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IS GLOBAL WARMING OUR CONCERN OR NOT?

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Abstract

Global warming and climate change represent current topics that are approached in many articles, conferences, agreements, etc. Even though the terms "global warming" and "climate change" are sometimes used as synonyms, global warming refers to the long-term warming of the planet and represents only one aspect of climate change. The extreme weather - heat waves, storms, droughts, and floods - that was observed in the last period all over the world is considered to be the result of climate change. The opinions regarding this subject are different; therefore there appear to be arguments: some believe that global warming is a natural process while others think that it's the result of human activity, especially the burning of fossil fuels, which led to CO_2 increseed concentration. Each of them has their own perspectives and motivations and attempts convincing public opinion through mass media and social media platforms. Contradiction itself is the main "tool of human evolution", so this dispute should be seen as a step forward in discovering in detail what changes our planet is undergoing.

Keywords: climate change, global warming, CO2

1. INTRODUCTION

Global warming and climate change represent current topics that are approached in many articles, conferences, agreements, etc. Although the terms "global warming" and "climate change" are sometimes used as synonyms, global warming refers to the long-term warming of the planet and represents only one aspect of climate change. The extreme weather - heat waves, storms, droughts, and floods - that was observed in the last period all over the world is considered to be the result of climate change. The opinions regarding this subject are different; therefore, there appear to be arguments: some believe that global warming is a natural process while others think that it's the result of human activity, especially the burning of fossil fuels, which led to CO_2 increseed concentration.

Perceptions of climate change significantly vary between regions in Europe, depending on political, economic, and cultural factors. Baiardi and Morana (2021) found that northern European countries such as Sweden and Denmark have a high degree of awareness and concern about global warming, whereas southern and eastern European countries are less concerned about the issue, often due to economic challenges or other national priorities. These regional differences are essential for understanding the dynamics of public support for climate policies. In countries with low awareness, such as Romania and Bulgaria, communication strategies are needed to educate the public and

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promote proactive measures against climate change. For example, information campaigns highlighting the economic and social impacts of climate change could be more effective in regions in which economic concerns are a priority.

The aim of this study was to highlight the level of awareness of the Romanian population regarding the impact of global warming on the environment.

2. MATERIALS AND METHODS

Questionnaires are an essential tool for collecting information on behaviors, attitudes, and opinions. The questionnaire method is one of the most widely used research techniques and provides an opportunity to collect quantitative and qualitative data from many respondents. Also, it is a practical method of assessing public opinion on a given topic because: the cost is relatively low or absent – if it is completed online, the answers are anonymous, and honesty is encouraged, more questions can be asked, and their answers can be easily quantified and represented.

To verify the population's perception of the chosen topic, a questionnaire was used with several types of questions: we included both closed and open questions. Closed-ended questions were designed on a Likert scale to measure the degree of agreement with statements about the causes and consequences of climate change, while open-ended questions gave participants the opportunity to express their personal opinions in detail.

The results were obtained after 20 questions were asked to a sample of 250 individuals.

3. RESULTS AND DISCUSSIONS

More than half of the respondents (57.2%) were young people (between 18-24 years old) and they heard about global warming on television. The majority of interviewees were female (66.8%) and had higher education (66.8%). In terms of residence, 64.8% of answerers lived in cities, whereas the remaining respondents lived in villages.

According to 24% and 23.6% of the participants the world's most pressing problems are the lack of education and poverty (the lack of food and drinking water) (Figure 1a).

For 32% of respondents, global warming means rising temperature, and the main reasons are pollution (22.4%) and (environmental distruction 22%) (Figure 1b).



Figure 1. Respondents perceptions about world's most pressing issues (a) and global warming (b)

For the multiple-choice questions (Figure 2), the interviewees considered that the principal signs of global warming from the last period are: the glacier's melting (57.2%), high temperatures (52.4%),

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drought and expansion of the deserts (47.2%), and changes in seasons (38.8%). The top three steps that the EU should take to reduce global warming are: reducing pollution (67.7%), stopping deforestation and planting trees (50.4%), and increasing population education (46.8%).



Figure 2. Multiple-choice questions about visible signs of global warming (a) and measures to combat it (b)

The majority of respondents (65.2%) believe that Romania is "very much" affected by global warming, and 47.2% of them participated in environmental activities multiple times, indicating a proactive approach. However, 32.4% of the participants have never participated, indicating that there is still room for increased participation.

A significant percentage (41.6) of answerers discuss a few times a year about global warming with family or friends, whereas 18% never engaged in such discussions. Even though global warming is a concern for 47.2% of respondents and they have already begun to take measures like walking, waste sorting, recycling etc. many of them (47% and respectively 33%) don't share information about this subject and don't know about the Paris Agreement (Figure 3).



Figure 3. Social media in sharing information about global warming (a) and the answers to the question about the Paris agreement (b)

Furthermore, 69.2% of interviewees believed that information campaigns on global warming would be useful, but 11% were uncertain about their effectiveness. A total of 51.6% expressed willingness to donate to environmental causes, whereas the rest were unwilling or unsure about the donation.

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In agreement, most answerers consider that global warming is the result of human activity and that it can be stopped by reducing greenhouse gas emissions. At the same time, these actions could positively influence the global economy (Figure 4).



Figure 4. Agreement / disagreement regarding different affirmations concerning global warming

One of the biggest obstacles to the adoption of effective climate policies is the proliferation of conspiracy theories and misinformation. Biddlestone et al. (2020) demonstrated that climate change conspiracy theories, such as the idea that global warming is a plot to control the population, undermine public trust in science and complicate efforts to take concrete policy action.

These theories misinform and polarize society, prompting the adoption of evidence-based policy measures. Furthermore, Haltinner and Sarathchandra (2020) showed that skeptical attitudes toward climate change are not always rigid and can vary depending on how individuals are exposed to scientific arguments. This highlights the importance of education and well-designed messaging that can reduce uncertainty and strengthen support for climate policies.

Social media plays a key role in spreading information about climate change, but it can also be a major source of misinformation. Roxburgh et al. (2019) highlighted that during extreme weather events such as storms or forest fires, discussions about climate change on social media increase. Chen et al. (2021) pointed out that social media is often used to promote messages that deny the existence of climate change and spread confusion among users.

Thus, social media platforms should implement stricter measures to combat misinformation and promote discussions based on scientific evidence.

Cipriani et al. (2024) explored how personality traits influence attitudes toward climate change: for example, individuals with outgoing personality traits are more likely to be aware and concerned about climate change and adopt pro-environmental behaviors.

In contrast, individuals with conservative or authoritarian traits typically display greater skepticism, especially when climate change is presented as a global threat or when proposed solutions involve major economic changes. Therefore, individual psychology is essential for developing more effective communication strategies.

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Public education and strategic communication are essential for managing climate crises. Climate change messages must be aligned with the values and interests of each audience to have maximum impact (Leiserowitz et al., 2021). Maertens et al. (2020) also demonstrated that exposing the public to false arguments and providing scientific counterarguments can reduce the impact of disinformation.

4. CONCLUSIONS

In conclusion, public perceptions of climate change are shaped by political, psychological, and economic factors. Climate change denial and misinformation remain major barriers to action needed to counter the global crisis. However, by using effective communication and education strategies based on scientific evidence, it is possible to reduce skepticism and promote a proactive attitude toward such challenges.

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