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Questions of conservation of wildlife of the Arctic zone

I I Poiseev and S I Poiseeva

North-Eastern Federal University, 58 Belinsky str, Yakutsk, Republic of Sakha (Yakutia), 677027, Russia

E-mail: ipoiseev@mail.ru, poisargy@mail.ru

Abstract. The article is devoted to the urgent problem of maintaining the integrity of ecological systems of the weakest link in the planetary biosphere - the Arctic zone of the Republic of Sakha (Yakutia), which occupies more than half of its entire territory, located mainly in the tundra and forest-tundra geographical zones. The factors causing the high vulnerability and difficult recoverability of ecosystems and the requirements of these factors in order to preserve them are given. It is argued that the traditional nature management of the indigenous population of the Arctic zone is not an antagonist of wildlife. At the same time, the inclusion of products in commodity-money relations in a market economy can lead to the depletion of biological resources. It is argued that the most widespread and deepest negative consequences of the environment are caused by industrial production. The most destructive, dirty mining industry is expanding in the Arctic zone. Industrial companies, enterprises do not engage in environmental protection, arguing that environmental protection does not give dividends, increases the cost of their products. The state conducts the wrong policy in relation to extractive companies, enterprises, refusing to control and regulate functions. Taking advantage of the fact that the subsoil is in federal ownership, companies have no obligations to the republic, territory, nature, they do not even allow control. The article provides legislative, administrative and economic measures that must be taken to preserve the integrity of ecosystems and wildlife resources. article the main questions connected with development of domestic agricultural producers are considered, in particular, the main directions of development are allocated. In article it is told about trends of development of agriculture in the conditions of the international sanctions and also development of the technological direction in means of UAVs, robots, innovative machines and the equipment. Also the main issues of development of meat production as one of the most priority directions of development of agriculture are considered in article.

1. Introduction

The importance of preserving wildlife and its foundation - the earth, is constantly growing. When the bowels are exhausted, and this is the reality of the near future, mankind will live off biological resources. The North acts as a priority region for optimizing the relationship between society and nature, with the goal of preserving the integrity of wildlife. This is due to its specific features: simplicity and poverty of ecosystems, poor adaptability to technogenic impact, their unstable equilibrium even in a natural state.

The whole North can be attributed to the territories with extreme conditions. The boundaries of the North are determined by the isotherm 1600°C, which accumulate over the period with the active temperature, which ensures the ripening of the main food crop - cereals. On this isotherm 64,4% of Russia territory belongs to the North, including the entire territory of Yakutia [1].



The requirement to preserve the ecosystems integrity and the producing ability of living nature in extreme climatic conditions of the North stands particularly acute. This is explained by the easy vulnerability and difficult recoverability caused by the features of the natural system. So:

- The permafrost and the high ice content of soils, the prevalence of thermokarst processes make them extremely sensitive to technogenic impact and put entering a claim of the preserving the permafrost requirement and established thermodynamic equilibrium [2];
- The presence of surface water under ice for 7–8 months, their low temperature and low oxygen content cause a low ability to self-purification. In order of preventing the qualitative of water sources exhaustion, it is necessary to minimize the flow of pollutants into water objects, to introduce closed water supply systems, low-flow technologies and highly efficient treatment facilities;
- In the absence of groundwater and the ability of permafrost soils to accumulate substances and elements falling into it, their chemical contamination is unacceptable [3,4].

The North is the weakest link in a global ecological system - the biosphere. The destruction of the North ecosystems can lead to an imbalance in other areas ecosystems, to provoke the global environmental crisis escalation, and possibly an ecological catastrophe.

The most vulnerable zone on the Republic territory is the Arctic zone, which includes 13 of the 35 regions, and the area covers 56.6% of the republican territory.

These are superextreme areas due to several factors:

- proximity of permafrost;
- severity of climatic conditions;
- low capacity of the active soil thickness and productive humus thickness;
- the remoteness from the center of the republic;
- off road.

This territory is a place of residence and economic activities of the north indigenous people. A special way of life was established here, and biological resources are the basis of traditional economic activities [5,6].

2. Problem statement

Small people of the North are hostages of scientific and technological progress and the industrial development. Industrial development of mineral deposits, firstly affects their residence and traditional economic activities territories. The current civilization is in indebtedness to the small aborigines of the North due to the destruction of their lifestyle, psychology, alcoholization, assimilation. In the present period, the real danger of their extinction is deepen.

All over the world, the revival of small nations is of great importance. In our country, attention is paid to this problem, laws are written, but their implementation is far from complete.

The problem of preserving the natural resources that serve as the basis of their life has two directions:

First, the conservation of resources in the process of economic activity of the indigenous peoples themselves;

Secondly, the conservation of resources in the industrial use of the territory.

Traditional northern nature management is not antagonist to the environment, adapted to its capabilities and conforms to the laws of nature. Consequently, a negative impact on the environment is allowed when exceeding the rate of withdrawal of resources. So, deer pastures are overgrazing and trampling when the livestock is exceeded and the schedule and routes of grazing are violated.

In the pre-reform period, the land management service was specially engaged in the inspection of deer pastures, as well as in the organization of routes for deer herds. However, this absolutely necessary

measure has been abandoned; land management has now become a technical measure in order to service civilian traffic.

