HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

STUDYING ENVIRONMENTAL PROBLEMS IN THE CONTEMPORARY STAGE

Saidahmet Gulmetuli Dosmetov
Senior Lecturer, Almalyk State Technical Institute,
Almalyk, Uzbekistan
dosmetovsaid2@gmail.com
https://doi.org/10.5281/zenodo.20432959

Abstract: Environmental issues are currently common to all humanity, as all countries and populations worldwide are involved in the environmental drama. This article examines environmental issues among the various dangers threatening modern civilization and humanity. It also emphasizes that even localized environmental disasters have global consequences. Furthermore, it is noted that the existing diversity of living species on the planet is not a whim of nature, but a pressing necessity, and the extinction of one species disrupts the functioning of the entire ecosystem.

Keywords: hazardous objects, environmental degradation, environmental disaster, black rain, Earth's natural resources, collapse of the Sumerian civilization, carbon monoxide, civilizational crisis, quality of life.

INTRODUCTION

At the present stage, among the various dangers threatening modern civilization and humanity, one of them is environmental catastrophe with its many components, including global climate change and ozone depletion. These also include issues of war and peace, natural disasters and technological safety, energy, poverty, employment, food shortages, interethnic conflict, religious intolerance, organized crime, terrorism, information security, healthcare, genetic security, drug addiction, the degradation of the spiritual and moral sphere, and more.

Thanks to the scientific and technological revolution and social and economic progress, the world has changed radically in the second half of the 20th century. Working conditions and the quality of life have improved significantly, including increased prosperity, healthcare, education, social security, and culture. At the same time, progress, having elevated humanity to its present level, revealed its negative downside, associated with the depletion of the Earth's resource potential, the extensive exploitation of these resources, overpopulation, and a number of crises in the social, economic, and political spheres. It became clear that the extensive path of development had exhausted itself.

LITERARY RESEARCH

As a rule, humanity inevitably impacts various ecological systems throughout its life processes. Examples of such, often dangerous, impacts include draining swamps, clearing forests, depleting the ozone layer, reversing river flows, and dumping waste into the environment. In this way, humans disrupt the established connections within a stable system, which can lead to its destabilization, that is, to an environmental catastrophe.

At all stages of development, humans have been closely connected to the surrounding world. In the 21st century, humanity has increasingly become aware of the problems that arise from living in a highly industrialized society. Dangerous human intervention in nature has increased dramatically, expanded in scope, become more diverse, and now threatens to become a global threat to all of civilization and humanity. The greatest danger comes from major accidents, technical system failures at industrial facilities and in transportation, as well as natural and environmental disasters. As a result,

HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

the resulting socio-environmental consequences are comparable to large-scale military conflicts. Thousands of potentially hazardous facilities are operating on all continents of the Earth, containing such volumes of radioactive, explosive, and toxic substances that, in the event of an emergency, they could cause irreparable damage to the environment.

Academician N. MOISEYEV [1] believes that for a long time, the primary practical goals of ecology were focused on environmental protection. However, in the 20th century, this traditional thrift, which was also gradually fading under the pressure of developing industry, was no longer sufficient. The degradation of nature began to pose a threat to the very life of society. This led to the emergence of special environmental laws and the creation of a system of nature reserves like the famous Askania-Nova. Finally, a specialized science emerged, studying the possibility of preserving relict areas of nature and endangered populations of individual species. Gradually, people began to understand that only the richness of nature and the diversity of living species ensure the life and future of humanity itself. Today, this principle has become fundamental. Nature has survived without humans for billions of years and can now survive without them, but humans cannot exist without a fully functioning biosphere. The problem of humanity's survival on Earth is looming large. The very future of our species is in question. Humanity may face the fate of the dinosaurs. The only difference is that the disappearance of the former rulers of the Earth was caused by external factors, while we may perish from our inability to use our power wisely. This very problem is the central one of modern science (although perhaps not everyone has yet realized it).

