

## THE INFLUENCE OF ENVIRONMENTAL FACTORS ON PHYSICAL CULTURE AND SPORTS

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The internal environment of a person, which ensures the homeostasis of the organism, is closely related to the action of environmental factors. This interaction is at the level of human adaptation mechanisms. Therefore, environmental environmental problems in the modern world are becoming increasingly relevant. One of the key issues considered by ecology is the adaptation of a person to various environmental conditions. Adaptation in sports is considered in the context of a new direction in the ecological science of man – the ecology of physical culture and sports. Adaptation to different modes of physical activity is most clearly manifested in Olympic and professional sports, when a person's physical activity becomes too intense, the body must adapt to changes in functional systems, muscle tissue in accordance with the increased requirements associated with the influence of negative environmental factors.

Proper physical and mental training boosts the athlete's resistance to functional changes and environmental factors (Gryban et al., 2005; Gryban, 2008). The interaction between the environment and sport is crucial for balanced management and sustainable development. Research by W. Hollman and T. Hettinger shows that no professional activity matches the training effects of modern sports. Heavy physical labor in tough climates does not cause the same adaptive changes seen in top athletes (Hollman, & Hettinger, 1980).

The combined influence of various factors related to sports activities leads to changes in body functions and structures. Increasing knowledge about sports and the environment among participants in sports events should help address potential issues during large-scale competitions and the preparation of sports facilities. The Committee for the Development of Sport of the Council of Europe is working on the following areas:

- creation of "Sport and Environment" programs; initiating discussions at the appropriate level on the importance of sport as an element in environmental education;
- combining elements of the school curriculum with sport and environmental education;
- conducting environmental education in various sports clubs;
- encouraging enterprises involved in the production of sports goods to provide consumers with environmental information by printing information on packaging, etc. (*National and Regional Approaches for Ecological Networks in Europe*, 2001). International and national sports organizations are also increasingly paying attention to this problem. Many specific initiatives come from national Olympic committees and national sports federations (*Environment and Sport*, 1997; *Gold for Green*, 1999).

One of the directions of environmental education in the field of physical culture and sports, improving the effectiveness of the educational and training process, conducting sports competitions and physical culture and health activities, and preserving the health of participants in the events implies the following:

- inclusion in educational programs for various types of sports of issues of environmental education and upbringing, which should provide the athlete with a system of knowledge about the positive and negative impact of environmental factors on the state of his vital activity;
- providing recommendations on conducting educational and training sports in conditions of a polluted environment, including various temperature factors, contaminated air, water, food, etc., a high level of physical performance of the athlete, adaptation of his functional systems to sports activities depend on the state of health and compliance with environmental safety standards (Gryban et al., 2005; Gryban, 2008; Gryban, & Skoryi, 2018). The environment is a place of residence and production activity of a person. It forms the conditions of work, life, recreation, and nutrition.

The research methods used are aimed at studying the problem of "environment and sport", solving the tasks of preparing athletes to participate in sports events without loss of health. The following scientific methods were used: analysis of literary sources,

pedagogical observation, conversation, questionnaire, expert assessment, and self-assessment of the level of knowledge, skills and abilities of behavior in the aggressive environment.

The ecological situation on the planet is changing for the worse every year, which is associated with wars, the constantly growing capacity of industrial enterprises, the opening of new factories and processing plants, as well as an increase in the number of vehicles, the growth of production and use of mineral fertilizers and pesticides, the emergence of new technological processes, chemicals, products, poor-quality waste disposal, etc. In sports activities, which are characterized by increased metabolism, consumption of more air, food, etc., negative environmental factors will have an even greater negative impact. Based on this, a healthy person, by nature, is not always able to adapt to any changes in the environment because adaptation has its limits (Gryban, 2008). At the same time, the lifestyle should be decisive in changing a person's consumer attitude to the natural environment, as it contains elements of ecological culture.

The main strategic objectives of the concept of environmental education and upbringing are as follows:

- preservation of a viable natural environment, biological diversity, including the human gene pool;
- significant changes in environmental education and individual education based on scientific and religious principles;
- formation of a new ecological thinking, which is based on adherence to the principles of scientificity, humanity in the relationship between man, society and nature;
- development of environmental education considering national achievements, formation of ecological thinking not only in a narrowly national, but also in a planetary aspect;
- promotion of environmental education, which serves to improve the personality, its inner world, develops human dignity, humanism;
- an individual's awareness of themselves as part of nature, connected through numerous inseparable ties, enables them to establish appropriate relationships with their environment (Gryban, 2008; Gryban, & Skoryi, 2018). The content of environmental education is grounded in a system of scientific knowledge that encompasses methodological, natural scientific, socio-economic, legal, philosophical, moral and ethical, technical, and ideological aspects of the existence of the natural environment and the natural conditions of human life.

The Olympic movement integrates sustainable development principles in sports, addressing environmental preservation as per the XXI UN Conference agenda. The Olympic Games effectively communicate the need for environmental improvement to millions. The Conference documents urge all sports organizations to incorporate sustainable development measures into their activities and lifestyle. The International Olympic Committee, international federations, and national Olympic committees form an education network to teach practical and technical measures for sustainable development. Construction projects like Olympic villages and sports facilities must maintain natural ecosystems.

One of the most important indicators of the successful holding of major sporting events is the proper use of nature and protection of the environment during the construction of sports facilities, holding mass sporting events. The state of the environment and the health of participants in sporting events are closely interrelated phenomena. A healthy natural environment contributes to the improvement of the human body, the restoration of working capacity. Negative environmental factors contribute to the occurrence of various diseases, cause an increase in mortality, and a reduction in life expectancy.

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