Climate Change Coverage and Key Aspects of Climate-Smart Teaching

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Abstract

Impact of Climate Change on the agricultural sector is a global issue in the 21st century. Due to the topical nature of the problem, it is essential to effectively communicate with the public. Because of the current political climate, topics that have an impact on development, economy, and wellbeing of the country have remained outside the media's attention. It is also noteworthy that national broadcasting networks, alongside with mass media outlets that are responsible for spreading information, allocate less time to similar topics as mentioned above. The target of our study is the role of the printing press and social media in spreading information pertaining to climate change and ways to mitigate the impact of this phenomenon.

Also, the article discusses existing communication gaps and specific findings, which explain low engagement from the public. Quantitative and qualitative analysis, which serves as basis for our research, helps us make conclusions on: 1) thematic frequency and intensity of coverage; 2) narratives that dominate, with the influence of traditional knowledge; 3) inclusivity of local farmers in media discourse; 4) importance of teaching climate-aware reporting in higher education institutions, within journalism programs.

Main findings of the research make it clear that climate change related topics are discussed in the media as an abstract environmental problem and are rarely connected with specifically agricultural

perspectives. Also, it does not entail information that would help farmers to increase their knwoledge and form long term sustainable strategies. Analysis of media content and narratives clearly shows that they mainly focus on disasters and extreme events rather than on the sustainable and adaptive potential of agro-ecological systems. Education on climate-responsible reporting is not part of university curricula, which prevents future journalists from receiving appropriate education.

In summary, existing media practices and improvement of media literacy is one of the decisive factors for achieving agro-ecological sustainability. Considering existing challenges, media organizations must ensure that reporting materials prepared in context of climate change are more ethical, thorough, and contextual. Correcting these errors will help raise public awareness and increase their participation in addressing the issue. The development of appropriate syllabi for climate-aware education must begin in high education institutions, which will provide the new generation of journalists solid training for reporting on global issues such as climate change.

Keywords: *Climate Change; Media; Media Literacy; Climate-Smart Reporting.*

Introduction

Environmental challenges, including climate change, represent one of the most significant issues facing the contemporary world. Despite the fact that developed countries reached agreements years ago on both joint and individual measures aimed at mitigating the damage caused by climate change to agriculture and the economy in general, the problem has continued to intensify and assume an increasingly global character over time. In this context, providing society with objective, comprehensive, and in-depth information is particularly important.

Alongside numerous other challenges, including financial constraints, the professional coverage of climate change and environmental issues poses a serious difficulty for Georgian media, largely due to the absence of relevant academic training. This is confirmed by our in-depth interviews, which were conducted specifically in the course of research on this topic. International experience demonstrates that this

problem is not unique to Georgian media but also affects media systems in highly developed countries. Nevertheless, citizens rely on the media to receive not only dry, often meaningless or sensational information, but also in-depth and scientifically grounded content (Boykoff, 2008).

Although the coverage of climate change and environmental issues poses challenges worldwide, research clearly demonstrates that journalism in this field varies substantially according to countries' economic capacities. Media organizations in high-income countries employ specialized journalists who, in the course of their work, have access to advanced technologies and adequate financial resources. In contrast, media professionals in low-income countries frequently face constraints related to limited funding, economic and political instability, and censorship, which collectively hinder the production of in-depth, high-quality content.

Recent studies confirm that the primary focus of Georgian media is politics and political confrontation, periodically replaced by major crisis events (e.g., the war in Ukraine, the Israel–Hamas conflict, etc.). Media researchers argue that this thematic dominance represents a major barrier preventing climate change—as a non-partisan and complex issue—from securing adequate, regular, and in-depth coverage in Georgian media. The relevance of environmental issues in Georgia is further underscored by the increasing frequency of natural disasters; however, such events are typically covered in a fragmented manner. As a result, the media rarely produces in-depth analyses that would provide the public with more comprehensive information and encourage deeper reflection, including on the role of human activity in these processes. Research findings support this observation, noting that "despite significant environmental challenges, news organizations in Georgia offer limited environmental coverage" (Freedman, 2021).

