

## MEASURING PUBLIC PERCEPTIONS REGARDING CLIMATE CRISIS IN PAKISTAN

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DOI: <https://doi.org/10.5281/zenodo.18047608>

### Keywords

Climate Crisis, Public, Perceptions, Pakistan

### Article History

Received: 11 October 2025

Accepted: 21 November 2025

Published: 16 December 2025

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### Abstract

This study aims to measure public perceptions of climate crisis in Pakistan. It attempts to answer, how Pakistani public perceive climate crisis with regards to its knowledge about causes, impacts and associated challenges. This study argues that there is a general lack of knowledge and awareness with regards to climate change among general public of Pakistan that has largely influenced their perceptions about climate crisis and hence resulted in ineffective climate change policy responses. For measuring the perceptions of people of Pakistan about climate change, mixed-method approach has been employed. The data for this study is collected using both primary and secondary sources. For the primary data collection, a structured questionnaire based on Likert Scale was used to collect data from 500 study participants from four distinct regions of Pakistan. The results were then analyzed using different graphs and tables. The secondary sources included reviews of official government publications, reports, previous researches, and the documents from various state departments and authorities working on climate crisis. Based on case study method, the study provides following insights. Climate change is a major issue of concern in Pakistan due to its significant social, environmental, and economic consequences. People in Pakistan are however not adequately informed or educated on the causes, impacts, and available mitigation or adaptation measures of the climate issue. Majority of the people perceive that the government's role in reducing Pakistan's vulnerability to the severe effects of climate change is inefficient. People in Pakistan mostly feel concerned about impending climate crisis but the lack of awareness and knowledge hinders any move towards an effective collective response to climate change. This study suggests that addressing the need for climate crisis enhanced knowledge and information is critical through more valuable communication methods and channels in order to improve people's understanding towards an active response to climate crisis in Pakistan.

### INTRODUCTION

Climate change concerns are not new; the term dates back to the mid-nineteenth century. Scientists and activists have recently expressed concern over the

devastation caused by climate change, prompting a highly elevated sense of urgency regarding the issue. Some activists have suggested that the term "climate

change" to be replaced with "climate crisis." In this context, a crisis is defined as a "turning point" or "a state of instability or danger. Calling climate change a crisis emphasizes the need for immediate action to prevent catastrophic outcomes. In this regard, rising global temperatures, an increase in natural catastrophes, unpredictable weather patterns have shifted the debate of climate crisis beyond academic community and into the realm of public discourse and mainstream media.

Although the climate of Earth has already been changing continually for years, but in the past few centuries, the GH phenomenon has emerged which is threatening to drastically change the climate. The climate crisis (CC) has posed significant challenges for nations and the global community in the 21<sup>st</sup> century as well as threats to future generations. The Intergovernmental Panel on Climate Change, estimates that the earth's climate has warmed by 0.85° Fahrenheit during the past century. If human activities continue to emit greenhouse gases, the average global temperature is projected to increase even further. Irregular rainfall patterns, severe floods, heat waves, glacier retreat, droughts and sea level rise are just some of the significant consequences of (GHG) emissions caused by humans.

Pakistan is one of the nation's particularly susceptible to the adverse effects of climate change despite making up less than 1% of the world's greenhouse gas emissions, according to the Global Vulnerability Index published by German Watch, Pakistan is ranked eighth among the ten nation's most at risk from the climate crisis. Pakistan is especially vulnerable to the climate crisis because of its geographic location arid and semi-arid landscape, reliance on agricultural economy, increasing population growth and poor institutional structures. Moreover, the country faces an increasing risk of monsoon rainfall and the rapid melting of Himalayan ice caps resulting in catastrophic floods.