Referring to source data [2], we can confirm that for generations, humanity has lived with a constant and obsessive fear of environmental disaster. Deforestation, ocean pollution, ozone layer depletion—we've heard these phrases hundreds, if not thousands, of times in our lives. Humans have interacted with and influenced their environment since the very emergence of our species. However, this influence only reached a truly tangible scale in the eighteenth century, with the onset of the Industrial Revolution. At that point, humans withdrew from the natural cycle of life and began dictating their own rules to the planet. The planet began to change, but we didn't notice it right away—our civilization was preoccupied with other things: the extraction of fuel (coal, gas, shale, oil), metal, and other minerals. All these substances, naturally produced and removed by humans, returned to nature, but in a different form. This resulted in global pollution of soil, water, and air and became the cause of an environmental crisis. And the intensity of this process continues to grow at a catastrophic rate, and humanity will have to deal with the serious consequences of the environmental crisis in the near future.

The authors' work [3] provides an example of an environmental disaster caused by a military conflict that occurred in Kuwait and nearby areas of the Persian Gulf after Operation Desert Storm in early 1991. While retreating from Kuwait, Iraqi occupiers detonated over 500 oil wells with explosives. A significant number of them ignited and burned for six months, contaminating a large area with harmful gases and soot. Oil gushed from the wells that had not ignited, forming large lakes and flowing into the Persian Gulf. Large quantities of oil also spilled into the Gulf from blown-up terminals and tankers. As a result, approximately 1,554 square kilometers of sea surface and 450 kilometers of coastline were covered in oil, killing most of the birds, sea turtles, dugongs, and other animals. The flares burned 7.3 million liters of oil daily, equivalent to the volume of oil imported daily by the United States. Clouds of soot from the fires rose up to 3 km high and were carried by winds far beyond Kuwait's borders—black rain fell in Saudi Arabia and Iran, and black snow in Kashmir (2,000 km from Kuwait). Air polluted by oil soot had a detrimental effect on human health, as the soot contained many carcinogens.

HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

According to source [4], scientists are warning that many animal and plant species are disappearing. Our way of life and the way of life of animals depend on a complex ecosystem, and if species begin to disappear, it becomes a catalyst for irreversible processes that will negatively impact us in the future and now. Even localized environmental disasters have global consequences. In nature, everything is interconnected. The existing diversity of living species on the planet is not a whim of nature, but a vital necessity. The disappearance of one species disrupts the functioning of the entire ecosystem.

A clear example is the campaign to exterminate sparrows in China in the late 1950s. As a result, the ecological balance was disrupted, and the proliferation of insects destroyed not only crops but also tree foliage. This led to a large-scale famine in the country and the deaths of more than 30 million people. The process of species extinction and the emergence of new ones is constant in nature. However, with human intervention, the decline in species diversity is occurring at a catastrophic rate. Since the early 17th century, more than 800 plant and animal species have disappeared from the planet.

METHOD

For many millennia, people felt virtually no environmental constraints. If they saw a decline in the number of game they hunted, or the available cultivated soil or grazing lands in their immediate vicinity were depleted, they would migrate to a new location. This process repeated itself for centuries. The Earth's natural resources seemed inexhaustible. Only occasionally did this purely consumerist approach to the environment end disastrously. More than nine thousand years ago, the Sumerians, in order to feed the growing population of Mesopotamia, began to develop irrigated agriculture. However, the irrigation systems they created eventually led to waterlogging and soil salinization, which was the primary cause of the demise of the Sumerian civilization. The Mayan civilization, which flourished in what is now Guatemala, Honduras, and southeastern Mexico, collapsed about 900 years ago, primarily due to soil erosion and river siltation. Similar factors led to the collapse of the ancient agricultural civilizations of Mesopotamia in South America. These cases are merely exceptions to the rule: draw from nature's bottomless well as much as you can. And people drew from it, without regard for the state of the ecosystem.

