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CLIMATE SENSITIVITY THROUGH A GENDER LENS: BELIEFS, ACTIONS, AND MOTIVATION IN PESHAWAR

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ABSTRACT

Climate change is a critical global challenge that affects people differently based on gender. This study investigates gendered responses to climate change in Peshawar, Pakistan. Focusing on belief, motivation and action of the gender. Using primary data in which the total number of respondents were 415 and applying binomial logistic regression model, the research tests whether the systematic difference exist between men and women regarding climate sensitivity. Findings show that, contrary to international trends, men in the region exhibit stronger climate change beliefs, while women demonstrate higher motivation while more frequent climate friendly behaviors. Survey responses further revealed key barriers to climate change which are lack of awareness (62.5%). (59.3%) of the respondents identified that lack of government support and 45.6% were of the view that there is a lack of financial constraints that limit broader participation in climate action. However, there were frequently proposed community-led solutions by the respondents like; awareness campaigns and grassroots environmental initiative. These findings underscore the importance of gender sensitive climate policy and the need to empower women as agents of changes. The study contributes to growing literature on ecofeminism and calls for inclusive climate intervention that addresses both structural inequalities and localized cultural norms in order to meet the SDGs goal 5 and 13.

***Key Words**: Climate change, Gender sensitivity, Climate beliefs, Ecofeminism, Peshawar, Climate action and Motivation.*

INTRODUCTION

Background:

Climate action refers to the collective efforts undertaken to addresses the causes and impacts of climate change through mitigation, adaptation and awareness. It involves reducing greenhouse gas emissions, transitioning to renewable energy, and promoting sustainable practices at both individual and policy level (United Nations & UNEP, 2015). Climate change has become one of the most urgent global challenges of 21st century, impacting ecosystem, socioeconomic system, and human wellbeing. The climate change is disrupting lives across the globe, prompting the international community to prioritize climate action ate the core of Sustainable Development agenda. This is reflecting in United Nations Sustainable development goal 13, titled **"climate action"** and Paris agreement 2015, has explicitly call for urgent steps to combat climate change and to eliminate the issue of climate from the world through policy intervention. Importantly

climate action is not just a technical or environmental challenge. It is also a deeply social and political issue. Climate change does not affect all people equally its impacts are shaped by existing social inequalities, particularly those related to gender. This is why climate action must be gender responsive. SDG 13 is closely connected with SDG 5 **"Gender Equality"**, recognizing that women's empowerment and gender inclusive decision making are critical to achieving effective, equitable climate outcome. Developed nations are investing in green infrastructure, clean technologies, and climate education, while developing countries are striving balance economic growth with environmental growth. Despite these efforts, climate change continues to disproportionately affect vulnerable populations, particularly in the global south.

In developing countries like Pakistan, the issue of climate change particularly remains severe because in recent past the country has suffered from climate related risk such as; floods, droughts, glacial melting, and erratic weather patterns. According to (German Watch, 2025), Pakistan is ranked among top 10 nation most affected by climate related risks and among Pakistan provinces, Khyber Pakhtunkhwa is especially vulnerable due to its complex topography, socio-political instability, resource constraint and the patriarchal nature. Due to which national and provincial government has launched multiple initiative in order to encounter the climate risk such as; billion tree tsunami, national adaptation plan, and climate resilient agriculture program. Moreover, Khyber Pakhtunkhwa government in Peshawar has made efforts through afforestation and local adaptation planning, much remains to be done to integrate local community voices especiallywomen in to the climate governance. There is increasing reason that climate change is not gender neutral, both women and men perceive it differently and respond to environmental changes in different ways which is influenced by their social roles, availability of resources and involvement in decision making processes. Gender dynamics has a major influence in shaping actions, belief and motivation towards the climate change, making it an essential area of study in environmental sociology and public opinion research. Studies indicate that women exhibit stronger concern about climate change and are more likely to engage in everyday pro-climate behaviors compare to men. These differences are often attributed to socialization processes, caregiving roles and heightened sensitivity to environmental risks. Nonetheless, the association between gender and support for climate change policies remains complicated.

Research by (O'Connor, Bord, & Fischer, 1999) and (McCright, Dunlap, & Marquart-Pyatt, 2016) highlights that gender differences in willingness to take voluntary climate actions or support policies are mediated by the views on government, climate change and environmental belief. Similarly, findings from the research paper of (Elert & Lundin, 2022) suggests that women express great concern and engage more frequently in pro-climate behaviors. This trend is also supported by body of research that links women's socialization patterns and caregiving responsibilities to increased environmental awareness (Stern, Dietz, & Kalof, 1993) and (McCright A. M., 2010). These findings underscore the importance of accounting for underlying climate beliefs when examining gender specific responses to climate change. In Peshawar, deeply ingrained culture, norms, socioeconomic constraints with a deeply rooted tribal and patriarchal system, gender role in Pakhtunkhwa are rigidly defined which further shapes these gendered dynamics. Women's vulnerability to climate change is exacerbated by limited access to resources, educational disparities, and exclusion from decision making processes. Despite these challenges, women's roles in managing household resources and adapting to environmental changes position them as critical agents of climate mitigation and adaptation. However, women's experiences and insight are rarely documented or utilized in climate discourse. As said earlier, women show more beliefs/ concern towards the climate change in western countries and take more day-to-day mitigation actions, yet this dynamic has not been systematically studied

in Peshawar. "Climate change perceptions are essential to document because such perceptions influence adaptation processes and potential measures to adapt to or reduce climate change effects" (DeBono , Vincenti , & Calleja, 2010), (Hansen, Sato, & Ruedy, 2012), (Madison, 2007), (Semenza, et al., 2008). Although, survey-based research often highlights a consistent gender gap in climate change attitudes, findings remain mixed regarding the connection between gender and support for climate policy support and mitigation practices, both of which are essential vehicles in addressing climate challenges.

The aforementioned background provides a foundation for exploring gender differences in climate change perceptions and actions, particularly in the context of Peshawar. It highlights the need for gender- sensitive approaches to climate policy.

Problem Statement:

The growing impacts of climate change are disproportionately affecting the vulnerable population, in Peshawar. Despite the critical role of women in managing household resources, contributing to community resilience and fostering sustainable practices, women face systematic barriers such as limited access to the education, decision making opportunities, and climate adaptation resources. These challenges are worsened by socio-cultural norms that confine women to the traditional role, reducing their visibility and participation in public policy and climate governance. Proven from the research of (McCright A. M., 2010) "women exhibit higher concern about the climate change and engage in more everyday mitigating behavior than men". In Peshawar, these issues are compounded by limited access to resources, inadequate infrastructure, political constraints, women in decision making process, and resource scarcity, which limits the region's overall capacity to adapt to and mitigate climate risks. This research aims to investigate the response of gender to the climate change and to suggest the equitable and sustainable climate solutions in Peshawar.

Objectives of the Research:

This study seeks to analyze the connection between gender and climate beliefs, action and motivation respectively.

Therefore, this dissertation proposes more specific emphasis to:

- To analyze the extent of controlling the climate beliefs that explain the variation in climate policy support across the gender in Peshawar.
- To examine how do beliefs regarding climate change mediate gender role in shaping and endorsing the climate policies or mitigation efforts in Peshawar.
- To assess whether women exhibit stronger beliefs compared to men, in believing climate change possess a serious threat?

Research Questions:

This research is guided by the following key questions:

How do gender differences influence perceptions of climate change severity and impacts in Peshawar?

- To what extent does controlling for climate beliefs explain variation in climate policy support across the gender in Peshawar?
- To what extent do beliefs regarding climate change mediate gender role in shaping and endorsing the climate policies or mitigation efforts in Peshawar?
- Do women have stronger belief compared to men, in believing climate change possess a serious threat?

