

# CLIMATE AND HEALTH: REINFORCING HEALTH AT THE HEART OF ADAPTATION

Climate-related health impacts place an additional burden on already overburdened health systems, and could reverse hard-won health and development gains. For example, it is estimated that an additional 250,000 annual deaths from diarrhoeal diseases and heat stress only, could occur between 2030 and 2050 due to climate change<sup>1</sup>. The impacts of climate change on human health cannot be overstated, and it will require concerted efforts from all stakeholders, including policymakers, researchers, NGOs and others. Policy recommendations to reinforce health adaptation include the following.

1. **Increase policy support and direct financing for community-led adaptation solutions to the health impacts of climate change.** COP28 provides an opportunity to advocate for support of locally-led solutions. It should include a call for improved local health infrastructure and investment in the capacities of local health workers.
2. **Explicitly integrate climate-related health risks into adaptation and health policies** to ensure that health systems are designed better to cope with extreme weather events like floods.
3. **Invest a proportion of climate finance in the health sector.** Prioritise funding for local and innovative solutions that, in most cases, require minimal catalytic funding but could lead to significant impacts. These include early warning and response systems and integrated vector control programmes.
4. **Facilitate public education and cross-continental knowledge exchange on local adaptation solutions for health.**
5. **Establish monitoring systems,** including intercontinental and bilateral systems, to track the impacts and co-benefits of health systems' climate change adaptation solutions, to promote learning and scaling up efforts.
6. **Support the creation of governmental clean cooking 'delivery units'** that lead and coordinate clean cooking efforts across agencies and departments.

**Climate change is a significant threat to public health in Africa and Europe.** Extreme weather events such as droughts, floods, storm surges, heat waves and intense cold snaps are becoming more frequent and hard-hitting. These events have severe impacts on the socio-economic and environmental determinants of health, affecting air and water quality, livelihoods, food security, nutrition, health and built infrastructure, and psychosocial well-being, among others. Health systems are already facing several challenges, such as a shortage of health workers in Africa and Europe. The effects of climate change further jeopardise access to health services by making health facilities unreachable, and damaging health and other infrastructure. Climate change effects also create new and evolving health challenges that require additional efforts and resources.

**Climate change impacts the transmission of vector-borne diseases, such as malaria, dengue and chikungunya.** Changes in climatic conditions influence disease vector dynamics, including survival, breeding, distribution, reproduction, and development rates<sup>2</sup>. The risk of malaria, chikungunya, Zika virus and Rift Valley fever could rise in Africa<sup>3</sup>. Mosquito-borne diseases are of particular concern for the continent. In a worst-case scenario, an additional 75.9 million people in east and southern Africa and 51 million in west Africa could be exposed to mosquito-borne diseases by 2080, despite some areas seeing a reduction in risk due to increased heat<sup>2</sup>. As the planet warms and the climate becomes more suitable for disease vectors, diseases such as malaria, dengue, West Nile fever and chikungunya will rise in Europe. Since 2010, locally transmitted cases of these diseases have been reported in southern and southeastern Europe<sup>4</sup>.

*Water scarcity, pollution and higher temperatures can increase the risk of **water-borne diseases** such as diarrhoea.* Climate change can also alter pathogen dynamics in water and compromise water and sanitation infrastructure. Diarrhoea is the largest component of water-borne diseases and is the leading cause of child mortality and morbidity<sup>5</sup> in

<sup>1</sup> WHO. (2021). COP26 special report on climate change and health: the health argument for climate action. <https://iris.who.int/bitstream/handle/10665/346168/9789240036727-eng.pdf?sequence=1>

<sup>2</sup> Thomson, M. C., Muñoz, Á. G., Cousin, R., & Shumake-Guillemot, J. (2018). Climate drivers of vector-borne diseases in Africa and their relevance to control programmes. *Infectious Diseases of Poverty*, 7(1), 81. <https://doi.org/10.1186/s40249-018-0460-1>

<sup>3</sup> Giesen, C., Roche, J., Redondo-Bravo, L., Ruiz-Huerta, C., Gomez-Barroso, D., Benito, A., & Herrador, Z. (2020). The impact of climate change on mosquito-borne diseases in Africa. *Pathogens and Global Health*, 114(6), 287–301. <https://doi.org/10.1080/20477724.2020.1783865>

<sup>4</sup> <https://climate-adapt.eea.europa.eu/en/observatory/evidence/health-effects/vector-borne-diseases>

<sup>5</sup> IFRC. (2021). Reducing the Health and Water, Sanitation and Hygiene (WASH) Impacts of Climate Change. [https://www.climatecentre.org/wp-content/uploads/RCRC\\_IFRC-Health-and-Water-Sanitation-and-Hygiene-WASH-V1-2021-2.pdf](https://www.climatecentre.org/wp-content/uploads/RCRC_IFRC-Health-and-Water-Sanitation-and-Hygiene-WASH-V1-2021-2.pdf)

low- and middle-income countries, accounting for over 90% of under-five deaths<sup>6</sup>. Morbidity due to climate-induced water-borne diseases is likely to increase more in Africa than in Europe.

