Print, Radio, TV & Film Studies
Vol.7 (December, 2026), Pp.36-50
ISSN(online): 2790-1866, ISSN(print): 2790-1858
DOI: https://doi.org/10.71016/prtfs/qqrsx977

Original Article **https://hnpublisher.com**

Framing of Environmental Risks: A Comparative Study of Traditional Media Coverage and Local Perceptions regarding Smog in *Warraich Village*

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ABSTRACT

Aim of the Study: This study examines the framing of smog as an environmental risk by Pakistani media, investigates the perceptions of residents in *Warraich Village*, and explores the gaps between media coverage and local experiences.

Methodology: Adopting a mixed-methods approach, the research analyzed news items (n = 40) from national newspapers *ARY News Channel* and *Daily Times Newspaper* under content analysis, along with semi-structured interviews with twenty-five village residents. The study is guided by framing theory and the social amplification of risk framework (SARF) to understand how media selectively highlight certain aspects of an issue while marginalizing others, shaping public understanding and discourse.

Results: Findings reveal that Pakistani media predominantly frames smog as an urban environmental crisis, focusing on severity (35%), government interventions (30%), and public precautionary measures (20%). In contrast, villagers perceive smog as a multidimensional threat, emphasizing human health risks (16%), agricultural (12%) and livestock damage, and governance failures. Preventive practices exist at the community level, but only 8% of respondents were adequately aware through media about smog and preventive measures.

Conclusion: Comparative analysis shows a significant disconnect between media and local perceptions, with policy interventions portrayed as effective in media but experienced as symbolic and inadequate locally. The study highlights the need for inclusive, context-sensitive communication strategies to bridge the gap between media framing and rural realities, improving public awareness and policy effectiveness.

Keywords: Smog, Environmental Risk, Media Framing, Rural Perception, Framing Theory, *Warraich Village,* Social Amplification of Risk Framework.

Article History

Received:
April 28, 2026

Revised:
July 02, 2026

Accepted:
July 11, 2026

Online:
July 28, 2026

1. INTRODUCTION

In today's world, many different types of environmental hazards are becoming some of the biggest issues on a global scale; such issues include air pollution and climate change, decline in biodiversity, deforestation and lack of clean water supply, and soil degradation (IPCC 2021). Among the major environmental problems on the global agenda, air pollution has become the most critical due to its impact on the health of the public, the economy, and our ecology (Akbar et al., 2025; Kashif et al., 2025; Baber et al., 2025). According to Steffen et al. (2015), these environmental risks are multidimensional, meaning that they have implications for not only environmental stability, but for the health of the public, food production, development of infrastructure, and the development of national economies.

Existing studies claim that environmental hazards are most frequently imposed on the poor, rural areas, and developing countries, particularly in places where there is not much institutional capacity to handle such issues. WHO (2021) says that air pollution causes over seven million deaths every year and that air pollution is currently the most significant environmental risk factor to health in the world.

This reviewed literature highlights the immediate need for public inquiry, investigation, and discussion regarding the framing, communication, and actions taken by decision-makers and the public regarding environmental risks. Several important characteristics associated with this atmospheric phenomenon include elevated concentrations of various air contaminants such as PM2.5, ground-level Ozone, nitrogen oxides, and Sulphur dioxide (Liaqut et al., 2023).

People affected by smog may have respiratory ailments and cardiovascular diseases. In addition, those impacted by smog may also experience some degree of impairment of their vision, as well as a decrease in life expectancy (Safdar & Butt, 2025; Butt, 2024). The effect of smog isn't restricted to only health problems; it affects crop production, hinders transportation, and produces many adverse psychological and socio-economic effects on vulnerable rural populations. According to environmental communication researchers, the way we see, respond to, and manage threats to our environment is largely governed by media sources, academic sources, and locally established knowledge; in other words, the public's perception of the environment is formed through interactions with these sources (Cox, 2025).