Research Context:

Peshawar is a city in Khyber Pakhtunkhwa, a province of Pakistan which lies between 34.00° North latitude and 71.589° East latitude covering an area of 1257 square km. Now a days Peshawar is experiencing a severe climate change. All the seasons in the Peshawar areas are disturbed, the rain cycle has shifted. Due to which a marginalized groups are disproportionately affected. This research is conducted in the context to see the response of gender towards the climate in Peshawar. Moreover, women here in Peshawar are often disadvantage in different roles, there decision in policy making is not considered.

Hypotheses:

Based on the research question and research objectives, this study formulates three hypotheses to investigate the relationship between gender and their association with the, climate beliefs, support for mitigation polices (motivation), and climate related behaviors (action), and explore the links between these climate elements. The hypotheses developed are;

- **H1:** Structured gender-based variation are expected in climate beliefs, with women perceiving climate change more critically than men in Peshawar region.
- **H2:** Structured gender differences exist in support for climate policy initiative; women show stronger support for climate mitigation policies compare to men in Peshawar.
- **H3:** Persistent gender differences exist in everyday climate mitigation behavior; women are anticipated to participate more frequently than men in climate conscious behavior in Peshawar.

Literature Review Introduction:

According to the studies conducted worldwide, (McCright, Dunlap, & Marquart-Pyatt, 2016), (McCright A. M., 2010) it has been observed that, climatic belief, action, motivation and gender are somehow correlated with each other. The relationship between climate change and gender has been extensively explored by the researchers, but in Pakistan and then specifically in Peshawar, Khyber Pakhtunkhwa. The examination of response of gender to the climatic belief has been unexplored. This literature synthesizes the key study that investigate the link between genders and the climate policy / belief. Furthermore, there is geographical research gap, highlighting the gender disparities across Peshawar in policy making regarding the climate.

Gender and Environment:

The environment encompasses of all the living and non-living components that interact to support life on earth, including water, air, land, ecosystem and climate. It plays a crucial role in sustaining human wellbeing and livelihood, especially in developing regions where communities directly depend upon natural resources, while gender on the other hand refers, to the socially constructed role, behavior, norms, expectation assigned to individuals based on their perceived sexes. Although the relationship between gender and environment may seem like separate domain but they are deeply interlinked. The relationship between gender and the environment has become increasingly important field of study in environment and sociology and climate policy. Additionally, individual's experiences of environmental changes are shaped by their gender roles, access to resources and participation in decision making.

Numerous empirical studies show that, gender plays a significant role in shaping environmental attitudes, behaviors and vulnerability. Women are often found to exhibit greater concern about environmental issues and demonstrate stronger engagement in pro-environmental actions than men. Researcher increasingly explores that in what ways do men and women differ in their interaction with and interpretation of the environment shaped differently. (McKinney & Fulkerson, 2015). (Stern, Dietz, & Kalof, 1993) finds out that women in the United States of America were likely to adopt environmentally friendly behaviors such as; recycling and energy conservation. (McCright A. M., 2010) studies revealed that women tend to perceive environmental risks as more serious and are more supportive of climate change mitigation policies than their male counterparts. This trend holds across several contexts, highlighting that gender differences in environmental concern are both consistent and meaningful. The reason behind these gender differences is multi- dimensional. As socialization patterns often encourage women to develop nurturing, caregiving roles, which extends to environment. Women's everyday responsibilities, especially in developing countries, involves managing natural resources like water, food, and fuel making them more exposed to adverse impacts of environmental degradation. This proximity results in a heightened sensitivity to ecological change and a stronger motivation

to make adaptive and mitigating actions. Empirical work in Sweden revealed that, females express stronger concern about environmental issue and women tend to participate in practical pro-environmental behaviors like recycling and green consumption than men. Whereas, men are more inclined to show abstract support for climate policies without actively engaging in such action-oriented strategies. (Hunter, Hatch, & Johnson, 2004), observed that women, more often than the men are tasked to manage households and natural resources that is food and fuel especially their direct dependency on natural resources for family welfare makes them more vulnerable to climate-related changes and more responsive to environmental risks. These finding were also later supported by (Li, Zhang, Zhang, & QiangJi, 2019), (Pissano & Lubell, 2015), (Xiao & McCright, 2015) .

"Women also make up a large majority of leadership and membership in most environmental justice organization and tend in positions of power to promote more environmental stewardship but once there are controls for views toward the government and climate change, and general environmental beliefs, men and older respondents are actually somewhat more likely to vote for government policies to address climate change than are women and the young" observed by (O'Connor, Bord, & Fischer, 1999).

Based on the above gendered patterns in environmental concern and behavior, ecofeminism offers a powerful and deeply insightful lens to better understand women's active engagement with the environment. Women stewardship is not merely out of obligation or convenience but it is tied to their lived experiences as caregivers, nurturers, and managers of essential household and natural resources. This sets foundation for understanding women's motivation and action in climate change beyond formal belief system.

Eco-feminism:

As (Miles, 1974) stated that, ecofeminism is the branch of feminism that examines the connections between women and nature. It uses the basic feminist tenet of equality between genders, a revaluing pf non-patriarchal or non-linear structures, and a view that respects organic processes, holistic connections, and the merits of intuition and collaboration. To these notions ecofeminism adds both a commitment to the environment and an awareness of the association made between women and environment. The ecofeminist school of thought posits that such differences stem from historical contexts, cultural practices, and social dynamics relegating women to roles as caregivers, providers of subsistence, and generally more altruistic than men.

Building on this (Molyneux & Steinberg, 1995) emphasis that women's engagement with environmental issues is often rooted in their lived experiences as resources managers, responsible for water, food, and a fuel I many parts of the world. They argue that the knowledge a women possess from these responsibilities is often overlooked in formal environmental discourse. Their work supports the ecofeminist claim that empowering women can lead to better environmental outcomes, particularly in developing societies where gender roles are strongly defined.

According to (Warren, 1990), ecofeminism challenges dualistic thinking such as; man, woman, nature and culture which places me above women and humans above nature. He highlights that women's traditional roles that is; nurturing, caregiving and environmental management position them as closely connected to the natural world. This connection is not biological, but rather constructed through social roles and historical practices. Therefore, ecofeminism advocates for re- evaluation of both gender roles and humanity relationship with nature as means to promote justice ad sustainability. (Elizabeth Bell & Braun, 2010) also emphasize that women's role in managing natural resources make them key players in effort to adapt and reduce the effects of climate change. In many cases, they don't act because of formal education or scientific education about the climate but because of sense of responsibility and necessity. This practical lived experience helps explains finding by (Elert & Lundin, 2022), who

observed that women tend to take more climate-friendly actions in their daily lives than men, even though they may not express strong belief about climate change. (Bord & O'Connor, 1997) and (Steg, 2016) latterly supports that "women also appear more risk averse than men, while men have more confidence regarding their ability and performance, which correlates with greater engagement in pro-environmental practices. Although such gender differences are most pronounced for task judged as masculine". These findings align with the ecofeminist argument that gender socialization fosters empathy, care, and sustainability in women which translates into climate action even in the absence of ideological belief. This was also supported by (Byrnes, Miller, Schafer, & D, 1999).

