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## Media's Role in Shaping Climate Change Discourse in Pakistan

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## **Media’s Role in Shaping Climate Change Discourse in Pakistan**

*Zaheer Khan and Sohail Taj\**

### **ABSTRACT**

*This study investigates how leading Pakistani newspapers represent climate change by analysing content from Dawn, The News, and Daily Jang. Employing Framing and Agenda Setting Theory, the study identifies key sources, frames, and narrative tones. The findings indicate that while there is more climate change coverage, the focus is primarily on disaster reporting with limited attention to solutions and mitigation strategies. Compared with other Global South countries, press coverage in Pakistan remains narrow in scope, lacking the depth required to impact policy discourse and civic engagement. Thus, this research calls for a more balanced and proactive approach to climate change journalism in Pakistan, increasing the frequency and diversifying the tone of coverage in order to create public awareness and encourage meaningful engagement with this pressing global issue.*

**Keywords:** Climate Change, Pakistani Press, Content Analysis, Media Representation, Public Perception, Environmental Journalism.

**JEL Classification Codes:** Q54, Q58

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## **1. INTRODUCTION**

Climate change is an existential threat for planet Earth and its inhabitants. Its effects range from environmental degradation, economic instability, and social disruption. Consequently, it is widely regarded as one of the most pressing challenges of our time (Yang et al., [2023](#), p. 55). The media is central to how climate change issues are framed, perceived and responded to. Since the media is one of the major sources of information, it can either facilitate public action and awareness or hinder the same due to misleading or incorrect data (Anwar et al., [2020](#), p. 9).

The media's role is critical in the context of Pakistan, a country highly vulnerable to climate change disasters like floods, heat waves, and droughts (Germanwatch [2021](#), p. 51). The Climate Risk Index (CRI) has consistently ranked Pakistan as one of the most affected countries globally. For example, most recently, extreme weather events caused USD 30 billion in damage (Germanwatch [2025](#)). These disasters lead to the extended suffering of millions of people.

This paper aims to examine how the media communicates the causes, impacts, and solutions related to climate change, and assess how such communication influences public perception and behaviour. Ott and Mack ([2020](#)) argue that media not only echoes social concerns but also plays a role in shaping social reality by selecting, framing, and contextualising issues for public consumption. This can influence public behaviour positively or negatively (Rajanen [2021](#)).

In prior analysis of climate change, researchers have found that there is a variation in how different regions and media systems address this subject. For instance, the media in developed nations is comparatively better endowed with resources and have greater better access to the scientific community, making their coverage relatively detailed and nuanced (Schmidt et al., [2013](#), p. 1233). However, the press in developing nations relies mostly on reactive, event-based reporting without seeking or calling for lasting solutions (Lück et al., [2016](#), p. 103).

In Pakistan, environmental journalism is a nascent field which is not given as much attention as political and economic journalism (Iftikhar et al., [2020](#), p. 24). Research on environmental issues in Pakistani media shows that these topics are rarely covered and mostly appear in the context of disasters. This is a concern because it can give people a one-sided view of climate change, focusing only on the damage it causes and ignoring ways to prevent or reduce its effects.

Due to the significance of climate change, comprehensive and accurate reporting are a key focus of this study. It aims to determine the current status of climate change journalism in Pakistan through the lens of three of the most widely read newspapers operating in the country, analysing the frequency of coverage, tone, and framing techniques used. Articles

were sourced from *Dawn* (English), *The News International* (English), and *Daily Jang* (Urdu) for at least one year. These newspapers were chosen given their large readership base and role in influencing opinion leaders.

This study addresses a key research question: how is climate change represented in the Pakistani press, and what are the implications of this representation for public opinion and policy discourse? Given Pakistan's high vulnerability to climate change, enhancing both the quality and quantity of media coverage is a matter of professional responsibility and a social obligation.

### **1.1.Objectives of the Study**

The main objective of the study was to identify how climate change was represented by the Pakistani press. The specific objectives were as follows:

- Investigate the frequency of climate change coverage in major Pakistani newspapers.
- Assess the tone of climate change articles (positive, negative, or neutral).
- Identify the dominant frames used in climate change reporting (e.g., disaster, scientific, political, economic, social, solutions-oriented frames).
- Examine the sources cited in climate coverage (government officials, NGOs, scientists, local communities).
- Propose recommendations for the Pakistani media to enhance the quality and effectiveness of climate change reporting.

