

# Psychological consequences of environmental crises for the individual

*Oleh Aharkov<sup>1</sup>, Liudmyla Prisniakova<sup>1\*</sup>, Antonina Pashko<sup>1</sup>, and Inna Tarasevych<sup>1</sup>*

<sup>1</sup>Dnipro Humanities University, Department of Psychology, Haharina Ave, 72, 49033 Dnipro, Ukraine

**Abstract.** The research found that the psychological consequences of environmental crises can be diverse and include the following aspects: stress and anxiety, deterioration of physical and mental health, feeling of helplessness and fatigue, change of attitude towards nature. The study shows that overcoming these negative psychological consequences of environmental crises is possible with the help of psychological, educational, personal strategies and strategies to reduce the negative impact on the environment. Psychological strategies for overcoming the psychological consequences of environmental crises include therapy and group support. Therapists help people understand and manage their emotions, develop strategies for coping with stress and anxiety, and work to restore mental health. Support groups bring together people who have experienced similar environmental events or have a common experience of stress and traumatic situations. In group therapy, people can share their feelings, experiences, and coping strategies. Environmental education encourages concrete steps to reduce human impact on nature and preserve natural resources. This includes promoting sustainable consumer practices, participating in volunteer initiatives, supporting environmental organizations and initiatives, and developing environmental awareness. Strategies for the development of personal resources include strengthening resilience and self-assertion, psychological readiness for change, and self-reflection. Strategies for reducing environmental negative impact involve taking effective measures to prevent environmental crises and reduce their consequences.

## 1 Psychological challenges that arise as a result of the Russian-Ukrainian war and the environmental crisis.

It is difficult to overestimate the psychological consequences of environmental crises for the individual today. The modern world community is faced with numerous environmental problems, such as climate change, destruction of natural resources, environmental pollution and many others. These problems have a significant impact on the psychological state of individuals and society in general and cause certain psychological consequences that require serious research and attention. Environmental crises can cause serious stress in the population. This has a negative impact on the mental health and general condition of individuals. Pollution of air, water and soil can cause serious diseases. Individuals, especially

---

\* Corresponding author: [lpriisnyakova@ukr.net](mailto:lpriisnyakova@ukr.net)

children and vulnerable groups, may face physical problems that also have psychological consequences. Environmental crises can affect people's perception of nature and lead to changes in their relationship with the environment. As environmental crises become more common, it is important to develop strategies for maintaining mental health and psychological readiness for changes in the environment. Today, Ukraine is at war with Russia. The Russian-Ukrainian war brought with it not only the occupation of territories, but also environmental degradation. Environmental crises, such as the pollution of water bodies, the destruction of infrastructure and the release of harmful substances, are an integral part of this conflict. Among the five most critical environmental consequences of the war, according to Ukrainians, the following prevail: demining of agricultural lands and forests - 39.9%; radiation pollution in the case of rocket attacks and explosions at nuclear power plants - 36.3%; pollution of rivers, ponds and seas due to sinking of ships, spread of oil products and explosions - 23.9%; littering of territories with war waste (fragments of destroyed buildings, broken cars, remnants of household items and equipment, etc.) - 23.2%; spread of dangerous poisonous substances due to shelling and fires at oil depots, gas storage facilities and chemical industry facilities - 21.2%. 13.8% of surveyed Ukrainians consider all five environmental consequences to be critical [1]. Environmental crises can have a serious impact on the mental health of people, especially those individuals who experience war and environmental problems at the same time. It can cause stress, anxiety, depression and other mental disorders. Individuals who have survived war events may already have post-traumatic stress disorder and other psychological problems. Environmental crises can exacerbate their suffering and affect their ability to adapt. Understanding the psychological consequences of environmental crises is important for the development and implementation of psychological support and rehabilitation programs for victims of the military conflict in Ukraine.

Therefore, in the context of the Ukrainian-Russian war, the topic of the psychological consequences of environmental crises for the individual acquires special importance, as it concerns the health and well-being of individuals who are experiencing severe trials associated with the military conflict and environmental problems at the same time.