1.1 Overview of Smog as an Environmental Hazard

Smog is a deadly combination of smoke and fog, and it has now become a serious public health hazard that affects not only the urban atmosphere but also rural areas. Severe air pollutants suspended in humid air are known as smog. The two main causes of atmospheric smog are climate and human activities (Pervaiz et al., 2025). Smog has now become one of the most widespread global environmental dangers. The highest levels of pollution are seen in industrialized and rapidly urbanizing areas. The term “smog” was coined from “smoke” and “fog.” It was first identified in the 19th and 20th centuries in industrial cities such as London (Bell & Davis, 2001). The infamous London Smog of 1952, which killed approximately 12,000 people, marked a turning point in global environmental consciousness, encouraging the development of formal air quality regulations (Brimblecombe, 2011).

There are two types of smog today: sulfurous smog or London-type smog. Sulfurous smog is produced by burning coal and industrial activities, while photochemical smog is formed when sunlight interacts with pollutants in the atmosphere, which is something that happens frequently in cities today (Jacob & Winner, 2009). The United Nations Environment Program says that due to increasing economic development, urbanization, population growth, and increased vehicle use globally, people are experiencing photochemical smog more often than in the past. Pollution in the form of smog occurs all around the globe, impacting both developed and developing countries. Many cities around the world, such as Beijing, Delhi, Los Angeles, Mexico City, and Tehran, have reported very high AQI values, often exceeding acceptable limits by more than 20 times (Guttikunda & Gurjar, 2012). The World Air Quality Report (2023) suggests that the most significantly affected areas in the world are South Asia, East Asia, and the Middle East.

The effects of smog in Pakistan extend into other areas like agriculture, biodiversity, and general environmental sustainability. Smog reduces agricultural productivity because crops cannot photosynthesize and grow optimally due to low levels of sunlight, changes in the way that crops grow and develop, and the deposition of toxic chemicals directly on crops and soils. The reduction of visibility caused by smog results in delays in transport, cancellation of flights, and closure of industries, as well as accidents on roads. Smog is a multidimensional global hazard, and because of that, it requires strategic communications on environmental awareness on both national and community levels. South Asia has become one of the most affected areas of the world, in terms of air pollution and smog formation, with India, Pakistan, Nepal, and Bangladesh consistently being reported as among some of the most polluted areas in the world (IQAir, 2023).

Various factors, such as rapid industrial growth, population density, and insufficient modes of transportation, large-scale burning of agricultural waste, or lack thereof, in managing the environment have all contributed to the increased levels of smog in these areas. Throughout most of the previous decade, Lahore, Karachi, and Islamabad have experienced multiple rounds of extreme pollution. Concerns arise about how the effects of these experiences will shape the future of both the environment and the health of the people (Khan et al., 2024).

1.2 Media Coverage and Public Awareness of Smog

Media houses act as the main sources of information dissemination. Through establishing a framework for information dissemination and a basis of concern regarding environmental risk, the media plays a significant role in creating and reinforcing the public perception and participation in addressing problems associated with environmental hazards, particularly in these cases where there is a visible threat of extreme air pollution exposure. An example of this in an urban context would be the increase in traditional media and digital media coverage of smog and its effects on the population's health, and their pressure on the government to take action resulting from the multiple studies conducted regarding the impact of smog on health (Javed et al., 2023).

Digital innovations and community-based responses have begun to emerge as key elements of civic engagement in urban areas and create an increasing amount of communication between the policymaker and the public on issues of importance (Siddique et al., 2023). Media connection and communication wherein information about the environment may be made available to people across both rural and urban contexts, but framed appropriately to each community, relative to their lived experiences and relationships to environmental issues (Yasin et al., 2025).

