



## INDICATORS OF ENVIRONMENTAL SAFETY

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### ABSTRACT

*The article provides a characteristic of environmental safety. The ways to assess the country's environmental safety using indicators are considered. You will also learn the reasons for the evolution of environmental problems*

**KEYWORDS:** *ecology, environmental safety, indicator, environmental indicator, environment.*

### DISCUSSION

The issues of ensuring environmental safety are becoming more urgent and more global every day.

Unfortunately, in the pursuit of technological development, which is based on the satisfaction of human needs, the issues of environmental protection have lost their importance and society has not yet fully realized the nature and scale of environmental problems.

We must not forget that environmental problems have no state, they are limitless and have no nationality. Taking this into account, while protecting nature and the environment, we must thoroughly analyze the criteria of ecological safety in order to slow down and ultimately stop the scale of development of an ecological catastrophe.

But in order to analyze these criteria, we need to study what environmental safety means.

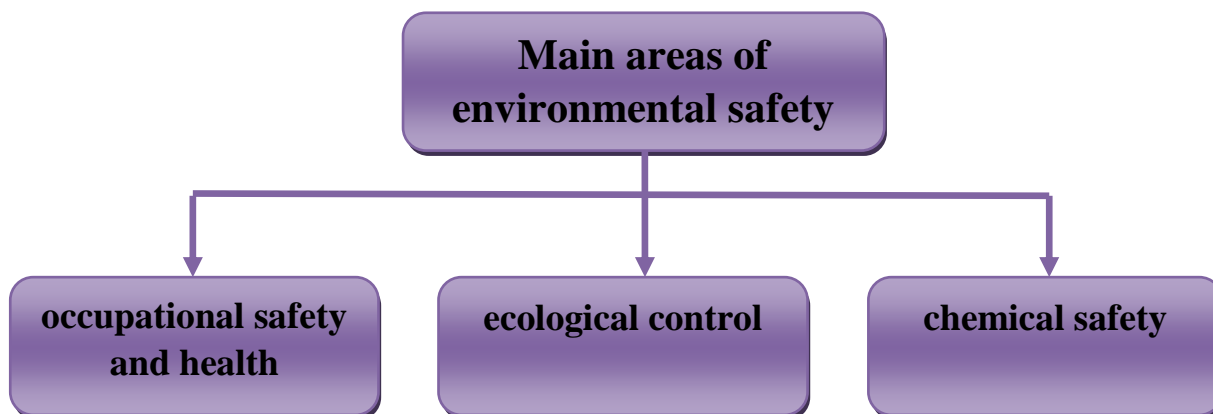
Environmental safety is the state of non-protectiveness of the relevant environmental interests of people, primarily their rights to a favorable natural environment for life, which occurs due to the proportionate coexistence of the environment and human economic activity.

Environmental safety is a state of stable dynamic balance of the biosphere [1].

Environmental safety means "a set of states, processes and actions that ensure the ecological balance in the environment and do not lead to vital damage or threats to the natural environment and humans".

The object of ecological safety is the geosocioecosystem of various levels; global, national, regional, local level of an individual enterprise or person who are exposed to environmental threats. Thus, it includes a set of natural, social and other conditions, the purpose of which is the safe life and activities of people.

Today, there are many reasons for the deterioration of the environment and human activities. The main reason for this problem is the interaction with hazardous substances (radioactive, toxic, chemical, etc.), which can lead to destructive consequences, as well as the use and creation of destructive technologies [4]. It should not be forgotten that many chemicals, when used in a wise manner, contribute to the improvement of human quality and health. In addition, natural disasters are also a global environmental problem.



### 1-Picture. Main Areas of Environmental Safety [5]

Occupational safety and health include a system for saving the life and health of workers in emergency situations during working hours. For example, prevention of the harmful effects of working environment factors on workers; protection against the dangerous effects of electric current and electricity; the state of protection against accidents at production facilities; fire safety, etc.

Environmental control is a system of state and public measures to prevent and identify violations in the field of environmental protection. In addition, the main tasks are also: monitoring the state of the environment; verification of the implementation of programs for the protection and improvement of the environment, etc.

Chemical safety is a practical performance that uses chemicals to prevent damage to the environment. It includes all aspects of the use of chemicals.

Renewable natural resources in many developing countries have been hit hard in recent decades. Growing populations, and often livestock as well, are one of the main factors determining the rate of degradation and depletion of these resources. The indirect effects of environmental degradation often extend to social, environmental, economic and sociopolitical issues of concern. For this reason, it is important that we monitor the consequences of our actions to ensure the safety of the environment and the country. Indicators are used to establish the level of the state of the environment and take the necessary measures to prevent problems.

