

Animal disease and its impact on the ecological environment and public health

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Abstract

For centuries, people have recognized the importance and engaged in ensuring interaction between the spheres of health, animal husbandry and environmental protection. About 20 years ago, the concept of "Unified Health" appeared, suggesting a holistic and intersectoral approach to the development and implementation of programs to ensure human health, as well as programs that affect animal health and the environment. The relevance of the study of animal diseases and the impact on the ecological environment and the health of the population is beyond doubt. Moreover, the problems of epidemics in protected areas with wild animals, which also cause serious impacts not only on the environment (pastures, lands, aquatic environment), but also the population can suffer – a risk to human health. The main environmental threats to human health in relatively prosperous countries are polluted air, noise and exposure to toxic substances. Despite the fact that it is extremely difficult to prove a direct relationship between the disease and environmental pollution, such cases can be found in every country. Many of the factors that determine the development of diseases can be reduced or prevented through government regulation and information campaigns among the population. Numerous studies have also shown that the loss of biodiversity increases the risk of infectious diseases among animals, as well as the risk of their transmission to humans. While broad biodiversity reduces the transmission rate of pathogens and, consequently, the risk of diseases for humans, wild animals, livestock and plants.

Keywords: pastures, environmental accounting, transportation costs, cost of vaccines, costs, financial reporting, population, management decisions, environmental management

Жануарлардың аурулары және олардың экологиялық ортаға және халықтың денсаулығына әсері

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Түйін

Ғасырлар бойы адамдар денсаулық сақтау, мал шаруашылығы және қоршаған ортаны қорғау салалары арасындағы өзара әрекеттесудің маңыздылығын түсініп, осы өзара әрекеттесуді қамтамасыз етуге қатысты. Шамамен 20 жыл бұрын адам денсаулығына, сондай-ақ жануарлардың денсаулығы мен қоршаған ортаға әсер ететін бағдарламаларды әзірлеуге және жүзеге асыруға біртұтас және салааралық тәсілді ұсынатын декоммунизацияланған. Денсаулық тұжырымдамасы пайда болды. Жануарлардың ауруларын зерттеудің өзектілігі және олардың экологиялық ортаға және халықтың денсаулығына әсері күмән тудырмайды. Сонымен қатар, қорғалатын табиғи аумақтарда жабайы табиғатпен эпидемиялық проблемалар туындауы мүмкін, олар қоршаған ортаға (жайылымдар, жерлер, су ортасы) ғана емес, сонымен қатар халыққа да үлкен әсер етеді – бұл адам денсаулығына қауіп төндіреді. Салыстырмалы түрде гүлденген елдердегі адам денсаулығына негізгі экологиялық қауіптер ластанған ауа, Шу және улы заттардың әсері болып табылады. Ауру мен ластану арасындағы тікелей байланысты дәлелдеу өте қиын болғанымен, мұндай жағдайларды әр елде кездестіруге болады. Аурулардың дамуын анықтайтын көптеген факторларды халық арасында мемлекеттік реттеу және ақпараттық науқандар арқылы азайтуға немесе болдырмауға болады. Көптеген зерттеулер сонымен қатар биоәртүрліліктің жоғалуы жануарлар арасындағы жұқпалы аурулардың қаупін, сондай-ақ олардың адамға берілу қаупін арттыратынын көрсетті. Кең биоалуантүрлілік патогендердің берілу жылдамдығын төмендетеді, сондықтан адамдарға, жабайы табиғатқа, малға және өсімдіктерге ауру қаупін азайтады.

Кілттік сөздер: жайылымдар, экологиялық есеп, көлік шығындары, вакцина құны, шығындар, қаржылық есептілік, халық, басқару шешімдері, экологиялық менеджмент

Болезни животных и их влияние на экологическую среду и здоровье населения

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Аннотация

На протяжении веков люди осознавали важность и занимались обеспечением взаимодействия между сферами здравоохранения, животноводства и охраны окружающей среды. Около 20 лет назад появилась концепция "Единого

