

Research Paper

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Environmental reporting in Ukrainian media

The importance of communicating environmental science to raise public environmental awareness

Abstract: Raising people's awareness about the environment is mandatory in order to deal with growing threats and challenges to the environment. The role of news media as a main source of knowledge about the environment for wide audiences and a social platform for the formation of public environmental awareness and culture is significant. Research results indicate that information about the environment is widely obtained by Ukrainians from today's news, and mass media prioritize emergencies and entertainment content. Based on data from a survey of a wide age range of media consumers (n=200) and a review of news and popular science media, the study shows that serious changes are needed in the Ukrainian media treatment of the environment. In this context, environmental science communication in news media is pivotal. It involves increasing the scientific level of environmental content, providing society with scientifically correct, relevant, and evidence-based socially important information about real environmental problems, based on scientific findings and data. One of the impetuses for changes in environmental communication in the media may be the critical consequences for the environment because of Russian aggression against Ukraine. Reporting on war is inevitably linked to reporting on crime against the environment. This requires the increased attention of the Ukrainian science community, society, and authorities to the restoration, preservation, and protection of the environment, as well as effective environmental communication in the media.

Introduction

As humanity now faces unprecedented environmental threats, it is necessary and pivotal that the public increases its awareness and knowledge, and, eventually, enacts recovery actions. Media coverage of the environment includes a wide and growing range of topics and issues related to human life, health, safety and well-being. Although it includes communication to various audiences through different channels, the vast majority of environmental issues »are only known to individuals around the world via news media« (TAKAHASHI et al. 2021: 17). News media play the role of providing a social space for the dissemination of environmental knowledge and the formation of an environment friendly culture.

Environmental problems are directly related to the lack of environmental awareness and knowledge among the individuals. This »can be solved if environmental awareness amongst the people could be raised« (TILWANKAR/RAI/BAJPAI 2019: 117). This is confirmed by a survey, which shows that one third of Ukrainians (29.7 %) says they believe that low awareness and lack of knowledge about environmental problems and risks in Ukraine are the reasons why citizens and businesses do not take environmentally friendly measures (UNDP UKRAINE 2019). Moreover, a third of the population (30 %) says that they should be more actively informed about the state of the environment and the risks to its protection. According to another survey, the majority of Ukrainians (56.3 %) are dissatisfied with their level of environmental awareness on their residential area (BALYUK et al. 2021: 6).

These data indicate that there is a social demand for environmental awareness and dissemination of environmental knowledge. Moreover, environmental issues, which are always relevant, have become even more important and particularly acute with the beginning of the full-scale invasion of Russia. As such, the role of media and journalism in communicating environmental issues should be growing to meet this social demand and respond to the challenges facing Ukraine.

Methodology

Hence, this research project was conducted to study whether Ukrainian media contributes to the formation of the public environmental awareness in Ukraine. To achieve this goal, the following tasks were identified: to find out what environmental information the audience receives; to explore what media Ukrainians consume to receive content about the environment; and to identify how to improve environmental communication in the media.

A set of methods was chosen in the study, such as the collection of relevant data, the examination of theoretical approaches and the evaluation of research

literature. Additionally news and Ukrainian popular science media were evaluated and the questionnaire survey method was used. It was conducted among randomly sampled participants – anyone who was interested in could answer the special electronic questionnaire in a Google form, which was posted publicly on the author’s page in the social network Facebook that is the most popular in Ukraine (STATCOUNTER 2022). In total, the survey included 200 people of different ages, which were grouped into several age categories (18–25 years (45 respondents), 26–40 years (76 respondents), 41–60 years (68 respondents), and more than 60 years (21 respondents)). The questionnaire contained open and close-ended questions as follows: what news media do you most often use to obtain environmental information? what news media programs do you learn about environment mostly from? what specialized popular media covering environmental issues do you use? what kind of the environment content do you most often find in news media? In addition, each respondent could comment on their answers. The survey was conducted during September-December 2021 period.

Discussion

The scientific community has reached a consensus that mass media play a leading role in the identification and interpretation of environmental issues. Depending on how such information is interpreted, unpacked, and presented, or, on the contrary, hidden from the public, it is likely to have an influence on the awareness within and reaction to such issues in society (ZAMITH/PINTO/VILLAR 2013: 335). Popular narratives on environmental issues, which are disseminated in the media and other popular channels, are powerful means of forming the socio-cultural context of environmental change; they also impact policymaking and contribute greatly to people’s understanding (CHRISTENSEN et al. 2018: 1).