**Climate impacts on agriculture could increase the number of food-insecure and malnourished people.**

Declines in harvests and increasing production costs are being observed in Europe, especially in the south. Yields of non-irrigated crops such as wheat, corn and sugar beet could decrease in southern Europe by up to 50% by 2050, significantly impacting farm incomes and nutrition<sup>7</sup>. However, Africa is even more severely impacted due to the fragility of its agriculture, characterised by low mechanisation and high prevalence of smallholder farming. In 2021, sub-Saharan Africa and North Africa accounted for 239 million and 17 million of the world's 795 million hungry people, respectively<sup>8</sup>. These numbers will increase as climate change impacts both rainfall and ecosystem-dependent agriculture in Africa<sup>9</sup>. These trends are already being observed. For example, in April 2023, more than 20 million people in the Horn of Africa were at risk of acute food insecurity after five consecutive rainy seasons have failed since 2020, largely attributed to climate change, which led to the worst drought in 40 years<sup>10</sup>.

**Heatwaves—extended periods of very high temperatures and often high humidity - will become more severe and frequent with climate change.**

Heatwaves are characterised by temperatures that exceed the daily maximum for at least three consecutive days<sup>11</sup>. Age, pre-existing medical conditions and social deprivation increase people's vulnerability to heat-related health risks. Additionally, people living in urban areas are at greater risk due to the urban heat island effect<sup>12</sup>. Exposure to extreme heat can cause heat stress or dehydration within three days, and it can also worsen medical conditions such as cardiovascular, respiratory and kidney diseases<sup>13</sup>. Over the last two decades, heat-related deaths of people aged 65 and above have

almost doubled, reaching 300,000 deaths in 2018<sup>24</sup>. In Europe, deaths increased by more than 30% over the same period, and over 60,000 deaths occurred in 2022 alone<sup>14</sup>. The rise in heat-related deaths in Europe is significantly influenced by the ageing population in addition to other factors<sup>24</sup>. In Africa, especially in Sub-Saharan Africa, the extent of the problem is unknown due to inadequate recording<sup>6</sup>. However, given rapid urbanisation, more people will likely be exposed to heat waves. By 2030, over 50% of Africa's population is projected to reside in urban areas. The total urban population is projected to increase to 1 billion in the 2040s and 1.23 billion by 2050 from just a mere 395 million in 2009<sup>15</sup>.

**Climate change can increase the risk of violence against women and girls and lead to negative Sexual and Reproductive Health outcomes.**

Climate-induced displacements and disasters make women more vulnerable to sexual abuse, violence, exploitation and trafficking, increasing the risk of sexually transmitted diseases and maternal mortality<sup>6</sup>. Exposure can also result from women and girls travelling long distances to look for water and fuelwood as they become scarcer due to climate impacts. Climate-related impacts, such as extreme heat-induced dehydration, vector-borne diseases and air pollution, can affect neonatal and maternal health and lead to miscarriage, death and birth complications<sup>16</sup>. Furthermore, climate-related disasters damage health facilities and disrupt access to sexual and reproductive health services.

Climate change can have indirect health impacts, such as increased **air pollution** caused by climate-induced wildfires, dust and sandstorms. Also, actual or expected violence, loss of resources and incomes, and disruption of social, economic, natural and health systems due to climate change can increase **mental health problems**<sup>17</sup>. Some of these health risks are already significant public health concerns in Africa and Europe. For example, air pollution caused 1.1 million premature deaths in Africa<sup>18</sup> and 364,200 premature

<sup>6</sup> Demissie, G. D., Yeshaw, Y., Alemine, W., & Akalu, Y. (2021). Diarrhea and associated factors among under five children in sub-Saharan Africa: Evidence from demographic and health surveys of 34 sub-Saharan countries. PLOS ONE, 16(9), e0257522. <https://doi.org/10.1371/journal.pone.0257522>

<sup>7</sup> <https://www.eea.europa.eu/highlights/climate-change-threatens-future-of>

<sup>8</sup> AGRA. (2021). *Africa Agriculture Status Report. A Decade of Action: Building Sustainable and Resilient Food Systems in Africa.* <https://agra.org/wp-content/uploads/2021/09/AASR-2021-A-Decade-of-Action-Building-Sustainable-and-Resilient-Food-Systems-in-Africa.pdf>

<sup>9</sup> Tirado, M. C., Hunnes, D., Cohen, M. J., & Lartey, A. (2015). Climate Change and Nutrition in Africa. *Journal of Hunger & Environmental Nutrition*, 10(1), 22–46. <https://doi.org/10.1080/19320248.2014.908447>

<sup>10</sup> Dunne, D. (2023). Deadly drought in Horn of Africa “would not have happened” without climate change. Carbon Brief. <https://www.carbonbrief.org/deadly-drought-in-horn-of-africa-would-not-have-happened-without-climate-change/>