Gender in Climate Belief:

Climate belief refers to an individual conviction about the reality, causes, and potential impact of climate change. It encompasses a range of perspective including; whether one belief climate change in happening or not, whether it is human based which means either human has developed the myths about the climate change in order to attract the funds and the extent of its potential consequences (O'Connor, Bord, & Fischer, 1999). These beliefs can be influenced by various factors including personal experiences, scientific information, cultural values and political views. The differences are largely attributed to gendered social roles and experiences. However, a critical point has been raised when examined the men climatic belief: while men may intellectually accept the presence of climate change, but this belief often fails to translate into corresponding actions and motivation. This can best understand through **Theory of planned behavior** which was given by (Ajzen, 1991), which posits that behavior is not determined by belief alone but is influenced by perceived behavioral control and subjective norms. In many cases, men may hold the belief that climate change is significant issue but do not perceive themselves as responsible actors in climate solution, nor do they face strong social expectations to engage in climate-friendly behavior. **Cognitive dissonance theory** is another perspective to support the men beliefs without action and motivation which was given by (Festinger, 1957), further states that individual seeks consistency between beliefs and action towards climate change. Dissonance theory began by postulating that pairs of cognitions (elements of knowledge) can be relevant or irrelevant to one another. If two cognitions are relevant to one another, they are either consonant or dissonant. Two cognitions are consonant if one follows from the other, and they are dissonant if the obverse (opposite) of one cognition follows from the other. The existence of dissonance, being psychologically uncomfortable, motivates the person to reduce the dissonance and leads to avoidance of information likely to increase the dissonance. The greater the magnitude of the dissonance, the greater is the pressure to reduce dissonance. Festinger used the same term, dissonance, to refer to the discrepancy between cognitions and to psychological discomfort. However, when men face dissonance between their awareness of climate change and lake of action, they are more likely to resolve this dissonance through rationalization rather than behavior change. Empirical finding which supports these theoretical insights are; (McCright A. M., 2010) identifies that women are more likely to believe that climate change is a serious problem and they strongly supported for the government policies which addresses the environmental issues. He linked these findings to the socialization patterns, suggesting that women are typically raised to adopt care oriented and nurturing roles.

(Stern, Dietz, & Kalof, 1993) Their research found out that women's stronger belief is mediated by their value orientations particularly, altruistic and biospheric value, which prioritizes the values of others as well as nature. In contrast men are more likely to adopt egoistic values, focused on self-interest and economic gain. This value difference explained, women are more likely to engage in pro environmental policies and take the individual actions. Also, the research by (McCright, Dunlap, & Marquart-Pyatt, 2016)

showed that despite holding less formal climate knowledge, women in the United States consistently reported greater concern and belief in climate change.

A key factor influencing these gendered patterns is education, which is widely recognized as a strong predictor of climate change. Researchers have identified that value of education for adaptation policy goes far beyond boosting awareness and disseminating information. They identified important roles of education systematic support for learning in climate change adaptation, encouraging a subtle but profound shift in emphasis from adaptation decision-making to adaptation. However, effect of education is not uniform across the gender. In conservative or patriarchal societies, men may have better access to education and therefore report high belief without the accompanying emotional or practical engagement that women often demonstrate through lived environmental responsibilities. Therefore, (FeinStein & Mach, 2019), identifies three roles for education in climate change adaptation which are; First, protecting and deploying education infrastructure, the social and material resources on which education depends, can reduce vulnerability and build resilience. Second, improving general education, measured in terms of literacy, school attendance, and overall academic attainment, can enhance adaptive capacity. Third, research-based adaptation learning support can accelerate social and policy change by maximizing learning before and during adaptive decision-making. However, its effect varies by context. In highly developed countries right wing ideologies tends to weaken the effect of education on climate change beliefs. Conversely, in less develop nations, education strongly correlates with climate awareness and action, suggesting a need for targeted educational interventions to enhance climate literacy in regions like Peshawar.

Gender in Climate Action:

Climate action encompasses the urgent and concerted efforts needed to address climate change and its impact. It involves reducing greenhouse gas emissions, adapting to the consequences of changing climate, and providing financial support for these efforts. Essentially, it's about taking steps now to mitigate the crisis and safeguard the future (ipcc, 2022). In the context of gender sensitivity towards climate change, action becomes a crucial lens through which the disparities in environmental engagement between men and women are observed. Empirical studies demonstrates that women, particularly in developing regions, are more inclined to contribute in everyday climate-related actions than men. This pattern is not always driven by formal climatic beliefs but is often shaped by social roles, responsibility, and lived experiences. This divergence between action and beliefs can be understand through **Value Belief Norm Theory (VBT)**. The VBT was given by (Stern P. C., Dietz, Abel, Guagnano, & Kalof, 2000) and according to this theory, pro environmental action is not only driven by cognitive beliefs but also by deeply norms and values particularly altruistic or biospheric values more commonly socialized in women. The empirical researches which support's this theory are researches by (Elert & Lundin, 2022) and (Tusyanah, Pujiati , & Sakitri, 2024). Research shows that Swedish women report higher involvement in pro environmental behaviors compared to men, even when they may not always express strong climate change beliefs. Similarly, finding by (Tusyanah, Pujiati , & Sakitri, 2024) observed that, personal norms emerged as the most influential factor directly impacting pro-environmental behavior. It underscores the significance of individuals internalized moral obligation in shaping their environmental actions. Additionally, **Social Role Theory**, suggests that gender differences in behavior emerge from the cultural expectation attached to societal roles. Women because of their nurturing and care giving roles, are socially are expected to be more cooperative and community-oriented aligning with environmentally responsible behaviors In the context of climate action, women may be more inclined to engage in environmentally conscious actions not because of formal climate beliefs but because such behaviors are aligned with their social responsibilities. The social role theory was developed by (Eagly,

1980). Additionally, (Xiao & McCright, 2015) found out that women higher involvement in environmental actions stemmed from gendered responsibilities and social expectations, supporting that their actions were a function of role-based expectation rather than policy level belief.

Gender in Climate Motivation:

Understanding gender sensitivity towards climate change through the lens of motivation reveals important psychological and sociological dimensions in environmental behavior. Climate motivation refers to the various reason individuals or groups chooses to engage in actions related to climate change, such as reducing their carbon footprints or advocating for policy changes. These motivations can stem from variety of factors including environmental concerns, health concerns, government rules and policies or social justice issues. The role of gender in climate motivation is increasingly recognized as significant factor in understanding public engagement with climate action. Gender, as a social construct, shapes how these motivations are developed and expressed. Motivation helps to identify why women, despite often lacking climate beliefs, tend to act more consistently in pro-environmental ways than men. It is not necessarily because of their higher climate knowledge, but due to their socially assigned roles in caregiving, household management, and community engagement. These roles bring them into closer contact with environmental risks and resource management, cultivating a practical and emotionally grounded motivation to act. This trend is supported by Value Belief Norm Theory given by (Stern P. C., Dietz, Abel, Guagnano, & Kalof, 2000), which argues that environmental behavior is guided by personal norms rooted in altruistic or biospheric values. Women are more likely to hold such values, leading to stronger climate motivation.

Empirical evidences support this link of Value Belief Norm Theory with gender motivation. For example; (Tusyanah, Pujiati , & Sakitri, 2024), found that women's pro environmental behavior was more strongly influenced by personal moral norms than by scientific understanding. Similarly, finding of (Fielding & McDonald, 2008) observed that social and psychological factor often outweigh knowledge in predicting environmental behavior, especially among women. Conversely, men reported stronger climatic beliefs but demonstrated less action and motivation. Possibly because of lower social pressure and limited perceived responsibility for domestic environmental practices. On the other hand, men often report stronger climatic beliefs, but shows lower action and motivation in climate friendly behavior explained by theory of planned behavior (Ajzen, 1991). This theory suggest that action requires not only beliefs but also perceived control and normative, both of which are often weaker for men when it comes to domestic and community environmental responsibilities.