Understanding public perceptions of climate crisis in Pakistan is crucial for the effective implementation of adaptation and mitigation efforts. Perception is influenced and shaped by a variety of factors, including knowledge, experience, information received through mainstream media, and the cultural and geographical environment in which a person resides. Consequently, perception influences both

individual behavior and the acceptance of policy. As stated in Pakistan's National Climate Change Policy (2012), increasing local capacity and public awareness are essential to improving resilience to climate change. This study is an attempt to examine the perceptions of people on the issue of climate crisis in Pakistan. The study explores the level of knowledge and awareness in the people, their attitudes towards governmental responses and its policies, the degree of concern about the economic, environmental and mental health implications. This will help to understand the perceptions about climate crisis both at grassroot level and ways in which the perception makes societal and policy transformation.

### **Theoretical Framework**

This study utilizes the Construal Level Theory (CLT) of psychological distance developed by Trope and Liberman in 2003 to examine how people perceive and react to the topic of the climate crisis in Pakistan. The theory is especially applicable in the perception of how individuals conjure up the events to be occurring in their mind depending on the temporally closeness of such events in their perception, either spatial, frequent, social interaction, or outright certainty. According to CLT, psychologically distant problems are more likely to be understood in more abstract terms, and perceived psychologically proximate ones are competently processed in concrete terms. This framework in the context of climate change provides helpful insight as to why individuals might not thoroughly engage in the subject matter even when its implications are observable in their environment.

The concept of psychological distance is constructed out of four primary dimensions, which are spatial, temporal, social and hypothetical. Spatial distance entails geographic proximity of an event. In case they feel that climate change is occurring in some other distant places and not their country or local area, people are less likely to take the phenomenon seriously or regard it as their personal responsibility to act. Temporal distance refers to the perception of individuals toward climatic change in terms of whether they hold it as an issue that needs to be solved in the future or a critical issue that needs to be addressed now. Climate change is often recognized as

a reality but as a long-term problem, which may postpone the public and political imperative.

Social distance relates to whether individuals perceive climate change as something that affects them personally or only impacts others in different communities or countries. People are more likely to care and act when they see climate threats as relevant to their own families, neighborhoods, or social groups. Finally, hypothetical distance reflects the level of certainty individuals associate with climate change. If people are uncertain about whether climate change is real or doubt the severity of its consequences, they may be less inclined to support climate action or policy interventions.

In Pakistan, where climate-related disasters such as floods, droughts, and extreme heatwaves are becoming more frequent and severe, this psychological distance still shapes how the crisis is perceived. Many people who have witnessed environmental changes may not connect them with broader patterns of climate change or feel empowered to act. As noted in this research, those who perceive climate change as closer-physically, socially, and emotionally are more likely to view it as a serious concern. In contrast, those who experience greater psychological distance often remain disengaged or unconvinced of its urgency. By applying CLT to this study, we gain a deeper understanding of the internal psychological filters through which Pakistanis interpret climate change, which in turn helps explain varying levels of concern, awareness, and support for climate-related policies.

### **Methodology**

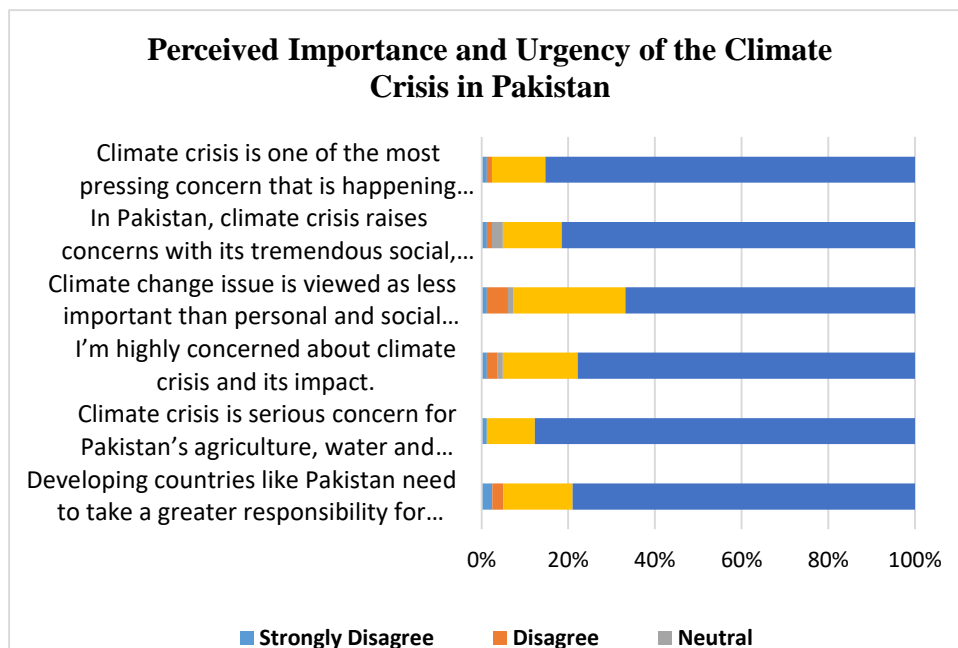
This research was conducted cross regionally with a particular emphasis on Khyber-Pakhtunkhwa (KPK), Punjab and GB region. These regions were chosen as the primary study area due to their extreme susceptibility to climate crisis. This study necessitates

