

Ecological Problems in Mass Media in Kazakhstan

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Abstract

Ecological problems in Kazakhstan are presented in this article. Firstly, it considers ecological journalism in Kazakhstan Secondly, effective coverage of environmental and natural resources in Central Asia by the media are analyzed. Thirdly, environmental problems in the media are discussed. The purpose of research is to study ecological issues in Kazakhstan, to define the consequences of Semipalatinsk testing site and the Aral Sea. The role of media in informing people about environmental problems, measures taken in Central Asia to support environmental journalists will be examined more deeply and the results of the survey, which was conducted among students to learn of their ecological consciousness, will be analyzed. The methods include: Historical comparative method, methods of systematization, analysis, synthesis, questionnaire are applied in this paper.

Keywords: ecological journalism, environment, media, nuclear weapons.

INTRODUCTION

Since the beginning of the XXI century, the ecological situation and the state of the environment have sharply worsened. Every year, environmental problems increase, many of them directly a result of the lack of public awareness. Society should receive reliable, objective and up-to-date information about what is a threat to their health and what factors affect the environment. People need to know what they are doing, what measures the state is taking to improve and maintain the ecological balance, and who is responsible for their implementation. In addition, everyone should be aware of the contribution they are making to the state of the environment by their own activities. This contribution can be both positive and negative. The role of the informer about environmental issues, like in many other public policy issues, falls on the media. One of the main goals of the media is educational. Thus, the quality of journalists' work largely depends on the awareness of the population in matters of environmental protection, as well as the level of environmental culture in the society.

Looking back to the past, looking to the future and recognizing the achievements of civilization, the global nature of environmental problems is evident, and people should plan their activities taking into account the need to address these problems and advance along the path of sustainable development.

The nuclear age of the planet is coming to an end. Kazakhstan played a role in the nuclear age with the Soviet Union's large nuclear test site at Semipalatinsk. Tests of nuclear weapons, conducted for 40 years at the site in Semipalatinsk Region caused irreparable damage to human health and the environment, caused an increase in the overall morbidity and mortality of the population. [1]

The nuclear age of the planet is coming to an end. Kazakhstan played a role in the nuclear age with the Soviet Union's large nuclear test site at Semipalatinsk. Tests of nuclear weapons, conducted for 40 years at the site in Semipalatinsk Region caused irreparable damage to human health and the environment, caused an increase in the overall morbidity and mortality of the population. The entire territory of Semey and the adjacent areas of Pavlodar, East Kazakhstan and Karaganda oblasts are recognized as an ecological disaster zone (See Figure 1) According to statistics, in the Semey region in 1980 there were 158 cases of cancer per 1000 population, and by 1990 this figure increased by one third. Mortality from lung cancer has tripled, from cancer of the oesophagus increased 8 times, and from cancer it was 39 percent higher than in the control group. [2]

Scientists have found that 1.5 million people living in the territories of the Semey, Karaganda and Pavlodar oblasts adjoining the landfill were exposed to radiation at doses of more than 1 Ba, and passed their chromosomal disturbances received

during irradiation to future generations. Today, thousands of victims living adjacent to the landfill have no support from the state. And although the law "On Rehabilitation of the Population Affected by Nuclear Tests" was passed in 1992, it does not work to the fullest extent due to the difficult economic situation in the country. [3] "The remote consequences of nuclear tests, transmitted from generation to generation, are increasingly detrimental."

The Aral Sea problem has long been troubling (Figure 2). To date, much effort has been put into restoring the vital water resource on the Kazakhstan portion of the sea. Analysis of the dynamics of the Aral Sea basin and desertification of the surrounding areas leads to a depressing forecast of the complete disappearance of the sea by 2010. The new desert of Aralkum will merge with the existing Karakum and Kyzylkum and compete with the Sahara, which only 150-200 thousand years ago was covered with lush vegetation. The diversion of water mainly for irrigation, from the two largest rivers flowing into the Aral led to the fact that their annual runoff, which amounted to 60 km³ in 1980, decreased to 4 km³. The Syr Darya currently does not reach the sea, ending its path in the fields, and the Amu Darya reaches the Aral only in the winter with a thin stream. As a result, the area of the water area decreased by more than 1/3, the coastline in some places retreated by 90 m, and the volume of water in the sea decreased by 60%. As a result, the average salinity of water has increased 2.5 times, and all living things in it die. The Aral has become the largest supplier of dust within the former USSR. The drained bottom of the sea became a source of dust and salts, carried over very long distances. [4] Approximately 50 to 60 million tons of salt and dust annually rise into the air and carry for many kilometers onto the cotton and rice plantations. The degradation of the ecological system has led to a worsening of the already sharply continental climate of the Aral Sea.