It's especially noteworthy that clean air around populated areas is almost completely disappearing, rivers are turning into sewers, garbage piles, landfills, and a devastated natural environment are everywhere—this is the stark picture of the relentless industrialization of the modern world. Air pollution is the most serious environmental problem facing modern cities, causing significant damage to the health of residents and green spaces. The atmosphere above large cities contains 10 times more aerosols and 25 times more gases. 60-70% of this gas pollution comes from motor vehicles. Overall, vehicle emissions are significantly more toxic than those from stationary sources. Along with carbon monoxide, nitrogen oxides, and soot (in diesel vehicles), a running car releases more than 200 toxic substances and compounds into the environment. Among these, heavy metal compounds and certain hydrocarbons, particularly benzopyrene, which has a pronounced carcinogenic effect, are particularly noteworthy.

Air pollution caused by anthropogenic factors is becoming a global environmental problem in the modern world, with negative health consequences for people across the globe. This problem is relevant today for all regions where the energy, mining, metallurgy, chemical, and other economic sectors are rapidly developing. Increasing air pollution is the leading cause of various diseases worldwide. Air pollution from fine aerosol particles, ash, and dust negatively impacts human life, animals, plants, soil, and water bodies. In his 2019 annual report, UN Special Rapporteur on the Environment David Boyd stated that 7 million people die annually from the effects of air pollution.

HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

The concept of "sustainable development" is often considered closely linked to ecology, primarily with ensuring environmental safety and protection, as demonstrated at the UN Conference in Rio de Janeiro. Many environmentalists even believe that everything done in the environmental field is entirely aimed at achieving sustainable development goals. However, this is far from the case, and many environmental measures, when implemented in local ecosystems, improve the environmental situation, while worsening it globally. However, the transition to sustainable development is only possible on a planetary scale, and therefore the global goals and imperatives of sustainable development—preserving the biosphere and ensuring human survival within it—are a higher priority for the transition to this type of development than local goals and requirements. With the implementation of sustainable development strategies, environmental issues at all levels must be viewed completely differently than previously. The most important task of the modern world is to reduce emissions that pollute the atmosphere. It is well known that automobile exhaust gases contribute most to environmental pollution. Unfortunately, electric vehicles or hydrogen-powered cars haven't yet become widespread, so modern drivers can only manage their vehicles wisely. In this regard, it's recommended that every driver properly tune their vehicle's engine, using gas-powered equipment and avoiding idling. Furthermore, it's important to consider that walking is much healthier than driving to your destination.

Some scientists characterize the emerging situation as a crisis of civilization, emphasizing the inevitability of its collapse unless development and environmental issues find a fundamentally new solution in the 21st century. There is hope that this could be achieved through the conversion of transportation to environmentally friendly hydrogen fuel and the harnessing of fusion energy. Hypothetically, such a solution could also be linked to the expansion of the resource base for development through the exploration of other planets in the solar system. It is also possible that recognition of the reality of the crisis of civilization will lead to a shift in the criteria of progress established at the dawn of the industrial era. These criteria assumed that a constant increase in living standards and consumption was the highest value. The shift to post-material values emphasizes quality of life. The most important indicator in this case will be a safe environment for humans and the availability of environmentally friendly food. Achieving a new quality of life requires, in addition to environmental protection measures, reasonable self-restraint of consumption in developed countries and the adoption of global-scale measures to address the problems of former colonies and dependent countries.

CONCLUSION

As we know, nature has endowed the human population with a number of benefits, providing it with a variety of foods, clothing, shelter, fresh water, clean air, fertile soil for agricultural cultivation, and other amenities. For the human population to survive, it must adhere to all the rules and laws of the biosphere. Therefore, every effort must be made to ensure that each person respects the natural environment, takes from it only as much as they need, and avoids thoughtless use of all nature's riches. They must strive to prevent the emergence of negative situations.

