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AFRICA EUROPE FOUNDATION

Risk Resilience Results

The Power of Investing in Locally Led Climate and Health Solutions

This report was developed by the Collective MindS Climate x Health Council with the support of Kevin Linn, DrPH. Council Members were not paid for their time or contributions to this report. The report was funded by Foundation S - The Sanofi Collective and The Africa-Europe Foundation.

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This is the third edition of the Council's action report, launched yearly on the occasion of the UN General Assembly (UNGA) in New York. It builds on previous publications from 2023 and 2024 - *Time to Adapt: Accelerating Climate Adaptation for Health Equity and From Risk to Resilience: Unlocking Climate and Health Finance for Local Health Adaptation* – blueprints for action for world leaders and philanthropies to turbocharge sustainable development goals by bridging siloes in climate and health and identifying mechanisms to ensure finance reaches climate vulnerable communities to strengthen local health resilience.

This year, The Collective MindS Climate x Health Council is taking a particular focus on showcasing concrete examples of "community best buys", highlighting common denominators across impactful climate and health solutions at the local level and serving as a guide for smart investments directly to communities driving adaptation, with the aim of translating local innovation into broader resilience and, ultimately, global health security. Through fresh evidence, the Council will support the successful preparation of 2025 global milestones to ensure the health agenda remains central to climate and investment discussions, including at the 30th UN Climate Change Conference in Belém, and at the 7th African-Union and European-Union Summit in Luanda.

"The solution is not in the mind of the policymaker, but in the mind of the community."

Dr. Farjana Jahan, a physician and epidemiologist working with the International Centre for Diarrhoeal Disease Research, Bangladesh, and Heat and Health Research Centre, University of Sydney.

EXECUTIVE SUMMARY

Climate change poses a growing health threat, with excess deaths and morbidity expected to increase considerably over the coming decades.[1,2] However, behind every statistic, there are stories of people and communities adapting to the changes they're encountering. Stories of creativity, strength, and hope.

This report amplifies the voices of communities and unveils local climate change and health solutions. It sheds light on lived experiences with a particular focus on communities in Africa and South Asia, regions that continue to be disproportionately impacted by climate change. Profiling these stories and gleaning insights from them, this report invites dialogue and discussion amongst governments, multilateral organizations and philanthropy on the urgent need to support local adaptation efforts.

Moreover, this report aimed to connect the dots between geographies, underlining the importance of knowledge sharing and capacity building. These efforts are essential to address common challenges and fully leverage existing solutions that could be replicated or scaled across policy spheres and through international partnerships.

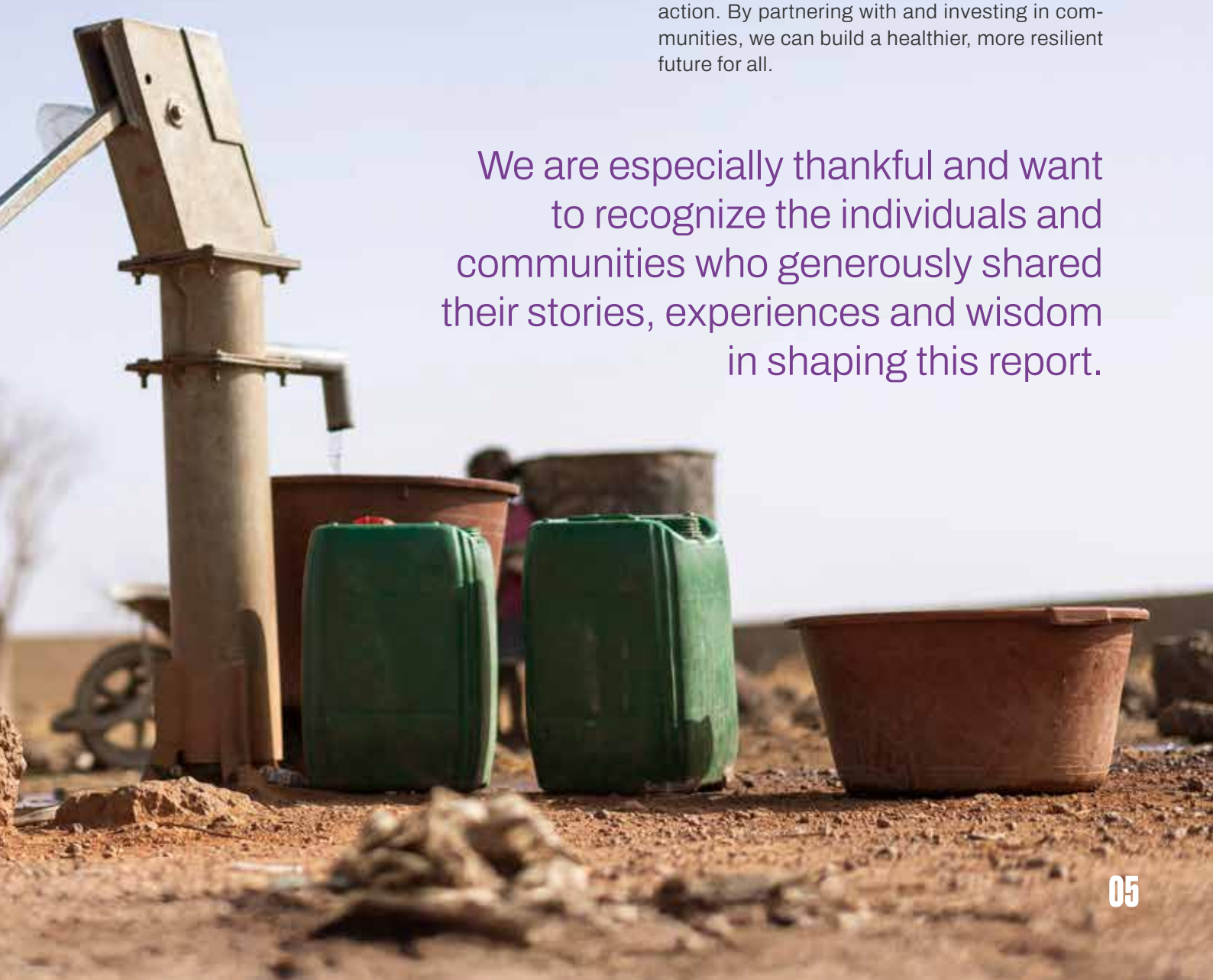
We must double down on the idea that shared challenges require shared leadership at all levels.

Based on the stories and experiences shared in developing this report, the following policy recommendations are provided to strengthen community-led solution-making.

- **Develop Coordinated Funding Mechanisms to Further Build Local Leadership Capacity**
- **Embed Local Leadership in National and Global Decision-Making**
- **Integrate Climate, Health and Development agendas at National and Global Levels**
- **Value and Scale Traditional and Local Knowledge in Developing Solutions**
- **Centre Communities in the Development of Climate-Resilient Health Systems**

These recommendations are an urgent call to action. By partnering with and investing in communities, we can build a healthier, more resilient future for all.

We are especially thankful and want to recognize the individuals and communities who generously shared their stories, experiences and wisdom in shaping this report.



"Now is the time to recognize women for their leadership, especially in rural areas."

Dr. Mariama Diallo, Project Director at Nébéday

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INTRODUCTION

Communities are at the forefront of the climate change crisis. They experience the impacts firsthand. However, despite this proximity, community voices are often absent from policy discussions aimed at supporting their resilience, with solutions frequently imposed upon them rather than being shaped from the ground up and driven by the fortitude of local innovation. For policy to be effective, understanding community insights is essential to ensure that decisions intended for communities reflect their needs and expertise.

Stories can be powerful tools to align policy between local, national and global levels. These narratives shape our understanding of complex issues, enable us to identify what is at stake when setting priorities, and help to mobilize scarce resources.

For climate change, where science alone isn't always sufficient to compel action, stories can help illustrate the scope of the challenges being faced by communities around the world, while revealing new adaptation solutions being implemented.

Every community faces unique climate change and health challenges, shaped by local geographies, vulnerabilities, economies and social conditions. Amidst these differences, the ingenuity of communities and their deep knowledge of their environments remain an enabling driver of action. Consequently, their actions directly support global development agendas, such as the Sustainable Development Goals and the Paris Agreement.

This report aims to elevate the adaptation stories of communities in Africa and South Asia, in countries that are considered to be the most susceptible to the effects of climate change. Each narrative explores a specific climate and health challenge, local contextual factors, and the people and actions driving change.

The stories were chosen to represent a diversity of communities and solutions. They aim to inspire reflection by the reader to extrapolate potential commonalities irrespective of geography and see their own community's lived experience in the challenges and innovations described. Together, these stories highlight the power of local response.

At the end of the report, insights are shared along with policy recommendations. To develop recommendations, in-depth interviews were conducted with twelve community-based organizations, including those whose stories are featured.[1] Organizations were identified based on connections and relationships with Foundation S – The Sanofi Collective and the Africa Europe Foundation. Interview data were analyzed to identify insights to inform recommendations to support policy and funding decisions at the national and global levels by governments, multilateral organizations and philanthropy.

The evidence presented in the following pages affirms that communities are not only passive recipients of climate policy but that they are also critical actors whose leadership, if adequately resourced and structurally integrated, can drive scalable, sustainable change. Therefore, this report validates that locally-led approaches to climate change and health solutions work and invites decision-makers to prioritize community agency, local traditional knowledge, and equity-centered efforts in our response to the climate change and health crisis.

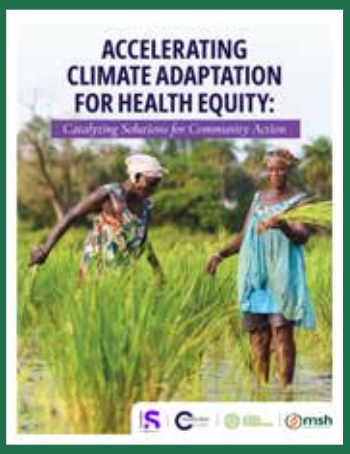
While this report focuses on adaptation, it recognises that there is no sustainable adaptation without mitigation, and that urgent reductions in greenhouse gas emissions remain essential to limit the scale and severity of future climate-related health impacts.