здравоохранения", предполагающая целостный и межсекторальный подход к разработке и реализации программ по обеспечению здоровья человека, а также программ, влияющих на здоровье животных и окружающую среду. Актуальность изучения болезней животных и их влияния на экологическую среду и здоровье населения не вызывает сомнений. Более того, могут возникнуть проблемы эпидемий на охраняемых территориях с дикими животными, которые также оказывают серьезное воздействие не только на окружающую среду (пастбища, угодья, водную среду), но и на население – это риск для здоровья человека. Основными экологическими угрозами здоровью человека в относительно благополучных странах являются загрязненный воздух, шум и воздействие токсичных веществ. Несмотря на то, что доказать прямую связь между заболеванием и загрязнением окружающей среды крайне сложно, такие случаи можно встретить в каждой стране. Многие факторы, определяющие развитие заболеваний, могут быть уменьшены или предотвращены с помощью государственного регулирования и информационных кампаний среди населения. Многочисленные исследования также показали, что утрата биоразнообразия увеличивает риск инфекционных заболеваний среди животных, а также риск их передачи человеку. В то время как широкое биологическое разнообразие снижает скорость передачи патогенов и, следовательно, риск заболеваний для людей, диких животных, домашнего скота и растений.

Ключевые слова: пастбища, экологический учет, транспортные расходы, стоимость вакцины, расходы, финансовая отчетность, население, управленческие решения, экологический менеджмент

Introduction

The relevance of the study of animal diseases and the impact on the ecological environment and the health of the population is beyond doubt. Moreover, the problems of epidemics in protected areas with wild animals, which also cause serious impacts not only on the environment (pastures, lands, aquatic environment), but also the population can suffer – a risk to human health. In this direction, V.T.Samokhin has the right to prevent non-contagious animal diseases[1, p.3.]

All over the world, scientists are looking for the causes of the large-scale spread of the disease caused by the COVID-19 virus. Researchers at the Harvard School of Public Health say that there is a causal relationship between the anthropogenic impact on the flora and fauna of the Earth and the consequences for human health. As the planet warms up due to climate change, animals on land and in the sea are heading to the poles to escape the heat.

This means that animals come into contact with other animals and people with whom they have not normally been in contact, and this creates an opportunity for pathogens to penetrate to new hosts.

Another reason for animal migration is deforestation, mainly for agricultural purposes. Large livestock farms can also serve as a source of spreading infections from animals to humans.

The loss of habitual habitats by animals drives them to seek food and shelter near people, which can lead to the transmission of diseases from animals to humans.

Thus, human health strongly depends on the environmental conditions in which he lives. Interaction with nature is fraught with many dangers for humans: wild animals, insects, viruses and bacteria, adverse weather conditions and natural disasters.

The world has never been safe for humans. But industrialization and urbanization, designed to make people's lives more convenient and safe, also pose hidden threats. By changing the world around us, burning fuel, producing waste, cutting down forests, developing agriculture and industry, we not only harm wild animals, plants and change the climate, we indirectly harm ourselves.

People themselves create new threats to their health. It is important to remember this and think about compensatory measures that would smooth out the negative impact of technological progress.

Methodology

The causes of premature death of people are primarily unfavorable natural and social factors. The dependence of morbidity and mortality on environmental conditions is reflected in the example of individual states and regions. According to the World Health Organization, about 500 thousand people worldwide are poisoned with pesticides every year, and 5 thousand of them are fatal. Such phenomena are usually common in "third world" countries. In comparison with AKIII, poisoning in these countries is 13 times more. According to American Scientists, 90% of all cancers are due to adverse environmental influences. In the FRG, over the past 10 years, the proportion of cancer patients has increased from 15 to 23% in men and from 17 to 25% in women.

Diseases are more common in industrial and polluted areas. The strongest factor affecting common diseases in children is carbon monoxide and noise. According to scientists, an increase in the amount of CO from 6.5 to 12, ZH-ZH leads to an increase in the incidence of children by 2 times, and an increase in acoustic discomfort by 8 to 20% - by 1.4 times.

The island region is an environmental disaster zone. This area is characterized by a high incidence of diseases and deaths.

For example, in Karakalpakstan (Uzbekistan), the frequency of child mortality is 87 per thousand children born, and in the Scandinavian countries-7-8, in Japan — 5. in the former USSR, at the end of the 80s, the average frequency of child mortality was 24-25.

City and human health. The ecological environment of man today is the city. It is the largest and different from the natural environment, an environment that can be called extreme in many parameters. A huge concentration of man-made power accumulates in the city.

