

# ПОЛІТИЧНІ ПРОБЛЕМИ МІЖНАРОДНИХ ВІДНОСИН

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## COMMUNICATION COMPONENT OF THE US's CLIMATE POLICY

## КОМУНІКАЦІЙНА СКЛАДОВА КЛІМАТИЧНОЇ ПОЛІТИКИ США

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**Abstract.** *The article is devoted to the study of the communication component of the US climate policy. In particular, the state of American public opinion regarding global climate change is characterized, approaches to public segmentation for climate communications are determined, communicative challenges to American climate communications are shown, effective communicative messages are analyzed, and the role of the media in conveying climate messages to specific target audiences is determined. It is shown that the segmentation of target audiences for the implementation of climate communications is carried out on the basis of beliefs about climate change, attitudes, risk perception, motivation, values, political preferences and behavior. It was determined that for the formation of public opinion about the causes and consequences of global climate change among the American public, the media is one of the most important channels for the dissemination of climate information.*

**Keywords:** *global climate change, climate communications, climate policy, USA.*

**Анотація.** *Стаття присвячена дослідженню комунікаційної складової кліматичної політики США. Зокрема, охарактеризовано стан американської громадської думки щодо глобальних змін клімату, визначено підходи до сегментації громадськості для здійснення кліматичних комунікацій, показані комунікативні виклики американських кліматичним комунікаціям, проаналізовано ефективні комунікативні месаджі, а також визначено роль медіа у донесенні кліматичних месаджів визначеним цільовим аудиторіям. Показано, що сегментація цільових аудиторій для здійснення кліматичних комунікацій здійснюється на основі переконань про зміни клімату, ставлення, сприйняття ризику, мотивації, цінностей, політичних уподобань та поведінки. Визначено, що для формування громадської думки щодо причин і наслідків глобальних змін клімату серед американської громадськості медіа є одним з найважливіших каналів поширення кліматичної інформації.*

**Ключові слова:** *глобальні зміни клімату, кліматичні комунікації, кліматична політика, США.*

**Introduction.** The USA is the second largest emitter of greenhouse gases in the world after China. In 2022, greenhouse gas emissions in the US increased by 1.3% (up to 5.6 billion tons of CO<sub>2</sub> equivalent). In the report of the Rhodium Group, an international agency that models greenhouse gas emissions, it is noted that "the movement of the United States to the climate goals in 2022 has been complicated against the background of the global energy crisis, in particular due to the increase in the volume of oil exports from the United States, the increase in the volume of crude oil production, as well as the production and export of natural gas" (*Rhodium Group, 2023*). At the same time, the share of renewable energy in the country is significantly increasing, the use of coal energy is decreasing, for example, in 2002, for the first time, solar, wind and hydropower together accounted for about 22%

of electricity production, i.e. more than coal (20%) or nuclear (19%) ) (*Grist, 2023*). According to Rhodium Group analysts, "despite the upheaval from the pandemic and the war in Ukraine, the US is on a long-term path to a cleaner energy system, although the country needs more aggressive policies to achieve its climate goals." In this context, one of the key elements of the success of the implementation of the country's climate policy is its understanding and approval by the public, which is formed by the implementation of climate communications.

**The purpose of the article** is to analyze and characterize the communication component of the US climate policy, as a key international actor and one of the largest emitters of greenhouse gases.

**Literature review.** Many researchers have paid attention to the issue of studying climate policy and, in particular, US climate policy. Among the foreign authors, it should be noted the research of the Center for Global Climate Change Communications at George Mason University and the Yale University Climate Change Communication Program under the leadership of Antoni Leiserovich, which since 2008 have been studying the attitude of the American public to global climate change, tracking and explaining the level of public understanding of climate change, risk perception, political support and behavior, as public opinion in the US plays a critical role in shaping climate policy.