[1] Interviews were completed with representatives from the following organizations: Nebeday (Senegal), Community Initiative for Rural Development (Kenya), L'association Technique d'Appui aux Systèmes Alimentaires, la Nutrition et la Protection de l'Environment (Chad), Youth Net and Counselling (Malawi), International Centre for Diarrhoel Disease Research (Bangladesh), INADES-Formation Burkina (Burkina Faso), Action Contre la Faim (Bangladesh), Inter Aide (Madagascar), Path (Ghana), Friendship (Bangladesh), Lwala (Kenya), Rual Oriente Youth Movement Nepal (Nepal).

Previous editions of the Collective MindS Climate x Health Report underline the reasoning behind our focus on adaptation solutions.

Mitigating the future effects of climate change on health and well-being and on health systems is essential. The world is on track to pass the critical 1.5°C threshold by 2030, which will have devastating implications for human health. But because irreversible damage is already done and continues to accelerate, adapting to rapidly changing environments is equally critical. We must thus pair ambitious mitigation with a rapid scaling up of adaptation efforts.

However, as mentioned in our previous report, finance for locally led health adaptation is nowhere near what is needed.[3] It noted that annual funding for climate adaptation at about US$ 21 billion. This is approximately fifteen times lower than the approximate US$ 387 billion needed, resulting in a shortfall of US$ 366 billion. Adaptation action focused on health is especially underfunded, with only 0.5% of multilateral climate funding being directed towards projects related to this topic, and just 5% of overall climate adaptation funding. Furthermore, only 10% of global climate finance, across both mitigation and adaptation activities, reaches the local level, highlighting a substantial shortfall for locally-led health adaptation.



CONCEPTUAL FRAMEWORK:

Climate and Health Solution Pathways

The relationship between climate change and health is complex, multifaceted, and deeply interconnected. To effectively capture and tell community stories of adaptation solutions, a structured framework was needed to situate them and their learnings within a broader understanding of the climate change and health nexus.

The Climate Change and Health Solutions Pathways framework serves this purpose. Informed by evidence and aligned with global health and development priorities, the framework offers a solutions-focused approach that supports communication, coordination, and collaboration, thereby helping to bridge local community experiences with national and global policy development.

The framework organizes climate change and health challenges into pathways, which are the interconnected sequence of events and factors that link climate change to individual and public health outcomes through a cause-and-effect-type relationship, with associated solutions and a means for defining and evaluating interventions.

Climate Change and Health Solutions Pathways

Seven prominent climate change and health pathways are outlined in the framework: vectors and pathogens, extreme heat, food insecurity, poor air quality, water insecurity, mental wellbeing (encompassing forced displacement), and health systems. Each pathway is described according to Sustainable Development Goals (SDGs) targets.

Throughout the report, the Climate Change and Health Solutions Pathways framework will be referenced to highlight the pathways impacting communities and the SDG targets influenced by the communities' solutions.

Climate Change and Health Solutions Pathways

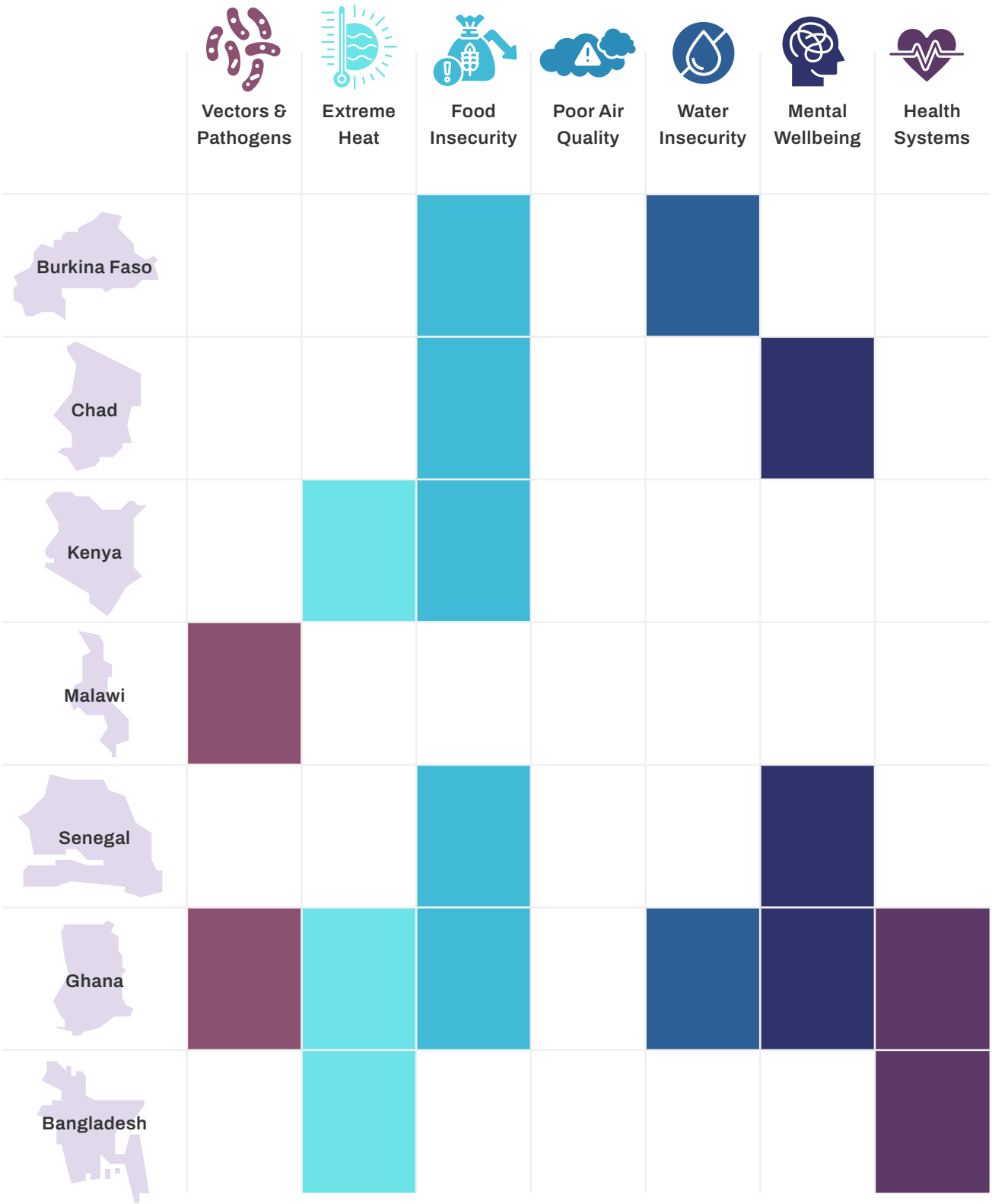
	Drivers	Disease Pathways and Outcomes
 Pathogens & Vectors	Changes in the behavior, physiology, habitat and life course of vectors and pathogens, and the abundance and behavior of reservoir hosts.[5]	An increase in populations (geographies) exposed to vectors and pathogens leads to increased susceptibility to and spread of Malaria, Dengue, Lyme disease, Chikungunya, and West Nile.[5,6]
 Extreme Heat	Increased temperatures, including frequency and intensity of extreme temperature variations above normal.[6,7]	Changes in physiology from the body's efforts and inability to effectively regulate internal body temperature leads to accelerated morbidity and mortality from chronic disease (including heat stress, cardiovascular, respiratory, and cerebrovascular), and may lead to mental health challenges.[8,9]
 Food Insecurity	Lower yields of crops due to inadequate water availability, decreased pest/disease control, and pollination, and increased CO_2 in the atmosphere.[11]	Undernutrition results in deficiencies in macro and micronutrients required for growth, maturation and physiological functioning, leading to stunting and wasting, and increased morbidity and mortality from increased duration and severity of infectious and chronic disease.
 Poor Air Quality	Increased ground-level ozone and increased particulate matter (PM), including black carbon, resulting from resulting from the burning of fossil fuels and forest fires.[12]	PM can cause tissue damage. Fine particles <2.5um can enter the body and impact organs throughout the body, including leading to stroke, ischemic heart disease, chronic obstructive pulmonary disease, lung cancer, pneumonia and asthma.[13,14]
 Water Insecurity	Changes in precipitation and ambient temperatures reduce water quality and increase waterborne pathogen replication, survival and virulence, and strain wastewater infrastructure.[17]	Inadequate access to clean water, safe sanitation and good hygiene (WaSH), leads to increase contact and ingestion of waterborne pathogens and toxins resulting in diseases and illnesses.[17]
 Mental Wellbeing	Increased frequency of extreme weather events leads to traumatic experiences, including forced displacement.	Traumatic experiences increase stress, exhaustion, and loss of community and support networks, leading to post-traumatic stress syndrome (PTSD), anxiety, and depression.[18]
 Health Systems	Increased frequency of extreme weather events and changes in climate causes acute and chronic strain on health systems.[20,21]	Disruptions and reductions in the delivery of essential health services can lead to adverse health outcomes for health issues reliant on health system service delivery. Health systems also have a unique role to play in all pathways above.

