



Resilient safety nets: Rethinking health-related social protection amid emerging Climate-Driven Pandemics

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ABSTRACT

Emerging climate-driven pandemics expose critical weaknesses in existing health-related social protection systems. This article examined how intensifying environmental disruptions - ranging from zoonotic spillovers to heat-related disease outbreaks - challenge conventional frameworks of public health security and welfare provision. Drawing on interdisciplinary perspectives, it argued that social protection must be reconceptualised to address the dual threats of climate change and pandemics as interlinked crises rather than isolated phenomena. The analysis highlights the need for adaptive, universal, and equity-oriented policies capable of safeguarding vulnerable populations against cascading socio-economic shocks. By exploring innovative policy instruments and governance strategies, this study contributes to a transformative agenda that integrates climate resilience with health justice. Eventually, it calls for the reimagining of social protection as a dynamic infrastructure essential to sustaining human well-being in an era of unprecedented planetary risk.

Keywords: Social Protection, Climate Change, Pandemics, Health Systems, Resilience, Equity

INTRODUCTION

The convergence of accelerating climate change and the increasing frequency of emerging pandemics represents one of the most profound and complex challenges confronting policymakers, public health authorities, and social protection systems in the 21st century.¹ Over recent decades, rising global temperatures, loss of biodiversity and habitat fragmentation have created fertile conditions for the spillover of zoonotic pathogens, increasing the risk of infectious disease outbreaks that cross borders with unprecedented speed.² Simultaneously, climate-related hazards such as extreme heatwaves, floods, and air pollution are exacerbating non-communicable diseases and weakening the resilience of health systems, particularly in low- and middle-income countries (LMICs).

These interconnected threats have exposed significant shortcomings in the architecture of health-related social protection in regions and income levels. In high-income countries, fragmented and employment-linked benefits have not provided consistent coverage for informal workers, migrants, and

¹ For a detailed discussion of zoonotic spill overs and climate change, see IPCC (2022) and WHO (2020).

² Recent studies highlight how heat-related illnesses and respiratory diseases have risen sharply due to climate stressors. Priya Patel and Ayebe-Karlsson Sonja, "Preventing Disease or Illness? The Need for Climate-Sensitive Health Systems," *International Journal of Environmental Research and Public Health* 17, no. 7 (2020): 6103.

precarious labourers.³ In LMICs, underinvestment in universal entitlements and limited fiscal space have constrained governments' ability to mount timely and comprehensive responses to simultaneous health and climate shocks.⁴

The COVID-19 pandemic served as a stark illustration of these vulnerabilities.⁵ While nations with robust, universal, and adaptable social protection systems - such as Denmark and Germany - were better equipped to mitigate both the health crisis and its socioeconomic impacts, countries lacking inclusive frameworks experienced deepening inequalities, prolonged economic disruptions, and higher mortality.⁶ Additionally, the pandemic highlighted the phenomenon of syndemic vulnerability, where biological risks interact with established social inequities to compound harm.⁷

In this context, traditional models of health-related social protection, often premised on narrowly targeted, reactive interventions, are increasingly inadequate. As climate change intensifies the frequency and severity of health emergencies, a transformative reimagining of social protection is essential. This requires embedding universality, adaptability, and equity as foundational principles in policy design and implementation.⁸

This article argues that health-related social protection must evolve from a fragmented safety net into a dynamic, anticipatory infrastructure capable of buffering households and communities against the dual threats of climate disruption and pandemics. Drawing on interdisciplinary frameworks, comparative evidence, and lessons from recent crises, it outlines reform pathways that align social protection with broader objectives of health justice, climate resilience, and sustainable development.

