

## **ARCHITECTONICS OF SUSTAINABLE DEVELOPMENT OF ECOSYSTEMS**

**B. Alikhanov**

Chairman of the Committee of the Senate of the Oliy Majlis of the Republic of Uzbekistan on the development of the Aral Sea region

**S. Samoilov**

Chief Expert of the Committee of the Senate of the Oliy Majlis of the Republic of Uzbekistan on the development of the Aral Sea region

**L. Seitova**

Deputy of the Legislative Chamber of the Oliy Majlis of the Republic of Uzbekistan

**Abstract.** Environmental safety occupies a special place in the system of measures to ensure national security.

In the context of the indivisibility of security, ensuring environmental security is unshakable.

**Environmental safety** is a set of states, processes and actions that ensures a balance in the environment and does not lead to vital damage (or threats of such damage) inflicted on nature and man. It is also the process of ensuring the protection of the vital interests of the individual, society, the state and the environment from real or potential threats created by anthropogenic or technogenic impact on the environment. The objects of environmental security are the rights, material and spiritual needs of the individual, natural resources and the environment or the material basis of state and social development.

That is why the Sustainable Development Goals are a kind of call to action coming from all countries of the poor, rich and moderately developed. It aims to improve well-being and protect the planet. Governments recognize that action to end poverty must go hand in hand with efforts to increase economic growth and address a range of issues in education, health, social protection and employment, as well as combating climate change and protecting the environment.

The sustainable development of any state is based on 4 main components: **economic growth; social protection; environmental safety and institutional development.**

Let's try to separately "decipher" these components.

**1. Ensuring economic growth is essential:** firstly, the stability of society; secondly, the allocation of appropriate funds for health care, environmental protection, rational use of natural resources, equipping with effective treatment facilities from environmental pollution.

At the same time, in modern conditions, stable economic growth can only be ensured if there is a transition to the principles of a "green" economy.

**2. Social protection.** Social support of the population should be carried out differentially on the basis of ecological zoning, taking into account the state of the environment, the level of morbidity of the population of a particular territory.

**3. Environmental safety.** Ecosystem components (atmosphere, water, earth, fauna, flora, etc.) are closely interconnected. Any negative impacts on a single component(s) of the ecosystem, then it reverberates throughout the chain.

The system for ensuring environmental safety should cover legislative, technical, managerial, biological and other measures aimed at ensuring sustainable development. Environmental safety is achieved by a system of measures (forecasting, planning, management, etc.) that ensure a minimum level of adverse effects on humans and while maintaining sufficient rates of economic growth, industrial development, agriculture, communications, etc.

Therefore, ensuring the sustainability of the ecosystem should be modeled taking into account all components and their interconnectedness, as well as interdependence.

At the same time, environmental threats and challenges to sustainable development are initially determined.

In our opinion, environmental threats in terms of the scale of impact are classified into: 1) **global environmental threats**; 2) **regional environmental threats**; 3) **national environmental threats**; 4) **local environmental threats**.

At the level of global environmental threats - climate change; depletion and pollution of fresh waters; biodiversity loss; melting glaciers; Aral catastrophe and problems of the Aral Sea region. Regional environmental threats - transboundary environmental pollution; transboundary and regional problems of water resources use; waste generation; desertification of landscapes and natural and man-made disasters. National environmental threats - lack and pollution of water resources; lack of quality drinking water; irrational use of natural and energy resources; degradation and deterioration of the reclamation state of lands; air pollution; negative influence of factors on the gene pool of flora and fauna; the impact of the state of the environment on public health; a huge amount of accumulation of industrial, construction and household waste; poor use of modern resource-saving technologies; increased risk of mudflows and landslides. Local environmental threats - pollution of certain areas of Tashkent, Navoi, Surkhandarya regions and the Ferghana Valley with industrial emissions; degradation of ecosystems of the Republic of Karakalpakstan, Khorezm and Bukhara regions; noise pollution of certain areas of large cities and industrial facilities.

**4. Institutional development** is part of a broad development process that encompasses social, economic-financial, political, international, technical, legal, cultural and environmental aspects.

Institutional improvement of management consists in creating a system of legislation and norms aimed at their greening and ensuring the organization of execution.

To ensure effective institutional management, the relevant structures need to review their approaches and methods of work, respond quickly to the changing needs of society, and are aware of best practices and solutions to development problems.

The implementation of these measures will contribute to the activation of the state policy in the field of environmental safety to prevent and suppress environmental threats to vital national interests, optimize and control the environmental situation, based on increasing the responsibility of ministries, departments, local government bodies, public organizations and every citizen of the Republic of Uzbekistan.

In general, taking into account the evolution of environmental problems, their impact on the environment and public health, it is considered appropriate to create an integrated system for ensuring environmental safety.

This system will allow the application of fully coordinated and effective, including preventive measures to prevent, prevent and eliminate environmental threats and challenges, stabilize and improve the environmental situation in Uzbekistan.

The priority strategic directions of sustainable provision of environmental safety should be, firstly, the improvement and further implementation of the economic mechanism for regulating the interaction of state bodies at various levels and users of natural resources, the inclusion of environmental requirements in the procedure for assessing the socio-economic efficiency of managerial decisions; secondly, the reduction of the level of environmental pollution throughout the republic to the ecological, hygienic and sanitary standards; thirdly, the rational and integrated use of natural resources, including water, land, minerals and biological resources; fourthly, improvement of a unified system of environmental monitoring, forecasting and information; fifthly, the adoption of comprehensive measures to ensure the localization, restoration and improvement of the ecological state in the zone of ecological disaster - the Aral Sea region, as well as in other ecologically unfavorable territories of the country; sixth, the development and improvement of the system of environmental education, culture and education of the population, especially young people; seventh, deepening cooperation with the world community in solving environmental problems.

At the same time, the proposed national system for the creation of a unified and comprehensive provision of the country's environmental security should provide for:

- solution of key problems of regional security, issues of using the resources of transboundary watercourses;
- taking effective measures to combat such threats as transboundary contamination of territories with substances hazardous to public health and the environment;
- preservation of ecological systems, restoration of natural resources and improvement of the state of the environment;
- carrying out a wide range of research and development work aimed at introducing advanced innovative resource-saving technologies and waste-free production, renewable energy sources, limiting the spread of alien species and genetically modified organisms, goods and products, implementing environmental programs and investment projects;
- formation of a system of economic measures that stimulate the greening of production, the rational use of natural resources, the gradual transition to a "green economy", based on a comprehensive assessment of their state and anthropogenic impact on the state of environmental quality;
- development of markets for environmental services, including eco-tourism, environmentally friendly products, technologies and equipment.