In the cities of the world, about half of the population inhabiting our planet is now concentrated. Over the past 45 years, the population of the city has increased from 729 million to 2540 million. it has grown to people, that is, about 3.5 times, and their share in the total population has increased from 29 to 44%.

At the same time, there is an expansion of cities. By the end of 1995, the world's population was 1 billion people.-320 cities with a population of more than 5 million people.-there were 48 cities with more than one billion population. But the process of urbanization (from Latin urbanus - Urban) is not limited only to an increase in the size and number of urban populations or cities.

In addition, this process is also reflected in the increase in the role of cities in the life of society, a change in the way of life of many people. What is characteristic of human ecology in cities is isolation from natural environmental factors. Plants in the required amount, provided with live soil, water. The contradiction between the biological nature of Man and the results of his actions against nature is aggravated, especially in urban conditions.

The city today is a complex socio-economic organism. It is formed under the influence of demographic, economic and geographical, engineering and construction, architectural factors, as a result of various mutual effects of the surrounding economic space and the natural environment.

Often, many signs of the public process are associated with cities. But urban civilization — favorable conditions, ease of living, density of communication, opportunities to meet various needs-is not just a favorable environment in all respects.

The urban environment has an unfavorable effect on the main quality of a person — his health. Pollution of the atmosphere, water, food products, daily necessities by industrial and transnortic waste, electromagnetic field, vibration, noise, air desionization, chemicalization of life, excessive flow of information, lack of time, hypodynamia, emotionogenic pressure, malnutrition, the spread of harmful activities-all this together worsens human health.

Most of the city's population tries to spend their holidays outside the city, in natural conditions. But the recreational (recreation from Latin rest, healing) pressure that is possible in such places increases, and they become: the continuation of the city.

According to the World Health Organization (WHO), about 23-24% of deaths in the world are due to the influence of environmental factors. Children under the age of five and women in poor countries, where low-quality fuel is used for cooking in households and there are difficulties with access to clean drinking water, are most adversely affected. WHO has been analyzing the impact of environmental factors on human health since the beginning of the century. To reduce the disease of animals in order to reduce the risk of negative impact on the environment and public health. However, how to reduce the disease of animals of a private farmstead.? At the same time, how to reduce the risk of an epidemic.? What should be done with wild animals (or protected animals) for this. All this generates certain costs of funds. Who should organize them? How to take them into account? In this regard, it should be noted that entrepreneurial activity in veterinary care of farm animals of private subsidiary farms is poorly developed. "This mechanism needs to be worked out, because private entrepreneurs competing with each other and with state institutions will be able to provide veterinary services to animal owners with high quality, at an affordable price and in the optimal time" 36, N.P. Sepdov notes. [2, p.16.]

In 2006, the first global report on the prevention of diseases by improving the quality of the environment appeared. In 2016, the second edition of the report was

published, supplemented by modern research and new factors, including such as the impact of climate change on public health.

According to this report, the most common diseases associated with the negative influence of environmental factors are strokes, coronary heart disease, diarrhea and cancer. In poor countries, there is a greater impact of the environment on people's health, compared to rich countries. WHO researchers have concluded that 133 diseases may be associated with poor ecology.

The following environmental factors were considered:

- pollution of air (including passive smoking), water and soil with chemical or biological harmful substances;
- ultraviolet and ionizing radiation;
- noise and electromagnetic fields;
- occupational risks, including the risk of physical injury, chemical or biological poisoning, psychosocial risks, as well as working conditions in the workplace;
- artificially created landscapes, including residential and industrial buildings, land use practices, roads;
- agricultural practices;
- anthropogenic impact on climate and ecosystems;
- behavior related to environmental conditions, such as the availability of clean water for hand washing, the possibility of physical activity in an urban environment.

All over the world, the problem of environmental protection has acquired acute relevance, since it affects the health and vital interests of mankind.

The strategy of environmental protection depends on the disclosure of the problem of interaction between nature and society, where the consequence damages the environment, and its compensation should be mandatory. Today, the problem of ensuring environmentally safe sustainable economic development is the accounting and optimization of technical, technological, social, economic and environmental costs or costs.

The measures taken to protect the environment today should be taken into account and attributed to them as the main requirements of environmental protection in our country.

