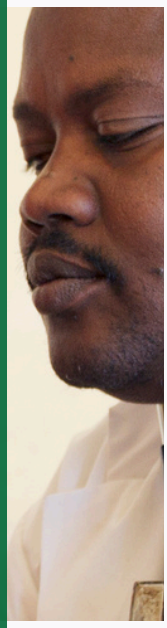
AFRICATALYST

THE CLIMATE AND HEALTH NEXUS:

Country Priorities, Best Buys, Challenges, and Opportunities



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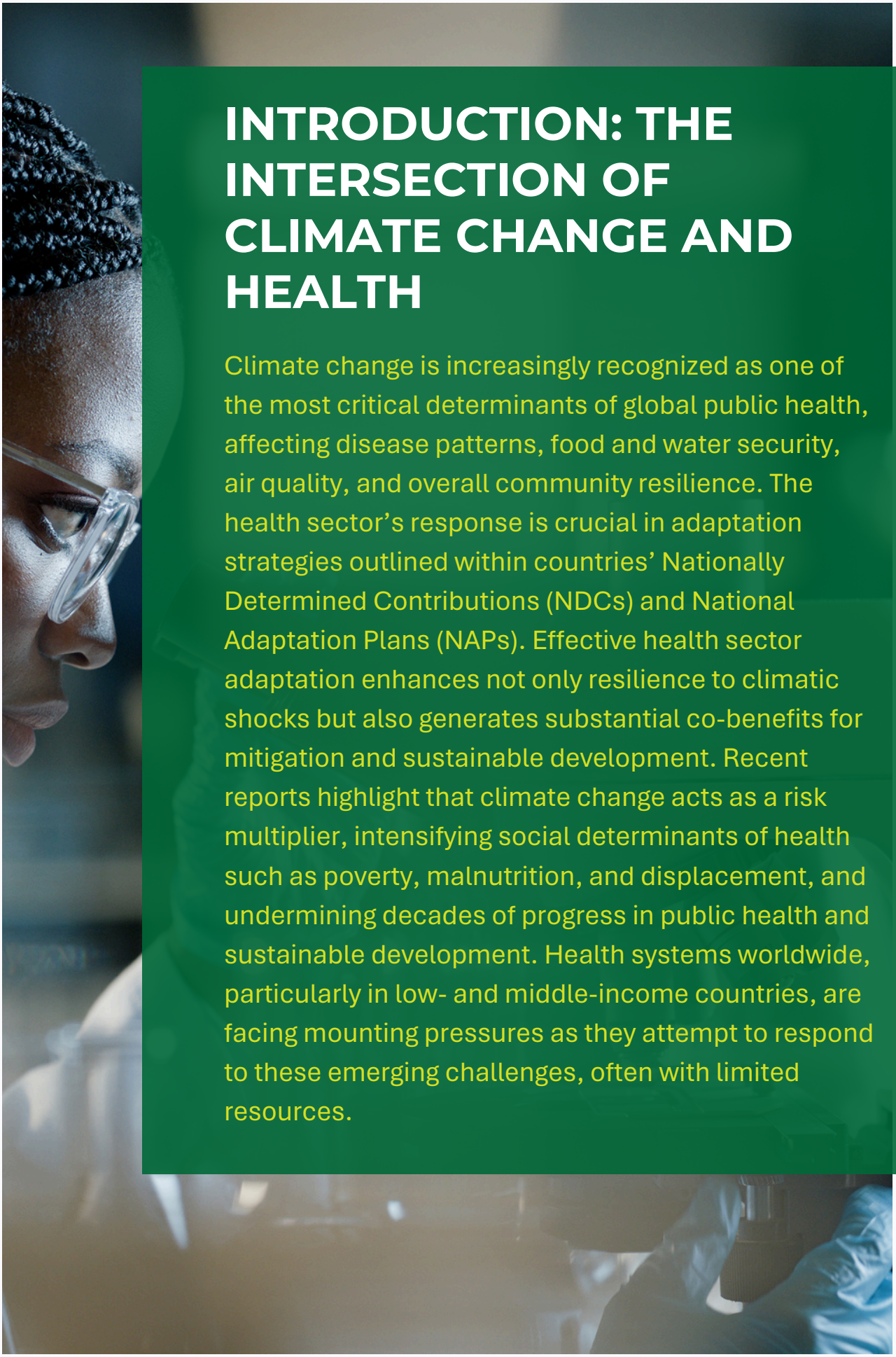


