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PROTECTION OF THE ENVIRONMENT AND HUMAN HEALTH.

ATROF MUHIT VA INSON SALOMATLIGI MUHOFAZASI.
ЗАЩИТА ОКРУЖАЮЩЕЙ СРЕДЫ И ЗДОРОВЬЯ ЧЕЛОВЕКА.

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Annotation. The interdependence between environmental protection and human health is a critical and multifaceted aspect of contemporary global challenges. This article explores the intricate web of interactions between the environment and human health, highlighting the various ways in which protecting the environment directly impacts the well-being of individuals and communities. It underscores the importance of addressing these challenges for the betterment of both natural ecosystems and human populations.

Аннотация. Взаимозависимость между охраной окружающей среды и здоровьем человека является важнейшим и многогранным аспектом современных глобальных проблем. В этой статье исследуется сложная сеть взаимодействий между окружающей средой и здоровьем человека, подчеркивая различные способы, которыми защита окружающей среды напрямую влияет на благополучие отдельных лиц и сообществ. Это подчеркивает важность решения этих проблем для улучшения как природных экосистем, так и человеческого населения.

Annotatsiya. Atrof-muhitni muhofaza qilish va inson salomatligi o'rtasidagi o'zaro bog'liqlik zamonaviy global muammolarning muhim va ko'p qirrali jihati hisoblanadi. Ushbu maqola atrof-muhit va inson salomatligi o'rtasidagi o'zaro ta'sirning murakkab tarmog'ini o'rganadi, atrof-muhitni muhofaza qilish odamlar va jamoalar farovonligiga bevosita ta'sir qilishning turli usullarini tahlil qilish maqsadida yozilgan. Unda tabiiy ekotizimlar va inson populyatsiyalarini yaxshilash uchun ushbu muammolarni hal qilish muhimligi ta'kidlanadi.

Relevance of the work.

The intricate interplay between the environment and human health is a topic of increasing importance in the modern world. This scientific article explores the multifaceted relationship between environmental protection and its direct impact on human well-being. It delves into the various ways in which environmental degradation can adversely affect human health, while also highlighting the crucial role of conservation efforts and sustainable practices in safeguarding both the environment and the health of the global population.

The global environment is experiencing unprecedented stresses due to various factors, including climate change, pollution, deforestation, and the depletion of natural resources. These issues, while often considered in isolation, are intricately linked to human health. The environment provides essential resources such as clean air, water, and food, which are fundamental to our survival and well-being. This article delves into the symbiotic relationship between environmental protection and human health and the various aspects that connect the two.

Research objective.

The environment and human health are inextricably linked. A clean and sustainable environment is vital for the overall well-being of individuals and communities. The relationship between environmental protection and human health is a complex one, with numerous dimensions and implications.

Air Quality. Air pollution, primarily caused by the emission of pollutants from industrial and vehicular sources, has profound effects on human health. Exposure to fine particulate matter (PM2.5) and ground-level ozone can lead to respiratory diseases, cardiovascular problems, and even premature death. Chronic exposure to polluted air has been associated with conditions such as asthma, bronchitis, and lung cancer [5].

Air pollution is a major environmental concern affecting both urban and rural areas worldwide. Particulate matter (PM), ground-level ozone, and other pollutants have been linked to a range of respiratory diseases, including asthma, bronchitis, and lung cancer. Poor air quality not only exacerbates existing health conditions but also contributes to the development of new ones. Environmental protection measures such as reducing emissions from vehicles and industrial sources can significantly improve air quality and reduce the burden of respiratory diseases.

Water Quality. Contaminated water sources are a significant threat to human health. Waterborne diseases, such as cholera and dysentery, are responsible for a substantial number of deaths worldwide. Pollutants from industrial discharges and agricultural runoff can contaminate drinking water, leading to both acute and chronic health problems.

Access to clean and safe drinking water is a fundamental human right. Contaminated water sources can lead to waterborne diseases like cholera, dysentery, and typhoid. Protecting freshwater ecosystems from pollution and ensuring proper sanitation infrastructure is essential for safeguarding human health [2] [9]. Environmental initiatives such as watershed protection and the promotion of sustainable agricultural practices are crucial for maintaining clean water sources.

Materials and methods.

The loss of biodiversity due to habitat destruction and climate change can impact human health in various ways. Reduced biodiversity can lead to an increase in disease vectors like mosquitoes, promoting the spread of diseases such as malaria and Zika. Additionally, the loss of diverse ecosystems can disrupt the availability of natural resources that support human livelihoods and medicine development.

Food Security and Nutrition. Agriculture, which relies heavily on natural ecosystems, is crucial for human survival. Environmental degradation, including soil erosion, loss of

biodiversity, and the depletion of arable land, threatens food security. Additionally, the use of pesticides and chemical fertilizers can introduce harmful residues into the food supply. Sustainable farming practices and the conservation of ecosystems are essential for ensuring a steady supply of safe and nutritious food .

