

तरा अबुस्था
मन्दा बढा

COP28 Resilience Hub Synthesis Report

Key messages and future directions

RESILIENCE
HUB

ACKNOWLEDGEMENTS

Managing Partners

The Managing Partners provide strategic oversight of the Hub to ensure it is meeting its overall purpose and objectives in coordination with other processes around COP. They coordinate with a wide network of partners, organisations and sponsors who help to bring the Hub to life each year.

The Hub Steering Committee – a smaller subset of the Managing Partners group – helps to ensure that the Hub complements and adds to the ambition of the COP Presidencies and the overall aim to elevate action and finance for adaptation and resilience on par with mitigation measures.



The Race to Resilience

The Resilience Hub acts as the home to the Race to Resilience, the UN-backed campaign to mobilise greater ambition and action from state and non-state actors to build the resilience of 4 billion people from climate-vulnerable communities by 2030. The Resilience Hub Partners and Steering Committee collaborate with the Race to Resilience campaign on the implementation of the Resilience Hub at COP28, and create an active connection to the incoming and present COP Presidencies.

Hub Sponsors

A big thank you for all of our sponsors, without whom the Resilience Hub would not have been possible: Deloitte · Marsh McLennan · Deutsche Bank · BCG · CIFAR Alliance · DAR · Mastercard · FCDO (UK Government) · PwC · Walton Family Foundation

Hub Supporters

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Theme Leads

Finance and Investment: Fundación Avina, International Institute for Environment and Development (IIED), Institutional Investors Group on Climate Change (IIGCC), Building Approaches to fund local Solutions with climate Evidence (BASE)

Disaster Risk Management and Humanitarian Action: UN Office for Disaster Risk Reduction (UNDRR), The International Federation of Red Cross and Red Crescent Societies (IFRC), Global Network of Civil Society Organisations for Disaster Reduction (GNDR), International Coalition for Sustainable Infrastructure (ICSI), Insurance Development Forum (IDF)

Food and Agriculture: Stockholm Resilience Centre, Proyecto Regional Andes Resilientes al Cambio Climático, Feed the Future Innovation Lab for Markets, Risk & Resilience

Water and Natural Ecosystems: Water Youth Network, Climate Resilient Infrastructure Development Facility (CRIDF), Alliance for Global Water Adaptation (AGWA), Natural History Museum (London)

Cities and Urbanisation: Slum Dwellers International (SDI), Green Africa Youth Organization (GAYO), Resilient Cities Network (RCN), Mahila Housing Trust (MHT)

Infrastructure, Energy, and Mobility: World Federation of Engineering Organizations Young Engineers / Future Leaders Working Group on Climate Action (WFEO SDG13), Coalition for Disaster Resilient Infrastructure (CDRI), Global Infrastructure Hub

Ocean and Coasts: Ocean Risk and Resilience Action Alliance (ORRAA), Lloyd's Register Foundation

Arts, Culture, Antiquities, and Heritage: Julie's Bicycle, Hivos

Health and Wellbeing: Abt Associates, COP², Extreme Heat Resilience Alliance (EHRA)

Regional Hub Leads

Africa: South South North (SSN) with collaboration from Slum Dwellers International (SDI)

South Asia: International Centre for Climate Change and Development (ICCCAD)

Latin America and Caribbean: Fundación Avina

ABOUT THIS REPORT

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Cover image: Students of Kalika School dressed in traditional cultural attires contribute to the mural art showcasing the flood impact of their municipality in the first-ever scientific mural art organized in Nepal at Rajapur in Bardiya, Nepal. The project was one of the four winners of the 2024 [#Art4Resilience competition](#) organised by the Global Resilience Partnership. Photo credit: Skanda Gautam, Youth Innovation Lab.

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Managing Partners



IN LOVING MEMORY



“With the right support and resources, communities on the front lines of climate change can be the most innovative in finding adaptation solutions and the Resilience Hub can and should serve to catalyse and empower these kinds of solutions in creating momentum to mobilise the necessary resources.

I am hopeful that COP28 will deliver, including in the key areas of adaptation and loss and damage, which is so important to South Asian countries.”

In loving memory of Prof. Saleemul Huq, OBE

Founder Director, International Centre for Climate Change and
Development (ICCCAD) and Senior Associate, International
Institute for Environment and Development (IIED)

1952 - 2023

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EXECUTIVE SUMMARY

The Resilience Hub is an inclusive virtual and physical space designed to mobilise greater levels of action and ambition on resilience and adaptation at the annual UN Climate Change Conference (COP) – and beyond. The Hub brings together a global community with diverse perspectives and experiences to share knowledge, co-create solutions and catalyse action. The Hub aims to place locally-informed, equitable resilience solutions for people and nature at the heart of the COP process. Each year, thousands of people from around the world attend or participate in the Resilience Hub, both virtually and in-person. Since launching at COP26, the Resilience Hub has connected thousands of people across COPs to share knowledge, build partnerships and build a growing community toward delivering climate resilience.

This report synthesises the key findings and recommendations for action from the COP28 Resilience Hub and aims to help set the direction for future action towards COP29 and beyond. The report first provides an overview of the key adaptation and resilience decisions and announcements that took place during COP28; it then presents the key messages and findings from the events of the Resilience Hub and offers concluding remarks and a guidepost for the year ahead.

Four cross-cutting messages emerged from sessions hosted at the COP28 Resilience Hub:

- 1. There is an increase in innovative approaches in finance for resilience; however, scaling approaches requires reforms of the wider climate finance architecture.**
- 2. Equity and justice must be at the heart of any successful partnerships for resilience.**
- 3. The intersection of health, climate, and resilience highlight the need for preparedness, gender-specific and socio-cultural considerations.**
- 4. Increases in conflict and violence present significant challenges for adaptation and resilience and pose the risk of reversing significant development gains.**

"The Resilience Hub is a fantastic space at COP28 where civil society and specifically women, youth, local and indigenous communities can showcase their solutions for a climate healthy and adaptive world. I'm looking forward to showcasing the achievements and promises of the Race to Resilience at COP28 in partnership with the Hub."

— Razan Al Mubarak, UN Climate Change High-Level Champion of the United Arab Emirates, COP28

In addition to summarising the key overarching messages, the synthesis report presents findings and insights from the Regional Hubs that took place in the run up to COP28 as well as from nine themes explored in the Resilience Hub during COP28.

CELEBRATING THE PROGRESS OF THE RACE TO RESILIENCE

Since COP26, the Resilience Hub has acted as the home of the Race to Resilience at COP. As the first-ever Global Stocktake concluded at COP28 and the definition of a Global Goal on Adaptation makes significant advances, the Race to Resilience Campaign presents its contribution to the progress on adaptation delivered by the Non-Party Stakeholders. Race to Resilience (RtR) was launched at the Climate Adaptation Summit in 2021 by the UN High-Level Climate Champions for COP25 and COP26, with the purpose to serve as a global platform that brings together Non-Party Stakeholders (NPS), investors, businesses, cities, regions and civil society under a common goal: putting people and nature first, making 4 billion people more resilient to climate change by 2030.

Two and a half years since its launch in 2021, the campaign has grown and now encompasses a total of 34 partner initiatives, with more than 647 collaborating members. Furthermore, new subnational governments have joined the Race through their Flagship Initiatives: including 86 cities from Cities Race to Resilience and 78 regions from RegionsAdapt. The adaptation solutions deployed by partners and members are located across 164 countries. These solutions span across all priority systems included in the [Sharm-el-Sheikh Adaptation Agenda](#) and informed its first implementation report. To date, the combined pledges from Campaign partners seek to strengthen the resilience of 3.17 billion people by 2030. The strength of the Campaign lies in the joint ambition shared by the partners and members that implement locally-led adaptation actions to benefit the most vulnerable, supported by a credible, comprehensive and transparent progress tracking framework that unifies partners and members in turning pledges into action.