INTRODUCTION: THE INTERSECTION OF CLIMATE CHANGE AND HEALTH

Climate change is increasingly recognized as one of the most critical determinants of global public health, affecting disease patterns, food and water security, air quality, and overall community resilience. The health sector's response is crucial in adaptation strategies outlined within countries' Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs). Effective health sector adaptation enhances not only resilience to climatic shocks but also generates substantial co-benefits for mitigation and sustainable development. Recent reports highlight that climate change acts as a risk multiplier, intensifying social determinants of health such as poverty, malnutrition, and displacement, and undermining decades of progress in public health and sustainable development. Health systems worldwide, particularly in low- and middle-income countries, are facing mounting pressures as they attempt to respond to these emerging challenges, often with limited resources.

However, the nexus between climate and health also presents transformative opportunities. Strategically integrating health considerations into climate action, such as through Nationally Determined Contributions (NDCs), can yield substantial co-benefits, improving both planetary and population health. Investment in resilient health systems and climate-smart health interventions not only safeguards communities from the immediate threats of climate change but also promotes healthier, more equitable societies. Thus, addressing climate change through a health lens becomes imperative, promising benefits that extend across social, environmental, and economic dimensions.

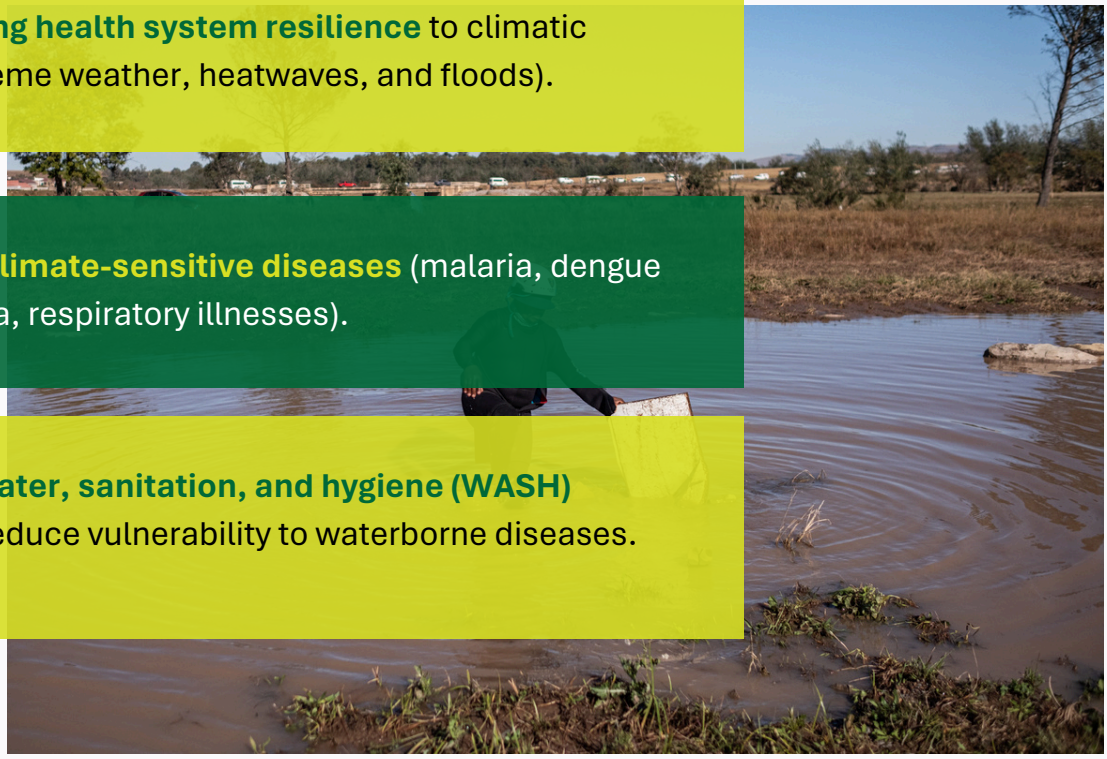
COUNTRY PRIORITIES AT THE CLIMATE-HEALTH NEXUS

Based on the review of multiple NDCs (e.g., Botswana, Cameroon, DRC, Côte d'Ivoire, Egypt, Ghana, Namibia, Niger, RCA, Senegal, Sudan, Uganda, Zambia, Zimbabwe), key national priorities include:

Strengthening health system resilience to climatic shocks (extreme weather, heatwaves, and floods).