<sup>11</sup> <https://www.metoffice.gov.uk/weather/learn-about/weather/types-of-weather/temperature/heatwave>

<sup>12</sup> <https://climate-adapt.eea.europa.eu/en/observatory/evidence/health-effects/heat-and-health>

<sup>13</sup> Parkes, B., Buzan, J. R., & Huber, M. (2022). Heat stress in Africa under high-intensity climate change. *International Journal of Biometeorology*, 66(8), 1531–1545. <https://doi.org/10.1007/s00484-022-02295-1>

<sup>14</sup> Ballester, J., Quijal-Zamorano, M., Méndez Turrubiates, R.F. et al. Heat-related mortality in Europe during the summer of 2022. *Nat Med* 29, 1857–1866 (2023). <https://doi.org/10.1038/s41591-023-02419-z>

<sup>15</sup> UN-Habitat. (2020). UN-Habitat Sub-Saharan Africa Atlas. [https://unhabitat.org/sites/default/files/2020/07/atlasroaf\\_v02\\_final-compressed.pdf](https://unhabitat.org/sites/default/files/2020/07/atlasroaf_v02_final-compressed.pdf)

<sup>16</sup> Women Deliver. (2021). The Link Between Climate Change and Sexual And Reproductive Health And Rights. An Evidence Review. Women Deliver.

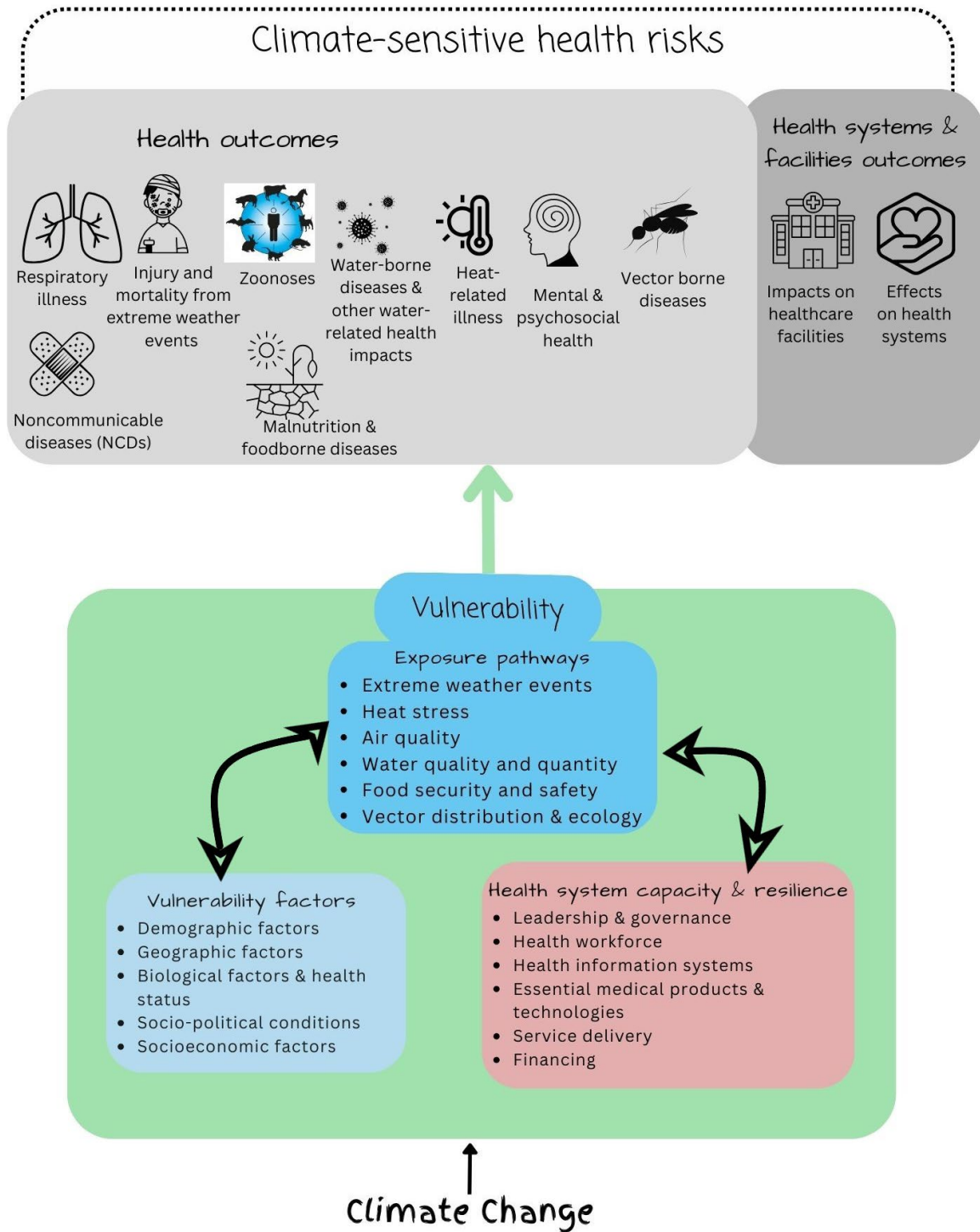
<sup>17</sup> World Bank 2021 Groundswell Part 2: Acting on Internal Climate Migration