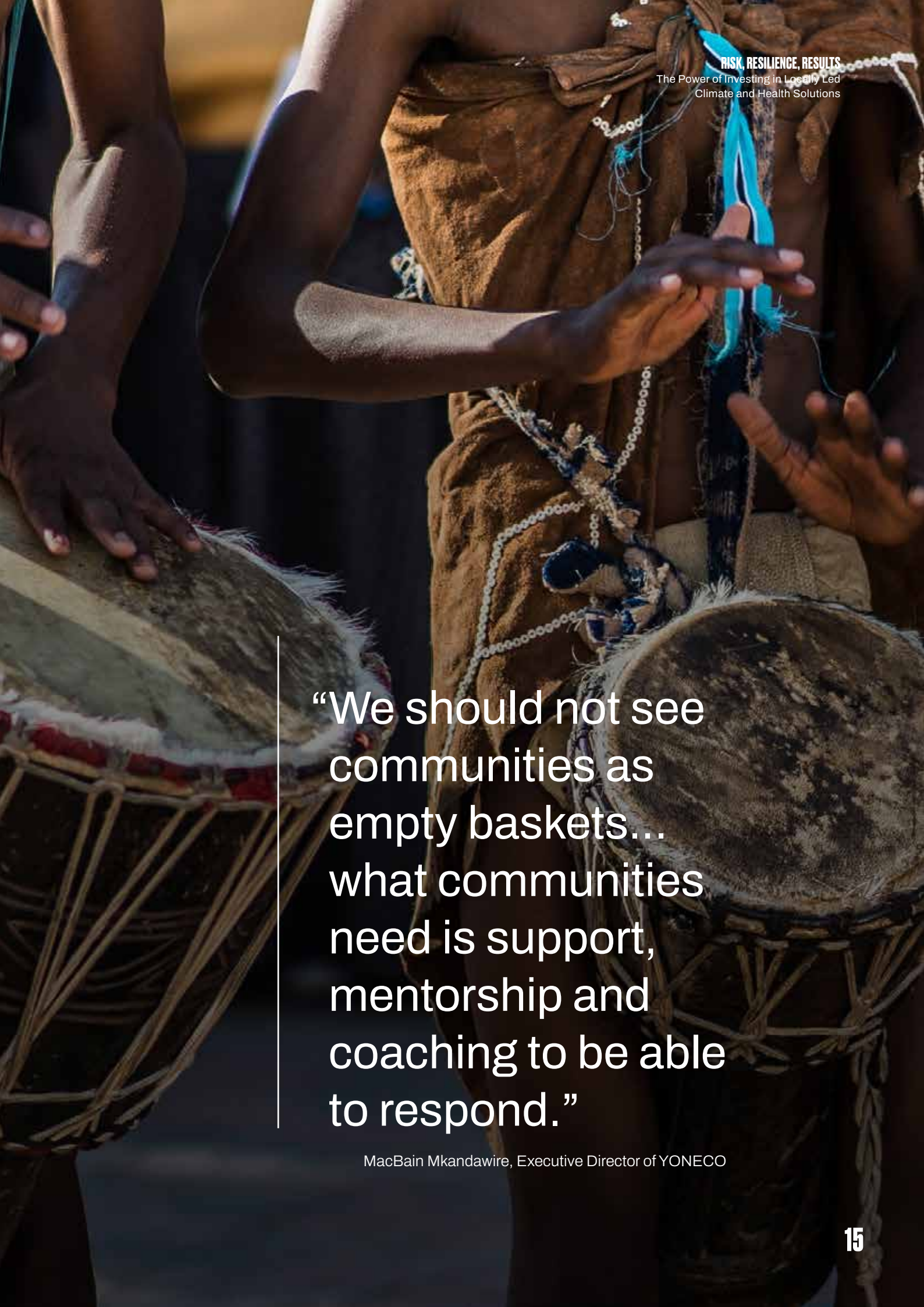
Note: Reprinted from *"A Taxonomy of Climate Change and Health Solutions Pathways: Development of a Strategic Policy Framework"* by K. J. Linn, 2025, Doctoral dissertation, Harvard University. Copyright 2025 by Kevin John Linn. Reprinted with permission.

Solutions	Metrics - SDG Targets[4]
Adaptation: Surveillance and early warning systems, community vector control measures, house/ personal protective measures, innovation in vector (mosquito) adaptation, innovation in diagnosis and treatment.[5,6]	 **3.3** End epidemics of malaria and combat other communicable diseases.
Adaptation: Heat action plans, early heat warning systems, enhancing and greening built environments, implementing occupational safety measures, and education campaigns.[10]	  **3.4** Reduce by 1/3 premature mortality from non-communicable diseases through prevention and treatment. **11.7** Provide universal access to safe, inclusive and accessible green and public spaces.
Adaptation: Early weather warning systems, crop diversification (including climate-resilient crops), farming technology development, innovation in food storage and transportation, forging new markets and trade pathways.[11]	 **2.1** End hunger and ensure access to safe, nutritious and sufficient food. **2.4** Ensure sustainable food production systems and implement resilient agricultural practices.
Adaptation: Enhancing built living environments (such as homes and indoor workplaces), personal protective gear.[15] **Mitigation:** Public policy change, industry innovation, forest burn management.[16]	  **3.9** Reduce deaths and illnesses from air pollution and contamination. **11.6** Reduce the adverse environmental impact of cities, including air quality.
Adaptation: Surveillance and early warning systems, water purification and WaSH infrastructure improvements, water quality monitoring, innovation in diagnosis, water supply augmentation, water resources and demand management.[17]	  **3.3** Combat waterborne diseases and other communicable diseases. **6.1** Achieve universal access to safe and affordable drinking water. **6.2** Increase access to adequate sanitation and hygiene.
Adaptation: Incorporating mental health needs into community disaster response plans and incorporating extreme weather events in mental health policies and programs.[19]	 **3.4** Reduce premature non-communicable disease mortality and promote mental health and well-being. **3.5** Strengthen prevention and treatment of substance abuse.
Adaptation: Infrastructure, technology and supplies; research, surveillance and risk monitoring; workforce development; leadership and governance; and financing.[22]	  **3.8** Achieve universal health coverage, including financial risk protection and access to essential healthcare services, medicines and vaccines. **3c** Increase health financing and the recruitment, training and retention of the health workforce. **13.1** Strengthen resilience and adaptive capacity to climate-related hazards.

Community-Identified and Led Climate Change and Health Case Stories

Snapshot of Stories and Climate Change and Health Pathways Impacted





> “We should not see communities as empty baskets… what communities need is support, mentorship and coaching to be able to respond.”

MacBain Mkandawire, Executive Director of YONECO

Story #1:

SENEGALESE WOMEN RISING TO THE CHALLENGE OF CLIMATE CHANGE

SOLUTION PATHWAY EXPLAINED

In Senegal, women are reclaiming eroding coastlines using nature-based solutions, protecting their communities and supporting livelihoods. Their approach is a model of low-tech yet high-impact resilience in the face of rising sea levels and extreme weather that is threatening to displace entire villages. Other countries are facing a similar reality. Approximately one-third of the Netherlands lies below sea level, protected only by a vast system of dikes and pumps. Coastal cities like Venice (Italy), Hamburg (Germany), and Rostock (Germany) are also increasingly vulnerable to storm surges and rising sea levels. While Europe has more resources to invest in hard infrastructure, there is growing interest in nature-based solutions globally.

The women of Senegal show that ecological approaches are possible to address coastal erosion everywhere.

Women in Senegal bear significant responsibility at home and in society, while facing disadvantages in accessing education and work opportunities. These inequalities can be heightened in rural areas, making women particularly vulnerable to a changing climate as they are more reliant on local and nature-based economies. Recognizing these challenges, the women of Senegal started to change the tide.

> "Women are not just beneficiaries of climate change actions. They are the ones driving the development and implementation of solutions. For years, climate change has been advancing in Senegal, but women are standing strong,"

explained Dr. Mariama Diallo, Project Director at Nébéday.

LOCATION

Petite Côte, **Senegal**

PATHWAYS

- Food Insecurity
- Mental Health (displacement)

ORGANIZATION

NEBEDAY
www.nebeday.org

SDG IMPACT

2.1 End hunger and ensure access to safe, nutritious and sufficient food.

2.4 Ensure sustainable food production systems and implement resilient agricultural practices.

3.4 Reduce premature non-communicable disease mortality and promote mental health and well-being.

Local solutions against climate change are important because they are led by people with intimate knowledge of the challenges and reap immediate benefits. She said of the women of Petite Côte, ***"They are determined to implement solutions that make sense to them that don't disconnect them from the land."***

The Petite Côte region in Senegal is a stretch of tropical coastline situated south of the capital city, Dakar. The sea plays a pivotal role for residents in the area, relying on the ocean for fishing and harvesting, which not only supports their nutrition but also the local economy. However, coastal erosion is increasing from rising sea levels and intensifying storms due to climate change. Recently, communities along the coast have seen their infrastructure consumed by the sea, displacing residents inland to new locations.

These battles with nature have been a challenge for years, leaving communities feeling powerless.

> "Coastal erosion is a phenomenon happening across the world. But here, the salination of our land greatly impacts our way of life and culture. Our houses are being destroyed, and it's causing a lot of difficulties,"

explained one community member.

As a result, many men have left the area to seek livelihoods elsewhere. Displacement is linked to mental health issues, including anxiety, depression and post-traumatic stress syndrome, stemming from a loss of social support networks. If a solution couldn't be found, the women knew that they and their children would soon be next to leave.

In response, the women in the area mobilized to adapt. Through trial and error, they found success using local sustainable products to keep the sea at bay. They started by placing stakes deep into the sand, then tightly weaved palm fronds between the stakes. These structures create a fence that captures a lot of the sand that would normally be swept out to sea. With each passing wave, sea water flows through the fencing, while leaving more of the sand behind. Once the fencing was put in place, erosion slowed.

"After seeing what we achieved in September, we went back to increase the depth of the stakes in January, when we knew it would be the lowest tides of the year," proudly said the woman who led the community effort. ***"The Chiefs of the villages will tell you about our results. What we have achieved is very satisfying. Everyone has seen our results."*** Even the region's administrative officials have commended the adaptation actions.