Environmental practice has been formed in Kazakhstan, approved by the President of the Republic of Kazakhstan of the Long-term Strategy "Ecology and Natural Resources - 2030", adopted in 1996. [1, 5]

Results

These are environmental problems. This is a signal that it's time to do this, not only to treat and vaccinate private farmsteads of animals, but to vaccinate and treat wild fauna. The creation of new power structures, which will be endowed with control and supervisory functions, confuses veterinary specialists. There are many questions about the separation of functions and supervisory functions.

To obtain an objective picture of the impact of the environmental situation, it is necessary to analyze the state of the population of productive animals, including the

determination of the clinical status, nosological structure, resistance level, metabolic processes, and the state of reproduction [2].

The system of diagnostics and correction of the health of the population of farm animals in various biogeocenoses includes an assessment of the population. At the same time, the age, sex, "ethological" structure, fertility, mortality and other indicators reflecting the reaction of this grouping to the impact of a pathogenic geochemical factor are determined.

With ecologically caused diseases, the age structure of the population can change dramatically due to the death of the offspring [3]. It is known that in many regions of the country with a difficult ecological situation, various pathological conditions, changes in the structure and function of many organs and systems are recorded much more often in animals, the reproductive capacity of the breeding stock decreases [4].

Objects and methods. To study the clinical status and reproductive ability of cows, we conducted a medical examination of animals kept in various environmental conditions.

To improve the efficiency of veterinary specialists in the Republic of Kazakhstan, it is necessary to clearly establish directions for reducing the negative impact on the environment and public health (Table 1)

Table 1 - Functions for reducing animal morbidity and reducing the negative impact of epidemic risks on the ecological environment and public health

Functions to reduce the morbidity of animals and reduce the negative impact on the ecological environment and public health					
implementation of programs for the prevention and elimination of diseases	organization of scientific research not only of a private farmstead but also of the fauna of wild animals	creation of programs for the creation of veterinary medicines	monitoring and control of animal diseases and epidemics, compliance with legal norms	protection of the territories of the Republic of Kazakhstan from the introduction of diseases of wild animals risks of epidemics.	training of specialists in the field of veterinary medicine related to the fight against epidemics and loss risks

Currently, there are no regulatory legal acts that would define the organizational and economic mechanism for ensuring epizootic and veterinary – sanitary well-being in the territory of the Republic of Kazakhstan.

The actions of veterinary specialists affect the rights and interests of not only private farmsteads, but also protected areas and fauna of the Republic of Kazakhstan.

The first function – the legal one – is the development of the main activities of the state veterinary service and regulatory regulation in the field of epizootic and veterinary-sanitary well-being. The Department should develop the main regulations concerning the regulation of the activities of veterinary specialists of state, industrial and private services.

The epizootic well-being and safety of livestock products depend not only on the activities of veterinary specialists. Even if veterinary services perform all their functional

duties, epizootic well-being will be impossible to ensure without the fulfillment by economic entities and citizens of the established requirements of veterinary rules. When developing a project, it is necessary to attach great importance to the legal functions, that is, the development, creation and approval not only at the regional level, but also in the whole country:

- on the one hand, professional rules for officials of state, municipal and industrial veterinary services of the country and entrepreneurs in the field of veterinary medicine;
- on the other hand, veterinary and sanitary rules for economic entities (legal entities, individual entrepreneurs) and citizens of producers of livestock products.

V.I. Sizikov suggests: "The second function is the implementation of state veterinary supervision over the fulfillment by legal entities, individual entrepreneurs and citizens of the requirements of regulatory legal acts in the field of ensuring epizootic and veterinary–sanitary well-being in the region.

Control over the implementation of the rules of veterinary activities will prevent and detect violations in the activities of veterinary services specialists.

The third function – the provision of public services – is the conduct of veterinary and sanitary expertise, laboratory diagnostic studies, preventive measures, including animal vaccinations, and other measures"» [5, p.120]. At the same time, these are costly measures, they should be taken into account, it is necessary to organize a mechanism for environmental cost accounting. It is necessary to provide for the exclusion of duplication of functions and powers of the state veterinary service with other regulatory services. The state should stimulate the development of business structures in the field of veterinary services, using organizational and economic methods of regulation (Figure 1).