At COP28, we celebrated the growth and achievements of the campaign with its [second progress report](#). Collective pledges by partners have reached 3.17 Billion people and action is already being implemented to boost the resilience of 1.87 billion people. The campaign partners are taking action to protect, restore, or manage natural systems that will reach up to 59.8 million hectares, with actions covering 5.48 million hectares to date. Two years since its launch, partners are mobilising US\$39.44 billion for implementation. The Campaign also launched its [RtR Dashboard 2.0](#), a web application that provides a snapshot of the campaign's progress, now with an interactive map of [RtR Solution Stories](#).



Photo: H.E. Razan Al Mubarak, UN Climate Change High-Level Champion for COP28 and Dr. Mahmoud Mohieldin, UN Climate Change High-Level Champion for COP27
Photo credit: Race to Resilience

ADAPTATION AND RESILIENCE AT COP28

Despite positive signals, COP28 outcomes present a mixed picture for adaptation and resilience. At the heart of the COP28 negotiations was the culmination of the first-ever “[Global Stocktake](#)” under the Paris Agreement. Countries agreed to have in place national adaptation plans, policies, and planning processes by 2025 and to have progressed in implementing them by 2030. They also agreed to establish early warning systems for climate impacts by 2027, with the decision text specifying 2030 adaptation targets, including designing, establishing and operationalising a system for monitoring, evaluation and learning for national adaptation efforts. Parties agreed on targets for the [Global Goal on Adaptation \(GGA\) and its framework](#), which identify where the world needs to get to in order to be resilient to the impacts of a changing climate and to assess countries’ efforts. The Climate and Development Ministerial launched the [Coalition of Ambition on Adaptation Finance](#) and their vision for reforming the adaptation finance architecture. The Coalition will work together on enhancing country-owned programmatic funding, easing access to adaptation finance, and scaling all sources of adaptation finance. While a total of US\$700 million have been pledged to date to the [Loss and Damage Fund](#), this represents only a small fraction of the irreversible economic and non-economic losses and damages low- and middle-income countries are already facing.

The [2023 Adaptation Gap Report](#) flags that the updated range for adaptation costs and financing needs is significantly higher than previous estimates. A plausible central range for the adaptation costs/financing needs is US\$215 billion/year to US\$387 billion/year for developing countries this decade. This updated central range is significantly higher than the previous estimate, which was US\$170 billion to US\$340 billion/year in current prices for the same period. The report reveals encouraging trends in private sector adaptation financing, notably among large corporations. Analysis shows that 68% of companies, representing 69% of global market capitalisation, report implementing adaptation actions. However, the reporting of associated costs remains inconsistent. While larger businesses are more proactive in planning and financing adaptation measures, small and medium-sized enterprises (SMEs), particularly in developing countries, are also adapting to climate impacts, often unconsciously, with their related investments typically going undocumented.

The COP28 outcomes signal that the next two years will be critical for climate action. At COP29, governments must establish a new climate finance goal, reflecting the scale and urgency of the climate challenge. And at COP30, they must come prepared with new nationally determined contributions that are economy-wide, cover all greenhouse gases and are fully aligned with the 1.5°C temperature limit. As noted in the 2023 Adaptation Gap Report, “Even if the rise in temperature eventually slows as a result of more ambitious collective climate change mitigation efforts, climate risks will accelerate with every fraction of a degree because of the compounding and cascading nature of climate-related impacts.” Now is the moment to radically step up our efforts to not only scale up mitigation but also adaptation action to minimise the climate impacts that will inevitably remain.

THE RESILIENCE HUB AT COP28

Following on the success of placing resilience on the global climate agenda at COP26 in Glasgow and COP27 in Sharm El-Sheikh, with thousands of participants in-person and online each year, the Resilience Hub returned for a third year as a dynamic, inclusive virtual and physical space at COP28 in Dubai, UAE. Each year, the Resilience Hub holds a series of Regional Resilience Hubs to ensure that diverse perspectives and best practices on resilience are amplified and help drive the agenda at COP.

Guiding Principles for the Resilience Hub

- **Inclusive and Representative:** The Hub lifts up diverse voices that have been traditionally under-represented.
- **Connecting Local to Global:** Through Regional Resilience Hubs and increased regional partnerships, the Resilience Hub is ensuring regional priorities and stakeholders are adequately represented at the annual UN Climate Change Conferences (COPs).
- **Radical Collaboration:** The Hub facilitates cross-partnership networking and encourages new collaboration between private, public and civil society actors, with a particular focus on amplifying community voices and local solutions that are frequently less heard in international climate dialogue spaces.
- **Focus on Action, Progress and Accountability:** The Hub is dedicated to advancing action on resilience and adaptation, showing what works and why; how to scale successful solutions; and raising further ambition.
- **Working Across the COP Landscape:** The Hub works in tandem with other pavilions to ensure convergence around adaptation and resilience are highlighted across programming.

Regional Hubs

In 2023, Regional Resilience Hubs were actively integrated in the planning and delivery of the Resilience Hub in the lead up and during COP28 to ensure that best practices on resilience and perspectives of those most susceptible to and affected by climate change were amplified and increasingly influenced the agenda of the Resilience Hub at COP. The Regional

Hubs delivered in-person and virtual engagements to bring local voices to the global stage from May to December 2023.

Regional Hubs were led by organisations with regional presence in:

- Africa, led by South South North (SSN) in collaboration with Slum Dwellers International (SDI).
- Latin America and the Caribbean, led by Fundación Avina.
- South Asia Regional, led by the International Centre for Climate Change and Development (ICCCAD).

Themes for COP28

The Resilience Hub themes for COP28 are designed and agreed upon by a Steering Committee of regionally and sectorally diverse non-state actors with input from Resilience Hub Managing Partners.

- Finance and Investment
- Disaster Risk Management and Humanitarian Action
- Food and Agriculture
- Water and Natural Ecosystems
- Infrastructure, Energy and Mobility
- Cities and Urbanisation
- Oceans and Coastal Communities
- Arts, Antiquities, Culture and Heritage
- Health and Well-being





