



WALTER LEAL

WSB Merito University in Wrocław,
Poland

ORCID iD: 0000-0002-1241-5225

AGNIESZKA WĘGLIŃSKA

University of Wrocław, Poland

ORCID iD: 0000-0002-2573-5981

BARBARA CYREK

DSW University of Lower Silesia
in Wrocław, Poland

ORCID iD: 0000-0002-3270-6548

HANNA PACHURKA

DSW University of Lower Silesia
in Wrocław, Poland

ORCID iD: 0009-0007-1317-9838

CLIMATE CHANGE COMMUNICATION AND THE MEDIA: BRIDGING THE GAP



ABSTRACT

Communication science may play a key role in how climate change issues are disseminated, especially across mass media. But despite the perceived need for applying communication concepts to news related to climate change matters, there is a paucity of research in this field. Against this background, our study focuses on a governmental campaign, providing new perspectives on how authorities apply various features in a successful climate change communication initiative. The rationale behind this choice lies on the fact that it contains various basic principles of climate change communication, and has some features which may be useful for replication purposes elsewhere. It undertakes a review of the literature on the topic, and examines Polish case of climate change campaign using qualitative content analysis. Based on the evidences gathered, it presents some principles which may guide the media towards better communication of climate change issues.

KEYWORDS: governmental communication, governmental campaign, sustainability communication, Our Climate, governmental media

1. INTRODUCTION

In an age where climate change poses one of the most significant threats to our planet, effective communication is paramount (Corner & Randall, 2011; Muradova, Walker, & Colli, 2020; Nisbet, 2009). It is believed that an understanding of the principles of communication can enhance the effectiveness of climate messaging, fostering broader public understanding and support for action. This is so for two main reasons.

A greater understanding of the intersection of communication science and climate change may play a key role as part of efforts to shape a sustainable future. By understanding the nuances of audience engagement, addressing misinformation, utilising visual storytelling, and fostering collaboration, we can forge a path toward a more informed and proactive society. The fight against climate change requires not only scientific knowledge but also effective communication strategies that inspire individual and collective action. Through concerted efforts in communication, we can create a more resilient world in the face of climate change.

The aim of this article is to identify features of successful climate change communication discussed in the academic literature and verify if they are

applied by Polish Ministry of Climate and Environment using the example of *Our climate* campaign.

2. CLIMATE CHANGE

Climate change refers to persistent shifts in average weather conditions that shape both local and global climates over long periods of time. Since the mid-20th century, most observed changes in Earth's climate have been primarily caused by human activities, especially the burning of fossil fuels. This process increases the concentration of greenhouse gases in the atmosphere, which trap heat and contribute to a rise in the planet's average surface temperature (NASA, n/d).

Climate change has become one of the most significant challenges for modern governments. Shifts in weather patterns have devastating impacts on groundwater (Taylor et al., 2013), forests (Seidl et al., 2017) and species vulnerability (Pacifici et al., 2015). As a consequence, these negative effects also affect agriculture (Malhi et al., 2021) and public health (Fuller et al., 2022), among many other sectors.

Climate change in Poland results in higher mortality rates caused by heat waves, especially in densely populated regions, as well as substantial effects on water resources, agriculture, and public health (Kundzewicz et al., 2018). Public awareness on climate change has been recognized among Poles, however only 25% of them consider it a serious issue (Kundzewicz & Matczak, 2012).

Poland adopted the National Adaptation Strategy (NAS 2020) in 2013 to strengthen climate change adaptation policies. Developed within the KLIMADA project, the strategy complements existing national development plans and focuses on vulnerable sectors such as water management, agriculture, forestry, biodiversity, health, energy, transport, coastal and urban areas (Michalak, 2016).

Implementation involves national, regional, and local authorities, particularly municipalities and crisis management centres responsible for emergency response and environmental protection. The strategy also emphasises urban adaptation through the development of adaptation plans for major Polish cities, aiming to assess climate risks, support local adaptation measures, and increase public awareness of climate change impacts (Michalak, 2016). Initiatives such as the CHASE-PL project have sought to increase awareness by addressing knowledge gaps among policymakers and the public, thereby

improving understanding of climate change impacts and adaptation measures (Kundzewicz et al., 2018). Despite these efforts, climate change continues to receive limited attention in public discourse (Kundzewicz et al., 2019).