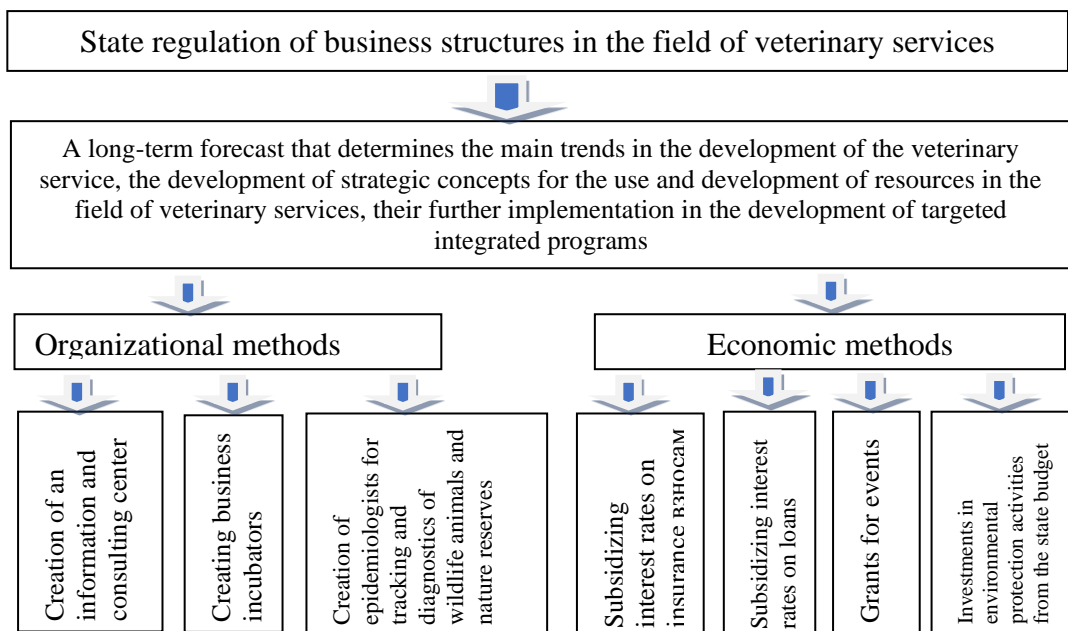


Figure 1 – Organizational and economic mechanism of state regulation of business structures in the field of veterinary services

L.M. Smirnov puts forward his concepts: "The main instruments of state regulation at the regional level should be: a long-term forecast that determines the main trends in the development of the veterinary service for a sufficiently long period, the development of strategic concepts for the use and development of resources in the field of veterinary services (financial, labor), their further implementation in the development of targeted integrated programs" [6, p.82].

Further, using organizational methods of regulation, it is necessary to create business incubators in which newly created entrepreneurial structures can receive assistance in business planning, innovation and investment design. In addition, they should be provided with information support (creation of information and consulting centers).

As economic methods of regulation, subsidies should be used for carrying out veterinary services in each area in carrying out veterinary activities by business structures; not only animals of a private farmstead, but also in wild fauna, in protected areas, birds in reservoirs (avian flu) subsidizing interest on insurance payments (when insuring risks); preferential investment lending for equipment purchases; spreading the practice of using budget leasing funds to them.

Allocation of investments in environmental protection measures in the wild, in protected areas. Investments are needed for research projects, for the introduction of innovations, for conducting analyses of soils, pastures, reservoirs for their ecological condition, for the detection of soil diseases. Today it is no secret that some pastures are sick, reservoirs are infected.

Animals located on these pastures, regardless of their ownership (public or private), are also at risk of diseases. And this is our health. As one of the most priority ways of influencing government structures on the development of entrepreneurial activity in the field of veterinary care of farm animals, a simulation model of building an information system for business structures in the field of veterinary medicine has been developed and proposed.

However, more accurate and reliable information will be provided by environmental accounting. [7, p.52]. All allocated subsidies by type of investment, in the areas of their use, it is necessary to organize environmental accounting of the allocated funds, then their development.

In our opinion, environmental accounting of the costs of disbursed funds should be carried out by cost items:

1. Material costs:

- the cost of vaccines, drugs for specific events,
- cost of tools, inventory,
- cost of workwear and accessories,
- the cost of other stocks.

