraine Austrian farmer Sepp (Sepp) Holzer is well known. He created a garden «Eden» at a height of 1.5 kilometers, according to the principle of circular economy and

plowless tillage, which allows to not deplete the land. Using these tips below, create your «permaculture» project.

Permaculture involves a number of principles:

- The need for cooperation between all elements of the system, it requires efficient planning of the location of buildings, plants, animals, ponds, hedges, flower beds;
- Each element of the system has several functions, each function is performed by several elements;
- Rational use of energy, work with renewable energy sources (sun, rain, wind);
- Efficient use of the entire space (organization of the garden on the basis of the forest - tall trees, dwarf trees, bushes, grasses and plants in the ground, root);
- Active use of natural circulation and flow of energy, light, and water.

To organize permaculture it is necessary to consider each element separately: its characteristics, needs, useful products and waste it produces. The farm includes such elements as a house, a garden, a greenhouse, a pond, a compost heap, a water tank, a dam, a guest house, a garage, tool shed, fence and so on. The garden needs light, fertilizer and water, gives vegetables. The garden needs periodic pruning and no pests. It gives the fruit and feed the chickens. The house needs heating, lighting, sanitation. It gives people the warmth and shelter. And so on for each item. All items must be placed in such a way that one needs to be extremely satisfied with products manufactured by neighboring elements. Moreover, the primary needs must be provided by a number of sources. For example, it is possible to use dirt, rain water, water out of the pond. Each device, plant or animal must bring diverse benefits.

Task 8: The parable of the wise farmer

A reporter once asked the farmer if he could share the secret of his corn, which year after year won all the quality competitions. The farmer replied that the secret lies in the fact that it gives the best cob to plant to all of his neighbours. Why does he give away the best grain to his neighbours if they are also involved in all the competitions and are competitors?

9 Economic and legal mechanism of nature management and environment protection in rural areas

Type of and purpose of educational activity: practical training (team work). Purpose of the practical training**:** to give the participants the notion of economic and legal mechanism of nature management and environment protection in rural territories.

Objectives of the practical training:

1. to update knowledge of students in the economic regulation of natural resources and the environment in rural areas, the legal regulation of these relations;
2. to organize work in groups to develop social interaction skills to solve problems in the study area;
3. to promote critical thinking and skills of law enforcement in the field of economic and legal mechanism of nature management and environmental protection in rural areas on the basis of problem solving.

Plan of the practical training:

1. Introduction to the practical training.
2. Problematic tasks for solution in groups.

9.1 Introduction to the practical training

Economic and legal mechanism of nature management is a system of economic measures and incentives aimed to protection of the natural environment, environmental security, and organization of environmental management enshrined in the law.

The structure of the economic mechanism of the environment protection is quite complicated, and is shown in Figure 9.1.

Economic and legal mechanism of nature management and environmental protection consists of the main elements:

- financing of environment protection activities;
- setting the limits of natural resources exploitation, emissions and discharges of pollutants into the environment and waste disposal;
- fee for special use of natural resources;
- payments for negative impact on the environment (does not exempt a nature user of non-compliance with legal requirements and reparation of environmental damage;
- Economic compensation for environmental damage;
- Funds for Environmental Protection;
- Package of incentive measures (tax breaks and lending);
- Environmental insurance.

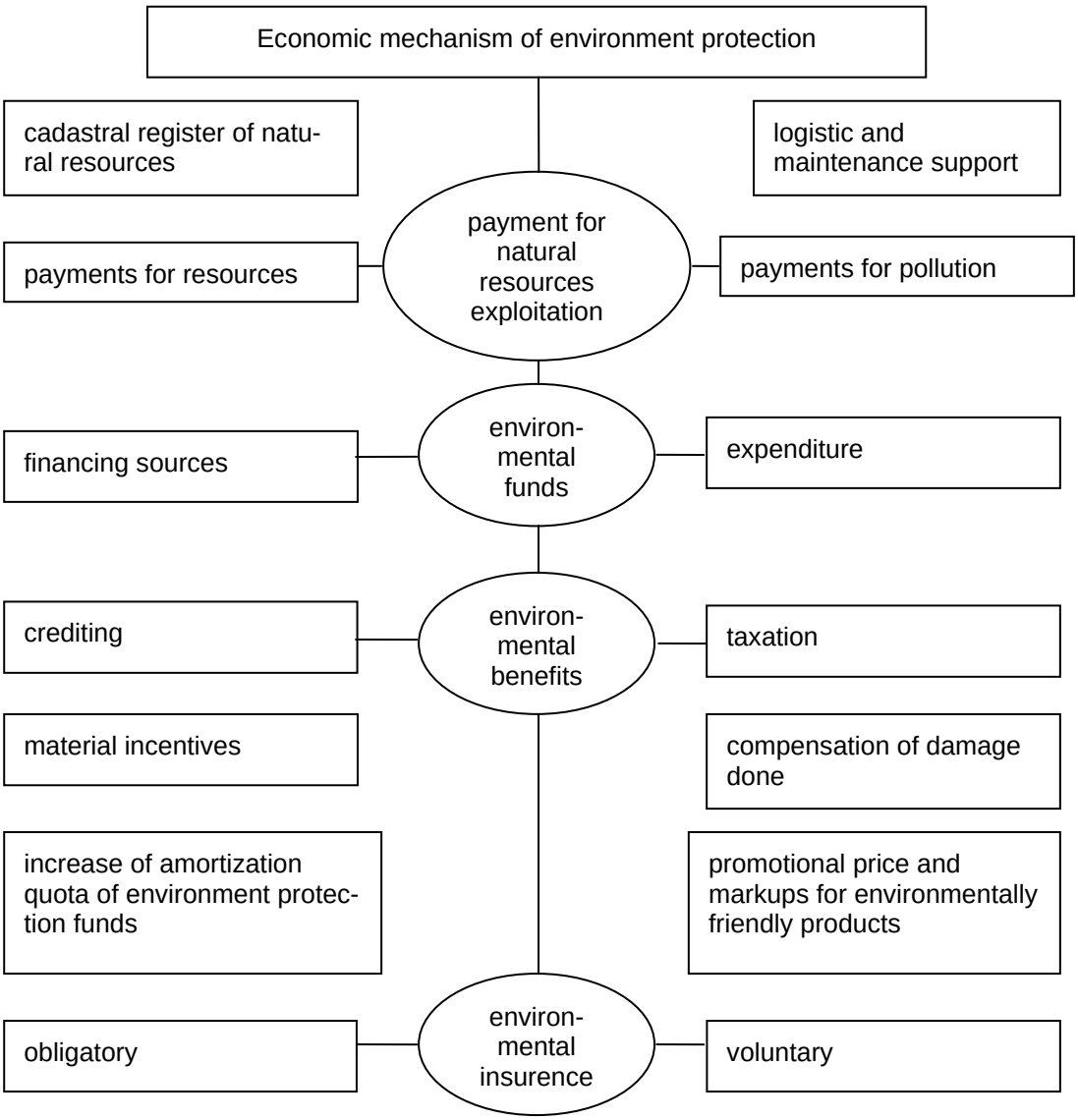

Fig. 9.1 Structure of economic mechanism of environment protection (according to V.V. Petrov)

We studied most of the economic tools in previous lessons, today we will focus on the financing of environment protection measures. It is provided from the federal budget, regional budgets, the budgets of local governments; own funds of enterprises, institutions, organizations, environmental funds, funds of environmental insurance, bank loans, voluntary contributions and other sources.

One source of funding for environmental programs is environmental fund - financial or material means intended for a particular purpose. The system of environmental funds is based on the Regulation «On the Federal Environmental Fund of the Russian Federation and environmental funds in the Russian Federation» (Government Decree № 442 of 29.06.1992). Funds are legal entities and are administered by the Ministry of Nature of the Russian Federation and its territorial bodies.

Accounts of environmental funds receive 10% of the total amount received by the state non-budgetary environmental funds as payments for negative impact, amounts received on claims for damages, fines for environmental offenses, as well as funds from the sale of confiscated hunting and fishing tools, products illegally obtained with them.

