Environmental problems in the sphere of legal regulation of the agro-industrial complex of the Russian Federation

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Abstract. The article deals with the development of agro-industrial complex in the Russian Federation and trends in its functioning in modern conditions. It is emphasized that the agro-industrial complex is the most important part of the entire national economy of the country. It includes more than 60 branches, so it is a multi-branch system. But unfortunately this sector also has its own problems. The most global is ecology. Conclusions are formulated about the main most optimal systemic approaches, which will make it possible to develop proposals for solving environmental problems. There should be a priority of environmental legislation over the rest. Legal scholars note the need for codification of environmental legislation. The creation of unified environmental quality standards at the international level, as well as the creation of a body for monitoring the compliance of these standards at various levels, will play a crucial role in solving environmental problems. Key words: agro-industrial production, significant impact, socio-technical standards, cartographic methods, agricultural land plots, organizational structure, of natural disasters.

1 Introduction

The sphere of agro-industrial production has long been a pillar of stability in the Russian Federation, and now it should be considered the most important sphere that can have a significant impact on the transformation of the country's economy. But among the positive aspects there are also negative consequences. The agro-industrial complex (subsequently AIC) has a huge impact on the environment. Soil compaction, destruction of the fertile layer, different chemical compositions of water, air and soil resources, predatory exploitation of fish resources are just some aspects of environmental problems.

The main task of the AIC is to create such conditions for all sectors of the economy to provide themselves with food and the necessary agricultural raw materials for the organization. This can be achieved only through clear coordination of relations in society. It is necessary to take into account a systematic approach in solving problems, because it not only allows us to see the most important, but also to develop proposals for their solution [1].

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2 Methodology

The methodological basis of the study consisted of: methods of systematization and generalization, the comparative method, methods of induction and deduction. Methodological literature, periodicals and Internet sources, as well as data from official sources of information, with which representatives of the Russian agroindustrial complex and international legal acts were actively cooperating, were used as materials for the study.

3 Results of the research

For several years now the Russian agro-industrial complex can be called the most protected sector of the economy; the state steadily allocates finances and directs funds received in the form of export duties to the AIC.

Next year about 475.7 billion rubles will be allocated for the support of the AIC including 30 billion rubles which will come from the additional revenues from export duties.

Agricultural sector, as well as other sectors, considerably contributes to the climate change. Draining or, on the contrary, irrigation of land, carried out without accurate assessment, worsens the condition of the soil, disrupts the state of natural ecosystems [2, 3].

The efficiency of agricultural production and its growth rate depend on the state of the soil and the proper organization of protective measures. However, the situation in the Russian Federation is currently unsatisfactory in terms of agricultural activities. Changes in the transformation of land relations have affected the dynamics of the land fund structure, did not improve land use, resulting in a decrease in the negative anthropogenic impact on the soil cover, which led to the development of processes of soil degradation in agriculture and other countries.

Agricultural land in Russia occupies more than 116 million hectares, which are erosion hazardous and subject to soil erosion by water and wind, including erosion-prone (53.6 million hectares). Every third hectare of arable land and pastures is subject to erosion and should be protected from degradation processes.

In recent years, the area of agricultural land has decreased by 7.9 million hectares. In the structure of agricultural land there is a constant tendency for the reduction of arable land and, accordingly, an increase in the area of desert. The loss of large areas of agricultural land is primarily due to the shortcomings of their economic exploitation, difficult economic conditions that do not allow to preserve and increase soil fertility, as well as to improve the cultural condition of the earth.

According to the latest official data, 68 percent of Russia's land resources are subject to various types of degradation [4, 5]. The use of complex and heavy machinery, the use of chemical remediation and land reclamation, and the concentration of production, especially in animal husbandry, have made nature very vulnerable to the modern agricultural producer.

Another serious problem for our country is land desertification. According to expert estimates, approximately more than 100 million hectares of agricultural land are exposed to desertification. These processes originated a long time ago, they were periodically observed as far back as pre-revolutionary times, and the last outbreak of severe desertification was observed in the 1980s [6]. The most proven way to solve this problem is: field survey of the territory, when scientists go on expeditions, conduct geobotanical studies, soil studies, determine vegetation productivity, but when we are talking about huge territories, hundreds of thousands of hectares, of course, this method becomes very time consuming and requires much research and time, and this is not always possible.