1.3 Problem Statement

The cultural significance of environmental risk interpretations & enactments is pronounced. Thus, environmental risk communications can shape societal responses/ perceptions regarding environmental risk/hazard. In Pakistan, seasonalized smog has presented itself very rapidly to a wide cross-section of society, as it relates to many areas throughout Punjab Province. Whereas the mainstream media in Pakistan routinely frame smog as a pressing urban crisis, with its causes, consequences, and policy failures, the interpretations from rural communities remain largely undocumented. *Warraich Village* is located on the periphery of Lahore Division, shares similar air-quality conditions with the urban center, but its residents' perception, sources of knowledge, and coping behaviors are not documented. Despite a general increase in the frequency and severity of incidents of smog, there is a lack of empirical research into how rural people interpret media reports about environmental risks. This study, therefore, explores the framing of smog in the media and how residents of *Warraich Village* construct their own understanding of smog-related risks.

1.4 Research Objectives

1. To analyze how Pakistani media frame smog as an ecological danger.
2. To find out how smog is perceived and interpreted by the residents of *Warraich Village*.
3. To identify gaps between media framing and local perceptions of smog in *Warraich Village*.

1.5 Research Questions

1. How do Pakistani media frame smog as an environmental risk?
2. How do the people of *Warraich Village* perceive the causes and implications of smog?
3. What are the gaps between media coverage and local perceptions of smog *in Warraich Village?*

2. LITERATURE REVIEW

Most environmental risk research identifies air pollution as a multidimensional environmental hazard in which health, economic, and socio-political domains intersect (IPCC, 2021). Pollution is a major contributor to respiratory and cardiovascular conditions, as well as loss of productivity in terms of agriculture. In addition, air pollution creates a visibility problem, which in turn affects our daily socio-economic lives.

Both global and regional studies show us that air pollution continues to rank amongst the top causes of early death. Specifically, the increasing rate of land-use and the variability of climate, as reported by the WHO (2016) and the IPCC (2021), have led to more frequent, longer-lasting, and more intense smog events. For instance, in 2012, it was estimated that there were 3.7 million premature deaths worldwide attributed to outdoor air pollution (Hussain et al., 2025). This fact demonstrates the enormity of an issue that requires integrated environmental governance and action across all sectors.

2.1 Pakistan's Smog and Public Health Risks

According to WHO reports, smog poses significant short- and long-term threats to human health, including increased respiratory infections, asthma, cardiovascular complications, and ocular irritation. Allergic responses and reduced immune resilience have also been extensively documented. Exposure to the pollutants due to smog increases the vulnerability to chronic diseases, including lung cancer, unfavorable pregnancy outcomes, and weakened immune systems. Mocatta (2024) establishes the fact that the increase in health impact created by smog creates an urgent need to put into place policies to reduce emissions, improve monitoring of air quality, and develop strategies to avoid health issues.

Jan et al (2020) identify inadequate dissemination of environmental knowledge as a factor contributing to low climate literacy in South Asia. Their efforts support a proactive strategy for promoting awareness of environmental matters, including climate change and air pollution, through educational institutions and media, to enhance public perception. Similarly, based on the findings of Loy et al. (2020), media are identified as the main source for educating the public about climate change, causing people to be concerned about those issues and encouraging them to change their behavior. The media acts as a link between the scientific community, policymakers, and the public and provides access to reliable, timely, and actionable environmental information. Regular coverage of environmental problems in the media led to increased public support for eco-sustainable initiatives, as well as motivating individuals and communities to engage in environmentally friendly projects.

The media is becoming increasingly aware of the rising levels of pollution caused by smog in major urban locations like Lahore (Raza et al., 2021). By providing information about the potential environmental and health consequences of long-term exposure to polluted air, media reports are highlighting the urgent need for government action towards the issue (Li et al., 2024). Politically, through shaping public opinion and/or assisting in the establishment of a public policy agenda related to reducing smog pollution and protecting Public Health, members of the media will be active participants in creating a healthier society for their communities (Mushtaq et al., 2024).

