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Health Impacts of Climate Change on Farmers in Agricultural Communities

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Abstract:
Climate change increasingly affects agricultural systems and the health of farmers who depend directly on environmental conditions. This study aimed to systematically review recent evidence on the impacts of climate change on farmers' health and its implications for agronursing. A systematic review was conducted following the PRISMA 2020 guidelines using three databases: Scopus, PubMed, and ProQuest. Articles published between 2025 and 2026 that met predefined inclusion criteria were selected, and their methodological quality was assessed using the Joanna Briggs Institute critical appraisal tools. The search identified 6,262 records, and 10 studies met the eligibility criteria for final analysis. The findings indicate that climate change affects farmers' health through multiple pathways, including heat stress, food insecurity, environmental exposure, and psychological distress. Several studies also highlight the importance of knowledge, coping strategies, and community adaptation in improving farmers' resilience. Climate change poses significant challenges to farmers' health. Agronursing plays an important role in promoting occupational and mental health, and in supporting community-based adaptation strategies to improve the well-being of farming communities.

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INTRODUCTION

Climate change has become one of the most pressing global challenges of the twenty-first century, affecting environmental systems, economic stability, and human health (Saleem et al., 2025). Rising temperatures, changing precipitation patterns, and the increasing frequency of extreme weather events have significant consequences for many sectors, particularly agriculture (Bibi & Rahman, 2023). Farmers are among the most vulnerable populations because their livelihoods depend directly on environmental conditions (Tofu et al., 2022). As climate variability intensifies, farming communities face growing uncertainty about crop productivity, food availability, and occupational safety, all of which can affect their overall health and well-being (Amoak et al., 2022).

Agricultural workers are frequently exposed to environmental hazards that may worsen under climate change conditions (El Khayat et al., 2022). Prolonged heat exposure, unpredictable rainfall, droughts, floods, and other extreme weather events can increase physical health risks and disrupt farming activities (Abebaw, 2025). These environmental pressures may lead to reduced work capacity, increased risk of occupational injuries, and a higher burden of health problems among

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farmers (Marinaccio et al., 2025). In addition, climate-related agricultural losses can create economic instability, further contributing to stress and reduced quality of life in farming communities (Kori, 2023).

Beyond physical health risks, climate change also affects the psychological and social well-being of farmers (Pienaah et al., 2025). Agricultural uncertainty caused by climate variability can lead to chronic stress, anxiety, and emotional distress as farmers struggle to maintain productivity and support their families (Weatherly & Doherty, 2025). Food insecurity and unstable income can exacerbate these mental health challenges, particularly among smallholder farmers and vulnerable groups such as women and older farmers (Beyeler et al., 2023). These interconnected impacts demonstrate that climate change is not only an environmental issue but also a complex public health concern affecting agricultural populations (Campbell-Lendrum et al., 2023).

Agronursing has emerged as an important field that focuses on the health and safety of individuals working in agricultural environments (Kurniyawan et al., 2026). Agronursing integrates nursing science with agricultural and environmental health perspectives to address occupational risks, promote preventive health strategies, and support the well-being of farming communities (Susanto & Berdida, 2025). Through health education, early detection of health problems, and community-based interventions, agronursing can strengthen resilience among farmers facing environmental and climate-related challenges (Hossain, 2025).

Despite growing recognition of the health implications of climate change for agricultural workers, the existing evidence remains scattered across different disciplines and research settings. A comprehensive synthesis of current research is needed to better understand how climate change affects farmers' health and to identify strategies that can support their adaptation and resilience (Ackerl et al., 2023). Therefore, this study aims to systematically review recent literature on the relationship between climate change and farmers' health, with particular attention to implications for agronursing practice and agricultural health promotion.

METHOD

Study Design

This study employed a systematic review design to synthesize existing evidence on the relationship between climate change and farmers' health. The review followed the PRISMA 2020 Statement reporting guidelines to ensure transparency, rigor, and reproducibility in the study selection and reporting process. The systematic review approach was used to identify, critically evaluate, and synthesize relevant research findings from multiple scientific databases.