What has led to such results? Irrigated lands are not equipped with the necessary engineering irrigation network and do not have effective drainage. Therefore, in order to prevent their salinization, it is necessary to increase irrigation rates. To obtain high yields, huge amounts of fertilizers were introduced into the soil - up to 600 kg per 1 hectare of arable land, and the amount of pesticides used was 15-20 times higher than the MPC (maximum permissible concentration). After draining into the soil under such conditions, the water not only strongly mineralizes, but also becomes progressively saturated with toxic substances. These waters are discharged in large quantities into the Amu Darya and Syr Darya and downstream are again used for irrigation, as well as for domestic needs. Thus, extremely unfavorable conditions for human habitation were created in the region, plus a serious epidemiological situation developed. [5]

Scientists all over the world have identified the urgency of a threatened global ecological catastrophe associated with the destruction of the ecosystem balance in the biosphere.

The process of desertification of lands in arid, semi-arid and dry areas, resulting from human activities, has reached unprecedented levels. Meanwhile, all life on Earth depends on a thin, unstable layer of soil covering the land. This layer, according to scientists, is the youngest on our planet, formed over a painfully long time but can be destroyed with incredible speed. The formation of a layer of soil a few centimeters deep takes centuries, but with irrational use it can be carried away by the wind and washed away with water in just one year.

Combating desertification is particularly relevant in Kazakhstan, where, in addition to the presence of environmentally adversarial regions, the characteristic instability of the soil, scarcity of vegetation, continental climate and anthropogenic influences many times accelerate the process of desertification. It is not surprising that more than 66% of the land is affected by desertification; As a result of the massive development of the steppe's virgin land, arable land has lost up to 30% of its humus, there has been industrial extraction of minerals and salinization and decrease in soil fertility occurred in many regions. The result was: degradation of pastures, loss of the gene pool of flora and fauna and, as a result, a chain of environmental disasters that significantly worsened the living and health conditions of the population.

It takes considerable effort to develop to a new quality of life that is safe for humans, and to think about the future of our children and the preservation of the natural environment. Under conditions of economic instability and reorganization of management structures, large investments are needed to solve pressing environmental problems. This is especially important at the initial stage of implementing an environmental strategy. Kazakhstan lacks sufficient funds to implement such an environmental strategy. Therefore, financial and technical support from other countries and donor organizations is needed at the first stage of work. The National Environmental Action Plan developed in 1998 as part of the national development program of Kazakhstan "Strategy 2030" predicts that after a while Kazakhstan will be able to create mechanisms that will support the environmental program with its own resources. [6]

The role of mass media

The fight for a healthy environmental situation is essential in Kazakhstan. One means to do so is through coverage of this topic in the media. This makes it possible to investigate problems from different angles and exclude any inconsistencies.

One of the ways to regulate the ecological system is through environmental journalism. Ecological journalism is a genre of journalism, implying extensive coverage of environmental issues of both global and regional importance. Its subject area is the collection, analysis and dissemination of information relating to current events, trends and problems related to the environment with which humans constantly interact. Ecological journalism is one form of science journalism.