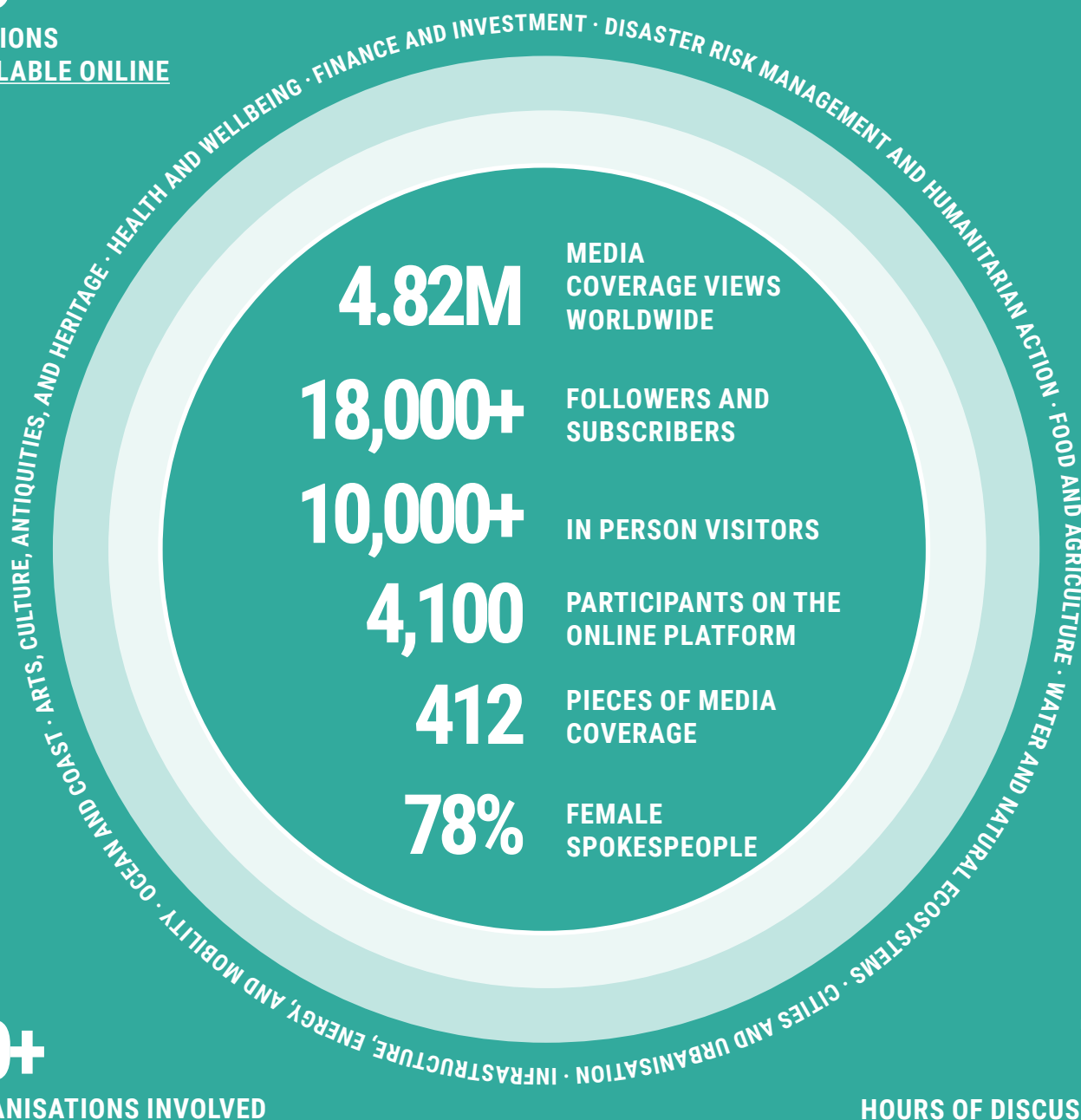
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SESSIONS
AVAILABLE ONLINE

COP28 HUB AT A GLANCE

10

DAYS



70+

ORGANISATIONS INVOLVED

70

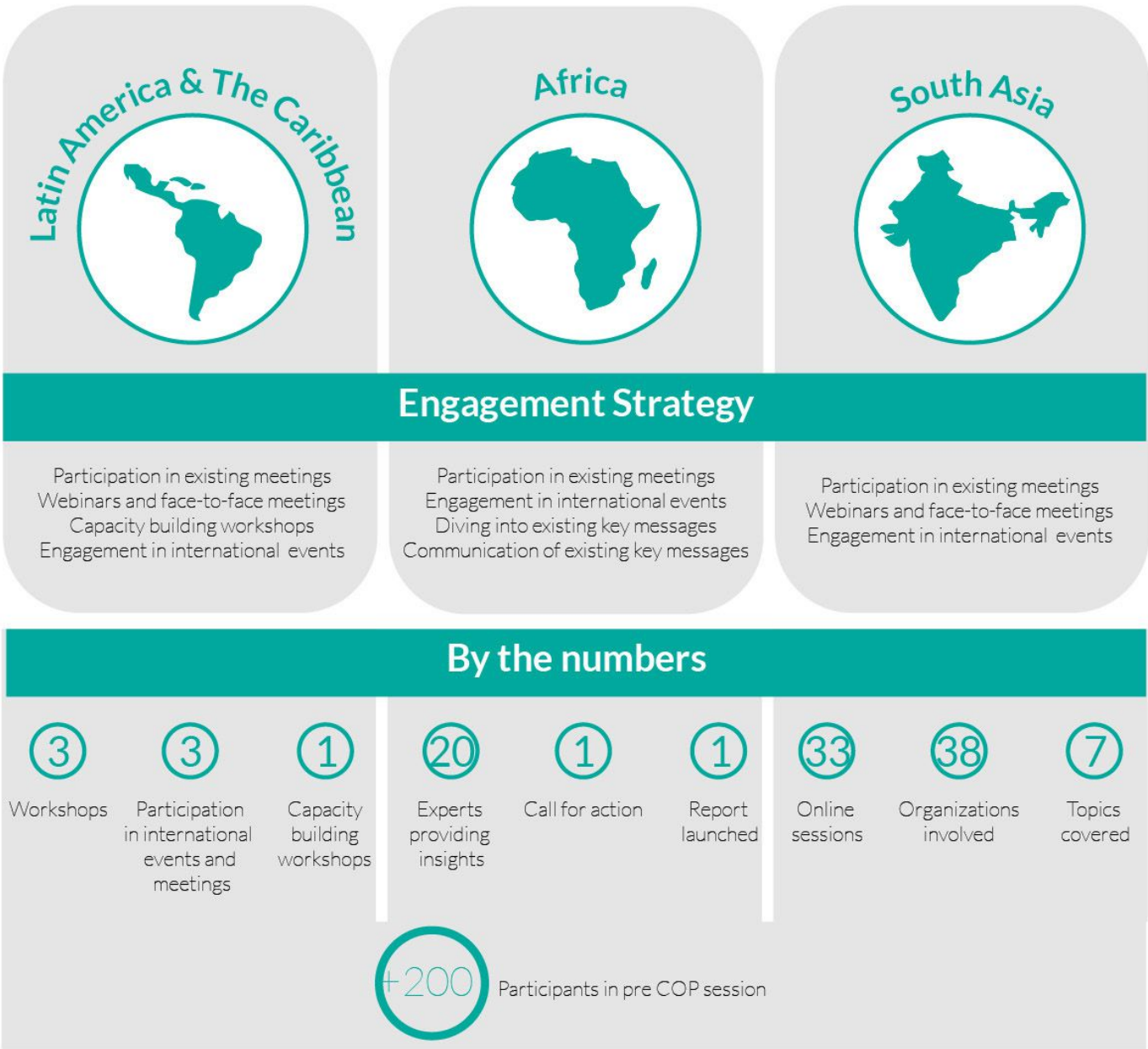
HOURS OF DISCUSSIONS

THE ROAD TO COP28: REGIONAL HUB HIGHLIGHTS

Ahead of COP28, the Regional Resilience Hubs played a key role in elucidating and communicating regional priorities, actions, solutions and challenges to be amplified onto a global stage. Taking an integrated approach for their involvement in this year's Resilience Hub, the Regional Resilience Hubs had a major role in the programming of the overall Resilience Hub at COP28, participating from the onset to ensure that regional priorities were given a voice and amplified.

Regional Hub leads used their experience from previous editions of the Resilience Hub as well as regional and grassroots networks to identify priorities to be incorporated into the overall Resilience Hub at COP28. They also developed an engagement

strategy that took into account existing calendar events as opportunities to communicate and engage with regional networks, actors and leaders. The types of engagements varied, including the organisation of virtual and face-to-face events, participation in international meetings and conferences, the delivery of capacity building workshops, and the preparation of communications resources to maximise the audience that saw the work of regional actors involved. Key messages highlighted from these efforts were consolidated and presented in a virtual meeting with over 200 parties in advance of COP28.