An indicator is a significant index of the state of the environment and its elements, which determines the presence of an impact (natural disasters, pollution, etc.) and the response to this impact [6]. The main purpose of indicators is

informing. Indicators convey information to the user clearly and clearly.

The main objectives of the indicator are:

- 1) primitivization of information in order to understand the problem and solve it accordingly
- 2) be real and practical

Indicators are intended for:

- Ministries and departments
- legislative and executive authorities
- scientific and educational organizations
- enterprises
- public and non-governmental organizations

It should be noted that environmental indicators are used at various levels: global, regional, national and local.

At the global, regional and national levels, environmental indicators provide information on the state of the environment over large areas, and at the local level they are monitored over small areas. A quantitative analysis of environmental services and departments should be combined with qualitative ones.

Some environmental effects were noted where indicators should be used [2]:

- climatic change
- ozone depletion
- health
- noise
- eutrophication
- forest damage
- fish death
- contamination
- recreation
- biodiversity
- biological production
- marine eutrophication

For example, changes in radiative forcing can be taken as an indicator of climate change. In equilibrium the Earth must re-radiate same amount of



energy in order not to heat up or cool down. In other words, radiative forcing determines the heating impact on the Earth and all its sub-systems from increases in density of greenhouse gases after the industrial revolution.

One of the main reasons for disturbances about ozone depletion, is increase in ultra-violet (UV)-radiation at ground level. This leads to increased deaths and skin cancer in humans and animals. It should be noted that changes in the ozone layer can affect changes in the chemical composition of the atmosphere.

Forests play an important role in human life. Therefore, we need to protect them. For example, there are indicators of forest resources. The main purpose of these indicators is to inform whether timber stocks are being depleted faster than they are being produced.

The most advanced countries in the development of indicator systems are Australia, Canada, the United States and a number of European countries. The system of eco-indicators for the organization of environmental cooperation and development is widely recognized in the world. The OECD system of indicators explains the relationship between the economy and environmental protection, as well as identifies the economic-environmental and socio-environmental relationships. The OECD indicator system is a pressure-state-response model. The DSM model works as follows: if a person is engaged in some kind of activity and has a negative impact on natural resources, then society reacts to these changes.

The system of environmental-economic accounting was proposed by the Statistics Division of the UN Secretariat in 1993. The purpose of the environmental-economic accounting system is to take into account the environmental factor in national statistics. It expands the potential of national accounts, but is not seen as a substitute for national accounting, and also provides an opportunity to assess environmental costs. The genuine savings rate was proposed by the World Bank. Genuine savings is the rate at which national savings are accumulated after accounting for resource depletion and pollution damage. The World Bank has calculated the values of natural, produced and social capital, as well as the share of natural capital in the national wealth of the country. Thus, the share of natural capital in national wealth is on average 2-40% for more than 100 countries of the world, the share of human capital is 40-80% [7].

Analysis of international databases made it possible to identify trends in the publication of statistical indicators characterizing the ecological state in various countries. 16 international databases were studied, including the United Nations Statistics

Division, the Economic and Social Commission for Asia and the Pacific, the United Nations Eurasian Economic Commission, the United Nations Food and Agriculture Organization, the International Monetary Fund, the International Labor Organization, UNESCO, UNIDO, the World Bank and others.

In the Republic of Uzbekistan, attention is paid to the state of environmental safety. Within the framework of the project of the Republic of Uzbekistan "Environmental indicators for monitoring the state of the environment in Uzbekistan", a system of environmental indicators has been created. The system contains not only a set of national environmental indicators for monitoring, but also a database for analyzing the storage and transmission of these data [3]. A number of problems arose in the formation of the list of environmental indicators. The main problem is different information that is collected by various organizations. Consequently, inconsistent data make it difficult to process. The second key problem is limited access to environmental information. To solve these problems, the Project involved an international consultant - a specialist in the development and application of environmental indicators and 16 highly qualified national experts for cooperation. Consequently, the experience of leading foreign countries and international organizations was studied, and the main environmental problems of the country were identified. It should be noted that the criteria for the selection of national environmental indicators have been implemented. In order to increase user knowledge and public awareness of the system of environmental indicators and the role of environmental indicators in monitoring and assessing the state of the environment, the Project engaged a public awareness expert.

Based on the foregoing, indicator is an important index that play a key role in the formation of environmental safety. Therefore, it is necessary to improve the quality and reliability of indicators in all directions, and based on the factor to solve the problem accordingly. The indicator must be sensitive to changes in the state of the environment. We cannot predict environmental problems without a development model. Such forecasts provide an opportunity to anticipate changes in advance and direct them to the right decisions. An adequate response to environmental problems requires that we be able to model the relationship between economic activity and the environment. The indicators should preferably be consistent. It should be noted that it is important to understand what the environmental safety indicators should be used for and what changes they will lead to.



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