Environmental communication performs important functions, such as: informational (media report about the environment, existing or potential risks); educational (media acquaint the audience with the functioning of ecosystems, the nature and consequences of anthropogenic impact, the relationship between phenomena and processes); organizational (media encourage public to make certain decisions and take actions); and controlling (mass media report on the activities of governments, organizations and industries in this area, promote the implementation and protection of people’s right to a clean and safe environment) (BELYAKOV 2001: 149).

Hence, mass media not only perform a purely informational function, but also contribute to increasing people’s awareness of environmental issues, sensitizing them to these issues and, thus, encouraging them to take part in solving environmental problems (KLINGER/METAG 2021: 31). The more often and better

media cover environmental issues, the more people's attention and interest they receive. Maria Teresa Mercado (2012: 193-209) assumes that more and/or accurate information contributes to a better understanding of environmental problems, raises public awareness and promotes transformation of their values, viewpoints and conduct.

On the one hand, journalists are well-positioned to ensure that the most promising ecological solutions are on the public's agenda (BORTH et al. 2022: 443). On the other hand, highlighting environmental issues to society is part of a complex context due to several determinants.

First, despite the widespread perception of »the growing concern over the environment and media coverage of environmental issues« (AL-ZAMAN/KHAN 2022: 98), this idea is not always true. For instance, in Ukraine, the number of citizens who are interested in economic growth, even if it harms the environment, has doubled in recent years. Thus, there is a tendency to reduce the value of the environment compared to economic values (UKRAINIAN CENTER FOR EUROPEAN POLICY 2020: 89). According to a recent poll (BALYUK et al. 2021: 45), only a quarter of Ukrainians prioritize environment issues. This can be explained by the fact that long-term problems, namely, climate change, global warming, and others are such environmental challenges that threaten serious consequences but are almost imperceptible to average people and therefore not considered concrete enough in everyday life. The same goes for the United States, where society consistently ranks such issues as a low priority due to »a lack of personal engagement and a sense of temporal and spatial distance from the environmental effects« (LEISEROWITZ 2006).

Second, the environment is not a priority topic for news media. According to the monitoring of Ukrainian media (INTERNATIONAL RENAISSANCE FOUNDATION 2021), environmental problems accounted for only 2.3 % of national media content and 3 % of regional media content in 2019-2021. These are meager figures, and this amount of information is probably not enough for media consumers to understand the real state of the environment. Ukrainian journalists agree that the main reason for neglecting topics on ecology is a lack of resources, knowledge, information, and experts. A lot of them also say these topics are not a priority for the audience (as there are more important ones) or that they are not as interesting as emergencies (MALKOVA/TSARYK 2018: 15-16). Similarly, in the country Georgia, despite major environmental challenges, news media provide little environmental coverage: Eric Freedman (2021: 166) writes the reasons are shortcomings among news organizations and journalists, insufficient access to information sources, lack of priority, and lack of public demand.

As other issues reported in news media constantly compete for audience attention, environmental issues are currently losing out to them. Moreover, the coverage of environmental problems and in particular climate change, which is

one of the most urgent ones, has received less attention than the outbreak of the COVID-19 pandemic. For example, researchers (RAUCHFLEISCH/SIEGEN/VOGLER 2021) argue that COVID-19 has shifted people's attention away from these issues in Switzerland.

Further, research of Swedish television news over three decades (1979-2009) shows that environmental news is crowded-out by economic news and news on war and armed conflicts in times of crisis (DJERF-PIERRE 2012: 499). Similarly, one could argue that the topic of the war of Russia against Ukraine, especially since the invasion of Ukraine by Russia on February 24, 2022, 'downgraded' the importance of all other themes and took a leading place in Ukrainian media. At the same time, along with the human suffering and losses, the victims of war are nature, all living beings, and the environment, as well as agricultural and urban ecosystems. The Russian aggression has had an unprecedented impact on the environment: Ukraine suffers from a number of large-scale, complex, and long-term environmental threats, risks, and disasters. Military operations disrupt the functioning of all natural systems; affect the integrity of the functioning of the biosphere, the state of natural resources and the rates of their reproduction. Therefore, reporting on war is inevitably linked to reporting on crimes against the environment.