Further supporting this (O'Connor, Bord, & Fischer, 1999), in US noted that while men might intellectually accept climate change, they are less likely to take personal responsibility indicating a belief action gap. This underlines the importance of climate motivation as a mediating factor between gender and climate action. Therefore, theory of planned behavior explains that belief alone is insufficient for action, especially when social norms and roles differ by gender. Their study emphasized that motivation, rather than belief alone, drives climate actions, particularly among women.

Research Gap:

Despite extensive academic research on the link between gender and climate action, there is still a notable lack of localized studies to examine the relation of climate and gender through the lens of action, motivation and beliefs collectively. Most of the empirical studies has explored this relation by just focusing on individual component. Notably one of the few comprehensive studies linking gender sensitivity towards climate through the lens of beliefs, action, and motivation in Sweden. They found that women tend to show greater pro environmental behaviors and motivation than men. However, their study was limited to only high-income Nordic countries, leaving a gap in the applicability of their findings to different regions like South Asia. Similarly, (McCright A. M., 2010) found that women in US express more

concerns environmental degradation and are more likely to support environmental policies than men, but the analysis primarily focused on beliefs, leaving action and motivation largely unexamined in a unified framework. Furthermore, (Tusyanah, Pujiati , & Sakitri, 2024) and (Fielding & McDonald, 2008) emphasizes that climate motivation particularly among women stems from personal norms and social responsibility rather than formal knowledge or belief system. This was reinforced through Value Belief Norm Theory (Stern P. C., Dietz, Abel, Guagnano, & Kalof, 2000), yet most of these findings are restricted to a single construct that is motivation. It does not capture the integrated relationship across beliefs, action, and motivation simultaneously as a determinant of gender climate sensitivity. The theory of Planned behavior (Ajzen, 1991) and Cognitive Dissonance Theory (Festinger, 1957) are widely cited to explain belief action gap, especially among men who may accept that climate change is there but fails to accept the corresponding actions due to low perceived responsibility or control. Yet, these theories have not applied in a triangulated way to that incorporated motivation and gender roles, particularly through ecofeminism, which positions women's environmental behavior as emerging from lived responsibility rather than ideology. Consequently, no empirical studies up to date has been conducted in Pakistan, and specifically in Peshawar, has examined how gender sensitivity towards climate change varies across beliefs, actions, and motivation, while integrating feminist theory (Ecofeminism), theory of planned behavior, cognitive dissonance theory and social role theory. This research aims to fill this gap by conducting a study in which beliefs, actions and motivation are used simultaneously to measure the sensitivity of gender towards climate.

Methodology

Introduction:

This chapter outlines the research design, data sources, and methods employed to examine the response of gender to the climate action in Peshawar. The study utilizes primary data which has been collected through a structured questionnaire. The data is used to evaluate how a gender reacts to the climate action in Peshawar. This chapter provides an overview of the study area, conceptual framework, variables, sampling techniques, data collection, and econometric model.

Study Area:

This research primarily focuses on the district Peshawar. In which the data been collected through a structured questionnaire from the four zones of Peshawar.

Conceptual Framework:

This research investigates how gender shapes gender sensitivity towards climate change through the lens of three independent variable; climate beliefs, actions, and motivation. Here gender is treated as dependent variable, allowing for the examination of gender differences in pro environmental behaviors and attitudes.

At the core of framework is recognition that climate change is not gender-neutral means that women and men perceive climate differently it interacts with social norms, role, and responsibilities. This interaction is best understood through integration of feminist and behavioral theories. Which are explained below;

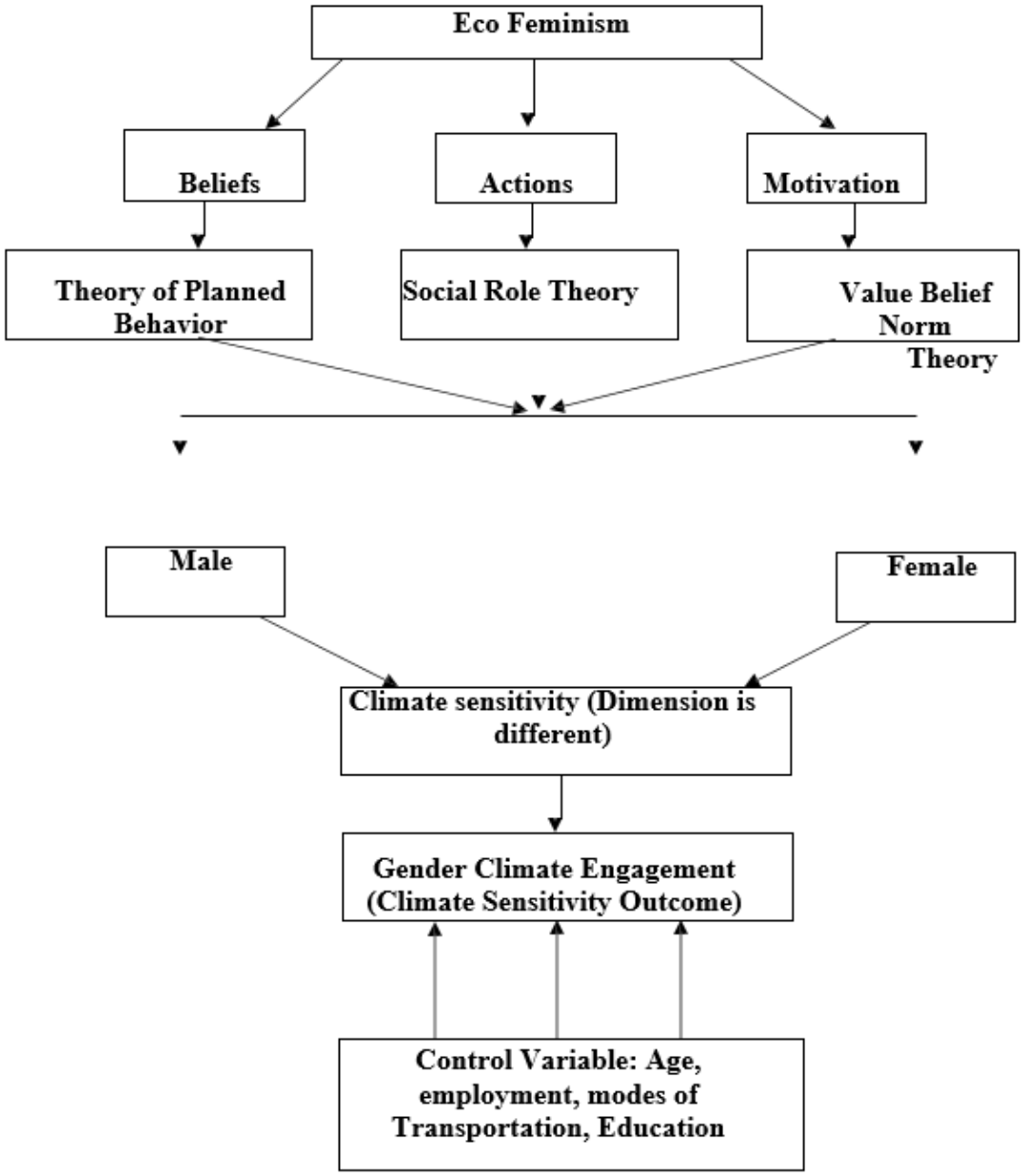
- **Ecofeminism** provides the foundational perspective by linking women's traditional roles as caregivers and resource managers with their heightened engagement in climate action and motivation. It argues that women close relationship with nature is often born out of necessity not ideology, which drives them to act in environmentally sustainable ways even if they do not always express formal or politicized climate beliefs. (Elert & Lundin, 2022) used this framework in their research revealed that, females express stronger concern about environmental issue. And women tend to engage more in pro-environmental behaviors like recycling and green consumption influenced by their socialized caregiving roles, resourcemanagement, and proximity to climate natural risks. In contrast, men were more likely to express abstract support for climate policy without actively participating in practical actions.