the selection of a mixed method approach to facilitate a greater comprehension of the topic. In light of the study's objectives, the online survey method was employed for primary data collection from participants through Google forms. Using purposive random sampling technique, a structured questionnaire was designed by the researcher based on a five point- Likert scale. The data was collected from a sample taken from target population as, collecting data from the entire population is quite challenging in terms of accessibility, cost and resources in short, it's practically impossible. As a result, 500 students and academic professionals completed the questionnaire survey who are deemed to be more likely to have awareness or an opinion on environmental and climate-related issues. The data obtained with the help of the questionnaire was subsequently analyzed using descriptive statistics and the findings were graphically illustrated in order to show the trend and the attitude of the people towards climate change.

Secondary data for the purpose of case study analysis was gathered from a various government publication, reports, policy briefs, previous research. In addition, data from a variety of non-governmental entities were obtained from internet. The Ministry of Climate Change, Pakistan Metrological Department, the Provincial Disaster Management Authority and the National Disaster Management Authority have provided these materials and reports.

### **Results and Findings**

The findings offer important insights into how people in Pakistan perceive and respond to climate change, particularly in terms of the urgency of the issue, levels of knowledge and interest, perceived causes and impacts, psychological effects, and trust in institutional responses to the climate crisis

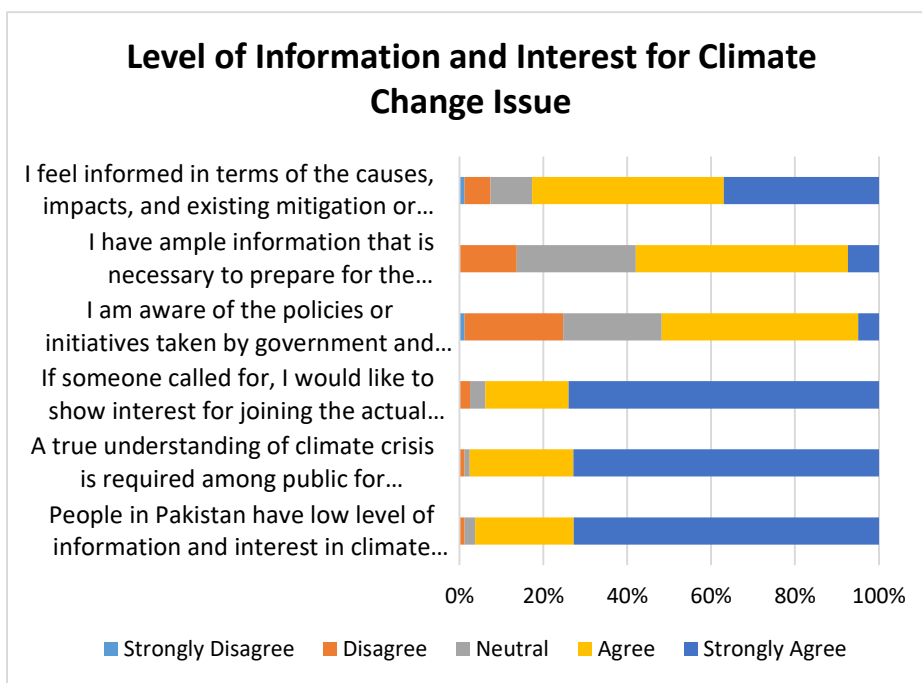


A vast majority, 85% of the respondents recognized the climate crisis as a severe and growing problem in Pakistan. Climate change was identified as one of the most imminent environmental challenges affecting the country by a wide majority of the participants. Nonetheless, this recognition accompanied another fact, 66 percent of the participants noted that personal and social issues tend to be prioritized compared to those connected with climate aspects. It is possible to suggest that this dichotomy implies that although people are informed of the increasing environmental danger of climate crisis, they are usually distracted by the urgency of economic and societal problems in daily life and do not focus on environmental problems constantly.