### **1.2.Research Questions**

Based on the above objectives, this study addressed the following research questions:

- a. How often do major Pakistani newspapers cover climate change?
- b. What is the general tone of climate change coverage in the major newspapers?
- c. What are the frames utilised in climate change reporting in Pakistani newspapers?
- d. In climate change articles, which sources are quoted the most?
- e. In what ways can climate change reporting be improved to better inform the public and support policy development?

## **2. LITERATURE REVIEW**

### **2.1.Media Coverage of Climate Change in Developed and Developing Countries**

The media plays a critical role in presenting information about climate change. The way media frames and communicates this information influences public perceptions of climate risks and the actions needed to mitigate their impacts (Maran and Begotti [2021](#), p. 9358).

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In this regard, the volume and certain characteristics of media coverage have been found to influence the level of public concern about climate change (Chinn et al., [2020](#), p. 112). For instance, Maier et al. ([2022](#), p. 928) note that the self-proclaimed 'neutral' method, which often gives equal weight to minority sceptics and mainstream climate change believers, distorts public perception about the scientific consensus on climate change.

Schmidt et al. ([2013](#), p. 1233) argue that media coverage on climate change differs from one country to the other. Developed countries often provide extensive yet complex reporting that is linked to prevalent political and scientific discourse. For instance, European media has been appreciated for their coverage of climate policy as well as reporting based on science, whereas American media has been ranked as having relatively poor reporting and political framing of climate change (Ibid.).

In countries such as Germany, Canada and Japan, the media covers the topic more often than not with special reference to events (Schäfer and Schlichting [2017](#), p. 14). However, in developing nations, media covers it sporadically in what could be considered reactive event-reporting, where issues such as natural calamities and their effects are reported without looking at possible solutions (Lück et al. [2016](#), p. 103). Cross-sectional research has shown that in regions such as South Asia and Africa, climate change reporting is heavily dependent on the occurrence of what is described as 'extreme climatic events' (Ibid.). This focus on disasters can lead to climate change being perceived as a series of isolated events, rather than a continuous challenge requiring urgent and sustained action.

Media in developing nations experience a wide variety of issues, including scarcity of scientific information, financial constraints, and politics/veto power. For example, in these regions, reporters may not have access to workshops, seminars or equipment relevant to covering scientific issues adequately (Bromley-Trujillo et al., [2023](#), p. 174). Economic and political factors also influence media agendas, with editorial policy opting for issues considered more urgent than the climate or weather (Ibid.).

### **2.2. Pakistan's Media and Environmental Reporting**

Pakistan's media is quite diverse and competitive, encompassing print media, electronic media and social media. Critically analysing existing literature, it was observed that television channels and newspapers have an apathetic attitude towards environmental coverage which is mostly reactive and event-based (Iftikhar et al., [2020](#), p. 24).

Chhachhar et al. ([2020](#), p. 92) examined the frequency of environmental issues in leading Pakistani newspapers and found that it was irregular and events-based such as floods and earthquakes and did not go deeper into causes nor solutions. Other studies have also highlighted that the coverage of climate change in Pakistani media is superficial. For instance, Rauf et al. ([2021](#)) observed that audiences tend to view climate change not as a

pressing national concern, but primarily as an international issue. This framing can diminish the perceived urgency of the problem among both the public and policymakers.

Maran and Begotti (2021, p. 9358) noted that the media often relies on a disaster frame, focusing primarily on the catastrophic events that illustrate its impacts. While it is useful in garnering attention, it enforces a kind of helplessness amongst the audience. On the other hand, the solutions frame, which involves measures for avoiding and preparing for the negative impacts of climate change, motivates stakeholders to act (Kolenatý et al. 2022, p. 10365).

According to Adnan et al. (2024, p. 1) in their analysis of Pakistani media, disaster framing was the most prevalent, while only a few stories used scientific framing. It should also be noted that the former focus distorts not only public understanding of disasters, but most importantly, the policymaking process by shifting the strategy to disaster management rather than prevention and mitigation.