Third, environmental news coverage is complicated by the fact that environmental journalists are at the forefront of media industry changes. Based on interview results of environmental reporters from the USA, UK, and Ireland, David Robbins and Dawn Wheatley (2021: 1289) conclude that environmental journalists can be considered emblematic of challenges facing journalism in general. Likewise, Thomas Chase's (2020: 2249) study shows that political restrictions influence environmental journalism and that economic and technological problems threaten the future of news media as an environmental advocate.

Finally, among the challenges environmental journalists face, Timothy A. Gibson et al. (GIBSON et al. 2016: 417) point out the complexity of the issue. The vast majority of environmental issues are complicated to understand for the journalists themselves and difficult to translate to a lay audience. Since one of the basic competencies of a journalist is »expertise in the specific subjects about which he or she reports« (DONSBACH 2014: 667), the work of a journalist dealing with these issues requires training and knowledge, often built over time.

Noticeably, according to a survey, 83 % of media practitioners in Ukraine experience a lack of knowledge about the environment (CIVIL SPACE 2021). Mostly they say they need knowledge on climate change (70 %), air quality (65 %), the impact of agriculture and agro-industry on the environment (61 %), energy, renewable energy sources, and energy efficiency (59 %). Almost half of the journalists queried (49 %) said they do not know experts who could help explain complex

environmental issues, and 57% of them noted the lack of collaboration with the experts who can comment on the topics.

Taking into account the cited literature above and considering ways to improve environmental news coverage, the importance of environmental science communication should be emphasized. It needs to be designed to communicate actionable information on the following socially important issues: how the natural world works; how humanity interacts with the environment; how people affect the environment; and how to deal with this effect on the environment. Although »mass media is an important source of science content« (HARMATIY 2021: 97), but »like any other dimensions of reality, science is reconstructed and not merely mirrored in the media« (CARVALHO 2007: 223).

Environmental science communication is an interdisciplinary academic field, which comprises many concepts and considers problems and topics from different points of view. Environmental scientists study many different environmental issues and potential solutions, including, among others, natural resource management, biodiversity conservation, global climate change and adaptation to its impact, pollution control, alternative energy systems, morbidity and mortality due to environmental factors, creation of an effective system of ecological security, etc. These topics are relevant and important for news coverage.

Media researchers note the constant presence of science at all levels of environmental issues (NISBET/FAHY 2015), demonstrate that science plays a major role in the representation of the environmental issues (TAYLOR/NATHAN 2002: 331), and claim that scientists are aware of their role in communicating findings to a broad audience and feel responsible to do so (GETSON et al. 2021: 171). Nowadays, in the era of a global internet and numerous open information resources, there are real opportunities to establish, maintain and develop contacts between journalists and scholars, actively involve the scientific community in cooperation with the media, use scientific reports, findings and data, as well as comments and opinions of groups of scientists or individual scientists in environmental reporting.

Richard D. Besel (2011: 132) assumes that scientists' statements are one of many ways diverse audiences can come to understand the constitutive components of reality. Others note the role of science communication and journalism in public opinion formation and indicate the importance of scientifically accurate messages to society (HART/NISBET 2012: 520). And, conversely, a lack of scientific explanation in news media reduces the potential to build reciprocal relationships with audiences (GUTSCHE et al. 2017: 62).

Scientists have more competence than anyone else to raise public awareness of environmental issues through interacting with media and help clarify complex topics so that people can form a logical connection between an event, its causes and potential consequences and can see a phenomenon or process and its global, national, regional and personal dimensions.

It can be effective when scientists provide journalists with educational and informational support by conducting training in various formats in order to improve their environmental education, bringing more formal scientific knowledge and training to journalists' work. Researchers suggest that »scientifically knowledgeable journalism has the potential to redefine the existing science–media relationship« (WITSEN/TAKAHASHI 2018: 728). A good practice is the functioning of a pool of journalists and scientists interested in promoting environmental issues. For instance, in Ukraine, there was an attempt to create such a pool and platform for collaboration between journalists of different types of media and scientists (UKRINFORM 2019), but no detailed information about their activities has been made public.

Aiming at increasing the role of environmental science communication in news media, it is important for journalists to have access to researches, databases and environmental documents which can be used in media texts. Including scientific content into reporting on environmental issues is a great opportunity for all parties – news media, the scientific community, and society. This combination creates »a space where scientific and non-scientific knowledge could co-exist and reinforce one another« (SHARMA et al. 2019).