Environmental insurance is a source of financing of environment protection activities. Its purpose is to protect the property interests of citizens and businesses at the expense of the insurance funds upon the occurrence of unexpected, sudden environmental pollution. The object of environmental insurance is a risk of civil liability in cases of environmental accidents and disasters.

Insurants are enterprises causing the damage. These include the entities which activity poses a potential hazard of accidents and disasters. In agriculture, the potential hazardous accidental discharges of waste into water bodies are poultry farms, large livestock complexes.

Environmental insurance has become one of the most promising components of the economic mechanism of environment protection. In 2007, the Ministry of Natural Resources of the RF and the Russian State Insurance Company approved «Model Regulations on the procedure for voluntary environmental insurance in the Russian Federation».

In Russia rational environmental management and environment protection are promoted by:

- setting tax and other benefits provided by the public and other enterprises, institutions and organizations, including environment protection, the introduction of low-waste and non-waste technologies and industries, and the use of secondary resources, the implementation of other environment protection activities;
- exemptions of environmental funds from taxation;
- transfer of part of the means of environmental funds on a contractual basis at interest loans to businesses, institutions, organizations and individuals to implement measures to reduce the guaranteed emissions and discharges of pollutants;
- establishing high rates of depreciation of environmental protection fixed capital assets;
- use of incentive prices and premiums for environmentally friendly products;
- introduction of a special tax for environmentally harmful products, as well as products manufactured using environmentally dangerous technologies;
- application of preferential lending to companies, institutions and organizations that effectively carry out environment protection regardless of their ownership.

Examples of laws and regulations governing economic incentives for environmental protection: RF Government Decree № 370 of 13.06.2006 «On adoption of regulations of subvention extension from the federal budget to the budgets of the regions of the Russian Federation for the implementation of the authority in organization, management and protection of aquatic biological resources»; RF Government Decree № 371 of 13.06.2006 «On adoption of regulations of subvention extension from the federal budget to the budgets of the regions of the Russian Federation for the implementation of the authority in protection and exploitation of hunting resources», RF Government Decree of 22.09.2003 № 588 «On adoption of the regulation on the financing of specific environmental programs of rehabilitation of radiologically contaminated territories».

9.2 Problematic tasks for solution in groups

Task № 1

Fruit and Vegetable Association made a claim in the Commercial court against the plant «Electrocable», and asked the court to levy against the defendant 50 million rubles of damage to harvest failed by acid rain in the area of operations of the plant. The defendant did not admit the claim, saying that it made the required payments, covering the damage. Resolve the situation.

Task № 2

According to long-term observations, the yield of agricultural crops on the land of agricultural cooperatives and farms, located in the area of emissions of metallurgical complex, is 25% lower than in the other farms of the region. Based on these data, the local administration has made a decision to limit environmentally harmful activity of the plant (closing the foundry area). The plant administration refused to adopt the decision, explaining that the emission of harmful substances is within the limits prescribed by environmental authorities to the plant.

Give your opinion on the issue of dispute resolution.

Task № 3

The Forestry Department of the Vologda region appealed to the Commercial court of the Vologda region with a claim to the agricultural production co-operative «Iskra» to levy 2 million rubles of damage to the forest reserve. As follows from the case, based on logging permit Kolkhoz produced timber harvesting in the block N 17 on the plot N 4 of the South district of Ustyuzhensky forestry of Vologda region. A Senior Specialist of the district department of the state forestry drew up a report on violations, which indicated unauthorized felling of timber in the block N 17 and the discrepancy in the data of field surveys and logging permit. Assuming that the culprit of the violation and harm-doer to the forest reserve is Kolkhoz, the Department appealed to the Commercial court with this claim.

Determine the outcome of the further proceedings.

Task № 4

The Commercial Court sustained a claim of the Ministry of Natural Resources to recover the amount of damage resulting from pollution of the river with manure containing sewage water from a livestock complex. A pig farm for 54 thousand units, located at a distance of 1 km from the river, was put into operation without treatment facilities. Said pig complex does not have permission to discharge waste water into the river. The director of the complex did not adopt the claim, stating that the funds for the construction of sewage treatment plants were not allocated, the complex was accepted for operation by the state commission.

10 Providing legal base to biodiversity conservation and sustainable environmental regulation to the rural and ecological tourism

Type and objective of educational activity: practical training. Objective of practical training**:** to develop theoretical foundation and on its basis to impart skills to solve practical problems in the field of legal regulation of biodiversity and compliance with the legal framework for the development of rural and ecological tourism.

Plan of practical training:

1. Introduction of the practical training.
2. Performance of the practical training.

10.1 Introduction of the practical training

It is allowable to suppose that the environmental legislation develops in conjunction with natural resource legislation: laws, containing norms of the conservative protection, usually include norms regulating use of natural features and resources

At the World Summit on Sustainable Development in Johannesburg 2002 130 world leaders committed themselves to significantly reduce biodiversity loss by 2010. This goal was identified as a priority and supported by the Sustainable Development Strategy, launched by EU leaders in Gothenburg in 2001, and also by the Sixth Environment Action Programme (6th EAP), the Lisbon Partnership for growth and job creation, as well as a wide range of documents and other specialized environmental policy. The EU has pledged to stop the loss of biodiversity by 2010.

Opinion polls indicated that the problems of nature protection and biodiversity found strong support among the European population.

Termination of the loss of biodiversity is a goal of the «Nature and Biodiversity» project, one of the four environmental priority direction identified in the second EAP of the European Community (2002 – 2012). The specific objectives of the environmental direction are:

- Protection and (where necessary) restoration of the structure and functioning of natural systems.
- Termination of biodiversity loss in the EU and globally.
- Protection of soil against erosion and pollution.

To achieve these goals and develop environmental policy in the direction of integrated approaches the following thematic strategies were stated in the second EAP. This thematic approach was designed to provide a link between levels of environmental policies and other regulated areas. For example, the Marine Thematic Strategy and Soil Thematic Strategy, were also developed to achieve these goals.

To achieve the objectives of the sixth EAP on Biodiversity there are a number of tools, such as: The strategy of the European Community Biodiversity 10 and the Programme for Biodiversity 11 in the area of natural resources protection, agriculture, fisheries and economic cooperation.

In order to accelerate the implementation of the mission to stop the loss of biodiversity by 2010, in 2006 the Commission issued a report «Termination of the loss of biodiversity by 2010 – and later»

«Sustainable ecosystem services to the population», followed by the Action Programme, the purpose of which is the structuring and definition of responsibilities of national and European institutions and monitoring of progress in termination of the loss of biodiversity. Requirements reflected in the Report, must be integrated into other regulated areas, such as farming, fishing, and other industries.

In this framework, the EU environmental policy is implemented by means of two basic legislation documents – Council Directive 79/409/EEC of 2 April 1979 on the protection of wild birds (hereinafter Directive on the protection of wild birds) and Council Directive 92/43/EEC of 21 May 1992 on the protection of natural habitats and wild fauna and flora (hereinafter Directive on the protection of natural habitats, wild flora and fauna). These two Directives seek to protect a specified list of species and habitats and to establish a coordinated protection network of areas in Europe, called «Natura 2000» to maintain or restore the favorable conservation status of the natural habitat types and their inhabitants (Article 3 of the Directive on habitats).

The Directive on the protection of wild birds requires creation of Special Protected Areas (SPAs) for a specified list of birds and regularly migrating birds. The Directive on the conservation of natural habitats of wild fauna and flora also requires creation of Special Areas of Conservation (SACs) for a specified list of plants and animals and their habitats. In aggregate amount SPA and SAC form a network of territories «Natura 2000». Territory SPA and SAC can find each other. The network «Natura 2000» already includes more than 20,000 sites, covering almost one-fifth of the EU. Funding is shared by the Programme Commission LIFE Nature (founded in 1992 to develop the environmental policy of the EU) and other Community financial instruments.

In addition to these two directives, there are other environmental legislative instruments the EU.