Data Sources and Search Strategy

A comprehensive literature search was conducted using three major international databases: Scopus, PubMed, and ProQuest. These databases were selected because they index many high-quality peer-reviewed journals across health, environmental, and social science disciplines. The search strategy used a combination of Boolean operators and keywords to identify relevant studies. The primary search terms included "health," "farmer," and "climate change." The search was limited to studies published between 2025 and 2026 to capture the most recent evidence on the topic. All retrieved records were exported to a reference management tool for further screening and duplicate removal.

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Eligibility Criteria

Studies were selected according to predefined inclusion and exclusion criteria. The inclusion criteria were: (1) original research articles, (2) published between 2025 and 2026, (3) written in English, (4) available in full-text format, (5) open access publications, (6) reporting ethical clearance, and (7) having an active Digital Object Identifier (DOI). These criteria were applied to ensure the inclusion of high-quality and accessible scientific evidence. The exclusion criteria included duplicate publications, abstracts without full articles, case reports, conference proceedings, review articles without original data, editorials, interviews, commentaries, expert opinions, and other non-empirical publications. Articles that did not directly address the relationship between climate change and farmers' health were also excluded.

Study Selection Process

The study selection process followed the PRISMA 2020 flow framework, comprising identification, screening, eligibility assessment, and final inclusion. First, all articles retrieved from the databases were screened based on titles and abstracts to determine their relevance to the study topic. Duplicate records were removed during this stage. Next, the remaining articles were assessed through a full-text review to ensure they met the eligibility criteria. Only studies that fulfilled all inclusion criteria and did not meet any exclusion criteria were included in the final analysis. The selection process was documented using a PRISMA flow diagram to ensure transparency in the study identification and screening procedures.

Quality Appraisal and Data Analysis

The methodological quality of the included studies was assessed using the Joanna Briggs Institute (JBI) critical appraisal tools. This appraisal process evaluated several aspects of study quality, including methodological rigor, clarity of reporting, and potential risk of bias. Each article was independently reviewed using the relevant JBI checklist according to the study design. Following quality appraisal, data from the selected articles were extracted and synthesized using a narrative analysis approach. The analysis focused on identifying key themes related to the impacts of climate change on farmers' health, including physical health outcomes, mental health effects, environmental exposure, and adaptation strategies. The synthesized findings were then organized to provide a comprehensive overview of current scientific evidence on the topic.

RESULT

Identification of Studies

The initial literature search was conducted in three electronic databases: Scopus, PubMed, and ProQuest. A total of 6,262 records were identified during the identification stage, comprising 3,309 from Scopus, 13 from PubMed, and 2,940 from ProQuest. Before the screening process, 2,157 records were removed because the participants were not farmers or because the population did not align with the study's focus. After this preliminary exclusion, 4,092 records remained and were included in the title and abstract screening stage.

Screening of Records

During the screening stage, titles and abstracts of the 4,092 records were carefully reviewed to determine their relevance to the research topic. A total of 3,782 records were excluded because they did not address agricultural contexts or were unrelated to farmers' health issues. Following this

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screening process, 310 articles were considered potentially relevant and were moved forward for full-text retrieval and further evaluation.

Eligibility Assessment

At the eligibility stage, full texts of the 310 reports were sought for detailed assessment. However, 300 articles were excluded because they did not specifically address climate change and its impact on farmers' health. The remaining 41 articles were assessed in detail against predefined inclusion and exclusion criteria, including publication year, article type, language, open-access status, ethical clearance, and the presence of an active DOI.

Inclusion of Studies

After the final eligibility assessment, 31 articles were excluded because they did not meet the eligibility criteria established for this systematic review. Ultimately, 10 studies met all inclusion criteria and were included in the final synthesis. These studies were subsequently subjected to methodological quality appraisal using the Joanna Briggs Institute critical appraisal tools and analyzed to identify key findings on the impacts of climate change on farmers' health.

