

Health in the Climate Agenda: Building Resilient Adaptation Pathways for Africa



Charles Kabiswa, Regenerate Africa, Poster Road, Lukuli, Makindye, P.O. Box 107466, Kampala, Uganda. ckabiswa@regenerateafrica.org

Nakuya Niona Kasekende, Regenerate Africa, Poster Road, Lukuli, Makindye, P.O. Box 107466, Kampala, Uganda. nakuyaniona@regenerateafrica.org

Zake Joshua, Regenerate Africa, Poster Road, Lukuli, Makindye, P.O. Box 107466, Kampala, Uganda. joszake@regenerateafrica.org

Endashaw Mogessie Tiruneh, Population, Health and Environment Ethiopia Consortium, Tito Street, Kazanchis, Addis Ababa, Ethiopia. endashaw.mogessie@phe-ethiopia.org

Reebok L Mnyigumba, Climate Action Network Tanzania, P.O. Box 32900, Dar es Salaam, Tanzania. reebok@cantz.or.tz

Namakando Simamuna, Marie Stopes Zambia, Plot 120 Kudu Road, Kabulonga, P.O. Box 33739, Lusaka, Zambia – 10101. namakando.simamuna@mariestopes.org.zm

Sani Ayoub, Jeunes Volontaires pour l'Environnement, Dan Gao, P.O. Box 11944 – Niamey Niger. iveniger@gmail.com

Sosten Chiotha Leadership for Environment and Development-Southern and Eastern Africa, Private Bag 07, Zomba, Malawi. schiotha@leadsea.mw

Monica K Kansime, CAB International, 673 Limuru Road, Muthaiga, P.O. Box 633-00621, Nairobi, Kenya. m.kansime@cabi.org

SUMMARY

Climate change poses increasing health risks across Africa, yet health remains underrepresented in most countries' national adaptation agendas. This brief examines the extent to which health considerations are integrated into the climate change agendas of eight countries in sub-Saharan Africa and offers actionable recommendations to guide governments and key stakeholders in building climate-resilient health systems. The cross-country assessment reveals varying levels of progress, offering valuable insights into what works and where further support is needed. Some countries in this study have begun incorporating health considerations into climate adaptation efforts through the development of Health National Adaptation Plans (HNAPs), establishment of One Health initiatives, and implementation of climate-smart health pilot projects. Weak cross-sectoral coordination, narrow recognition of health-climate linkages, and limited financing for mental health, pollution-related illnesses, and community-based services remain key gaps. To strengthen resilience, countries should mainstream health into their adaptation strategies, introduce health tagging in budgets, build institutional capacity, and invest in data systems for inclusive, evidence-based climate-health planning.

KEY MESSAGES

- Some countries, such as Tanzania, Ethiopia, Kenya, and Uganda, have developed HNAPs, piloted climate-smart health strategies, and adopted the One Health framework for integrated planning.
- Climate policies prioritize health but focus narrowly on communicable diseases, overlooking noncommunicable diseases; nutrition; mental health; pollution-related illnesses; sexual and reproductive health and rights; and water, sanitation, and hygiene.
- Policy silos, donor-driven fragmentation, limited institutional capacity, and inadequate financing slow coordinated action.
- There is a need to scale up HNAPs, develop national climate-smart health strategies in lagging countries, and leverage regional coordination platforms such as the African Union and Regional Economic Communities to harmonize approaches.
- Countries should leverage opportunities for regional learning and experience sharing to accelerate progress, recognizing the varying levels of advancement across nations.

BACKGROUND

Climate change is one of the greatest threats to public health in sub-Saharan Africa. Rising temperatures, extreme weather, and ecosystem disruptions are intensifying health risks, while drought and conflict-related displacement stretch already limited services. The World Health Organization estimates that between 2030 and 2050, climate change will cause an extra 250,000 deaths every year from malnutrition, malaria, diarrhoea, and heat stress alone. In Africa, where health systems are underfunded and overstretched, the impacts are especially severe.

