

THE RELATIONSHIP BETWEEN CLIMATE CHANGE - AQUATIC RESOURCES - HUMAN HEALTH

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Introduction. In the Republic of Moldova, the population's access to drinking water sources is a major problem. Access to safely managed aqueduct systems in urban areas is 98%, while in rural areas it hardly reaches half that figure. Access to safe water sources is limited as global warming progresses. The localities near the Dniester and Prut rivers are exposed to an increased risk of floods, conditioned by climate change, as a result of which the sources of drinking water used by the population are frequently polluted. The purpose of the study is to prove the impact of climate change on drinking water conditions affecting the health of the population.

Material and methods. The present research includes a descriptive and analytical study. A bibliographic review was conducted by retrieving the essential data, using full-text articles from the social networking site ResearchGate. The articles on the characteristics of water sources, influenced by climate change and the impact on the health of the population were analyzed.

Results. Climate change can cause changes in water quality, thus increasing the risks of public health. As a result of changes in water temperature, pathogenic bacteria, viruses, and parasites, vibrios will develop in the water at different times of the year and in places where they have not been detected before.

Increasing rainfall events and rising temperatures caused by climate change may upsurge the frequency of waterborne diseases. In most people, diseases of this type do not usually have serious consequences; however, the young children, the elderly and people with weakened immune systems may be susceptible to these. Heavy rains and floods can carry bacteria, wastewater, fertilizers and other organic waste into rivers and lakes. Without proper treatment, these episodes can lead to direct contamination of drinking water sources.

It is increasingly accepted that waterborne disease outbreaks are linked, at least partially, to climatic conditions. These circumstances are indeed conducive to the outbreak of the disease epidemic. Researchers have determined that more than half of waterborne disease epidemics are preceded by episodes of heavy rainfall. It is also possible that rising temperatures will worsen the problems of their decomposition, thus giving the water an unpleasant odor and taste. In addition, high temperatures and increased rainwater runoff, combined with increased beach use, have been shown to be associated with an increase in infectious disease among people who carry out aquatic and nautical recreational activities.

Conclusions. Extreme weather events (especially floods) increase the risk of drinking water supply infrastructure failure due to blockage or overcapacity. This requires rigorous management of water supply conditions throughout the climate changing and its consequences.