Domestic scientists, in particular, S. Ivanyuta, O. Kolomiets, O. Malinovska, L. Yakushenko, studied the impact of the consequences of global climate change and the interaction of Ukraine with the leading actors of international relations, in particular the United States, regarding the achievement of the goals of the Paris Agreement and Ukraine's climate commitments. In particular, the researchers emphasized the importance of climate communications of leading countries for the effective implementation of climate policy. Thus, they notes that "effective communication about climate change is a key element of public awareness of the environmental challenges of today", "creating a connection between scientific research and people's everyday life contributes to the formation of an environmentally conscious society", "communication about climate change should be not only informative, but also motivating in order to attract citizens to action," and add that "the interaction between scientists, the government, and the public in the field of climate communications is an important step in the direction of sustainable development" (*Ivanyuta et. al, 2020*).

#### **Main results of the research.**

*American public opinion on climate change.* A 2023 study by George Mason University's Center for Global Climate Change Communication in conjunction with Yale's Climate Change Communication Program found that Americans who believe global warming is happening outnumber those who believe it is not by nearly 74% to 15%, a majority of Americans (61%) believe that global warming is mostly caused by humans, compared to 28% who believe it is mostly caused by natural changes in the environment. Regarding the perceived risks of global warming, about half of Americans (48%) believe that people in the United States are harmed by global warming "right now," and nearly as many (44%) say they have personally experienced the effects of global climate change. More than half of Americans believe that global warming will harm future generations of people, plants, animals, the world's poor, people in developing countries and the United States, their communities, their families, or themselves. 11% of Americans have considered moving to avoid the effects of global warming. An analysis of personal attitudes toward global warming found that most Americans (54%) think about global warming "a lot," but 66% "rarely" or "never" discuss global warming with family and friends. Less than half of Americans believe their friends and family are taking action about global warming. About half of Americans (52%) say they hear about global warming in the media about once a month or more. A majority of Americans (62%) say they feel a personal responsibility to help reduce global warming, and about three in ten (28%) say they look for information about solving global warming several times a year or more (*Leiserowitz et al, 2023a*).

The results of these studies show how the awareness and attitude to global climate challenges among the American public affects the formation of their climate-oriented behavior. Thus, according to the results of surveys, on the one hand, American citizens are aware of global climate change, are aware of its impact on the planet, country, community, and people, seek information or discuss climate change, and on the other hand, believe that the greatest responsibility for coping and adaptation lies with on the leadership of the country and are not ready to quickly change their behavior and habits. We can explain Americans' belief that global warming will have a greater impact on vulnerable and poor communities by the action of Maslow's pyramid, since those whose basic survival

needs are satisfied will be concerned about protecting the planet's natural environment. One can agree with this approach, because according to the theory of A. Maslow, until the lower levels of the pyramid, i.e. "deficit needs" are not satisfied, a person cannot enjoy the luxury of worrying about the general good of society. Accordingly, concern for the state of the environment is a subject of human attention only if all the needs of scarcity are satisfied.

A new Pew Research Center survey conducted in 2023 to determine how the American public sees future harm from climate change found that a majority of Americans (63%) believe that climate change is harming the population of the United States and that the situation will worsen in the future. Also, the majority of Americans, mostly young people aged 18 to 29, believe that they need to take additional measures and make certain restrictions due to climate change. (*Pew Research Center, 2023*).