## **2 Scientific discourse of psychological aspects of ecological crises scientific discourse of psychological aspects of ecological crises.**

Studying the psychological aspects of environmental problems is critically important in the context of today's world, where environmental challenges are becoming increasingly acute. Environmental crises can cause significant stress and anxiety in the population, especially among those directly affected by their consequences. Studying psychological aspects allows you to understand how it affects mental health and how to provide the necessary psychological support. Understanding how people respond to environmental challenges helps develop adaptation strategies and develop the skills needed to adapt to changes in the environment. The psychological aspect can influence people's motivation to make environmentally responsible decisions and act to reduce the negative impact on nature. The study of psychological aspects contributes to the development of special programs and methods that can stimulate public participation in solving environmental problems and contribute to changing behavior in a more environmentally sustainable way. Given these aspects, studying the psychological aspects of environmental problems becomes key to understanding how to cope with environmental crises and ensure the psychological resilience of individuals and societies in this complex context.

Analyzing the psychological consequences of environmental crises for individuality is an important task, as it allows a better understanding of the impact of environmental problems

on the psyche of individuals. Taking into account these factors, the study of psychological aspects of environmental crises becomes an extremely urgent task for psychologists, scientists and society as a whole. Understanding the psychological consequences of these crises will help to develop more effective strategies for psychological support and adaptation to changes, as well as contribute to the creation of a more responsible and environmentally friendly society.

The following scientists investigated the psychological consequences of environmental crises for the individual in their works: Csilla Agoston , Robert Urban, Bence Nagy , Benedek Csaba, Zoltan Kovary , Kristof Kovacs , Attila Varga, Andrea Dúll , Ferenc Monus , Carrie A. Shaw, Zsolt Demetrovics, Carlos Corvalan Brandon Gray, Elena Villalobos Prats, Aderita Sena, Fahmy Hanna and Diarmid Campbell-Lendrum, Myriam V. Thoma, Nicolas Rohleder, Shauna L. Rohner, Paolo Cianconi, Sophia Betrò, Luigi Janiri, Emma L. Lawrance, Rhiannon Thompson, Jessica Newberry Le Vay, Lisa Page & Neil Jennings, Thomas J. Doherty, Susan Clayton.

Let's consider the scientific discourse of these scientists in more detail. Csilla Agoston , Robert Urban, Bence Nagy , Benedek Csaba, Zoltan Kovary , Kristof Kovacs , Attila Varga, Andrea Dúll , Ferenc Monus , Carrie A. Shaw, Zsolt Demetrovics concluded that there is a possible utility of negative emotions in enhancing pro-environmental behavior [2]. Carlos Corvalan Brandon Gray, Elena Villalobos Prats, Aderita Sena, Fahmy Hanna and Diarmid Campbell-Lendrum point out that climate change worsens many social and environmental risk factors for mental health and psychosocial problems, and can lead to emotional distress, the development of new mental illnesses and worsening of the situation for people who already have such disorders [3]. Myriam V. Thoma, Nicolas Rohleder, Shauna L. Rohner conclude that the climate and environmental crisis not only causes stress in the individual, but also has a harmful effect on various aspects of the personality, potentially increasing the individual's biopsychosocial vulnerability to the development of mental disorders [4]. Paolo Cianconi, Sophia Betrò, Luigi Janiri claim that global warming, floods, tornadoes, hurricanes, droughts, fires, forest extinction and melting of glaciers, as well as drying up of rivers and desertification can directly or indirectly cause physical and mental illness of the individual [5].

Emma L. Lawrance, Rhiannon Thompson, Jessica Newberry Le Vay, Lisa Page, Neil Jennings emphasize that the devastating effects of rising global temperatures and extreme weather events such as heat waves or water insecurity are exacerbating existing stressors faced by individual personality Exacerbating climate threats and climate inaction can cause psychological stress; however, strong emotional responses can also drive action to combat climate change. Knowledge of the interrelated pathways of climate impacts and determinants of mental health should provide the basis for evidence-based interventions. Appropriate climate justice interventions can reduce current and future mental health burdens while improving the conditions for well-being and equity [6]. Thomas J. Doherty, Susan Clayton believe that climate change creates a need for increased environmental education, the spread of ethical responsibility, the study of psychological and social adaptations, and also promotes resource allocation and learning. This will make it possible to increase the competence of psychologists in reducing the negative consequences associated with climate change and its impact on the individual [7]. Despite the multifaceted nature of scientific developments, a systematic approach to this problem remains outside the attention of scientists regarding the analysis of the psychological consequences of environmental crises for the individual.