<sup>18</sup> UNEP. (2021). Air Pollution and Development in Africa: Impacts on Health, the Economy and Human Capital. <https://wedocs.unep.org/bitstream/handle/20.500.11822/36717/APDA.pdf>

deaths in the 27 EU member countries in 2019<sup>19</sup>. Indoor air pollution from cooking with conventional and unclean energy sources is a particular problem in Africa, killing over 500,000 prematurely every year<sup>20</sup>.

**Figure 1** highlights some of the numerous pathways in which climate change can affect health.

Figure 1: An overview of climate-sensitive health risks and their exposure pathways. (Adapted from WHO, 2021<sup>21</sup>)



<sup>19</sup> <https://www.eea.europa.eu/publications/air-quality-in-europe-2021/health-impacts-of-air-pollution>

<sup>20</sup> <https://www.africaeuropefoundation.org/areas-of-action/accelerating-africa's-universal-access-to-clean-cooking-solutions-ahead-of-cop27/>

<sup>21</sup> WHO. (2021). COP26 special report on climate change and health: the health argument for climate action. <https://iris.who.int/bitstream/handle/10665/346168/9789240036727-eng.pdf?sequence=1>

**The partnership between Africa and Europe can enable the two continents to tackle the growing impacts of climate change on health.** Building on the existing lessons and opportunities, Europe and Africa can pool resources, share expertise at different levels and develop comprehensive

policies and strategies that benefit both continents. **Building blocks exist, including domestic and international policies (Box 1), commitments, and declarations to accelerate action.**

## **Box 1: EU and AU Domestic Health Priorities<sup>22</sup>**

### **a. Aligned across AU and EU**

- Ensuring equitable access to quality primary health care
- Increasing innovative and domestic health financing
- Promoting drivers of good health and addressing risk factors and premature mortality from non-communicable diseases.
- Developing an adequate health workforce and addressing imbalances
- Strengthening health research by leveraging digitalisation and other innovations.

### **b. Aligned across AU and EU and supported by the 6th AU-EU summit and Global Gateway**

- Enhancing health emergency preparedness and response systems.
- Building domestic capacity to manufacture medical products and technologies.
- Access to sexual and reproductive health services.
- Combating pandemics by introducing new international rules, global surveillance and developing a permanent vaccine development and access platform.
- Strengthening domestic regulatory and monitoring capacity.
- Combating emerging and re-emerging communicable diseases such as AIDS, malaria, hepatitis and waterborne diseases.

Commitments, such as the EU-Africa Global Gateway Investment Package, and stronger political recognition of the climate and health nexus during the 2023 UN General Assembly (Table 1), could drive collective action to mobilise sufficient funds and political support for effective adaptation measures to strengthen health system resilience to the effects of climate change.

<sup>22</sup> AEF. (2023). Info sheet bulletin: health- May 2023. [https://www.africaeuropefoundation.org/uploads/AUEU\\_Tracking\\_Infosheet\\_Bulletin\\_Health\\_May2023\\_ac317caf9b.pdf](https://www.africaeuropefoundation.org/uploads/AUEU_Tracking_Infosheet_Bulletin_Health_May2023_ac317caf9b.pdf)

**Table 1:** Examples of commitments that can accelerate resource mobilisation and political support for adaptation in the health sector.