But the women of this region didn't stop with this one solution. They recognized that the response to coastal erosion needed to be multifaceted. They then turned to mangroves, which are trees that grow in salinized coastlines and rivers and have been shown to be a natural way to reduce erosion. Mangroves work to address climate change by absorbing storm surges along the coastline during extreme weather. In addition, mangroves provide important habitats for fish and oyster growth, both of which are vital local community food sources.

Now, it's been noticed that the men who left to seek livelihoods elsewhere are returning because of the positive impact mangroves are having on marine harvesting.

Women face unique challenges in Senegal, so they must be innovative and adapt, explained Diallo. ***"Women are more likely to be economically dependent on nature to support their families, and with the challenges placed on women in society, they are more likely to be disadvantaged due to climate change. I think that for a long time, there has been a process of making women invisible in many ways. Now is the time to recognize them for their leadership, especially in rural areas. I am optimistic when I think about what these women have done, and will continue to do, to improve their communities."***

The work of the women of Petite Côte in Senegal reveals the importance of striving for equity in supporting climate change and health solutions. They have improved living conditions in their local communities to prevent their displacement, while also helping to build up the local agricultural economy, which is improving nutrition and allowing the men to return. Climate change compounds existing health and social inequalities everywhere. This story demonstrates that developing solutions against climate change must include the whole of society to provide the strength that is needed for communities to continue.

Policy insights from Petite Côte, Senegal, which are relevant for supporting community adaptation everywhere:

1

Embed gender equity and a focus on underrepresented groups to ensure community solutions are rooted in local realities for immediate and tangible outcomes.

2

Recognize that segments of communities and families are being displaced to seek livelihoods elsewhere.

3

Invest as close as possible to communities leading change to ensure that they are organized to advance climate change and health solutions as threats arise.

Story #2:

SOLUTIONS FOUND IN THE FIELDS: BANGLADESH FARMERS ADAPTING TO HEAT

SOLUTION PATHWAY EXPLAINED

Between 2000-2019, approximately 500,000 heat-related deaths occurred each year globally, with 45% occurring in Asia and 36% in Europe.[23] In northwestern Bangladesh, rising temperatures caused by climate change are putting agricultural workers out in the fields at serious risk. Prolonged exposure to extreme heat can lead to accelerated morbidity and mortality from chronic diseases, including respiratory, cardiovascular, mental health, and kidney disease. As heatwaves increase, farmers in Bangladesh are responding by reviving and sharing generational techniques to adapt. These practices often align with formal public health recommendations, highlighting the ingenuity of communities and their commitment to each other and the importance of investing in a bottoms-up approach to scaling adaptation actions.

In northwestern Bangladesh, life revolves around agriculture. Known as the breadbasket of the country, roughly 80% of the population in the region works in farming, which is nearly double the national average (45%). This dependence makes the region extremely sensitive to the impacts of climate change, in terms of both livelihoods and health. On the individual level, rising temperatures and an increase in frequency and duration of heat waves caused by climate change can impact the body's ability to regulate internal body temperature, worsening chronic conditions and resulting in deadly consequences.

> "Our farmers work in open fields and are exposed to direct sunlight. They are one of the most vulnerable populations to extreme heat in the country. They are also vulnerable to other extreme weather events, like heavy rainfall and storms. Climate change is affecting their livelihoods through lost wages and financial insecurity, and leading to poorer health outcomes, both physically and mentally,"

explained Dr. Farjana Jahan, a physician and epidemiologist working with the International Centre for Diarrhoeal Disease Research, Bangladesh, and Heat and Health Research Centre, University of Sydney.

LOCATION

Northwestern Bangladesh

PATHWAYS

- Extreme heat

ORGANIZATION

icddr,b

International Centre for Diarrhoeal Disease Research, Bangladesh

SDG IMPACT

3.4 Reduce premature non-communicable disease mortality and promote mental health and well-being.

When Dr. Jahan and her team started working with local farmers in the region, they found that many were aware that climate change was occurring. Summers were getting hotter and lasting longer. Farmers were recognizing that they were getting exhausted and tired more easily under extreme temperatures. The team also noticed something else occurring that presented an opportunity to leverage: the farmers were sharing best practices in protecting themselves against extreme heat by reintroducing practices that their fathers and grandfathers had done to guard themselves when temperatures rose.

For example, a mathal is a traditional bamboo hat that shields farmers from the sun and rain, which can cover the head and parts of the shoulders. While common across many parts of Asia, its use has declined over time in this part of Bangladesh. The importance of wearing a mathal more regularly was a message that Dr. Jahan and her team recognized was spreading as a solution amongst farmers to protect themselves against the heat. In fact, this message isn't unlike public health advice that would be shared by a government institution, but it was the farmers themselves who were leading the initiative.

Another example was the way farmers were addressing the lack of water supply for personal consumption when working far out in the fields. Farmers carry their own water jugs to drink or splash themselves to keep cool. However, with extreme heat, the water was getting hot quickly, rendering it less effective at absorbing the body's heat in times of need. Some of the farmers remembered that their fathers and grandfathers would place their water jugs deep into the mud, where the water would be kept cool from the insulation provided by the earth.

It was an effective cooling solution that was quickly spreading. Yet another example was the use of molasses and salt being placed into water jugs by farmers to support their hydration while working.

This solution mirrors a basic and commonly known solution that has been credited with saving countless lives globally from dehydration caused by diarrhea or vomiting, which is made from a mixture of water with a number of electrolytes and glucose composition. The farmers had been using this mixture for generations to help absorb fluids more efficiently and were now making sure that everyone was aware of its benefits.

Seeing the value of sharing these solutions amongst workers, Dr. Jahan wanted to create opportunities for more sharing to occur. ***"Most farmers don't know how to read, so something written will not work in sharing solutions. We decided to establish and conduct regular interactive sessions with visual pictorial aids across the region for farmers to share their stories and practices on what is working for them."*** These sessions were facilitated by field-level officials from the Ministry of Health who are also part of that community and allowed farmers to exchange knowledge orally in a way that was accessible and appropriate. In addition, Dr. Jahan ensured that farmers were aware of danger signs associated with extreme heat and the life-saving practices needed to intervene when someone was overheating. Dr. Jahan leveraged the health promotion momentum that the farmers had already started and provided a means for more of it to occur more broadly.

> "I think this is a strong example of bottom-up work. The knowledge that farmers have on agriculture and climate change, including its health impacts, is helping to uncover weaknesses in the system that we want to change,"

shared Dr. Jahan.

For this reason, she also involved the key stakeholders like the Ministry of Agriculture and the Ministry of Health to influence decisions higher up. She said, ***"These farmers are the most affected group in terms of their socioeconomic conditions, yet they are committed to their work and are enthusiastic to contribute their time for the betterment of the community. I'm proud of their resilience. When they share their knowledge, they aren't thinking of themselves, they are thinking of their community."***

The risks that farmers in northwestern Bangladesh face when working under extreme temperatures have never been greater. But sharing their solutions, both old and new, is building their resilience across the entire farming community. When asked what her advice would be to decision-makers based on the work of these farmers, Dr. Jahan replied, ***"The solution is not in the mind of the policymaker, but in the mind of the community."*** Communities will be the source of solutions that matter most to their needs, and facilitating the sharing of these solutions can be a powerful way to ensure results.

Policy insights from northwestern, Bangladesh, which are relevant for supporting community adaptation everywhere:

1

Strengthen community-led health promotion models that involve the participation of decision-makers, especially amongst underrepresented communities.

2

Open local-to-national communication channels, tailored to the contexts and constraints of the community, to develop mutually beneficial relationships.

3

Community empowerment is not just a strategy for delivering climate change and health programming, it's a source of innovative solutions for building resilience.

Story #3:

BLENDING COMMUNITY KNOWLEDGE AND CLIMATE RESILIENCE IN CHAD

SOLUTION PATHWAY EXPLAINED

Article 7 of the Paris Agreement, a landmark treaty on climate change that was adopted by nearly all countries in the world, states that adaptation "should be based on and guided by the best available science and, as appropriate, traditional knowledge, knowledge of indigenous peoples and local knowledge systems." In Chad, communities are embracing diversity in knowledge and ways of knowing to support adaptation in the face of climate change. Deeply held ecological and traditional knowledge is being relied on to successfully guide and develop novel early warning systems, build inter-community solidarity, and address food insecurity. The communities featured in this story illustrate the importance of leveraging local knowledge forms to support community adaptation efforts in the face of a changing climate.

In Chad's Chari-Baguirmi province, an ethnically diverse region where distinct dry and rainy seasons shape life, communities are drawing on generations of knowledge to adapt to climate change. Their experience highlights the critical role of different forms of knowing to guide local innovation in developing climate change and health solutions.

Over the past five years, dramatic changes in flooding have been observed due to deforestation and altered rainfall patterns. Seasonal floods that would once last up to thirty-five days are now lingering for months. In 2022, the water levels reached an unprecedented eight meters and took a year for the water to finally subside. In 2024, the water returned even higher. In regions previously affected by prolonged desertification and water scarcity, the resurgence of rising river levels now poses a serious threat. Communities are being compelled to relocate further inland to safeguard their lives and livelihoods. This forced displacement has resulted in the abandonment of critical community infrastructure, including health facilities, which were established to deliver essential services to vulnerable populations.

LOCATION

Province of Chari-Baguirmi, **Chad**

PATHWAYS

- Food Insecurity
- Mental Health (displacement)

ORGANIZATION

ATASANPE

L'Association Technique d'Appui aux Systèmes Alimentaires, la Nutrition et la Protection de l'Environnement

SDG IMPACT

2.1 End hunger and ensure access to safe, nutritious and sufficient food.

2.4 Ensure sustainable food production systems and implement resilient agricultural practices.

3.4 Reduce premature non-communicable disease mortality and promote mental health and well-being.

Despite this uncertainty and the threat of displacement from their homes, communities have made a powerful observation.

> "When floods are approaching, certain birds follow the rising water to feed on the insects fleeing the floods. These birds act as the first early warning system,"

explained Dr. Julien Mbaikagdjim, Secretary General of the ATASANPE Association.