2.2 Theoretical Framework

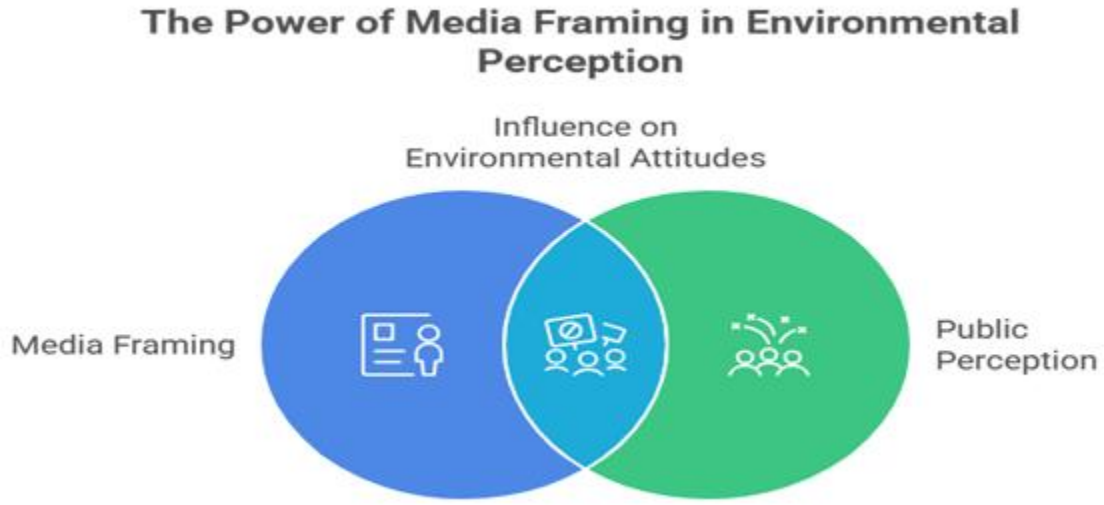
2.2.1 Framing Theory

This research is based on the concept of Framing Theory, which was first developed by Erving Goffman (1974) and later elaborated in the realm of mass communication by Robert M. Entman (1993).

This theory suggests that the way that media organizations frame certain environmental events impacts how people view those environmental events and therefore respond to them. In addition to framing events so that all readers know what type of responsibility will be applied to which cause and effect, media frames also give clues as to the other possibilities and alternative viewpoints on the same issue (Gamson and Modigliani, 1989). Fig. 1 depicts the theoretical link between media framing and environmental perception by the public through the influence of media framing on people's attitudes towards the environment, guided by framing theory.

Media framing of issues such as environmental risk, whether through scientific data, political action, economic development, or public health, media frames (Qusien, 2026) define how much information is available to the public regarding those environmental threats, as well as defines what is viewed as legitimate solutions to those threats (Nisbet, 2009).

Figure 1: *Media Framing in Environmental Perception*



Note. This figure is developed by the researcher based on Framing Theory as discussed by Entman (1993).

2.2.2 Social Amplification of Risk Framework (SARF)

This framework developed by Kasperson et al. (1988) describes how risks are interpreted, transmitted, and magnified or minimized through society. The SARF focuses on the idea that people and communities do not respond to environmental hazards based on direct physical exposure but that cognitive perception of risk is mediated by information flows, cultural values, institutional trust, and social intercourse.

Conceptual framework of SARF (social amplification of risk framework) is shown in Fig. 2, which highlights the effects of direct physical exposure as well as social and cognitive mediators on amplified risk perception shown in Fig. 1.

The media plays a leading role in serving as an "amplification station" to establish the level of intensity of the public's experience of a hazard (Renn, 2011).

Basically, the social amplification of risk framework theory would be utilized to help comprehend how people's perceptions of smog within the *Warraich* village are influenced not only by the pollution, but also by the information communication process surrounding it. According to the theory, risks appear more or less serious depending on the media, social, and communication processes, which act as information channels capable of heightening or decreasing people's fear and concern regarding the health risks, or normalizing smog as a routine environmental concern. The present research utilized the SARF to compare media framing of smog with local community perceptions collected through interviews (Kasperson et al., 2022).