The sources used in climate change reporting also have a significant influence on the discourse since they provide information for narrative construction. Climate change reporting mostly relies on four key sources: government, scientists, non-governmental organisations (NGOs), and community voices. Research has revealed that, of these four, the main sources are primarily government officials and political leaders. This often makes climate change a politically-loaded issue (Betsill and Bulkeley 2021, p. 219). In Pakistan, this dependence remains high, with the government as the most cited source. The same was found by Iftikhar et al. (2020, p. 24) who noted that government officials were the most quoted sources in environmental reporting, followed by NGOs and scientists. This dependency can create a politicised story to either exclude the science behind climate change or negate the opinions of those most impacted by it.

### **2.3. Theoretical Framework of the Study**

Framing Theory and Agenda-Setting Theory are used in this research to analyse how the Pakistani media portrays climate change. In this context, the theories help examine how specific patterns of media coverage shape public perception.

#### *2.3.1. Framing Theory*

Entman (1993, p. 51) postulates that the media establishes a framework which presents parts of reality. In climate change reporting, disaster framing is the most dominant one. This approach focuses on risk but rarely on response strategies and measures.

#### *2.3.2. Agenda-Setting Theory*

This theory posits that the media influence public priorities by highlighting certain issues and placing them at the forefront of public discourse (McCombs and Shaw 1972, p. 176).

In Pakistan, where climate change is often mentioned as a sub-par political agenda, its sporadic coverage, linked with disasters, diminishes the awareness regarding long-term climate policies.

### **3. RESEARCH METHODOLOGY**

#### **3.1. Research Design**

This study employs quantitative content analysis to examine how the Pakistani press covers climate change. Content analysis is a widely used research method for systematically analysing textual content to identify patterns and trends (Krippendorff [2013](#)). Its strength lies in its ability to categorise material chronologically and thematically, making it particularly well-suited for this type of study.

#### **3.2. Sample Selection**

The sample for this study comprised of articles from three leading Pakistani newspapers: *Dawn* (English), *The News International* (English), and *Daily Jang* (Urdu). These newspapers were chosen since they are country-wide major publications with high readership. Purposive sampling technique was used to collect articles from 1 January-31 December 2023. 300 articles were randomly chosen for the analysis from these selected newspapers.

#### **3.3. Coding Scheme**

A coding scheme, with the following variables, was adopted to categorise the articles' content:

**Frequency of Coverage:** Total number of articles associated with climate change.

**Tone of Coverage:** Tone was determined as positive, negative or neutral.

**Framing of Coverage:** Articles were categorised according to five dominant frames: disaster, scientific, political, economic, and solutions-oriented.

**Sources Cited:** The sources cited in the articles were classified into four categories: government officials, NGOs, scientists, and local community members.

#### **3.4. Data Collection**

The process of data collection involved archival search of the target newspapers, for articles on climate change. Keywords used were 'climate change,' 'global warming,' 'environmental effect,' and 'climate policy.'

### 3.5.Data Analysis

The statistics are presented using frequencies and percentages to summarise the distribution and patterns within the content. Categorical data analysis was conducted to quantify the findings, including the overall tone and the manner in which the articles presented the issue.

### 3.6.Limitations

While this study contributes to understanding how climate change is represented in the Pakistani press, it has certain limitations. It is based on content from only three newspapers, which may not fully capture the diversity of perspectives across the broader media landscape. The analysis is also limited to a single year, which may not reflect longer-term trends or shifts in media coverage. Future research could expand the scope by including more newspapers and examining content over a longer period.

## 4. RESULTS

The findings of this research provide a detailed account of how the Pakistani media portrays climate change. A frequency analysis was conducted on the selected articles to examine the extent and patterns of climate change coverage:

### 4.1.Frequency of Coverage

**Table 1: Frequency of Climate Change Articles**

Newspaper	Number of Articles	Percentage %
Dawn	110	36.67
The News	95	31.67
Daily Jang	95	31.67
Total	300	

*Source:* Authors' own based on the study data.

Table 1 indicates the frequency of climate change articles in the target newspapers. On average, each of the three newspapers produced 100 articles on climate change.

### 4.2.Tone of Coverage

**Table 2: Tone of Climate Change Articles**

Tone	Dawn	The News	Daily Jang	Total	Percentage %
Positive	30	25	20	75	25
Negative	50	45	50	145	48.33
Neutral	30	25	25	80	26.67

*Source:* Authors' own based on the study data.