<p>The African Leaders' Declaration at the African Climate Action Summit (ACS), September 2023<sup>23</sup></p>	<ul style="list-style-type: none"> <li>• Increase Africa's renewable energy capacity from 56 GW in 2022 to 300 GW by 2030.</li> <li>• Implement measures to ensure clean energy options reach rural communities most dependent on biomass fuels.</li> <li>• Identify, prioritise, mainstream, and enhance disaster resilience, prioritising anticipatory action.</li> <li>• Reform climate finance, including better deployment, and issue new SDRs to the tune of USD 650 billion.</li> </ul>
<p>The heads of state and health experts gathering at the UN General Assembly 2023 (UNGA 2023)<sup>24</sup>.</p>	<ul style="list-style-type: none"> <li>• Emphasis on climate threat to human health.</li> <li>• Call for investment in adaptation and resilience solutions, including mainstreaming health in climate action, creating climate-friendly healthcare systems, and advocating for increased financing of adaptation and resilience in the health sector.</li> <li>• Commitment to host a Health Day at COP28 to prioritise adaptation and resilience of the health sector, particularly in developing and least developed countries.</li> </ul>
<p>UNGA 2023 Statement from Climate Change and Health Experts, Ministers and CEOs of NGOs: Accelerating Climate Adaptation for Health Equity<sup>25</sup></p>	<ul style="list-style-type: none"> <li>• Putting local communities at the centre of adaptation decision-making and solutions</li> <li>• Integrating monitoring, evaluation and learning into adaptation efforts to understand and iterate approaches, identify and scale effective solutions and mobilise political commitment and financing.</li> <li>• Channelling finance directly to local communities to enhance adaptation finance's quantity, quality and equity.</li> <li>• Promoting an enabling environment for sustained progress on local adaptation, including recognition and policy support for local adaptation across all levels, to enhance health resilience, equitable outcomes, and safeguard vulnerable populations.</li> </ul>
<p>COP28 Presidency commitments related to climate and health<sup>26</sup></p>	<ul style="list-style-type: none"> <li>• Human-centred policy choices and a focus on delivering outcomes on health, nature, food and agriculture, water and relief and recovery.</li> <li>• Scaling-up investments in clean and efficient energy supply that will involve tripling the renewable energy capacity, as well as recognition for a just and equitable transition, including achieving universal energy access and policy reforms.</li> </ul>
<p>The EU-Africa: Global Gateway Investment Package (Global Gateway Africa)<sup>27</sup></p>	<ul style="list-style-type: none"> <li>• EUR 150 billion (50% of the Global Gateway finance aims) in European Union-financed investments to support African countries for a strong, inclusive, green, digital recovery and transformation.</li> <li>• Improve pandemic preparedness, health security and access to health services with funding of EUR 150 million.</li> <li>• Enhance sexual and reproductive health rights with funding of EUR 60 million.</li> <li>• Accelerate green transition, particularly climate resilience, disaster risk reduction, and strengthening food systems.</li> </ul>

<sup>23</sup> African Union. (2023). *African Leaders Nairobi Declaration on Climate Change and Call to Action*. [https://www.afdb.org/sites/default/files/2023/09/08/the\\_african\\_leaders\\_nairobi\\_declaration\\_on\\_climate\\_change\\_rev-eng.pdf](https://www.afdb.org/sites/default/files/2023/09/08/the_african_leaders_nairobi_declaration_on_climate_change_rev-eng.pdf)

<sup>24</sup> WHO. (2023, September 18). *Leaders spotlight the critical intersection between health and climate ahead of COP-28 first-ever Health Day*. Media Release. <https://pmnch.who.int/news-and-events/news/item/18-09-2023-leaders-spotlight-the-critical-intersection-between-health-and-climate-ahead-of-cop-28-first-ever-health-day>

<sup>25</sup> <https://www.africaeuropefoundation.org/areas-of-action/time-to-adapt:-accelerating-climate-adaptation-for-health-equity/>

<sup>26</sup> <https://www.cop28.com/en/letter-to-parties>

<sup>27</sup> European Commission. (2022). *EU-Africa: Global Gateway Investment Package - Health*. [https://ec.europa.eu/commission/presscorner/detail/en/fs\\_22\\_870](https://ec.europa.eu/commission/presscorner/detail/en/fs_22_870)

## PATHWAYS AND PRIORITY OPTIONS FOR CONCRETE AND ACCELERATED ACTIONS

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Climate change adaptation in the health sector aims to reduce climate-related deaths and illness by enhancing disease surveillance, developing comprehensive health action plans and strategies and implementing robust early warning systems<sup>28</sup>. These systems should anticipate and prepare the sector for extreme weather events and climate-sensitive infectious diseases, and help boost the resilience of the health infrastructure to shocks and stresses. In addition, adaptation also involves extended mental and psychosocial health care services. The healthcare sector currently contributes about 5% of global carbon emissions<sup>29</sup>. In some countries, healthcare generates a high share of carbon emissions in the service sector, only surpassed by transport, energy and construction sectors<sup>30</sup>. Strategies to build local

pharmaceutical manufacturing capabilities should promote green energy use, to include energy needs within health facilities, to help reduce carbon emissions.

On the adaptation side, the building blocks of climate-resilient health systems include a knowledgeable health workforce with tools and resources to promote climate resilience; reliable health information systems that facilitate effective management of extreme events and climate-sensitive diseases; robust service delivery and emergency-ready health services; and adequate financing<sup>31</sup>. Below are some of the priority areas that could promote climate-resilient health systems in both Africa and Europe.