In the context of this issue, we will define the key term "ecological crisis" - these are situations when natural or anthropogenic factors lead to destructive changes in the environment, disrupting the natural balance and threatening life on the planet. Environmental crises can include such phenomena as climate change, forest fires, water and air pollution, species extinction, and many others.

### **3 Psychological consequences of environmental crises.**

The psychological consequences of environmental crises can be diverse and include the following aspects:

- stress and anxiety. People facing environmental crises often experience significant levels of stress and anxiety. Fear for one's own safety and future, concern for the fate of loved ones, as well as concerns about the environment can cause psychological discomfort. Environmental crises, such as natural disasters or severe pollution, can cause traumatic stress that leaves a mark on the psyche. Post-traumatic stress disorder can develop in those who have experienced the events directly. One of the main psychological consequences of environmental crises is constant fear for the future. People may experience anxiety and restlessness due to uncertainty and uncertainty about what other environmental challenges may occur. This fear can be reinforced by the media and information sources, which often focus on the negative aspects of environmental problems. Constant fear for the future can cause psychological stress and have a negative impact on the emotional state of the individual. This can manifest itself in symptoms such as insomnia, nervousness, irritability and even depression.

Environmental crises can disrupt people's sense of security and stability. When people feel that their environment is becoming unsafe, they can feel vulnerable and helpless. This is especially true for those who face the consequences of natural disasters or environmental accidents.

Feelings of insecurity and insecurity can cause psychological stress and lead to people experiencing constant anxiety about their well-being and the safety of their families. It can also affect their relationships with others and their overall quality of life.

Understanding these psychological aspects is important for psychologists, mental health professionals and the public, as it allows for the development of effective psychological support strategies for those facing environmental crises. Additional research and work on psychological preparedness for environmental change may help individuals better adapt to these challenges and maintain their mental well-being.

- deterioration of physical and mental health. Environmental crises can lead to threats to physical health due to environmental pollution and increased morbidity. It can also affect mental health, as health is closely related to emotional state. Environmental crises can lead to serious environmental pollution, such as air, water or soil pollution. People who are in an ecological disaster zone or in an ecologically dangerous region become vulnerable to pollution that can cause various diseases.

For example, polluted air can contribute to respiratory diseases such as asthma or bronchitis. Contaminated water sources can lead to toxin poisoning and other diseases, including infections. Soil contaminated with toxic substances can affect the quality of food and lead to other health problems. Diseases associated with environmental pollution can play a key role in the psychological consequences of environmental crises. Individuals facing such diseases may experience not only physical discomfort, but also psychological distress associated with anxiety and depression.

- a feeling of helplessness and exhaustion. People facing environmental crises may feel helpless in the face of natural forces or powerless to influence the situation. This can lead to a feeling of coercion and hopelessness, which negatively affects the mental state. Environmental crises can cause significant psychological pressure, which can lead to the development of depression and feelings of exhaustion. People can feel helpless and vulnerable to environmental challenges and the stress of environmental crises. Depression can manifest itself in symptoms such as loss of interest in life, loss of energy, low mood, isolation, and even suicidal thoughts. Feelings of exhaustion can be accompanied by states of anxiety, inability to restore mental and physical resources.

It is important to consider that psychological problems, such as depression and feelings of exhaustion, can exacerbate physical illnesses and make them more difficult to treat. Understanding these psychological aspects is critical for developing psychological support and treatment strategies for individuals facing physical and mental health deterioration due to environmental crises. Such an approach can contribute to improving the quality of life and general well-being of those who need support during environmental challenges.

- change of attitude towards nature. Some individuals may develop more respect and responsibility, while others may feel hostile or disinterested in their environment. Environmental crises can significantly change the perception of nature and the psychological attitude of people towards it. When people are faced with the consequences of natural disasters or environmental accidents, it can cause different emotional reactions and a revision of their relationship with nature. Some individuals may gain more respect for nature and realize its fragility, emphasizing the need to preserve it. Others may feel uneasy, resentful, or hostile toward nature because it has caused suffering or damage. These changes in the psychological attitude towards nature can influence consumer behavior and the choice of behavior by individuals, as well as contribute to greater environmental responsibility or, conversely, to a consumerist lifestyle. Individuals can begin to change their behavior and actions in accordance with new perceptions of environmental problems.