Table 2 shows that the press overwhelmingly presented climate change with a negative tone, accounting for 48% of the coverage primarily highlighting social costs and associated risks. In contrast, positive reporting, which focuses on solutions and progress, comprised only 25% of the articles. Neutral coverage, offering balanced or factual information without strong evaluative language, made up the remaining 26%.

### 4.3. Framing of Coverage

**Table 3: Framing of Climate Change Articles**

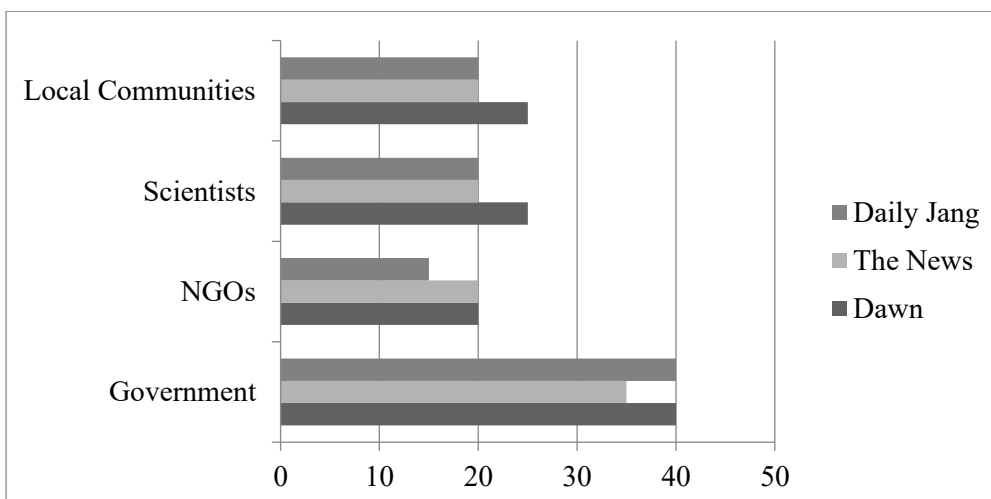
Frame	Dawn	The News	Daily Jang	Total	Percentage
<b>Disaster</b>	40	35	40	115	38.33%
<b>Scientific</b>	20	15	10	45	15%
<b>Political</b>	20	20	15	55	18.33%
<b>Economic</b>	15	10	20	45	15%
<b>Solutions</b>	15	15	10	40	13.33%

*Source:* Authors' own based on the study data.

Table 3 shows that the most common frame used in climate change articles was the disaster frame, appearing in 38% of the coverage. Scientific explanation and economic frames each accounted for 15% of the articles, while political framing was observed in 18% of the content. The least frequent was the solutions frame, which appeared in only 13% of the articles.

### 4.4. Sources Cited

**Figure 1: Sources Cited in Climate Change Articles**



*Source:* Authors' own based on the study data.

Figure 1 shows that government and political figures were the most frequently cited sources, accounting for 38% of the references. This emphasis on official sources may lead to a predominantly political framing, potentially sidelining scientific perspectives and the voices of local communities. NGOs and scientists were cited in 18% and 21% of the articles, respectively, while local communities directly affected by climate change were quoted in 22% of the coverage.

## **5. DISCUSSION OF THE FINDINGS IN A GLOBAL CONTEXT**

The findings from this content analysis of Pakistani press coverage on climate change reveals several key themes: limited frequency of media coverage; negative disaster framing and politically-dominant government information sources. These findings can be discussed not only in the context of Pakistan's media environment, but also compared to other Global South countries where, due to limited resources, political restrictions and infrastructural conditions, climate change issues are reported differently from the Global North.

### **5.1. Frequency of Coverage**

In many countries of the Global South, news coverage of climate change tends to be patchy, minimal, or irregular. Studies focusing on Asian countries have found that, despite being highly vulnerable to the impacts of climate change, media coverage in these regions remains severely limited and often overlooked (Vakulchuk et al., [2023](#), p. 1). In their study, Khan and Mishra ([2022](#), p. 2559) highlighted that the citizens of these countries have little information about climate risks due to the press's lack of emphasis on effective risk communication. Wadud ([2024](#), p. 26) noted that political or economic issues were the most prominent and climate change remained marginalised. Schäfer and Painter ([2021](#), p. 675) highlighted that climate reporting was a neglected area due to the rising influence of corporate stakeholders in the press. A study by Hase et al. ([2021](#), p. 102353) pointed out that the Global North covers the issue of climate change, whereas the South only focuses on its impacts on citizens. For instance, a study that focused on Indian newspapers confirmed that climate change was a small proportion of the articles; and most of the studies linked climate change to direct natural disasters (Patel et al., [2020](#), p. 3). Similarly, when research was carried out in Bangladesh, it was found that the communities discussed climate change only during or after floods (Hossen et al., [2022](#), p. 174).

