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Youth Perspectives on Food Security Challenges under Climate Change: A Case Study of Attock

Abstract

Pakistan is a country well known for its rich cultural background and ethnic history. Its economy majorly depends on the agriculture sector, and around 70% of the population is associated with agriculture. In the globalized world, Pakistan is trying to develop effective, locally specific solutions to ensure sustainable agricultural adjustments and resilient communities. This research study aims to explore the experiences and perceptions of Pakistani youth regarding food security issues in the times of climate change, particularly in the District Attock of Punjab province. The research findings highlight the need for weather-resilient agriculture, diversified patterns, and initiatives as perceived by youth in regard to the food security challenges. The results figure out the implications for researchers, practitioners, policy makers, and stakeholders who aim to seek support in sustainable food systems and guarantee food safety in the Attock region.

Keywords: Food Security, Resilient Agriculture, Climate Change, Youth-Led Initiatives, Attock

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Title

Youth Perspectives on Food Security Challenges under Climate Change: A Case Study of Attock

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Contents

Abstract

Pakistan is a country well known for its rich cultural background and ethnic history. Its economy majorly depends on the agriculture sector, and around 70% of the population is associated with agriculture. In the globalized world, Pakistan is trying to develop effective, locally specific solutions to ensure sustainable agricultural adjustments and resilient communities. This research study aims to explore the experiences and perceptions of Pakistani youth regarding food security issues in the times of climate change, particularly in the District Attock of Punjab province. The research findings highlight the need for weather-resilient agriculture, diversified patterns, and initiatives as perceived by youth in regard to the food security challenges. The results figure out the implications for researchers, practitioners, policy makers, and stakeholders who aim at seeking support in sustainable food systems and guarantee food safety in the Attock region.

Keywords:

Food Security, Resilient Agriculture, Climate Change, Youth-Led Initiatives, Attock

Introduction

Pakistan, a nation formed on the World's map in 1947. A land well known for its diverse culture and fertile land. Where all four seasons are observed, from the mineral-rich mountains of Gilgit Baltistan to the coal-generating soul of Baluchistan and a hub of trade, i.e., Gwadar Port, the country sustains its economy. Pakistan is an agricultural country, and a major portion of the economy is derived from agricultural production. The agriculture plays an important role in the national economy with a significant portion of the labor force and promotes largely to the country's national income. Agriculture is considered as the backbone of Pakistan's development and rural economy, with both (Rabi, Sharif) crops grown at large scale wheat, cotton, rice, tobacco, sugarcane, and maize. Livestock is also a crucial component, with cattle, buffalo, sheep, goats, and poultry being significant contributors to the agricultural sector.

Attock, formerly known as Campbellpur, is a District of Punjab Province. It was initially founded

by the Mughal emperor Akbar. It is situated in the Potohar Plateau near the Indus River. The city has a mix of urban and rural Populations, with many engaged in agriculture and small-scale industries. This research highlights the major challenges regarding food Security and the concerns and perspectives of local youth residents in this regard. The total population residing in this region, in accordance with the Pakistan Bureau of Statistics, which is the official agency of Pakistan, responsible for the collection, compilation, and dissemination of reliable and timely statistical information, is 2,170,423. The district has 353,973 households.

The Indus River system (the largest river, along with major and minor rivers) is considered the lifeblood of Pakistan's agriculture, which supports crop production and livestock farming. Whereas, the agriculture and irrigation sector is subjected to a number of challenges, including climate change, seed quality, poor management, water scarcity, and soil degradation, which threaten the sustainability and productivity of the yield. Climate change, in particular, poses significant risks to agriculture in Pakistan, with rising temperatures, changing rain patterns, and a rise in the number of severe weather events that affect crop output and farmer livelihoods. Despite challenges, it is evident that agriculture is a vital sector in Pakistan, providing food and income for millions of people. Pakistan has significant potential for agricultural growth and development, with opportunities for improving crop yields, enhancing water management, and promoting sustainable agricultural practices. For recognition of this issue, Pakistan needs to invest in agricultural research and development, improve irrigation infrastructure, and promote policies that support farmers and the agricultural sector. The significance of agriculture in Pakistan cannot be overstated. Agriculture is a great food and revenue source for the rural population, but also an important contributing factor to the nation's exports. The nation's economy is directly impacted by the operations of the agricultural sector, food security, and poverty levels. Hence, it is important to consider agriculture a priority in future development plans and policies for the nation, as this helps in ensuring that the agricultural sector receives the support and investment it deserves to develop.