"When communities see these birds gathering around villages, they know the water is not far off. However, these birds usually fly only about five to ten meters ahead of the flood front, which gives limited time to alert others on a large scale."

Inspired by these communities and their wisdom, the ATASANPE Association helped villages install beacons on the river to serve as additional water level indicators to alert residents to incoming floods. The goal was to supplement nature's early warning system by four to five days before the floodwaters arrived.

By blending the community's awareness of its natural surroundings with basic technology, villages have gained additional critical time to prepare and protect themselves against rising waters. Community knowledge is also being used to support nutrition and the adaptation of local food systems.

The moringa plant is known by villagers as a versatile and nutrient-rich plant that can withstand drought and flood conditions like those experienced in Chari-Baguirmi province. Many parts of the moringa plant are edible, with its leaves eaten fresh, brewed as a tea, or dried and added to meals to help boost nutrition. ***"We are promoting moringa planting in community gardens and near water points,"*** said Mbaikagdjim. ***"For example, around health centers, instead of ornamental flowers. Mothers can come to the health centers for care and harvest fresh leaves right there."*** The planting of moringa in these areas not only supports nutrition but also reinforces local health infrastructure against flooding. While work is underway to expand the planting of moringa in the region, efforts are also being made to expand the use of the tree by focusing on inter-community learning and sharing. ***"The ethnic diversity in the region means that there is a lot of local wisdom on how to use the moringa plant that can be shared between communities,"*** said Mbaikagdjim. ***"Communities teach each other about how they have traditionally consumed the plant. For example, one group might know how to use the seeds in a certain way or how to incorporate the leaves into a sauce, which the other group didn't know beforehand."*** This sharing also helps to broaden the social support networks between villages.

The communities in Chari-Baguirmi province and their solutions to climate change exemplify the importance of embracing community and their wisdom.

"The reality of climate change is lived by communities who don't have air conditioning in their homes or offices. They know exactly how hot the sun gets. They know exactly which bird isn't usually seen and is now starting to appear. They know what's changing, and we must pay attention to their observations and solutions,"

said Mbaikagdjim.

In this story, we see that traditional knowledge is not just a cultural asset but part of communities' frontline defence against the risks of climate change. These communities show the importance of recognizing the extent of one's own understanding and the insights of others in developing a comprehensive strategy to building resilience. The results are communities equipped with generations of know-how, providing lessons that are particularly relevant for the rest of the world as it works to come together in all its forms of knowing to address climate change and its impact on health.

Policy insights from Chari-Baguimi, Chad, which are relevant for supporting community adaptation everywhere:

1

Local and traditional knowledge can be assets in identifying, implementing and scaling local solutions to building resilience against climate change.

2

Intercultural knowledge exchange between communities with locally led adaptation experience can support the scaling of solutions.

3

Empowering local leadership can unlock solutions that are community-tested and scalable to build long-term regional resilience.

Story #4:

FIGHTING CLIMATE CHANGE THROUGH THE ART OF PARTICIPATORY THEATER

SOLUTION PATHWAY EXPLAINED

Climate change is altering the behavior, physiology, and life course of vectors and pathogens, and the abundance and behavior of reservoir hosts around the world. Unprecedented outbreaks of Dengue have recently occurred in parts of South America, while West Nile Virus is spreading in North America and Europe. In Malawi, intensifying cyclones (Freddy in 2023 and Chido in 2025) recently caused widespread destruction, resulting in flooding and damaged WaSH infrastructure. These events meant more stagnant water accumulation, fueling an increase in the abundance of malaria-carrying mosquitoes, which was made worse by the 2023/24 El Nino seasons. At the same time, public health misinformation was spreading on effective malaria prevention. In response, communities used participatory theatre to build strong relationships with local healthcare providers and clinics to creatively deliver culturally and locally relevant messaging, showing that art is an effective tool in community adaptation.

In the Zomba and Machinga districts of southern Malawi, creativity is central to how communities are adapting to the health impacts of climate change. Once covered with forest, these regions have seen widespread deforestation along with recurrent drastic weather conditions that include dry spells, seasonal droughts, intense rainfall and flash floods. The variation in precipitation is resulting in more stagnant water accumulation and a rise in diseases spread by mosquitoes. Recognizing that standard public health messaging wasn't enough to reverse the spread of malaria, local theatre is being used as a tool for awareness and engagement to influence behavior change.

Malaria remains a significant public health concern in the country, with the entire population at risk of infection. Changes in temperature, humidity and rainfall patterns, all of which are caused by climate change, were contributing to more ideal environments for mosquitoes to breed, and for longer durations. As the number of malaria-carrying mosquitoes increased, so too did the risk of contracting the disease. Luckily, there are well-known methods of prevention. One of the most effective methods of preventing malaria is the consistent use of insecticide-treated bed nets (ITNs), which prevent people from getting mosquito bites while sleeping.

LOCATION

Zomba and Machinga Districts, **Malawi**

PATHWAYS

- Vectors and pathogens

ORGANIZATION

YONECO
Youth Net and Counselling

SDG IMPACT

3.3 End epidemics of malaria and combat other communicable diseases.

13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

Unfortunately, misinformation on the use of ITNs was also spreading in the area, including a belief that they could cause infertility and weaken the immune system. It was also believed that they should be washed to remove the insecticide chemicals, and that only pregnant women and young children should use them. Community members and health workers recognized the need to address this misinformation and build awareness of the increasing risks of malaria. To achieve these needs, participatory theatre was identified as a method to connect with communities. However, these weren't just any performances. They were community-led and informed by on-the-ground research.

Youth Net and Counselling (YONECO), a Malawi-based organization that promotes good health and works to empower women, children and youth, first recognized the potential of theatre as a method for change. They decided to help train community performers to work with their local community health networks to identify local public health issues, engage with nearby villages on their beliefs and practices associated with the health issue, and work with healthcare providers on accurate health messaging.

"They use local dances that are popular in the community to communicate a message. As it is participatory theatre, local leaders and the communities themselves are engaged during the performances, including interrupting/pausing performances to raise questions, concerns, and to share their community lived experiences and feedback on the topics."

The theatre performances also sparked grassroots actions beyond the delivery of health messages. In response to the plays, some communities established nurseries to grow and plant trees to help prevent deforestation and the accumulation of flood waters. Others made physical changes to the landscape and infrastructure to address stagnant water. These proactive actions addressed the root causes of the transmission of malaria, complementing the health messaging received during the theatrical performances. Meanwhile, nearby villages, inspired by the initiatives, started asking to bring the performances to their communities.

> "Before performing, the theatre groups act as local researchers. They collect health information from the community, validate the issue with community health workers, and engage with healthcare providers in communicating the right information. Once that is complete, the theatre group creates plays, songs and dances relating to the health challenge, which they then take back to the community,"

says MacBain Mkandawire, Executive Director of YONECO.

> "Our hope is that we are making these communities more resilient by supporting them to develop the capacity that is required for them to respond to climate-induced health challenges… it will ensure that in the future, they will be protected against [climate change] by using the skills that have been shared through the theatre,"

says Mkandawire.

The communities in the Districts of Zomba and Machinga exemplify the importance of creativity in building resilience to climate change and the use of art in communicating risk within and between communities. Art can support difficult conversations and help convey messaging that everyone can understand. It is how we see, express, and understand the world, including the risks posed by climate change. The results of creativity are more resilient communities addressing misinformation to ensure that the public health gains made in the past are not eroded by a changing climate.

Policy insights from the villages of Zomba and Machinga district, Malawi, which are relevant for supporting community adaptation everywhere:

1

Leverage community creativity, especially locally rooted art forms, to communicate on climate change and health risks, misinformation and solutions.

2

Promote dialogue between communities and local health systems on climate change and health issues, including accurate health messaging.

3

Recognize communities as the source of climate change and health adaptation solutions that are contextually relevant for the unique needs faced by communities.

Story #5:

EDUCATION AS A SOLUTION AGAINST CLIMATE CHANGE IN KENYA

SOLUTION PATHWAY EXPLAINED

Around the world, a lack of knowledge on the cause of climate change is a major barrier to effective adaptation. For example, in the United States, over 20% of Americans believe that climate change is mostly caused by non-human activity. In Meru County, Kenya, communities are leading educational sessions on the cause of climate change as being human derived rather than divine intervention. This education is empowering villages with the knowledge needed to fight back. The result has been a reforestation of land, resulting in improved soil conditions that reduce the risk of flooding and crop failure, along with a reduction in stigma associated with illnesses caused by climate change. These communities show that addressing the gap in knowledge on the cause of climate change is essential to empowering adaption action.

In Meru County, Kenya, the rains come from the heavens above, but it's the people on the ground who are leading change. Local villagers would say that the rainy season was like clockwork. The middle of March meant planting, whereas the middle of October meant harvesting. The rains were predictable in a way that the residents could rely on to sustain a living. However, this predictability for communities has since changed.

Many villages in this central part of Kenya are reliant on planting peas and beans to support themselves, but recently these crops have been perishing. Once fertile land in the county has become either too arid from drought or soaked by intense rains. Even pastoralist communities, whose livelihoods revolve around raising and herding livestock, are facing hardship. They are finding their animals dying from extreme heat and a lack of water.

LOCATION

Meru County, **Kenya**

PATHWAYS

- Extreme Heat
- Food Insecurity

ORGANIZATION

CIFORD Kenya
Community initiative for rural Development

SDG IMPACT

2.1 End hunger and ensure access to safe, nutritious and sufficient food.

2.4 Ensure sustainable food production systems and implement resilient agricultural practices.

11.7 Provide universal access to safe, inclusive and accessible green and public spaces.

These agricultural challenges stem from deforestation and altered rainfall patterns, including drought, made worse by climate change. When trees are cut down, the soil is less likely to absorb an abundance of rainwater. As climate change advances, precipitation patterns begin to adjust, resulting in fluctuating intense rains and periods of drought. Without the ecological support provided by the trees, the soil can't adequately adapt to provide the conditions needed for crop growth.