In everyday life, many people rarely encounter examples of environmental disturbance or pollution, or they simply do not realize it. Insufficient awareness of environmental issues is one of the main causes of human inaction in this regard. Until an environmental disaster affects them personally, people will continue to believe that there are no environmental problems; such is our psychology. Administrative decisions related to environmental problems may not be sufficient to overcome the global environmental crisis, so a systematic approach is necessary and the contribution of each member of society is important. This is why environmental journalism can inform the average person about the state of the environment in his or her region and country

and about global problems in general. Competent coverage of these issues in the media can lead to an increase in awareness and stimulate each individual to act for the benefit of the environment, and therefore for the benefit of the whole planet. [7]

In Kazakhstan, this practice is only gaining momentum. A 2015 study by two scientists of the Eurasian National University. L.N. Gumilev Aitmukhanbet and Ardak Esdauletov, examined coverage of water and other environmental problems in the press of Kazakhstan during the period of perestroika to the present. It was the work of the head of the press and publishing department of the journalism and political science department, Esdauletova and a professor of international relations, Esdauletov.

Support for environmental journalism

There is now support for environmental journalists. One of the ways is the Aarhus Convention of the United Nations Economic Commission for Europe on Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters. The aim of the convention is to support protection of human rights in a favorable environment for health and well-being; access to information; public participation in decision-making; and access to justice in environmental matters. The convention requires:

- freedom of access (mandatory provision of necessary information upon request, not requiring justification);
- active information to the public via the Internet, publication of reports on the state of the environment;
- before refusing to provide information, it is necessary to take into account the degree of public interest to it;
- in the absence of information from authorities to which it is being referred, referral to the agencies that are able to satisfy the request;
- immediately inform the public in the event of an imminent threat to human health and / or the environment. To implement the convention, the Ministry of Environmental Protection on the basis of the RSE (Republican State enterprise) "Information and Analytical Center for Environmental Protection" established the National Aarhus Center in 2009. It has the following functions:
 - provision of accessible environmental information at the request of individuals and legal entities;
 - publications in the media, speeches on radio and television, advertising campaigns, as well as informational support of planned and conducted public hearings;
 - The placement of environmental information on the web-portal of the Aarhus Center.

Brochures are being produced for journalists studying ecology. The Organization for Security and Co-operation in Europe issues special benefits. It is world's largest regional organization dealing with security issues with 57 member countries in North America, Europe and Central Asia. [8]

On April 22, 2016, Internews hosted the official launch of the project "Media for the Effective Coverage of Environmental and Natural Resources in Central Asia", funded by the European Union and implemented by Internews. The project includes a special program for capacity development, which includes professional trainings in journalism, joint seminars for representatives of public organizations and media workers and small grants for the production of content on environmental issues. The project aims to improve communication and cooperation between public organizations and media professionals through regional trips for joint production of media content, thematic educational activities on environment and natural resources, and professional activities to strengthen relationships. The project is developing and implementing sustainable interactive tools and platforms, including data visualization and mapping projects.

The opening of the project brought together representatives of local and international organizations, government bodies of the Kyrgyz Republic, as well as experts in the fields of media and civil society who were interested in active cooperation and new opportunities for the exchange of information on the environment and natural resources. The budget of the project is 1.5 million euros. Ambassador Cesare De Montis, head of the delegation of the European Union in the Kyrgyz Republic, stressed the importance of regional cooperation on environmental issues and natural resources among all interested parties

The environment and natural resources know no boundaries. While countries certainly have a national policy on addressing environmental issues and the use of natural resources, regional cooperation is a key factor for effective action and sustainability, in Central Asia, perhaps this is more important than in other regions. Effective policies are based on reliable information. With the project that we are launching today, the European Union supports improving access to information and data on environment and natural resources for citizens and policymakers in Central Asia.

Internews project director Farhod Rahmatov stressed the main tasks and activities of the project: including strengthening regional efforts to improve access to information for citizens and policymakers on environment and natural resources in Central Asia (www.egov.kz).

"This is something that had to be done in our region for a long time, because it is difficult to overestimate the role of environmental problems for each country separately, and for the region as a whole. One of the key areas that need to be developed is access to information," said Irina Chistyakova, a communications expert at the Center for Climate Change in the Kyrgyz Republic.

"At the moment, we really have a great need to increase the capacity of journalists who write on environmental issues," said participant Mars Amanaliev, the head of the Ozone Center of Kyrgyzstan.