Furthermore, agriculture is an important sector in Pakistan that provides sustenance and livelihoods for millions of people. While the sector faces significant challenges, there are also opportunities for growth and development. By investing in agriculture, promoting sustainable practices, and supporting farmers, Pakistan can ensure food security, reduce poverty, and achieve economic growth. The country's agricultural sector has the potential to drive economic development and improve the lives of its citizens, making it an essential area of focus for policymakers and stakeholders.

Healthy eating also largely impacts food security as the concern of balanced diet and nutritious foods amongst youngsters develops; they are most focused on different fruits and vegetables. Different opinions of the true meaning of good eating are probably going to affect eating habits in different ways. Indeed, it is argued that only in the context of subjective judgements can the impact of standards be comprehended (Hafeez 2024). Given that young people's health concerns differ greatly from those of medical experts, it is important in regard to health behaviour (Shamshad et al., 2024). The expression of the negative consequences of unhealthy behaviour in later life, the varying meanings and purposes of risk-taking behaviour during adolescence, and the relative significance of various social and personal difficulties during this period are some of the explanations given (Coleman & Hendry, 2000). Few studies have attempted to investigate young people's own perspectives on healthy eating, despite the fact that it cannot be assumed that teenagers' understandings of the topic align with those of parents or professionals.

Climate change poses a severe threat to global food security, especially for communities who are already at risk. Youth, as a demographic group, play a crucial role in addressing food security challenges.

An additional 30 million people in low-income nations encountered food insecurity as a result of rising costs for agricultural commodities in 2021, which were already on the rise due in large part to climate phenomena, such as heat waves, droughts, and heavy rainfall brought on by global warming.

From November 2024 to March 2025, in Pakistan, 10.99 million people, representing 22% of the population under analysis were living in Crisis or Worse (IPC/CH Phase 3 or higher) circumstances

(Global Alliance for Food Security,2023) The Global Food and Nutrition Security Dashboard is a public good platform that equips decision-makers with high-quality data to enhance policy coordination on crisis response.

Simultaneously, modern ways and technological advancements of food production are again a problem. According to estimates, the global food system is the primary source of methane and biodiversity loss and is responsible for one-third of greenhouse gas emissions, with the energy sector coming in second (World Bank Group, 2022).

Value Chain Development, Technology Adoption, Sustainable Agriculture Practices, and Nutrition Education could be some possible solutions rising amidst food Security challenges in Attock. Through the Empowerment of youth and initiative support, Attock can support sustainable development and increase resistance to food insecurity.

Food security is a pressing global issue, amplified by climate change, which threatens agricultural productivity and livelihoods. In Attock, Pakistan, young people play a vital role in agriculture, but their perspectives on food security challenges under climate change remain underexplored. This study aims to investigate the experiences, perceptions, and coping strategies of youth in Attock regarding food security, considering climate change. Through exploration of the intersection of youth, food security, and climate change, this research seeks to contribute to the development of targeted interventions and regulations that promote sustainable agriculture and regional food systems.

Research Gap

The paper aims to fill the research gap developed during previous publications by focusing on one of the remote areas of Pakistan and highlighting the local residents' perceptions without considering a macro approach. Also, it provides recommendations to sort out the concern through their assumptions.

Objectives

1. Examine the awareness and perceptions of youth in Attock City regarding the impact of climate change on food security.
2. Explore the role of local cultural and socio-economic factors in shaping youth perspectives about challenges to the relationship between climate change and food security.