The results are profound, including malnourishment, dehydration and struggles with mental health. ***"Often, women and children bear the brunt. For example, as livestock start to perish, men can spend days migrating with their animals far from home to bless the remaining livestock and look for water and pasture. These blessings can mean women and children are left at home without food and water for a very long time,"*** says Martin Agisa, Community Initiatives for Rural Development (CIFORD).

Empowering communities to know that climate change is human-caused, and not divine punishment, was a powerful intervention needed to start community adaptation. By working with community members, leaders, and administrators, efforts are now underway to reframe the challenge. If humans caused the climate problems being felt, humans could help solve them.

"Our first goal is to help people understand that climate change is not a punishment from God," said Margaret. To achieve this goal, training sessions are being provided to villages on the science of climate change and actions they can take to adapt.

One example of action that has resulted from the training sessions is communities leading reforestation efforts. Over 300,000 tree seeds have been planted by community members to grow the vegetation needed to withstand the change in rainfall. These new trees will help the community adapt for generations to come. They will help change the terrain, so the earth can absorb more water to allow for their crops to grow, while also providing much-needed shade for both villagers and grazing animals to find respite from extreme heat.

Extreme heat has been shown to be associated with deteriorating mental health. ***"When you see someone walking on the road and they are talking to themselves and there's nobody around, people think that it's witchcraft. But if you go and talk to that person, they will tell you they hadn't had anything to eat or drink,"*** explained Martin. ***"There are a lot of myths and misconceptions that people don't want to accept that relate to climate change."*** New tree growth that provides shelter from the sun can have immediate and long-term health impacts that are positive for individuals and the community.

> "These communities know things are changing. They are experiencing new diseases and hardships that weren't there in the past. Their crops are failing, and their livestock are perishing. When the rain comes, it results in flooding. We are a religious people. They believe these changes are a result of God punishing them,"

explained Margaret Ikiara, Director at CIFORD.

Tree saplings have also been distributed to the local schools for students to nurture and take home to plant. These actions are having an inter-generational impact. ***"We tell the teachers that when you educate students, they will go home and pass that knowledge to their parents. We believe that when we train the community on how to slowly change and protect their environment, that knowledge will be transferred even after the project ends,"*** said Irene Chavene, from CIFORD. ***"We will see a community that was once deforested slowly become green."***

These local solutions, rooted in awareness and education, are laying the foundation for a more resilient future. As each tree is planted and every new conversation takes place, the community's ability to adapt advances. The changing climate in Meru County has disrupted natural balances, posing risks to livelihoods and ecosystems, leading to malnutrition and mental health challenges. But now, residents are finding power in knowing the causes of climate change, enabling action and showing that communicating on climate science is a powerful tool to drive meaningful and lasting local change.

Policy insights from Meru County, Kenya, which are relevant for supporting community adaptation everywhere:

1

Integrate the causes of climate change into climate education, while respecting local beliefs and addressing misunderstandings.

2

Engage community leaders, including religious leaders and institutions, as partners in climate change education and adaptation.

3

Partner with local schools and engage youth to support the sharing of climate change knowledge between generations.

Story #6:

LEARNING FROM THE COMMUNITY OF NORTH TONGU DISTRICT, GHANA: PLAN NOW!

SOLUTION PATHWAY EXPLAINED

Between 1993 and 2022, more than 765,000 lives globally were lost due to extreme weather events, effecting every region of the world.[24] The communities in the district of North Tongu in Ghana faced unprecedented and devastating flooding in 2023 following extreme rainfall and the spillage of the Akosombo Hydroelectric dam. It displaced thousands of residents, destroying agricultural lands, wastewater facilities, homes and clinics, resulting in the spread of diseases such as cholera, skin infections and malaria. The crisis exposed deep gaps in preparedness, despite the region's well-known vulnerability and the increase in frequency and intensity of extreme weather caused by climate change. However, this story isn't unique to these communities. In Ghana, the community solution is focused on immediate and long-term climate-related disaster planning, and the hope that other communities will learn from their experience and start climate disaster planning now.

In 2023, communities in the North Tongu District of the Volta region of Ghana were devastated by unprecedented flooding after heavy rains that forced the spillage of a major nearby dam, the Akosombo Hydroelectric dam. Thousands of residents were displaced, with many losing their homes, farmlands, and livelihoods. The area has long been known as being vulnerable to flooding, located below sea level and consisting of a terrain that naturally had little forest. The scale of disaster exposed a deep need for better preparation.

The consequences of the flooding extended far beyond property damage. Public health infrastructure was destroyed, including facilities that captured and managed wastewater, resulting in the rapid spread of cholera, skin infections, and other waterborne diseases. Stagnant water also created ideal conditions for mosquitoes, increasing the transmission of malaria. Even now, people are still displaced from their communities, living in temporary shelters, severely disrupting daily life, including the education of children.

LOCATION

North Tongu District, **Ghana**

PATHWAYS

- All climate change and health pathways

SDG IMPACT

13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

According to Mr. Robert Adatsi, Head of Clinical Services at the Volta Regional Directorate of the Ghana Health Service at the time, the disaster revealed a painful truth: there was little effort placed on planning for such a disaster, despite the area's susceptibility to flooding and the increase in frequency and intensity of climate-related extreme weather. Mr. Adatsi recognizes this lack of planning as a major contributor to the devastation that is being witnessed and said that it should act as a wake-up call for other communities within Ghana and globally to start preparing now to understand their climate disaster risks.

Yet, amid all the destruction, a powerful story of resilience and leadership is emerging. Communities in North Tongu District are now anticipating and planning for future floods while rebuilding from the current one. Plans include building and relocating homes to safer grounds, rethinking city layouts to redirect floodwaters away from infrastructure, and training local community health workers to respond and manage sanitation issues arising from climate disasters when wastewater infrastructure fails. In addition, they are collecting evidence to help inform their own community plans and those of others.

This forward-looking outlook is comprehensive and grounded in collaboration. Local governments and representatives, traditional leaders, youth groups and health committees are just some of the groups and individuals being actively leveraged and included in the planning process. These efforts are building future resilience while also trying to meet the current needs of communities, including providing psychosocial support to flood survivors and coordinating health systems at the local, regional and national levels.

Mr. Adatsi believes that this collaborative planning effort set by the communities can offer valuable lessons for other regions of the country and indeed across the globe.

"My hope is that these communities are seen as leaders in responding to climate disaster," he said.

> "There are many lessons to be learned here that can provide evidence-informed planning elsewhere." He shared four key recommendations based on his experience and observations: empower communities to adapt; develop collaborative disaster response plans; structure community growth to withstand future climate disasters; and establish dedicated funding mechanisms to respond to climate emergencies.

Mr. Robert Adatsi, Head of Clinical Services at the Volta Regional Directorate of the Ghana Health Service

These recommendations are based on hard truths. The known risk of intensifying rains from climate change was always present for the communities, but the plans to prevent and respond to severe flooding weren't in place. Now that climate-related disasters are becoming more frequent, there is a lot to learn from the experiences of the communities in North Tongu and their collaborative response being exemplified. Climate threats are here, and adequate anticipatory planning is a crucial solution that must begin now.

Policy insights from North Tongu District, Ghana, which are relevant for supporting community adaptation everywhere:

1

Community climate change and health assessments should be conducted now to help predict and adapt to future climate change disasters.

2

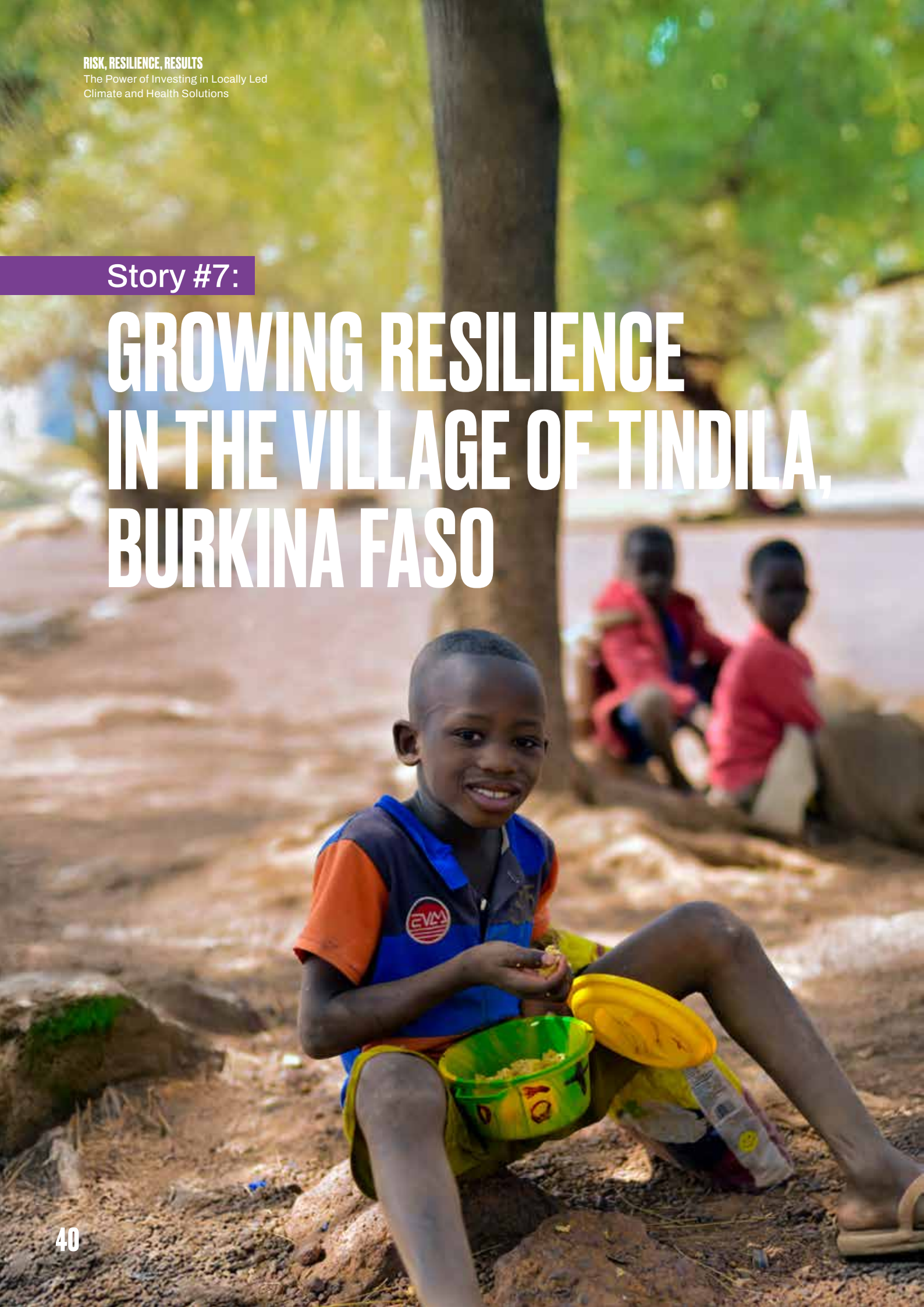
Collaborative and comprehensive responses to climate change and health disasters are needed to help meet the needs of the whole community.