CONCEPTUAL FRAMEWORK

Health-related social protection comprises the array of policies, institutional arrangements, and financing mechanisms that protect individuals and households against the economic and social consequences of ill-health.⁹ Traditionally, such frameworks were built on the premise that health risks manifest as discrete, individual events - an injury, an episode of illness, or a chronic condition - whose probability can be estimated actuarially and managed through insurance, targeted transfers, or means-tested social assistance.¹⁰ This approach reflected a biomedical and economic model that emphasised predictability, containment, and individualised interventions, underpinned by the notion that social protection could be efficiently deployed by identifying and compensating specific losses.¹¹

However, climate-driven pandemics and other large-scale health emergencies have revealed the limitations of this paradigm. Environmental change accelerates the emergence and transmission of infectious diseases by disrupting ecological systems, expanding vector ranges, and intensifying human-wildlife contact.¹² Such dynamics generate systemic threats that are inherently unpredictable and cannot be fully captured by risk-pooling mechanisms designed for idiosyncratic shocks.¹³ In the context of a

³ Janine Aron, John Muellbauer, and John Prinsloo, "Inequality in the Impact of the Coronavirus Shock: New Survey Evidence for the UK," *Oxford Review of Economic Policy* 36, no. Supplement 1 (2020): S44–69.

⁴ International Labour Organisation (ILO), *World Social Protection Report 2020–22: Social Protection at the Crossroads* (Geneva: ILO, 2021).

⁵ William Manga Mokofe and Stefan van Eck, "COVID-19 at the Workplace: What Lessons Are to Be Gained from Early Case Law?," *De Jure Law Journal* 55, no. 1 (2022): 155–72.

⁶ International Labour Organisation (ILO), *World Social Protection Report 2020–22: Social Protection at the Crossroads*.

⁷ The term "syndemic" was originally coined to describe the intersection of epidemics and social determinants. Clare Bamba et al., "The COVID-19 Pandemic and Health Inequalities," *J Epidemiol Community Health* 74, no. 11 (2020): 964–68.

⁸ Recent studies highlight how heat-related illnesses and respiratory diseases have risen sharply due to climate stressors; Patel and Ayeb-Karlsson, "Preventing Disease or Illness? The Need for Climate-Sensitive Health Systems."

⁹ Armando Barrientos, "Social Protection and Poverty.," *International Journal of Social Welfare* 20, no. 3 (2011).

¹⁰ Robert Holzmann and Steen Jørgensen, "Social Risk Management: A New Conceptual Framework for Social Protection, and Beyond," *International Tax and Public Finance* 8, no. 4 (2001): 529–56.

¹¹ Katherine F Smith et al., "Global Rise in Human Infectious Disease Outbreaks," *Journal of the Royal Society Interface* 11, no. 101 (2014): 20140950.

¹² Camilo Mora et al., "Over Half of Known Human Pathogenic Diseases Can Be Aggravated by Climate Change," *Nature Climate Change* 12, no. 9 (2022): 869–75.

¹³ United Nations Office for Disaster Risk Reduction (UNDRR), *Global Assessment Report on Disaster Risk Reduction* (Geneva: UNDRR, 2019).

pandemic, health risks are not restricted to individuals nor randomly distributed: they are shaped by social gradients of vulnerability, institutional capacity, and structural inequalities.¹⁴

One conceptual innovation that helps illuminate these complexities is the idea of syndemic vulnerability. The syndemic framework posits that epidemics do not occur in isolation but interact synergistically with social, economic, and environmental conditions to amplify harm.¹⁵ For example, in low-income urban settlements where overcrowding, inadequate water and sanitation, and insecure employment are prevalent, infectious disease outbreaks have both higher transmission potential and more devastating economic repercussions.¹⁶ Therefore, Syndemics underscore that biological hazards and social inequities are not separate domains but mutually reinforced dimensions of risk.¹⁷

These insights imply that conventional health-related social protection, which often focuses narrowly on compensating medical costs or temporary income loss, must be reconceptualised to address interconnected vulnerabilities. Effective protection requires an integrated strategy that combines immediate relief, prevention of long-term scarring, and building adaptive capacity.¹⁸