Therefore, various methods based on satellite images, aerial photography, and cartographic methods are widely used, which, having a reference sample of expedition surveys, make it possible to extrapolate results from a satellite image to the entire territory.
In other words, the main method nowadays is the analysis of remote sensing data, primarily satellite imagery with planning based on field data, and thus one can quickly get information about the current state of land, how degraded or devastated it is in a large area [7].

The AIC is a significant part of the whole economic and social system of the country. Thus, it has an adverse effect on the environment as a whole. Therefore, it is impossible to use all natural resources to improve the quality of life of the population and not to disturb the natural balance.

Legal experts study various problems that adversely affect the sphere of ecology. Some note that it takes a great deal of time and money to restore the disturbed natural balance. Citizens are already noticing that in recent years the climate on Earth is changing noticeably: some countries are suffering from abnormal heat, others from too harsh winters, unusual for these places.

Environmentalists are warning the public about climate change, encompassing: Global warming, melting glaciers, an increase in the volume of the world ocean, changes in precipitation, the appearance of hurricanes, floods and severe drought, due to forest fires [8,9].

For example, an inter-regional state of emergency was declared in Yakutia and the Irkutsk Region in August 2021 due to forest fires in the forests.

According to the ministry, as of August 19 in Yakutia 119 fires are burning, 22 more fires with a total area of over 309 thousand hectares have been extinguished. According to the latest data 3263 people are involved in liquidation of forest fires, 3263 people and 577 machines, and 19 aircrafts.

In the Republic of Sakha (Yakutia) there was a cold winter, even by local standards, which passed the baton to an unusually hot and dry summer. The taiga itself has simply huge areas, and the infrastructure in the form of roads is virtually nonexistent. You can get here only by air. Bogs dried up, litter dried out, that's the result, in such conditions even minimal careless handling of fire is enough to cause a fire.

Fires were, are and will be. This is a permanent ecological factor in the existence of taiga biome. The climate on the territory of the republic is sharply continental and very dry, and only the presence of permafrost contributes to the fact that there is forest vegetation here. Another problem is the aging of the forest. The forest passes through various age stages and finally becomes overgrown after 140-150 years. It is noted that the share of such forests in the republic reaches 47 percent. Overgrown forests are a powder keg ready to explode in an abnormal heat like the current dry summer. The anthropogenic factor in the causes of fires has always been, is, and will continue to be. However, a healthy forest almost never burns if you do the usual preventive work: remove trash and dead wood. Funding, additional personnel, and a role for the state are needed. This will reduce the risk of fires by several times.

Solving the main problem - environmental pollution, by restoring and maintaining the natural environment is the most important task of any state. The rapid formation of the AIC, due to the achievements of science, leads to the destructive effects of the natural balance [10].

4 Discussion of results

The AIC is an integral and inseparable part of the economic space of our country, the core of which is agriculture. Let us consider the organizational structure of the IAC RF.
According to the State Report on the State and Protection of the Environment 2021, the level of violations by land users has increased significantly compared to previous periods.

Based on the above, our country needs the norms of environmental law. There should be a priority of environmental legislation over the rest. There is a question of whether it is necessary to adopt a separate Environmental Code, or simply to reform the legislation as it is now. Today there are many separate laws, but there are also a great many clarifying government resolutions and letters from various agencies, which must also be taken into account when considering the above-mentioned issue. The codification of all environmental norms could take years.

Environmental legislation is always a living instrument: circumstances change, the structure of the economy changes, and laws must adapt to this. For example, new challenges and threats in the Arctic dictate certain changes to the law, including the Norilsk accident. But we have to remember that all the decisions have already been made in due time - it's a question of performance. The state policy in the Arctic adopted back in 2008 stated that special nature management regimes should be developed for this region. No regulatory framework has ever been adopted.

Some specialists in this field note the need to codify environmental legislation. It will help to remove already existing issues and go along the way of improvement, and for the Environmental Code to become effective, it is necessary to set specific tasks and goals.
It is necessary to systematize and improve what we have in this area, to eliminate gaps, to eliminate contradictions, to remove problems in law enforcement practice. After all, the role of law in the present is very important for the individual and the state as a whole, as the law has an impact through the establishment of generally binding norms and rules. Law also regulates social relations in society and the country. [11, 12]. Let's consider the scheme of the main normative legal acts regulating this sphere.