EU legislation related to environmental protection:

Framework legislation**:**

- Council Directive 79/409/EEC on the protection of wild birds;
- Council Directive 92/43/EEC on the protection of natural habitats and wild fauna and flora;
- Council Directive 83/129/EEC on import of skin of a number of seal pups and products based on them to the member states;
- Council Directive 1999/22/EC on keeping wild animals in zoos;
- Council Directive 338/97/EC on protection of species of wild flora and fauna through regulation of trade;
- Council Directive 348/81/EEC on general rules of import of whales or products based on them;

- Council Directive 3254/91/EEC prohibiting the use of leghold traps in the Community and imports into the Community of skin of wild animals and a number of other products based on them, produced in the countries using traps to catch them or other methods of fishing that do not meet international standards of humane catching;
- Decree (EC) № 2494/2000 on measures to promote the protection and sustainable management of tropical and other forests in developing countries.

Some partner countries have to strengthen their environmental legislation, or even develop a new, in order to transpose some requirements of the Directives in their own national legislation. When creating an ecological network of protected areas (on the model of the network «Natura 2000», covering the territory of EU member states), it is necessary to implement the certain articles of the Directives for the protection of natural habitats, wild flora and fauna and the protection of wild birds. For example, Article 4 of the Directive on the Protection of natural habitats of wild flora and fauna, which states that countries have to offer a list of sites, followed by the required geographical and scientific information, or Article 6 of the same Directive, which describes the security measures necessary to protect areas of ecological network «Natura 2000». National legislation should also set the conditions for creating a system of special protection for those animal and plant species that are at risk (Article 12, Directive on the protection of natural habitats, wild flora and fauna).

EU policy – acts that support sustainable coastal tourism

Nature 2000. The EU Directive on the protection of natural habitats, flora and fauna establishes a network of special areas of conservation and special protected areas across the EU. This is a key method to achieve the principle of integration with the natural environment and, ultimately, sustainable development.

Quality of bathing water. The quality of bathing water. In 1976, the Directive on bathing water set mandatory standards for bathing water throughout the EU. Annual Report on water in swimming areas and Tourist Atlas show substantial progress as bathing water, and level of public awareness.

*Strategic Environmen*tal *Assessment (SE*A*).* SEA directive prescribes that the impact on the environment of certain plans and programs on a regional and local level should be determined and assessed during their preparation before adoption.

International conventions. In addition to such European directives and national legislation the EU member states have signed International Conventions aiming to preserve the rich diversity of nature and limiting their effects on climate change: The Convention on Biological Diversity and the Kyoto Protocol.

Basic orientation to sustainability of European tourism. This document, published in November 2003, stressed the need for consistency and coherence of different EU policies, measures affecting the sustainability of tourism and relations with industry (basic orientation to sustainability of European tourism).

Eco-Management and Environmental Management audit scheme (EMAS). EMAS is voluntary management system for businesses and organizations that want to improve their existing envi-

ronmental protection measures on an ongoing basis, in addition to the practice prescribed by law. This system is in addition to ISO 14001, the international standard for environmental management in business.

10.2 Performance of the practical training

Task 1:

You are offered thesis. Confirm or refute them. Justify your answer.

1. Forest is renewable = inexhaustible resource.
2. The main objective of forest management is to give timber business an opportunity to capitalize on the use of forest resources.
3. First priority is to make forestry profitable and economically sustainable, and on this basis, to solve problems of environmental and social sustainability.
4. The officials (the state) must manage the forest – they know better.

Task 2:

Transfer of forest to concessions for logging in tropical developing countries in the XX century led to numerous conflicts with the natives, as they are deprived of their traditional sources of timber and non-timber forest products, and the people, living in tribes, banished from their land. Give a modern example. What does the local population in Russia think about such a question? What laws of this sphere do you know?

Task 3:

In the 1970s, tropical countries have been considered as the place most suitable for forest plantations. Plantation forestry is an extreme display of the idea of intensive forest management, which uses fast-growing exotic trees, often in the form of clones, widely use fertilizers and pesticides. Rotation period in plantations can be reduced to 5 – 15 years. Pulp and paper factories were constructed for the processing of raw materials. Over time, plantation pulp produced in South America and South-East Asia, began to supplant those of the timber of natural forests of the Northern Hemisphere. Plantations had to reduce the load on natural forests. But in practice they were often created on the territories of tropical forests. There were a number of serious environmental and social problems. What are these problems? Try to find laws that solve the problem using knowledge of the forest code.

Task 4:

EU legislation was adopted in 2011. All sellers had to prove the legality of timber products they sold (in the first stage, of wood and products made of wood). Legality was assessed either through a FLEGT license, or in any other manner corresponding to international standards (such as a chain certificate of international certification ...). Are there similar laws in Russia? If there are, in what documents are they?

11 International experience of nature management and environment protection in rural areas

Type and purpose of educational activity: scientific and practical seminar (round table). The purpose is to give the participants the notion of economic and legal mechanism of nature management and environment protection in rural territories.

Objectives of the practical training*:*

1. to update knowledge of students in the economic regulation of natural resources and the environment in rural areas, the legal regulation of these relations;
2. to organize work in groups to develop social interaction skills to solve problems in the study area;

Plan of the practical training:

1. Introduction of the practical training.
2. Execution of practical tasks.

11.1 Introduction to the practical training

Environmental legislation, as an important component of modern environmental policy in many countries, is an effective mean of protection, management, rehabilitation and enrichment of various natural objects, landscapes, flora and fauna.

Environmental policy is created on the basis of our common historical regularities of interaction between nature and society in terms of the modern achievements of social and natural sciences and other branches of science. This let us come to a conclusion about the presence of some common features that are inherently intrinsic to environmental policy of any state.

Indeed, environmental policy requires certain conglomerate of subsystems of law, management and education. Additionally, it is necessary to take into account the specific characteristics associated with the history, culture and traditions of each region, each country, and the current level and the degree of «socialization of nature».

Analysis of the current situation shows that there are more differences in the approaches to the preservation of the ecological balance in different countries than common features. For example, even in the uniform systems of Anglo-Saxon law and governance such differences are obvious. The American model of environmental regulation is based on the main legislative act – Act on the national policy in the area of the environment in which the most important place is given to environmental experts of economic projects. But, the most important thing is that the American approach is characterized by concluding from the general to the particular, i.e. the general idea of testing of all industrial and commercial facilities for their impact on the ecological balance to private conservation issues with the quality of individual of natural objects. Almost all natural objects and resources are currently subject to state regulation. For example, a number of laws on the legal re-

gime for these objects in the U.S. exceeded one hundred, in Hungary – 300, in Czech republic – 400.

The British «approach» is quite different from the American one. In early 1974, the project – «On the control of environmental pollution» was proposed. It was approved July 31, 1974. The concept of «pollution prevention» prevailed, that correspond the notions of British science about environment protection in the most efficient manner.

Everything previously mentioned suggests that the protection of the environment as a new feature of the modern state has some differences in different groups of countries, particularly in specific areas of environment protection activities. Thus, with all the attention in the most industrialized countries to reduction of human impact, optimization of natural resources, prevention of adverse effect of technological progress on environmental and natural balance the traditional trend – environment protection and nature conservation – is still important.

Concrete display of the constitutional foundations of environment protection can be seen in some countries.

The German environmental policy aims to create the information base and the adoption of specific laws designed to reduce harmful environmental load and prevent the emergence of new ones. There are most important laws in this area: «On the protection of the environment from the harmful impacts», «On the nature protection», «On the water balance», «On prevent of the formation and recycling of the waste».

Constitution of Hungary establishes attitude towards the nature and its resources as common property of the Hungarian people. Unity of Hungarian foreign policy principles and interests of environment protection is based on the objective need of combination of national measures of environment protection with broad international activities in the field (v. 20). One of the most important conditions of international environmental cooperation is the requirement that the state, using the sovereign rights, do not cause damage to other states.

In Poland the law contains a detailed description of the general principles of environmental protection, certain legal concepts of protection, pollution, etc. the main requirements for environmental management in the area of protection and use of various natural objects. Further, the law identifies practical steps to realize the goals of environment protection, defines the functions and competencies of business and management bodies for the protection and use of the environment, specifies limitations in environmental management, sets the requirements for equipment used in the business. An important place is given to the law on liability for damage caused to the environment, where the main role is given to the principle of payment for natural resources. Such payments and fines form a special fund for the environment (National Fund for Environment Protection and Water Management). The law details the organizational and legal issues of environment protection: creation of the protection agencies, state inspections, local and public organizations.