From ecofeminism arise the three dimensions of climate engagement:

- Belief (cognitive acceptance of climate change)
- Actions (everyday behavioral engagement)
- Motivation (inner drivers or value-based reasons for engaging in climate related activities) Each of these dimensions is informed by specific theory:
- (Ajzen, 1991), Theory of planned behavior explain the climate action gap. This theory posits that intention do not always lead to behavior, especially when perceived behavioral control is low or when social norms do not reinforce action. This is supported by (O'Connor, Bord, & Fischer, 1999) who found that women may hold abstract beliefs but are less likely to act on them.
- Climate action refers to the tangible steps individuals takes to mitigate or adapt to climate change such as; recycling, using public transport or converting from conventional energy to renewable energy. Here Social role theory (Eagly, 1980), provides a critical explanation. This theory suggests that gender behaviors are a product of societal expectations and norms associated with male and female roles. Women, typically socialized into roles of caregiving, nurturing, and household management are more likely to adopt pro-social and environmentally responsible actions, even if they do not have deep belief about climate change.
- Motivation refers to the internal drivers behind climate action, such as concern for health, community, environmental justice, and government policies and regulations. While belief is cognitive, action is behavioral and motivation lies in moral and emotional realm.
- This can be best explained by Value Belief Norm theory given by (Stern P. C., Dietz, Abel, Guagnano, & Kalof, 2000), it suggests that people who hold altruistic and biospheric values are more likely to develop personal norms that compel them to get motivated in environmentally responsible ways. Empirical evidence by (Tusyanah, Pujiati , & Sakitri, 2024) and (Fielding & McDonald, 2008) found that women's climate actions are strongly influenced by moral obligations and social motivation.

Together these theories suggests that gender differences in climate sensitivity is are multidimensional. Women act more and be more motivated toward climate friendly behavior not because they believe more in climate change, but because of their social position and cultural experiences, as explained by ecofeminism, connects them more directly with environmental responsibility. Control variables such as; age, employment status, modes of transportation and education level are included.

Conceptual Model:



Explanation of the Conceptual Model:

The explanation of the conceptual model is given below:

- Ecofeminism is placed as the foundational theoretical lens. Which serves as philosophical and sociological base, explaining how women's traditional caregiving, environmental interaction, and community roles position them uniquely in climate discourse.
- Belief, action, and motivation represents the independent variables through which gender sensitivity is examined.
- Each of three constructs (belief, action, and motivation) is supported by specific theories.

Belief is supported by theory of planned behavior, Action by social role theory and

Motivation by value belief norm theory.

- Then followed by Gender, the logic behind it is that belief, action, and motivation collectively explain differences in gendered climate sensitivity.
- Control variable moderates these relationships.
- The outcome is understanding of gendered climate engagement patterns.

Which explains that gender sensitivity towards climate change is not gender neutral, rather men and women perceives it differently.

Sampling Techniques:

Sampling techniques refers to the method used to select a subset (sample) from a larger group (population) to study and draw conclusion about the entire population. There are two types of sampling one is probability sampling and the other one is non probability sampling. As this study employed a random sampling technique (is a type of probability sampling which is characterized by the use of random selection methods to ensure that each member of the population has a known, non-zero chance of being selected for the sample) which ensure representativeness across four zones of District Peshawar. A total sample size of 415 respondents out 4.2 million population of Peshawar was determined using a standard sampling formula, with an equal division of participants across zones. A mixed method data collection strategy was adopted. Fifty percent (50%) of the data was collected through household survey method, where enumerator visited homes across all four zones, ensuring gender balance and age diversity. The remaining fifty percent (50%) of responses were obtained through snowball sampling, a technique effective in reachingeducated individuals especially women. As they are often underrepresented in direct surveys due to cultural constraints.

Data Collection Technique:

In this study primary data collection was conducted to explore gender sensitivity towards climate change in Peshawar, Khyber Pakhtunkhwa. The data was obtained through structured questionnaire developed which was adapted from Sweden Environmental Protection Agency survey (SEPA) and localized for the sociocultural context of Peshawar. The target population consists of 18 years and above, with a minimum qualification of intermediate. This criterion ensured that participants had the basic literacy and cognitive capacity to comprehend and meaningfully respond to the questions. To ensure representativeness a random sampling technique was used. The city of Peshawar is divided into four zones, namely; Peshawar city, Peshawar Saddar, University town, and Peshawar cantonment. Each zone was treated as separate stratum, and respondents were randomly selected from each zone and a total sample size of 415 respondents was determined using the sample size formula.

Survey Design:

The survey for this study was designed to systematically capture gender sensitivity towards climate change and to see which gender is more sensitive towards climate incorporating beliefs, actions, and motivation in Peshawar. Taking the reference from the paper of (Elert & Lundin, 2022) a structure questionnaire was developed in the context of Peshawar, Khyber Pakhtunkhwa. It was managed across the four administrative zones of Peshawar. And the survey was conducted over the period of one month that is from March to April. The survey sample was drawn to represent the population of Peshawar aged 18 years and above with a minimum education level of intermediate, enabling respondents to meaningfully engage with the survey. The survey included both demographic and climate related questions. The demographic section captured the variable such as, gender, age, sex, education, modes of transportation they use and employment status and the climate related section was divided into three parts, beliefs, action, and motivation. The response rate from male population was 50.6% while that of female was 49.4% the total number of sample size was 415. Respondents provided their preferred responses to climate change questions using Likert scale. These responses form a base for constructing the independent variable, while the question related to the respondent's demographic information (Gender) servesthe dependent variable.

The respondents were also asked with the possible solution which included some options which are explained in the table 4.4.

Variables:

The study uses the following variables:

Dependent variable:

o **Gender:** It has been used as a dependent

variable in order to check the level of sensitivity towards climate. Gender has been coded as 0 for male and 1 for female.
The climate change questions are divided into three parts;

- General beliefs about climate change.
- Types of voluntary actions the respondent has already undertaken to help mitigate climate change.
- Motivation about the climate change.

The questionnaire has been divided into three categories A, B & C which has equal number of responses that is five (5) which are; **1) No not at all 2) No possibly, 3) Don't Know, 4) Yes Possibly, 5) Yes absolutely**. Respondents indicate their level of agreement with each statement, where answers have a natural ordering. Table 1 shows all the questions associated with each category, the way we label them, and the available response categories. Table 2 displays summary statistics by gender for the climate questions, together with each gender's level of agreement in percentage points. The agreement was quite high among the men population in which they have developed the belief that climate change is there but their action and motivation was not there but on the other hand, women did not have belief about the climate change but they have developed the action and motivation towards the climate change which is discussed in detail in result section below. SEPA survey methodology has been used in the context of Peshawar.

The tables are mentioned below: **Table 3.1:** Overview of all climate-related in the context of Khyber Pakhtunkhwa, including coding, and labelling

Category A: *Belief about the climate change in general*

Questions

A1. "Do you think that climate change is something which, now or in the future, will affect us who live in Peshawar?"
A2. "Do you think that People in Peshawar can do something to reduce climate change?"
A3. "Do you think you can personally do something to reduce climate change in Peshawar?" **A4.** "Do you believe climate change should be the higher priority for the government of Peshawar?