Fig. 2. Normative legal acts governing the APC RF.

Russian courts stand up for environmental human and land rights, but it is still not enough. The following case taken from the judicial practice can serve as an example. Thus, the results of an unscheduled field inspection of LLC "Poultry farm "X", conducted by the Department of Rosselkhoznadzor for the Republics of Khakassia and Tuva and Kemerovo Oblast - Kuzbass, showed that as a result of an unscheduled field inspection of LLC "Poultry farm "X" several violations were revealed. Kuzbass Poultry Farm showed that as a result of disposal, littering and pollution with industrial waste of hazard classes 3 and 4 (fresh chicken droppings, rotten chicken droppings) the company allowed spoiling of agricultural land (subject to special protection) with a total area of 38,883 square meters.

In addition, during the inspection it was found out that Ltd. "Poultry farm X", being a tenant of agricultural land, did not fulfill the requirements and did not take obligatory measures to protect the land and soil (with a total area of 1 986 671.0 square meters) from littering, pollution with production and consumption waste, overgrowing with trees, bushes and weeds. Based on the results of the inspection, an act was drawn up and an inspection order was issued in accordance with Art. 13, 42, 76 TC RF and art. 78 of the Federal law № 7-FL from 10.01.2002 "About environmental protection" on liquidation (compensation) of harm brought to soils as an object of environmental protection, recultivation of disturbed lands, restoration of soil fertility, bringing the lands to the condition suitable for the purposes (agricultural production) and timely involvement of the agricultural lands into circulation.

We can notice that enterprises are polluting the environment more and more, and it is easier for producers to pay for the damage assigned to them by the court, than to take control
of the situation with waste emissions and build a concept of disposal that will comply with the norms of Russian and international law. A case in point is a state like Japan. Where most of the large waste is recycled and turned into ash. It is used to make cement, paving tiles, or compacted into large briquettes, which are then used to make the foundations for artificial islands. We emphasize that Japan already has several such islands.

At present, the Russian AIC is at a stage of active development, which was primarily facilitated by the pandemic, the sanctions pressure on the Russian economy, and the corresponding operational measures of state support.

At the beginning of 2022, the country ranks fifth in the world ranking (4.4 trillion rubles) in terms of the value added that is produced in the Russian agricultural sector; it ranks seventh in terms of direct investment in the agricultural sector. According to Rosstat, farms of all categories in Russia (agricultural organizations, farmers, personal subsidiary farms) in 2021 produced 7 trillion 572 billion 344.5 million rubles worth of products. Nevertheless, domestic experts in the field of agriculture talk about the extensive type of industry development.

The structure of farms in the agricultural sector is dominated by large agricultural organizations, which account for the largest percentage of production (more than 59% in 2021). At the same time, the area sown and, consequently, the number of agricultural machinery is gradually decreasing, which may be due to the economic difficulties faced by farms, as a result of which farms simply do not have the opportunity to fully utilize all available land and resources.

Table 1. Main indicators of the agricultural sector in Russia.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production of agricultural products by category of enterprises</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Households of all categories, %</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Of which agricultural organizations, %</td>
<td>55.2</td>
<td>56.5</td>
<td>57.7</td>
<td>58.2</td>
<td>59.1</td>
</tr>
<tr>
<td>Of these, households, %</td>
<td>32.4</td>
<td>31</td>
<td>28.6</td>
<td>28.2</td>
<td>25.5</td>
</tr>
<tr>
<td>Of these, farms, %</td>
<td>12.4</td>
<td>12.5</td>
<td>13.7</td>
<td>13.6</td>
<td>15.4</td>
</tr>
<tr>
<td><strong>Indicators of the resource base of agricultural enterprises</strong></td>
<td></td>
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<tr>
<td>Sown area, million hectares</td>
<td>54.4</td>
<td>53.6</td>
<td>53.2</td>
<td>52.6</td>
<td>52.7</td>
</tr>
<tr>
<td>Livestock, million head</td>
<td>33</td>
<td>31.6</td>
<td>32.9</td>
<td>31.5</td>
<td>30.1</td>
</tr>
<tr>
<td>Number of tractors in farms, thousand pcs.</td>
<td>216.8</td>
<td>211.9</td>
<td>206.7</td>
<td>203.6</td>
<td>198.3</td>
</tr>
<tr>
<td>Number of harvesters in farms, thousand pieces.</td>
<td>57.6</td>
<td>56.9</td>
<td>55</td>
<td>53.9</td>
<td>52.6</td>
</tr>
</tbody>
</table>