Figure 2: *Factors Shaping Risk Perception*

Note. This figure is developed by the researcher based on the Social Amplification of Risk Framework (SARF) proposed by Kasperson et al. (1988).

3. RESEARCH METHODOLOGY

3.1 Research Design

The present study utilized a qualitative design to explore the framing of environmental risk, specifically smog, in media coverage and how people living in *Warraich Village* perceive these risks.

Creswell (2017) defines qualitative research as a method that seeks to explore and make sense of the meanings that people place on a particular social or human problem.

The qualitative design allows this study to investigate how the media has framed smog risk and how it is experienced by residents. The conceptual frameworks used in this study have facilitated exploring how media narratives influence or shape people's perception of smog risk or create a distorted view of the risk in individuals living in the community of *Warraich Village*. This study also employs a content analysis method to examine how smog issues are portrayed in media to understand media texts. Content analysis, according to Krippendorff (2018, pp. 23–30), is a systematic approach to analysis.

3.2 Population

Warraich Village was selected as a contextual site to identify urban environmental hazards. Its proximity to the Lahore metropolitan region and surrounding agricultural and industrial activity increases its exposure to air pollution, especially during the autumn and winter months. This article highlights its geographical positioning, making it relevant to examine the impact of the urban smog crisis beyond the central city.

3.3 Sample Size

The entire sample of the study contained forty media pieces derived from print and electronic media. The sample of print media comprised select stories drawn from one English *Daily Times* e-newspaper, where

the stories were taken from its front page as well as the city or national news sections. On the other hand, the sample of electronic media included prime-time news broadcasts retrieved from the official YouTube channel of *ARY News*. These broadcasts were selected to analyze televised narratives related to environmental hazards and air pollution in Lahore and its surroundings.

In addition, twenty-five semi-structured interviews with *Warraich Village*'s inhabitants were conducted to identify their perceptions related to smog, which would be compared with media portrayal of environmental hazards.

3.4 Sampling Technique

The study used the systematic sampling approach to identify relevant newspaper reports as well as prime-time broadcasts of news segments that cover smog during the period from September to December 2025. The sample comprised front-page and city/national page *Daily Times* newspaper reports from English newspapers and 40 prime-time news segments on the YouTube channel of *ARY News*.

Furthermore, the individuals were chosen due under purposive sampling (Ahmad & Wilkins, 2025) beacause they had firsthand experience of living in an environment affected by smog and were able to provide their perspectives on the issue.

3.5 Study Area

The study was geographically conducted in the village of *Warraich*, which falls under peri-urbanization (Follmann, 2022) and is found in the district of Lahore, province of Punjab, Pakistan. Geographically, this village falls at a location of around 31.37113° N latitude and 74.31253° E longitude, with an altitude of approximately 207 meters (679 feet). From the classification of *OpenStreetMap*, this area is considered a village in place type, and its GeoNames ID is 1162584 (Geonames, 2026). This village is found in the transition zone between rural and urban areas in proximity to Bahria Town.

3.6 Inclusion and Exclusion Criteria

Warraich Village was chosen as a field of study due to its strategic positioning in an area that has undergone rapid transformations from being purely rural to peri-urban through gradual urbanization. The village has surrounding rural areas like Kacha, Islam Pura, Rakh Jehdu, Halloki, and Jedu, making it a part of a socio-spatially interconnected environment located on the periphery of Lahore city. Other notable functional markers around include Kana Kacha Railway Station, Trafo Link Pvt Ltd, Madina Masjid, Makki Masjid, and recreation grounds (not included in this study), which also show the rural-to-urban nature of the location.

3.7 Ethical Consideration

All participants were made clearly aware of the reason behind the research. Their names and personal data were kept confidential and not revealed to anyone. No gifts or rewards were provided for participation. The data gathered was used only for research.