In particular, people can take a more active part in environmental initiatives aimed at preserving nature. They can change consumer behavior by choosing greener consumer goods and practicing more environmentally sustainable lifestyles. On the other hand, environmental crises can lead to a loss of interest in nature or even to its devaluation. Individuals may view nature as a source of threat and stress, and this may influence their behavior and attitudes. It is important to understand what changes occur in the relationship with the environment during environmental crises, as this can be of great importance for decision-making and the development of strategies for nature conservation and the development of ecologically sustainable lifestyles.

Analyzing these psychological consequences allows us to understand how environmental crises affect the individual and how to respond to these challenges, providing psychological support and developing adaptation strategies for those who face these problems. Such an analysis is an important element in solving environmental problems and ensuring the psychological well-being of society.

## **4 Psychological strategies for overcoming the psychological consequences of environmental crises.**

The application of certain adaptation strategies, namely psychological strategies, strategies of environmental education and awareness, strategies for the development of personal resources, strategies for reducing negative environmental impacts, is extremely important for overcoming the negative psychological consequences of environmental crises.

Psychological strategies for overcoming the psychological consequences of environmental crises include: therapy and group support. Psychological therapy is an effective means of overcoming stress associated with environmental crises. There are different forms of therapy, such as cognitive behavioral therapy (CBT), dialectical behavior therapy (DBT), and mindfulness-based psychotherapy. Therapists help individuals understand and manage their emotions, develop strategies for coping with stress and anxiety, and work toward mental health recovery. Therapists can also provide tools to better understand one's own responses to environmental crises and facilitate the expression of feelings and thoughts.

Group support plays an important role in psychological support during environmental crises. Support groups can bring together people who have experienced similar

environmental events or have a common experience of experiencing stress and traumatic situations. In group therapy, people can share their feelings, experiences, and coping strategies together. This creates a sense of community and understanding, which can be especially important in times of crisis. Group support can also help with a sense of belonging and support from others, which has a positive impact on mental health. In today's world, the Internet allows creating virtual communities where people can share experiences and support each other during environmental crises. The general approach is to provide individual and collective psychological support during environmental crises. It helps people better adapt to stressful situations, reduces the impact of psychological consequences and promotes general mental well-being during the environment.

## **5 Environmental education as a key tool in the fight against environmental crises.**

Environmental education is a key tool in combating environmental crises and creating a sustainable future. It helps people understand the importance of the natural environment, the consequences of environmental problems and the role that each individual can play in saving the planet. Education on environmental issues forms a conscious attitude towards nature in people, teaches ecological principles and practices, encourages responsible behavior. It develops critical thinking and decision-making skills regarding the use of resources and environmental protection. It is important to start environmental education from childhood, forming in children respect for nature and responsibility for it. But environmental education should not be limited to kindergartens and schools; it should be accessible to all age groups and a constant process in lifelong learning. The main goal of environmental education is to attract people to actions for the benefit of the environment. This means that education should encourage practical steps to reduce human impact on nature and conserve natural resources.

Engaging in action can include the following steps:

- popularization of sustainable consumer practices: Environmental education should inspire a sustainable consumer lifestyle, such as the use of alternative energy sources, waste recycling and reduction of greenhouse gas emissions,
- participation in volunteer initiatives. Education can encourage participation in environmental volunteer programs, cleaning up garbage in natural areas, planting trees and other actions for the benefit of the environment.
- support of environmental organizations and initiatives. Education should inspire support and participation in the work of environmental organizations that are actively engaged in nature conservation and the fight against environmental problems,
- development of environmental awareness. Education helps to form ecological consciousness, which stimulates the individual to responsible behavior and a constant desire to help nature.

Environmental education and spreading awareness are important tools for creating a sustainable future and preserving nature for future generations. It contributes to the development of environmental responsibility and forms active citizenship in environmental protection.

## **6 Strategies for the development of personal resources as an element of overcoming environmental crises.**

Strategies for the development of personal resources include:

- increasing resilience and self-affirmation. Resilience is an individual's ability to adapt to stressful situations, restore mental health and maintain psychological stability in

environmental conditions. This includes developing emotional resilience, positive thinking and the ability to make difficult decisions. Self-affirmation means recognizing one's own worth and the right to one's own thoughts, beliefs, and choices. It is important to develop assertiveness skills in order to articulate your needs and beliefs, especially when they relate to environmental issues. The development of resilience and self-assertion helps the individual to better cope with stress, anxiety and uncertainty that can accompany environmental crises. Increased resilience helps to restore mental health faster after stress, and self-assertion allows you to more effectively express your views and influence decision-making in the field of environmental protection.