*Segmenting American audiences in climate communications.* Experts from George Mason University's Center for Climate Communications, together with the Yale Project on Climate Change of Yale University, proposed a methodology for segmenting the audience according to its reaction and behavior to climate information. According to this approach, based on a nationally representative survey of American adults, first conducted in the fall of 2008, the "six Americas" of global warming were identified, that is, six unique audiences of the American public, each of which responds to the problem in its own way. The segmentation was based on information about the population's beliefs about climate change, attitudes, risk perception, motivations, values, political preferences, behavior and main obstacles to action. Such "six Americas" were defined as Alarmed, Concerned, Cautious, Disengaged, Doubtful, Dismissive (*Leiserowitz et al, 2023b*). The analysis showed that these groups differ in terms of beliefs about global warming and the level of interest in specific actions aimed at overcoming global climate challenges. Yes, the alarmed are the segment that is most concerned about the problem of global warming, convinced that climate change is happening, caused by man and is a serious and urgent threat. They are already making changes in their own lives and supporting actions aimed at overcoming climate challenges. The Concerned are also convinced that global warming is happening and caused by humans, but they are less concerned about it and less motivated to take action. Cautious are not convinced that global warming is happening and climate change is caused by humans, they do not perceive climate change as a personal threat and do not feel the need to change their behavior. Disengaged people hardly know about global warming, do not think about this problem, but can easily change their opinion about global warming in the presence of convincing evidence. Those who doubt (Doubtful) are the least motivated to act and change their behavior because they doubt the question that global warming is happening. whether it is human-caused and perceived as low risk. Many in this segment believe that if global warming is occurring, it is caused by natural changes in the environment, believe that global warming will not harm humans for many decades into the future, and that the measures taken to address climate challenges are sufficient, to respond to a threat. Dismissives reject the idea that global warming is happening and caused by humans, do not see it as a threat, and tend to strongly oppose climate policy because climate change is not a problem that requires a national response. An annual study of the opinion of the American public indicates a change in the country's attitude to global climate challenges. For example, the size of the Alarmed segment has more than doubled since 2012, from 12% of the US population in 2012 to 26% in 2022, the Alarmed segment has become the same as the Concerned (27%). Conversely, the size of the Cautious segment has decreased from 29% in 2012 to 17% in 2022. The Concerned, Uninvolved, Doubtful, and Disdainful segments have remained relatively consistent in size over the past decade. These dynamics suggest that the American public is increasingly concerned about global warming, more engaged with the issue, and more supportive of climate solutions. One can agree with the findings of the study that the reason for the growing concern of Americans about global climate challenges was the implementation of climate communication campaigns.

*Challenges of climate communications in the USA.* According to A. Leiserowitz, "Americans' understanding of the reality, risks and solutions of global warming is growing, and the increase in the Alarmed segment is a hopeful sign, because progress in the fight against climate change requires decisive, coordinated and permanent actions, and Alarmed is most interested in this issue."

Nevertheless, adaptation and mitigation measures require action not only from government, business, international and non-governmental organizations, but also from all citizens. The worried and cautious (who make up nearly half of US adults) tend to view climate change as a future problem because many are unaware that global warming is already harming communities across America, including increasingly dangerous weather, increasing impacts on human health and the rapid increase in economic disasters due to fires and storms. Despite this ongoing misunderstanding, there is also a growing consensus across parties that 100% clean energy is the right path to American prosperity. The combination of these factors, in our view, presents a challenge for American climate communications.

As it was shown, the understanding and attitude of the public to climate change as a global problem is influenced by a number of factors, in particular, education, religion and political ideology, scientific communications, etc. It is important to note that interpersonal communication also contributes to the formation of beliefs and concerns about climate change. Although the authority of the source is important in communications, and friends and family are not a scientific source, still, according to M. Goldberg, S. Linden, E. Maibach and A. Leiserovych, they remain one of the most influential sources of information about climate change (*Goldberg et.al., 2019*). One can agree with the researchers who note that climate communication between friends and family can be an important way to raise awareness of the problem.

Thus, climate debates can set off a feedback loop where people debating global warming learn important facts, such as the scientific consensus on anthropogenic causes of global warming, that make them more likely to engage in further discussion. In this case, the indirect effects of climate communications will be more effective than those based on the dissemination of scientific consensus. In our view, this suggests that encouraging people to discuss global warming with their friends and family may be a more productive way of climate communication. That is, climate messages from close friends or family will be perceived better than when the identical message comes from strangers.

Therefore, discussing climate change with relatives and friends has several important advantages, in particular, a common understanding of the problem, that is, discussing climate change can help ensure a common understanding of the seriousness of the problem and its impact on the environment and the future; spreading awareness, i.e. the more people are aware of climate change issues, the more chances there are to implement sustainable changes in lifestyle and consumer habits; public mobilization, i.e. discussion and dissemination of information can mobilize the public and stimulate people to participate in climate actions, actions and other initiatives; interaction and exchange of ideas, i.e. discussion with relatives and acquaintances can contribute to the exchange of ideas, the discovery of new approaches and the development of joint strategies to reduce the human impact on the climate; motivation for action, i.e. shared discussion can inspire people to take action and encourage them to join initiatives aimed at preserving the environment. Therefore, the discussion of climate change becomes an important stage in the formation of a common consciousness and response to this serious problem.