The media's passivity towards the topic can be attributed to the fact that, according to the research findings, there is a lack of conceptual

differentiation between such fundamental terms as 'ecology'[10] and 'environmental policy'[11] in the Georgian media space, as well as among a significant segment of society. This ambiguity directly hinders adequate and professional coverage of the ultimate goals of the environmental sector, as well as its perception in society.

In this article, the empirical component of the study examines the perspectives of professors and students in journalism programs at higher education institutions regarding the necessity and appropriateness of *climate-conscious reporting* as an academic discipline. One of the primary objectives of the research is to identify the specific mechanisms through which the syllabus should be integrated into academic curricula in response to educational needs, with the aim of mitigating the existing deficit in journalists' professional qualifications. In addition, the data obtained clearly confirm that the integration of the syllabus of climate-conscious reporting in terms of educational needs is critically essential for improving media standards in Georgia.

Research results

It has been found during the research that a combination of media and information literacy can empower ordinary citizens to contribute to the fight against climate change.

The online survey conducted during the preparation of this article confirmed that, for the majority of the population, the internet constitutes the primary source of information. Accordingly, media organizations should strengthen their online components to improve information accessibility. This is particularly important given that Georgia has continued to enhance internet connectivity in recent

[10] Ecology is an interdisciplinary science (integrating biology and Earth sciences) that studies the interactions between organisms and the biotic and abiotic elements of their environment.

[11] The main goal of environmental protection is to maintain the ecological balance and natural resources of the planet. It achieves this goal by implementing various instruments and measures, including: environmental and sustainable development policy, green economy, environmental protection and health, green business, and others.

years. The country ranks among the most connected within the Eastern Partnership, with the number of fixed and mobile broadband internet subscribers increasing by approximately 50% between 2015 and 2020. Moreover, the digital divide between urban and rural areas in terms of internet access was nearly halved during this period (–64%), decreasing to 12.6% by 2021.

The set of competencies required to understand how climate change occurs, its impacts, and appropriate mitigation approaches constitutes a component of scientific literacy commonly referred to as 'climate-smart literacy'. These competencies are acquired and applied through information, media, and digital technologies and are therefore closely linked to education.

Citizens who lack the appropriate competencies are vulnerable to climate-related disinformation and unverified claims spread through various forms of online and offline media. This leads to a low perception of climate change and ignorance of the actions we can take individually and collectively.

Responsible media plays a central role in informing and educating citizens about climate change. The flow of information on media outlets and digital communication platforms reinforces the urgency of the crisis, describes the basic facts about climate, and exposes disinformation and other conspiracy theories related to climate change denial. It is therefore crucial that citizens are aware of how this news and online content is created, for what purposes, and based on what sources.

According to the results of the online survey conducted as part of this study, which involved 127 respondents from various age groups, an absolute majority—96.1%—believe that, in light of existing environmental challenges, climate change and environmental protection should be high-priority topics for the media. Citizens and decision-makers with media and information literacy can influence societal attitudes through the dissemination of reliable information.

Main Analysis

In 2019, during the World Economic Forum's assessment of global risks, global climate change was identified alongside cybersecurity and terrorism as one of the most significant threats. This means that all institutions, including the media, have analyzed the consequences of global climate change. The analysis shows that since the end of the last century, the increase in average temperatures and changes in precipitation patterns in Western Georgia have had a measurable impact on the forest ecosystem. In Eastern Georgia, the intensity of forest fires and the spread of pests have increased against the backdrop of heat waves and especially hot days. One of the most negative impacts of climate change is manifested in the frequency of droughts, the decline of water resources and land degradation.

Developed countries and international organizations have long agreed that it is critically important for states to design national climate policies through broad public participation and to ensure inclusive stakeholder engagement. At the same time, the contemporary developed world recognizes that climate change is not limited to natural catastrophes alone, but exerts far-reaching impacts on both the present and future of human societies, far beyond what may initially appear.

Scientists view climate change as a social phenomenon, which is understood differently by different social groups (Hulme, 2013). Research indicates that climate change, as a risk, is perceived differently among communities living within diverse social, economic, and political systems, and that these perceptions are shaped by both objective and subjective factors, including moral considerations (Hopkins, 2013). Accordingly, they believe that it is crucial to pay special attention to climate change at the national political level of developing countries, both in the short and long term, along with other pressing social and economic issues.

