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Environmental Protection and Rational use of Natural Resources

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Abstract

The development of science and technology leads to the improvement of the means of labor, which, in turn, leads to an increase in it's impact on the environment and it's pollution. Today, when the human impact on nature, natural complexes at different stages has reached a high level, the problem of preventing environmental imbalances becomes urgent.

Keywords*: Natural, Environmental, Resources.*

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It is important to study the ecological situation, nature management and properly organize nature protection. It depends on the organization of observation and the correct management of the state of the natural environment. Monitoring involves the observation, assessment and forecasting of certain objects or events, that is anthropogenic changes in the natural environment.

The principles of nature management and nature protection is reflected in the Constitution of the Republic of Uzbekistan. The activities of state organizations in this area are also defined in the Constitution. Persons who violate environmental legislation are subject to administrative, material and criminal liability.

The fact that the economy is provided with natural raw materials and has long been dependent on the laws of nature, especially environmental laws and regulations, is not recognized. As a result of the development of production and the widespread use of scientific and technological advances in industry and agriculture, the location of natural resources, their potential, regenerative capacity, levels of self-purification, including dependence on environmental laws, began to be justified experts [1].

Ineffective (extensive) development of the economy, based on the principle of "achieving high returns at the lowest cost," ultimately led to an environmental crisis. It's negative consequences began to cause economic hardship in society due to air and water pollution, soil degradation, reduced income, deteriorating human health, reduced labor productivity and decreased productivity. It was found that a one percent reduction in soil fertility would result in a 10 percent crop offset cost. In the course of the study, it was found that the productivity of the secondary forest formed on the site. As a result of natural deforestation did not correspond to the productivity of the primary forest [2].

Around $ 2.5 trillion are spent annually around the world to reduce the incidence of infectious diseases and crop pests, which alone account for 10 percent of the global budget, give us insight into the negative impact of the environment on the economy. According to experts, in the second half of the twentieth century, the damage caused to the natural environment by human activities, and the damage caused to human health, exceeded the annual budget of the world. It should be noted that for a unit of finished products obtained as a result of land reclamation, several, sometimes 10 or more units of waste are formed. Such waste is usually of no value to the economy. Because they are not used in the economy, in addition, waste pollutes the environment, occupies pastures, and threaten human life.

средства. We all know that the more gross national product is produced, the greater the total waste. However, the state will not allow the deterioration of the health of the population due to pollution with this waste, will take care of the restoration of their health, and will allocate certain funds for this. These costs are covered by the gross national product. However, the amount of environmental pollution is not calculated. The newly built enterprise brings its manager a certain income per year, but the enterprise throws various waste into the environment, pollutes the air, water and soil, damages crops and pastures, and worsens the health of the population.

The impact of the economy on the environment is well known, but the impact of the environment on the economy is much more complex. This is often attributed to the negative impact of nature on society. With improper use of the natural resources of the regions, they become impoverished, degradation intensifies, and a change in the amount of resources leads to a change in quality. These environmental and economic changes impoverish the economic potential of the region, most importantly, the socio-economic situation is deteriorating, a sharp decline in resource

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productivity leads to a disruption of irrigated agriculture and cattle breeding, the supply of industrial enterprises with high-quality raw materials is disrupted [4].

Costs are the backbone of environmental protection measures. This process usually includes a methodology for assessing the sustainable development of ecosystems. In particular, studies show that the United Nations method of net production or the World Bank method of net savings is calculated by deducting environmental costs. This requires an assessment of the costs incurred for environmental protection. As a result, we will be able to improve the efficiency of environmental management [5].

Table №1 Dynamics of the structural structure of environmental expenses in Fergana region

Years	Operating expenses for nature conservation - total (2 + 4 + 5 + 9)	Costs of rational use and protection of water resources	therefore, the costs of receiving and treating wastewater	Air protection costs	Expenses for rational use and protection of land resources (6 + 7 + 8)	Costs of protection against pollution by production and consumption waste	Spending on making the land useful	Costs of reception, storage and disposal of waste	The costs of reproduction and protection of the use of biological resources
	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
2010	100,0	56,1	23,6	40,1	2,21	1,12	0,42	0,82	2,37
2011	100,0	55,6	23,7	39,0	2,10	1,01	0,40	0,81	2,40
2012	100,0	55,8	23,6	39,1	2,20	1,00	0,41	0,78	2,45
2013	100,0	56,2	23,5	39,2	2,12	0,90	0,41	0,80	2,47
2014	100,0	62,7	15,3	32,4	2,32	1,04	0,60	0,68	2,57
2015	100,0	61,4	12,8	29,7	4,79	0,98	0,35	3,46	4,06
2016	100,0	61,7	16,5	34,2	2,47	1,49	0,29	0,69	1,64
2017	100,0	66,9	17,6	29,5	1,95	0,79	0,30	0,85	1,59
2018	100,0	63,9	21,4	33,5	1,45	0,69	0,26	0,50	1,00
2019	100,0	63,1	21,0	33,1	1,50	0,71	0,26	0,52	1,43

Source: Based on the author's calculations using data from the Main Department of Statistics of the Fergana Region.