HIGHLIGHTS FROM DISCUSSIONS AT THE REGIONAL LEVEL ON THE ROAD TO COP28

There is an imperative for the democratisation of decision making spaces, ensuring that local voices from the Global South are an active part of the decision making process. This entails promoting two-way learning processes, creating spaces to share knowledge that leads to local adaptation actions and engagement of local leaders in decision making leading to adaptation and resilience.

Spaces of power are in need of improved inclusion and more effective participation as they remain dominated primarily by men from the Global North, with limited inclusion from stakeholders from the Global South. However, youth, women, Indigenous Peoples and local communities can offer many insights to build climate solutions. Crucial barriers to be addressed to promote further inclusivity include: i) limited resources to promote bottom-up approaches including a lack of access to direct financing, ii) capacity building needs to engage actors more effectively across governance scales, iii) differentiated accessibility to information by all actors, iv) limitations related to language (English dominated) limiting participation in decision making and data access. Addressing these barriers requires building more effective participation and inclusiveness in decision making processes.

Strengthening climate finance should include a process-oriented approach that accounts for the livelihoods and territories of people at stake. Adaptation is clearly a priority in the LAC, South Asia and Africa regions, but there's a need to strengthen the process of assessing and costing regional financial needs in order to move towards implementation of adaptation actions. While climate finance should consider outcomes themselves, it should also hold a broader perspective by looking at the general financing process, particularly when protecting livelihoods and territories of people is at stake. Enabling access to climate finance means also being mindful that traditional processes can be time consuming, have limited data at the local level or involve limited technical capacities. This has often limited access to finance for local communities despite being closer to the context and driving adaptation actions on the ground.

Despite the immense challenges faced by countries in the Global South as a result of climate change, particularly in South Asia, they are at the forefront of innovating and delivering resilience and adaptation action. Adaptation measures taken at the local level can be replicated across regions but require using an approach that takes into consideration local

contexts to avoid negative trade-offs. There are five best-practice strategies when it comes to building adaptation: **i) working with existing local institutions and linking local adaptation efforts to national systems** (e.g. In South Asia local actors coming together with governments are supporting the scaling of adaptation actions that can be long-lasting and benefit larger numbers of people); **ii) adaptation measures in local communities, including those integrating Indigenous and local knowledge, can be complemented with localised climate data** presented in a format that is useful for local risk decision making (e.g. Localised climate indexes in Bangladesh are supporting decision making in local communities); **iii) capacity strengthening of local actors** is needed (e.g. channelling funding for building capacities of local stakeholders and decentralising governance for locally-led adaptation); **iv) taking into account and appropriately recognising traditional knowledge and sustainable natural resource management in nature based solutions** to complement actions that are more technical and ensure they fit the local context; **v) acknowledge the value of exchanging, sharing and learning** within countries between local actors and across countries.

Gender equality, social inclusion and climate action must be integrated effectively together in adaptation and resilience policy and practice. A broader set of stakeholders is needed to ensure that economies and communities are not only low-carbon and resilient, they are gender-just and cross-generational. The voices and knowledge of women and youth should be at the heart of resilience because they intimately understand their local context and challenges and hold the keys to innovative solutions. Actions are needed to empower these voices and provide the tools and knowledge for them to become the architects of their own resilience. Despite being a crucial element of resilience building, many young people have limited opportunities to access decision making processes. Efforts should be made to foster their entrepreneurial spirit, support their groundbreaking solutions and involve them in knowledge sharing.

CROSS-CUTTING FINDINGS AND SOLUTIONS FROM THE COP28 RESILIENCE HUB

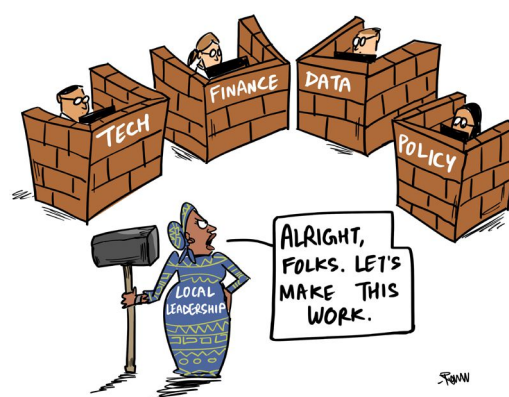
There is an increase in innovative approaches in finance for resilience; however, scaling these approaches requires reforms of the wider climate finance architecture.

Sessions at the Resilience Hub showcased examples of numerous innovations in finance, featuring speakers from adaptation and resilience projects from a global cross-section of adaptation and resilience projects, spanning different sectors, actor types, and regions. A holistic approach to action and discussions on needed reforms of climate finance architecture were emphasised to ensure improved access and high-quality adaptation finance for the countries most vulnerable to the impacts of climate change where the cost of inaction continues to grow. Market access, infrastructure, finance, validated data, secured buyers, and extension services are essential for de-risking private sector investments, which play a crucial role in unlocking supply chains for small-scale farmers.

Overall, the economic stakes are high, with over half of the global GDP being strongly or moderately dependent on nature. The 10% decline in GDP due to environmental degradation underscores the necessity for direct, consistent, and flexible funding. Climate change affects resource distribution and behaviour, posing challenges for both ecosystems and livelihoods. In addition to bolstering adaptation finance, achieving scalable adaptation actions necessitates the support, involvement, and collaboration between different actors. While increased engagement from the private sector has led to innovative adaptation efforts, it is crucial to involve national and subnational governments to attain the desired scale.

Equity and justice must be at the heart of any successful partnerships for resilience.

Equity and justice must be at the heart of any successful partnerships for resilience. While communities around the world are already actively adapting to climate impacts, the cross-sector and cross-scale action we need demands a shift in mindset that emphasises power dynamics, equity, and the central role of communities. Climate resilient housing and access to basic services such as health, education, and water and sanitation is crucial for addressing development challenges that exacerbate vulnerability of populations exposed to climate change impacts.



Addressing power imbalances, ensuring community empowerment, and respecting local knowledge are key challenges, which require shifts in mental models and ways of working for equitable approaches to be intentionally embedded within programmes. Emerging financial mechanisms such as the Loss & Damage (L&D) Fund should be up and running after COP28 and help address the irreversible and unavoidable damages of climate change. The implementation of finance should be transparent, accountable, just, flexible, accessible, responsible, and addressed to the very communities that are being impacted the most. In particular, innovative finance initiatives require community leadership, consideration of diverse knowledge systems, and building capacities of grantees and funders equally in the process.

The intersection of health, climate, and resilience highlight the need for preparedness, gender-specific and socio-cultural considerations.

Increases in conflict and violence present significant challenges for adaptation and resilience and pose the risk of reversing significant development gains.

This perspective was clearly presented in various sessions that emphasised the need for political commitments and collaborative efforts, particularly in urban areas, to mitigate the health impacts of climate change. An integral part of this approach is psychological resilience, which necessitates a compassionate, social approach, viewing mental health as a crucial component in supporting collective goals and strengthening community responses to environmental crises.

Particularly noteworthy is the impact of climate change on women's health, especially in conditions of extreme heat that exacerbate working conditions and have negative effects on maternal health. The discussions and initiatives presented during the Resilience Hub underscore that climate-resilient health systems are crucial in responding to the evolving risks posed by the climate crisis.

The intersection between violence, conflict, and climate change is becoming increasingly evident. One significant aspect is the rise in conflicts over strained resources, a direct consequence of climate change. Locally-led initiatives in conflict resolution and resource management, especially with local government support, are proving effective in both reducing conflicts and improving resource management. However, accessing funding in these high-risk areas remains challenging, with traditional methods often proving inadequate. Innovative and accountable funding solutions are critical to transform communities, mitigate future climate hazards, and prevent poverty traps.