## 1. FUNDAMENTAL CHANGES IN HEALTH SYSTEMS ARE REQUIRED TO ADAPT TO CLIMATE CHANGE.

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Adaptation to climate change in the health sector requires a system-wide, integrated and transformational approach focused on reducing risks and increasing the resilience of health systems<sup>36</sup>. A resilient and environmentally sustainable health system has the double benefit of reducing the impacts of climate change and minimising the risk of future pandemics<sup>32</sup>. Top-down donor and institutional approaches to health programmes have effectively controlled major disease outbreaks. However, most ministerial and departmental programmes for managing disaster and health risks were not originally designed to factor in climate change, and thus, health ministries and departments are ill-prepared to adapt to

the ever-increasing impacts of climate change<sup>33</sup>. In addition, some climatic risks and hazards fall outside the scope of health ministries and have no specific lead entity<sup>36</sup>. Even in areas where there have been cross-sectoral adaptation actions, they tend to be largely incremental, adjusting the existing systems while maintaining core structures and functions<sup>36</sup>. These approaches, which could have worked before, may be insufficient to safeguard health systems and protect the well-being of communities in light of the changing climate. Good practice in adaptation points to well-coordinated action, building on locally-led insights and plans.

<sup>28</sup> Alcayna, T., O'Donnell, D., & Chandaria, S. (2023). How much bilateral and multilateral climate adaptation finance is targeting the health sector? A scoping review of official development assistance data between 2009–2019. *PLOS Global Public Health*, 3(6), e0001493. <https://doi.org/10.1371/journal.pgph.0001493>

<sup>29,30</sup> Pichler, P.-P., Jaccard, I. S., Weisz, U., & Weisz, H. (2019). International comparison of health care carbon footprints. *Environmental Research Letters*, 14(6), 064004. <https://doi.org/10.1088/1748-9326/ab19e1>

<sup>31</sup> Ebi, K. L., Vanos, J., Baldwin, J. W., Bell, J. E., Hondula, D. M., Errett, N. A., Hayes, K., Reid, C. E., Saha, S., Spector, J., & Berry, P. (2021). Extreme Weather and Climate Change: Population Health and Health System Implications. *Annual Review of Public Health*, 42(1), 293–315. <https://doi.org/10.1146/annurev-publhealth-012420-105026>

<sup>32</sup> Romanello, M., McGushin, A., Di Napoli, C., et al. (2021). The 2021 report of the Lancet Countdown on health and climate change: code red for a healthy future. *The Lancet*, 398(10311), 1619–1662. [https://doi.org/10.1016/S0140-6736\(21\)01787-6](https://doi.org/10.1016/S0140-6736(21)01787-6)

<sup>33</sup> Ebi, K. L., Berry, P., Campbell-Lendrum, D., Cissé, G., Hess, J., Ogden, N., & Schnitter, R. (2019). Health system adaptation to climate variability and change. Washington, DC: Global Center on Adaptation. <https://gca.org/reports/health-system-adaptation-to-climate-variability-and-change/>

**Action Point (1): Policymakers and other stakeholders need to scale up efforts to support locally-led solutions, including policy support and direct financing, for adaptation of health systems in response to the effects of climate change.**

COP28 provides an opportunity for policymakers, funders and organisations across Africa and Europe to advocate for more funding and political support for local adaptation solutions to the health impacts of climate change. This can also include a greater call for improved local health infrastructure and local health workers with enough capacity to address climate impacts on health systems.

**Action Point (2). Both Africa and Europe should explicitly integrate health risks associated with climate change into adaptation and health policy - from ensuring systems are able to cope with levels of demand arising from extreme events, such as floods and heatwaves, to monitoring the shifting patterns of disease.**

This will include making sure that health infrastructure is safeguarded, for example, by being sited in a floodproof area and having access to backup power, and that emergency response plans to deliver medical staff and supplies are in place. It also implies ensuring that training of medical personnel and drug supply can deal with the spread of disease into new areas. Skills exchanges, for example, African expertise on the management of malaria, could help prepare Europe for the threat of endemic malaria becoming established.

## 2. MULTISECTORAL ADAPTATION FUNDING AND ACTION, WHICH SUPPORT HEALTH SYSTEMS STRENGTHENING AT ALL LEVELS AND IMPROVES SOCIAL AND ENVIRONMENTAL DETERMINANTS OF HEALTH, ARE NEEDED TO OPTIMISE HEALTH ADAPTATION.

Current levels of health adaptation finance still fall short of the needs<sup>34</sup>. In 2020, only 34% of the total climate finance (about USD 28 billion) was directed towards climate adaptation, whereas the current annual adaptation needs are estimated to be USD 70 billion, and are expected to increase to USD 200 billion by 2030<sup>35</sup>. Less than 5% of adaptation finance has been allocated to health, with multilateral and bilateral institutions contributing less than 0.6%<sup>36</sup>. The major barriers to financing climate adaptation in the health sector include a lack of information about funding opportunities, limited contact between health actors and those involved in the climate change process, a lack of capacity to develop proposals, and limited incorporation of health issues into national climate planning and leadership<sup>37</sup>.

**Action Point (3): Increase the proportion of earmarked funding and investments to protect health systems against climate-sensitive exposures and increase resilience to the effects of climate change.**

Targeted investments can focus on early warning and response systems and integrated vector control programs. For example, investments can target early warning and response systems and integrated vector control programmes. Early warning systems are of particular importance for health adaptation to climate change. Adaptation in the health sector will increasingly rely on accurate forecast information, monitoring and surveillance of emerging health threats and developing and deploying early warning systems, including response and implementation of actions<sup>38</sup>. Africa and Europe need to prioritise funding for local and innovative solutions that, in most cases, require minimal catalytic funding but could lead to significant impacts.