3. METHODS

This paper uses a multi-methods approach consisting of two main elements: literature review and a case study. Our review of the literature on climate change communication is outlining some of the most significant works in this field and their focus. A review of the literature is very useful, because it allows the researcher to establish a strong theoretical foundation (Snyder, 2019). Climate change communication is a complex field that draws from various disciplines, including environmental science, media studies, psychology, and political science (Cagle & Tillery, 2015). Reviewing existing literature helps to identify key theories, trends, and gaps in research. In our review, we have applied a systematic approach, focused on latest publications. We have sampled literature using Scopus search for the term *climate change communication* in articles' titles, abstracts and keywords. This resulted in 690 titles. We have then limited the sample to final publications (excluding those in press) written in English, published in years 2021-2024 and belonging to social sciences. After excluding books and book series, the final sample consisted of 133 documents.

Lots of case studies dedicated to climate change communication focused on youth climate movements (Soler-i-Martí et al., 2024; Kleres & Wettergren, 2017), especially Fridays for Future (Bergmann & Ossewaarde, 2020; Svensson & Wahlström, 2023; de Moor et al., 2021) and Extinction Rebellion (Furlong & Vignoles, 2021; de Moor et al., 2021; Gardner et al., 2022). Against this background, our study focuses on governmental campaign, providing new perspectives on how authorities may apply features of successful climate change communication.

In our study we have selected the case of the national campaign *Our Climate* issued in 2021 by the Polish Ministry of Climate and Environment (2022) and closed in 2022. The success of the campaign resulted in its re-launch in 2023. Drawing from the methodology of studies on Fridays For Future movement (Svensson & Wahlström, 2023; Sorce & Dumitrica, 2023), we have selected official messages published in 2021 and 2022 on campaign website and social

media posts that official website linked to. The selected N= 30 videos, N=20 infographics and N=30 messages have been subjected to qualitative content analysis. We have applied a directed approach, using a priori codes developed using categories (features) found during the literature review (Saldaña, 2021). Three Polish-speaking authors coded the research material and discussed the results before final elaboration.

4. RESULTS AND DISCUSSION

FEATURES OF SUCCESSFUL CLIMATE CHANGE COMMUNICATION

Our review of the literature resulted in identification of features of successful climate change communication suggested by newest studies. Table 1. presents the summary of these results.

Tabela 1 *Features of successful climate change communication*

Feature	Implications	Sources
Personalization and localizing	Providing local context for global changes.	(Shim, 2024; Ferreira et al., 2024; Casiraghi et al., 2024)
Basing on evidence	Using facts to prove the changes.	(Waters et al., 2024)
Reference to values	Framing facts in terms of cherished values.	(Woodley et al., 2022; Amann & Doidge, 2023; Spaiser et al., 2024)
Not relying solely on fear appeals	Adopting other strategies, e.g. appealing to values, hope, effectiveness.	(Bilfinger et al., 2024; Casiraghi et al., 2024; Martel-Morin & Lachapelle, 2022)
Avoiding doomism-promoting language	Avoid giving the impression that nothing can be done.	(Johnstone & Stickles, 2024)
Giving hope	Showing that taking the right course of action will bring real change and that it is not too late to change.	(Armbruster et al., 2022)
Storytelling	Telling stories instead of dry facts, using real events.	(Ghirardello & Isetti, 2023; Sambrook et al., 2023)
Emphasize on co-benefits	Pointing out benefits not only for the environment but also for the individual/society.	(Kondo et al., 2021; Teso-Alonso et al., 2021)
Feedback and two-way engagement	Listen to your audience and make them feel that their opinion matters.	(Latter, 2022)
Long-term strategy	Not relying on ad hoc solutions.	(Schmid-Petri & Bürger, 2022).

Source: authors.

The results of the literature review suggest that successful climate change communication should be **personalized and localized**. It is important for the recipients to understand that climate change is not some abstract phenomenon, but a real crisis that affects their surroundings and local conditions. Focus on local consequences of climate change and linking local initiatives with global campaigns may lead to action-oriented mobilization (Shim, 2024). The successful climate change communication needs to be tailored for target audiences (Ferreira et al., 2024; Casiraghi et al., 2024).