Review of Literature

The paper aimed at highlighting the perceptions and assumptions_of youth from the district Attock regarding the rising concern of food security, especially in third-world countries such as Pakistan. For the further exploration, secondary data have been retrieved from various sites that summarize the recent era of global warming and Climatic change affects food security through changing weather patterns, increasing occurrence of severe weather conditions, such as floods, droughts, and disturbed rainfall patterns, contributing to the altered growth seasons for particular crops (IPCC, 2013). It has also been observed that a gradual increase in global and regional temperatures, coupled with altered rainfall patterns, highly affects the crop yields, quality, and distribution (Schmidhuber & Tubiello, 2007). Unfortunately, in the remote areas of Pakistan, climate change has vulnerable effects leading to increased food insecurity (Murtaza & Faridi, 2015).

Having a macro approach at the global level, on the eve of the Nutrition for Growth (N4G) summit in Paris, Save the Children released fresh data indicating that an estimated 1.12 billion (48%) of children worldwide lack access to a healthy meal (Save the Children, 2025)

In accordance with the Youth, the crucial stakeholders in addressing food security challenges, this paper highlights their perspectives. The perspectives and experiences of youth can help address the practical and implemented solutions (FAO, 2019 The Food and Agriculture Organization (FAO) is a specialized agency of the United Nations that leads international efforts to defeat hunger). Research highlights the importance of involving youth in agricultural development and food security initiatives (IFAD, 2019). Youth's knowledge, skills, and innovation can contribute to climate-resilient agriculture and food systems (World Bank, 2020).

In Attock, Pakistan, climate change has a major impact on agriculture and food security. Rising temperatures, changing rainfall patterns, and an increase in the frequency of extreme events all have an influence on crop yields and farmers' livelihoods (Rahman et. Al, 2025). Youth in Attock face challenges in accessing education, employment, and

resources, which increase their vulnerability to climate-related shocks (Siddiqui & Ahmed, 2018).

Climate change threatens global food security and, consequently, the fundamental human rights that provide access to sufficient, healthy, and nourishing food. The four pillars of food security, utilisation, access, stability, and availability, were in danger due to extreme weather events. By lowering crop yields, animal production, and having an impact on fisheries and the infrastructure supporting the food supply, these changes significantly upset the agricultural system.

Consequently, Food costs rise as a result of decreased output, rendering it exorbitant and inaccessible for the most disadvantaged.

Youth-led initiatives can address food security challenges under climate change. Examples include:

1. Climate-smart agriculture practices (Lipper et al., 2014)
2. Youth-led agricultural innovation and entrepreneurship (IFAD, 2019)
3. Community-based adaptation and resilience-building initiatives (Ayers & Forsyth, 2009)

Theoretical Framework

The theoretical framework for tackling how food security is affected by climate change can be understood by the following philosophical perspectives:

Vulnerability Theory: emphasizes the responsiveness of individuals, communities, and systems to harm or loss due to climate-related stressors that can help understand how climate change affects food security, particularly for vulnerable populations.

Sustainable Livelihoods Framework: focuses on the skills, resources, and actions necessary for a sustainable livelihood that analyzes how climate change impacts food security and livelihoods, and identifies strategies for building resistance.