Anthony V. Witsen and Bruno Takahashi (2018: 717) focus on a holistic approach to environmental journalism and science journalism. The authors provide evidence that environmental journalism and science journalism are among the many journalistic practices subject to the forces changing the mass media landscape of the 21st century. Effective public–academia communication improve the quality and quantity of media content and the dissemination of reliable and scientifically correct materials on environmental issues. This is critically important at a time of widespread fake news, misinformation, and disinformation. In turn, Matthew C. Nisbet and Declan Fahy (2015), speaking of both, science journalism and environmental journalism, argue that knowledge-based journalism can help correcting distortions and exaggerations. Unfortunately, in many cases, it is difficult, and sometimes almost impossible, for an average person to distinguish true information from false or semi-true information. This has strongly intensified recently, especially due to fake news spread via the internet. Involvement of scientific content in the media discourse and cooperation with authoritative environmental scientists can help counteract manipulative influences and fakes and promote scientific literacy of the audience. The preparation and creation of media texts, including ones on environmental issues, would be more reliable and of higher quality due to scientific experts being involved.

Environmental science communication in news media can ensure legitimacy to the content and provide more valid explanations of events. This could increase users' confidence in news media, helps the audience understand the real environmental challenges adequately, clarify the essence of processes and phenomena,

build cause-and-effect relationships, as well as set environmental priorities correctly. Furthermore, Kristina Janét and colleagues (JANÉT/RICHARDS/LANDRUM 2022) provide evidence that individuals' science curiosity predicts their engagement with environmental stories. And the higher the scientific interest, the stronger probability of choosing environmental articles as well as the greater expectations for the stories to be credible.

However, there are some difficulties with this. First of all, one of the media tasks is to communicate complex environmental issues in an accessible form, converting information with specialized scientific knowledge into simpler concepts understood by society. At the same time, covering environmental issues in a manner that reflects the views of the scientific community while complying with the journalistic norm of balance presents another challenge. Maxwell T. Boykoff and Jules M. Boykoff show that balanced reporting can be a form of informational bias: »Despite the highly regarded IPCC's consistent assertions that global warming is a serious problem with a »discernible« human component that must be addressed immediately, balanced reporting has allowed a small group of global warming skeptics to have their views amplified« (BOYKOFF/BOYKOFF 2004: 126-127). Miyase Christensen and colleagues note that »balanced news« can lead to misrepresentation of both scientific findings and the level of consensus within the scientific community (CHRISTENSEN et al. 2018: 2).

Nevertheless, Anabela Carvalho (2007) argues that scientists are responsible for improving media literacy on science and for finding ways to deconstruct science communication critically. Such literacy is important for people to understand the scientific basis of environmental problems. It is a prerequisite for building good environmental awareness among citizens. Environmental science communication in news media aims toward promoting nature conservation at a time when such efforts are needed more than ever.

Survey Results

The survey data reveal that people said they most often receive environmental information from online-only news media (75 %), news broadcasts on television (47 %), websites of legacy news media (28 %), and from the radio (25 %). Fewer respondents (6 %) said they receive such information from print media (respondents could select several options, so the total of the percentage does not equal 100 %). Thus, online media are among the top sources for receiving environmental information among Ukrainians and far ahead of other media. It is assumed that the younger the respondents are, the more they prefer online resources, and vice versa – the older the survey participants are, the more they use television for obtaining environmental content.

The obtained results indicate a general tendency of digitalization of the media and the growth in internet usage to obtain information on environmental issues, which also shows that the role of online sources as information deliverers is most likely set to increase. In addition, television remains an important source of environmental information, although it is not a leader in choices selected among participants. Thus, internet resources and television appear to have the greatest impact on the formation of public awareness on environmental issues among participants.

The survey data also suggest that participants mostly learn about environmental issues from the news, which is not surprising given that news is one of the most important sources of information for audience members to learn about current events and various aspects of public life (VIŠŇOVSKÝ et al. 2019: 41).

Survey participants were also asked to point out specialized popular media they use, which cover the environmental topic. Among them they named the online media outlets *GreenPost* (3%), *Expedition XXI* (3%), *Ecological Bulletin* (1%), and the television channel *ECO TV* (4%). These media were indicated mainly by respondents from the two youngest age groups in this study (aged 18–25 and 26–40 years).