The laws of the foreign countries pay special attention to the consolidation of the system of the public administration in the field of environmental protection and its competence.

In France, the certain regulations, and general social acts identified the national environmental problem as well as the ways for its solutions. Three main ways and means are: the fight

against all forms of pollution, reducing consumption of natural resources (meaning the reduction of irrational consumption of raw materials), improving the quality of life of most of the population. Thus, the French approach to the environmental problem has a certain «framework». It is natural resources, economic activities and condition of the environment.

Some countries use an integrated approach to the protection and control of pollution of the environment. For example, in the UK, considering that the administrative territorial division of the country does not coincide with the main river basins, the law was passed fixing that local authorities should coordinate with the basin inspections; through consultation and cooperation prepare joint plans for the use and management of water quality in river basins. The law fixed such important functions of local authority as environmental assessment of water resources, control of water consumption and waste water, monitoring programs of water quality. The country has a National Information System, based on the seven water areas and 40 hydrometric data collection stations. This system allows local authorities to keep records of quantitative and qualitative indicators of the condition of water resources in each supervisory authority.

In Japan, control mechanisms are primarily aimed at the development of health standards, supplemented by emission limits for certain industries and production. Regional (along with national) plans for social and economic development, taking into account current environmental imperatives are typical for Japan.

These plans and environmental standards are developed in the so-called public negotiations between industrial companies and local authorities. All sorts of «coordination» are also a distinctive feature of the social life of Japan: it is important not to bring any problems to the social conflict. Environmental policy in Sweden is focused on the development of clean and low-waste and non-waste production processes and equipment that will not only help to prevent, but also guarantee the elimination of human impact and pollution of the atmosphere, water, soil and other natural objects. The main purpose of Swedish environmental policy is to stop further degradation of the environment, restore its natural state, but this goal includes also economic indicators of national development through the mechanisms of the effectiveness of investment in environmental activities. Thus, polluting production (if the current level of technology cannot prevent pollution) should be placed only in areas of the country, where a negative impact on the environment will be minimal, and the costs and investments will be more effective.

Not only specific means of influencing the nature, but also the mechanisms of environmental management vary depending on the methodology approach to eco-politics in each country. For example, in Canada, the Ministry of Environment has assessed all areas of «free» land, so that long before any human impact to determine the social value of each area and economic activities. Such pre-building testing is considered by experts as very effective in countries where large areas of land are still in a natural state, and budget allows carrying out such expensive tests.

In Great Britain there is almost no undeveloped land, but the process of structural planning, perceived by local authorities of the countries as development of comprehensive plans of land arrangement provides the necessity to draw up claims for preferred use of land of actual and potential land fund. Prospective analysis of land use is performed in two stages: first, preparing a detailed description of the current state of the environment (topographic mapping, geological surveys, cadas-

tral estimation of forests, land, etc.) and then development of policy goals for each area of the country inside this structural plan.

The most common analysis shows that around the world there are similar approaches to legal support for solving environmental problems. Instrumentation of legal measures is very similar: valuation, monitoring, permits, environmental assessment, environmental compliance, legal liability, economic mechanism of environment protection, including economic incentives. But there is great difference between these instruments. Each country has its own set of tools, their relationship between them, and their mechanisms for their implementation.

In Russia there is a priority, even skewness in favor of the use of methods of administrative enforcement in the regulation of environmental relations: check, fines, permits, suspension. Abroad much more importance and weight is given to economic incentives for environment protection: ecolabeling, environmental insurance, environmental audits, environmental certification, green standards. Moreover, the state encourages and promotes the voluntary use of these tools.

As a result of comparison of Russian and foreign environmental legislation the following levels can be distinguished.

The first level: environmental legislation in Russia and CIS countries.

The second level: environmental legislation in Russia and EU countries.

The third level: environmental legislation in Russia and in other countries (the USA, China, Japan)

Besides, the most important factor effecting the development of Russian and foreign legislation is participation of Russia and other countries in international arrangement on environment protection, membership in international unions.

11.2 Execution of practical tasks

Task 1:

At the moment the most controversial project in Finland is the construction of a port in Vuosaari. The authorities of Helsinki are ready to move trading ports located in the city center in the regions of Sörnäinen and Länsisatama to the eastern part of the city towards Vuosaari. Vacated ports can be used for office building and housing, it is more profitable from economic aspect. More cost-effective passenger ports, however, should stay in the city center.

If the project is implemented, the new port will be located close to protected areas - woods near Mustavuori and nesting of waterfowl birds in Estersundom. This area is part of a network of protected areas in the framework of the EU «Natura 2000» on the basis of the Directive on the protection of natural birds, as well as the Directive on the protection of habitats. The program of the «Natura 2000» introduced new principle of protection of surrounding area, which prohibits exposing natural values of the negative influence even from outside of the protected area, and this principle will be violated. In addition, there is a plan to build a railway to the port and the railway bridge across the bay Porvarinlahti right through protected areas.

What harm can the implementation of the project cause? In which case, it can be implemented? Who is responsible for consequences?

Why do politicians supporting this project wanted to avoid long and unsafe process of comparison with alternative projects. What in your opinion is restraining the solution?

Task 2:

In Poland much attention is paid to environment protection. Despite this, many of the target groups cannot reach consensus, although they believe that they carry out their business in the same direction, contributing to environment protection.

We will try to organize the public discourse. Discourse analysis is a method of study of the public debate, which allows identifying the fundamental prospects and strategies of individual actors as well as possible complications in achieving consensus.

Among all the participants of the environmental discourse must select four groups:

1. biologists with environmental specialization, mainly scientists and environmental specialists;
2. members of environmental social movement, covering a wide range of pro-ecological organizations;
3. employees of Polish State Forestry;
4. hunters, united by the Polish Hunting Association.

These are the groups for which the concepts of environment protection are an important subject of discussion and agreement, and the definition of the concept reflects the intra-and inter-group differences. Representatives of the groups in question, often operate in public organizations at different levels of formalization: the "free" organization of environmental movement, over-formal budget research institutes and institutions of environment protection, and enterprise independent from state budget «Polish State Forests», which has a clear hierarchical structure. The boundaries between the groups discussed are indistinct sometimes. This leads to the fact that some of the professional ecologists and foresters are involved in the environmental movement, in the pro-ecological organizations; there is a process of professionalization, including participation of professionals.

How are the above mentioned groups interrelated, in your opinion? Which of them are closer to the true environmentalists? What «environmentally unfriendly» is there in the activities of each group? What recommendations can be given to the target groups to unify their activities?

Task 3:

Prepare an extended answer to the question: What are the differences in environmental policy of industrialized and developing countries?

12 Organization of environmental management of water resources and waste management in rural areas

Type and purpose of educational activity: workshop. Purpose is to give the participants the notion of legal regulation and law enforcement practice in environmental management of water resources and waste management in rural areas.

Objectives of the practical training:

to update knowledge of students in the field of water management and waste management in rural areas, the legal regulation of these relations;

1. to organize work in groups to develop social interaction skills to solve problems in the study area;
2. to promote critical thinking and skills of law enforcement in the field of economic and legal mechanism of nature management and environmental protection in rural areas on the basis of problem solving.

Plan of the practical training:

1. Introducton to the practical training.
2. The procedure of the workshop.

12.1 Introduction to the practical training

In 1998, the Ministry of Natural Resources asked the European Union to support the implementation of policies in the field of water management, fixed in the Water Code of the Russian Federation in 1995, and to take appropriate decisions on the implementation of this policy. Support was provided by the EU Tacis project «Consulting the Ministry of Natural Resources of the Russian Federation on the management of water resources in Russia», ENVRUS980 1.

Nowadays integrated water resources management is an internationally recognized principle of water management. A number of countries, mainly in Western Europe and North America began to apply this principle of control in the middle of 70-s. Russia decided to improve its institutional structure in the field of water management, based on these principles. As the frameworks of the above mentioned project the Ministry of Natural Resources expressed its intention to build its institutional structure based primarily on the two existing models: the French model of water management and the new EU Framework Directive on water.