First, immediate relief involves the implementation of unconditional cash transfers, emergency food distributions, and rapid scaling of health services to contain hardship and reduce barriers to care.¹⁹ Second, preventing long-term scarring requires measures to maintain livelihoods, protect jobs and enterprises, and safeguard children's access to education and nutrition during disruptions.²⁰ Without such measures, temporary shocks can crystallise into persistent poverty traps that erode human capital.²¹ Finally, building adaptive capacity entails investing in resilient health systems, robust social registries, and community-based support networks that can flexibly respond to future crises.²²

In sum, climate-driven pandemics force a rethinking of health-related social protection. Rather than episodic interventions narrowly targeted at individual loss, protection systems must evolve into systemic, anticipatory, and equity-focused frameworks that recognise the syndemic nature of risk and strive to build resilience throughout life.²³

¹⁴ Nick Watts et al., "The 2020 Report of The Lancet Countdown on Health and Climate Change: Responding to Converging Crises," *The Lancet* 397, no. 10269 (2021): 129–70.

¹⁵ Emily Mendenhall, "Syndemics: A New Path for Global Health Research," *The Lancet* 389, no. 10072 (2017): 889–91.

¹⁶ Mendenhall, "Syndemics: A New Path for Global Health Research."

¹⁷ Mendenhall, "Syndemics: A New Path for Global Health Research."

¹⁸ Ugo Gentilini, "Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures," 2022.

¹⁹ Gentilini, "Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures."

²⁰ UNICEF and ILO, *Social Protection for Children and Families during COVID-19: Technical Note* (New York: UNICEF, 2020).

²¹ International Labour Office (ILO), *World Social Protection Report 2017–19: Universal Social Protection to Achieve the Sustainable Development Goals* (Geneva: ILO, 2017).

²² Watts et al., "The 2020 Report of The Lancet Countdown on Health and Climate Change: Responding to Converging Crises."

²³ Mora et al., "Over Half of Known Human Pathogenic Diseases Can Be Aggravated by Climate Change"; Watts et al., "The 2020 Report of The Lancet Countdown on Health and Climate Change: Responding to Converging Crises."