As another part of the project, journalists from Central Asia were invited to participate in a competitive scholarship program to cover the work of the Energy of the Future forum in Astana on August 21-22, 2017.

In Central Asia, in 2006 a project was established to create an independent network of environmental journalists (Central Asian Network of Environmental Journalists - CANEJ, to create measures aimed at ensuring freedom of speech and access to environmental information, the main principle of the Aarhus Convention. It would strengthen their capacity to cover environmental problems in the media. [9]

The CANEJ network also promotes the development of mechanisms for cooperation between the media and state structures, increase the efficiency and quality of journalistic materials, and exchange information and experience with similar international associations.

Within the framework of the project, members of CANEJ met with representatives of the Ministry of Environmental Protection of Kazakhstan and educational center "Bilim-Central Asia". NGOs and experts also took part. They discussed ways to further develop the network, its charter, the agreement among the partners and the strategy for CANEJ activities, including training on practical skills and creating a distance learning educational course for environmental journalists.

The distance learning course will include structured information on the policies, strategies and legislation of the Central Asian states in the field of environmental protection. It will also contain information on international agreements and conventions on climate change, biodiversity, biosafety, desertification, chemical pollution, water management and others.

The distance learning course will also help environmental journalists receive information about the UN Decade on Education for Sustainable Development, the situation on chemical pollution in Central Asia, water problems and other important environmental issues.

A special section OF CANEJ OR OF Media for the Effective Coverage of Environmental and Natural Resources in Central Asia clarifies the provisions of the Aarhus Convention.

The work of the Central Asian Network of Environmental Journalists

The UNESCO International Program for the Development of Communications (IPDC) supported the idea of creating a network of environmental journalists in Central. Consultations were held with Tarja Virtanen, the regional advisor for communications and information of the UNESCO IPDC, an Sergey Karpov, national specialist of the Cluster Office in Almaty for Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan. During the consultations, the goals and objectives of the project were amended, actions and directions of work were determined. An independent network of environmental journalists in Central Asia is intended to:

- improve the collection and dissemination of environmental information;
- increase the potential of journalistic personnel through training for the media, which will pay special attention to the environmental problems of Central Asia;
- improve the mechanism of cooperation between the media and state structures, increasing the efficiency and quality of journalistic activities;
- promote access to environmental information and protection of the environment by providing support and mutual assistance through technical means and expertise;
- promote the exchange of international experience in the operation of such networks and attracting new members to the network.

The network includes the Central Asia Agency for Environmental News "GreenWomen". Its mission is to support public participation in solving environmental problems through development of environmental thinking among the population of Central Asia. Its target (focus) groups are regional and national TV and print media, NGOs specializing in environmental information and environmental institutions. [10]

Another member, the Center "Gender: Innovation and Development", targets women journalists, national TV and NGOs, specializing in TV. It specializes in production of video products (television programs and social advertising, educational programs for regional and national TV channels). In Uzbekistan, the Center "Gender, Innovation and Development" – NGO "For the sake of the Earth", targets media, TV and youth NGOs specializing in environmental information. In Tajikistan, the NGO "For the sake of the Earth", "Global and Local Information Partnership" – GLIP targets media, TV, youth and environmental NGOs specializing in biodiversity and biosafety. In Kyrgyzstan, a member is the "Global and Local Information Partnership.

CANEJ activities cover the following areas.

1. Information – the priority CANEJ activity. This includes collection of ecological information, verification of the available information, distribution, database development, as well as support cooperation among media outlets and governmental agencies, ecological and other organizations.

2. Education – professional development for journalists. Training for ecological journalists specializing in environmental issues. Recruitment of young journalists willing to join public environmental organizations. Environmental awareness for the general public.

3. Expert consulting services – includes participation in environmental research projects, improved public oversight of the

environmental conditions and the decision-making processes, as well as cooperation among ecologists and media representatives.

4. Legal – development of the publicly available legal documentation database covering environmental issues. Legislative improvements in environmental protection and access to ecological information. Protection of the right to live in favourable environmental conditions.