It should be noted that *GreenPost* is an online information and analytical media outlet that specializes in environmental, as well as medical, energy and agricultural topics. *Expedition XXI* is a popular science online journal on scientific and ecological tourism and the *Ecological Bulletin* is an ecological popular science journal published in print and online that offers information on environment and its problems. *ECO TV* is the first and currently only all-Ukrainian television channel that covers environmental issues. Its content mainly comprises foreign documentaries, as well as its own programs, including news releases on its program *Eco News*.

Only a few respondents listed other media, such as the popular science media outlets *The Green Carpathians*, the *Naturalist*, *Nature and Society* (all online and print), and the *Forest Bulletin* (print). But they stated that they did not use them, just knew about them. Also, one participant wrote that he had previously read the magazine *Young Naturalist*.

Specialized publications can be expected to present environmental issues holistically, however, according to this survey, these media were unpopular with respondents. They did not mention other publications in Ukraine, as they may unknown to potential readers, for instance the newspapers *Earth is My Breadwinner* and *Ecological Newspaper* and the magazines *Bioenergy*, *Young Naturalist*, *Miracle – Earth*, *Humanitarian Ecological Journal*, and *Sprout*. According to Tamila Bondarenko (2016: 4–5), there is a lack of national, specialized, popular environmental media in Ukraine. At the same time, those publications available on the media market, as survey results also show are not popular enough or still unknown to Ukrainians.

Answering the question about what environmental information they most often receive from media outlets, the overwhelming majority of respondents (85 %) pointed out news on environmental disasters and emergencies in Ukraine and around the globe. In particular, respondents wrote in their comments about reports of floods, earthquakes, forest fires, air or water pollution caused by accidents, and mutant animals that appeared in places of environmental disasters, etc. Also, more than half of the participants (61 %) said that media outlets offered entertaining environmental content. They noted news about the birth of chimpanzee/panda/tiger cubs in zoos, dolphin rescues, environmental fashion, sakura blossoms and other similar reports. They noted a much smaller block of media texts about protests by eco-activists and environmental public organizations (mentioned by only 3 % of respondents) or news timed to commemorate a certain date (2 %), in particular, the anniversary of the accident at the Chernobyl nuclear power plant, which also composes the block of natural and man-made disasters.

Thus, according to this survey, in the participants' perception Ukrainian media often offer environmental information in the context of natural disasters and human-made disasters, as well as entertaining environmental content. It is worth noting that the respondents' age did not have a significant effect on their answers, as respondents cross age groups answered questions similarly.

This survey's results are in line with previous studies: Mohamad S. M. Saleh and Harald Heinrichs (2020: 118) found that Malaysian newspapers do not give more attention to environmental effort topics like sustainable living, but focus on more environmental problems such as floods. In this regard, Miyase Christensen and colleagues (CHRISTENSEN et al. 2018: 3) also emphasized that news media construct environmental damage mostly in the context of sensational scenarios: »Drama, spectacle and apocalypse are thus prominent features in popular environmental narratives«. Thus, news about the ecological disasters, on the one hand, triggers a public response and visualizes the problems of ecology in the media, which is a positive aspect. On the other hand, such news can cause information noise, which demonstrates that news media's interest in the topic of environmental news is mostly pegged to incidents in terms of quantity a fall out, not necessarily quality. Additionally, it may set up audience members to link environmental issues primarily to disasters and cataclysms.

As for entertainment materials, Michelle I. Seelig (2019: 45) notes that media »promote environmentalist ideals in the hopes that if audiences are entertained, then perhaps these narratives can subtly influence thinking and behavior«. Also, entertaining environmental content is justified for emotional relief, especially when there are too many negative messages. However, too much of this information shifts the focus, diverts the attention of media consumers and imposes the idea that the environment is simply relating to flowers, cute animals, warm weather, and so on. This trend does not contribute to the formation of a

responsible position on nature, but on the contrary, encourages thinking that everything will be solved by itself and will be fine in any case.

Monitoring (MASHKOVA 2019) also confirms that the Ukrainian media rarely raise real environmental problems, while most attention often shifts to additional, less important, sometimes even not important topics. However, there are certainly media around the world that report on current environmental issues. For example, in Bangladesh, climate change and air quality have received remarkable attention in media reporting (AL-ZAMAN/KHAN 2022: 98). Also, in the United States, journalists report on adaptation and resilience, renewable energy, and negative emissions solutions (BORTH et al. 2022: 443).