When studying the structure of total expenditures for environmental protection in the Fergana region in 2010-2019. the main part is spent on the rational use and protection of water resources. In particular, the share of total expenses in this area increased from 56.1% in 2010 to 63.1% in 2019. However, these numbers fluctuated unevenly over the years. The highest value was in 2017 (66.9%) and the lowest in 2011 (55.6%).

Also, the contribution of expenditures on environmental protection in the structure of expenditures on environmental protection was the next largest share. In other words, the share of

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expenses in this area in the overall structure in 2010 was 40.1%, and in 2019 it decreased to 33.1%. Expenses for the use and protection of land resources and the protection of biological resources also decreased by 2019 compared to 2010 and decreased on average by 1.5 times. However, this situation does not reflect the overall sustainability of economic and ecological systems. This is due to the fact that the volume of environmental protection expenditures in 2019 increased 5 times compared to 2010.

In 2008-2020, the amount of toxic gases emitted into the atmosphere increased in the Fergana region. In particular, the amount of hydrogen fluoride from toxic gases containing carbon dioxide increased by an average of 0.4-0.5 ppm per year, nitric oxide by 0.2 ppm and methane by 1.1 percent.

The emissions of harmful gases into the atmosphere are affected by the negative consequences associated with the activities of the population and industrial enterprises living in the region. The constant increase in the concentration of toxic gases in the environment complicates the ecological situation in the region. In addition, the current levels of tree felling and water use in the area are affected.

The study found that the area of cut trees in the Fergana region over the past three years has increased by an average of 1.9 points. Deforestation has a negative impact on the ecosystem of the area.

At the same time, 77.5% or 3721.3 million m3 for irrigation (agriculture) and 22.5% or 1079.3 million m3 for production, communal and technical needs in the region. Rational use of water used for irrigation (reduction of water consumption) has made it possible to increase the production of the necessary agricultural products. However, the amount of water used for industrial, municipal and technical needs and the share of industry in it is also growing. In particular, 0.39% for electricity production, 1.98% for industrial production, 52.23% for utilities, 23.39% for fishing and 15.85% for others. The average annual increase in water consumption in industry was 3.3% in industry, 0.45% in utilities and 2.4% in fisheries. The increase in water volume in various sectors leads to pollution of water and water resources and limits opportunities for efficient use of water.

Although the fund of irrigated lands in the districts and cities of the Fergana region is growing from year to year, the volume of work related to its development and management is also changing. At the same time, we pay special attention to positive and negative changes in the land fund. In particular, the increase in the area of irrigated land reflects the positive aspects of the land fund. We study and analyze the state of salinity to determine its negative aspects. This requires an assessment of the degree of land salinity and the dynamics of its change. According to statistical data on the current situation, the level of total mineralization in 2019 decreased by 2 times compared to 2010, i.e. from 49% in 2010 to 25% in 2019.

Taking into account the natural and climatic conditions of the region, the share of agricultural products is the leading one in the gross regional product. Therefore, it is important to conduct a broader study of ameliorative changes and identify highly, weakly and moderately saline irrigated areas. Half of the available irrigated land in 2010 was saline land, and now it is a quarter. During land reclamation, weak salinity increased, while medium and high salinity decreased.

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uring the observation period, the average salinity level decreased by 3 times, and the high salinity index decreased by 5 times. The weak level index during this period increased 1.4 times, which requires environmental protection measures to prevent salinization of not only strong, but also weak areas.

In our opinion, in order to solve the problems of environmental protection, it is necessary to take the following measures:

- Development of an environmental regulatory framework and analytical control system, including relevant environmental standards and global monitoring indicators and mechanisms for their implementation;
- improving the management and use of databases and databases through the introduction of forecasting methods and econometric modeling;
- Development and improvement of a unified state cadastral service, including the development and publication of resources of flora and fauna;
- to pay special attention to the development of monitoring of environmental pollution, protection of industrial enterprises, large-scale emissions of greenhouse gases, the impact of harmful emissions on the gene pool, as well as the flora and fauna of border areas;
- strengthening the capacity of the existing environmental monitoring network;
- Provision of advanced training through the creation of centralized advanced training courses;
- development of methodological approaches to the economic assessment of natural resources, preparation of project program proposals in order to strengthen the aspects of the economic assessment of environmental management initiatives;
- analysis and identification of additional sources of financing, including investment projects and programs, business structures, support opportunities through the implementation of the private sector;
- targeted support for the development of priority national projects and the introduction of incentive mechanisms adopted in international practice;
- Improvement of the long-term National Program for the improvement of legal norms, standards, methods, guidelines in the field of environmental protection and the use of natural resources in accordance with the requirements of ISO 14000, 9000, 14001 on the basis of analysis.
- Strengthen adequate and effective protection of intellectual property rights in technology, in particular biotechnology, knowledge, know-how and profit sharing.

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