5. International – must be advanced via collaboration with similar international networks and organizations.

It is possible to protect the right to live in favourable environmental conditions only if media agencies have access to information. In all activities within the information area, it is important to account for the particularities of various media outlets. Specifically, electronic media (TV and radio stations) have the capacity to present environmental information in a more timely and vivid manner than newspapers. At the same time, printed and web-based media outlets are geared more towards presenting analysis, details and research outcomes. Specific benefits for journalists covering environmental issues will motivate them to take part in addressing challenges in the sphere of environmental protection.

For electronic media and website development: Simplified Internet access facilitates distribution of information related to environmental matters. Increase the volume of information available via websites. CANEJ members' sites should contain links to other resources containing relevant information covering environmental issues. Timely website updates.

TV and radio presentations: Development of special environmental TV and radio broadcast. Substantial segments of the population, especially, in rural areas, still have very limited access to Internet-based resources. Hence, it is important to supply editorial boards of newspapers with information covering a range of environmental issues.)

Print media: Publication of a newspaper covering environmental issues. Potentially, the newspaper can be distributed among the general public free of charge. The newspaper can be mailed to libraries, educational institutions, etc.

Establishment of the School of Environmental Journalism: There is an acute lack of journalists specializing in environmental matters. It is important to develop a genuine interest among young journalists toward environmental issues and the right of people to live in favourable environmental conditions. Only journalists having an extensive background in a range of relevant subjects can effectively cover environmental protection issues. Conduct a series of training sessions for students studying journalism, as well as for professional journalists representing TV, radio and printed media outlets. Publish brochures covering a spectrum of environmental issues for high school students and the general public. Establish an environmental library. There are expert consulting services in the media.

CANEJ activities will be geared towards coverage of the environmental research outcomes, ensuring that the general public has objective information and knowledge to understand environmental issues and ways to address them in various parts of Central Asia. CANEJ shall focus on the current situation in various Central Asian states and publication of materials related to the studies of environmental conditions. Special attention will be devoted to promoting involvement of international organizations and their participation in addressing environmental challenges. Since CANEJ facilitates participation of organizations and media agencies from across Central Asia, the arrangement will stimulate exchange of information and research outcomes among countries of the region in the sphere of environmental protection. Hence, it shall ensure access to information and outline ways to carry out joint activities aimed at addressing environmental issues and attracting attention from the international community to environmental hot-spots across Central Asia, including the search

for optimal ways to address existing issues. Civil society participation in the process of addressing environmental issues is also among CANEJ priorities. Mass media will allow civil society organizations to join the process of addressing environmental issues. Public awareness and public participation will be promoted via civil society organizations. The organizations will be able to nominate authoritative experts to take part in research projects.

CANEJ participation in environmental research projects and conferences: In Central Asia the key research topics include environmental impacts of oil and gas projects, nuclear energy utilization, access to potable water, soil degradation and expansion of deserts. It is also important to make sure that media outlets cover outcomes of scientific. Various initiatives and activities of government agencies have to pass the thorough expert assessments. Ecological information has to be adapted to engage various segments of the society.

Legal questions: Ensure availability and transparency of environmental information provided by government agencies in accordance with legislative requirements. Public oversight over actions of government agencies in the environmental sphere should adhere to the norms stated in environmental legislation. It includes development of the legal information database and improvement of laws governing access to environmental information and the right of people to live in favourable environmental conditions, in addition to cooperation with Parliamentary deputies aimed at lobbying for adoption of legislative acts in the sphere of environmental protection and facilitating environmental legislation development.

International cooperation includes participation of CANEJ members in international unions of environmental journalists. It includes implementation of joint projects, campaigns and actions, as well as participation in international conferences, initiation and organization of international conferences, informational campaigns and actions facilitating inclusion of CANEJ into international processes, establishment of contacts and activities, exchange of information and experiences among international unions of environmental journalists.