4. RESULTS AND INTERPRETATIONS

The results of the study were based on qualitative content analysis of newspaper and television coverage, as well as thematic analysis of interview data collected from village residents.

Table 1: *Demographic Characteristics of Interview Participants (n = 25)*

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	14	56%
	Female	11	44%
Age (Years)	18–30	7	28%
	31–45	10	40%
	46–60	6	24%
	Above 60	2	8%
Education	Primary	5	20%
	Secondary	8	32%
	Higher Secondary	6	24%
	Graduate	4	16%
	Postgraduate	2	8%
Occupation	Farmer	8	32%
	Private Employee	5	20%
	Businessman	4	16%
	Homemaker	5	20%
	Labourer	3	12%

The demographic details of the 25 interviewees have been described in Table 1. A total of 14 (56%) and 11 (44%) were male and female participants, respectively. The majority of the participants belonged to the 31–45 years age group (40%), followed by 18-30 years (28%), 46-60 years (24%), and above 60 years age groups (8%). As far as education level is concerned, secondary education is the largest percentage (32%), followed by higher secondary education (24%), primary education (20%), graduates (16%), and postgraduates (8%). Talking about occupation, the maximum percentage belongs to farmers (32%), followed by private employees (20%), homemakers (20%), business persons (16%), and students (12%).

Table 2: *Interview Data – Theme-wise Frequency and Percentage (n =25)*

Theme	Frequency (Respondents)	Percentage (%)
Government Interventions & Policy Effectiveness	2	8%
Effectiveness of Anti-Smog Technologies	1	4%
Impact of Smog on Animal Health	2	8%
Human Health Consequences	4	16%
Temporal Comparison of Smog (2024–2025)	3	12%
Agricultural and Crop Damage	3	12%
Preventive Practices at Community Level	2	8%
Perceived Causes of Smog	3	12%
Media Coverage and Awareness	3	12%
Policy Recommendations & Future Measures	2	8%

According to the results presented in Table 2, the most commonly discussed theme was the one concerning ‘Human Health Consequences’, as it was reported by 16% of respondents. At the same time, themes related to the ‘Temporal Comparison of Smog’ (2024–2025), ‘Damage to Agriculture and Crops’, ‘Causes of Smog’, and ‘Media Coverage and Awareness’ were all mentioned by 12% of respondents.

Themes related to Government Interventions and Effectiveness of Policies, Impact of Smog on Animal Health, Preventive Methods at Community Level, and Policy Suggestions and Future Actions were mentioned by 8% of people, whereas Effectiveness of Anti-Smog Technologies was reported by 4% of villagers.

Overall, the findings from the interviews indicate that the interviewees considered smog to be a multifaceted phenomenon which had implications for human health, agricultural production, environmental conditions, governance and public awareness.

Table 3: *ARY News Channel – Category-wise Frequency and Percentage (n = 20)*

News Category	Frequency (News Items)	Percentage (%)
Severity of Smog	7	35%
Government & Institutional Responses	6	30%
Public Reactions & Precautionary Measures	4	20%
External Factors & Contributing Causes	3	15%

As shown in Table 3, the content analysis shows that the majority of the media content concentrated on the 'Severity of Smog' (35%), which showed how severe and dangerous the air pollution was. 'Government and Institutional Responses' were featured in 30% of the content, which shows the significant amount of coverage given by the media to the policies and actions undertaken by institutions and governments.

The reactions and precautionary measures of the public formed 20% of the news stories, which is related to the fact that the media emphasized public reactions towards smog. In addition, 15% of the coverage was about 'External Factors and Contributing Causes' of smog.

Overall, it can be concluded that the coverage mainly concentrated on framing smog as an environmental problem rather than addressing the causes behind the problem.