Category B: *Actions about climate change*

Questions

B1. "Have you sort your waste in the past 2 years to reduce your climate impact?"
B2. "Did you convert your energy from conventional to renewable energy (Solar energy) to reduce climate impact?"
B3. Have you reused the items instead of discarding them in the past 2 years to reduce your climate impact?"
B4. Have you done anything in the past 2 years to reduce you carbon footprints to reduce your climate impact?"
B5. Are you using eco-friendly transport daily (walking, cycling, public transit) to reduce your climate impact?"

Category C: *Motivation about the climate change*

Questions

C6. If you have taken action against climate change was your primary motivation about health?" **C7.** If you have taken action against climate change was your primary motivation about the concern for environment?"
C8. If you have taken action against the climate change was your primary motivation about the government policies and regulation?"
C9. Did social influence motivated you to take action against climate change?"

Questions and Options given to the respondents for solutions: What barriers do you face in while taking climate friendly actions?

Options:

- Lack of awareness
- Financial constraints
- lack of government support
- Cultural or social norms
- Other: In this option the respondents have to write the other problems which they face while taking climate friendly actions.

In your opinion, what measures should be taken to improve climate action in Peshawar?

Options:

- Increase public awareness campaigns
- Provide financial incentives for eco-friendly behavior
- Stricter environmental regulations

- Community-led environmental initiatives
- Other: Solutions provided by the respondents

On Likert scale it has been coded according to the following table

Questionnaire Coding	Empirical re-coding
1. No, not at all	0. Non-agreement
2. No, hardly	0. Non-agreement
3. Don't know	0. Non-agreement
4. Yes, possibly	1. Agreement
5. Yes, absolutely	1. Agreement

- **Questionnaire coding:** Means that on Likert scale the numbers;

o 1 = Not, not at all
o 2 = No, hardly
o 3 = Don't know
o 4 = Yes, possibly
o 5 = Yes, absolutely

- **Empirical coding:** Means that No not at all, No hardly, Don't know is equal to 0 which means that it comes under the Non-agreement while Yes possibly and Yes absolutely is equal to 1 which comes under the agreement.

Independent Variable:

- **Action, Motivation and beliefs:** It has been used as independent variable. And the responses are ranked on the basis of Likert scale.
- **Control Variables:** Control variables are Age, employment status, modes of transportation and education are also used as independent variables.
- Education indicates the respondent's highest completed level of education completed, measured on a scale from 1 to 3.
- Moreover, age is segregated into different segments and then it is coded on Likert scale.
- Similarly, is the case with Modes of transportation and employment status, which is explained in the given table below;

Table 3.2: Variable Categories and Likert Scale Coding

Variable	Categories	Likert Scale Coding
Gender	Male and Female	0 and 1
Age	18 - 25, 26 - 35, 36 - 45, 45+	1 - 4
Education	Higher Secondary, Undergraduate, Postgrad	1 - 3
Employment Status	Unemployed, Student, Employed, Retired	1 - 4
Modes of transportation	Own vehicle, public transport, Third party apps (Careem, uber, Indrive)	1 - 3

Econometric Technique:

This section discovers the results of Binomial Logistic Regression model aimed at identifying factors that influence the probability of a respondent being female (coded as 1), as opposed to male (coded as 0). The independent variables include individuals' beliefs, motivations, and actions related to climate change, as well as control variables which include demographic information such as age, education, employment status, and modes of transportation. To check the sensitivity of either gender towards climate change.

Regression Model:

Gender(i) = $\beta 0$ + $\beta 1$Belief (AVG) + $\beta 2$Motivation (AVG) + $\beta 3$Action (AVG) + XiP + ϵi

Where Gender(i) is the number of male and female coded as 0 and 1 respectively β0 is the constant term, $\beta 1$Belief (AVG) is the average beliefs in climate actions , $\beta 2$Motivation (AVG) is the average motivation to respond to climate change, $\beta 3$Action (AVG) is the climate related action while Xi represents the vector of control variables, P denotes corresponding coefficient vector, and ϵi denoting the error term.

Log Odd Model:

Log (pi / 1 – pi) = $\beta 0$ + $\beta 1$Belief (AVG) + $\beta 2$Motivation (AVG) + $\beta 3$Action (AVG) + XiP + €i

Explanation of the log odd model:

- $P(i)$ = P(Gender(i) = 1), is the probability that respondent (i) is the female.
- $\beta 0$ is the constant
- $\beta 1$, $\beta 2$, $\beta 3$, are the coefficients for average beliefs, motivation and actions.
- **Xi** represents the control variables and P is the corresponding coefficient vector, and **ϵi** denotes the error term.

Regression Technique:

In this research **Binary Logistic** (logit) regression technique is applied to analyze the sensitivity of gender towards the climate change using the beliefs, action and motivation as an independent variable. Binary logistic regression models the probability of one category (e.g., female) using thelog-odds. It assumes a linear relationship between predictors and the log-odds. The dependent variables are coded as binary that is 0 and 1 for male and female respectively, in the line with the requirement of logistic model. And in case of independent variables, binary independent variables are created by coding responses indicating "absolutely" or "possibly" agree with questions in categories A, B, or C are coded as "agreement" (with the value 1). All other remaining responses including No not all, no hardly and don't know are classified as "non-agreement" (with the value 0).

Results and Discussion Introduction:

This chapter analyze the results out taken from the Binomial Logistic model. As well as, the discussion section which addresses the sensitivity of gender towards the climate change.

Binomial Logistic Model:

It is a statistical method used to analyze the relationship between two or more independent variable and a binary dependent variable (i.e., a variable with only two possible outcomes). Technically it estimates the probability that the dependent variable equals 1, using the log odds (logit transformation) of that probability and the model provides odd ratios, which are very easy to interpret. This research uses binomial logistic regression model to examine the effect of beliefs, action, and motivation on gender differences in climate change sensitivity. The dependent variable, gender is binary (0 = male, 1 = female), which justifies the use of logit model.

Descriptive Statistics:

Descriptive statistics summary measures and simplify the main features of data set. Which helps to understand the basic patterns and characteristics of the variables. The table 4.1 shows that the sample is almost equally split by gender (49.5% female and 50.5% male). The summary of descriptive statistics is mentioned in **table 4.1**.

Table 4.1: Summary of Descriptive Statistics using the observation 1 – 415

Variable	Mean	Median	S.D.	Min	Max
Gender	0.495	0.000	0.501	0.000	1.00
Age	1.86	1.00	1.08	1.00	4.00
Education	2.36	2.00	0.666	1.00	3.00
Employment status	2.33	2.00	0.723	1.00	4.00
Transportation	1.58	1.00	0.683	1.00	3.00
AVGBEL	0.743	1.00	0.387	0.000	3.50
AVGACT	0.393	0.400	0.318	0.000	1.00
AVGMOT	0.509	0.500	0.379	0.000	1.00

Binomial Logistic Result:

The binomial logistics results shows that strong belief in climate change is significantly associated with being male, while higher motivation and action are associated with being female. Overall, the model indicates that men have higher climatic beliefs and lower action and motivation towards climate change, while women have less belief in climate change but shows higher action and motivation towards climate change.