Climate change perceptions were varied across geographic and socio-economic backgrounds. People in areas at risk of disasters or ecologically-sensitive places where individuals were exposed to heatwaves, floods, and drought were found to be more familiar with the gravity of the situation. This regional variation identifies the perceived importance of

climate-related issues based on direct experience with environmental phenomena. In general, about 82 percent of respondents stated that climate change is posing tremendous social, environmental and economic challenge to Pakistan. Moreover, 88 percent agreed that climate change threatens some vital industries such as agriculture, water assets, and energy security in the country. A mere 1 percent of the respondents considered the matter as not being important and 2 percent were undecided.

At the personal level as well, the issue of climate change was of great concern. Some 67 per cent of respondents strongly agreed that they personally were very concerned with the climate crisis and 17 per cent agreed to a smaller degree. These facts indicate that although climate change might not be seen by many as more urgent than subsistence issues, its various implications on individual and national wellbeing are increasingly becoming known to the general population.

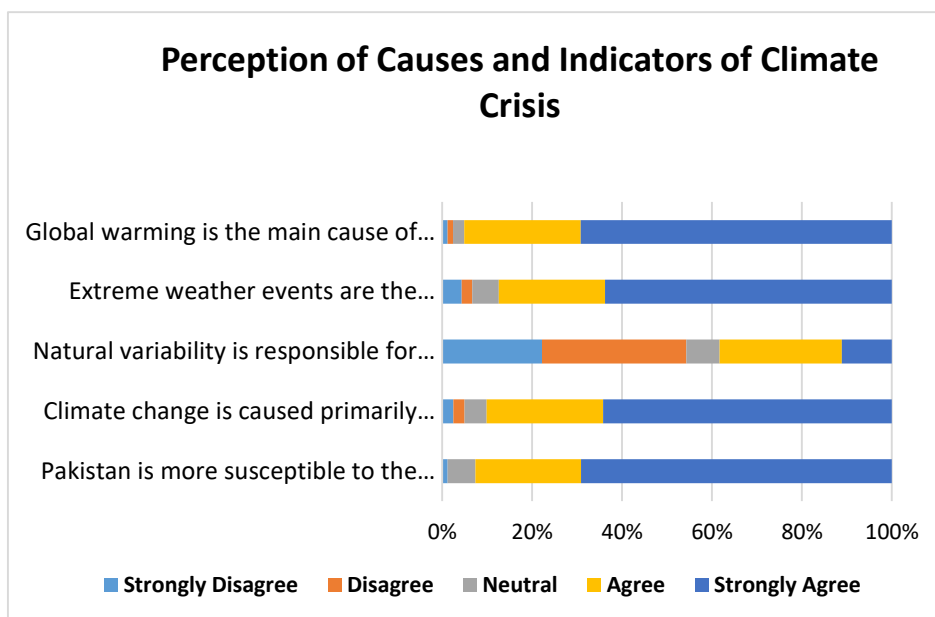


The second series of questions explore the level of information and knowledge of mitigation measures, awareness of climate policies, and readiness to engage in climate action among the population. Despite a high level of concern expressed toward the state of the climate crisis, the level of self-reported knowledge of respondents was rather low. Only 45 percent strongly agreed and 37 percent agreed that they feel adequately informed on the causes, consequences, and the strategy of reducing climate change. In the meantime, 9 percent took a neutral position, and 7 percent claimed that they do not have any feeling of being informed with any degree, which indicates a significant information gap.