In recent years there has been a growing trend among people and organizations to use Europe's unique system of human rights protection to help solve environmental problems.

A number of international legal standards developed by the Council of Europe, especially the European Convention on Human Rights (ECHR), the European Social Charter, and the Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention), have been used successfully to protect the environment.

To date, the European Court of Human Rights has handed down some 300 rulings in environmental cases. Concepts such as the right to life, the right to freedom of expression,
and the right to respect for family life have been applied to a range of issues, including pollution, man-made and natural disasters, and access to information about the environment.

Activists used the (ECHR), at the national level to urge governments to take additional steps to address climate change and environmental degradation [13].

Successive Chairs of the Committee of Ministers of the Council of Europe and various structures within the organization have called for improvements in the legal instruments available to help European states address the serious environmental problems we all face.

It is important that States, when setting appropriate standards, draw on science-based advice and not follow the example of large companies that have decided only to make a profit and do not care about the future.

Man studies various processes, the interaction of substances, properties and other natural phenomena, makes innovative discoveries and solves many problems in the field of environmental and legal impact of agricultural activities on the environment, to improve all spheres of his life. Therefore, between different subjects of law arise relations related to:
- implementation of technical norms;
- implementation of legal due diligence, which includes all types of expertise defined by legal norms, including environmental draft rules and regulations;
- control over execution of decisions made.

New technological standards, which appeared in the process of scientific advancement and technical development, first of all, allowed the country's economy to rise to a new level, but this development has also a negative side: the growth of numerous environmental problems, contradictions in international law and problems of ethical morality. That is why the issues of ecological character and the problems of the globe are becoming more and more acute [14].

The imbalance in nature, caused by the insatiable economic activity of man, has created not only problems related to pollution of the external environment, but also ecological cataclysms. Problems related to the ecosystem are almost always and related to the legal regulation of the AIC [15]. In particular, they are expressed in:
- Insufficient development of environmental quality standards and their improper application;
- distorted information on the risks of negative impact on the scale of technogenic accidents which is provided to the public;
- the problem of compensation for damage caused by man-made accidents;
- Insufficient control over elimination of technogenic catastrophes consequences;
- disregard for public opinion when making important decisions about the state of the ecological situation [16].

It is necessary to systematize and improve what we have in this sphere, to eliminate gaps and contradictions in order to eliminate problems in law enforcement. The right to a safe and healthy environment should be recognized internationally as a natural human right. Without this, all other natural rights, and especially the human right to life, would become a "fiction" in today's environment [17,18].

Technical parameters play an important role in solving environmental problems arising in the AIC. Therefore, it is necessary to adopt uniform environmental quality standards at the international level, as well as the creation of a body for controlling the compliance of these standards at various levels.

Research and development of new methods for solving environmental problems by scientists, should be aimed at creating a comprehensive mechanism for the restoration of disturbed ecosystems, skillful use of the laws of the natural cycle in the life of society, the creation of safe living conditions for nature and society as a whole as a single and indivisible whole [19, 20].
5 Conclusions

Thus, based on the above, our country needs environmental law norms. There should be a priority of environmental legislation over the rest. Legal scholars note the need for codification of environmental legislation. It will help to remove already existing issues and take the path of improvement, and in order for the Environmental Code to become effective, it is necessary to set specific tasks and goals.

The creation of unified environmental quality standards at the international level, as well as the creation of a body to monitor compliance with these standards at various levels, will play a critical role in solving environmental problems.

There is also a particular risk of pollution as a result of violations of the rules governing the storage, transportation and use of mineral fertilizers and pesticides. It is important to set appropriate standards based on science-based recommendations and not to follow the example of large companies that have decided only to make a profit and do not care about the future.

References