<sup>34</sup> Romanello, M., McGushin, A., Di Napoli, C., et al. (2021). The 2021 report of the Lancet Countdown on health and climate change: code red for a healthy future. *The Lancet*, 398(10311), 1619–1662. [https://doi.org/10.1016/S0140-6736\(21\)01787-6](https://doi.org/10.1016/S0140-6736(21)01787-6)

<sup>35</sup> UNEP. *Adaptation Gap Report 2022: Too Little, Too Slow – Climate adaptation failure puts the world at risk*, Nairobi, Kenya, 2022.

<sup>36</sup> Arame Tall, Sarah Lynagh, Candela Blanco Vecchi, Pepukaye Bardouille, Felipe Montoya Pino, et al. *Enabling Private Investment in Climate Adaptation & Resilience: Current Status, Barriers to Investment and Blueprint for Action*. Washington, DC: World Bank Group and International Finance Corporation.

<sup>38</sup> Romanello, M., McGushin, A., Di Napoli, C., et al. (2021). The 2021 report of the Lancet Countdown on health and climate change: code red for a healthy future. *The Lancet*, 398(10311), 1619–1662. [https://doi.org/10.1016/S0140-6736\(21\)01787-6](https://doi.org/10.1016/S0140-6736(21)01787-6)

### 3. BUILD ON LESSONS FROM CURRENT PROGRAMMES AND COLLABORATE ON KNOWLEDGE EXCHANGE.

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Africa and Europe can collaborate on longer-term, multifaceted approaches, including funding and targeted activities for capacity building, risk communication, and monitoring and evaluation. The EU-Africa Global Gateway is the result of the renewed partnership and an outcome of the 6<sup>th</sup> EU-AU Summit of February 2022. It paved the way for a more structured approach to health issues, with EU support for the development of manufacturing capacity in Africa. Opportunities for capacity development between Africa and Europe within such existing strategies, including policies and programmes for managing several health risks, like infectious diseases and undernutrition, need to be created or identified and reinforced. These need to be informed by location-specific information on hazards, exposures, vulnerabilities and capacities.

European funding clearly has a place in assisting Africa in planning for and responding to health challenges. At the same time, health challenges in Europe with, for example, the likely establishment of malaria transmission<sup>39</sup>, means that African expertise in vector control and disease management will be valuable for Europe's preparedness.

The impact of some climate-related changes, for example, heatwaves and changes in vector-borne disease, can be greatly reduced through community and private sector action.

Health planning should place a special emphasis on public education and local action so as to keep the population healthier and reduce strain on health services. This could include ensuring that employers adjust working conditions to safeguard employees, building and city design help mitigate heatwaves, and environmental standards and sanitation infrastructure are managed to reduce disease transmission.

**Action Point (4). Africa and Europe should invest in public health education and action on water, sanitation, vector control and heatwave management.**

A peer exchange and learning system would be useful, with Europe and Africa exchanging expertise on vector control, heat wave management and disaster response. In addition to bilateral initiatives, organisations such as the Africa-Europe Foundation could support exchanges among professionals on disease and vector management, as well as discussions on gaps in knowledge in health planning and climate in Africa to help direct funding.

**Action Point (5). Efforts should be made to establish a monitoring system, including intercontinental and bilateral systems, for health adaptation and mitigation solutions, including their impacts,** that can promote learning and scaling up solutions to benefit health systems.

### 4. INVESTING IN CLEAN COOKING SOLUTIONS: AT THE NEXUS OF CLIMATE, DEVELOPMENT AND HEALTH.

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Ambitious commitments and concrete actions to achieve universal access to clean cooking are still lacking, despite presenting powerful levers to achieving both climate, development, and health development goals.

To date, the level of political commitment and investment in clean cooking has not matched the global magnitude of the challenge.

With fewer than ten years until we reach 2030, and as we enter a decisive year for monitoring SDGs progress with the mid-term review assessment (2015-2030), the world remains far off track to its SDGs, including number 7 which

commits to ensure access to affordable, reliable, sustainable, and modern energy for all.

It is increasingly recognised that safeguarding nature is critical to addressing climate change and protecting billions of the most vulnerable people around the world. Yet, as governments, donors and investors look for ways to protect and restore nature, and improve the global health system, they often overlook one of the most accessible and impactful solutions: clean cooking.

Nearly 1 billion people still lack access to modern cooking solutions in Sub-Saharan Africa, and almost 500,000

<sup>39</sup> Fischer L, Gültekin N, Kaelin MB, Fehr J, Schlagenhauf P. Rising temperature and its impact on receptivity to malaria transmission in Europe: A systematic review. *Travel Med Infect Dis.* 2020 Jul-Aug;36:101815. doi: 10.1016/j.tmaid.2020.101815. Epub 2020 Jul 3. PMID: 32629138.