Table 4.2 Logistic Regression Estimation

Variable	Coefficient (β)	Std. Error	z-value	p-value	Significance
Age Education	-0.600	0.134	-4.47	0.000	***
Employment Status	-0.217	0.200	-1.09	0.278	
Transportation					
Belief (AVGBEL)	-0.707	0.177	-3.98	0.000	***
Action (AVGACT)	0.073	0.172	0.42	0.673	
Motivation (AVGMOT)	-1.145	0.412	-2.78	0.005	**
	0.108	0.445	0.24	0.809	
	0.694	0.390	1.78	0.075	*

First hypothesis aimed to evaluate that structured gender-based variation are expected in climate beliefs, with women perceiving climate change more critically than men in Peshawar region. the regression result as can be seen in the above table does not support this hypothesis which means men are more likely to have strong climate change beliefs as evident from the coefficient value (-1.145) log odd ratio. The **hypothesis 2** "structured gender differences exist in support for climate policy initiative; women show stronger support for climate mitigation policies compare to men in Peshawar" is strongly supported by the regression evidences, as the coefficients values of action and motivation are more inclined towards the female. Although no gender differences in self- reported climate actions are seen. But if we take the coefficient value of action (0.108) to the exponent power we get the value approximately equal to (1) which means female are more action oriented. Similarly, **hypothesis 3** "persistent gender differences exist in everyday climate mitigation behavior; women are anticipated to participate more frequently than men in climate conscious behavior in Peshawar" the regression analysis

support this hypothesis on the basis of results drawn from the binomial logit regression as female in Peshawar are more motivated as well as action oriented but their beliefs are not developed it could be due to multiple reasons which is explained in the discussion section. The problems and its solutions were also asked in the survey. The results were very positive which can be seen in the figures (4.1 & 4.2).

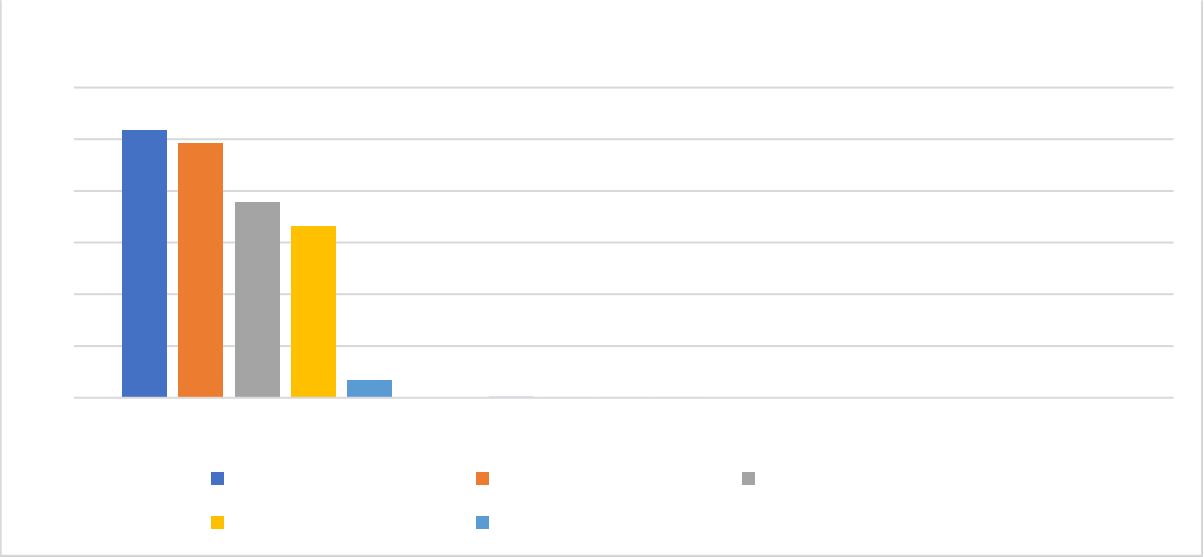


Figure 4.1 Barriers Faced in taking Climate Friendly Action

lack of awareness Lack of financial support Financal constraints cultural/social norms other (custom responses

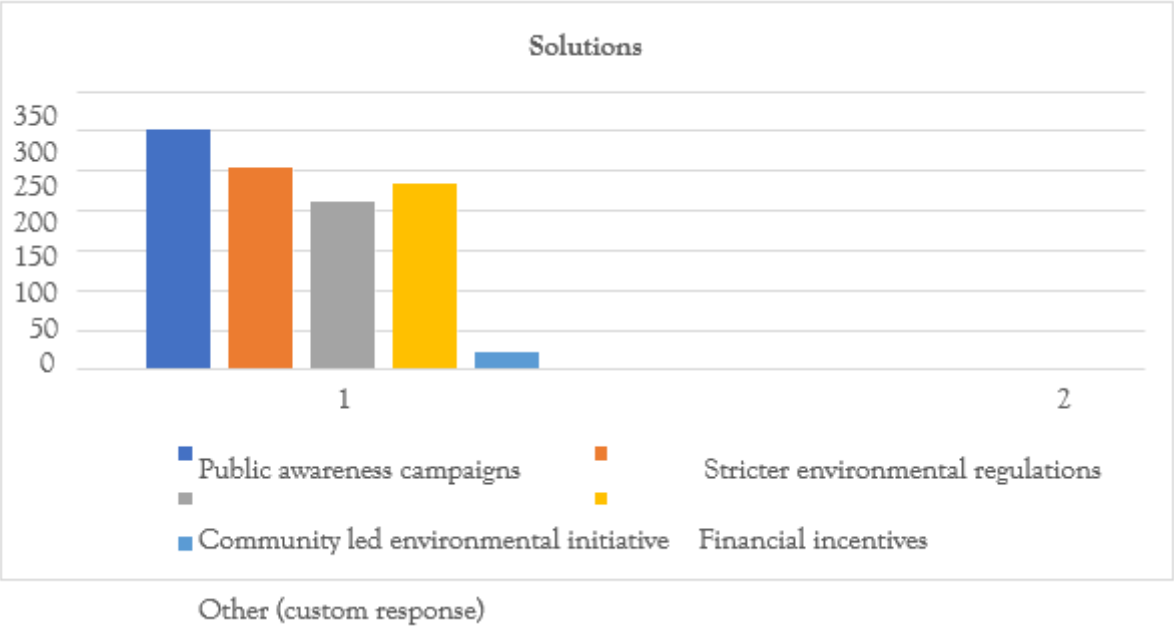


Figure 4.2: Measures taken to improve Climate Action in Peshawar

Discussion:

This study set out to explore how gender shapes beliefs, motivation and actions around climate change in Peshawar, using binomial logistic regression model and diverse sample of local respondents. This finding reveals a complex picture of how men and women

engage differently with climate related issue in this region. The first hypothesis that "structured gender-based variation are expected in climate beliefs, with women perceiving climate change more critically than men in Peshawar region". In fact, the regression results showed that men in Peshawar hold stronger climate change beliefs than women, as indicated statistically significant negative coefficient (-1.145). While contrary to the studies from western countries such as Sweden and the United States, where women tend to express more concern and belief about the environment, as indicated in the study of (Elert & Lundin, 2022) and (McCright, Dunlap, & Marquart-Pyatt, 2016). One possible reason for this contrast is the socio-cultural context. In Peshawar women faces restrictions in education, access to media, and public participation although in this research educated class has been targeted but still public participation of females is on lower side in KPK. This limitation may prevent them from articulating beliefs about climate change, even though their daily lives are directly affected by its consequences. Women may follow environmental practices promoted by religion, family, or social leaders, even without personally believing in climate change as a concept. As Peshawar is believed to be a patriarchal society where the men's holds all the influences.

Despite weaker reported beliefs, the regression analysis found out that women are more motivatedand action oriented, when it comes to climate friendly behavior. The positive coefficient for motivation (0.694) suggests that women are more motivated and willing to take action, even if their beliefs aren't strong. It has also been observed by (O'Connor, Bord, & Fischer, 1999) in their research.