Climate change fuels a wide range of health problems. Warmer and wetter conditions expand the spread of malaria, dengue, yellow fever, and Rift Valley fever, while floods and droughts contaminate water supplies, increasing cholera and other diarrhoea diseases. Children under age 5 are the most vulnerable to these illnesses, which remain leading causes of death. Respiratory diseases are also on the rise as poor air quality, dust storms, and

reliance on wood and charcoal for cooking worsen asthma, cardiovascular disease, and chronic lung conditions. At the same time, ecosystem changes and greater human-animal contact heightens the risks of zoonotic outbreaks such as Ebola.

Food and nutrition security are just as heavily affected. Droughts and floods reduce harvests, disrupt livestock, and damage food storage, driving up hunger and malnutrition rates. Beyond physical health, the mental health burden is growing. Families experiencing displacement, loss of livelihoods, or repeated disasters face greater risks of depression, anxiety, and trauma, yet mental health services remain some of the weakest parts of African health systems.

Despite these wide-ranging impacts, health remains poorly represented in national climate policies. This brief reviews how health is integrated into climate policies and financing across sub-Saharan Africa (SSA) and identifies opportunities to build more inclusive, better-resourced, and more resilient climate-health systems. Our analysis draws on a review of climate-related policy documents from eight countries in SSA—Ethiopia, Kenya, Malawi, Niger, Rwanda, Tanzania, Uganda, and Zambia. We provide actionable recommendations to guide governments and key stakeholders in building climate-resilient health systems, leveraging opportunities for regional learning and experience sharing among countries.

KEY FINDINGS

Health is increasingly included in climate policies, but integration is narrow, uneven, and overlooks critical health risks.

Several countries in our analysis, including Ethiopia, Kenya, Tanzania, and Uganda, have made progress in acknowledging health as a climate-vulnerable sector within their national adaptation frameworks. Current policies emphasize climate-sensitive infectious diseases such as malaria, cholera, and diarrhoeal illnesses, while also introducing measures to strengthen disease surveillance, health infrastructure, and early warning systems. Ethiopia goes further by promoting cross-sectoral integration of health, agriculture, and water, while Tanzania's health plan emphasizes building health system resilience under climate stress.

Despite this progress, the scope of integration remains limited and uneven. Critical health challenges such as respiratory illnesses (linked to air pollution, dust, and biomass fuel use), mental health impacts, and psychosocial well-being in the face of displacement, disasters, and livelihood loss receive little to no policy attention. Sexual and reproductive health and rights (SRHR) is also weakly integrated, if at all, in most policies. Monitoring frameworks are also weak. While some countries, such as Kenya, Ethiopia, and Rwanda, acknowledge the need for sex-disaggregated data, few concrete indicators track broader health outcomes. This lack of comprehensive integration risks leaving populations vulnerable to a growing spectrum of climate-related health risks, especially among marginalized and at-risk groups, and undermines the goal of building inclusive, resilient adaptation strategies.

Financing for health in climate change actions is minimal, fragmented, and poorly tracked.

Financing remains a critical barrier to integrating health into climate action. Although most countries in the region including Ethiopia, Kenya, Uganda, Rwanda, Tanzania, and Zambia, explicitly recognize climate-related health threats in their key national strategies, such as Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs), these commitments are rarely translated into costed budget lines. Health is typically subsumed within broader adaptation sectors like agriculture or water, obscuring its specific needs and marginalizing health ministries in climate finance dialogues. Consequently, the funding for essential, high-impact interventions from climate-resilient health infrastructure to robust disease surveillance systems is consistently absent, leaving these priorities severely underfunded.

Evidence also shows that no country reviewed has successfully accessed global climate finance for health-specific projects, reflecting wider global trends where less than 0.5% of multilateral climate finance is directed to health. Weak systems for tracking and tagging climate-health investments further constrain accountability and resource mobilization. As a result, critical priorities—such as addressing rising burdens of respiratory, heat-related, and vector-borne diseases—remain severely underfunded, leaving health systems ill-prepared for climate shocks.

Multisectoral coordination on climate-health linkages is emerging but remains fragmented across countries.