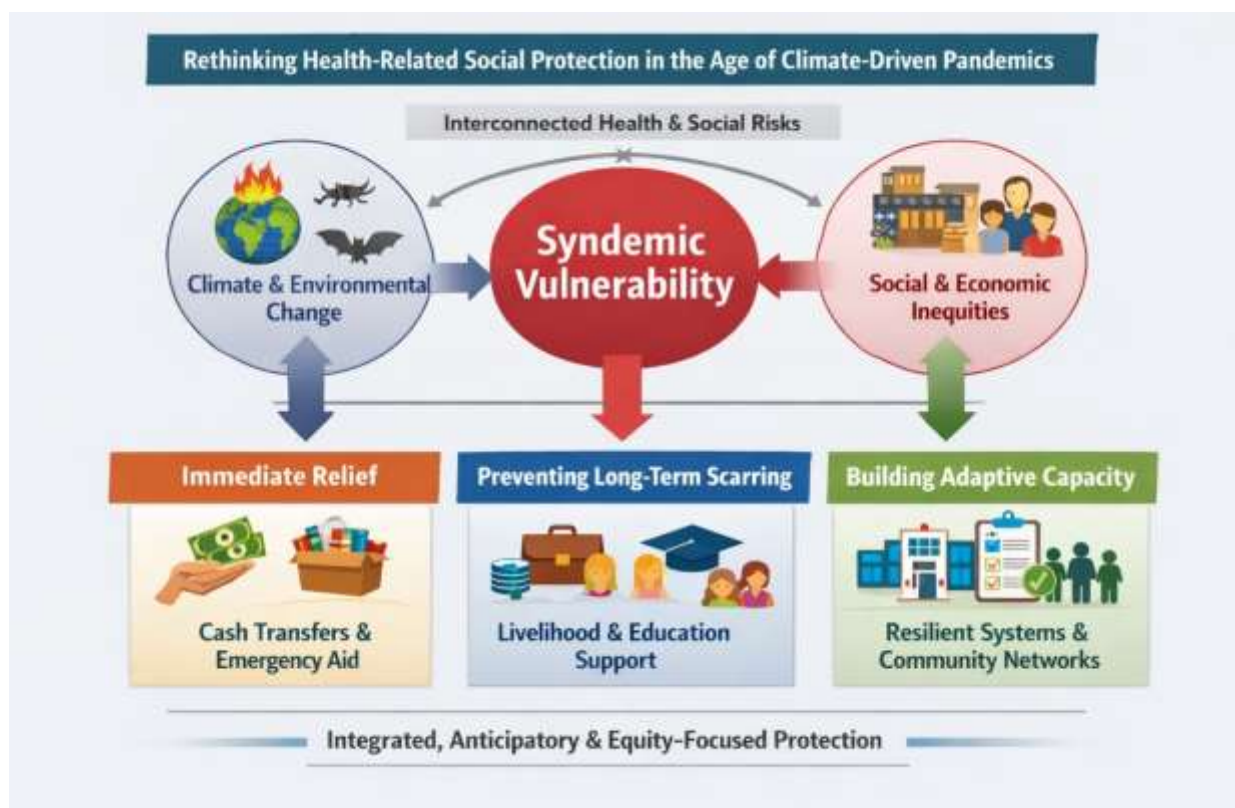


Figure 1: A conceptual visual diagram to support the conceptual framework.

METHODOLOGY

This study adopted a qualitative, interdisciplinary analytical methodology to examine the intersection between climate-driven environmental disruptions and pandemic risks. It synthesised insights from multiple fields, including public health, climate science, social policy, and governance studies. Rather than relying on primary empirical data, the research was conceptual and integrative, drawing on existing scholarly literature, global policy frameworks, and comparative cases to identify structural gaps in contemporary social protection systems. A systematic and purposive selection strategy was employed to identify and use sources.

The inclusion criteria were following: (a) peer-reviewed academic publications and authoritative institutional reports (such as those produced by international organisations, including the United Nations, World Health Organization, and World Bank); (b) sources published within the last 10–15 years to ensure contemporary relevance, while allowing for the inclusion of seminal earlier works where theoretically significant; (c) literature explicitly addressing the nexus between climate change, public health risks (including zoonotic diseases and heat-related illnesses), and social protection; and (d) comparative and cross-jurisdictional studies offering insights into policy responses across both Global North and Global South contexts. Exclusion criteria included non-scholarly opinion pieces lacking analytical rigour, sources with limited methodological transparency, and studies not directly engaging with the interlinkages between environmental change and health-related social protection. Priority was given to sources that demonstrate methodological robustness, interdisciplinary relevance, and policy applicability.

Subsequently, a thematic analysis was used to identify and trace recurring patterns linking climate change impacts with weaknesses in health-related social protection systems. This enabled the development of an interpretive framework that highlights systemic vulnerabilities and policy misalignments. The study also further adopted a normative dimension, proposing innovative governance strategies and policy instruments aimed at aligning social protection systems with principles of climate resilience, universality, and health justice. The methodology was designed to produce a theoretically

grounded and policy-oriented critique, contributing to a transformative reframing of social protection in the context of emerging and compounding planetary risks.

PRESENTATION OF FINDINGS AND DISCUSSION

A growing body of empirical research demonstrates that climate change is a significant driver of the incidence, distribution, and intensity of infectious diseases, particularly those transmitted by vectors. Longitudinal studies and ecological modelling have shown that rising temperatures, altered precipitation patterns, and shifting ecosystems have contributed to the geographic expansion of malaria, dengue fever, and Lyme disease into regions previously considered low-risk.²⁴ For example, vector-borne diseases such as dengue have increased in both incidence and geographic range as warming temperatures allow *Aedes* mosquitoes to thrive in higher latitudes and elevations.²⁵ These findings illustrate that climate variability is not merely an environmental concern but a determinant of public health burdens with profound social and economic implications.