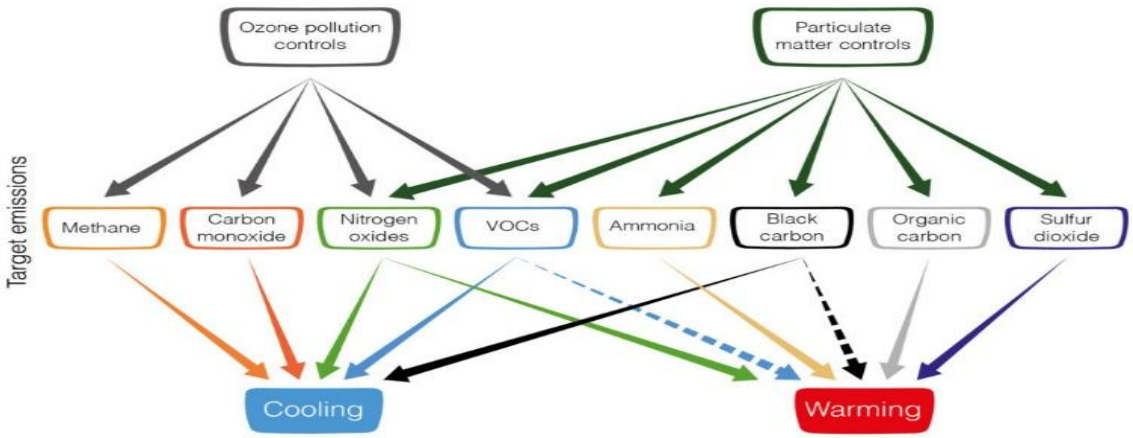
Risk Society Theory: Highlights the role of risk and uncertainty in shaping modern society, which can help understand the risks and uncertainties associated with climate change and food security.

Political Ecology: This theory examines the relationships between politics, economy, and environment that can be used to analyze the power dynamics and structural factors that influence food security and climate change.

Capability Approach: The capability approach emphasizes the importance of individual freedoms and capabilities in achieving well-being that can help understand how climate change affects food security and human well-being, and identify strategies for enhancing capabilities.

Conceptual Framework

Figure 1

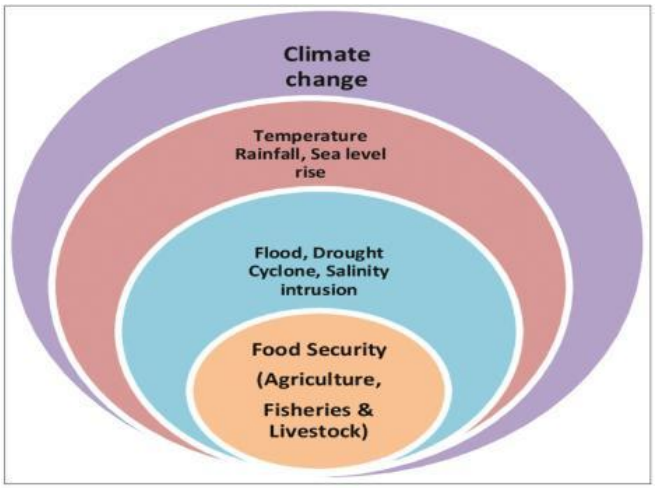


IPCC:2013 Climate Change

The Intergovernmental Panel on Climate Change addresses some key aspects of increasing Climate change globally. The global climate has been gradually warming over the years, with negative consequences. This flowchart describes the reasons why Earth heats up and the reasons are there to cool

down the temperature. Some gases are also discussed that contribute to these processes.

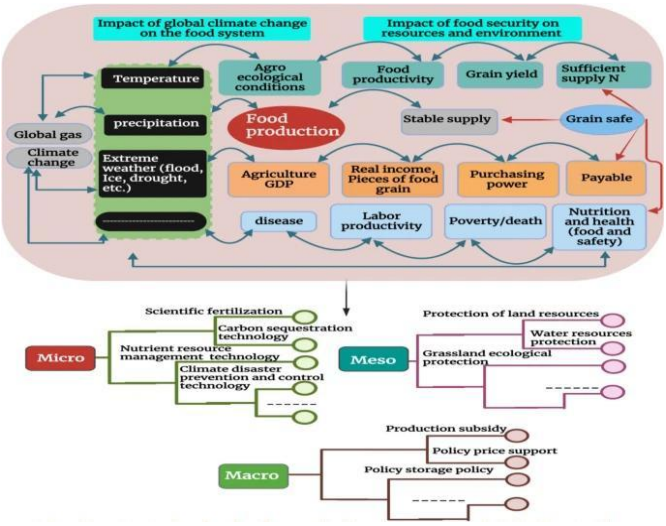
Figure 2



Challenges of Climate Change on Food Security

Figure 3

Adoptive strategies for food security in response to global climate change



Global climate change and food sufficiency are related. This figure is endorsed by Rahman et al. (2025).