Hunting, as a branch of the economy, is based on the appropriation of finished products of nature, therefore, cannot go beyond the limits of natural productivity. Previously, when hunting traditions and customs were still alive and strong, it was an unwritten law to respect the objects of hunting and hunting grounds. Strictly respected hunting periods. Moral attitudes excluded aimless destruction of animals. As a rule, they took only as much as was necessary to satisfy their modest needs.

Fisheries, as the main industry, exist in the lower reaches of large rivers off the coast of the Arctic Ocean. Indigenous peoples strictly followed the timing and seasonality of fishing. folk wisdom, excellent knowledge of biological laws contributed to the fact that fishing did not harm fish stocks [7]. However, socio-economic and political factors lead to the violation of folk traditions and customs. So, after the colonization of Yakutia, the entire population was overlaid with yasak - a tribute to the payment of fur. The payment of yasak led to the re-fishing and the disappearance of valuable fur-bearing animals.

If the unplanned spontaneous beginning prevails in hunting and fishing, the destruction of many species will become a close reality. Another danger to hunting and fish resources is the reduction and damage to the habitat. Economic expansion, especially industry, poaching. It is very fraught with the introduction of fisheries in commodity-money relations in a market economy.

The Arctic coast and islands are the nesting site of many migratory birds. This factor requires a minimal human presence in these areas.

Industrial development of the subsoil and the associated disruption of land throughout the world are of deep concern [8,9,10,11].

In many countries where the development of mineral deposits is underway, the problem of restoring territories disturbed by the mining industry is very urgent. The question is especially acute in the extreme climatic conditions of the North [12,13,14]. Sharp changes in environmental factors cause environmental stress, to reduce which it is necessary to carry out a set of measures to restore ecosystems [15,16].

3. Findings

The most profound and widespread negative impact on the environment is provided by industrial production. Especially destructive and polluting mining industry has been widely developed in our republic.

Industrial enterprises are taking advantage of the fact that mineral wealth, forests and large rivers are federal property, they have no responsibility to the republic and to nature, to indigenous peoples. Even officials do not allow the scene of the incident, not to mention public control, although environmental control is prescribed in the legislation.

It is necessary to change the opinion of politicians and the mining industry workers that they are doing much more useful work for society than industries based on the biological productivity of nature. They only produce "canned" concentrated products of the earth, because the effect of the mineral raw materials extraction is valid for a short time. And the effect of biological resources using of in the long run always overlaps the effect of the first.

When the bowels of the earth will be exhausted (this is the reality of the near future of humanity), we will mostly live by biological resources. The value of the earth as a natural basis of the organic world is constantly increasing, and the value of many types of mineral raw materials, on the contrary, decreases. The miners' arrogance of the miners should be brought down and convinced that they are ordinary users of natural resources, moreover, undesirable to wildlife. Mining companies should be interested in minimizing the negative environmental consequences and be responsible for damage to the natural environment and recovery of damaged, destroyed ones.

Companies, enterprises extracting mineral wealth do not care about nature protection and preserving the quality of the natural environment. They believe that:

- the costs of protection, especially the restoration of damaged, disturbed, destroyed natural objects do not pay off and do not bring dividends;
- the costs of protecting nature increase the cost of production, reduce profits;
- increasing the cost of production, the costs of protecting nature increase the price of the goods and thereby reduce its competitiveness, which in turn can lead to a reduction in production and an increase in unemployment.

As can be seen from the arguments of business against nature conservation, the collective interests of companies veiled under the public interest are highlighted. At the same time, the quality of the natural environment, its purity, and ecological well-being are not recognized as use values.

These arguments are related to business in general, and in northern extreme conditions objectively increasing the cost of production, they become significant for companies. In favor of these arguments, there is also the notion that is deeply rooted at the official level about the low value of northern ecosystems, due to their low biological productivity.

A major drawback is the weakness of state economic policy in relation to mining companies.

Mineral deposits are given to companies as if in their property. The state is only interested in fiscal taxes on minerals.

4. Conclusion

Preservation of the integrity of northern ecosystems and wildlife resources in the industrial use of the territory is possible with:

- strengthening the regulatory and controlling role of the state;
- toughening environmental legislation by developing its northern version;
- affirmation of the value of the ecosystems of the North not by productivity, but by replacement cost;
- a sharp increase in law enforcement practice;
- tougher economic sanctions against the nature of the damage;
- strengthening of territorial and public control
- introduction of non-invasive, sparing technologies, adapted technology.

It seems that the North should be approached differentially, on the basis of ecosystem resistance to anthropogenic pressure. In our opinion, the creation of traditional protected areas is not enough, since anthropogenic activities can lead to irreversible consequences that territorial compensators will not be able to restore the destroyed ones. In order to preserve the integrity of the territories, they should be removed from the field of some areas of economic activity. Islands of the Arctic Ocean, tundra regions, with the exception of the mountain-tundra part of the Ust-Yansky district, the North-West forest-tundra region, including the Olenek and Zhigansk regions, also the territory of the Kolymo-Indigirskaya lowland, should be removed from the field of engineering activity.

In addition, to expand the network of protected areas. Since the specially protected natural territories are simultaneously considered as a reserve for future generations, it is advisable to equate to them the rich multicomponent mineral deposits that are currently not technologically fully recovered and therefore economically inefficient to develop.

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