Moreover, empirical evidence indicates that deforestation, biodiversity loss, and habitat fragmentation have accelerated the frequency of zoonotic spill-overs - episodes in which pathogens jump from animal hosts to human populations.²⁶ Researchers have documented how land-use change, including agricultural expansion and road building, increases human exposure to wildlife reservoirs of disease, facilitating the emergence of pathogens such as Ebola, Nipah virus, and novel coronaviruses.²⁷ The COVID-19 pandemic has highlighted this dynamic vividly: epidemiological investigations suggest that the virus likely originated in wildlife before entering human populations through markets or supply chains linked to habitat disruption.²⁸

During the COVID-19 crisis, comparative empirical assessments of social protection systems underscored the protective role of universal and adaptive policies. Countries such as Germany and Denmark, which maintained comprehensive income support, wage subsidies, and accessible healthcare, succeeded in limiting both the health and economic consequences of the pandemic.²⁹ In Germany, Kurzarbeit wage subsidies preserved employment relationships, while universal health coverage ensured equitable access to testing and treatment.³⁰ Denmark implemented extensive compensation for businesses and workers affected by shutdowns, cushioning household incomes and sustaining aggregate demand.³¹

In contrast, countries with fragmented or residual protection systems experienced more pronounced inequalities and slower recovery trajectories. In India, the lockdown left millions of informal workers without adequate safety nets, forcing mass migrations and deepening poverty.³² In the United States, gaps in unemployment insurance coverage, limited paid sick leave, and high rates of uninsurance among low-wage workers magnified socioeconomic vulnerabilities.³³ The International Labour Organisation (2020) estimated that 1.6 billion informal workers worldwide suffered catastrophic income losses with little recourse to effective support mechanisms.

Collectively, these empirical outcomes underscore the imperative for robust, universal entitlements that can be scaled up rapidly and equitably in response to systemic shocks. They demonstrate that resilient social protection is not only a matter of ethics but also of economic stability and public health preparedness.³⁴

²⁴ Mora et al., "Over Half of Known Human Pathogenic Diseases Can Be Aggravated by Climate Change."

²⁵ Toph Allen et al., "Global Hotspots and Correlates of Emerging Zoonotic Diseases," *Nature Communications* 8, no. 1 (2017): 1124.

²⁶ Allen et al., "Global Hotspots and Correlates of Emerging Zoonotic Diseases."

²⁷ Laura S P Bloomfield, Tyler L McIntosh, and Eric F Lambin, "Habitat Fragmentation, Livelihood Behaviors, and Contact between People and Nonhuman Primates in Africa," *Landscape Ecology* 35, no. 4 (2020): 985–1000.

²⁸ Mora et al., "Over Half of Known Human Pathogenic Diseases Can Be Aggravated by Climate Change."

²⁹ Gentilini, "Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures."

³⁰ Organisation for Economic Co-operation and Development (OECD), *Supporting People and Companies to Deal with the COVID-19 Virus: Options for an Immediate Employment and Social-Policy Response* (Paris: OECD, 2020).

³¹ Gentilini, "Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures."

³² International Labour Organisation (ILO), *ILO Monitor: COVID-19 and the World of Work. Third Edition* (Geneva: ILO, 2020).

³³ William Mokofe, "From Precarity to Pandemic: How the Covid-19 Pandemic Has Exacerbated Poverty, Unemployment, and Inequality in South Africa.," *Law, Democracy & Development* 26 (2022): 395.

³⁴ Gentilini, "Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures."

The analysis shows that climate-driven health emergencies significantly strain existing social protection and public health systems. Evidence from interdisciplinary sources indicates three major findings:

Firstly, climate-related events such as zoonotic spillovers, rising temperatures, and heat-related disease outbreaks disproportionately impact low-income and marginalised groups, revealing persistent equity gaps within current protection mechanisms.

Secondly, Conventional welfare and health-security frameworks are not equipped to manage the compounded effects of climate shocks and pandemics, resulting in fragmented service delivery and inadequate coverage during crisis periods, and thirdly, the review identifies growing international support for universal, flexible, and climate-responsive social protection measures. These include early-warning systems, climate-sensitive health coverage, and integrated risk-management strategies designed to reduce socio-economic disruption during public health emergencies. The results indicate that social protection systems must undergo structural transformation to address the interconnected risks posed by climate change and emerging pandemics.

