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## FEATURES OF THE DEVELOPMENT OF MODERN SCIENCE IN THE PANDEMIC'S ERA

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## ENVIRONMENTAL SAFETY AND HEALTH OF RIVER ECOSYSTEMS OF THE CARPATHIAN REGION

As a result of anthropogenic pressure, the level of environmental safety and the sanitary and hygienic condition of the river network of the Eastern Carpathian basin have sharply decreased over the past decades. Using the example of the model of the Pokutsko-Bukovynian Carpathians, the effectiveness of the combined system approach (organizational-management and engineering-technical) for the preservation and reproduction of devastated water ecosystems is shown. Today, the catastrophic ecological state of the river network of the Eastern Carpathians is a breeding ground for the disturbance of the balance of natural ecosystems as a result of increasing anthropogenic pressure on the environment. Thus, the social component is decisive in the formation of environmental security of the region. However, given the state of devastated water ecosystems, it is not possible to restore or at least stop their further degradation by organizational and management measures alone.

The system approach proposed by us involves the combined use of organizational and managerial, engineering and technical measures and monitoring studies for the preservation of vulnerable mountain ecosystems under the conditions of their real state. On the example of a small, but specific landscape-climatic and socio-economic conditions region of the Eastern Carpathians - Pokutsko-Bukovynian Carpathians, a model of such an approach has been worked out. Our monitoring studies of the sanitary, ecological and microbiological state showed the effectiveness of the above-described approaches to prevent contamination of surface waters by organic pollutants from farms and the household sector. In order to minimize the ecological danger from the pollution of the hydrosphere by effluents of small processing enterprises (provided there is practically no centralized treatment facilities in the region), a reagent method of pollution neutralization (using sodium hypochlorite solution) was used, which is effective, reliable, and allows to ensure the required degree of purification. In addition to the above-mentioned engineering and technical solutions, we have developed proposals for solving environmental problems and increasing the level of environmental safety of the Ukrainian Carpathians by organizational and management methods. Among them: a clear definition of national, regional and local environmental priorities, taking into account the peculiarities of socio-economic development; increasing the culture of polonya onion growing and tourism; promoting and demonstrating among the local population the benefits of ecologically safe farming methods; increasing the interest of government structures in the involvement of non-governmental organizations to preserve the environment, forming a public forum to promote the implementation of the provisions of the Carpathian Convention and the Carpathian Ecoregion Initiative.

Population health indicators are an important integral criterion characterizing the state of ecological safety of the mountain areas we studied. Studying the dynamics of demographic indicators indicates a general trend of decreasing natural growth in the region over the past five years. One of the reasons limiting the increase is the increase in morbidity in the region's population and the state of the environment.