Our review of policies shows that countries are beginning to integrate climate change considerations into national health systems, but progress is uneven. Kenya and Uganda are among the frontrunners in this area. Both countries have developed dedicated HNAPs and embed climate-health actions into broader climate policy frameworks. Tanzania has developed a draft HNAP that strongly integrates climate change into sectoral health strategies such as the Health Sector Strategic Plan V (2021-2026). Ethiopia's HNAP-II (2024-2028) identifies specific health vulnerabilities and proposes sectoral interventions. Rwanda, despite lacking a formal HNAP, demonstrates promising multisectoral collaboration through its One Health approach, which encourages cooperation across human, animal, and environmental health sectors. On the other hand, Malawi, Niger, and Zambia show weak to nonexistent integration of climate change in their national health policies. Overall, while promising models of coordination exist, multisectoral integration of climate and health policies remains partial, inconsistent, and insufficient to match the scale of the challenges.

This lack of comprehensive integration risks leaving populations vulnerable to a growing spectrum of climate-related health risks, especially among marginalized and at risk groups, and undermines the goal of building inclusive, resilient adaptation strategies.

COUNTRY CASES

An examination of the eight country cases reveals varying levels of progress in integrating health into climate adaptation planning. Our analysis highlights distinct strengths and gaps, providing opportunities for cross-learning and experience sharing to enhance collective action towards climate-resilient health systems across SSA.

ETHIOPIA

Strong Policy Commitments and Cross-Sectoral Linkages



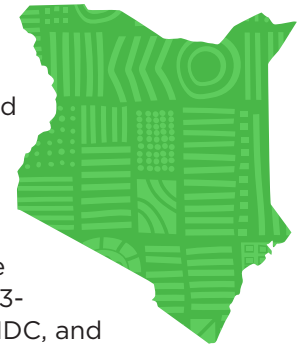
Ethiopia stands out for its relatively strong policy commitment to integrating health within the climate change agenda. Its HNAP II (2024-2028) explicitly addresses multiple climate-related health risks—including vector-borne and waterborne diseases, malnutrition, and respiratory illnesses—and proposes concrete adaptation strategies such as strengthening surveillance and early warning systems, building resilient health infrastructure, and enhancing institutional coordination. This comprehensive framing is echoed in the Climate Resilient Green Economy Strategy – National Adaptation Plan (2019) and the Updated NDC (2021), which demonstrate a growing recognition of the diverse health impacts of climate change. Importantly, Ethiopia has also made efforts to link health adaptation measures with other sectors such as agriculture; water, sanitation, and hygiene (WASH); and disaster risk reduction, offering a model of cross-sectoral coordination that other countries could build on.

At the same time, Ethiopia's experience highlights challenges that are common across the region. Integration of the sectors remains limited, creating disconnects between climate-health planning and routine health programming. Financing mechanisms are weak, with few dedicated budgets, making implementation heavily reliant on donor funding. Monitoring systems focus narrowly on disease incidence and infrastructure, giving less attention to system-wide resilience or cross-sectoral outcomes. Ethiopia also does not fully integrate mental health, community-level resilience, and nutrition within climate-health strategies.

KENYA

Holistic Climate-Health Policy Framework With Strong Multisectoral Foundations

Kenya has established itself as a regional leader in developing policy frameworks to link health and climate change. Its strategic approach is anchored by a comprehensive suite of documents, including the National Climate Change Action Plan (NCCAP III) 2023-2027, the updated Second NDC, and the Kenya Health Policy 2014-2030.



These frameworks are operationalized through specific instruments like the Climate-Smart Health Strategy and the Population, Health and Environment (PHE) Policy Guidelines, 2022, which explicitly promote integrated programming. This robust architecture identifies key health-related climate risks and proposes concrete adaptation measures, such as climate-proofing health facilities, expanding surveillance systems, and strengthening health workforce capacity. These efforts are further supported by a well-established One Health platform for addressing zoonotic diseases. Critically, climate-health priorities are embedded within Kenya's broader development agenda, including Universal Health Coverage and the infrastructure and maternal and child health goals of Kenya Vision 2030.