Sessions at the Resilience Hub highlighted that more progress is needed on the meaningful inclusion of local actors in resilience planning and action across scales and sectors. Additionally, Hub discussions emphasised the need for preparedness and pre-arranged disaster financing, focusing on predictability, speed, and effectiveness of responses. This integrated approach underscores the crucial interplay of conflict resolution, innovative funding, and disaster preparedness in building resilience.



Cartoons based on events at the Hub by the visual artist Rohan Chakravarty.

ART AND PERFORMANCES AT THE HUB



THEMATIC SUMMARIES



FINANCE AND INVESTMENT

The Finance and Investment theme brings diverse actors together to discuss core issues for financing resilience, covering debt distress and climate and nature action, risk perceptions and rules for finance access, finance mechanisms and means for promoting transparency and accountability. To truly transform climate finance, people and communities that are at the frontlines of climate change must be the ones designing new systems.

The Resilience Hub provided a space to discuss different types of climate finance and develop shared understandings of how risk is carried in a financing process, the different ways of channelling finance (and the relationships between different actors involved throughout), and how to ensure finance is transparent and accountable both up and down the chain.

Improving adaptation finance requires urgent action from multilateral development banks (MDBs) and bilaterals. A balance between adaptation and mitigation funding, increased financing, prioritisation of adaptation grants, and predictable fund flows are essential. Simplifying access procedures and reducing associated costs is imperative. MDBs can help by providing liquidity, harmonising financial and reporting systems, and mainstreaming climate change into development activities. Funders should shift towards programmatic approaches for long-term adaptation support, as opposed to the current norm of short to medium-term projects (2-5 years). The climate finance system must better serve Least Developed Countries (LDCs) and Small Island Developing States (SIDS) to address the immediate challenges of climate change. Reforms should ensure timely, locally-led adaptation, and MDBs should work programmatically

with government systems, budgets, and innovative instruments to support adaptation.

"Debt burdens and spirals are a stronghold that SIDS and LDCs find themselves in every year. Updating financial institutions is vital, particularly in terms of governance, representation, and direct access. International reforms need to centre around locally-led adaptation, by improving access and delivery for the affected populations."

— UnaMay Gordon, former Principal Director of Climate Change, Government of Jamaica

Indigenous Peoples and Local Communities (IPLCs) play a vital role in implementing climate mitigation and adaptation measures. Accelerating access to inclusive climate finance is crucial for empowering local climate action, however, barriers to accessing funds and suitable financial sources hinder local solutions. Valuing Indigenous Peoples knowledge in climate finance is essential, as only a small percentage of climate funds reach Indigenous communities. Moreover, delivery mechanisms are often slow and inefficient. Capacity constraints in grant applications and financial management hinder access to climate finance for indigenous and local NGOs. Funds should acknowledge the value of local solutions and support

BRIDGING FINANCE and BIODIVERSITY for INCLUSIVE LOCALLY-LED CLIMATE ACTION



them, considering their cost-effectiveness. Addressing structural issues and ensuring Indigenous involvement in decision-making and equitable fund governance are essential steps forward. Previously launched at COP27, the [BASE \(Building Approaches to fund local Solutions with climate Evidence\)](#) initiative has already provided eight grants in Indonesia, Democratic Republic of Congo, Ghana, Cameroon, Ecuador, Brazil and Costa Rica.

"All the financing that has been channelled in my country, for instance, arrives in the central government and out of that financing, not a dime reaches Indigenous Peoples. We need to channel financing to the local communities. We have a lot to give, but we need to work together as a team."

— Olivia Bisa Tirko, a descend president of the Autonomous Territorial Government of the Chapra Nation (GTANCH), Peru

Pre-Arranged Financing (PAF) for disasters significantly improves response predictability, speed, and effectiveness. However, the [latest evidence](#) depicts that PAF remains underutilised in international crisis finance and climate resilience, representing only 2.7% of crisis financing in 2021. Low-income countries, facing challenges in managing climate-related liabilities, are particularly vulnerable, receiving just 3.7% of PAF between 2017-2021, while only 0.2% of humanitarian funding in 2021 was anticipatory finance. This underfunding impacts their development goals and economic stability. Addressing this gap requires a strategic, proactive approach to managing climate impacts and expanding the use of PAF.

More than half of the global GDP is significantly reliant on nature, and there has been a 10% GDP decline due to environmental degradation. Unlike carbon, nature isn't a universal asset and cannot be neatly categorised. It is imperative to enhance the private sector's understanding of nature, and scientists and financiers should communicate effectively and engage with local communities and biodiversity stewards. Integrating the cost of nature's impact into activities is essential, and adopting the [Taskforce on Nature-Related Financial Disclosure](#) (TNFD) outcomes is necessary. On a national level, moving beyond projects to portfolios and country-level solutions for scalability is needed, with governments creating an enabling environment.

"Any investor is a climate investor whether they know it or not. And I don't think you can be a climate investor without focusing on resilience."

— Craig Cogut, Founder and Co-Managing Partner, Pegasus Capital Advisors

Public-private collaboration is a critical component of adaptation and resilience, generating robust returns for private sector actors while implementing innovative solutions to the benefit of wider society.

Blended financing models accelerate adaptation and resilience implementation by increasing the funding pool, de-risking private-sector investment, and directing initiatives to where they will have the most impact. Data and analytics are the foundation for best-in-class, implementable adaptation and resilience planning. Adaptation and resilience plans must involve climate analytics to model the impact of possible climate risks and quantify the cost of inaction, mobilising stakeholders to act with urgency. Contrary to the perception that the business case is lacking or that opportunities exist only for a few sectors, there is a wide array of investment opportunities in adaptation and resilience that generate positive benefits for both businesses and the communities that they depend on, as a [new flagship report demonstrates the business case for adaptation and resilience](#).

"Adaptation and resilience requires the ABCs: Acceleration, Blending (of capital and process) and Commitment."

— Jay Koh, Co-founder & Managing Director of The Lightsmith Group

For effective use of adaptation finance, learning from resilience measurement approaches is crucial. While acknowledging the significance of funding, detailed implementation plans at the beginning might not be sufficient. There is a need for mechanisms that allow for continuous adaptation throughout the project lifespan, enabling adjustments based on evolving insights, evidence, and changing circumstances. Trends in resilience measurement emphasise the importance of a continuous evidence-based learning process, involving feedback loops, maintaining proximity to local communities, applying knowledge management principles, and focusing on internal and external communications. The adaptive management approach includes regular assessments to understand changes in resilience levels and make informed adjustments to project strategies. Measuring climate resilience is acknowledged as challenging due to the need for a comprehensive understanding of individual and systemic factors, as well as the duration and severity of climate shocks and stressors. Finally, a shift is needed in donor priorities towards locally-led initiatives that drive community-led resilience such as cooperatives, rights groups, and other such initiatives that shift power and agency within communities.

"We believe that the use of an evidence-based approach will shift the power to local actors, allowing them to be in the driver's seat. It's about channelling assistance directly to communities and supporting them in their advocacy endeavours and leadership."

— Salma Kadiri, USAID Climate Lead, Morocco

Spotlight from the Regional Hubs

Lack of funding has been particularly acute in developing countries where communities are already struggling with poverty and inequality, operationalising the Loss and Damage fund is therefore crucial to address these issues. Evidence has shown that for every 1 USD invested in prevention, 5 USD can be saved in future losses. However, the larger proportion of funding is still going into mitigation projects, with adaptation projects receiving only about 20% of the funds in South Asia. Climate finance is falling short for adaptation action, but it is also falling short when it comes to financing local climate action. The many adaptation measures that we already know that exist can be acted on, but these require sufficient funding to be implemented. Their implementation needs to be accompanied by the integration of LLA principles in funding mechanisms, legal frameworks, and institutional structures that empower local communities.