Fundamental principles set out in the Framework Directive on water are:

- The object to control is the river basin in its hydrographic boundaries (including groundwater);
- The establishment or designation of the authorized body responsible for the management of water resources;
- Development of a master plan for the basin;

- Full covering of expenses of water management;
- Active participation in the planning of water users and their information support.

Modern regulatory framework ensures the implementation of the provisions of the basic document in the field of water management – Water code of the Russian Federation, the system of bodies of state power of the Russian Federation was established to implement specific powers of the Russian Federation in the field of water relations.

Modern organizational and functional structure of the country's water management is based on the territorial principle and has five levels of management and four blocks of the different levels (Fig.12.1):

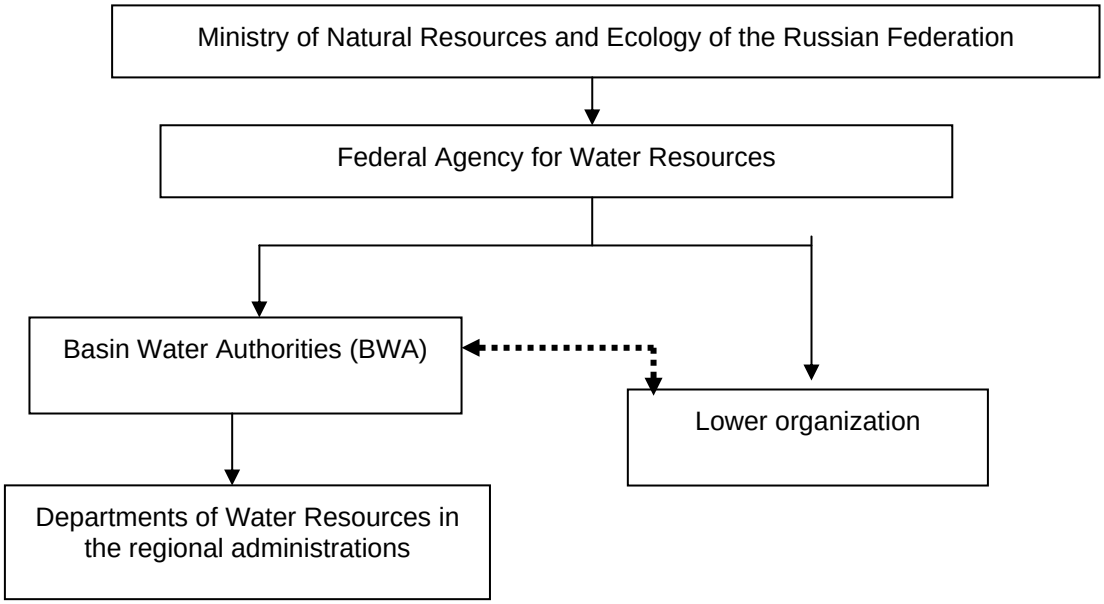

Fig. 12.1 System of water management in Russia

- on the federal level – Ministry of Natural Resources and Ecology of Russia, Federal Agency for Water Resources (RosVodResursy) in the Ministry;
- on the interregional level – Basin Water Authority (BWA), under Federal Agency for Water Resources;
- on the regional level – organizations directly subordinated to the Ministry in represented by Federal Agency for Water Resources;
- on the level of the regions Russian Federation – Department of Water Resources in the regional administrations.

Especially important is the integration to the system of state management of basin councils, their active participation in the implementation of the state policy in the field of water relations.

Water Code of the Russian Federation, adopted in 2007, made significant changes to the state management and protection of water bodies. In this case, the priority of the government is to improve the implementation of the following mechanisms provided by the Water Code of the Russian Federation:

- development of schemes of complex use and protection of water bodies;

- development of standards of permissible impact on water bodies, taking into account regional differences and individual characteristics of water bodies;
- development of new and updating existing rules for the use of reservoirs;
- maintenance of the state monitoring of water bodies;
- formation of unified information management and analysis system of water management based on Russian water register and state water register.

Besides the above mentioned Water Code, the legal framework for water management includes the laws «On the safety of hydraulic structures», «On payment for use of water resources», «On Subsoil», in addition to these laws, there are 18 orders of the Government of the Russian Federation concerning water management, such as: standards, pollution control, flood and so on and more than 150 decrees of the regions of the Federation, adopted on the basis of the aforementioned acts.

The Concept of social and economic development of the Russian Federation for the period up to 2020 approved by the decree of the Government of the RF on 17 November 2008 № 1662 contains the developed water strategy for agriculture. There the basic principles of contributing to the achievement of strategic objectives and the solution of tasks in water management in rural areas are fixed:

- ecological systemacity;
- environmental friendliness;
- priority of protection against water bodies over exploitation;
- priority of exploitation of water bodies for drinking and domestic water supply;
- balance;
- optimal technical and technological solutions;
- social and economic dimensions.

According to GOST 30772-2001 wastes are the remnants of products or additional product formed during or after certain activities and not used in direct connection with this activity. Accordingly, there are different production and consumption wastes.

This standard fixes the main features of the classification, identification and coding of wastes in the form of classification groups of characteristics of wastes and covers wastes formed in industry and agriculture, domestic wastes and their mixtures.

The requirements of this standard are obligatory within the territory of Russia for individuals and legal entities, including companies, organizations and associations of enterprises, unions, associations, corporations, joint stock companies, cross-sectoral, regional and other associations, regardless of ownership and subordination, and for governments authorities in the activity that is related to any operations of waste management, formed as a result of their own activities, and those in their ownership or disposal.

Issues of waste management are regulated by the federal law «On Production and Consumption» and regulations. The Federal Law № 89-FL of 24 June 1998 «On Production and Consumption» determines the purposes and principles of the state policy in the field of waste management. According to the Article 13, the organization of separate waste collection is assigned to local governments. The law regulates the legal basis for the definition of waste as property rights, regulation,

public accounting and reporting in the field of waste management, the legal basis for environmental monitoring.

12.2 The procedure of the workshop «Public hearings on the construction of a waste recycling plant and a wastewater treatment plant in one of the municipal entities»

Participants of the public hearing learn the problem in advance, they are given information about the project, planned activity in the form of tables, charts, photos, maps, brief explanations.

The relevance of the issues is caused by the following environmental issues:

1. There are places in the settlement where citizens place and store waste, including landfills, on the south-west side of the village. There such rubbish as tins, chemicals, various spare parts of vehicles that lost their consumer properties, manure, agricultural waste, including dead animals is dumped. This all accumulates, decomposes and gives off unpleasant odor, and is a source of various infectious diseases.

2. Harmful substances contained in the wastes, after precipitations penetrate into the soil. Through the soil chemicals, agricultural wastes penetrate into the ground water, which get to the Egorlyk river. In addition, another source of water pollution is a private livestock: manure and other animal wastes are dumped into the dam, and then the water flows into the Egorlyk.

3. The village is supplied with water from Pravo-Egorlyksky channel, water gets into the houses, and then to the food. Water without any treatment and disinfection is delivered in the village water supply system. Water is only defecated in dugouts. A chlorinator house built on the dry lime chloride and two reservoirs do not function. In summer, when the Pravo-Egorlyksky channel does not flow there is no water in the water system.

I Stage

Three groups participate in the workshop:

1 - group of students representing the interests of the customer-plant.

2 - group of students, acting on behalf of public authorities directing the public hearing.

3 - group that protects the interests of the public.

Distribution of the roles:

President (leader) of the hearings (the main task of the leader (President) is not to answer all the questions, but to let everyone speak in the conditions of pre-agreed time and procedure, to keep order in the classroom, to follow strictly the set theme of the conference, not to digress, clearly record the results of the discussion). The president stipulates the condition that «one student can ask no more than 3 questions and make a talk no more than once».

Representatives of the groups (speakers) (speeches are prepared in advance):

1. Representative of the plant-customer (represents projects and implementation plan, gives reasons for the necessity of construction of the facility with regard to new jobs, salary, improvement of the sanitary epidemiological situation, public health).

2. Chief specialist of the department of environmental analysis and environmental safety (concludes the monitoring of air, water bodies, radiation, production and consumption wastes in the territory of the village and surrounding areas of the Pravo-Egorlyksky channel, providing the population with water).