In responding to the question on whether they felt prepared to withstand the effects of climate change, 7 percent strongly felt that they were well equipped with knowledge, 50 percent thought they had some form of knowledge and 32 percent were not prepared at all. Nevertheless, a quarter of respondents were not sure they were ready, and one in every five respondents simply said they did not have sufficient information. The knowledge of the national climate policy in place

was also poor: only 5 percent of the participants strongly agreed they knew government policies and initiatives, and 47 percent moderately agreed. In contrast, 24 percent of the respondents owned up to not being aware of such policies and 23 percent revealed a position of neutrality.

However, in spite of the awareness deficits, the results showed promising rates of interest in action. This represents the joint total of 94 percent of respondents who have shown interest in being part of climate change mitigation with 74 and 20 percent strongly agreeing and agreeing respectively that they would take part in related activities. Nevertheless, this feeling of individual responsibility was combined by the general view that the participation of the public is not deep enough. About 72 percent of the respondents were very much sure that generally the population in Pakistan does not have the required awareness and interest to take up measures on climate change. These observations point to an important gap: on one hand, people are ready to act, or at least get motivated, and on the other hand, the collective potential is low because of an insufficient flow of information and a poor policy communication.

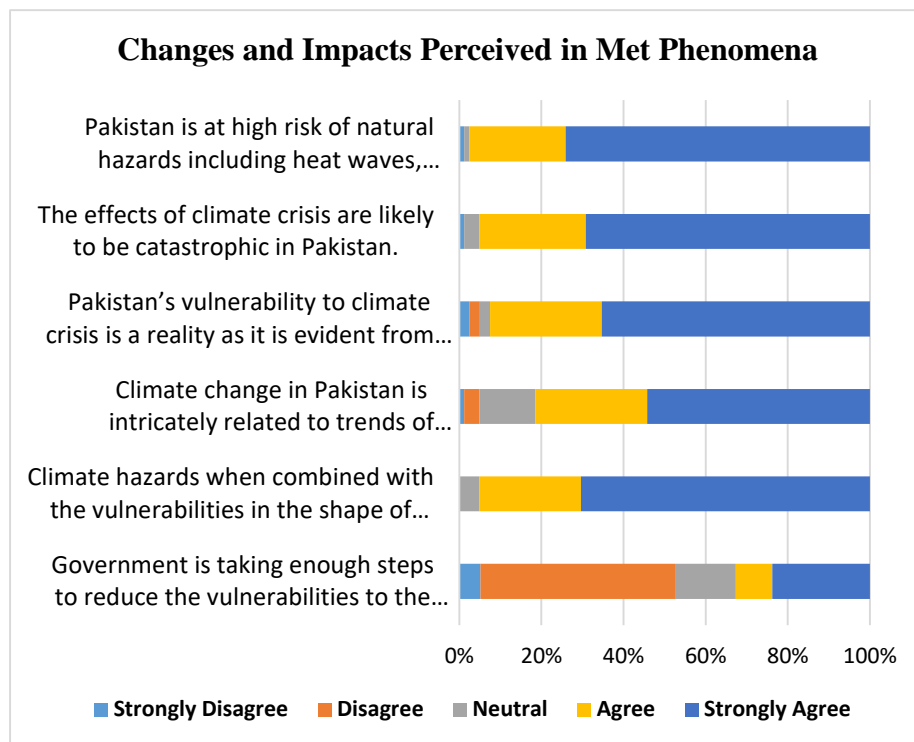


Respondents were also asked how they perceive what causes climate change, and its impacts in Pakistan. The vast majority of participants (69 percent) cited global warming as one of the main indicators of a climate crisis, and 67 percent cited extreme weather incidents, including floods, heatwaves, and unseasonal rainfall, as additional evidence of the crisis. Most of them did not agree with the view that the problem of climate change was mainly a result of natural variability. Twelve percent strongly agreed with the notion, and 35 percent did not agree at all, indicating a visible change in the populace denying climate skepticism.