Strategic finance can transform existing structures and redistribute power among actors. The right financial investments have the power to unlock finance for a sustainable and climate resilient future, particularly if they can deal with perceived and actual risks associated with climate investment. All regions hold the key to unlock climate finance, but managing perceived risks is critical to realising the sustainable futures we envision. This requires more risk-tolerant capital that can support early-stage project development as well as a deed to foster conducive environments for private sector investments.

Learn more...

- [Enhancing access to climate finance for Small Island Developing States: Considerations for the Green Climate Fund \(GCF\) Board](#)
- The third [Climate and Development Ministerial](#) united nations, institutions, and stakeholders to enhance adaptation finance efficiency. They established a [vision, goals, and priority actions](#) for the upcoming year, with a progress report due in 2024.
- The Marshall Islands have set up the [Adaptation and Resilience Trust Fund](#) as a way to enable funders to provide direct needs-based support. By driving funding through this national platform, they are seeking to pool funding from different sources and direct it to their priority areas in a coordinated way, improving the predictability of resources, and the efficiency of reporting to the different funders.
- The [Cubango-Okavango River Basin \(CORB\) Fund](#) is a hybrid fund (sinking and endowment vehicles) that aims to enhance livelihoods and provide equitable benefits to its member states (Angola, Botswana and Namibia).
- BCG published a flagship report [“From Risk to Reward: The Business Imperative to Finance Climate Adaptation and Resilience”](#) written in collaboration with the Global Resilience Partnership and USAID. This first-of-its kind study details and demystifies the opportunities and business case for private finance in climate adaptation and resilience.
- [Green Accountability](#) is an approach that embeds citizen voice into climate action and finance by providing citizens with tools to participate in decision-making and monitor expenditure flows. It aims to improve the impact and equity of climate finance by integrating community, citizen, and CSO feedback in collaboration with state accountability institutions to influence, implement, and monitor climate expenditures.

- The [Call for Collaboration](#) was launched at COP28 and is an invitation to enhance the opportunities and actions that can accelerate the private finance sector's role in climate adaptation and resilience.

Launches and announcements

- The African Climate Foundation, Aga Khan Foundation, Arab Foundations Forum, Children's Investment Fund Foundation, Climate Emergency Collaboration Group ClimateWorks Foundation, Humanity United, Laudes Foundation, Open Society Foundations, Quadrature Climate Foundation, Rumah Foundation, the Rockefeller Foundation, and Shockwave Foundation [have launched a call to action for all philanthropic organisations](#) to joint learning, coordination, strategy development, and increased investment to strengthen resilience and reduce climate vulnerability through increased support for climate adaptation.
- Marsh McLennan, Arsht-Rock Resilience Centre and the Race to Resilience launched the second progress report of the [Insurance Adaptation Acceleration Campaign](#). The report identifies many of the barriers impeding insurers from prioritising risk reduction efforts and issues a series of actionable recommendations to overcome those challenges
- A [new partnership](#) between the Global Resilience Partnership, UNDP and six leading business schools (Yale, IMD Business School, Saïd Business School, EMST Berlin, Cape Town Graduate School of Business, Asia Institute for Management) aims to undertake research, create case studies, facilitate internships, and using all these to influence ways of thinking at both the student and capital allocator level.

DISASTER RISK MANAGEMENT AND HUMANITARIAN ACTION

The humanitarian consequences of climate change are already affecting the lives and livelihoods of millions of people around the world, with the most marginalised and vulnerable communities impacted most severely. Climate- and weather-related disasters, like floods, landslides, storms, droughts, heatwaves and cold spells, are becoming more frequent and intense and lead to cascading social, environmental and economic impacts.

The Disaster Risk Management & Humanitarian Action theme includes the perspectives of affected communities and local actors, including those already affected by crises. The Resilience Hub aims to ensure engagement of climate, humanitarian, DRR (disaster risk reduction) and development actors and communities to reduce silos and promote coherence and coordination.

Impact data and solution information are scattered across various sources, often inconsistent, incomplete, and not universally accessible. By 2030 everyone will be experiencing the impacts of climate change with an estimated four billion people most acutely affected largely living in the Global South. This lack of knowledge hinders effective adaptation and resilience building efforts. Obstacles to resilience decision-making can be removed through common data standards, open analytical models and dialogue with decision-makers. Proven risk communication approaches designed for effective action are critical components of this process. Empowering those most affected to adapt to this changing reality requires access to comprehensive and actionable information about climate risks and solutions to build climate resilience. One such example is presented by the [Resilient Planet Hub](#), a new initiative that aims to

do this by sharing a comprehensive set of globally consistent impact data and solution information with local communities and national and international decision makers across all sectors so they can plan and take action to adapt to climate change and thrive.

Advancing disaster risk reduction and ecosystem restoration for climate adaptation involves recognising the diverse actors, sectors, and values in landscapes and seascapes. Decision-making should incorporate these varying perspectives, acknowledging contextual realities, risks, uncertainties, and the feasibility of interventions. A synergistic approach that spans multiple levels and sectors is crucial, focusing on inclusive governance and societal involvement. This calls for equitable rights for people and nature, participatory inclusion, and fostering collaborations across different communities. The strategy requires effective communication and understanding among varied groups like Indigenous Peoples, youth, women, agencies, NGOs, academia, and data managers, to reach a common ground in land and seascape management.

Long term disaster risk responses are required to bridge the gaps between humanitarian, DRR, and development interventions. For example,





Cartoon based on events at the Hub by the visual artist Rohan Chakravarty.

post-typhoon child fatalities, especially among girls, highlight the need for long-term disaster risk responses. Recovery and reconstruction often lack priority in policy and funding, despite being crucial for resilience and risk reduction. The [Midterm Review of the Implementation of the Sendai Framework](#) revealed preparedness gaps and missed opportunities for resilience building. Effective recovery encompasses more than physical rebuilding; it must address social cohesion and health aspects. Transformational recovery reduces future climate hazard risks and prevents poverty traps. The insurance industry's role in promoting risk reduction and 'resilient reinstatement' is vital, yet implementation remains limited. The design and implementation of the Loss and Damage Fund should increase grant funding for recovery, while international financial institutions and donors need to incentivise and support holistic, resilient recovery strategies.

Local actors play critical roles before, during, and after a disaster and need to be adequately supported. They are the first responders in a crisis

event given their access to the affected communities, their understanding of local culture, and offer a cost-effective way to deliver disaster relief. Local actors have been observed to play a pivotal role in strengthening community resilience through climate adaptation behaviours. However, the [Global Humanitarian Assistance Report 2023](#) highlights that direct funding to local and national actors as a share of total humanitarian assistance remained at a mere 1.2% (USD 485 million) of overall assistance in 2022, with DRR funding per capita significantly lower in countries affected by more than five years of crisis. While local action presents transformative potential for improved disaster preparedness, emergency response, and climate resilience, enhancing community leadership through policy frameworks, resources flows, knowledge, and skills is critical.

Learn more...