Policy Implications

The convergence of climate change, pandemics, and established social inequalities requires a transformative approach to health-related social protection. Policy reforms should be guided by three strategic priorities designed to build resilient systems capable of withstanding future shocks while advancing social justice.

First, countries must adopt universal and adaptive entitlements that guarantee access to essential support, regardless of an individual's employment status or income level. Traditional contributory schemes, often linked to formal labour market participation, systematically exclude informal workers, migrants, and those in precarious employment (ILO 2021).³⁵ Universal entitlements - such as unconditional cash transfers, universal health coverage, and minimum income guarantees - can be designed with adaptive triggers that enable benefits to expand automatically during crises.³⁶ This flexibility is essential to respond to the unpredictable, systemic risks posed by climate-driven disease outbreaks and economic disruptions.³⁷

Second, integrating climate risk assessments into social protection planning is crucial for anticipatory action. Many existing programs rely on reactive measures that only deploy assistance after crises have already inflicted harm. Instead, policymakers should invest in early warning systems that combine climate modelling, epidemiological surveillance, and socio-economic vulnerability data to trigger pre-emptive interventions.³⁸ For instance, predictive analytics can inform the scaling of cash transfers ahead of forecasted extreme weather events or disease outbreaks, reducing losses and protecting livelihoods.³⁹

Third, equity and participation must be central to governance arrangements. Marginalised groups, including women, Indigenous communities, and informal workers, are disproportionately exposed to compounded risks, but are frequently excluded from decision-making processes. Inclusive governance structures, such as participatory targeting mechanisms and community monitoring committees, can improve accountability, ensure that programs respond to diverse needs, and empower affected populations.⁴⁰ Strengthening legal frameworks to enshrine the right to social protection further reinforces entitlements and reduces the arbitrariness of access.⁴¹

³⁵ International Labour Organisation (ILO), *World Social Protection Report 2020–22: Social Protection at the Crossroads*.

³⁶ Gentilini, "Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures."

³⁷ Organisation for Economic Co-operation and Development (OECD), *Supporting People and Companies to Deal with the COVID-19 Virus: Options for an Immediate Employment and Social-Policy Response*.

³⁸ Watts et al., "The 2020 Report of The Lancet Countdown on Health and Climate Change: Responding to Converging Crises"; United Nations Office for Disaster Risk Reduction (UNDRR), *Global Assessment Report on Disaster Risk Reduction*.

³⁹ Food and Agriculture Organisation (FAO), *Anticipatory Action: The Use of Forecasts for Early Response to Drought* (Rome: FAO, 2020).

⁴⁰ Devereux, Stephen, and Rachel Sabates-Wheeler. 2004. "Transformative Social Protection." IDS Working Paper No. 232. Brighton: Institute of Development Studies.

⁴¹ International Labour Organisation (ILO), *World Social Protection Report 2020–22: Social Protection at the Crossroads*.

Sustainable financing is critical to operationalising these priorities. Options include progressive taxation, such as wealth taxes and closing loopholes in corporate taxation, dedicated climate adaptation funds earmarked for resilience-building, and international solidarity mechanisms, including concessional financing and debt relief for low- and middle-income countries.⁴² Beyond mobilising resources, these approaches reflect an ethical commitment to shared responsibility in addressing global public risks.⁴³

Collectively, these policy measures underscore that resilient, inclusive social protection is not a peripheral concern but a cornerstone of sustainable development, climate adaptation, and pandemic preparedness.

Legal and Human Rights Dimensions – Normative Commitments

Reimagining health-related social protection in the context of climate-driven pandemics is not only a matter of policy efficiency or economic prudence. It is fundamentally anchored in legal and human rights commitments established under international, regional, and domestic frameworks.