3. Chief specialist of the department of use and protection of water resources of the Ministry of Natural Resources and Environment protection (concludes the results of the state monitoring of the Egorlyk river, water quality).

4. Member of the public (speaking of the need to improve the quality of life and ensuring its security by building facilities under discussion, but expressed doubts on environmental safety of building of planned enterprises, allotment of fertile land for building).

II Stage

Work in groups. Comprehensive discussion of the relationship between environmental interests of business, society and the state.

Performance of individual tasks.

1 group.

What documents can confirm the ecological safety of the project?

Provide a number of proposals to convince the participants of the need for the construction of these facilities.

2- group.

What are the main tasks and functions of the department of the analysis of the environment and ecological safety in the sphere of water management and waste management in rural areas? What are the authorities of the department?

What are the main tasks and functions of the department of water use and protection of water resources in the sphere of water management and waste management in rural areas? What are the authorities of the department?

How do these departments participate in environmental assessment, licensing, permits for use of water bodies, implementation of measures to protect water bodies from all kinds of pollution?

3-group.

What regulations define the legal regulation in the sphere of water management and waste management in rural areas?

What governance structures are able to solve problems in the sphere of water management and waste management in rural areas?

Common task for all groups:

1. Offer students to discuss the conceptual model of the use of organic wastes in agriculture as an alternative solution (figure 12.2).

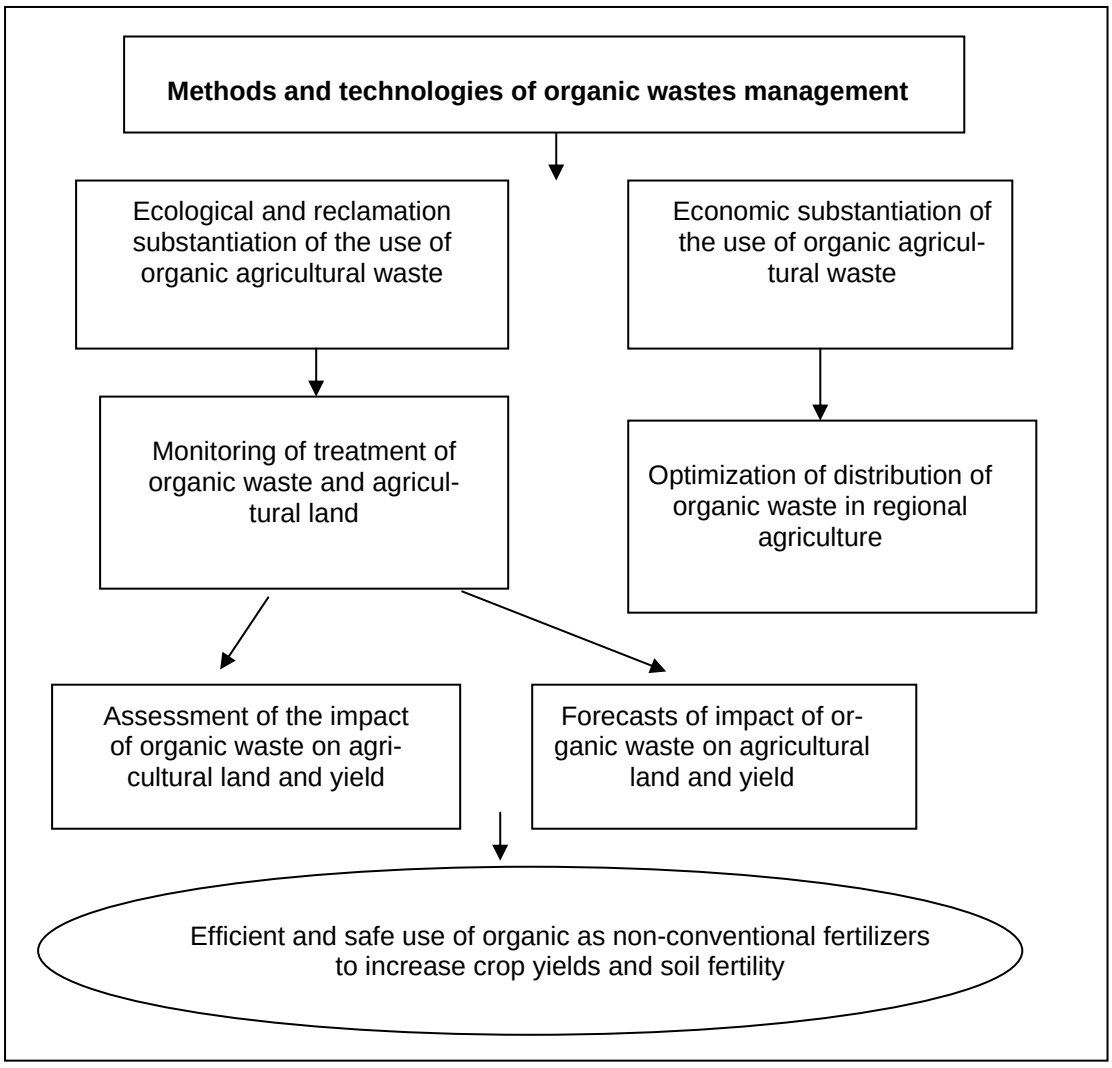

Fig. 12.2 Conceptual model of the use of organic wastes in agriculture (Tingaev A.V.)

2. Consider possibility of making suggestions to integrate water management and protection measures and activities in the lists of activities and facilities financed by the federal and regional budgets.

III Stage

Conclusions and generalizations.

Since the hearings are recommendatory (i.e. do not determine the final "build - do not build"), it is advisable to write down the following in the final document:

1. How will the project impact on the social situation in the village?

2. What will be the impact on the environment?
3. What will be the impact on the economic situation?
4. Comments, recommendations and suggestions to the initiator of the planned economic activity.

As a result of the simulation game, students will be able to be active in support of their position on the issues, to do a lot of research, to demonstrate the ability to work in a team and to reach a unified solution.

References

1. Adihanov F.H. Russian environmental law: course of lectures. - Barnaul, 2006. - 347 p.
2. Bogolyubov S.A. Environmental law. Textbook. M. Prospect, 2011. – 402 p.
3. Bogolyubov S.A. Environmental law. Textbook. M. Yurayt, 2011. – 482 p
4. Boreyko V.E. Ethics and practices for biodiversity. - Kyiv, 2008. - 360 p
5. Brinchuk M.M. Environmental law (environmental law): Textbook for higher juridical educational establishments. - Moscow: Yurist, 1998.-688p.
6. Grishin N. The public and the environment: the legal aspects of public participation in environmental decision-making in Russia and Europe. M. 1997. p. 139-140.
7. Dorota Rantsev-Sikora Polish conflict in environmental discourse: an attempt of preservation analysis / Sociology: Theory, Methods, Marketing, 2005, № 2 - p. 70 - 84.
8. Erofeev B.V. Environmental law: textbook / B.V. Erofeev. M.:Escmo– 2006. – 430 p.
9. Kovalenko N.Y. Environmental economics in agriculture: studies. benefits. for stud. universities on spec. "Agricultural Economics" - M. Agrokonsalt, 2000. - 116 p.
10. Meadows D. The Limits to Growth: The 30-year Update: handbook for students with a specialization : 020801 (013100) "Ecology", 020802 (013400) "Environmental management", 020800 " Ecology and Environmental management" / transl. from eng. - M. : Academkniga, 2007. - 342 p
11. Merzlov A.V. Implementation of European experience of regional marketing in purpose of sustainable development of rural territories in Yaroslavl Oblast // Economics of agricultural and processing enterprises. 2005. № 5. P. 24.
12. Morokov V.V. Natural and economic basis for regional planning of protection of rivers against pollution. L.: Gidrometeoizdat, 1987. 287p.
13. National Biodiversity Conservation Strategy of Russia. Moscow: Russian Academy of Sciences - Natural Resources of Russia, 2001.
14. General theory of law and state: Textbook / Ed. by V.V. Lazarev. M., 2001. – 520 p.
15. Foundations of environmental audit: teaching manual / Ed. by A.T. Nikitin, S.A. Stepanov. – M.: MNEPU publishing house, 2001. – 392 p.
16. Commission report on the implementation of the Directive 92/43/EEC on the conservation of natural habitats and wild fauna and flora [SEC (2003) 1978.
17. Petrikov A. Sustainable development of rural areas in Russia and directions of scientific re-search // Agri-industrial complex: economics, management. 2001. № 12. P.13.
18. Natural and resource law and legal environmental protection: Textbook / Under the editorship of V.V. Petrov. M., 1988. P. 24
19. Semyanova A. Environmental law. Lecture course - Moscow: Yustitsinform, 2005. – 272
20. Sergienko O.I. Economics of Nature - Rostov n / D: Phoenix, 2004. – 320 p.
21. COMM (2005): Natura 2000 - Protection in collaboration with partners
22. Handbook on the Implementation of EU environmental legislation.
23. The structure of water management in the Russian Federation (Summary Report on institutional issues). - Tacis DG 1A, European Commission. - 2001. - 83 p.
24. Trukhachev B. I.Social and economic conditions for sustainable development of the agricultural sector: monograph. - Stavropol: AGRUS, 2005. - 328 p.
25. Sustainable agricultural and rural development: Foreign experience and problems in Russia. Ed. by P.F. Glazovsky, A.V. Gordeev, G.V. Sdasuk - Moscow, 2005. – P. 229.
26. Sustainable rural development: Issues of strategy and tactics. Moscow, 2004. P.19-20.