This figure is an excellent illustration of describing climate change at three levels, i.e, Micro, Meso, and macro.

- Micro level: To increase quality and efficiency, the "storing grain with technology" approach ought to be used.
- mesa-level: Taking ecological construction into account while "storing grain in the property"
- Macro level: Food security is institutionally guaranteed by market leadership and policies.

Methods and Methodology

This study sought to show how climate change affects food availability, agricultural productivity, and young people's access to wholesome food. Online questionnaires were used as part of a quantitative study for this objective. The opinions of young people about wholesome eating and food choices were also examined in this study. To gain a thorough understanding of the research topic under

examination, an interpretive technique was employed. For the collection of Primary data, online survey forms were sent to the 50 people in the District of Attock. In contrast, some already published research papers by the scholars had also been consulted. The locale of this study is Attock City, located in Punjab, Pakistan. It's situated in the Pothohar Plateau near the Indus River. The city has a mix of urban and rural populations, with many engaged in agriculture and small-scale industries. The economy is primarily based on agriculture, with crops like wheat, cotton, and sugarcane. Attock City has a rich history dating back to the ancient Gandhara civilization. Today, it's a significant cultural and economic hub in the region. Descriptive methodology will be used in this study. A descriptive survey will be used as a method in this study, which will be based on a structured questionnaire to collect information from the youth. This research will use quantitative methods to collect data. The main tools that will be used in this study are online surveys. The sample size will be 50 respondents. Random sampling will be used to ensure fairness. The sample will include equal numbers of males and females and cover different education levels and income groups.

Results

The study emphasises the impact of climate change on food security from the viewpoint of youth, based on online surveys completed by 50 young people in Attock. The findings reveal that participants expressed concerns about changing weather patterns, crop failures, and shifts in growing seasons affecting food availability and access, highlighting their vulnerability to climate-related stressors. These experiences of food insecurity, arising from limited access to nutritious food and livelihood impacts, underscore the vulnerability of communities to external shocks, as posited by vulnerability theory. The theory suggests that exposure, sensitivity, and adaptive ability all affect vulnerability. In this context, youth's experiences demonstrate the need for adaptive strategies to reduce climate-related risks.

Youth proposed climate-flexible agriculture practices, diversified livelihoods, and community-based initiatives to further address the issue, showcasing their potential to enhance adaptive capacity. Key factors influencing food choices include family and peer influence, international food trends, and price fluctuations, which can increase vulnerability. The study underlines the necessity for policy support, training, and resources to empower youth in promoting sustainable agriculture and healthy eating practices, thereby reducing vulnerability to food insecurity. These findings give policymakers, practitioners, and stakeholders insights to assist sustainable food systems in Attock and emphasise the significance of taking young people's perspectives into account when managing food security issues under climate change.

Recommendations

1. Enhancement of seed quality and better fertilizers to ensure increased crop production
2. Dependency on new and advanced technology
3. Introducing modern ways of farming
4. Training of farmers
5. It is observed that manual storage and packaging reduce the product by Up To 15%. Hence, machines should be introduced for the storage and packaging of crops.
6. Environmental protection Agencies should work together to create a better, sustainable environment, helping reduce the adverse effects of climate change.
7. All institutes must come to the front and start working together in partnership to enhance food security at all micro and macro levels.

Conclusion

This paper focuses on the potential approaches and opinions of youth that help cope with the issue of food security in the era of climate change. From the primary data collected through online surveys and insights into the already published research papers, it is inferred that, considering youth as the future leaders and decision-makers, their opinions and perspectives on food security must be prioritized to ensure a sustainable and equitable food system for future generations. Also, energy and innovation could be harnessed to transform Pakistan's food systems to ensure national food security. A consistent connecting mechanism amongst seed quality, fertilizer, the cost of grain production, grain prices, and subsidies will surely help boost grain production, leading to an increase in farmers' incomes, resulting in achieving the objective of guaranteeing food security.