The patterns identified above also reflect broader trends observed in Pakistan, where press attention to climate change remains limited except during specific events. The findings indicate a moderate level of climate change coverage, with each of the three newspapers publishing an average of 100 related articles over the one-year period. This suggests that climate change is not a highly prominent topic in the Pakistani press, potentially limiting public engagement with the issue. These results are in line with previous research, which

has noted that environmental journalism in Pakistan remains relatively underdeveloped and insufficiently explored (Iftikhar et al., [2020](#), p. 24).

## **5.2. Tone of Coverage**

The negative trend observed in Pakistan's media coverage of climate change reflects similar patterns across other South Asian countries in the Global South. Brügger et al. ([2021](#), p. 397) found that public perception of climate change was largely shaped by the tone adopted in media reporting. For instance, Jerin ([2023](#), p. 103851) highlighted that in Bangladesh, a threat-driven narrative in media coverage was seen as essential for motivating climate adaptation strategies. Another study by Sloggy et al. ([2021](#), p. 3) found that media coverage plays a crucial role in shaping positive attitudes toward climate action. The study emphasised that effective media framing can strengthen public belief in the anthropogenic causes of climate change. However, while catastrophic or disaster-oriented framing may trigger a sense of urgency, it often fails to offer constructive solutions. Similarly, the findings of the present study show that disaster framing dominates climate change reporting in Pakistani newspapers, leading to fear and helplessness among audiences rather than raising awareness about actionable solutions.

However, as opposed to the Global North where coverage is balanced with risks and solutions, Global South media commonly fails to mention adaptation or mitigation (McAllister et al., [2024](#), p. 24046). In a study, O'Neill ([2009](#), p. 355) noted that climate change coverage varied significantly across regions. The study found that media in Northern countries focused on technological advancements and solutions, while coverage in South Asian countries often emphasised vulnerability and risk. O'Neill recommended adopting a more balanced narrative that incorporates both challenges and solutions to provide a more comprehensive understanding of climate change.

In the current study, 48% of climate change coverage in the Pakistani press carried a negative tone, with articles focusing on social costs, risks, and challenges. In contrast, only 25% of the articles presented a positive outlook, highlighting solutions and progress, while 26% adopted a neutral tone, offering balanced or factual reporting. The dominance of negative coverage may contribute to a sense of helplessness and foster public passivity toward climate change issues (Maran and Begotti [2021](#) p. 9358).

## **5.3. Framing of Coverage**

The high levels of disaster framing are characteristic of media in the Global South. Analysis of data collected by WMO in Kenya and South Africa showed that climate change was described largely in terms of easily identifiable risks, including droughts, floods, or food shortages (WMO [2023](#)). On the other hand, media studies on Chile and Argentina showed a tendency of scientific and solution orientation of climate change reports (Schäfer and Schlichting [2017](#), p. 14). According to a UNDP ([2023](#)) report, media in Chile tend to

emphasise practical approaches, such as the promotion of non-conventional renewable energy and other scientific solutions. The report also highlighted the Chilean government's commitment, with media coverage reflecting a science-driven strategy to mitigate climate change impacts.

This comparison raises an important consideration for the Pakistani media: the need to more actively engage with scientific institutions and experts to enhance the depth, accuracy, and credibility of climate change reporting. This study found that the most frequently used frame in climate change coverage was the disaster frame, appearing in 38% of the articles. While this frame captures attention by focusing on immediate and dramatic consequences, it tends to portray climate change as a short-term crisis and an abstract threat beyond individual control. Scientific explanation and research-oriented framing were identified in only 15% of the coverage. Political and economic frames were each observed in 18% of the articles. The least represented was the solutions frame, appearing in just 13% of the texts, which focuses on identifying and explaining mitigation and adaptation strategies. These findings underscore the need for greater inclusion of scientific and solutions-oriented discourse in climate reporting, which can contribute to a more informed and empowered public (Maran and Begotti, [2021](#), p. 9358; Chinn et al., [2020](#), p. 112).

