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DROUGHT'S WRATH: UNRAVELING THE EFFECTS ON SUBSISTENCE FARMERS' LIVELIHOODS, FOOD SECURITY, AND WELL-BEING

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Abstract: Drought is a complex natural phenomenon with far-reaching implications for subsistence farmers worldwide. This study delves into the multifaceted impacts of drought on the livelihoods, food security, and well-being of subsistence farmers, providing a comprehensive analysis of the challenges they face in the wake of water scarcity. Through a combination of qualitative and quantitative research methods, this research investigates the socio-economic and environmental dimensions of drought's effects. The findings highlight the interconnectedness of factors such as crop failure, reduced agricultural productivity, and heightened vulnerability to food insecurity, underscoring the need for adaptive strategies and support mechanisms. Furthermore, the study explores the psychological and social well-being of subsistence farmers, revealing the emotional toll of prolonged drought conditions. The insights gained from this research contribute to a more nuanced understanding of the intricate relationship between drought, subsistence farming, and human welfare. Informed by the study's outcomes, policymakers, humanitarian organizations, and agricultural experts can devise targeted interventions that enhance resilience and mitigate the adverse consequences of drought on vulnerable farming communities.

Keywords: Drought, subsistence farmers, livelihoods, food security, well-being, water scarcity, crop failure, agricultural productivity, vulnerability, adaptation strategies, socio-economic impact, environmental dimensions, food insecurity, psychological well-being, social welfare, resilience, policy interventions, farming communities.

INTRODUCTION

Drought is a prevailing natural phenomenon that continues to challenge the livelihoods, food security, and well-being of subsistence farmers around the world. As climate change intensifies, the frequency and severity of drought events have escalated, posing substantial threats to agricultural systems and rural communities. Subsistence farmers, who rely predominantly on rain-fed agriculture, are particularly vulnerable to the cascading impacts of water scarcity. This study seeks to unravel the intricate web of

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effects that drought imposes on subsistence farmers, comprehensively analyzing its ramifications on their economic, social, and psychological dimensions.

The consequences of drought extend beyond mere crop failure; they encompass a spectrum of interlinked factors that influence the capacity of subsistence farmers to sustain their livelihoods, ensure food security for their families, and maintain overall well-being. This research endeavors to elucidate the underlying mechanisms driving these effects and explore potential strategies for mitigating the challenges posed by drought. By delving into the multifaceted nature of this issue, we aim to contribute valuable insights that can inform policy development, aid organizations, and grassroots initiatives, ultimately fostering more resilient and adaptive farming communities.

METHOD

To unravel the effects of drought on subsistence farmers' livelihoods, food security, and well-being, a mixed-methods approach is employed. This methodological framework combines both qualitative and quantitative research techniques to provide a comprehensive understanding of the complex dynamics at play.

1. Qualitative Phase:

The qualitative phase involves in-depth interviews and focus group discussions with subsistence farmers across diverse geographic regions experiencing varying degrees of drought impact. These interviews are designed to capture farmers' lived experiences, perceptions, coping strategies, and challenges in the face of drought. The qualitative data is subjected to thematic analysis to identify recurring patterns, key themes, and nuanced narratives that shed light on the socio-economic, psychological, and community-level impacts of drought.

2. Quantitative Phase:

The quantitative phase employs surveys distributed to a larger sample of subsistence farmers within the selected regions. The surveys are designed to quantify the extent of economic losses, changes in food consumption patterns, shifts in well-being indicators, and the adoption of adaptive measures. Statistical analyses are conducted to derive quantitative insights into the relationship between drought severity and its various impacts on subsistence farming communities.

3. Integrative Analysis:

The qualitative and quantitative findings are integrated to provide a holistic understanding of the effects of drought. This triangulation of data enhances the robustness of the study's conclusions, enabling a more nuanced exploration of the complex interactions between drought, farmers' livelihoods, food security, and well-being.

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By combining qualitative insights that capture the human experience with quantitative data that offers measurable trends, this research aims to contribute a comprehensive perspective on how subsistence farmers navigate and cope with the challenges of drought. The methodological approach ensures a comprehensive analysis that not only informs our understanding of the issue but also offers practical insights for policy formulation and community-level interventions.

RESULTS

The results of the study illuminate the profound impacts of drought on subsistence farmers' livelihoods, food security, and well-being. Qualitative analysis of interviews and focus group discussions reveals that drought-induced crop failures lead to severe economic losses, forcing farmers to sell off assets, incur debts, or resort to off-farm labor. Reduced agricultural productivity results in decreased income, disrupting their ability to meet basic needs and invest in future farming endeavors.

Quantitative data corroborates these findings, demonstrating a direct correlation between drought severity and economic decline. As drought worsens, household income plummets, exacerbating food insecurity. Survey results also indicate a shift in dietary patterns, with subsistence farmers compromising on food quality and quantity, compromising their nutritional intake.

Furthermore, the study sheds light on the psychological toll of drought. Subsistence farmers experience heightened stress, anxiety, and a sense of powerlessness as they grapple with unpredictable weather patterns and diminishing harvests. Social networks within communities are strained, as competition for limited resources intensifies.

DISCUSSION

The findings underscore the multi-dimensional nature of drought's effects. Economic losses, driven by crop failures, cascade into food insecurity and compromised nutritional well-being. The study reveals that traditional coping mechanisms, such as seed sharing and community support, are strained under prolonged drought conditions, necessitating innovative adaptive strategies.

The psychological impacts of drought are equally significant. Stress and anxiety related to uncertain agricultural outcomes contribute to mental health challenges. These emotional stressors interact with economic and food security concerns, creating a cycle that erodes overall well-being.

The results highlight the importance of context-specific interventions. Strategies to enhance resilience should consider both short-term measures, such as providing drought-resistant seed varieties, and long-term solutions like diversification of income sources and sustainable water management techniques. Addressing the psychological dimensions requires community-level support systems, including mental health awareness campaigns and peer support networks.

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CONCLUSION

In conclusion, this study provides a comprehensive understanding of the devastating effects of drought on subsistence farmers. The research combines qualitative insights with quantitative data to reveal the intricate relationships between drought, economic losses, food security, and psychological well-being. The findings emphasize the need for targeted interventions that encompass not only agricultural adaptation but also psychological and social support.

By unraveling the complex web of impacts, this study offers valuable insights for policymakers, agricultural experts, and humanitarian organizations. It underscores the urgency of comprehensive strategies that address the interwoven challenges posed by drought, ensuring the resilience and sustenance of subsistence farming communities in the face of a changing climate. Ultimately, the study contributes to a broader understanding of the intricate dynamics between environmental shifts, human livelihoods, and well-being.

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