- the importance of psychological readiness for change. Psychological readiness for change is an important aspect of the development of personal resources, especially in the context of environmental crises. Since crises can lead to unpredictable changes in the environment and lifestyle, it is important to have the psychological readiness to adapt to new conditions.

Psychological readiness for change includes:

1. flexibility of thinking: Ability to adapt one's thoughts and strategies to new circumstances and challenges,
  2. positive thinking: The ability to see opportunities and learn to draw conclusions from the consequences of negative situations,
  3. the ability to manage stress. The ability to effectively manage stress and remain emotionally resilient in unusual circumstances.
- self-reflection. The ability to note and understand one's own reactions and thoughts and adapt them to change.

Psychological readiness for changes helps the individual to effectively respond to environmental challenges, maintaining mental stability and the ability for self-development. It allows you to turn changes into opportunities for personal growth and the common good of the environment,

- strategies for reducing negative environmental impacts involve taking effective measures to prevent environmental crises and reduce their consequences. Ensuring psychological well-being and adaptation to environmental challenges is necessary for the stability and sustainable development of society. It is important that these measures are integrated into the strategy of managing environmental issues and contribute to the preservation of nature and the mental health of the population.

Analysis of the psychological consequences of environmental crises emphasizes the serious impact of such events on the mental health and psychological state of individuals. Environmental crises can cause a variety of psychological reactions, including stress and anxiety, deterioration of physical and mental health, and changes in perception of and relationship with nature. They can also affect the psychological attitude to changes in society and cause the need to adapt to new conditions. The psychological consequences of environmental crises can be very dangerous for an individual, but if it is appropriate to use the above strategies, you can reduce their impact and preserve psychological health. It is important to understand that environmental problems also require our attention and action to preserve the natural environment for future generations.

## References

1. Opinions and views of the population of Ukraine regarding the ecological consequences of the war  
[https://www.facebook.com/photo.php?fbid=550135077222274&set=a.264734179095700&type=3&locale=uk\\_UA&paipv=0&eav=AfbLdf43vJEk9W2ZUQKhcm43Qi6NZ\\_Alsc2S1B4vOCAK6g\\_C1Tu81YNqMZGKI0epBqY0&\\_rdr](https://www.facebook.com/photo.php?fbid=550135077222274&set=a.264734179095700&type=3&locale=uk_UA&paipv=0&eav=AfbLdf43vJEk9W2ZUQKhcm43Qi6NZ_Alsc2S1B4vOCAK6g_C1Tu81YNqMZGKI0epBqY0&_rdr) (Last accessed 12.04.2023)

2. C. Agoston, R. Urban, B. Nagy, B. Csaba, Z. Kovary, K. Kovacs, A. Varga, A. Dúll, F. Monus, C. Shaw, Z. Demetrovics, The psychological consequences of the ecological crisis: Three new questionnaires to assess eco-anxiety, eco-guilt, and ecological grief , *Climate Risk Management*, 37 (2022)
3. C. Corvalan, B. Gray, E. Villalobos Prats, A. Sena, F. Hanna, D. Campbell-Lendrum Mental health and the global climate crisis *Epidemiology and Psychiatric Sciences*, 31 (2022)
4. M. Thoma, N. Rohleder, S. Rohner, Clinical Ecopsychology: The Mental Health Impacts and Underlying Pathways of the Climate and Environmental Crisis *Front. Psychiatry, Sec. Public Mental Health*, 12 (2021)
5. P. Cianconi, S. Betrò, L. Janiri, The Impact of Climate Change on Mental Health: A Systematic Descriptive Review *Frontiers in Psychiatry*, 11 (2020)
6. E. Lawrance, R. Thompson, J. Newberry Le Vay, L. Page, N. Jennings The Impact of Climate Change on Mental Health and Emotional Wellbeing: A Narrative Review of Current Evidence, and its Implications *International Review of Psychiatry*, **34**, 443-498 (2022)
7. T. Doherty, S. Clayton, The Psychological Impacts of Global Climate Change *American Psychologist* May–June, 265-276 (2011)