*Climate messaging and communication work with the American public.* An analysis by experts at Yale's Climate Communications Program to determine which climate messages and communication channels best engage the public and key target audiences found the following findings. First, different audiences tend to trust different platforms and messengers. Second, it is important to consider the context of the climate message, such as whether it is a scientific, medical, business, political, environmental, national security, moral or religious issue, format such as text, video, audio, online, face-to-face, and their combinations, as it is directly related to the degree of engagement and persuasiveness for different audiences. The researchers emphasize that "facts alone are not enough to convince the American public of the risks and importance of combating climate change, but it is important to continue to provide the public with accurate scientific information about its causes, consequences, and solutions" (*YPCCC, 2022*).

It was found that the effectiveness of climate change messages is determined by different criteria. The research was conducted using the metaphor of the scientific consensus on global warming and the blanket, i.e. the effect where increased carbon dioxide in the atmosphere (due to fossil fuel burning and land use change) acts as a thermal blanket, causing global warming. As of

2022, more than 40% of Americans did not realize that human activities—especially the burning of coal, oil, and methane—are responsible for all of the global warming observed over the past century (*Bergquist et. Al, 2022*). The researchers attributed this low level of support for the scientific consensus to a number of factors, including misinformation, poor scientific communication and limited media coverage of climate change, and the strong political polarization of the issue. At the same time, discussing the problem of climate change, as well as understanding its causes, according to researchers, are key factors in raising awareness and building support for climate action. Informing audiences with a "consensus message" that "97% of climatologists have concluded that human-caused global warming is occurring" was found to be effective in areas of the country dominated by the fossil fuel economy, particularly West Virginia, North Dakota and Wyoming. The public, which did not have access to information about global warming (and therefore did not have consensus information), did not respond to climate messages. Instead, regular information about climate change among different groups of the public leads to a correction of the attitude towards the problem and, accordingly, to a reduction of polarization in society by almost 50%. Moreover, the combination of scientific-style messages about the consensus on climate change and the use of metaphors about the mechanism of the "blanket that retains heat" gave a positive synergistic effect of better understanding of global climate challenges by the public.

Communicating the scientific consensus that climate change is caused by human activity is an important and effective way to increase public understanding and engagement. It is important to assess the degree of persuasiveness of climate messages for different groups of the public (Six Americas) and the duration of holding such a position. A study led by M. Goldberg found that "although the consensus effect of climate messages weakens over time, after 26 days, 40% of the initial effect remains, and the effect of climate messages is the longest among those groups of the public who doubt or despise climate change" (*Goldberg, 2022*). That is, this study found that for the American public, ideological motivations do not prevent climate change skeptics or skeptics from learning new information that contradicts their initial beliefs.

M. Goldberg's survey showed that among various communication techniques of interaction with the public, the use of video to broadcast the scientific consensus on climate change is more effective than text with identical information. The researchers note that even though the text in the video shown and the transcription was identical, the video was significantly more effective in increasing perceptions of the scientific consensus on climate (Goldberg et al, 2019). These suggest that a video that contains images and vivid analogies transforms unfamiliar, abstract, and "descriptive" content (expert consensus among climate scientists) into information that "seems" more familiar (e.g., by analogy, "97% of dentists or airlines recommend), and enhances the effect of consensus messages. This is consistent with van der Linden and Maibach's approach to climate communication, according to which "statistical descriptions of climate change risk often fail to elicit action because the statistical information itself means very little to (most) people" (*Ven Der Linden et.al., 2015*). Accordingly, if climate communications take into account prior experiences, for example, by using narratives, analogies and images to illustrate the central point of a particular message, it makes climate information more concrete and personal, one that better influences the beliefs, perceptions and behavior of the audience. The greater effectiveness of video content in conveying climate information can also be explained by the nature of the video, in particular, imagery and emotionality, which influenced the cognitive processing of climate information; the quality of the video, which influenced the perception of the source of climate information as reliable and increased the persuasiveness of the message; the attractiveness of the picture, which increased attention to the message. The results of this study suggest that the "feel" of climate consensus conveyed through a short video is an effective technique for informing the public about the scientific consensus on climate change, which in turn can increase public understanding of and support for climate change.