2. Remuneration of employees:

- for prevention, vaccinations,
- to carry out work on the treatment of animals,
- for research work.

3. Transportation costs:

- delivery of specialists to the places of veterinary work,

- fuel consumption,
 - depreciation of vehicles,
 - current repairs,
 - Maintenance.
4. Maintenance costs:
- buildings of veterinary services,
 - laboratory equipment,
 - depreciation of buildings,
 - current repairs, etc.
 - maintenance costs of the veterinary library, etc.

It is the organization of environmental cost accounting that creates transparency in the prevention and treatment of animals and the development of investments. It is environmental accounting that will simultaneously provide the necessary information to environmental management in making management decisions. These indicators should provide reporting forms to statistical authorities.

Because in accounting, in financial statements there are no indicators of environmental costs. Therefore, there is no information in the statistical bodies in this direction that is needed for the population, for society, or local akimats.

In the conditions of growing public interest in a high level of environmental safety, many companies, subsoil users in environmental protection activities are developing environmental management. First of all, this is environmental management in the system of environmental management tools and environmental protection activities. The development of innovative activities in the country, contributing to economic growth, simultaneously harm the environment, without protective measures can have adverse environmental consequences.

The development and expansion of any production within the country revives certain environmental protection costs. This work is determined by a system of indicators that take into account the strategies and phases of the life cycle (firm) of any company. The above costs must be accounted for. The latter is the formation of a toolkit – a mechanism for environmental accounting and auditing based on information prepared by environmental accounting, which is so necessary for environmental management in making management decisions.

At the same time, the main tasks of environmental management are being solved, currently mainly focused on the company level, which does not affect the territorial and local level, where environmental and economic problems are actually formed.

Research of sources in modern conditions has shown that there are very few publications on environmental accounting and audit in geology, subsurface use of environmental protection activities.

Firstly, we need consistency in the formation of tools and mechanisms for environmental accounting and auditing, and it consists in the following. Every company should start its activities with: environmental policy;

- environmental management in cost management;
- greening of production, environmentally friendly products;
- methods of accounting for the costs of greening production;
- concepts of costs and expenses in environmental accounting and audit;

- cost groupings in environmental accounting;
- classification of costs in environmental accounting;
- cost items in environmental accounting;
- production of environmentally friendly products;
- capital investments for the construction of treatment facilities and installations;
- maintenance of treatment plants and facilities;
- waste accounting and assessment;
- waste classification;
- waste transportation;
- waste storage;
- waste disposal;
- introduction of low-waste technology;
- organization of work from industrial waste pollution;
- recycling
- waste;
- disposal of harmful waste;
- the history of the audit;
- purpose and content of environmental audit;
- the need for environmental audit.

The ongoing costs of ecology and nature management, and the content of environmental protection activities require the organization of environmental accounting. Unfortunately there is almost no accounting methodology in this direction

Conclusion

The spread of infectious diseases. Climate change will have an impact on the habitats and living conditions of insects, mollusks and other cold-blooded animals that can carry dangerous diseases. As a result, the periods of disease transmission seasons will be increased, and the geographical zones of disease spread will be shifted due to changes in animal habitats. For example, in China, the number of cases of schistosomiasis transmitted by shellfish may significantly increase due to changes in their habitat. The number of malaria and dengue diseases may increase due to the expansion of the habitat of Anopheles and Aedes mosquitoes that carry these diseases.

Numerous studies have also shown that the loss of biodiversity increases the risk of infectious diseases among animals, as well as the risk of their transmission to humans. While broad biodiversity reduces the transmission rate of pathogens and, consequently, the risk of diseases for humans, wild animals, livestock and plants.

Most pathogens can "live" in representatives of different species, that is, infect, reproduce and pass on to other individuals. These host species differ significantly in their susceptibility to infection and their ability to transmit it to other hosts.

But the main thing is that often the hosts most prone to infection and transmission of infection are numerous, widespread and resistant to anthropogenic influences. Consequently, these reservoir species of infections can persist in conditions when other species, more sensitive to anthropogenic impact, are dying out. As a result, the surviving species spread, increasing the risk of human infection.

In the region, studies were also conducted on the content of dioxins – toxic volatile chlorine compounds formed during the gorenje waste, which contains chlorine-containing substances. In the composition of livestock milk in the Campania region, an excess of the level of dioxins was detected – about 25% of the samples showed a strong excess of the level set by the European Union.