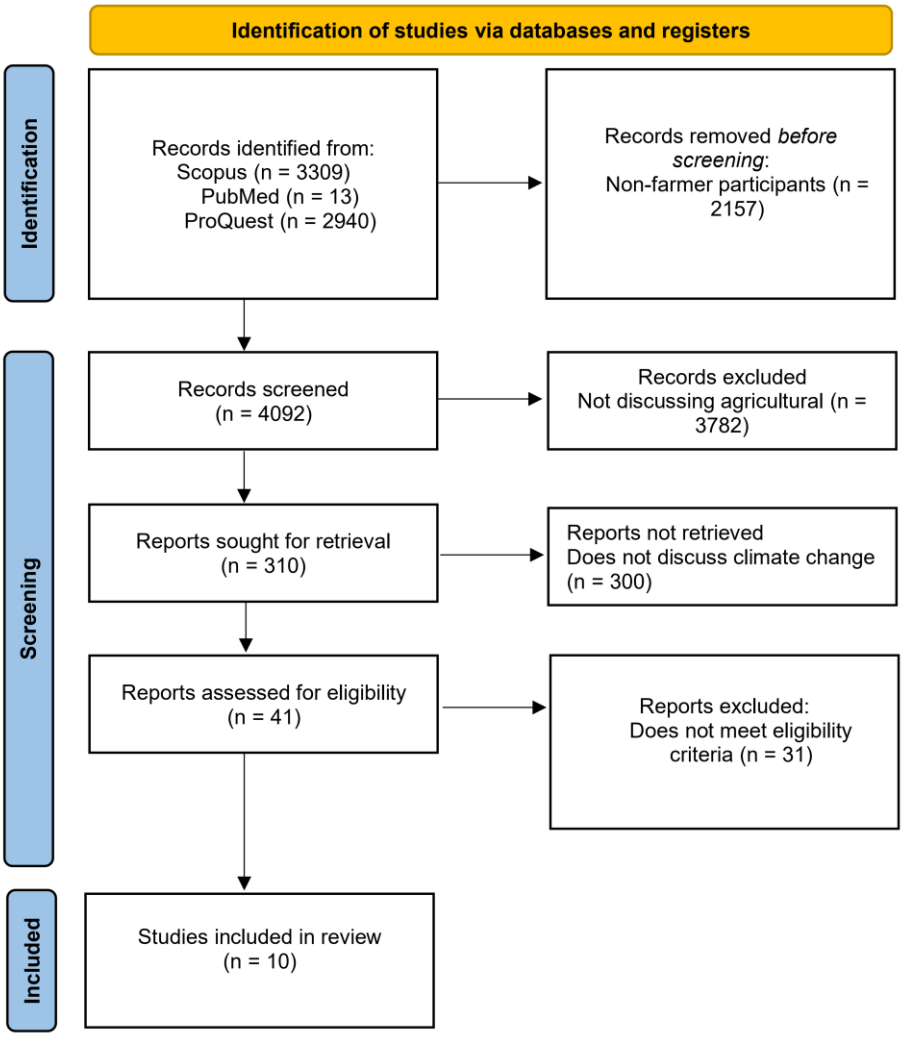

Figure 1. PRISMA flow chart for literature search

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Table 1. Results of included studies

Author	Objectives	Study Design	Sample Size (N)	Instrumen	Main findings
Siiba et al., (2026). Canada, Ghana, and the United States of America.	assesses smallholder farmers' experiences and perceptions of rainfall, drought, floods, storms, and wildfires; and explores how these experiences impact food security and health.	convergent mixed-method design, combining binomial regression analysis of survey data with qualitative insights.	1042 smallholder farmers in northern Ghana.	survey questions.	Experiences of drought and flood make smallholder farmers eat less, eat later, or overthink what to do to feed their families. These experiences are expressed in culturally specific language and embodied in feelings of despair, grief, and distress.
Kassaw et al., (2025). Ethiopia.	to assess the knowledge of the Amhara Sayint district community in Northeastern Ethiopia towards the health impacts of climate change.	A community-based cross-sectional study.	605 randomly selected households in Amhara Sayint district, Northeastern Ethiopia.	content validated questionnaire.	Of the total respondents, 3.47% and 42.98% had inadequate and medium levels of knowledge towards the health impacts of climate change, respectively.
Bhatasara et al. (2025). Zimbabwe. South Africa.	Exploring the nexus between climate adaptation strategies and psychosocial and nutritional health outcomes in a Zimbabwean rural community.	qualitative study.	a select sample of relevant stakeholders at national, provincial, and local levels.	climate variability and change, climate change adaptation, the local health system, agricultural systems, livelihoods, and climate services.	There is a nexus between climate change and health. positive nutrition benefits such as improved dietary diversity, a boost in self–esteem, and reduced stress levels, over food availability, as psychosocial health benefits.
Eggert et al., (2025). Germany, Burkina Faso, Kenya, South Africa, USA, Italy	to measure the relationships between heat stress and labour effort among subsistence farmers, accounting for gender-related differences in labour roles in Nouna, northwestern Burkina Faso.	longitudinal, prospective, observational cohort study	64 farmers with equal gender distribution.	wet-bulb globe temperature (WBGT).	Heat stress significantly reduces the physical effort during labour. Self-employed subsistence farmers appear to adapt to heat stress by lowering labour intensity, redistributing tasks throughout the day, and shifting work to cooler months. As climate change worsens, these adaptations could become inadequate. Women, who often balance household chores and fieldwork, have limited pacing strategies, heightening their vulnerability to increasing heat stress.

Author	Objectives	Study Design	Sample Size (N)	Instrumen	Main findings
Kumar, (2025). India	investigated the influence of the Pradhan Mantri Fasal Bima Yojana (PMFBY), a crop insurance scheme, on patterns of farmer suicides across the state.	a retrospective examination	of all agrarian suicides that took place in the Maharashtra districts	Using a Poisson Discrete model for scan statistics, to pinpoint statistically significant suicide clusters in specific districts and time frames	A notable reduction in suicide occurrences was observed following the implementation of PMFBY, especially in high-risk districts.
Samputra (2025).	Detection of food insecurity among female farming households due to climate change vulnerability in Sleman.	a quantitative survey method	150 female farming households	a FIES (Food Insecurity Experience Scale) survey	The frequent exposure to drought in agriculture experienced by women farmers and their ability to respond to the impacts of climate change influence the risk of food insecurity. Due to repeated exposure to drought, advanced age, farmers burdened by land rental costs, and a lack of participation in farmers' associations, farmers tend to experience moderate food insecurity.
Mohammadi-Mehr et al., (2025). Iran.	to investigate the impact of psychological capital on the quality of life of rural farmer families via the mediation of psychological coping strategies in the conditions of climate variability.	Structural Equation Modeling (SEM) design	270 rural farmer households living in Kermanshah province, Iran.	a questionnaire collected through face-to-face interviews with farmer families.	The psychological capital variable had the strongest effect on belief/value-oriented coping. Besides, the findings showed that problem-oriented and belief/value-oriented coping mediate the relationship between psychological capital and the quality of life of the studied farmer families under the conditions of climate variability.
Malone et al., (2025). Ireland	to develop and examine the effectiveness of a bespoke evidence-based educational intervention to increase help-seeking intentions, mental health	A parallel mixed-methods approach: a quasi-experimental design.	72 Irish farmers.	Mental Health Help-Seeking Intention Scale (MHSIS). Multicompo nent Mental	This intervention provides a successful example of integrating the Theory of Planned Behaviour and Self-Efficacy Theory to improve mental health literacy among farmers

Author	Objectives	Study Design	Sample Size (N)	Instrumen	Main findings
	literacy, self-efficacy, and knowledge of mental health-promoting behaviours among Irish farmers.			Health Literacy Scale-Resource Oriented Subscale (MMHL-RO). Self-Efficacy in Seeking Mental Healthcare Scale (SE-SMHC).	through a brief educational intervention.
	Assess the vulnerability of farmers in Kerala, India, using the Societal Vulnerability Index for Floods and Landslides (SVIFL).	a pilot survey	520 farm households in Kerala's highlands and lowlands	, the indicator-based Societal Vulnerability Index for Floods and Landslides (SVIFL) was used to assess the vulnerability of farmers to floods and landslides	The SVIFL can be an effective tool for assessing farmers' vulnerability to floods and landslides. If the indicators are tailored to farmers' local circumstances and living conditions, the index can also be used to assess vulnerability to hazards beyond floods and landslides.
Alawneh et al. (2025). Jordan	examines the prevalence of eye ailments among farmers and explores the environmental, occupational, and demographic factors contributing to these conditions.	cross-sectional study.	893 farmers.	The questionnaire investigated factors potentially correlated with eye diseases in farmers.	Farmers are particularly vulnerable to environmental and occupational factors that negatively impact their daily eye health. Despite their increased use of protective equipment, they still reported significant effects from climate conditions and agricultural activities.

Characteristics of Included Studies

A total of 10 studies met the inclusion criteria and were included in the final systematic review. These studies were conducted in various geographical regions, including Ghana, Ethiopia, Zimbabwe, Burkina Faso, India, Indonesia, Iran, Ireland, Jordan, and several European and African countries, reflecting the global nature of climate change impacts on farmers' health. The methodological approaches varied across the studies, including cross-sectional surveys, qualitative studies, mixed-method designs, cohort studies, quasi-experimental interventions, pilot surveys, and structural equation modeling. Sample sizes ranged from 64 farmers in a longitudinal cohort study to 1,042 smallholder farmers in a mixed-method study, indicating a diverse range of research scales and methodological frameworks. The studies examined multiple dimensions of farmers' health related to climate change, including mental health, food security, occupational health, vulnerability,

knowledge of climate impacts, and adaptive behaviors (Siiba et al., 2026; Kassaw et al., 2025; Eggert et al., 2025).

Table 2. Joanna Briggs Institute (JBI) Critical Appraisal of Included Studies

Author	Clear Objectives	Appropriate Design	Sample Adequacy	Valid Measurement	Data Analysis Appropriate	Confounding Factors Addressed	Ethical Consideration	Clear Conclusions	Score	Quality
Siiba et al., 2026	Y	Y	Y	Y	Y	Y	Y	Y	8	High
Kassaw et al., 2025	Y	Y	Y	Y	Y	U	Y	Y	7	High
Bhatasara et al., 2025	Y	Y	U	Y	Y	U	Y	Y	6	Moderate
Eggert et al., 2025	Y	Y	Y	Y	Y	Y	Y	Y	8	High
Kumar, 2025	Y	Y	Y	Y	Y	Y	U	Y	7	High
Samputra, 2025	Y	Y	Y	Y	Y	U	Y	Y	7	High
Mohammadi-Mehr et al., 2025	Y	Y	Y	Y	Y	Y	Y	Y	8	High
Malone et al., 2025	Y	Y	U	Y	Y	U	Y	Y	6	Moderate
Balakrishnan et al., 2025	Y	Y	Y	Y	Y	Y	Y	Y	8	High
Alawneh et al., 2025	Y	Y	Y	Y	Y	U	Y	Y	7	High

Climate Change and Mental Health of Farmers

Several studies highlighted the significant psychological and emotional impacts of climate change on farmers. Experiences of droughts, floods, storms, and other extreme climate events were associated with emotional distress, despair, grief, and anxiety among smallholder farmers. These experiences often affected farmers' daily lives, including sleep disturbances and constant concern about food availability for their families (Siiba et al., 2026). In addition, climate-related economic pressures have been linked to severe mental health outcomes. A study in India found that agricultural financial instability associated with climate variability contributed to clusters of farmer suicides. However, the implementation of crop insurance policies helped reduce suicide rates in high-risk districts (Kumar, 2025). Furthermore, interventions focusing on mental health literacy have shown promising results. An educational program targeting Irish farmers significantly improved help-seeking intentions, mental health literacy, and self-efficacy related to mental health care (Malone et al., 2025). These findings highlight the importance of mental health support programs for farmers experiencing climate-related stress.

Climate Change and Food Security

Climate change has also been closely associated with food insecurity among farming households. Repeated exposure to droughts and climate variability affects agricultural productivity and household food availability. Female farming households, particularly those facing socioeconomic challenges such as land rental costs, older age, and limited participation in farmer

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organizations, are at greater risk of moderate food insecurity (Samputra, 2025). Similarly, climate-related agricultural disruptions can force farmers to alter their eating patterns, such as eating less frequently or delaying meals due to uncertainty about food supplies (Siiba et al., 2026). These findings demonstrate that climate change not only affects agricultural production but also directly influences the nutritional and health status of farming communities.

Occupational and Environmental Health Risks

Climate change significantly increases occupational health risks among farmers, particularly through exposure to extreme temperatures and environmental hazards. Heat stress has been shown to reduce physical work capacity among subsistence farmers, leading them to adjust their labor patterns by reducing work intensity, redistributing tasks throughout the day, or shifting agricultural activities to cooler seasons (Eggert et al., 2025). However, these adaptive strategies may not be sufficient as global temperatures continue to rise. Female farmers are especially vulnerable because they often balance agricultural labor with household responsibilities, limiting their ability to adjust work patterns during periods of extreme heat (Eggert et al., 2025). Environmental conditions associated with farming activities also contribute to health problems such as eye diseases. Farmers are exposed to environmental factors, including sunlight, dust, and agricultural chemicals, which increase the risk of ocular health issues despite the use of protective equipment (Alawneh et al., 2025).

Knowledge, Adaptation, and Coping Strategies

Knowledge and awareness of climate change are important for farmers' ability to adapt to climate-related health risks. However, studies indicate that knowledge levels vary widely. In Ethiopia, only a small proportion of respondents demonstrated adequate knowledge about the health impacts of climate change, suggesting the need for targeted educational programs to improve community awareness (Kassaw et al., 2025). Psychological and social resources also influence farmers' resilience. Psychological capital, including optimism, resilience, and coping abilities, was found to significantly improve the quality of life among farmer households experiencing climate variability. Coping strategies mediated the relationship between psychological resources and overall well-being (Mohammadi-Mehr et al., 2025). Community-level climate adaptation strategies can also provide health benefits. In rural Zimbabwe, climate adaptation initiatives improved dietary diversity and enhanced psychosocial well-being by reducing stress related to food insecurity (Bhatasara et al., 2025).

Vulnerability of Farmers to Climate-Related Hazards

Farmers are increasingly vulnerable to environmental hazards such as floods, droughts, and landslides due to climate change. A multidimensional vulnerability index applied in Kerala, India, demonstrated that socioeconomic, environmental, and infrastructural factors interact to determine farmers' vulnerability to natural disasters (Balakrishnan et al., 2025). Such vulnerability assessments are important for identifying high-risk farming communities and developing targeted climate adaptation policies. The findings suggest that localized vulnerability indices can serve as effective tools for guiding disaster risk reduction strategies and improving farmers' resilience to climate-related hazards.

Overall Methodological Quality

The methodological quality of the included studies was evaluated using the Joanna Briggs Institute (JBI) critical appraisal approach. The assessment showed that most studies demonstrated

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high methodological quality, with scores ranging from 6 to 8 out of 8 criteria. Of the ten included studies, seven were categorized as high quality. At the same time, three were classified as moderate quality due to limitations such as unclear sampling strategies or limited control of confounding factors.

Strengths of the Included Studies

Most studies clearly stated their research objectives, used appropriate research designs, and applied valid measurement instruments. Quantitative studies commonly used validated questionnaires, indices, or standardized scales such as FIES, WBGT, and mental health literacy scales. Additionally, many studies employed robust statistical analyses, including regression models, structural equation modeling, and mixed-method approaches.

Methodological Limitations

Despite generally strong quality, several methodological limitations were identified. Some studies lacked detailed explanations regarding sampling procedures or the control of potential confounding variables. In qualitative and mixed-method studies, sample representativeness and generalizability were sometimes limited due to small sample sizes or purposive sampling strategies.

Implications for Evidence Synthesis

Overall, the included studies provide reliable evidence regarding the relationship between climate change and farmers' health. The predominance of high-quality studies strengthens the validity of the systematic review findings. However, future research should improve methodological transparency and address potential confounding factors to further enhance the quality of the evidence.

DISCUSSION

The findings of this systematic review highlight that climate change has become a significant determinant of health among farming populations. Farmers are directly exposed to environmental changes such as droughts, floods, extreme temperatures, and unpredictable weather patterns, which influence both their physical and mental health. Experiences of climate-related events often lead to emotional distress, uncertainty about livelihoods, and concerns about food availability. Smallholder farmers in particular reported feelings of despair, grief, and anxiety when facing recurrent climate shocks that threaten agricultural production and household food security (Siiba et al., 2026). From an agronursing perspective, these findings emphasize the importance of integrating environmental health considerations into nursing practice for agricultural communities. Agronursing focuses on improving the health and safety of farmers by addressing occupational, environmental, and social determinants of health within agricultural settings. Climate change, therefore, represents a critical area in which agronurses can contribute through health promotion, risk assessment, and community-based interventions to reduce climate-related health impacts (Schuelke & Ellermeier, 2023).

Mental health emerged as one of the most significant health concerns associated with climate change among farmers. Prolonged exposure to climate variability, economic instability, and agricultural uncertainty can lead to psychological distress and increased vulnerability to mental health disorders. For instance, climate-related agricultural failures have been associated with increased suicide risks among farmers in certain regions. However, policy interventions such as crop insurance programs have shown potential to reduce these risks (Kumar, 2025). Additionally,

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educational interventions designed to improve mental health literacy among farmers have demonstrated positive outcomes, including increased help-seeking behavior and improved understanding of mental health care (Malone et al., 2025; Omirin et al., 2025). Within agronursing practice, nurses working with farming communities play an important role in identifying early signs of psychological distress, providing mental health education, and facilitating access to supportive services. Integrating mental health promotion into agricultural health programs can help mitigate the psychological impacts of climate-related stressors (Tang & Ho, 2025).

Climate change also has profound implications for food security and nutritional health among farming households. Recurrent droughts and agricultural disruptions reduce crop yields and limit food availability, forcing farmers to adopt coping strategies such as reducing meal frequency or altering dietary patterns (Siiba et al., 2026). Female farmers are particularly vulnerable, as they often face additional socioeconomic constraints, including limited land ownership, financial pressures, and restricted access to agricultural resources (Samputra, 2025). These findings underscore the need for agronursing interventions that address both health and livelihood aspects of farming communities. Agronurses can contribute by supporting nutrition education, promoting sustainable agricultural practices, and collaborating with agricultural extension services to improve food resilience among farming households. Addressing nutritional health is essential not only for preventing malnutrition but also for enhancing farmers' overall resilience to climate-related challenges (Neupane et al., 2022).

Climate change increases occupational hazards for farmers, particularly through rising temperatures and extreme weather conditions. Heat stress, for example, has been shown to significantly reduce physical labor capacity among subsistence farmers, leading them to adjust work intensity and shift agricultural activities to cooler periods of the day or year (Eggert et al., 2025). However, these adaptations may become insufficient as global temperatures continue to rise. Farmers are also exposed to environmental factors, such as dust, sunlight, and chemical substances, which can negatively affect their health. Eye health problems have been reported among farmers due to prolonged environmental exposure and occupational conditions (Alawneh et al., 2025). From the agronursing perspective, occupational health surveillance, preventive education, and the promotion of personal protective equipment are essential strategies to protect farmers from environmental hazards associated with climate change (Yovi et al., 2023).

The ability of farmers to adapt to climate change is influenced by knowledge, coping strategies, and access to community resources. Studies have shown that farmers' understanding of the health impacts of climate change varies significantly across communities, indicating the need for targeted educational programs to improve awareness and preparedness (Kassaw et al., 2025). Psychological resilience also plays a key role in maintaining well-being under climate variability. Psychological capital, including optimism, resilience, and adaptive coping strategies, has been shown to positively influence the quality of life of farming households (Mohammadi-Mehr et al., 2025). Community-level adaptation initiatives can also produce broader health benefits, such as improved dietary diversity and enhanced psychosocial well-being in rural populations (Bhatasara et al., 2025). For agronursing practice, strengthening adaptive capacity among farmers is a critical strategy for promoting long-term health resilience. Agronurses can collaborate with agricultural, environmental, and public health sectors to develop community-based interventions that enhance farmers' knowledge, coping skills, and access to climate adaptation resources (Munawaroh, 2025).

CONCLUSION

This systematic review highlights that climate change has significant impacts on the health and well-being of farmers, affecting physical health, mental health, occupational safety, and food security. Farmers are increasingly exposed to environmental hazards, including extreme temperatures, droughts, floods, and other climate-related events, which threaten agricultural productivity and the stability of their livelihoods. These conditions contribute to psychological distress, nutritional challenges, and increased occupational health risks within farming communities. From an agronursing perspective, these findings underscore the importance of integrating environmental and agricultural health approaches into nursing practice. Agronurses play a crucial role in promoting health education, supporting mental health, improving occupational safety, and strengthening farmers' community resilience to climate-related challenges. Strengthening interdisciplinary collaboration among health professionals, agricultural sectors, and policymakers is essential to developing sustainable strategies to protect farmers' health amid ongoing climate change.

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