Addressing **climate-sensitive diseases** (malaria, dengue fever, cholera, respiratory illnesses).

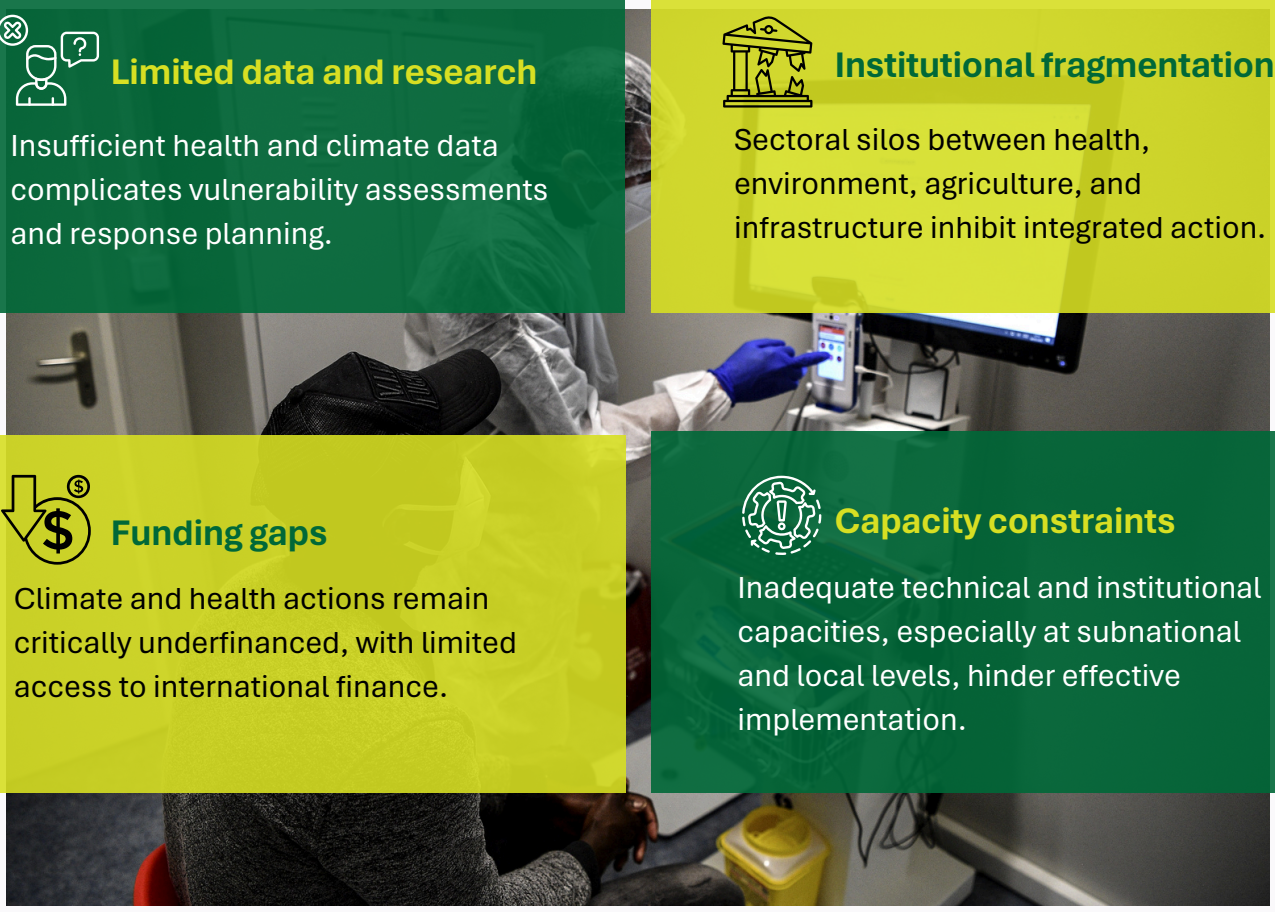
Enhancing **water, sanitation, and hygiene (WASH)** systems to reduce vulnerability to waterborne diseases.