27. Khristosenko S.I. Organization of economic and environmental industrial management. M.: Mysl, 1982.
28. Shemshuchenko Y.S. Legal problems of environment. Kiev, 1989.. 231 p
29. Shemshuchenko Y.S., Muntyan V.L., Rozovsky V.G. Legal responsibility in the sphere of environmental protection. Kiev, 1978. P. 246.
30. Environmental Management and Economics of Nature Resources : teaching manual in English. / V.I. Trukhachev, I.N. Lyakisheva, Sh. Dabbert, K. Lippert, E.P. Volobueva – Stavropol: AGRUS, 2006. – 76 p.
31. Environmental law: textbook / ed. by S.A. Bogomolov. – M.: Vyshee obrazovanie, 2007. – 485 p.
32. Economy and environmental management (international experience) // Protection and restoration of natural resources. M, 1990. V. 26. 64p.
33. Herтan Daly. Toward Some Operational Principles of Sustainable Development // Ecological Economics. 1990. 2. P. 1-6.
34. Szyszko J. Foundations of Poland's Cultural Landscape Protection – Conservation Policy. In: Cultural Landscapes and land-use: the conservation society interface. Ed. by M. Dieterich and J. van der Straaten. Kluwer Academic Publishers. The Hague. 2003: 216 pp.: 95-109
35. Szyszko J. Forest Policies, Carbon Sequestration and Biodiversity Protection . In: Ragaini R. (ed.) Nuclear War and Planetary Emergencies. The Science and Culture Series. World Scientific Publication, 2010 – p. 67-82
36. Szyszko J. Quality of Life – How to use Ecological Science for Sustained Development. In: Ragaini R. (ed.) Nuclear War and Planetary Emergencies. The Science and Culture Series. World Scientific Publication – 2010. – p. 861-863
37. http://organicproducts.narod.ru/
38. http://www.mcx.ru/index.html?he_id=800 amp;doc_id=5002.
39. http://www.mcx.ru/index.html?he_id=800 amp;doc_id=5002.
40. http://www.rustowns.com/docs/469Concept.doc

Glossary

Environmental Law – a branch of the Russian law, system of law governing social relations in the sphere of interaction between society and nature in order to preserve, promote and improve the environment for present and future generations.

Natural resources – use of environmental properties beneficial to the person: ecological, economic, cultural, therapeutic, etc.

Complex nature management – use of natural resources and influencing the environment in a certain area by only one user of nature.

Licensing – preliminary permit for a specific activity.

Limits – system of environmental restrictions (volume limit for the use of natural resources and pollution) which are specially established by authorized state bodies for certain user of nature.

Mechanism for environment protection – institutional, legal and economic measures aimed at environment protection and providing favorable conditions of human life.

Management of environmental relations – collection of action taken by the competent authorities and authorized persons to ensure compliance with the requirements of environmental legislation on the disposal of natural resources, promote the management and restoration of natural resources, conservation and restoration of a favorable environment, respect, and protect environmental rights of legal entities and individuals.

Environmental impact assessment (EIA) – process that promotes the adoption of environmentally-oriented management solutions on the implementation of the planned economic and other activities through the identification of potential adverse impacts, environmental impact assessment, public opinion, development of measures to reduce and prevent impacts.

Environmental control – one of the ecological functions of the state, set of measures to monitor the environment and its changes, as well as control of compliance with environmental requirements by all enterprises, organizations, officials and citizens.

Environmental expertise – establishment of compliance of planned economic and other activities with environmental requirements and determine the admissibility of implementation of the object of environmental expertise in order to prevent the possible adverse effects of these activities on the environment and related social, economic and other impacts of implementation of the object of environmental expertise.

Environmental violation – malicious, wrongful act (action, inaction) that violates environmental regulations, and causes harm to the environment and human health.

Environmental crime - malicious socially dangerous act that violates, environmental law and order established in the Russian Federation, environmental public safety and causes harm to the environment and human health.

Environmental damage – harmful impact on the environment presented in monetary form.

Loss – material and financial costs (direct and indirect) of users of natural resources (people, companies, institutions and organizations) caused by: environmental consequences of the accident and restore the disturbed state of the environment, loss of health, property damage, loss of natural resources and products benefit from change of environment and natural resources, etc.

Specially protected natural areas – areas of land, water surface and air space above them, with natural complexes and objects of special environmental, scientific, cultural, aesthetic, recreational and curative value, withdrawn by a public authority in whole or in part from the economic use and for which a special protection regime is fixed.

Standards for the protection of the environment – established standards of environmental quality and standards of permissible exposure, compliance with them ensures sustainability of natural ecosystems and conservation of biological diversity.

Test Tasks

CHAPTERS: Place of environmental regulation and legislation in sustainable development of rural territories. Nature management and environmental protection in rural territories. Organization of environmental regulation and law compliance in land tenure in rural territories

1. In what year was the concept of sustainable development declared?
   A) 1992
   B) 2002
   C) 1978
2. The «polluter pays» principle means that:
   A) Each nature user must pay a fee for negative impact on the environment
   B) Each enterprise must pay for the consumption of resources
   C) Each polluter must bear the costs of the measures of the environmental rehabilitation by decision of the authorities
3. What does the mechanism for environmental management in rural areas include?
   A) Administrative, market and economic methods of environmental management
   B) Environmental management methods, additional tools, programs of macroeconomic policy
   C) Development and implementation of regional programs, environmental management methods
4. What is the main law governing and regulating relations in the sphere of land management in the Russian Federation?
   A) Federal Law «On the transfer of land from one category to another»
   B) Land Code of the Russian Federation
   C) Federal Law «On Environment Protection»
5. The competence of rural administration does not include:
   A) collection and disposal of waste from the municipal territory
   B) organization of sanitary cleaning of the territory
   C) maintenance and protection of forests
6. The competence of what public authorities includes the transfer of lands of private ownership?
   A) Local government, executive authorities of the Russian Federation
   B) Executive authorities of the region of the Russian Federation
   C) Local self-government
7. Development of the market of quotas on pollution is an example of:
   A) administrative methods of environmental management
   B) market methods of environmental management
   C) economic methods of environmental management
8. Right of limited use of land is:
   A) Easement
   B) sublease
   C) rent
9. Land users are:
   A) persons owning and using land based on the right of lifetime inheritable possession
   B) persons owning and using land based on the right of permanent (perpetual) or gratuitous limited use
   C) persons exercising the right of limited use borrowed land
10. Protection of agricultural land includes the following activities:
    A) restoration of disturbed lands to keep them in a state fit for their intended use;
    B) protection of land from exhaustion and pollution;
    C) measures for the conservation, restoration and improvement of soil fertility.