The obtained survey data show that the eco-agenda for participants, at least parts of the Ukrainian audience, is formed by online news media. They are the main platform for obtaining information about the environment. Television is also an important source of environmental content. In contrast, popular media specializing in this topic appears to have a limited number of users.

The fact that people mostly learn about environmental issues from today's news shows that such content is included in the general information flows. Survey participants named two contexts for environmental information: one focused on emergencies and the other on entertainment content. Neither of these two contexts may necessarily provide in-depth analysis of environmental issues. Moreover, a great amount of such media texts may distract from serious and thorough material on important issues and real challenges. Therefore, it can be assumed that the journalism of disasters and entertainment neither plays an educational role nor draws the audience's attention to environmental problems.

The obtained results are important for a better understanding of the coverage of the environment in Ukraine. They point to the need to change the representation of environment issues in news media. In this context, environmental science communication in the media is promising, i.e. coverage of current scientifically grounded topics, engagement and dissemination of environmental science, development of »scientifically objective, environmentally responsible« (GIANNOULIS/BOTETZAGIAS/SKANAVIS 2010: 425) media discourse.

Based on the facts that »journalism and journalistic discourses play a crucial role in framing environmental issues« (CHRISTENSEN et al. 2018: 1), on the one hand, and that the predicted consequences for the environment become increasingly dire, on the other hand, »urgent need for vigorous and engaging journalism« (GIBSON et al. 2016: 417) is obvious. Environmentally responsible journalism can be a powerful vector to influence the formation of high environmental awareness and culture, responsible attitudes toward the environment, and motivations for people to enact environmentally friendly behavior.

Conclusion

News media coverage of environmental issues has the potential to influence public awareness about this area. However, according to this study, participants said news media prioritize emergencies and entertainment content, so people foremost receive news about human-made accidents and natural disasters, as well as entertainment content regarding environmental issues. Such messages fill news media discourse with an environmental component, but in fact, they create information noise that demonstrates interest in the mostly topic in quantitative terms, but not in terms of quality and nuanced scientific interpretation.

The research findings suggest that disaster and entertainment journalism currently may not contribute much to the audience's awareness and commitment to ecology. Current coverage of environmental issues in Ukrainian news media as perceived by survey respondents reveals that news media may divert public attention away from real environmental problems, while those that threaten large-scale and often irreversible consequences are only seen to be taking second place. Respondents mainly received media texts of limited value, which did not provide comprehensive information, so they may have prevented an adequate understanding of complex environmental processes, phenomena, and events.

Therefore, it is time to change the current situation. This study suggests that serious changes should be made in news media coverage of environmental issues in Ukraine. An important step in this context is to increase environmental science communication in Ukrainian news media, which means improving the scientific level of environmental content, providing the public with scientifically correct, reliable, relevant, evidence-based, and socially important information based on scientific findings and data.

Environmental science communication in the media can expand the practices and impacts of environmental reporting. It can be an effective way to raise public awareness of the environment and to utilize the role of news media as educational platforms for encouraging responsible environmental behavior.

Limitations

The survey was conducted at the end of 2021. At that time, the author could not even imagine that the country, the people, the environment and environmental communication in Ukraine would face such unprecedented challenges that the invasion of Russia brought them. Nuclear power plants, oil terminals, chemical

and metallurgical plants and warehouses with hazardous waste are located in the war zone now. The Russian army bombs and shoots these objects, burns forests, and destroys natural ecosystems. Russia's numerous crimes against Ukraine's environment are still impossible to count, as this ecocide continues.

According to the results of the all-Ukrainian survey »Opinions and views of the population of Ukraine regarding the environmental consequences of the war«, conducted by the Kyiv International Institute of Sociology in May 2022, only half of Ukrainians (50 %) consider the level of information about environmental consequences of the current war as sufficient. Additionally, 43 % believe that information provided is rather insufficient, or completely insufficient. A little more than half of the respondents (55 %) see/hear information about the environmental consequences of the war in the media (Ministry of Ecology and Natural Resources of Ukraine 2022: 15-18). Such results once again indicate the need to strengthen environmental communication in the mass media.

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