This reflects what many ecofeminist scholars argue, women's engagement is often rooted in lived experience and responsibility, not ideology. In Peshawar, women manage household water, food, and energy use. This can also be justified from the research work of (Stern P. C., Dietz, Abel, Guagnano, & Kalof, 2000) that is value belief norm theory.

Interestingly, while the action variable was not statistically significant in the regression model, it still leaned toward women. This suggests that even if not always visible or reported formally, women are actively contributing to climate solutions in everyday ways feminist political ideology (Sundberg, 2017).

In addition, men show more beliefs but are less action and motivation oriented towards climate because they don't feel personally responsible for climate change and might intellectually agree with climate change, it is evident from the cognitive dissonance theory original work of (Festinger, 1957) later on used by (Mills, 2019) and theory of planned behavior (Ajzen, 1991).

Voices from Ground:

In this survey / research the author also asked two questions from the respondents which are:

1. **"What barriers do you face in taking climate-friendly actions?"**

The answer gives us a clear window into the structural challenges faced by the community especially women.

The answers give us a clear window into the structural challenges faced by the community, especially women.

The respondent had the option to select multiple option at a time and the option by the name of "Other" was also given in which the respondents gave custom answers which were ineffective waste management, absence of local reinforcement, lack of leadership, and even social discouragement. Two very different responses were observed which was recorded by the respondent. One response was very unique who believed that from Islamic point of view climate change is from God side due to the sinful activities by human, another such unique response was recorded which is "people do not prioritize the environment more than their basic needs in daily life as being resident of Peshawar, we find it hard to alter the behaviors of people especially men". The answers in the table 4.3 show clearer picture:

Table 4.3: Structural Challenges Faced by community

Barriers	No. of Responses	Percentage
Lack of Awareness	259	62.5%
Lack of financial support	246	59.3%
Financial Constraints	189	45.6%
Cultural / Social norms	166	40.1%
Other (custom responses)	17	0.23% each

Solutions suggested by the people:
The community also had a strong idea when the question was asked:

2 "What measures should be taken to improve climate action in Peshawar?"
72.4% people were in support of public awareness campaigns. 61.2% of the respondents suggested top have stricter environmental regulation while 50.7% were of the view that community led environmental initiative should be undertaken the other option consists of custom responses which were; increase awareness on very small level of education, ecofriendly campaign should be there, define environmental problems and climate change as a game changer of people lives, regulation/policy support to encourage transition to renewable energy, engage students through seminars and webinars, credible experts should build upon their knowledge of climate change, vivid research in higher education should be promoted also respondent believe that in Peshawar there will be a lot of people who still wouldn't care about climate change even if they are aware of its consequences so, the better way to encourage them is to impose heavier fines on such activities that can pollute the environment. Better explained through the table 4.4;

Table 4.4: Solutions suggested by Respondents

Suggested Solution	No. of Responses	Percentage (%)
Public awareness campaigns	301	72.4%
Stricter environmental regulations	254	61.2%
Community led environmental initiative	210	50.7%
Financial incentives for eco-friendly behavior	234	56.4%
Other (custom response)	21	0.5% each

Many participants also proposed creative, community-based solutions. Ideas like including climate education in school syllabi, conducting religiously framed campaigns, organizing seminar on school level, and promoting better waste disposal. It showed the local wisdom and willingness to engage. Women, in particular were often the ones proposing community centric solutions. This reinforces a powerful idea: when women are empowered, they know what needs to be done.

Conclusion and Recommendation
Introduction:
In this chapter, the results and discussion presented in chapter 4 are concluded in the light of research hypotheses and existing literature. It also provides the implications of the findings for the policy, and future research. The chapter also explores the benefits and limitations of the study, providing a comprehensive understanding of the contributions and constraints of the research.

Conclusion:

Concluding the discussion, this study examined the gender sensitivity towards climate change in Peshawar through survey-based analysis. The findings revealed such gender dynamics that contrast with global patterns. While many international studies suggests that women express stronger climate beliefs, the result show's that men reported stronger beliefs in Peshawar. This difference likely reflects local structural and cultural barriers such as; lack of awareness, restricted media access and low public participation which continue to affect women's engagement with formal climate discourse.

Despite this, women demonstrated greater motivation and more consistent climate friendly behavior, even with weaker stated belief as evident from the binomial logistic regression. Community feedback gathered through the survey reinforces these findings; lack of awareness (62.5%), weak institutional support (59.3%), and cultural norms (40.1%). Yet is also offered practical and locally relevant solutions. These included public awareness campaigns (72.5%), stronger environmental regulations (61.2%), and community-led initiative (50.7%). These responses shows that women are not just victims of climate but are proactive agents who are capable of leading climate action if they are empowered through education, resources and institutional inclusion (Eagly, 1980) and (FeinStein & Mach, 2019) . This supports ecofeminism perspective, suggesting that women's environmental action arises from daily lived responsibilities like; managing household resources etc.

In this way their belief might be developed towards climate change. The clear disconnect between belief and action, especially among women, reflects theories like cognitive dissonance (Mills, 2019) and theory of planed behavior (Ajzen, 1991), emphasizing that belief alone isn't enough but empowerment and support are critical. Ultimately, this research reinforces that sensitivity of gender towards climate change is different, and effective response must recognize and uplift women's roles. And in this way the SGD goals 5 and 13 will be addressed and met adequately. Therefore, a truly sustainable future in Peshawar and beyond must be gender sensitive, inclusive, and grounded in lived realities.

Policy Recommendation:

Effective solutions have also been recommended by the respondents which are discussed in the

4.5.1 section but based on all the above discussion and evidences this research propose the following policy measures:

- Improve climate education for women, through community workshops and targeted campaigns
- Support women motivation with resources such as; subsidies for clean energy or transportation or funding for small scale climate initiative.
- Make awareness campaign local and relatable, using regional language and familiar cultural symbols.
- Include climate education in school syllabi which will help students to learn climate behavior from young age.
- Conducting religiously framed campaigns take religious scholar into the confidence to and ask them to raise awareness about climate in their Friday sermons.
- Give financial incentives to those who contributes to the environment in positive way. **E.g.** converting from conventional energy to solar energy, changing modes of transportation (Use BRT instead of private vehicle, using hybrid/electric vehicle). So, other people could also adapt the positive climate behavior
- Address structural barriers that is understanding of financial dependency, social norms and weak governance, so climate action is not just possible practical.
- Also make sure that both of the gender should have equal access to resources. And none of the gender especially women should be left vulnerable.

And in this way the SDG goal 5 (gender equality) and SDG goal 13 (Climate action) will be addressed appropriately and timely. Also, it will be economically benefited for the

government as well as for the betterment of the society. Because both the government and individuals' costs will be minimized if they follow the proposed recommendations.

Remember Policy maker must realize that climate change is not gender neutral as proven from theanalysis and studies. Both the gender that is men and women experience it differently, act on it differently, and if properly supported, can lead the response differently and more effectively.

Limitation of the Study:

Like any other research this study also has some limitations. The study employed a random sampling across four zones of Peshawar, cultural constraints and accessibility issue resulted in limited participation of women. The participants targeted were aged 18 and above with a minimum education level of intermediate. Due to which marginalized groups and rural population are left behind. As the study was conducted in district Peshawar only that is why according to the sample formula the sample size was 415.

Future Research:

The future research should consider the following point:

- Consider mix method research that combines both qualitative and quantitative techniques.
- In-depth interviews (KII's) with rural women to explore hidden perspective and to see how much they are sensitive towards climate change.
- Collect data from higher number of populations for more significant results.
- Future studies could explore the longitudinal aspect of climate behavior that is tracking changes in beliefs, action and motivation which might change over time.

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