The results of the literature review reveal two fundamental strategies of argumentation in communicating about climate change: **basing on evidence** and **reference to values**. Evidence-based communication strategies are crucial to motivate *individual climate action* (Waters et al., 2024). However, relying solely on facts, without reference to values, is less efficient. Climate change advocacy requires an emotionally attentive approach (Woodley et al., 2022) and framing actions in terms of cherished values (Spaiser et al., 2024). Successful communication connects climate change with audiences' (pre-existing communities') values (Amann & Doidge, 2023).

The latest literature suggests also that sentiment of climate change communication may be crucial for its efficiency. Sources suggest to **give hope, not rely solely on fear appeals** and **avoid doomism-promoting language**. It's proven that solely negative messaging is significantly decreasing the likelihood of taking climate action (Martel-Morin & Lachapelle, 2022). The negativity may also be reflected by language of doomism (Johnstone & Stickles, 2024), which may create an impression that we are doomed to catastrophe and nothing can be done. Therefore giving hope is a crucial factor for successful climate change messaging (Armbruster et al., 2022), yet this does not mean that positive messages are consistently more impactful than negative ones (Martel-Morin & Lachapelle, 2022).

Literature also suggests that **storytelling** may be an effective way to communicate about climate change. This could be *theatrical storytelling*, combining art, science and activism (Ghirardello & Isetti, 2023) or telling real stories that other people can connect to (Sambrook et al., 2023).

It is also highlighted in the literature, that successful climate change communication should point out **co-benefits** of pro climate actions. These could be

benefits for society, economy and politics (Teso-Alonso et al., 2021), but also for individuals. Messaging such co-benefits can inspire action on a personal level for both those who are concerned about climate change and those who are not (Kondo et al., 2021).

The one-way flow of communication was recognized as unsuccessful. To increase the chances that climate change messaging will lead to behavior change, **two-way engagement** should be assured, as it creates the feeling of *climate citizenship* (Latter, 2022).

Results of the literature review suggest that short-term strategies and ad hoc solutions are less effective than **long-term strategies**. This is caused by audiences' attitudes, which are relatively stable. Therefore, a single dose of information cannot significantly or permanently shift these attitudes (Schmid-Petri & Bürger, 2022).

CASE STUDY: OUR CLIMATE

The campaign *Our Climate* was aimed at a wide range of audiences, with a focus on positive consequences of everyday pro-climate habits. It was a multi-channel long-term project, including social media (Facebook, Instagram, X/Twitter and YouTube), television, press, radio and collaboration with influencers.

The Ministry published materials dedicated to particular groups, e.g. teaching aids for teachers of early school education (including quizzes, puzzles, team games, rhymes or crosswords) or information packages for municipalities. The campaign presented people of different ages, promoting climate responsibility among all generations, but most often adolescents. Almost every movie published on YouTube channel had an audio description and sign language translation, which also included people with hearing disorders in the audience. **Personalization** was one of the main features of the communication in this project.

The video materials promoting the campaign used the slogan *the climate is created by people*, which is a pun: in Polish *climate* is often used to address the social atmosphere. The materials, including videos, promoted the idea that *you are not alone* in taking care of the planet and *even the smallest action for the environment protection has a huge meaning* (Ministerstwo Klimatu i Środowiska, 2022a). Some videos regarded particular cities to address their

citizens, with local authorities invited. Therefore, the campaign underlined that the **local context** is crucial – what people do in their local surroundings turns into global changes (positive or negative).

One of the crucial aspects of the campaign was focusing on particular actions that one may undertake in order to take care of the climate. This was not only a form of a practical guide for use in everyday life (e.g. bio-waste composting, water saving, waste segregation), but also a way to provide real-life **solutions instead of fear appeals**. The advices were published in all forms of communication: videos, infographics, and e-book described further in the article. For example in the YouTube material *How does the enhanced greenhouse effect work?* (Ministerstwo Klimatu i Środowiska, 2022e) the reasons for raising mean temperature on earth are explained, and possible consequences of the enhanced greenhouse effect are discussed. However, the movie **does not end with doomism**, but provides advices about what one can do to prevent emission, including reducing power consumption during everyday activities or paying attention to the emissions that are produced during the manufacture of food we buy.