3

The lessons learned by communities that have faced climate change disasters should be gathered, analyzed and shared to support other communities to adapt.

Story #7:

GROWING RESILIENCE IN THE VILLAGE OF TINDILA, BURKINA FASO



SOLUTION PATHWAY EXPLAINED

The World Meteorological Organization states that the number and duration of droughts globally has increased by 29% over the past 20 years due to climate change.[25] In Burkina Faso, water and food insecurity is worsening as rainfall becomes increasingly erratic due to climate change. Communities are already living with the consequences, including crop failure, malnutrition, and the spread of waterborne diseases. Villages in Burkina Faso are taking control of the situation and have developed comprehensive solutions for immediate and long-term relief. In one village, a borehole was installed next to the local school to provide clean water and vegetables, and valuable agricultural education for the students. While the scale and available resources to address water insecurity differ across the world, this story is a reminder that when communities are empowered to lead solutions, their adaptation actions can be efficient and comprehensive.

In the village of Tindila, Burkina Faso, students at a local school would drink water from a nearby open source. Their meals consisted mostly of rice and beans. Then, the collaborative idea of building a borehole at the school and planting a garden began to change these realities, not just for the students but for the community at large. Tindila is in the province of Passoré, in the northern region of Burkina Faso. Shifting rainfall patterns from climate change have increased crop failure and malnutrition due to drought, as well as increased the spread of waterborne diseases from a lack of clean water. Leaders, parents and teachers recognized the urgent need to adapt, and a solution in one village surfaced that would address numerous health challenges that the community was facing. Building a borehole at the local school that could also support the maintenance of a thriving garden would have transformative effects.

LOCATION

Tindila, **Burkina Faso**

PATHWAYS

- Food Insecurity
- Water security

SDG IMPACT

2.1 End hunger and ensure access to safe, nutritious and sufficient food.

2.4 Ensure sustainable food production systems and implement resilient agricultural practices.

3.3 Combat waterborne diseases and other communicable diseases.

6.1 Achieve universal access to safe and affordable drinking water.

6.2 Increase access to adequate sanitation and hygiene.

The solution was simple but innovative in its approach. It would directly address two of the most urgent climate change and health challenges facing the community. A borehole would reduce the spread of waterborne diseases by improving access to clean water for drinking and sanitation. At the same time, it would help to tackle food insecurity and malnutrition by supporting a garden that could grow a variety of plants and vegetables. Simultaneously, the solution would support the education of students and the development of their agricultural skills.

Students played an essential role in the implementation of the solution and its success. While teachers and parents planned the project, students helped to mark the garden boundaries, plant seeds, water the crop, and harvest the produce.

> "When it's time to harvest the tomatoes, the students are very happy,"
>
> explains Isidore Della, National Director at the community-based organization known as INADES-Formation Burkina.

This community-identified solution is delivering both immediate and long-term benefits. In the short term, students have access to clean drinking water and improved nutrient diversity through improved access to fresh vegetables. Over time, the sense of community and social cohesion has grown through the act of shared labour to preserve and sell produce during the dry season. In the long term, the project is passing down gardening skills to the next generation. As agriculture is the primary livelihood across Burkina Faso and is considered an extremely climate-vulnerable sector, these skills will be invaluable.

Collaboration and community engagement were key to the project's success. ***"We worked with the authorities at both the national and local levels…to highlight opportunities to support communities in responding to the issue of climate change and its impact on health,"*** said Isidore. By working with national and regional authorities, the most affected villages were identified, helping to guide work towards the villages in greatest need.

Once villages were identified, engagement shifted from high-level identification and planning to inclusive, ground-level dialogue that recognized and elevated locally-led adaptation knowledge. ***"We met with local authorities, and they identified villages for us to work with based on their needs,"*** Isidore said. Community members themselves raised the need for clean water and improved nutrition, and proposed their own ideas for addressing these problems.

> "We went down to meet and talk with the village. They recognized that the school had never had access to water. The communities lacked the means to make the initiative happen. We came in to support the realization of their solution."

By taking a comprehensive approach to adapt to climate change, the community is seeing results. One mother in a neighbouring village that followed a similar solution said, ***"The garden that was set up has greatly helped us diversify our food…outside of the rainy season, we usually don't have access to fresh vegetables to improve the quality of our daily meals. But today, thanks to the garden… we now have fresh okra available at all times."*** This is a hopeful testimonial as malnutrition is known to lead to stunting and wasting, as well as making it difficult for the body to fight disease.

Engaging with communities on climate change and health priorities and solutions is essential for innovation to take root. Isidore emphasized that meaningful engagement is often the most time-intensive component of any project. It is also often the least appreciated and hurried component of any plan. This reflection provides valuable insights to better support communities in their adaption process.

The story of Tindila shows that when communities lead and organizations listen, modest investments in development and adaptation can lead to powerful outcomes that lay a foundation for long-term resilience. In Tindila, the results have been healthier kids and families now, and a community better prepared for climate change in the future.

Policy insights from the villages of Tindila, Burkina Faso, which are relevant for supporting community adaptation everywhere:

1

Community engagement is essential for solution development. Front-loading financing and allowing for flexible implementation can allow for better community engagement to occur.

2

Modest yet long-term financing of infrastructure, when identified and led by communities, can significantly improve climate change and health outcomes.

3

Partnering with schools can be a means to expand the reach of climate change and health solutions and achieve multiple long-term gains over multiple generations.

INSIGHTS IDENTIFIED ACROSS STORIES

The stories included in this report and the community experiences and expertise shared reveal important insights on climate change and health solutions that are community-led. These insights are described below and highlight the level of innovation coming from communities and the value of local adaptation solutions.

Communities are developers of climate change and health solutions

Across all the stories and organizations interviewed, communities were not only designing but also implementing their own climate change and health adaptation solutions. These solutions varied tremendously, including by region and climate risk, underlining the ability of communities to reflect incredible diversity in the development and scaling of responses, based on firsthand lived experience and social, cultural and ecological contexts.

Local solutions address multiple climate change and health pathways

Climate change often impacts a community's whole way of life and its many long-held methods of maintaining and promoting health. When communities develop adaptation solutions, they successfully address multiple climate change and health pathways simultaneously, moving beyond linear or siloed approaches. As a result, one intervention often means mutual health gains, reflecting an efficient use of resources.

Climate-related migration is prompting communities to reimagine leadership

In response to slow-onset climate impacts, some communities are making strategic decisions about mobility and labor, with men migrating in search of opportunity. These choices, while shaped by structural pressures, reflect agency and adaptation within families. The reconfiguration of society is prompting communities to revisit assumptions about leadership, inclusion, and responsibility. Women and youth are taking on increasingly central roles in sustaining livelihoods and leading adaptation efforts, offering an opportunity to support more inclusive, community-defined leadership in the face of ongoing climate stress.

Trust is foundational for scaling and sustaining solutions

Strong, trusting relationships between communities and external groups, including health systems, government and non-government organizations, were repeatedly mentioned as foundational to understanding and scaling solutions together. This included trust in local knowledge, innovation and leadership. Trusting relationships take time to build and require work to establish, with various methods utilized by both communities and non-community partners.

Communities are facing concurrent health and development challenges

Numerous complex health challenges are being faced by communities. Some of these challenges are rooted in social and infrastructural development inequalities; others are from human-induced ecosystem degradation; almost all are exacerbated by climate change. Community-identified and led solutions are often comprehensive in their response in reflecting social, ecological and development needs, while clearly addressing specific climate change and health pathways.

Traditional and local knowledge are critical assets for adaptation

Communities draw deeply from ancestral knowledge to develop and scale solutions. For example, ecological knowledge reflecting local environment changes and innovation in adaptation is being passed down through generations. In many of the experiences shared by communities, traditional knowledge was also being shared across communities to neighboring villages and used in conjunction with science and other climate change adaptation best practices.

Connecting and planning are core to community action

Many of the communities interviewed for this report rarely relied on written materials for planning adaptation solutions. Instead, oral communication, storytelling and gatherings were key to identifying and sharing ideas. Fostering these forms of communication surfaced as an important method of community capacity building, including long-term planning and coordination to respond to climate change disasters.

Community involvement in building climate-resilient health systems

Community Health Workers were frequently cited as key holders of deep local knowledge that is essential to strengthening local health systems in responding to climate change events. Training community members and equipping them with the tools and knowledge needed to help build climate-resilient health systems and respond to immediate community needs is critical to ensuring the health of communities.