It is also considered that youths' perceptions of food security are modified by their experiences and a need for policymakers to act upon accordingly. The paper also aimed to highlight the significance of considering youth perspectives to effectively address the food security challenges under climate change. In Attock, Pakistan, it is viewed that youth face significant challenges regarding climate change, food insecurity, and limited access to resources. Youth-led initiatives and solutions can contribute to building strong food systems and addressing food security challenges. This paper discusses youth perspectives on food security challenges under climate change in Attock that are helpful in the provision of insights for effective policy and programmatic interventions.

References

Ayers, J., & Forsyth, T. (2009). Community-Based adaptation to climate change. *Environment Science and Policy for Sustainable Development*, *51*(4), 22–31. https://doi.org/10.3200/env.51.4.22-31
Google Scholar Worldcat Fulltext

FAO. (2019). *The state of food security and nutrition in the world*. https://openknowledge.fao.org/server/api/core/bitstreams/16480532-17e9-4b61-b388-1d6d86414470/content
Google Scholar Worldcat Fulltext

Hafeez, S., & Ahmad, R. (2024). Ethnography of the Dying Culture of Northern Punjab: An Insight into Potohar. *International Journal of Literature and Arts*, *12*(6), 173–177. https://doi.org/10.11648/j.ijla.20241206.14
Google Scholar Worldcat Fulltext

IFAD. (2019). *Rural development report 2019: Creating opportunities for rural youth*. https://www.ifad.org/documents/38714170/41190221/RDR2019_Overview_e_W.pdf/699560f2-d02e-16b8-4281-596d4c9be25a
Google Scholar Worldcat Fulltext

IPCC. (2013). *Climate change 2013: The physical science basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (T. F. Stocker, D. Qin, G.-K. Plattner, M. Tignor, S. K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex, & P. M. Midgley, Eds.). Cambridge University Press.
Google Scholar Worldcat Fulltext

Lipper, L., Thornton, P., Campbell, B. M., Baedeker, T., Braimoh, A., Bwalya, M., Caron, P., Cattaneo, A., Garrity, D., Henry, K., Hottle, R., Jackson, L., Jarvis, A., Kossam, F., Mann, W., McCarthy, N., Meybeck, A., Neufeldt, H., Remington, T., . . . Torquebiau, E. F. (2014). Climate-smart agriculture for food security. *Nature Climate Change*, *4*(12), 1068–1072. https://doi.org/10.1038/nclimate2437
Google Scholar Worldcat Fulltext

Murtaza, G., & Faridi, R. (2015). Food security in Pakistan: Challenges and opportunities. *Journal of Food Security, 3*(2), 37–45.
Google Scholar Worldcat Fulltext

Rahman, T. U., Shah, S., Hassan, S., & Fahad, S. (2025). Food security challenges and adaptation strategies in China amidst global climate change. *Journal of Umm Al-Qura University for Applied Sciences*. https://doi.org/10.1007/s43994-025-00226-5
Google Scholar Worldcat Fulltext

Schmidhuber, J., & Tubiello, F. N. (2007). Global food security under climate change. *Proceedings of the National Academy of Sciences of the United States of America*, *104*(50), 19703–19708. https://doi.org/10.1073/pnas.0701976104
Google Scholar Worldcat Fulltext

Shamshad, J., Nawaz, A. F., Khan, M. B., & Arif, M. (2024). Climate change and food security. In S. Fahad, S. Saud, T. Nawaz, L. Gu, M. Ahmad, & R. Zhou (Eds.), *Environment, climate, plant and vegetation growth*. Springer.
Google Scholar Worldcat Fulltext

Siddiqui, T., & Ahmed, S. (2018). Youth and climate change in Pakistan. *Journal of Youth Studies, 21*(1), 1-16.
Google Scholar Worldcat Fulltext

World Bank Group. (2022). *What you need to know about food security and climate change*. World Bank Group.
Google Scholar Worldcat Fulltext

World Bank. (2020). *World development report 2020: Global value chains in a post-COVID-19 world*. World Bank.
Google Scholar Worldcat Fulltext