At the international level, the right to social security is explicitly recognised in Article 9 of the *International Covenant on Economic, Social and Cultural Rights (ICESCR)*, which obliges States Parties to progressively realise universal social protection.⁴⁴ General Comment No. 19 of the Committee on Economic, Social and Cultural Rights further clarifies that this right includes adequate protection against loss of livelihood or health, particularly during crises.⁴⁵ Similarly, the *Universal Declaration of Human Rights* affirms in Article 22 that everyone has the right to social security, which is indispensable for dignity and free development of personality.⁴⁶

The International Labour Organisation has codified these commitments in more operational terms through its *Social Protection Floors Recommendation, No. 202*, which calls on all member states to guarantee at least a basic level of income security and access to essential healthcare throughout the life course.⁴⁷ Notably, Recommendation No. 202 explicitly highlights the importance of universality, adequacy, and crisis responsiveness, recognising that contingencies such as sickness, unemployment, and disasters require robust public mechanisms.⁴⁸

In the context of climate change, these legal commitments intersect with the principles of climate justice and intergenerational equity. The preamble of the *Paris Agreement* acknowledges that climate action must respect, promote and consider human rights, including the rights of vulnerable groups.⁴⁹ The emerging discourse on loss and damage, particularly under the Warsaw International Mechanism, frames the impacts of climate-induced disasters as issues of responsibility and solidarity.⁵⁰ This perspective strengthens the normative argument that countries have obligations not only to protect their citizens but also to contribute to international assistance and financing for resilience in lower-income countries.⁵¹

At the regional and domestic levels, constitutions increasingly enshrine rights to health and social protection. For example, the Constitution of South Africa establishes enforceable rights to social security and healthcare services.⁵² Similarly, the Brazilian Constitution guarantees social protection as

⁴² International Monetary Fund (IMF), *Fiscal Monitor: Strengthening the Credibility of Public Finances* (Washington, DC: IMF, 2021).

⁴³ United Nations (UN), *Financing for Sustainable Development Report 2021* (New York: UN, 2021).

⁴⁴ United Nations (UN), *Financing for Sustainable Development Report 2021*.

⁴⁵ CESCR, “General Comment No. 19,” 2008.

⁴⁶ UN General Assembly. 1966. *International Covenant on Economic, Social and Cultural Rights*. UN Doc. A/RES/2200A(XXI).

⁴⁷ International Labour Organization (ILO). 2012. *Recommendation No. 202: Social Protection Floors Recommendation, 2012*. Geneva: ILO.

⁴⁸ International Labour Organization, “Social Protection Floors Recommendation, 2012 (No. 202),” 2012, https://www.ilo.org/global/standards/recommendations/WCMS_183326/lang--en/index.htm.

⁴⁹ UNFCCC (United Nations Framework Convention on Climate Change). 2015. *Paris Agreement*. FCCC/CP/2015/10/Add.1.

⁵⁰ UNFCCC (United Nations Framework Convention on Climate Change). 2013. *Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts*. Decision 2/CP.19.

⁵¹ UN 2021.

⁵² Constitution of the Republic of South Africa, 1996.

a pillar of the welfare state.⁵³ These provisions create justiciable obligations that can be invoked by individuals and civil society organisations when entitlements are denied or inadequately provided.⁵⁴

Together, this evolving normative architecture affirms that health-related social protection is not merely a discretionary policy, but a legal duty grounded in international and domestic commitments. It requires states to take proactive measures to anticipate risks, close coverage gaps, and ensure that no one is left behind, particularly as climate-related hazards intensify.

These normative commitments do more than articulate aspirational goals. They establish clear legal obligations that compel states to design social protection systems capable of addressing intersecting risks - whether economic shocks, health emergencies, or climate-related disasters. Recognising this legal foundation reinforces the argument that adaptive and universal entitlements are not merely policy innovations but the practical realisation of internationally recognised rights. In this context, the evolving climate crisis intensifies the urgency of fulfilling these obligations through frameworks grounded in principles of climate justice and intergenerational equity.