#### **5.4.Sources Cited**

As common for many countries in the Global South, political influence in media means that government sources are overrepresented in climate change coverage. For example, media coverage of climate change in Nigeria is a reflection of the government system in the country with limited reference to scientific studies or NGOs. As in Cameroon, there is a high level of state involvement in climate change reporting (World Bank Group [2022](#)). In Bangladesh, state actors are over-represented in climate news (Huq 2015).

On the other hand, some countries like Sweden, Germany and New Zealand are making efforts to provide diversity in climate change news sources. A study conducted by Magnusson et al. ([2021](#), p. 641) showed that Sweden media continues to source information from the government but also gives coverage to climate scientists, NGOs and international organisations. The same is the case in New Zealand and Germany (Thaker [2020](#), p. 245; Junsheng et al., [2019](#), p.117934). This shift is also necessary because it offers stakeholders different views, and more accurate information.

However, the Pakistani press, by comparison, is heavily reliant on government sources, and this limits the range of the climate change discussion. This study found that government and political figures were most cited, with a recorded 38%. Such a focus on government information sources can lead to setting a political perspective and ignoring science and local communities' opinions. NGOs and scientists were found in 18% and 21% of the articles. Local people, affected by climate change, were mentioned in 22% of the articles.

Scientific sources and local people's participation in reporting climate change can give a better picture of the issue (Betsill and Bulkeley [2021](#), p. 219; Iftikhar et al., 2020, p. 24). Printing more input from scientists and related communities, such as seen in South Africa and some Latin American countries, Pakistan can significantly improve the quality of climate reporting. This is also necessary for obtaining accurate localised risk assessment.

### **5.5.Revisiting Theories**

The analysis in this study indicates that the Pakistani press predominantly frames climate change through disaster narratives, consistent with the assumptions of Framing Theory. This trend is not unique to Pakistan; similar patterns are observed in other Global South countries such as Bangladesh and Kenya, where climate change is often portrayed within a crisis model. However, even in these contexts, there are efforts to incorporate more solution-oriented narratives which is largely absent in Pakistani media (Patel et al., [2020](#), p. 3). Better integration of scientists, environmental activists, and representatives of affected regions into climate coverage can improve public awareness and provide a more objective view of the need for climate mitigation and adaptation (Atallah [2024](#)).

## **6. CONCLUSION AND RECOMMENDATIONS**

This study investigated how three major newspapers in Pakistan covered climate change, over a period of one year, including looking at literature of cross-country studies. The results indicate that climate change requires more coverage in the Pakistani media and incorporate diversity and balanced tone so that the issue is seen through a solution-oriented lens rather than merely as a singular disaster. Instead of solely focusing on government sources, there is also a need to include the voices of local communities, scientists and NGOs. More specific recommendations include the following:

- **Incorporation of Climate Reporting in National Policy Frameworks:** The media should be officially recognised as a stakeholder in Pakistan's national and provincial climate action plans. This step would involve inclusion of media representatives in policy dialogues and proper dissemination of climate updates through mainstream press.
- **Increase Frequency and Diversity Coverage:** The media should increase its focus on climate change by improving both the volume and variety of coverage. A broader range of tones, beyond disaster framing, can help engage the public more effectively. This may involve commissioning more environmental journalism and encouraging reporters to cover climate-related topics more regularly.
- **Enhance Representation of Scientific Sources and Local Communities:** Balanced reporting that includes both scientific expertise and local perspectives can offer a more accurate and balanced picture of climate change. Media organisations should actively

engage with scientists, NGOs, and affected communities to incorporate their insights, ensuring coverage is both credible and grounded in lived experience.

- **Provide Training and Capacity-Building for Journalists:** In order to bridge the gap between public understanding, scientific knowledge, and policymaking, the government, in collaboration with media outlets and research institutes, should formulate courses on environmental journalism so reporters have relevant knowledge and skills.

By addressing the above identified gaps and implementing the study's recommendations, the Pakistani media can play an important role to inform and empower the public to effectively respond to the growing challenges of climate change.

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