However, despite this strategic coherence, significant implementation gaps persist. The NCCAP III and NDC maintain a narrow focus on communicable diseases and disaster response, overlooking other climate-sensitive health issues such as maternal and newborn health, nutrition, noncommunicable diseases, and mental health. While recognized in other national policies like the Population Policy for National Development, family planning and reproductive health are conspicuously absent as climate adaptation strategies. Consequently, financing for these broader health-climate priorities remains limited and not fully costed within the frameworks. Existing monitoring systems also require strengthening to track the multifaceted and often disaggregated impacts of climate on health, moving beyond a narrow disease-centric view to a more comprehensive vulnerability assessment.

MALAWI

Advancing Climate-Health Resilience Through Emerging Frameworks

Malawi has made strides in recognizing climate-related health risks, with frameworks like the Health Sector Strategic Plan III (2023–2030) and the Green Climate Fund-supported Climate Resilient Health and Well-Being project prioritizing disease surveillance, emergency preparedness, and climate-resilient infrastructure.

Despite these efforts, integration remains incomplete. The absence of a dedicated health and climate adaptation strategy leaves the sector largely reactive to recurrent shocks such as floods, droughts, and related health threats, including cholera, malaria, and malnutrition.

Key gaps include weak linkage between health priorities and national climate policies, and reliance on donor-funded initiatives that remain siloed from systemic planning. Going forward, Malawi's priorities include developing a dedicated climate-health strategy, expanding financing, improving surveillance systems, strengthening intersectoral coordination, and explicitly embedding SRHR into climate preparedness and response.



Programme of Action (2006), already highlight health vulnerabilities and propose measures such as early warning systems, disease surveillance, and community resilience. Leveraging its existing strengths in reproductive health and health system planning offers a clear pathway for Niger to champion climate-resilient health services that safeguard the most vulnerable, especially women and adolescents, during climate shocks.

RWANDA

Leveraging Strong Health and Climate Foundations for Greater Integration



Rwanda has demonstrated strong political commitment to climate action and health system strengthening through frameworks such as the NDCs, and the National Environment and Climate Change Policy (2019). These policies recognize health as highly vulnerable to climate risks, with particular emphasis on malaria, diarrhoeal diseases, malnutrition, and the resilience of public health infrastructure.

Progress has also been made in advancing universal health coverage and disaster preparedness, though the absence of a dedicated HNAP has limited systematic integration of climate risks into the health sector. However, areas such as nutrition, noncommunicable diseases, and mental health remain underexplored, and integration across sectors is still fragmented. A promising development is Rwanda's National Climate Change Gender Action Plans (ccGAPs), which, if operationalized, could help bridge these gaps through a gender-responsive and multisectoral approach.

NIGER

Focus on Rights-Based Health Services to Advance Climate-Resilient Health Planning



Niger has made progress in advancing health and SRHR, with policies such as the Reproductive Health Law (2006), the Integrated National Reproductive Health Strategy, and the Family Planning Costed Implementation Plan 2030

providing a strong foundation. These frameworks emphasize equity, access, and quality of care, particularly for women, adolescents, and marginalized groups. This focus on rights-based health services positions Niger well to extend its leadership into climate-resilient health planning.

At the same time, Niger's climate policies, including the NAP and the National Adaptation

TANZANIA

Progressing Climate-Health Integration Through Emerging Strategies



Tanzania has laid a promising foundation for integrating health into its climate change strategies, with the draft Health National Adaptation Plan (HNAP),

2025–2030), the Health Sector Strategic Plan V (2021–2026), and the National Climate Change Response Strategy (2021–2026) all recognizing the sector’s vulnerability to climate shocks. Notably, the draft HNAP is one of the few in the region to prioritize health system resilience, covering areas such as disease surveillance, epidemic preparedness, climate-proof infrastructure, and workforce training as climate relevant, signalling a forward-looking approach.

Integration across Tanzania’s wider health and development agenda is still uneven, however. The outdated 2007 National Health Policy does not account for climate risks, and the current Five-Year Development Plan (2021/22–2025/26) makes strong commitments to health and social well-being but stops short of linking them to climate resilience. Financing and monitoring remain key challenges, with limited allocation and tracking of climate-health resources, and weak inclusion of climate-sensitive health indicators in national systems.