This is associated with the illegal burning of tires, plastic, textiles and other waste in the open air for two decades in the region. And although corruption schemes have been uncovered and the practice of illegal landfills and incineration of hazardous waste in the Company has been discontinued, health problems for residents of the region will remain for a long time.

Taking into account the importance of environmental accounting and the need for information in auditing the implementation of environmental management requirements, an attempt has been made to create an environmental accounting and audit mechanism, if possible. Accounting and audit will prepare and provide environmental management with the necessary information that is so necessary in making the right environmental management decisions, in compliance with environmental safety requirements and avoiding man-made environmental disasters on earth.

Equally important is the disclosure of environmental costs for the future, they should include:

- future environmental obligations of entrepreneurs.
- from the introduction of innovative production technology or installation of new equipment.

In the future, the design and construction of settling tanks or sewage treatment plants.

Planning of new subsurface use facilities

Innovations, scientific developments related to environmental protection (for the protection of water resources, or cleaning up land and forests from contamination);

Planning- budgeting of the costs of environmental activities;

Planning of geological exploration:

- in the future, under the terms of a loan agreement for environmental activities.

Environmental costs in the future period are the basis for using the company's finances from the expected work. Planned costs or upcoming penalties for environmental procedures.

At the request of the executive bodies, it is possible to agree on whether previously postponed for mitigation and elimination of emergency situations, man-made nature of environmental protection activities. Planning and accounting of activities for participation in regional projects improvement of territories in recreation and tourism areas (water pools, squares, parks)

Scientists correctly believe that the ecological and economic problem is so serious, it requires the need to train production workers, even, probably, the whole of humanity in ecological morality, the acquisition of ecological and economic culture that will contribute to the survival of nature, and with it society. Therefore, the transition to environmentally safe and sustainable economic development is currently becoming one of the priorities of Kazakhstan's development strategies.

Proceeding from this, the national strategy of sustainable and reasonable development of countries, including the Republic of Kazakhstan, as the scientist believes, should be based on the greening of society and the economy, and the development of ecological and economic education as an innovative factor in the formation of moral personalities in a reasonable economy [8, p.592].

It deserves special attention that environmental scientists have revealed the problems of environmental protection, environmental ecology.

Noting that Kazakhstan has repeatedly reaffirmed its commitment to the ideas of environmental security and sustainable development, and by signing the final documents of the UN Conference on Environment and Development (Rio 092), became an active participant in the "Environment for Europe" process, joined the most important international conventions on climate change, combating desertification and biodiversity conservation, ratified The Aarhus and Transboundary Conventions of the United Nations Economic Commission for Europe (ECE).

The research of environmental scientists – problems of environmental protection, environmental ecology, allowed us to come to the conclusion that it is necessary to study the problems of accounting for environmental costs, their classification, and the development of the main mechanism for the formation of environmental accounting.

Environmental protection and the new economy require new approaches to managing this smart economy. Waste recycling and environmental damage compensation costs, moreover, the production of environmentally friendly products are becoming a mandatory postulate today in the developing economy of the country.

At the same time, the development of civilization should have not only environmental, but also economic levers.

Today, such economic instruments include payments in the form of taxes for environmental pollution and payments for the consumption of natural resources, but it should be noted that they are not environmental costs.

Taxes and payments for pollution are good because they provide maximum freedom to the polluter in choosing an environmental strategy that allows to effectively redistribute and minimize the costs of reducing emissions.

In production companies, payments for environmental pollution are calculated quarterly according to actual indicators from stationary sources, from mobile sources and for waste disposal. The organization of a rational taxation system is the most effective type of control over environmental activities.

All of the above is reflected in the accounting in the form of obligations to compensate for negative consequences and in case of violations in the form of fines for environmental protection. Fines and payments do not relate to environmental costs, according to Kazakh legislation they are referred to as expenses.

Our research has shown that in environmental protection measures, not only costs take place in compensation for environmental damage, but also costs, together they are costs. All this should be managed effectively. In this connection, a new economic science was revived, as "Environmental management".

That is why "Environmental management" should contribute to effective management, and the solution of economic, industrial, scientific, technical,

environmental, social problems, taking into account the interests of not only companies, but also the state.

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