Conversely, 64 percent of participants strongly answered that human activity is the central factor of climate change in Pakistan. It has attributed industrial emissions, deforestation, unsustainable land use and uncontrolled urbanization among others as some of

the reasons. Whereas the overwhelming majority (more than 95 percent of the respondents) understood these anthropogenic factors, a minority of about 10 percent either disagreed or lacked the certainty.

Besides, the survey demonstrated that many people realized that Pakistan was susceptible to climate change. A good percent of the respondents, about 69 percent, substantially agreed that the agricultural economy of the country and its reliance on natural resources, including water, fertile land put it at even greater risks of being hit by climate-related disasters. Another 23 percent were in agreement and only 6 percent were undecided. These results show that the people are aware of the structural and environmental weaknesses that enhance the effects of climate change in Pakistan.

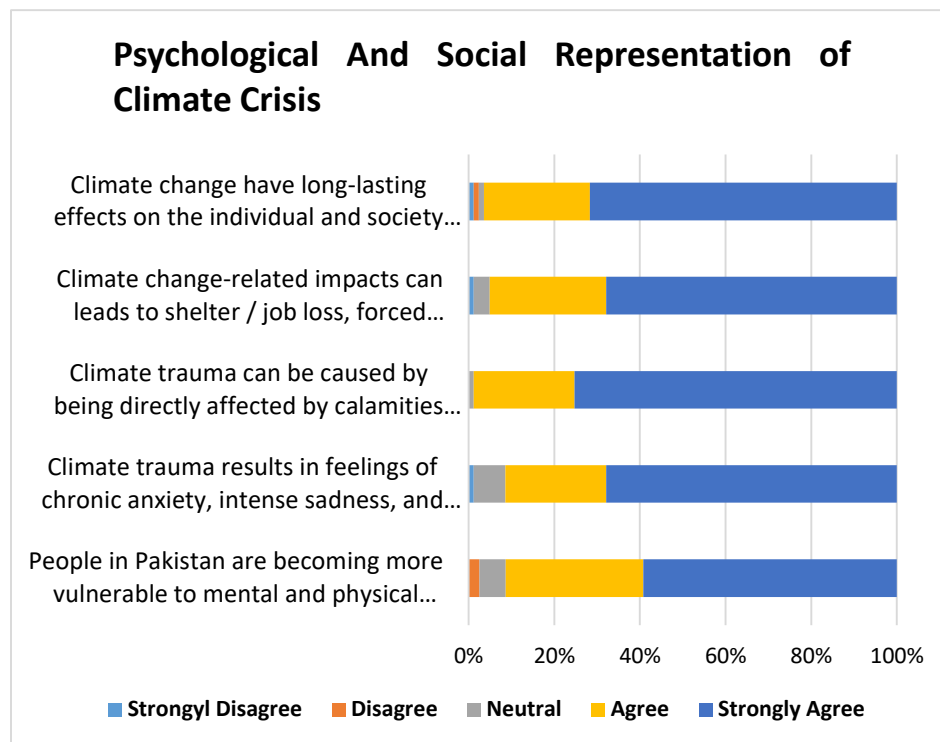


Participants were inquired concerning how they perceived current climatic trends and their perceived effects on Pakistan. Over a substantial majority of the population strongly agreed with the statement that the prevailing trends of natural hazards, such as floods, droughts, heatwaves, and landslides are on the rise in the country. The other 25 percent were also in agreement though in less intensity. Such sentiments are probably based on the recent disastrous experience, including glacier melt, unpredictable monsoons, and flash floods, which have caused physical disasters to vast areas of the people.

In response to the question of whether climate change would have devastating effects, 70% of people strongly agreed, illustrating a significant concern towards future risks to systems, infrastructures, and human health and wellbeing. Most of them strongly agreed that Pakistan is already susceptible to such influences with 27 percent concurring. Only 5 percent said no and implied the close to total acceptance of the climatic vulnerability of the country.