- UNDRR and partner organisations support countries in monitoring their progress in reducing losses and damages at national and sub-national levels through a [publicly-accessible DesInventar disaster information management system](#).
- The [Resilient Planet Data Hub](#) offers globally consistent resilience metrics for People, Planet and Prosperity
- The [Global Risk Modelling Alliance](#) brings access to climate and disaster risk insight in sovereign resilience programmes. Since COP27, progress includes implementation in seven countries.
- [Towards transformative action: The unfulfilled promise of resilient recovery - Flood Resilience Portal](#)
- [Building a climate resilient future: Five priorities for the global insurance industry](#)
- [Measuring Resilience: A Guide to Tracking Progress](#). The guide presents practical scenarios and real-life case studies to assist a range of organisation types in understanding whether their activities are relevant to the Race to Resilience goal, and if so, how they can report against it in a simple, consistent and evidence-based way.

NAVIGATING COMPLEX CRISES

CLIMATE ADAPTATION · COMMUNITY LEADERSHIP · LOCAL ACTIONS



Spotlight on 2023 Local Adaptation Champions

The Global Center on Adaptation (GCA) announced the winners of the [2023 Local Adaptation Champions Awards](#). The LAC Awards spotlight and reward innovative, exemplary, inspiring, and scalable locally-led efforts that address the impacts of climate change and build effective climate resilience among the most vulnerable communities, sections of society, and individuals who are at the frontlines of the greatest existential threat faced by humankind.



EMPOWERING TANZANIAN WOMEN AS CLIMATE CHANGE DECISION-MAKERS IN PASTORALIST SOCIETIES



ECOTECHNOLOGIES AND KNOWLEDGE-SHARING TO STRENGTHEN ADAPTATION CAPACITY IN MEXICO



USING SATELLITE TECHNOLOGY TO COMBAT WATER SCARCITY IN INDIA



EQUIPPING COMMUNITIES AND LOCAL GOVERNMENTS WITH THE TOOLS TO FINANCE ADAPTATION INTERVENTIONS IN BANGLADESH

FOOD AND AGRICULTURE

Resilient agri-food systems should support people to thrive within changing circumstances, adopt adaptive management approaches and use a precautionary principle to avoid unwanted consequences of development actions.

Sources of transformative change for increased food security and food systems resilience in areas affected by conflict and climate change already exist, but can be further enabled and scaled by cross-scale and cross-sector collaborations and support.

Local initiatives have the potential to contribute to change that is transformative. Initiatives in Burkina Faso, Niger, Sudan, and Mali provide some of these examples, with a focus on reinforcing local institutions for natural resource management, particularly land and water, essential for food security and mitigating conflict. Approaches include local contingency planning, peacebuilding through natural resource management, and decentralised climate funds. Participatory approaches, governance agreements, and localised adaptation plans, when locally-led and supported by local governments, show promise in reducing conflicts and enhancing equitable resource management. The private sector can also play a crucial role in fostering cross-scale interactions and the scaling of local innovations. For example, private partnerships can help unlock direct supply chains for small-scale farmers. Market access, infrastructure, and finance are fundamental for farmers to increase their income. A common insight across these different examples is that emphasising equity and community empowerment is vital in partnerships, requiring a shift in mindset to balance power dynamics and respect local knowledge.

Spotlight from Regional Hubs

There is a pathway to sustainable agriculture for Africa, with key enablers required along the way including: collaboration efforts in research and tech, job creation for women and youth, tech that reduces greenhouse gases and increases productivity, adequate conditions for climate tech adoption. The dual challenge and opportunity of climate change impacts on agriculture, food systems and security requires: i) Diversifying opportunities and tapping into local markets, ii) understanding the local context, iii) addressing the issue of youth migration.

"Sometimes it is more important to scale up existing interventions which people are already practising rather than bringing in something new."

— Roselily Ushewokunze, Food Justice Network Zimbabwe

'Unholy alliances' are key in food system transformations. One of the biggest challenges for effective transformation in food systems is the lack of coordination between farmers, public stakeholders, and private stakeholders. Non-coordinated approaches have failed to tackle gaps and to ensure the food supply chain fulfils its mandates and proactively adapts to future challenges. Multi-stakeholder coalitions, the so-called 'unholy alliances', are an opportunity to join forces and bridge the investment gap, with innovative examples such as [Fondo de Cooperación para el Desarrollo Social \(FONCODES\)](#), [Global Shea Alliance](#), [Impulsouth](#), or the [International Potato Center](#). But for these alliances to be sustainable in the long term, we need to develop strong member-led organisations at local or national levels. This requires resources, clear strategies, and structures, as well as long term business models. The private sector can act as a catalyst in developing 'unholy alliances' by providing funding, as well as engaging in pre-competitive collaboration to enhance the resilience of food systems.

"In order for multi-stakeholder alliances to work, it's fundamental to start with setting up the right structures at the alliance/coalition level, and ensure that all stakeholders categories are represented at every level of decision making (from strategic decision making to more operational ones)."

— Marie Veyrier, Development Director, Global Shea Alliance

Livestock production is crucial for livelihoods, nutrition, and climate adaptation in Africa. livestock are often overlooked in the agriculture sector, with commercial and staple crops receiving more investment attention. Even though the livestock sector contributes 40% of Africa's total agricultural GDP (ranging from 40 to 80%, in individual countries), official development assistance disbursements to agriculture's growing livestock subsector are less than warranted. Addressing livestock issues requires awareness of their significance, challenges, and potential solutions. Emphasising culturally adapted

science, a [new narrative for livestock in Africa](#) aims to integrate adaptation and mitigation strategies for livestock management into actions such as enhancing productivity, improving feed, better genetics, and drought risk financing.

“Livestock is a big component of the agricultural GDP in Africa: livestock are livelihoods, bank accounts, cultural assets, and insurance in difficult times.”

— Namukolo Covic, ILRI/CGIAR Regional Director for Eastern and Southern Africa

“We need to tell our story – not others telling our story. We (at AGNES) are working with the International Livestock Research Institute and other partners to make sure that we have an African livestock narrative which our colleagues can be able to communicate and share widely, so that we are all in a position to convey and understand what livestock means in and for Africa.”

— George Wamukoya, AGNES

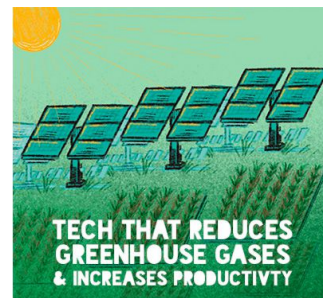
Layered innovations, including agronomic, social, and financial, can make farmers and food systems become more resilient to climate change, reduce agricultural emissions, or both. For example, procuring improved forecasts of the onset of the Asian monsoon and similar weather systems in Africa, covering 12 countries with roughly 300 million farming families, would bring billions in benefits for farmers at an estimated cost of USD 23 million. Holistic food systems transformation, in adapting and mitigating the challenges of climate change, must include approaches from land and water systems. Aquatic food systems hold the potential to nourish people, with lower environmental costs to the planet. Innovative solutions to aquatic food systems must be people-centric and context-specific; co-designed, owned, implemented and monitored with stakeholders across the system.

“When we think about investing in innovations and climate-responsive development policies, the implementation and scale of one-off innovations is often not enough. Instead, technologies, thoughtfully tailored and combined to maximise their risk mitigating complementarities, will be a key way forward in fortifying a climate resilience future for smallholder farmers.”

— Sophie Javers, Global Engagement Manager, The Feed the Future Innovation Lab for Markets, Risk and Resilience

Despite the multiple efforts to shift agricultural production toward a regenerative approach that can feed humanity while restoring the environment, industrial agriculture remains the dominant approach for food production. The complexity and intricacies involved in the transition to regenerative agriculture from small-scale, resource-limited settings to large-

scale programs supported by conducive policies, private sector participation, and scientific evidence present a significant obstacle to reshaping global food supply chains. The goal of translating NDC commitments into systemic changes should integrate a focus on convening countries for collaboration to boost sustainable staple food production, with promising examples such as the [Sustainable Rice NDC Alliance](#). Translating regenerative practices into investable and scalable actions based on scientific evidence and supported by conducive policy frameworks needs to connect the high-level discourses to on-the-ground activities based on traditional knowledge.