From all of the above, it follows that the time has come to sound the alarm loud and clear to warn the peoples of all countries of the impending danger threatening humanity and civilization. Humanity has no greater concern today than finding the strength, resources, and rationality to reconcile with nature and resolve social conflicts. Otherwise, we will have to return to some semblance of the Stone Age, a dark era of violence and cultural degradation.

HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

REFERENCES

1. N. MOISEYEV. ECOLOGY IN THE MODERN WORLD https://www.nkj.ru/archive/articles/10376/ (Science and Life)
2. Global Environmental Problems of Our Time https://airnanny.ru › blog › globalnyie-ekologicheskie-.
3. "One Hundred Great Disasters" by N. Ionina, M. Kubeev. Moscow / Veche 1999
4. https://novate.ru/blogs/190315/30488/
5. M.Kh. Sarikulov Some issues of civil protection in the modern world WEB OF SYNERGY: International Interdisciplinary Research Journal Volume 2, Issue 5 Year 2023 ISSN: 2835-3013 https://univerpubl.com/index.php/synergy Published by Universal Publishing INC. 2023-05-03 United States Pp. 405-411
6. M.Kh. Sarikulov CIVIL PROTECTION IN THE MODERN WORLD Modern Journal of Social Sciences and Humanities (MJSSH) www.mjssh.academicjournal.io ISSN: 2795-4846 Vol. 4 (2022) https://mjssh.academicjournal.io/index.php/mjssh Pp. 345-350
7. M.Kh. Sarikulov Ecological Problems of Uzbekistan at the Present Stage International Journal of Business Diplomacy and Economy ISSN: 2833-7468 Volume 1 | No 5 | Dec-2022 https://inter-publishing.com/index.php/IJBEA Pp. 110-116
8. M.Kh. Sarikulov On Air Pollution and Public Health in the Republic of Uzbekistan International Journal of Alternative and Contemporary Therapy IJACT, Volume 2, Issue 4, 2024 ISSN: 2995-5378 http://medicaljournals.eu/index.php/IJACT Pp. 34-40
9. M.Kh. Sarikulov Problems of Shortage of Drinking Water at the Present Stage International Interdisciplinary Research Journal Volume 2 Issue 4, Year 2023 ISSN: 2835-3013 (https://journalseeker.researchbib.com/view/issn/2835-3013) United States Pp. 873-880
10. M.Kh. Sarikulov ON THE NEGATIVE IMPACT OF ACID RAIN ON PUBLIC HEALTH Western European Journal of Modern Experiments and Scientific Methods Volume 2, Issue 9, September, 2024 https://westerneuropeanstudies.com/index.php/1 ISSN (E): 2942-1896 Open Access| Peer Reviewed Pp.58-64
11. M.Kh. Sarikulov Air Pollution in Central Asia AMERICAN Journal of Engineering, Mechanics and Architecture Volume 01, Issue 10, 2023 (Dec) ISSN (E): 2993-2637 SJIF-5.512 www. grnjournal.us Pp. 1-6
12. M.Kh. Sarikulov PROBLEMS OF DRINKING WATER SHORTAGE AND ITS
13. POLLUTION AT THE PRESENT STAGE LAS PALMAS, SPAIN European Journal of Research Development and Sustainability Volume5, Issue 4 April, 2024 ISSN (E): 2660-5570 Journal Impact Factor: 10.330 https://www.scholarzest.com Pp. 13-18
14. M.Kh. Sarikulov Ecological Problems of Uzbekistan at the Present Stage International Journal of Business Diplomacy and Economy ISSN: 2833-7468 Volume 1 | No 5 | Dec-2022 https://inter-publishing.com/index.php/IJBEA Pp. 110-116
15. M.Kh. Sarikulov, M.N. Khakimova Problems of Interaction between Man and the Technosphere CENTRAL ASIAN JOURNAL OF THEORETICAL AND APPLIED SCIENCES Volume: 04 Issue: 02 | Feb 2023 ISSN: 2660-5317 https://cajotas.centralasianstudies.org Spain Sjifactor 6.9 Pp. 84-89

HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr