ISRG Journal of Arts, Humanities and Social Sciences (ISRGJAHSS)

ISRG PUBLISHERS
Abbreviated Key Title: ISRG J Arts Humanit Soc Sci
ISSN: 2583-7672 (Online)
Journal homepage: https://isrgpublishers.com/isrgjahss
Volume – IV Issue -I (January- February) 2026
Frequency: Bimonthly

Climate Crisis and Sanitary Collapse: The Environmental Emergency as a Public Health Issue

Tatiana Amorim Guimarães[1], Kelly Lene Lopes Calderaro[1], Sheila Erika Ferro Ramalho Nobre[1], Fernanda Santos Schwarz[1], Edylene Maria dos Santos Pereira[1], Siglia Sousa de Franca[1], Maria Cristina de Moura-Ferreira[2], Maria Terezinha Gomes Pontes[1], Mabel Alencar do Nascimento Rocha[1], Dr. Mario Angelo Cenedesi Júnior[1*]

[1] Universidad de Ciencias Empresariales y Sociales (UCES), Argentina

[2] Universidade Federal de Uberlândia (UFU), Brazil

| **Received:** 15.01.2026 | **Accepted:** 19.01.2026 | **Published:** 24.01.2026

***Corresponding author:** Dr. Mario Angelo Cenedesi Júnior
Universidad de Ciencias Empresariales y Sociales (UCES), Argentina

Abstract

The climate crisis has emerged as one of the most profound and far-reaching challenges to public health in the twenty-first century. Beyond its environmental dimension, climate change reshapes the conditions that sustain life, intensifies social inequalities, and places unprecedented pressure on health systems worldwide. This article analyzes the climate emergency as a structural public health issue, arguing that the current ecological disruption results from historically constructed models of development, production, and consumption. Through a theoretical and reflective academic essay, the text examines the multiple pathways through which climate change affects health, including extreme weather events, food and water insecurity, the spread of infectious diseases, the aggravation of chronic conditions, and the deterioration of mental health. The analysis highlights that the health impacts of the climate crisis are unevenly distributed, disproportionately affecting socially vulnerable populations, peripheral territories, and countries with weaker institutional capacity. The risk of sanitary collapse is discussed in relation to the growing mismatch between escalating environmental shocks and the limited resilience of underfunded and fragmented health systems. The article concludes by defending the incorporation of the climate agenda as a central axis of public health policy, emphasizing intersectoral action, environmental justice, and the strengthening of health governance as essential strategies for protecting collective health and sustaining life.

Keywords: Climate crisis; Public health; Environmental emergency; Environmental justice; Health systems

DOI: 10.5281/zenodo.18358664

Introduction

The climate crisis has ceased to be a distant or abstract environmental concern and has become a central issue for public health worldwide. Rising global temperatures, the intensification of extreme weather events, and accelerated ecosystem degradation are directly and indirectly transforming patterns of morbidity, mortality, and well-being. These changes challenge traditional health system responses and demand a broader understanding of the determinants of health that incorporates environmental processes as fundamental elements.

Contemporary climate change is deeply rooted in economic and social models based on the intensive exploitation of natural resources, dependence on fossil fuels, and unequal patterns of production and consumption. These models have generated unprecedented environmental degradation while simultaneously producing social and health vulnerabilities. The climate crisis thus reflects not only an ecological imbalance but also a profound crisis of development, governance, and social justice.

The health impacts of climate change are not evenly distributed across populations or territories. Socially marginalized groups, indigenous peoples, rural communities, and residents of urban peripheries are more exposed to environmental risks and possess fewer resources to adapt and respond. In this sense, the climate emergency amplifies preexisting social inequalities, revealing the intrinsic connection between environmental injustice and health inequities.

Given this context, it is essential to analyze climate change as a structural public health issue rather than a sector-specific environmental problem. This academic essay aims to critically examine the links between the climate crisis and sanitary collapse, highlighting the limits of current health systems and discussing the challenges posed to public policies, social protection, and the collective right to health.

Methodology

This study is an academic essay of a theoretical and reflective nature, grounded in classical and contemporary literature on climate change, public health, environmental determinants of health, and environmental justice. The text is based on a critical analysis of conceptual frameworks, institutional reports, and relevant scientific production, seeking to articulate different theoretical perspectives. Bibliographic references are presented exclusively at the end of the article, as proposed, and support the argumentative development without the use of in-text citations throughout the body of the manuscript.

Development

1. The climate crisis as a structural determinant of health

Climate change constitutes a structural determinant of health insofar as it reshapes the material conditions of life and reorganizes patterns of exposure to environmental risks. Heat waves, prolonged droughts, floods, wildfires, and severe storms have immediate effects on population health, increasing the incidence of cardiovascular, respiratory, infectious, and heat-related diseases, as well as injuries and premature deaths.

Beyond acute events, the climate crisis produces long-term and cumulative effects on the ecological systems that sustain human life. Biodiversity loss, soil degradation, water contamination, and declining agricultural productivity compromise food and water security, increasing malnutrition and vulnerability to disease. These processes undermine the biological and social reproduction of populations, particularly in already fragile contexts.

The health impacts of climate change are mediated by social conditions. Income, housing quality, access to infrastructure, and social protection determine the capacity of individuals and communities to anticipate, withstand, and recover from environmental shocks. As a result, socially disadvantaged populations experience greater exposure to harm and fewer opportunities for adaptation, reinforcing persistent health inequities.

Thus, the climate crisis should not be understood as a natural or inevitable phenomenon, but as the outcome of political and economic decisions that define how risks and protections are distributed. Health becomes a sensitive indicator of these structural asymmetries, revealing the social costs of environmental collapse.

2. Environmental emergency, inequality, and sanitary vulnerability

The environmental emergency intensifies sanitary vulnerability by disproportionately affecting populations already marked by social exclusion. Communities living in risk-prone areas, informal settlements, or regions lacking adequate sanitation, potable water, and health services are more severely impacted by climate-related events, such as floods, landslides, and heat stress.

Extreme environmental events often lead to forced displacement, loss of livelihoods, and disruption of social networks, producing long-lasting effects on physical and mental health. Climate-induced migration emerges as a growing phenomenon, generating new challenges for health systems and social protection policies, particularly in receiving territories that are frequently unprepared to respond.

Vulnerability in this context is not merely an individual condition but a structural one. Social markers such as class, race, gender, age, and territory intersect to produce differentiated exposures and outcomes. Women, children, older adults, and racialized groups often bear a disproportionate burden of climate-related health impacts, reflecting broader patterns of inequality and exclusion.

The concept of environmental justice becomes central to understanding these dynamics. The unequal distribution of environmental risks and benefits reveals that the climate crisis is also a political and ethical issue. Addressing sanitary vulnerability therefore requires confronting the social structures that systematically expose certain populations to greater harm.

3. Climate crisis, health systems, and public policy challenges

The growing frequency and intensity of climate-related events place unprecedented strain on health systems, increasing demand for emergency care, chronic disease management, and mental health services. In contexts marked by underfunding, workforce shortages, and fragmented organization, health systems face an elevated risk of sanitary collapse.

Traditional health system models, largely oriented toward curative and hospital-centered care, are insufficient to respond to the complex and multisectoral challenges posed by climate change. Effective responses require strong primary care, robust surveillance systems, emergency preparedness, and integration with environmental, social, and urban policies.

DOI: 10.5281/zenodo.18358664

One of the central challenges lies in translating scientific knowledge about climate and health into concrete policy action. Despite growing recognition of the problem, political resistance, economic interests, and short-term policy horizons often hinder the implementation of preventive and adaptive strategies. This gap between knowledge and action exacerbates health risks and deepens social inequities.

Incorporating the climate agenda into public health policy demands intersectoral governance, social participation, and a commitment to equity and sustainability. Health policies must align with broader development strategies that prioritize environmental protection, social justice, and the preservation of life.

Conclusion

The climate crisis represents a profound threat to public health, revealing the limits of existing development models and health system responses. Its impacts on health are structurally produced, socially mediated, and unevenly distributed, reinforcing long-standing patterns of inequality and vulnerability. Addressing these challenges requires moving beyond narrowly biomedical approaches.

The centrality of environmental determinants in the production of disease underscores the need for integrated and intersectoral public policies oriented toward environmental justice and social equity. Health systems committed to the right to health must engage with climate adaptation and mitigation as core components of their mission.

It is concluded that confronting the climate crisis as a public health issue is an ethical, political, and technical imperative. Advancing in this direction implies rethinking development models, strengthening democratic governance, and reaffirming health as a fundamental human right inseparable from the sustainability of the planet and the societies that inhabit it.

REFERENCES

1. Romanello, M., et al. (2025). *The 2025 report of the Lancet Countdown on health and climate change: climate change action offers a lifeline*. *The Lancet*, 406(10521), 2804–2857.
2. Watts, N., et al. (2025). *Lancet Countdown tracking progress on health and climate change*. *The Lancet Countdown on Health and Climate Change global report*.
3. Smith, K. R., Woodward, A., Campbell-Lendrum, D., et al. (2024). *Climate Change and Human Health: Risks and Responses*. *World Health Organization / IPCC synthesis report*.
4. Bell, J. E., et al. (2025). *Health systems adaptations to climate change: a systematic review of preparedness, resilience, and challenges*. *International Journal of Environmental Research and Public Health, 22*(10), e105492.
5. Adepoju, O. E., Watts, N., & Khan, M. (2025). *Climate change and health systems adaptation: global evidence and practice*. *BMC Public Health, 24*, 2015.
6. Kamkuemah, M., & Ayo-Yusuf, O. (2024). *Future proofing health in response to climate change and rapid urbanisation in Africa*. *BMJ*, 385:e076476.
7. *Public engagement with climate change and health: a global literature review* (2025). *EcoHealth*.
8. *Health and climate change adaptation assessment in U.S. states* (2025). *Environmental Research*
9. *Gender inequities in the impact of climate change on health: a scoping review* (2025). MDPI *International Journal of Environmental Research and Public Health, 21*(8), 1093.
10. *MEDTROP 2025: impacts of climate change on tropical diseases in the Americas* (2025). *Pan American Health Organization (PAHO/WHO) report*.
11. National Academies of Sciences, Engineering, and Medicine (2025). *New evidence report on greenhouse gas emissions and U.S. climate health and welfare*. National Academies Press.
12. Watts, N., Amann, M., Ayeb-Karlsson, S., et al. (2025). *Climate change and the most vulnerable populations*. *Nature Reviews Earth & Environment*.

DOI: 10.5281/zenodo.18358664