Across the analyzed countries, climate and health priorities reflect both regional specificities and universal commonalities. Countries in Sub-Saharan Africa, such as Uganda, Ghana, Senegal, Namibia, and Côte d'Ivoire, prominently highlight challenges linked to vector-borne diseases, nutritional insecurity, and strengthening the resilience of health infrastructure to climatic shocks such as droughts, floods, and extreme heat. Northern and Saharan Africa, exemplified by countries like Egypt and Sudan, emphasize managing water scarcity, addressing respiratory illnesses from deteriorating air quality, and integrating climate risks into health planning. Southern African countries like Botswana, Zambia, and Zimbabwe underscore the importance of addressing water resource vulnerabilities and nutrition impacts, exacerbated by prolonged droughts and irregular rainfall patterns. Despite these geographic differences, a shared thread emerges clearly: all countries prioritize the strengthening of health systems resilience, improvement in water, sanitation, and hygiene (WASH) infrastructure, and better disease surveillance systems to effectively manage increasing health risks associated with climate variability and extreme weather events.

CHALLENGES IN THE CLIMATE-HEALTH NEXUS

Despite the clear benefits, significant challenges exist in effectively addressing the climate-health nexus. The Rockefeller Foundation and GCHA reports emphasize that critical gaps remain in both awareness and action, largely due to inadequate financing and fragmented governance structures. Many health systems lack the essential capacity to prepare for, respond to, and recover from climate-induced health shocks. Additionally, limited cross-sectoral coordination impedes the integration of climate and health initiatives, creating silos that dilute overall effectiveness. Furthermore, the scarcity of localized climate-health data hampers precise vulnerability assessments and targeted interventions. Overcoming these challenges requires dedicated financial resources, strengthened governance mechanisms, enhanced inter-sectoral collaboration, and substantial investments in data infrastructure and capacity building. In particular, here some key challenges in the nexus:



Limited data and research

Insufficient health and climate data complicates vulnerability assessments and response planning.

Institutional fragmentation

Sectoral silos between health, environment, agriculture, and infrastructure inhibit integrated action.

Funding gaps

Climate and health actions remain critically underfinanced, with limited access to international finance.

Capacity constraints

Inadequate technical and institutional capacities, especially at subnational and local levels, hinder effective implementation.

Misalignment of actions

Often ambitious emissions reduction targets are not aligned with global climate goals, or they contradict continued investments in fossil fuel infrastructure.

Underdeveloped monitoring frameworks

Health outcomes are rarely integrated into national climate monitoring systems, hindering accountability and tracking of health gains from climate initiatives.

OPPORTUNITIES FOR ACTION AND 'BEST BUYS'

Several evidence-backed interventions provide substantial climate and health co-benefits and should be prioritized as "best buys":

Climate-Resilient Health Infrastructure

Investing in resilient hospitals and health centers that can withstand climatic shocks and continue service delivery during crises.

Integrated Early Warning Systems (EWS)

Expanding EWS for climate-sensitive diseases such as malaria and dengue, coupled with robust surveillance and rapid response mechanisms.

Clean Air Initiatives

Transitioning to renewable energy and sustainable transportation, significantly reducing air pollution-related morbidity and mortality.

WASH Infrastructure Enhancement

Upgrading water and sanitation systems to be resilient against extreme weather events, ensuring sustained public health protection.

Community-Based Health Adaptation

Implementing bottom-up, community-driven health interventions tailored to local climate vulnerabilities, promoting inclusivity and effectiveness.

A recent report by Rockefeller Foundation identifies additional opportunities, emphasizing the strategic value of aligning investments in climate and health across sectors, advocating for coordinated resource mobilization, and strengthening fiscal policy reform to enhance financial sustainability. Crucially, it recommends prioritizing health system investments that concurrently address climate risks and reduce greenhouse gas emissions within healthcare operations.