According to a 2020 study conducted by the United Nations Development Programme (UNDP) in collaboration with the European Union, climate change was identified by Georgians as the third most significant threat, following poverty and infectious diseases. This finding reflects a high level of public awareness and concern regarding

the severity of the issue. However, in broader surveys, climate change has yet to achieve prominence in political agendas. Notably, the study reports that 97.6% of respondents were aware of climate change (UNDP, 2020).

Scientists agree that the media play a key role in shaping public understanding of climate change as a complex social phenomenon. Experts unanimously recognize that the role of responsible media extends beyond merely reporting the consequences of climate change, emphasizing its critical importance in advocating preventive measures. The Intergovernmental Panel on Climate Change (IPCC) highlights this aspect of media engagement, noting its **"**defining" influence. According to the IPCC, the media possesses the tools to mobilize public support for climate mitigation policies, shaping societal attitudes necessary for reducing greenhouse gas emissions. However, reports also indicate that this power can be used for the opposite purpose (UN News, 2022).

Although our online survey, as well as other studies cited in the article, indicate that the public recognizes climate change and environmental issues as pressing concerns, these topics do not constitute a priority theme in the media.

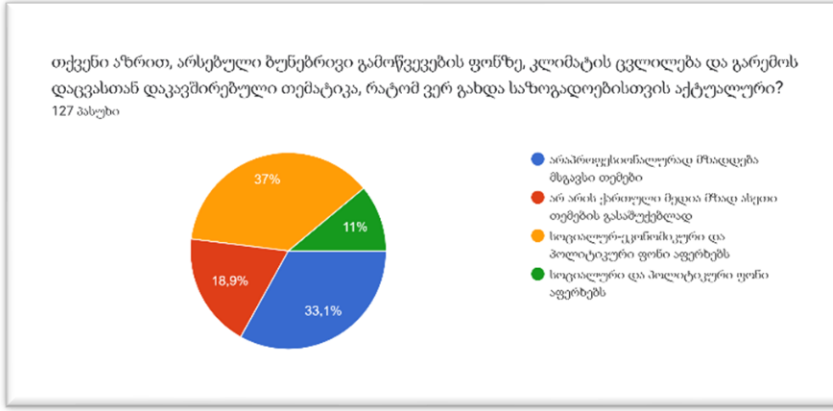

Table 1
Climate change coverage and key aspects of climate-smart teaching, December 2025.

When asked about the reasons behind this, 37% of respondents pointed to the prevailing socio-economic and political context in the country. Additionally, 18.9% of respondents believe that the Georgian media is not adequately prepared to cover such topics, while 33.1% identify the problem in the unprofessional reporting of these issues.

The survey results indicate a lack of professionalism and in-depth coverage in the media. Specifically, in response to the question—how would you assess materials on climate change and environmental protection (in print, television, or social media)—44.9% of respondents reported that the materials produced by journalists lacked in-depth analysis.

Additionally, 21.3% of respondents noted that the materials lacked diversity and did not correspond to their interests, while 4.7% identified complex and technical terminology as a problem. Against this background, in this section of the survey, only 29.1% of respondents felt that the journalistic content they had seen presented issues in a clear and easily understandable manner.

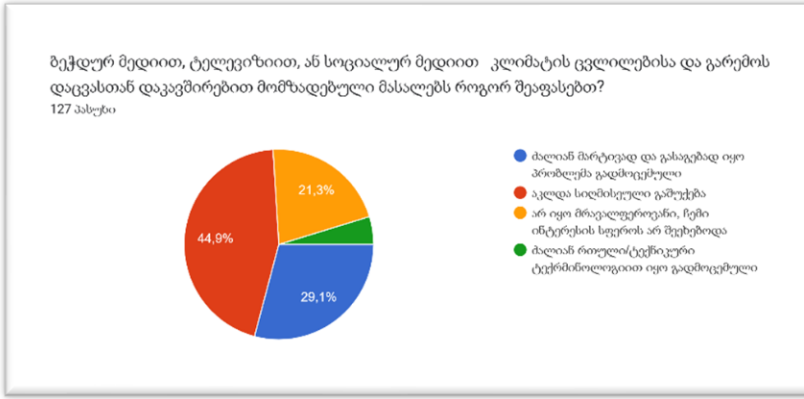

Table 2
Climate change coverage and key aspects of climate-smart education, December 2025.