POLICY RECOMMENDATIONS

The following recommendations build on the lived experience of communities interviewed for this report and reflect the priorities of the Africa–Europe Foundation and Foundation S, co-conveners of the Collective MindS Climate x Health Council. They are designed to inform the AU–EU dialogue and global climate–health fora, in line with the objectives of the Paris Agreement on adaptation and resilience, ensuring that locally led solutions are not just documented but scaled. By grounding systemic asks in real community practice, we aim to highlight the urgent political and financial commitments required to protect health in a warming world. Amid growing geopolitical pressures on international public finance for development, increased domestic financing for climate and health action is essential to sustain adaptation efforts and protect population health. This reinforces the urgency of strengthening national systems, aligning public budgets, and unlocking locally led solutions - alongside international support - across the Africa-Europe partnership.

1 Develop Coordinated Funding Mechanisms to Further Build Local Leadership Capacity

Communities are innovating with minimal resources and access to finance remains a key sustainability barrier. Investing in local leadership is essential for communities to build capacity to assess risks, lead in adaptation planning, engage with governments and local health systems, and ultimately unlock larger-scale financing.

1.1. Work towards greater funder coordination to reduce fragmentation in program financing and administration to directly reach local leadership, including improved matchmaking between funders and grantees.

1.2. Strengthen local capacity to access climate and health financing by adapting funding mechanisms to better suit the needs and challenges of local actors. This includes replacing donor-heavy applications with streamlined rapid-access processes; designing funding instruments that allow communities to reallocate resources quickly in emergencies; and proving a greater focus on seed investments and microgrants.

1.3. Strengthen community-level adaptation evaluations to develop a deep evidence base of local climate change and health solutions to support funding applications.

2 Embed Local Leadership in National and Global Decision-Making

Communities are trustworthy partners. Excluding local leaders from decision-making undermines effectiveness. The role of communities should thus be recognized and embedded in climate change and health adaptation planning and decision-making.

2.1. Embrace the Bélem Health Action Plan, which states the need to include full, equitable, and active participation of civil society in the adaptation of the health sector.

2.2. Establish dedicated community engagement channels and positions for local leadership to participate in national and AU–EU climate–health dialogues and decision-making structures, supporting accountability.

2.3. Elevate the participation of women, indigenous peoples and youth as core community stakeholders and partners in all climate change and health work everywhere.

3 Integrate Climate, Health and Development agendas at National and Global Levels

Communities have shown to efficiently and comprehensively address development, health, and climate change challenges, already bridging sector siloes in practical terms.. Policy and budgets must also reflect this reality. Fragmented policies waste resources; integration is essential to deliver resilience.

3.1. Develop new and strengthen existing international partnerships that focus on collaborative advancement of community-led adaptation solutions that bridge sector siloes and comprehensively reflect community expertise and needs.

3.2. Develop cross-sectoral policies and financing strategies that integrate infrastructure development, health systems strengthening, and climate change adaptation priorities, such as through the Global Gateway Africa – Europe Investment Package.

3.3. Align monitoring with SDG-linked indicators, specifically goals 2, 3, 6, 11 and 13, to drive community advancement and accountability across sectors.

4 Value and Scale Traditional and Local Knowledge in Developing Solutions

Communities are blending traditions with innovation. Many are relying on traditional and local knowledge to strategically enhance the effectiveness of local leadership in developing community-led solutions. Yet these knowledge systems often remain undervalued in formal policy.

4.1. Give equal weight to indigenous and community practices in climate–health planning, in line with Article 7 of the Paris Agreement, which recognizes the role of traditional and local knowledge in adaptation.

4.2. Create platforms where community and scientific knowledge interact to shape solutions and policy, establishing methods for the co-creation of resilience based on joint best practices.

4.3. Incorporate traditional knowledge in climate change and health governance structures, technical guidance toolkits, frameworks, and operational procedures. For example, supporting non-conventional education methods like participatory theatre, storytelling, visual arts, and other creative methods must be resourced as effective levers for awareness and behavioral change, especially where literacy gaps and institutional mistrust are barriers.

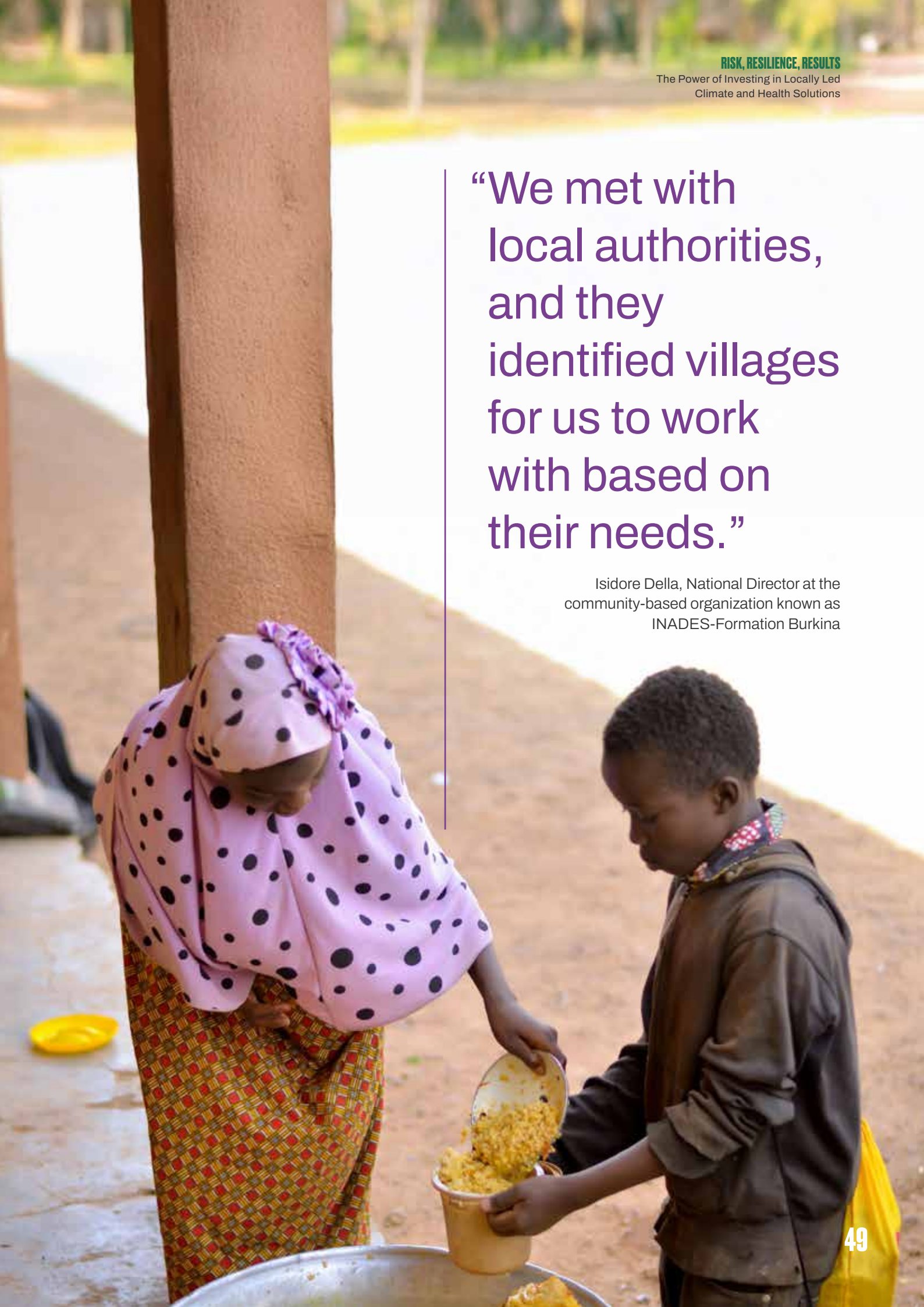
5 Centre Communities in the Development of Climate-Resilient Health Systems

Resilient health systems cannot be built without empowered communities, they are interdependent. Every example in this report underscores this truth. Yet community health capacity remains underfunded and undervalued.

5.1. Develop conceptual frameworks that position communities as not just receivers but enablers of climate-resilient health systems. For example, institutionalize and support the involvement of community leadership in the design, implementation and monitoring of these systems at local and national levels.

5.2. Provide Community Health Workers with the knowledge training, tools and remuneration needed to respond to climate change and health events, from malaria to heat stress.

5.3. Invest in resilience infrastructure. Scale up affordable, community-owned assets, such as boreholes, early warning systems and reforestation, that safeguard health in a changing climate.



"We met with local authorities, and they identified villages for us to work with based on their needs."

Isidore Della, National Director at the community-based organization known as INADES-Formation Burkina

CONCLUSION

Empowering communities is the most strategic, equitable, and scalable way to protect human health in a rapidly changing climate. This collection of stories and the insights uncovered demonstrate that communities are not just on the frontlines of the climate change crisis, they are also leading the way in preparing for, responding to, and mitigating its diverse impacts on health and socio-economic well-being.

These innovations are grounded in lived experience, community knowledge, and local values. They are not only effective at addressing multiple climate change and health pathways but also offer efficient solutions that address broader community development priorities. Most importantly, these approaches are globally relevant, providing valuable guidance for decision-makers to build international strategic partnerships with communities to accelerate progress and amplify impacts.

Together, these stories highlight the urgent need to integrate health, climate change, and development efforts in ways that strengthen community resources, cohesion, and adaptive capacities.

Central to this integration is the recognition and prioritization of local leadership in climate adaptation planning. Equally important is the appreciation of local knowledge, which plays a vital role in shaping solutions that are culturally grounded, contextually relevant, and sustainable.

Therefore, these narratives are an invitation for national and global decision-makers to stand with communities, supporting their leadership in shaping a healthier, more resilient future. This means mobilizing and scaling up resources and establishing the structures needed to enable locally-led resilience initiatives that respond to the urgent nature of climate change and its impacts on community health.

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