Table 4: *Daily Times E-Newspaper – Category-wise Frequency and Percentage (n = 20)*

News Category	Frequency (News Items)	Percentage (%)
Severity of Smog	6	30%
Government & Institutional Responses	5	25%
Public Reactions & Precautionary Measures	4	20%
External Factors & Contributing Causes	2	10%
Health Impacts	3	15%

As presented in Table 4, the content analysis of Daily Times revealed that the most focused media category on smog was the 'Severity of Smog' (30%) and 'Government and Institutional Response' (25%), followed by 'Public Reaction and Precautionary Measures' (20%), Health Impact (15%), and 'External Factors/Contributing Causes' (10%).

From the above results, it can be concluded that the Daily Times considered smog to be more of an environmental and governance issue than an underlying cause or a health issue.

Table 5: *Comparison of Media Coverage and Local Perceptions*

Aspect	Media Coverage (Daily Times & ARY News)	Warraich Village Perceptions
Dominant Focus	Severity of smog and government responses	Health impacts, livelihood losses, and weak governance
Health Impacts	Secondary emphasis	Primary concern
Livelihood Issues	Limited coverage	Frequently highlighted
Policy Effectiveness	Government portrayed as proactive	Policies viewed as weak and symbolic
Spatial Focus	Urban-centred coverage	Rural lived experiences

As shown in Table 5, it becomes clear that there exists an evident gap between media discourse and the perception of the inhabitants of *Warraich* Village. Media discourse highlights mainly the impact of smog

and governmental actions, whereas the perception of villagers is based mainly on the impact of smog on their health, livelihood, and weak governance. Media emphasizes the impact of smog on people's health and livelihoods, whereas livelihood and health are the main concerns for villagers. In addition, governmental actions are presented as proactive in the media, whereas the villagers consider those as weak and symbolic. Also, media discourse is more centered on urban areas, whereas the experience of the villagers reflects the conditions of rural areas. Finally, the results show the validity of the assumptions of framing theory, which argues that media tends to highlight some issues about smog while underplaying the experiences of rural communities.

4.1 Mapping of Research Questions

It was found that both ARY News and Daily Times mainly framed the problem of smog as an environmental crisis, as they gave more coverage to the seriousness of the problem and government interventions than health implications and causes of the problem (RQ1).

Warraich Village residents viewed smog as a multidimensional problem where health impacts, agriculture problems, livelihood issues, and poor governance were identified as key themes (RQ2). There is a huge gap between media frames and the views of the locals, as media mainly covered the severity of the problem and government intervention, whereas the villagers highlighted health implications, livelihood issues, and poor government interventions (RQ3).

5. DISCUSSION

The results of this study indicate that the media coverage in Pakistan has predominantly presented the smog problem as an environmental crisis by focusing more on the severity and responses of the government rather than the realities of the people facing it. Both the *ARY News Channel* and *Daily Times Newspaper* have paid ample attention to air quality deterioration, pollution, and institutional responses, which suggests that the problem of smog in media coverage has been presented as one that needs immediate response from the government. This is true in line with the work of Entman (1993), who suggests that framing in the media selectively highlights some aspects of reality and not others.

Thus, the research aligns with the theory of framing, explaining how the media emphasizes particular aspects of an event at the expense of others. In this situation, the problem of smog was considered as an environmental emergency requiring governmental measures. Iyengar (1991) states that episodic coverage remains an ineffective means of addressing social grievances and is less likely to be addressed by society for its solution. Those citizens with less media exposure, as well as those with lower literacy levels, believed smog was a result of natural causes like fog or weather changes. This information confirms existing research in risk perception, which suggests that an individual's perceptions of natural hazards are mediated by information accessibility, education, and cultural factors (Slovic, 2000).

The research further revealed that the health effects, while considered the main issue by the people living in *Warraich* Village, have been somewhat neglected by the press. It was observed that most villagers linked the smog to respiratory issues, irritation in their eyes, and poor physical health; however, these incidents were not reflected much in the press. On the other hand, most news about the health issues in the press revolved around government announcements and instructions. Moreover, another significant observation was the lack of attention to the issue of rural livelihoods in the media discourse. Rural residents stressed the dire consequences for agriculture, farm animals, and production in their regions. The smog's influence extends beyond its health risks and also poses threats to economic security in rural areas. Nevertheless, these problems were ignored by both media channels, demonstrating a narrow perspective on the problem.