Journalists specializing in climate change and environmental issues are rare in the Georgian media space, which has its objective reason - due to limited financial and human resources, the media are unable to provide in-depth coverage of one specific direction.

Tsira Gvasalia is a healthcare and environmental journalist. In an in-depth interview, she focuses on the attitudes that subsequently shape journalistic work on environmental topics within the media. Over the course of her career, Tsira Gvasalia has worked for several prominent media organizations, such as “Netgazeti”, “Liberali”, “Radio Liberty” and others. She currently serves as the head of her own media organization “Cactus”. “When I graduated from the Georgian Institute of Public Affairs School of Journalism, I had a clear thematic interest in environmental pollution, because at that time, climate change was not perceived as a threat, not only by myself, but in any sphere of society. “When I went to one of the publications with my specific thematic interests, the editor told me that they did not have the luxury of assigning a dedicated journalist to a particular topic. I encountered the same attitude in other newsrooms as well. Editors would sometimes even mock us, viewing journalists interested in environmental issues as marginal. Because of my professional focus, I often felt isolated, and materials addressing such topics were published only on rare occasions.” The health and environmental journalist notes that editors’ limited interest in these topics is largely driven by insufficient foreign language proficiency, particularly in English. According to her, this constraint hampers the professional treatment of environmental issues and limits sustained journalistic engagement with them. Given the technical and interdisciplinary nature of the subject, Tsira Gvasalia identifies specialized education and training as a key solution. While some media organizations do employ science journalists, for whom professional coverage of climate change and environmental issues is comparatively more accessible, an analysis of media websites indicates that even journalists interested in such topics tend to focus primarily on natural-science perspectives. Only rarely do they attempt to integrate environmental and climate-related issues into broader social, economic, or political contexts.

Insufficient specialized education and financial instability are identified as the primary factors preventing Georgian media organizations from paying adequate attention to climate change and environmental issues in general. Journalist Natia Kuprashvili—Director of the Alliance of Regional Broadcasters and Associate Professor at Tbilisi State

University—aligns with the narrative revealed in the research. She emphasizes that, alongside the limited volume of coverage, there is also a notable scarcity of professionally produced materials addressing these topics. “I would primarily attribute this to a lack of resources, as climate change reporting requires in-depth research. Superficial coverage is insufficient for working on these issues, especially when agricultural matters are involved—fieldwork is essential. Georgian media no longer has the capacity to conduct field reporting, as it lacks the financial means to cover transportation, travel, and related operational expenses. Consequently, the number of field-based journalistic works has declined. It should also be noted that both the media and the public tended to perceive these issues as ‘distant’ topics. Yet today, we witness the impacts of climate change on a daily basis, and the problem has become increasingly tangible.”

Kuprashvili also highlights another key finding related to storytelling techniques in climate change reporting, emphasizing that the acquisition of new skills—developed and institutionalized at the academic level—is essential. As she explains: “We realized that without educational intervention, progress would not be possible. UNESCO establishes standards for higher education curricula across various fields, specifying what they should include. Climate-related and ecology-focused modules are among the core requirements. Without such components, UNESCO does not recognize journalism modules or journalism curricula, emphasizing that it is essential for every country to develop its own adapted modules in this area.” In the in-depth interview, Kuprashvili also addresses issues related to the technical terminology used in climate change storytelling, underscoring the critical role of journalists in translating complex concepts into accessible language—particularly for farmers who are directly affected by climate change. The associate professor argues that addressing this challenge depends on the introduction of climate-focused modules at the academic level, which she views as a necessary step toward improving clarity, relevance, and effectiveness in climate journalism.

In our in-depth interviews, all respondents noted that the Georgian media has failed to establish standards for reporting on climate

change and environmental issues, which primarily leads to distrust of the media among experts and their lack of cooperation with journalists. The solution identified by the study is the integration of a “climate-responsive reporting” discipline into university-level journalism curricula, particularly within faculties of journalism.