Other activities: CANEJ will cooperate with other organizations and cover all Central Asian events related to environmental issues and the right of people to live in favourable environmental conditions. It will facilitate actions aimed at addressing environmental issues and attract the attention of the general public and government agencies to issues related to the right of people to live in favourable environmental conditions. It also will strengthen linkages among government agencies, public environmental organizations and the media and develop and distribute reviews of violations of the right to live in favourable environmental conditions. CANEJ will participate in conferences, "round tables", seminars and other events

Let's turn to CANEJ infrastructure development.

Improved application of the available informational web-based resources developed by members will facilitate interactive exchange of ecological information among members and other entities interested in ecological information. This will also support recruitment of new members. Member activities should be geared not only towards informing communities across Central Asia about the region's environmental issues, but also towards development of the public opinion preventing new environmental challenges from spreading. It is important to make sure that CANEJ engages organizations and entities specialized in environmental issues and conducting a variety of research projects. CANEJ intends to establish and promote cooperation with media outlets operating across Central Asia, specifically in the Aral Sea and Semipalatinsk regions etc.

Expected results: People will gain access to objective information regarding environmental conditions in the region, as well as in their respective countries. People across Central Asia

will be able to influence central as well as local government agencies to resolve environmental issues. The general public will facilitate re-focusing of the governments' attention toward resolution of these issues. Promotion of public awareness regarding environmental conditions will lead to improved living conditions in regions with adverse environmental conditions and will prevent emergence of the new environmental problems. Its activities will stimulate improvement of interaction among government agencies working on country-specific issues, as well as public ecological organizations and the general public. In turn, this will ensure that the general public understands actions undertaken by government agencies to address environmental issues. It will attract attention of the international community toward the ecological situation and the search for optimal solutions aimed at improving the ecological situation across Central Asia. It is important to identify additional means, including financial resources, to address environmental issues in those instances when governments lack sufficient resources.

Ensuring transparency and openness in addressing environmental issues: Declassification of information related to environmental issues. Promotion of more active involvement of journalists to ensure coverage of environmental issues. Instilling understanding of the need to develop environmental journalism traditions. Training opportunities for journalists in the sphere of national and international norms governing access to information, including ecological information. Facilitation of cooperation among journalists and public environmental organizations.

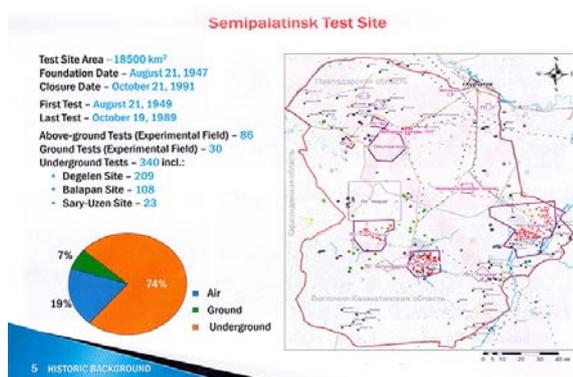


Figure 1. Semipalatinsk Test Site. (<https://www.google.kz/search?q=semipalatinsk&source>)



Figure 2. The Aral Sea problem has long been troubling. (<https://www.google.kz/search?q=semipalatinsk&source>)

Survey results

In 2017, during the second half of the year there was conducted a survey in order to study the awareness of the people of the ecological issues. It included questions relating to our discussion of media coverage of ecological problems in the region. 200 respondents were the students of Shakarim State University in Semey who expressed their opinion of the part of

media in informing people about problems of ecology, sources they receive information about the state of the environment with interest. According to survey results, we can see that 75% of students are interested in the state of environment, more than half of respondents (65%) believe in media influencing on public in environmental issues. It also showed that among four sources of information the Internet is the main one.