An emerging, transformative opportunity lies in **digital health** as a key adaptation measure. Investing in digital public infrastructure can dramatically enhance health systems' resilience by facilitating real-time data collection, remote healthcare delivery, and robust disease surveillance. Digital solutions can reduce the vulnerability of health services to climate-induced disruptions, ensure continuity of care during

crises, and significantly expand access to healthcare, particularly in remote and underserved areas. Leveraging digital innovations thus presents an impactful pathway to bolstering climate resilience and improving health outcomes globally.

RECOMMENDATIONS FOR EFFECTIVE CLIMATE-HEALTH ACTION

Leveraging international frameworks such as the New Collective Quantified Goal (NCQG) and the Global Goal on Adaptation (GGA) under the Paris Agreement offers critical pathways for mobilizing financial resources specifically targeted at climate-health actions. Furthermore, clear integration of health in updated NDCs and HNAPs can significantly enhance eligibility for international climate finance. To maximize impact and overcome current challenges, countries and stakeholders should:

Enhance cross-sectoral coordination

Establish clear governance frameworks and inter-ministerial mechanisms that coordinate across health, environment, water, agriculture, and disaster risk management.

Increase and diversify funding sources:

Advocate for higher allocation from international climate funds specifically earmarked for health, while mobilizing private sector investments through innovative financial mechanisms and partnerships.

Strengthen data and research capacities

Invest in high-resolution climate-health data and strengthen institutional capacities for regular vulnerability assessments and health impact research.

Build technical and institutional capacity

Conduct targeted training and capacity-building initiatives at national and local levels to enhance technical expertise and management capabilities in health adaptation planning and implementation.

Catalyze investment in digital health applications

Promote and scale up digital health applications by fostering cross-border data sharing between countries and research institutions, blending climate and health data to support real-time decision-making, disease surveillance, and adaptive response systems.

STRATEGIC OPPORTUNITIES FOR AFRICATALYST

Africatalyst, given its extensive network and expertise, can significantly support the climate-health nexus through:

Policy advisory and coordination

Providing strategic support to national governments to integrate health more comprehensively into climate policy frameworks.

Stakeholder engagement and knowledge exchange

Facilitating dialogues and multi-stakeholder collaborations between policymakers, academics, NGOs, and communities for inclusive climate-health solutions.

Resource mobilization support

Assisting countries in navigating international climate finance mechanisms, including analyzing global finance flows to identify the best connections between donors and recipients. Africatalyst can also support countries in structuring investment pipelines that focus on "best buys" with high co-benefits across sectors such as water, agriculture, and energy.

Capacity development initiatives

Implementing specialized training programs that equip national and local health systems to effectively respond to and prepare for climate-related health threats.

Strategic resilience planning

Helping countries develop integrated strategies linking policy, finance, and data to enhance health system resilience, aligning climate and health goals with broader sustainable development agendas.

Data systems and digital tools support

Guiding countries in accessing, interpreting, and applying open datasets and digital platforms related to climate and health, enhancing evidence-based decision-making and monitoring of adaptation efforts.

Digital health innovation support

Catalyzing investments and building partnerships to scale up digital health innovations that enhance surveillance, early warning systems, healthcare delivery, and resilience planning, integrating climate and health data to optimize adaptive actions.

Through these targeted interventions, Africatalyst can play a catalytic role in building strong, climate-resilient health systems while fostering synergies between health, climate adaptation, and sustainable development.

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ANNEX: COUNTRY PRIORITIES IN THE NEXUS

Country	Country priorities as stated in their NDC in the Climate x Health nexus
Botswana	Health system resilience, water and sanitation, air quality
Cameroon	Disease surveillance, health infrastructure, community resilience
DRC	Malaria control, health system infrastructure
Côte d'Ivoire	Air pollution reduction, disease control
Egypt	Heat stress management, water scarcity
Ghana	Health systems strengthening, air quality
Namibia	Epidemic preparedness, health facility resilience
Niger	Water and sanitation, food security
RCA	Disease control, resilient infrastructure
Senegal	Coastal resilience, vector-borne diseases, health infrastructure
Sudan	Vector-borne diseases, mental health, resilient health systems
Uganda	Public health adaptation, disease surveillance, WASH

Country	Country priorities as stated in their NDC in the Climate x Health nexus
Zambia	Resilient health systems, disease surveillance, water management
Zimbabwe	Food security, disease management, resilient health infrastructure

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