Africans die prematurely due to household air pollution every year<sup>20</sup>. Considering the annual toll on human health, forests, climate and local economies, clean cooking solutions should be central to national climate, health and development strategies.

National and continental political leaders must take bold action to ensure the about 940 million Africans who currently lack clean cooking solutions<sup>40</sup> have the means to prepare food in a safe, clean and affordable way, as well as to contribute to ecosystem recovery, regenerative livelihoods, clean air and community health, and female empowerment.

**Action Point (6). Build on the momentum provided by the Africa Climate Summit (ACS) to create and**

**resource governmental clean cooking ‘delivery units’ that lead and coordinate clean cooking efforts across agencies and departments.** Kenya and Sierra Leone have announced at ACS that such clean cooking delivery units will be established at the presidential level.

These ‘delivery units’ would help shape funding and action where commitments exist and promote the adoption of effective and robust policy frameworks. The EU and the international community must commit the resources—both financial and technical support - to support African governments to set up these ‘delivery units’, make investments to fund the successful delivery of ambitious policies and programmes, and operate in service of commitments that national governments have made in partnership with these ‘delivery units’.

## 5. ACTING ON HEATWAVES.

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Dealing with heatwaves requires both a long-term and short-term response. During a heatwave, the imperative is to ensure vulnerable populations can keep cool and that working conditions are managed to reduce heat stress, especially for manual labourers.

Planning for greater and more frequent heat will require changes in city and housing design, especially in countries where power for air conditioning is unavailable or unaffordable for people at risk. There is much that can be done in building design, incorporating green spaces in cities, educating people on actions they can take, improving early warning systems and putting contingency plans in place<sup>41</sup>.

There appears to be a data gap in recording and responding to heat waves in Africa. Given that heatwaves are likely to be significant in the future in both Africa and Europe, both should step up contingency planning for responding to acute needs during heatwaves. Mutual learning and learning from elsewhere, such as the responses in cities in India, will allow authorities to plan a more effective response. **City authorities should be encouraged to exchange how public information, planning, architecture and contingency actions can reduce the deadliness of heatwaves.**

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<sup>41</sup> The Lancet. (2021). Health in a world of extreme heat. The Lancet, 398(10301), 641. [https://doi.org/10.1016/S0140-6736\(21\)01860-2](https://doi.org/10.1016/S0140-6736(21)01860-2)

## ANNEX 1. EU-AFRICA: GLOBAL GATEWAY INVESTMENT PACKAGE: A STEP TOWARDS CLIMATE-RESILIENT HEALTH SYSTEMS.

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The European Commission announced EUR 150 billion (50% of the Global Gateway finance aims) in European Union-financed investments during the 6<sup>th</sup> European Union-Africa Union Summit in February 2022<sup>42</sup>. Termed as the Global Gateway Africa, the investment package aims to support African countries for a strong, inclusive, green and digital recovery and transformation. For the health sector, the investment package's priority is on pandemic preparedness, health security and access to health services<sup>43</sup>. The summit led to unremarkable investment in health, albeit with a major focus on pandemic preparedness (inspired by the COVID-19 pandemic), vaccines and pharmaceuticals. However, the investment package targets certain aspects that can enhance the resilience of communities to climate change impacts. Firstly, it committed EUR 1.15 billion to strengthen health systems and increase preparedness for pandemics, including supporting efforts of skills development, universal health coverage, infrastructure and production capacities and regulatory frameworks. This initial investment is to be enhanced by further funding from Team Europe. Drawing the lessons from the increased vulnerability due to the intersection of COVID-19 and climate change, targeting health system preparedness for pandemics could directly or indirectly enhance health systems' reliance to climate change.

Secondly, the funding targets sexual and reproductive health rights, developing a regional Team Europe Initiative on sexual and reproductive health and rights (SRHR) together with African partners. With a funding commitment of EUR 60 million to be enhanced by other funding from Team Europe, the aim is to improve SRHR among young women and adolescent girls who are disproportionately impacted by climate change, as highlighted earlier on. Third, the funding intends to accelerate a green transition with a particular emphasis on climate change resilience and disaster risk reduction and agri-food systems, significantly benefitting the health sector. The Global Gateway for Africa has a strong involvement of Team Europe, both in funding and implementation of the policy priorities.

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<sup>42</sup> EU, & AU. (2022). 6th European Union - African Union Summit: A Joint Vision for 2030. [https://www.consilium.europa.eu/media/54412/final\\_declaration-en.pdf](https://www.consilium.europa.eu/media/54412/final_declaration-en.pdf)

<sup>43</sup> European Commission. (2022). EU-Africa: Global Gateway Investment Package - Health. [https://ec.europa.eu/commission/presscorner/detail/en/fs\\_22\\_870](https://ec.europa.eu/commission/presscorner/detail/en/fs_22_870)