UGANDA

Advancing Climate-Health Resilience Through HNAP-II and Cross-Sector Platforms



Uganda’s policy landscape shows growing momentum in linking health and climate change. The HNAP II (2025–2030) provides a strong anchor by prioritizing climate-exacerbated risks such as vector-borne and waterborne diseases, while outlining strategies for surveillance, health infrastructure resilience, and human resource capacity. At the broader policy level, Uganda’s National Climate Change Policy (2015) and the National Population, Health and Environment Network Strategic Plan (2020/21–2024/25) demonstrate commendable integration of health, including references to maternal health, family planning, and demographic resilience. Uganda Vision 2040 and the updated NDCs 2022 also reflect increasing attention to gender-responsive health measures, though without detailed financing commitments. Gaps remain where disaster preparedness and family planning strategies

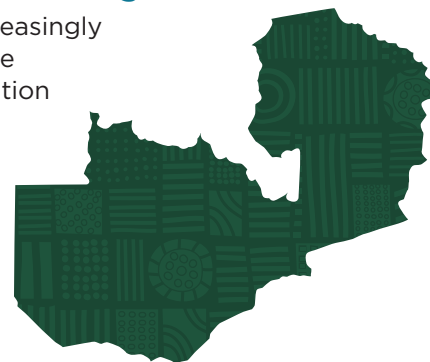
insufficiently address climate-health linkages.

Overall, Uganda has laid important foundations through the HNAP II and intersectoral platforms, but resilience will depend on securing dedicated financing, scaling coordination to district levels, and strengthening the operationalization of health priorities within the climate agenda.

ZAMBIA

Strengthening Integration of Health Within Climate and Development Agendas

In Zambia, health is increasingly acknowledged in climate frameworks, but integration remains limited. The NDC 3.0 (2025) and NAP (2023) recognize health as a vulnerable sector, yet clear strategies, measurable targets, and financing commitments are lacking. While the Ministry of Health participates in climate discussions, its engagement in decision-making is uneven, and women’s health stakeholders are often excluded. Existing monitoring and evaluation frameworks also overlook health, making progress difficult to track.



The broader health policy environment has yet to fully embed climate priorities. The 2022–2026 National Health Strategic Plan references environmental health only in general terms, with limited investment in climate-proof infrastructure, epidemic preparedness, or early warning systems. Financing is another gap, as gender-responsive budgeting pilots and the Climate Change Gender Action Plan have yet to channel resources towards health within climate finance mechanisms. Despite these challenges, Zambia has a strong opportunity to align its new health strategy with climate resilience, expand cross-sectoral coordination, and leverage global climate finance.

KEY BARRIERS IDENTIFIED ACROSS THE REGION

- **Policy silos restrict coordination across health, environment, and gender sectors.** Ministries and agencies often operate in isolation, with limited joint planning or coordination. As such, health concerns are rarely prioritized in climate policy spaces, while climate dimensions are overlooked in health planning. This siloed approach leads to duplication, missed opportunities for synergies, and weak accountability for integrated outcomes.
- **Insufficient institutional capacity constrains integrated planning and financing.** Many health and environment institutions lack the technical skills and systems to design, cost, and implement joint health-climate programmes. These limitations constrain the ability to prepare integrated financing proposals or to health tag climate budgets, limiting access to resources from global funds such as the Green Climate Fund and Adaptation Fund.
- **Donor priorities fragment health programming and its sustainability.** Health initiatives are frequently externally funded and project based, with little linkage to national climate adaptation plans or health budgets. This reliance on donor priorities undermines national ownership, creates uneven coverage, and hinders the sustainability of integrated health and climate responses.
- **Weak cross-sectoral coordination mechanisms weaken the health sector's influence.** Even where national climate coordination platforms exist, health representation is often limited or ad hoc. This weakens the sector's influence on adaptation priorities, reduces opportunities for knowledge sharing across ministries, and leaves the health impacts of climate change underrepresented in national action plans.

