

*Short reports***ECOLOGICAL CRIMES AND NATURE
MANAGEMENT**

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Unfortunately, the questions of the rational use of the natural resources and closely connected with them ecological problems have always been paid attention to not by the actual users of these natural resources, but by scientific workers. Modern nature users do not care about ecological problems. Most of them are unaware of them at all. As it is the general interrelationship between all natural components and processes that controls nature, it is high time for the users to realize the necessity of solving their narrow departmental purposes on account of their ecological consequences.

The rational use of the natural resources is unprofitable for the companies that use all kinds of them without any control in Russia. Each of them cares for today's profit and tries to squeeze everything out of the Earth, leaving nothing for their descendants, taking advantage of the speechlessness of nature and the actual loss of the state control.

The main reason for the destruction of the natural stability of landscapes, their complete degradation lies in the criminal, narrow departmental and in the recent years actually uncontrolled use of the resources. Since the so-called "perestroika" private businessmen of all levels have been trying to pump mineral resources out of the Earth, to fell the forests, to do everything for the exhaustion of the resources of dry land and World Ocean. But why are the government and the leaders of all levels inactive? Why do not the laws on these important problems operate? Why does the legal system develop so slowly?

The ecological problems connected with the unreasonable nature management have become especially keen recently, when the negative influence of man upon the natural environment on our planet increased.

Global ecological problems are the result of the criminal nature management on the local and regional levels.

In the course of recent years, when even the mineral resources have been under the control of joint-stock companies, the situation has become worse. This small group of businessmen has suddenly got rich. Their main aim is to plunder all kinds of natural resources as soon as possible.

The existing extremely unsatisfactory state of all natural resources and landscapes is on the whole accounted for the ecological ignorance of the users, their narrow approach to the exploitation of natural resources. There are a number of publications, reasonable researches and suggestions dedicated to these

problems. But the situation is getting worse and worse, as the propositions are not compulsory for the users to fulfil.

The governmental control over the use of natural resources is completely lost. That is why the prices of all kinds of raw and energy resources, products of national consumption are growing rapidly. All the joint-stock companies and firms, that exploit the natural resources, must be national.

Unprecedented burden on the landscapes has bound the users to search for some new ways of maintenance of their natural production not to permit the depletion of natural resources and contamination of the natural values. Nature gets from man only industrial and domestic waste, which is often toxic.

For the solution of the ecological problems it is necessary to unite the efforts of many professionals and, first of all, nature users, guard services, authorities, all the naturalists, as these problems are complex and multivariate.

As before in the articles, dedicated to the working out of some more rational ways of the use of natural resources and the solution of the ecological problems, the main attention is paid to the state of separate natural components: the earth's crust, atmosphere, water, vegetation and animal world.

On the basis of the general interrelation between the natural components, factors and processes as well as objects of man's life we believe that the landscapes and other geosystems of the local level must be objects of the estimation of their qualitative state, their ecological potential.

At present the publications are mostly dedicated to the analyses of the state of separate natural components, the irrational use of one of which causes worsening of the ecological condition of all the rest. They must be looked upon as interconnected constituent parts of nature complexes.

A myth of the inexhaustibility of the natural resources has been dominant in our country for a long time that caused their wasteful use and the appearance of all ecological disasters.

Modern economy exploits the ever growing number of the natural resources, especially mineral and raw resources. The landscapes are being destroyed already at the stage of mining. Their inevitable changes have long ago become objects of scientific landscape studies.

As mineral resources are practically non-renewable, their classification from the point of view of ecological security of their influence upon the stability of landscapes is of vital importance.

Thus, the natural resources, that seem unlimited at first sight, undergo the irreversible process of depletion; the qualitative state of land, water, forest resources becomes worse. The number of ecological problems is growing, as well as the contradictions be-

tween the productive activity of man and the stability of natural environment. The growing consumption of the natural resources is evident. The qualities of the natural environment, especially of the biosphere, have deteriorated. The decrease in the natural fertility of lands is connected with the reinforcement of the processes of rapid erosion, secondary swamping, salting and so on.

Due to the irrational use of the agricultural lands, from 5 to 12 mln. hectare of lands have been lost. According to the estimation of the United Nations Organization the quality of the exploited lands since 1950 has dropped by 40%. Since 1950 there has been a triple growth in the timber production, more that 50% of which is just burnt even in highly developed industrial countries, and in the so-called "developing" ones - up to 90%. Only about 45% is worked up [1].

Humanity has never faced such barbarous attitude towards the use of forests. The process of disappearing of many species of animals and plants is going permanently and rapidly, that causes the menace of future deterioration of biological diversity. This has led to the degradation of landscapes in many regions of the Earth, especially in the regions of ecological troubles and ecocatastrophes. All the ecological disasters are consequences of the criminal nature use, which has determined pollution and exhaustion of the natural resources, to the processes of rapid erosion, deforestation, desertification and so on. The whole World Ocean has been poisoned. It has taken nearly 40 years to pollute near space.

All these troubles have become global and have been created by man. Now it is on the intergovernmental level that they can only be solved [2].

References:

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PRINCIPLES AND METHODS OF SOLVING ECOLOGO-HYGIENIC PROBLEMS OF THE REGIONS OF RUSSIA ON THE LANDSCAPE BASE

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The most critical ecological situations are connected with degradation of natural landscapes, their pollution as a result of progressive deterioration of the air, surface and subterranean waters, reinforcement of the processes of rapid erosion, chemical and radioactive pollution, decrease in species diversity

etc. That is why many landscapes of Russia are degrading; active is the process of desertification including the arctic desertification. We have a number of regions with the most critical ecological problems. Nature in these regions of Russia and in the regions with the greatest density of population has been changed so that it has become dangerous for man's health [2].

The problem of man's morbidity is complex and multifactor. The influence of a separate natural component, for example water or air quality on man's health is hard to estimate. The first reason is the constant spatial and temporal changes of the state of the components. The second one is the diversity and the absence of any borders of the habitat of man in comparison to the ecology of animals. The problem of the influence of the habitat on the morbidity is in the process of solving mainly on the level of general meditations without any fixation of the principal indices of morbidity on the cartographic base. To solve it in the 21st century it is necessary, first of all, to eliminate the reasons of the present state of the natural environment, caused by its pollution and the depletion of natural resources. Man is at fault in all the ecological disasters. The specific ways of solving many ecological problems including the problems of morbidity of the population must base on the use of large-scale scientific landscape and geochemical maps, which we do not actually possess in our country. They are to be made. We suggest solving this problem in the 21st century taking into account the following basic principles and methods

1. To chart large-scale landscape maps for the whole territory of the country of scientific content. Like universal topographic maps they must be the basic ground and landscapes - the object of estimation depending on concrete practical purposes including the exposure of potential areas of expansion of diseases. It is well-known that man's morbidity depends on the composition of chemical elements, their lack or excess in drinking water, air, soils and living organisms. The concentration or dispersion of chemical elements causes dangerous situations for man's health. Many diseases are connected with the variations of concentration of chemical elements with toxic qualities.

2. The most perspective is the use of principles and methods of geochemistry of landscapes based on the theses of classical geochemistry. They have long ago been worked out in the works by V.I.Vemadskiy, M.A.Glasgovskaya, V.V.Dobrovolskiy, B.B.Polynov, A.I.Fersman etc. The important issue of their works is the ascertainment of geochemical anomalies in landscapes. Many quantitative geochemical indices are used for it. The most important of them are: destructive activity of elements of technogenesis, which characterises the degree of danger of a chemical element for living substance; the module of man-caused pressure, which represents a total flow of man-caused substances to the square unit in a time unit; coefficient