Climate Justice Perspectives

The climate justice framework underscores that the burdens of climate change are disproportionately borne by those who have contributed least to global emissions, often low-income populations in the Global South and marginalised communities within high-income countries.⁵⁵ This perspective reframes social protection as an essential element of just transition pathways to low-carbon, climate-resilient development that do not exacerbate poverty or exclusion.⁵⁶

In operational terms, climate justice requires that financing for adaptive social protection be mobilised through mechanisms that reflect historical responsibility and differentiated capacity. Instruments such as the Green Climate Fund, the Loss and Damage Fund, and concessional lending arrangements have emerged as vehicles for channelling international solidarity into concrete entitlements.⁵⁷ Importantly, this approach links social protection to broader debates on reparations, equity, and the moral duty of wealthier nations to support resilience-building in more vulnerable societies.⁵⁸

By aligning national social protection strategies with climate justice principles, policymakers can strengthen both the legitimacy and sustainability of their reforms. This also reinforces the idea that resilience is a shared global project, rather than the exclusive responsibility of individual governments.

Case Law Illustration

Judicial enforcement of the right to social protection and health demonstrates that these rights are justiciable rather than abstract. For example, in *Soobramoney v Minister of Health*,⁵⁹ the Constitutional Court of South Africa recognised that the state must take reasonable measures within available resources to achieve progressive access to healthcare services. Although the applicant's claim failed on resource grounds, the judgment affirmed the enforceability of socio-economic rights under the Constitution.

Similarly, in *Grootboom v Government of the Republic of South Africa*,⁶⁰ the Court held that the state's housing policy was unconstitutional for not providing relief to people in desperate need. While not about social protection per se, *Grootboom* established that socio-economic rights demand targeted measures to address the needs of the most vulnerable -an argument directly applicable to climate-related emergencies.

More recently, litigation under the European Social Charter and the European Convention on Human Rights has recognised state duties to protect life and health in disaster settings, further

⁵³ Constitution of Brazil, 1988.

⁵⁴ Ingrid Leijten, *Core Socio-Economic Rights and the European Court of Human Rights* (Cambridge: Cambridge University Press, 2018).

⁵⁵ UN 2021.

⁵⁶ UNFCCC 2015.

⁵⁷ UNFCCC 2015.

⁵⁸ UN 2021.

⁵⁹ *Soobramoney v Minister of Health (Kwazulu-Natal)* (CCT32/97) [1997] ZACC 17.

⁶⁰ *Government of the Republic of South Africa and Others v Grootboom and Others* (CCT11/00) [2000] ZACC 19.

consolidating the legal consensus that resilience-building measures are part of states' positive obligations.⁶¹

CONCLUSION

As climate-driven pandemics escalate in frequency and severity, reimagining health-related social protection has become both an ethical imperative and a practical necessity. The COVID-19 crisis exposed the deep vulnerabilities embedded within existing systems, particularly those designed around fragmented, employment-linked, and reactive mechanisms of support. Simultaneously, the pandemic underscored how public health emergencies magnify pre-existing inequalities, disproportionately harming low-income households, informal workers, and marginalised communities.

In the future, intensifying pressures of climate change will continue to shape the landscape of disease emergence and economic risk. Heatwaves, vector-borne infections, zoonotic spillovers, and weather-related disasters are projected to interact in complex, compounding ways that no longer conform to traditional models of isolated, predictable shocks. In this context, building adaptive, universal, and equitable social protection systems is essential to sustaining human well-being in the Anthropocene.

Adaptive systems must integrate climate risk assessments and early warning capabilities to anticipate crises rather than simply respond to them. Universal systems must guarantee entitlements regardless of employment status or contributory histories, closing persistent coverage gaps. Equitable systems must be designed with participatory governance, ensuring that those most affected by intersecting risks have a voice in shaping policies.

This agenda is ambitious but achievable. It requires sustained political commitment, innovative financing - including progressive taxation and climate adaptation funding - and strengthened multilateral cooperation grounded in principles of solidarity and shared responsibility. Resilience must be understood not only as the capacity to withstand shocks but as the capability to transform systems to reduce injustice, empower communities, and protect the foundations of collective well-being.

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⁶¹ Leijten, *Core Socio-Economic Rights and the European Court of Human Rights*.

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