The informative materials were presenting lots of facts and provided **evidence-based narration**. This was especially visible on infographics and educational videos. Infographics were especially valuable, as they informed about planned changes in law, e.g. Single Use Plastic directive or refund system for cans and plastic or glass bottles. The governmental communication about planned changes helps to counteract misinformation. To emphasize the credibility of climate-related messages, experts were invited to create video materials, including e.g. members of National Center for Nuclear Research or Polish Wind Energy Association. The campaign also involved environmental influencers, such as Rafał Maciaszek, an initiator of the project *Łowca Obcych (Alien Hunter)* dedicated to monitoring of alien species in Poland (Maciaszek, 2023). Even religious opinion leaders were invited, for example brother Cordian Szwarc, deputy director of Caritas Poland.

However, the campaign also referred to the **values**, including family and taking care of loved ones (Ministerstwo Klimatu i Środowiska, 2022b) and Christian values of *taking care of all creation* (Ministerstwo Klimatu i Środowiska, 2022d).

The videos promoting the campaign were using **storytelling**. First told the story about a runner who almost stumbled on the can disposed of in the park. She was demotivated by the amount of work there is to be done for the planet, but then passers-by engaged with her actions, showing that they also care (Ministerstwo Klimatu i Środowiska, 2022a). Second video told the story about family which takes care of their daughter, and the daughter's friends who don't want to live in *bad environment*, which is another pun referring to shady people a person may hang out with (Ministerstwo Klimatu i Środowiska, 2022b).

In order to put **emphasis on the co-benefits** of pro-climate actions, the Ministry organized a competition for Rural Women's Circles entitled *Nothing goes to waste in my house*. 230 circles submitted over 400 eco-habits to inspire other households and prove that pro-climate actions help to save money and time. The best submitted ideas were then gathered in an open access e-book *Home guide to eco-habits* (Ministry of Climate and Environment, 2022), which could serve as research subject for a separate study.

Another interesting activity was a video competition for higher education students. Competitors were preparing video materials answering the question *How can we take care of the climate on a daily basis?*. Winning videos were then published on the Ministry's YouTube channel. The **two-way engagement** of this campaign was achieved not only thanks to competitions and social media activity (which allowed users to comment and virtually *like* the messages) but also during the press conference and debate organized on 4th October 2022, during which research report *The climate is created by people – the ecological behavior of Poles* was discussed. The conference was livestreamed on the Ministry's Facebook page and the transmission is archived and available for re-watch (Ministerstwo Klimatu i Środowiska, 2022c).

The campaign *Our Climate* was carried out for a year, applying a **long-term strategy** with messages dedicated to specified in advance audiences and communication channels. Overall, the campaign was focused on promoting everyday pro-climate behavior instead of fear spreading. It was the multi-channel long-term communication about small steps that led to huge positive changes. The campaign slogan *The climate is created by people* built up the feeling of common interest combined with individual responsibility.

The message that *you are not alone* created the value of solidarity and **gave hope**, convincing that climate preservation is not a lost cause.

5. CONCLUSIONS

The paper's authors focused on effectively communicating climate change and encouraging environmental action. The crucial aspect of such communication is considering the need for personalization, storytelling, and local contexts. Personalization allows audiences to take personal responsibility for the issue. Another essential element is the reference to local contexts, strengthening climate change messages' credibility. Furthermore, fact-based communication is crucial as it enhances the message's credibility. However, more than facts alone is needed for communication to be effective. It is also important to link information to values shared by the audience. Such a message resonates more strongly and motivates action.

The paper highlights the importance of storytelling as an effective tool for communicating complex climate problems in an accessible and engaging way. Narratives evoke emotions, making the problem more tangible and easier to solve. In addition, emphasizing the benefits of pro-climate action, such as economic savings or improved social conditions, increases the appeal of such messages.

The article analyses the case of the 'Our Climate' campaign by the Polish Ministry for Climate and Environment. The campaign was a multi-channel, long-term endeavor targeting a mass audience. An essential feature of this interactive campaign is combining educational elements with activities involving local communities. Its distinctive feature was to point out the importance of small, everyday actions to protect the climate, which can bring global benefits. The Polish 'Our Climate' campaign's case study shows how tailored, multi-channel, and long-term projects can engage the public. This is because they combine a scientific message with a tone of encouragement to take everyday climate action. The campaign is also interactive, making citizens feel listened to and involved in the broader sustainability movement, which adds value. Our analysis demonstrated that "*Our Climate* campaign is an example

of successful application of effective climate change communication features in government communication.

To improve climate communication, media should focus on elements such as personalization and localization, storytelling with positive coverage, interaction and inclusiveness. Messages should be tailored to different demographic groups, including those underrepresented, to ensure broad participation.

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