Climate Change and Public Health. Climate change is one of the most pressing environmental challenges of our time. It leads to extreme weather events, heatwaves, and the spread of infectious diseases. Vulnerable populations are particularly at risk. Strategies to mitigate climate change, such as transitioning to renewable energy sources and reducing greenhouse gas emissions, not only protect the environment but also promote human health by reducing climate-related health risks.

Climate change, driven by the release of greenhouse gases, has wide-ranging effects on human health. Rising temperatures can exacerbate heat-related illnesses and heatwaves. Changes in precipitation patterns can lead to water scarcity and food insecurity. Climate change also increases the frequency and intensity of extreme weather events, which pose direct threats to human life and well-being.

We can below provide a figure about the "map" of the human health.

Figure1 The health map

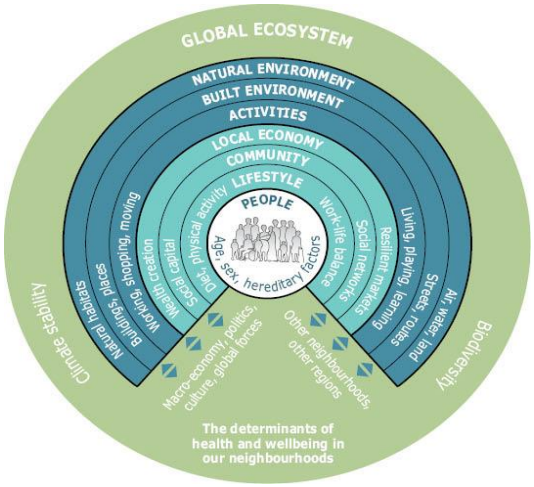

Figure 1 Environmental burden of disease — estimating the impacts of environmental factors

The environmental burden of disease (EBD) represents the proportion of ill health attributed to exposure to environmental factors. Use of the EBD approach allows: comparison of health losses due to different risk factors; setting priorities; and evaluating the benefits of specific measures. However, the results are likely to underestimate the overall environmental burden as they focus on single risk factors and health outcomes, rather than taking full account of complex causal pathways. Estimates of similar issues may vary, depending on the underlying assumptions, methods and data used; and, for many risk factors EBD estimates are not yet available [1] [3] [4] .

Attribution of the role of the environment in the development of diseases, and the development of novel assessment approaches aimed at taking the inherent complexity and

uncertainty of environment and health interactions into account, remain a subject of intense debate [6] [7] [8].

Results and discussion.

Adopting sustainable practices in agriculture, industry, and energy production can mitigate the negative impact of environmental degradation. Sustainable agriculture techniques reduce the need for harmful pesticides and promote soil health, while renewable energy sources reduce greenhouse gas emissions and air pollution.

Conservation Efforts. Preserving natural habitats and conserving biodiversity is vital for safeguarding human health. Biodiverse ecosystems can regulate disease vectors, enhance food security, and provide potential sources of novel medicines.

Governments and international organizations play a pivotal role in protecting the environment and, consequently, human health. Stringent environmental regulations, such as emissions standards and water quality monitoring, can reduce the impact of pollution. International agreements, such as the Paris Agreement, aim to mitigate climate change and protect global health.

Public Awareness and Education. Raising public awareness about the link between environmental protection and human health is essential. Education and advocacy can lead to individual and collective actions that reduce environmental degradation and promote healthier living.

Biodiversity and Medicinal Resources. Biodiversity is not only an integral part of our natural heritage but also a source of vital medicinal resources. Many pharmaceuticals are derived from plant and animal species. The loss of biodiversity threatens our ability to find new cures and treatments for diseases. Conservation efforts, such as protecting endangered species and their habitats, play a critical role in preserving these valuable resources.

Conclusions.

The protection of the environment and the promotion of human health are inherently interconnected. Failing to address environmental issues can have severe consequences for public health, while protecting the environment often leads to improvements in human well-being. It is imperative that individuals, communities, governments, and international organizations work together to develop and implement strategies that simultaneously safeguard the environment and promote human health. In this symbiotic relationship, the well-being of the planet and its inhabitants are mutually dependent, making it essential to prioritize environmental protection for the benefit of current and future generations.

The intricate relationship between the environment and human health underscores the urgency of protecting natural resources and ecosystems. The consequences of environmental degradation, from air and water pollution to climate change and biodiversity loss, have tangible and often severe impacts on human health. Efforts to protect the environment through sustainable practices, conservation, regulation, and public awareness are critical in safeguarding the health and well-being of present and future generations. Recognizing and acting upon this relationship is a fundamental step towards a healthier and more sustainable future.

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