Shortage of preventive practices could be a result of a general lack of awareness. This knowledge-action gap mirrors the reasoning presented by Breakwell (2014), who states that risk perceptions cannot be an effective factor for change by themselves and have to be done with feasible and culturally sensitive solutions. Media framing inadvertently alienates audiences the media might be trying to inform,

reinforcing the framing gap proposed by Scheufele (1999). The importance of integrated approaches that incorporate media communication along with grassroots interventions has again been reiterated in environmental communication studies.

6. CONCLUSION

This study concludes that *ARY News Channel* and *Daily Times Newspaper* mainly focused on its role as an urban environmental issue due to high levels of pollution and actions taken by the authorities in response to the situation. Pakistani media prioritize the "smog issue" through a social framework related to urban environmental crises, emphasizing the level of seriousness associated with the smog and how the government has responded to the issue. In contrast, the local community in *Warraich* Village views smog through their health, economic, and political experiences. This difference highlights the importance of rural communities getting a say in how an environmental communications strategy is developed and the need for an inclusive environmental communications strategy to be adopted by those creating the media narrative.

6.1 Limitations of the Study

Due to time constraints and cost issues, this study has covered one village area near Lahore city to observe seasonal variations in smog and its impacts.

6.2 Recommendations

The research findings of this study have provided the foundation for the development of several recommendations that can support future improvements in environmental risk communication and community engagement about smog issues in Pakistan. The first recommendation is that all media outlets should provide more continual, comprehensive, and action-oriented reports on smog events all year rather than just at certain times of the year or in connection with certain events.

The second recommendation is that media content must clearly convey the reasons behind smog, while also communicating to people what actions they can realistically take to reduce their exposure, regardless of whether they live in an urban or rural area. By communicating the reasons for smog and communicating the potential preventive actions that are feasible for everyone, media organizations will help to develop a better understanding of the issue in society and reduce the appearance that smog is something inevitable. The third recommendation is that environmental communication should be inclusive and culturally context-sensitive, especially in rural areas. In these settings, it is important to send out messages using local dialects or simple language so that all people can easily understand them, regardless of their literacy levels.

By weaving together community voices, local health workers, and environmental experts into media stories, a stronger sense of credibility and relevance will be established, which will further bridge the gap between the framing of issues by national media and the local perceptions of these issues. Finally, improved coordination and collaboration between media organizations and those involved in developing and enforcing environmental policy is necessary. Providing accurate and valid information based on research will require a uniform approach to provide this information, with transparency around how policies are implemented and enforced.

Raising awareness about issues and topics requires support from institutions such as government programs that have access to health care, affordable protective equipment, and stricter enforcement of regulations regarding environmental issues. Educating communities and schools about environmental concerns and creating long-term programs so that they will be more likely to continue to learn and recycle, prevent pollution, and find solutions to pollution challenges will have greater success in addressing environmental challenges such as smog in Pakistan. The successful combination of the media, policy makers, and activists will allow Pakistan to develop a stronger and more integrated strategy to combat air quality issues due to smog as an environmental and public health challenge.

6.3 Research Implications

Future research should be conducted in a wider variety of rural and semi-rural settings in order to determine the extent to which the media framing effect can be applied to different geographic regions (not just urban). Additional studies using long-term exposure (i.e., longitudinal studies) can help determine if continued exposure to the media creates lasting changes in risk perceptions and behaviors associated with smog. Research should also be conducted that examines how families, communities, peers, etc., influence people's responses to environmental hazards. Moreover, research comparisons across urban and rural settings can help to further understand how different contextual factors impact how well environmental communication strategies are received.

Acknowledgments

None

Conflict of Interest

Author declared NO conflict of interest.

Funding Source

The author received NO funding to conduct this study.

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