The results also revealed underlying issues regarding the connection between climate change and social inequality. An indicator of the extent of marginalized groups facing the consequences of climate change, such as women, smallholder farmers, the urban poor, and persons with disabilities, also received strong agreement of the responses with 54% and agreement level of 27 percent, respectively. In a similar manner, 65 percent strongly agreed that poor governance systems in Pakistan, inadequate infrastructure and the prevailing social injustices compound the climate disaster risks and hamper successful adaptation.

However, little confidence seemed to be in people regarding the government action. Only twenty percent of participants had the opinion that the government was effectively handling the aspects of vulnerabilities about climate. On the contrary, 61 percent or more disagreed or strongly disagreed that this was the case, with 12 percent being ambivalent. Such a lack of trust is a display that there is a high demand of a greater, open, and participatory climate governance in Pakistan.



Climate change was also examined psychologically, exposing long-term emotional and mental health repercussions on the population. Approximately 72 percent of respondents strongly agreed that the climate crisis has had an enduring psychological impact on individuals and communities especially those hit or subjected to a disaster event such as a flood, drought or expulsion. There is an emotional burden of fears, hopelessness, and depression along with uncertainty to the future.

Other reactions showed that climate change is associated with socio-economic upheavals which give trouble to mental health. Seventy percent of the participants felt that shelter loss, employment and the provision of any form of community support networks can aggravate mental conditions like stress and anxiety. Besides, 75 percent absolutely concurred that being directly affected by disasters can bring about climate trauma, e.g., being forced to migrate by the lack of water or houses being washed away during floods. The same 70 percent positively confirmed an ability of such traumatic events to lead to persistent psychological disturbances such as anxiety, sadness and even a loss of a sense security.

Major health consequences, 59 percent, strongly concurred, and 32 percent agreed, that the Pakistani people are being gradually exposed to mental as well as physical complications due to the climate change. In general, this data confirms once again that climate change is not merely an environmental but also a very important psychosocial problem that is not yet discussed enough in national rhetoric and planning.

### Analysis and Discussion

This study provides a general view of how the climate crisis is perceived by people in Pakistan in terms of its importance, level of awareness, perceived causes, changes, impacts, and psychological representation. The results revealed the extent to which respondents were informed and aware of Pakistan's climate catastrophe.

The findings of the study shows that the general public is concerned about climate change. Moreover, the significance of the issue is widely acknowledged across Pakistan, where people regard it as one of the most important concerns and acknowledge its profound social, environmental, and economic effects. Such a general awareness is an indicator of positive change in the social consciousness, in which

the climate problem is no longer seen as a distant and abstract problem, but as a close issue with concrete consequences on everyday life, livelihood, and future perspective of people. The evidence indicates that, at a societal level, it seems that there exists a basic understanding of the fact that climate change is transforming the Pakistani landscape and straining an already fragile infrastructure and natural resource base.

According to the finding of this study, while people in Pakistan are to some extent concerned about climate change and its consequences and it is the most pressing issue for Pakistanis at the moment but still people in Pakistan are more concerned about other social and personal issues such as inflation, poverty, and unemployment. Given Pakistan's current economic trajectory, people's concerns seem justified. This competing set of priorities reveal the necessity to frame climate advocacy and policymaking in the framework of socio-economic development, so that solutions to climate challenges are combined with initiatives to reduce poverty and create employment opportunities.

However, less than half are well or very well informed about climate change, while the majority of other individuals are considered to be inadequately informed regarding climate change. Therefore, the absence of appropriate public knowledge and climate literacy is another critical issue that has been highlighted through the study. This knowledge deficit greatly undermines the potential of the people to engage in effective action or to make informed choices that match with environmental sustainability. Therefore, a large majority of people thinks that a true understanding of climate crisis is required public for informed decision making and policy matters.

The perceived cause of climate change is global warming driven by human activities such as industrial emissions, deforestations, unsustainable use of land. therefore, climate change has severe effects on many vital societal sectors, including agriculture, food, water and energy sectors. In addition, respondents' personal experiences with recent intensified and frequent catastrophic weather events, such as heat waves and floods, confirmed that Pakistan is at high risk for natural disasters and that this risk is closely related to trends of global inequality in Pakistan.