Oliko Tsiskarishvili, Associate Professor at Alterbridge University and Doctor of Social Sciences, is among the few Georgian journalists who primarily focus on environmental issues. She notes: “The introduction of specialized courses within journalism or mass communication programs has already become an established practice at many universities, a development I strongly welcome. I believe it is also essential to integrate a course in environmental journalism, where students would engage in an in-depth study of environmental topics—ranging from climate change to waste management.” It is unrealistic to expect graduates of journalism or mass communication programs to possess comprehensive and in-depth expertise across all subject areas. Therefore, journalists who cover environmental issues must have a strong command of this field. At present, practicing journalists tend to address environmental topics only after a tragedy or disaster has already occurred, rather than engaging in sustained, preventive, or explanatory coverage. In the context of global climate change, I consider it the main duty of universities to educate personnel who will work on these issues and raise public awareness before a tragedy. They should create a media product that will be focused not only on raising awareness, but also on analyzing this or that environmental problem before a tragedy. For a country with more than 60 thousand landslide-prone areas, situated in a seismically active zone, where glaciers are retreating year by year and flash floods are part of everyday life, the preparation of such professionals is critically necessary. Environmental protection issues are a global problem and it is necessary to change the awareness of the broad masses of society. This cannot be achieved without the development of specialized journalism, in which a central component must be the in-depth coverage of environmental problems.

As a solution to issues related to low professionalism among journalists, the overwhelming majority of respondents (91.3%) in our

online survey support the introduction of a “climate-responsive reporting” syllabus at university-level journalism faculties. At the same time, only 7.1% of participants believe that such a change would not substantially improve the situation.

Batumi Shota Rustaveli State University is among the few higher education institutions where “climate-responsive reporting” is formally taught. Professor Inga Shamilishvili, Head of the Journalism Program at BSU, notes: “Climate change and environmental issues together shape the economic and social environment in which we live. The contemporary world has agreed that addressing this global challenge is possible only through the engagement of all segments of society. In shaping public opinion, the media plays a decisive role. For this reason, we have introduced the course on ‘climate-responsive reporting’ into our curriculum. I believe that the new generation of journalists will approach these topics with a significantly higher level of professionalism, which will, in turn, positively influence public awareness.” Moreover, Georgian media lacks an established “institutional tradition” for covering climate change and environmental issues. As a representative of the Georgian office of an International Media notes:

“We are a relatively young media organization with limited resources,”

highlighting the shortage of experience and thematic expertise necessary for specialized reporting within editorial policies.

Conclusions and recommendations

The present study indicates that coverage of climate change and environmental issues in Georgian media is characterized by fragmentation, a focus on sensationalism, and a lack of systematic knowledge.

- Limited financial and human resources of media organizations, coupled with the dominance of political discourse, constitute the main barriers to in-depth and regular coverage of climate change as a complex, non-partisan social issue.
- Coverage is predominantly focused on disasters and extreme events, which frames the issue as an abstract environmental

concern and rarely connects it to broader social, economic, or agricultural contexts. As a result, the media provides limited reporting on adaptive capacities and preventive strategies.

- It was determined that the Georgian media landscape lacks an "institutional tradition" for covering these topics. This issue stems not only from limited resources but also from the absence of specialized education in the academic sphere, which leads to a deficit in the qualifications of future journalists.
- Despite existing shortcomings, the study confirms the IPCC's view of the media's "defining" influence. The full potential of this influence can be realized only if the media moves beyond superficial, spectacle-driven reporting toward scientifically grounded, ethical, and contextually informed coverage.

The primary recommendation is the mandatory integration of "climate-responsive reporting" as a compulsory course, rather than an elective, in undergraduate and graduate programs in journalism and mass communication.

- Interdisciplinary education: New syllabi should be interdisciplinary, encompassing not only the principles of journalism but also the fundamentals of climate science, agroecology, economics, and environmental law.
- Conceptual clarity: Academic programs should ensure that students develop a clear differentiation of fundamental terms, such as ecology and environmental policy.
- Despite limited resources, media organizations should seek avenues (e.g., grants, donor-funded projects) to train and retain specialized journalists (environmental reporters).
- The focus of coverage should shift from disasters (post-tragedy reporting) to prevention and adaptation (pre-tragedy analysis).
- The establishment of professional standards will help increase experts' trust in the media, which is essential for the dissemination of scientifically grounded information.

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