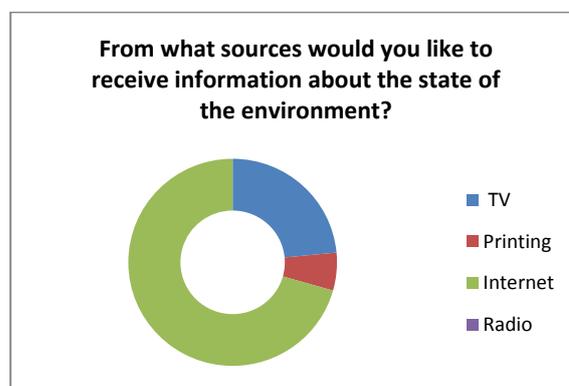
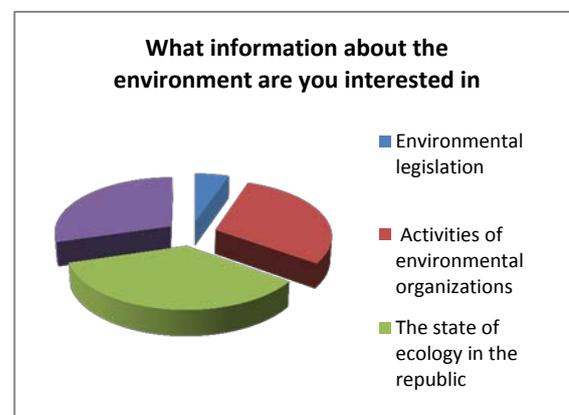
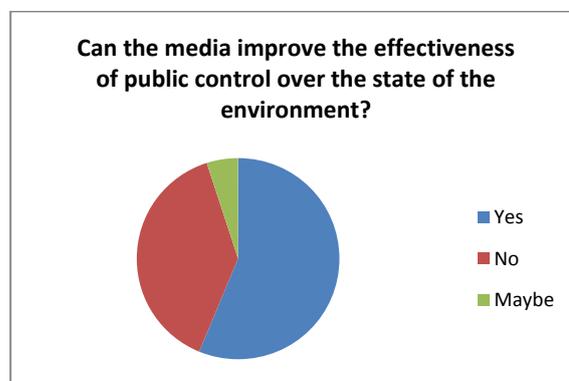
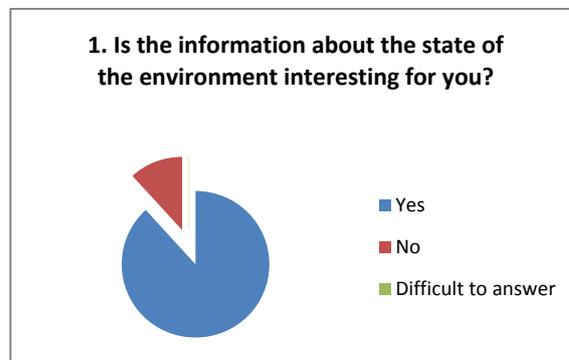


Figure 3. Need for environmental information.

CONCLUSIONS

The environmental theme in the media is both important and complex. The state of health and human well-being directly relates to the state of the environment. Therefore, information about the state of the environment is perceived by the population in a heightened way as effecting one of our basic instincts - the survival instinct. Modern human activities - production and consumption - have a negative impact on the environment. And if a person sometimes finds it difficult to trace the relationship between individual events, for example, car exhausts and the greenhouse effect, and consequently, climate change, then the emergence of a manufacturing enterprise next to the house is perceived as a potential source of pollution and a threat to one's own health.

Indeed, many conflicts are generated by the environmental aspects of the activities of various organizations. Since the mass media are today the main source of environmental information for the majority of citizens, it is up to journalists whether people know about the current problem, how they will react to it, whether the problem will cause panic in society or, on the contrary, will lead to decisive actions to protect their rights to a favorable environment. One can also argue that environmental journalism is one of the tools in solving environmental problems. And this imposes a certain responsibility on journalists covering the topics of ecology. It is especially important that journalists themselves understand the essence of the problem that they reports about. Inaccuracy in handling facts and excessive sensationalism in the presentation of material can not only confuse the reader and cause panic but also give rise to officials once again emphasizing the scientific illiteracy of journalists and

the public and ignoring the opinion of citizens in making environmentally relevant decisions.

On the other hand, competent and accurate coverage of problems can affect their positive resolution. After all, it is often publication in newspapers that are the guide to the actions of citizens. Any decisions by officials at different levels and by residents are made on the basis of the information they have. The material that intelligently covers the problem will also help "ordinary people" in their neighborhood.

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