OVERALL RECOMMENDATIONS

Recommendations for Countries

- Embed health, especially SRHR, mental health, and pollution-related illnesses, within climate adaptation plans, disaster risk management, and health system strengthening.
- Introduce health tagging in climate budgets for tracking accountability. Climate fund proposals (such as to the Green Climate Fund and Adaptation Fund) must include health outcomes, particularly SRHR, mental health, maternal health in emergencies, contraceptive supply chains, and pollution reduction. At the same time, countries should expand domestic financing models to ensure sustainability.
- Formalize joint planning and budgeting for climate-health action across ministries of health, gender, environment, and finance. Strengthen planners' technical skills so they can design integrated climate-health strategies, and invest in robust data systems that track gender, SRHR, mental health, and pollution outcomes.
- Finalize or update HNAPs and ensure they integrate missing health components such as SRHR, adolescent health, and maternal care. Where HNAPs are absent, develop climate-smart health strategies drawing on peer-country models. Operationalize the One Health framework to promote integrated, multi-sector planning.
- Adopt sex- and age-disaggregated indicators that track health outcomes. Engage women's and youth organizations systematically in climate-health governance. Strengthen surveillance systems by integrating climate and weather data with health data and expand early warning systems to better predict and response to climate-sensitive health risks.
- Pursue opportunities to leverage regional learning and experience sharing among countries. This role can be facilitated by national, regional, and international nongovernmental organizations in collaboration with development partners.

Embed health, especially SRHR, mental health, and pollution-related illnesses, within climate adaptation plans, disaster risk management, and health system strengthening.

Recommendations for Partners

- **Development partners (such as bilateral aid agencies and multilateral development banks):**

Align development assistance and climate finance with national priorities outlined in key strategic documents like NAPs, NDCs, and HNAPs. Provide flexible funding and high-level technical assistance to help governments operationalize these plans, focusing on systemic integration and budget support rather than isolated, short-term projects.

- **Nongovernmental organizations, regional economic communities, and UN agencies:**

Translate national strategies into actionable programs on the ground. This involves delivering specialized, technical capacity strengthening to line ministries and local government units. Focus on practical skills such as conducting vulnerability assessments, designing community-based adaptation projects, monitoring health outcomes, and preparing local-level funding proposals to ensure plans are effectively implemented and sustainable.

References

- Cyril Caminade, K. Marie McIntyre, and Anne E. Jones, “Impact of Recent and Future Climate Change on Vector-Borne Diseases,” *Annals of the New York Academy of Sciences* 1436, no. 1 (2019): 157-73.
- Fiona Charlson, Mark van Ommeren, Abraham Flaxman et al., “New WHO Prevalence Estimates of Mental Disorders in Conflict Settings: A Systematic Review and Meta-Analysis,” *The Lancet* 394, no. 10194 (2019): 240-48.
- IPCC, *Climate Change 2022: Impacts, Adaptation, and Vulnerability*, Contribution of Working Group II to the Sixth Assessment Report of the IPCC (Cambridge: Cambridge University Press, 2022).
- M. Cristina Rulli, Paolo D’Odorico, Nikolas Galli et al., “Land Use Change and Infectious Disease Emergence,” *Reviews of Geophysics* 63, no. 2 (2025): e2022RG000785.
- UNICEF, *The State of the World’s Children 2021-2022: On My Mind: Promoting, Protecting, and Caring for Children’s Mental Health* (New York: United Nations Children’s Fund, 2021).
- United Nations Climate Change, *2022 NDC Synthesis Report* (2022).
- United Nations Development Programme (UNDP), *The Next Frontier: Human Development and the Anthropocene*, Human Development Report 2020 (New York: UNDP, 2020).
- World Health Organization (WHO) and United Nations Children’s Fund (UNICEF), *Progress on Household Drinking Water, Sanitation, and Hygiene 2000-2020: Five Years Into the SDGs* (Geneva: WHO and UNICEF, 2021).
- World Health Organization, “Climate Change,” Oct. 12, 2021.

Acknowledgments: This work was supported by the generous funding of the Population Institute and Panorama Global.

Contact: Mr. Charles Kabiswa, Executive Director, Regenerate Africa, Poster Road, Lukuli, Makindye, P.O. Box 107466, Kampala, Uganda. Email: ckabiswa@regenerateafrica.org



POPULATION
INSTITUTE



PANORAMA
GLOBAL

Explore more of our
health-climate analyses