Personal experience of people due to such extreme weather event situation also influenced the general opinion of people, floods, heat waves, prolonged droughts were mentioned by the respondent prove that Pakistan is now more vulnerable. Such incidents are not only increasing but also with greater magnitude, and are strongly linked with greater trends of inequality in the world wherein developing nations such as Pakistan are facing the brunt of climate change with significantly low contribution to global emissions. In the case of many communities, the devastation brought about by floods in terms of destroyed houses, crop destruction and even loss of earnings has resulted in what can be termed as climate trauma. The respondents reported increasing levels of psychological distress such as hopelessness, continued feelings of anxiety, and some sense of security. This affirms that climate crisis is more than a challenge in the environment, it is also a crisis in both public health and mental health, and needs to be met with combined solutions.

The study also observed a high degree of the willingness amongst the citizens to participate in climate action. The positive relationship between concern and motivation was revealed since a great majority of the respondents stated their wish to participate in the initiatives aimed at mitigating climate change. Nonetheless, this potential is compromised by severe dissatisfaction with the work of concerned authorities and institutions. Numerous respondents perceived the government response as insufficient, disorganized, or communicated unfairly, which provoked frustration and loss of trust. This disconnection between community concern and institutional action is among the key impediments of progress and stresses the importance of more transparent, participatory, and accountable climate governance in Pakistan.

### **Recommendations**

Considering the findings of the study, it becomes clear that although the public has become increasingly concerned with the climate crisis situation in Pakistan, there are still essential gaps in awareness, education level, and the responsiveness of the institutions. The provincial and local government policy of the future should focus on community involvement and climate literacy to respond to these

concerns. Climate change education within the school and university curricula should be one of the most immediate actions. In such a way, students are able to form a primary awareness of environmental problems, the causes, and mitigation and adaptations that should be implemented.

Further, the governmental and non-government agencies need to conduct workshop, training, and public lectures to brief the people about the risks of climate changes, regional exposure, and sustainability solutions. Citizen forums, community dialogues and environmental awareness programs should be used to broaden public participation. Such participatory methods can enable citizens to be informed, as well as transform their habits into climate-smart practices and becoming more active agents of climate action.

The findings of the study indicate individuals are ready to change their personal lives when they see themselves contributing to a national effort. Consequently, pro-lifestyle changes, including water conservation, wise energy use, and less waste, should be combined with the evident governmental policy efforts, to maintain the motivation of the population. Moreover, specialized climate resilience initiatives should be implemented in at-risk areas, thereby empowering people with hands-on knowledge and toolkits to adapt to extreme weather conditions. Communication strategies using media and digital platforms should be employed to deliver climate information in an effective way to support these efforts.

Lastly, the transparency and efficiency of the government climate responses must be enhanced to restore the trust among people. Accountability should be placed on institutions regarding the execution of climate policies as well as the involvement of local people in terms that are meaningful, timely and culturally congruent. Together, these measures will create more informed, proactive and resilient society that will be able to meet the instigating demands of the climate crisis in Pakistan.

### Conclusion

Pakistan is currently vulnerable to climate related threats such as extreme weather patterns, floods, droughts, glacier melting and biodiversity loss. Climate change is causing concern in Pakistan due to the massive economic, societal, ecological, and

economic consequences. The impending climate crisis is real, and people in Pakistan seem to be deeply concerned about its causes, implications, and vulnerabilities. The primary causes of climate change have been identified as deforestation and the use of fossil fuels. Floods, heat waves, and droughts, as well as glacier melting and biodiversity loss, all have a tremendous impact on many sectors and ecosystems, with significant negative effects for natural resources and the livelihoods they support. However, the government needs to prioritize its climate change response in order to minimize climatic threats and avert future calamities. As the policy implementation remains insufficient because of public low level of awareness and knowledge therefore public perceptions must be considered and measured for effective policy making and public response action.

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