CHAPTERS: Environmental law as a mechanism of environment management and environmental protection. Administrative methods of environmental management and environment protection in rural territories. Application of methods of environmental regulation for achievement of sustainability of the rural areas in developing biological agriculture

1. Federal sources of environmental law include:
   A) The Constitution of the Russian Federation, federal laws, Decrees of the Government of the Russian Federation
   B) International treaties, laws of the regions of the Russian Federation
   C) Normative legal acts of the President of the Russian Federation, governors, executive branch

2. The subject of environmental law is:
   A) Relations connected to environment protection and environmental management;
   B) Land, mountain, water, forest relations;
   C) Civil, criminal, administrative, labor relations in the framework of environment

3. The rights of citizens to healthy environment:
   A) Right of citizens to compensation;
   B) Right to use the objects of nature, legal guarantees;
   C) Right of citizens to unite in public organizations for environment protection.

4. What is the main law governing and regulating relations in the sphere of land management in the Russian Federation?
   A) Federal Law «On the transfer of land from one category to another»
   B) Land Code of the Russian Federation
   C) Federal Law «On Environment Protection»

5. The methods of administrative and legal regulation of environmental management include
   A) collection and disposal of domestic waste from the municipal territory
   B) allocation of quotas for environmental pollution
   C) rationing, licensing of environmental management.

6. How many times will the amount of payment for the negative impact be increased if the nature user has no approved limits and standards:
   A) 25 times
   B) Will not be changed
   C) 5 times

7. The scheme of the standard ISO 14000 is as follows:
   A) plan - control - impact - accomplish
   B) plan – accomplish – control - impact
   C) control – impact – plan – accomplish

8. Environmental Passport of an enterprise is:
   A) is recommendatory
   B) is obligatory for all types of enterprises;
   C) is obligatory for hazardous enterprises.

9. Resolution of disputes in the field of environmental protection is:
   A) principle of environmental law;
   B) function of environmental management;
   C) the main direction of environmental institutions.

10. Environmental management is:
   A) territorial administration in ecology;
   B) environmental planning and forecasting;
   C) coordination, regulation and development of the general relationship in environmental law.

CHAPTERS: Economic and legal mechanism of nature management and environment protection in rural areas. Prognostics and planning of environmental activities in rural territories. Providing legal base to biodiversity conservation and sustainable environmental regulation to the rural and eco-logical tourism

1. The property of state nature reserves is:
   A) federal property
   B) private property
   C) property of the municipality
2. Compensation for damage to natural objects is calculated:
   A) by increasing the rates of charges for emissions and discharges;
   B) by actual expenses;
   C) in the form of compensation for direct damages and lost profits.
3. The use of wildlife is performed:
   A) on the basis of licenses and agreements;
   B) only on the basis registered one-time license;
   C) on the basis of contracts for long-term use of wildlife.
   and implementation of regional programs, methods of environmental management
4. Objectives of environmental funds:
   A) accumulate funds for environmental protection;
   B) finance and credit environmental programs and encourage careful and efficient use of natural resources
   C) licensing of environmental impacts.
5. Forms of environmental damage:
   A) real or perceived loss of quantity or quality of the environment;
   B) economically unfavourable for environmental management consequences of losses in the form of expenses to restoration of the environment;
   C) environmental damage, loss, costs.
6. Prediction of the possible behaviour of natural systems, determined by natural processes and human impact on them is:
   A) environmental rationing;
   B) environmental planning;
   C) environmental prognostics.
7. Development of the market of quotas for environmental pollution is an example of:
   A) administrative methods of environmental management
   B) market methods of environmental management
   C) economic methods of environmental management
8. Environmental quality standards:
   A) regulations of environmental impact and regulations of removal of natural resources from the environment, established to ensure environmental safety.
   B) limited amount of natural resources approved for use;
   C) limited amount of pollutants, getting into the environment
9. EIA is performed at the stages of:
   A) development of alternative production;
   B) during the construction of the plant;
   C) during the implementation of environmental programs in the municipality.
10. What are the types of environmental impact assessment:
    A) project, pre-project, public
    B) state, public
    C) federal, regional, public.

CHAPTERS: Environmental control and legal responsibility for environmental law violations in rural territories. International experience of nature management and environment protection in rural territories. Organization of environmental management of water resources and waste management in rural areas

1. Liability for environmental offenses or crimes include:
   A) only administrative responsibility;
   B) all types of liability;
   C) labour, including disciplinary, financial responsibility.
2. International environmental organizations are:
   A) World Wildlife Fund;
   B) Commission on Sustainable Development;
   C) UN General Assembly.
3. International liability for environmental harm is:
   A) political and financial responsibility;
   B) the concept of "international responsibility" does not exist, liability arises under national law;
   C) all types of liability under international law
4. Objects of the international legal protection of the environment are:
   A) natural resources used by two or more sovereign states
   B) World Ocean, Antarctica, space, migratory species;
   C) airshed, space, oceans, Antarctica, shared natural resources.
5. The main functions of legal liability for environmental offenses are
   A) incentive function to comply with the law, implement environmental and legal requirements; punitive function, which consists in applying the penalty to the person who has committed an environmental offense;
   B) compensation function is aimed at compensating losses to the environment;
   C) incentive, compensation, preventive, punitive function.
6. Environmental Control Functions:
   A) industrial, public state;
   B) preventive, information, punitive;
   C) preventive, control.
7. The reasons for water rights are:
   A) licenses and contracts for the use of water resources, decree of the Government of the Russian Federation on a water body specific use.
   B) licenses and contracts for the use of water resources;
   C) licenses and contracts for the use of water resources, the decisions of local authorities on assignment of water bodies for special use
8. The main document regulating the activities of waste management is:
   A) Federal Law «On Waste Management»
   B) Federal Law «On Production and Consumption»
   C) Federal Law «On production and consumption waste management»
9. The main document regulating activities in the field of water use is:
   A) Federal Law «On the use of water bodies»
   B) Code of the Russian Federation on water law relations
   C) Water Code of the Russian Federation
10. Is licensing of waste management compulsory?
   A) Yes B) No
   C) It depends on category and amount of wastes generated at the plant

Final control of knowledge

As a final control at the end of training course on "Environmental regulation and legislation in the rural areas", students have to prepare a creative project.

Algorithm of actions:

1. The target group of students is divided into two working groups ("enemies" and "supporters" of implementation of the concept of environmental regulation and legislation in rural areas).

2. Each group is requested to develop a problematic task, which solution requires knowledge and skills in the use of legal mechanisms to ensure the sustainable development of rural areas.

For example: The Board of agricultural *association* made a claim *the Directorate of State Reserve for compensation for damage caused* to the *farm by the destruction of the potato crop in the area of 200 hectares* by boars *liv*ing *in the reserve* . T*he Directorate of the Reserve refused to accept the claim,* said *that it cannot be held responsible for the behaviour of wild animals in the wild.*

The *Directorate of State Reserve* made a counter-claim *to the arbitration court* for *recover* of *the cost of the three boars killed by guards* of *agricultural association. Agricultural association* does not accept the claim, *stating that security has made lawful actions to protect the crop from the constant attacks of wild boar*s, *animals* were shot in conditions of *emergency.*

3. The solution of the problem should include answers to the following questions:

1. What regulations should be applied to solve this problem?

2. What measures of legal liability can be applies in this situation?

3. Where is it possible to apply to resolve the dispute?

4. After presentation of their solution (in the form of presentations, drawings, flow charts, etc.) the working group give the floor to the opponents who offer legal solution to the problem on their part.

5. At the end of the discussion positive and negative aspects of each of the solutions to the problem are concluded, then voting is carried out; on its basis the optimal solution to the problem is determined.

Annex: Training material

The elaborated RUDECO modules serve for the purpose of “Vocational Training in Rural Development and Ecology” in Russia. They target on representatives of local and regional administrations and advanced students in the different fields of rural development. All below listed RUDECO partners can be addressed in case of training interest in one of the modules.

For readers of the module textbooks and training participants the project website provides the possibility to download additional material on **http://tempus-rudeco.ru/en/modules** (required password **RD-modules**), e.g. presentations and other didactic material used in the conducted trainings.

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