*The role of the media in American climate communications.* The media is one of the most important channels for disseminating climate information to the American public and shaping public opinion about the causes and consequences of global climate change. The importance of the role of the media in climate communications is determined, firstly, by increasing the level of public

education, that is, it helps to understand what is happening and how it affects humanity, which can help change behavior to a climate-friendly one, and secondly, by increasing the level of awareness of the problem, which can lead to increased pressure on governments and businesses to take action to address the problem, thirdly, media coverage of global climate change can encourage people to take climate action that helps reduce climate impacts. That is, coverage of global climate change in the media is an important step on the way to solving this problem.

The Society of Environmental Journalists (SEJ) of the United States is the only North American membership association of professional journalists dedicated to researching environmental media coverage to improve climate journalism across all media platforms. Given that American public opinion polls show that most Americans read little and do not hear much about climate change in the news, it is important to determine the level of interest of SEJ members in climate change reporting, as journalists' views on climate change, their experience, and interest in covering climate change, as well as their awareness of climate issues directly affect the effectiveness of climate communications in the media.

The study, conducted by experts of the Center for Climate Communications under the leadership of E. Maybach, was aimed at studying the interests, experience, beliefs of SEJ representatives, as well as determining barriers to the dissemination of climate information in the media, trust in potential sources of climate information and ways to develop climate-friendly behavior (*Maibach et.al., 2020*).

It was found that in 2020, most SEJ members were not only interested in providing them with climate information, but also produced climate change communications for the media themselves. Moreover, in their opinion, the most interesting climate stories for the American public are, in particular, specific stories about the impact on ecosystems, local wildlife, droughts and water shortages, forests, extreme precipitation and/or floods, sea level rise and coastal flooding, energy, extreme heat, health and wildfires, impacts on air quality, the economy, infrastructure, hurricanes and storm surges, crops, animals and transport. Journalists are interested in information on climate change solutions and adaptation and resilience stories, renewable energy, policy responses, resilient communities, sustainable food production and consumption, and zero-emissions solutions.

Lack of time, emotional fatigue from covering climate change, lack of training in the field of climatology, difficulty influencing the content of news broadcasts, low support for climate content in new broadcasts by TV channel owners, lack of universal climate information models, low audience interest in climate information, lack of access to experts and lack of access to reliable scientific information were identified as the most significant obstacles to climate communications in the American media.

Trust in sources is a key factor in journalism and in all social interactions. The majority of SEJ members trust authoritative scientific sources of information on climate change, in particular, the Society of Environmental Journalists, the United Nations Intergovernmental Panel on Climate Change, professional scientific societies, the National Academies of Sciences, engineering and medicine, universities and colleges, journalism professional societies, scientific organizations and Climate Central. Only a small number of US climate journalists trust US government agencies, think tanks, environmental and business advocacy groups as sources of climate information. At the same time, the level of trust in climate information of state institutions has significantly decreased during the presidency of D. Trump. Most believe that some degree of future climate change can be avoided and harm prevented within the next 50 years if mitigation and adaptation measures are taken.

**Conclusions.** Despite the fact that today's youth and future generations will bear the brunt of the negative consequences of climate change, the attitudes of all public groups, their concern and awareness of climate challenges is one of the key aspects of climate communications. Climate communications contribute to conveying information about climate to various groups of the public in order to increase the effectiveness and support of climate policy. Depending on the audience, its age, level of awareness, beliefs, climate communications have their own specifics, in particular, the message, and can be carried out using various channels and tools. An important component of US climate communications is the use of terminology, as language can convey both the degree of uncertainty and the degree of certainty in climate change adaptation and mitigation measures, and

create appropriate understanding, attitudes, and behaviors among target audiences. Climate communications are seen as a way of educating climate-conscious citizens who will demonstrate climate-friendly behavior. The communication chain "climate change - media - society" can be considered as a communication model for the analysis of other scientific and socially significant problems, that is, such issues that have a public resonance and require substantiated scientific explanations. At the same time, the goal of climate communications as a component of climate policy, on the one hand, is to form critical thinking and teach rational consumption of climate information, and on the other hand, to promote the formation of climate-responsible behavior among target audiences. The lack of consolidation among the American public about the causes, consequences and ways to overcome climate threats means, in our opinion, the need to apply an individual approach to engage with each of these groups.

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