Launches and announcements

- The Innovation Commission for Climate Change, Food Security, and Agriculture and the COP28 Presidency have identified [seven innovation areas with evidence-based pathways to benefit millions of farmers](#) whose lives and livelihoods are on the frontline of climate change.
- The [Feed the Future Innovation Lab for Markets, Risk and Resilience](#) announced an additional US\$ 1 million dollars to support ongoing research that bolsters the resilience of smallholder farmers in the face of climate shocks.

WATER AND NATURAL ECOSYSTEMS

Healthy ecosystems are fundamental for climate regulation. Our planet's marine and terrestrial life absorbs around half of anthropogenic carbon emissions and, when healthy, has a greater potential to mitigate and adapt to climate change. Hence, understanding the world's most vulnerable ecosystems is crucial. Often found in fragile regions, they're disproportionately affected by climate change and biodiversity loss, offering early insights into broader ecological shifts. Protecting and restoring these areas benefits local communities and bolsters global resilience.

Climate change impacts largely manifest through water. It is the life-giving force on earth, but has far too often been neglected in discussions outside the water sector. Climate change and human activities have profoundly altered water cycles, affecting aquatic biodiversity, needs and demands for water, sanitation and hygiene (WASH), livelihoods, food production, cities and industry, and human-nature relationships.

Effective, inclusive and equitable water governance is crucial for water security and safe drinking water for all. Solutions for water-related challenges require collaborative efforts across governments, civil societies, nonprofits, private sectors, and community members. Water challenges vary regionally, influenced by factors like poverty, infrastructure, and environmental concerns. It's essential to include youth and Indigenous communities in water management discussions and decision-making, recognising their unique perspectives and knowledge. Water is inherently local as a resource, and locally-led solutions on water rights, tenure and conservation are critical to drive social-ecological resilience of people and nature.

"We often remember government agencies, NGOs, and civil society organisations, but we tend to forget the importance of involving local communities,

including indigenous groups. They have their own perspectives crucial in decision-making regarding natural resources."

— Felix Ngamlagosi, Executive Secretary, Zambezi WaterCourse Commission

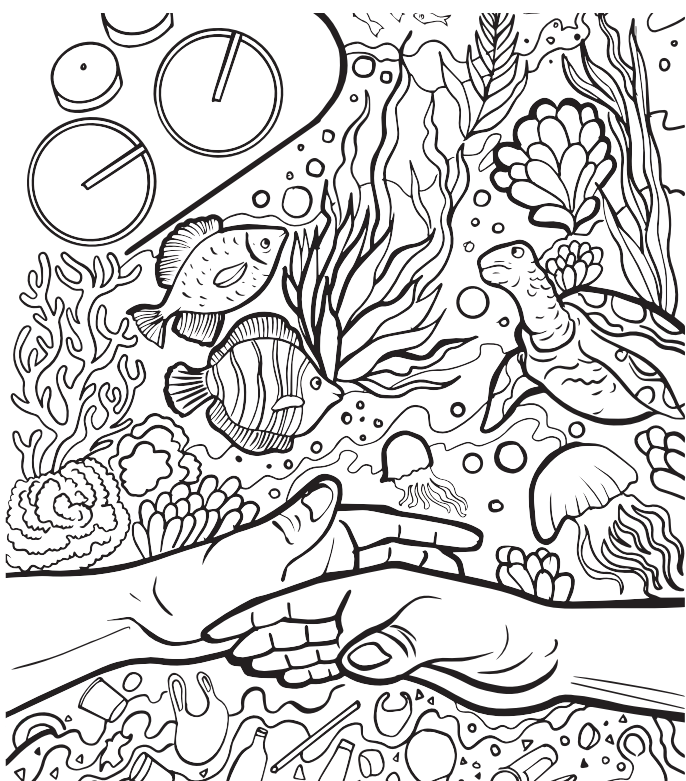
Protecting and restoring natural habitats is imperative for enhancing water resilience and mitigating environmental and economic challenges.

Water resilience is crucial for economic stability as it directly affects key sectors such as agriculture, industry, and tourism. The health of our planet and human wellbeing heavily depend on biodiversity and nature, yet a global investment shortfall jeopardises their preservation. Delayed action in conservation leads to increased costs from ecosystem degradation and species loss, further straining environmental and economic systems. Maintaining healthy ecosystems, such as forests and wetlands, is integral for water quality and resilience, as these habitats regulate water flow and support diverse species, ensuring sustainable water resources. A healthy hydrological cycle is fundamental for landscapes to be or become resilient and to continue providing ecosystem services. This can be achieved through landscape approaches to water management which place communities at the centre of decision-making.

Climate change action and biodiversity conservation are interdependent, necessitating a shift in focus from carbon capture to biodiversity and wellbeing.

Integrating policy approaches at global, national, and local levels is vital, centering on the vulnerable and urban poor. While tools such as the [Gross Ecosystem Product](#) can inform policy, their effectiveness is limited without strong state capacity. Effective implementation requires collaboration across government levels, coherent policy frameworks, and responsive, accountable governments. The shape and mission of governments are crucial for green, equitable transitions. The role of local communities in demonstrating leadership in the design, implementation and governance of nature-based solutions is critical for effective benefits to nature, economies, and societies.

Mural by Sayan Mukherjee



Spotlight on solutions to enhance the resilience of water and natural ecosystems

- The [Global Water Leadership Program in Tanzania](#) showcased a collaborative multi-stakeholder approach in addressing water resource management and resilience challenges. Through this initiative, they identified bottlenecks, conducted root cause analyses, and developed a comprehensive roadmap to solve water security challenges by involving diverse sectors like government bodies, private industries, academia, and civil society.
- In the Philippines, the [restoration of a degraded watershed near Metro Manila](#) focused on reforestation 3000 hectares of degraded areas, creating monitoring trails, and engaging various stakeholders, including Indigenous groups, celebrities, and local governments, highlighting the significance of community-led conservation efforts.
- The [Zambezi Watercourse Commission](#) shared insights into their intergovernmental efforts among Angola, Botswana, Malawi, Mozambique, Namibia, Tanzania, Zambia, and Zimbabwe. They outlined a host of strategic plans addressing poverty, infrastructure deficits, environmental degradation, disaster resilience, and equitable water resource allocation across the region.
- The forest-water-climate nexus in the Zambezi headwaters in Zambia: With support from the UN [UN-REDD Programme](#), FAO is bringing together local and international partners, civil society, local communities, and academia in Zambia. Focusing on five key districts, the partners combine local knowledge, national monitoring data, remote sensing data and state-of-the-art models and tools into a comprehensive assessment of [Zambezi's forest-water-climate nexus](#). This assessment also works to identify new and diverse sources of finance for local climate action, including payment for ecosystem service schemes.
- [Climate Risk Informed Decision Analysis](#): In Zimbabwe local stakeholders have engaged in a bottom-up climate adaptation project to explore nature-based solutions for addressing climate change impacts of cyclones and intensifying droughts. Under the leadership of [UNESCO](#) and in collaboration with an international team of adaptation experts, community groups performed climate risk assessments and strategic planning to identify adaptation actions that suited the environmental and social conditions of the mountainous systems and villages in the valley. Ultimately, a series of small check dams were constructed as low-cost, high impact solutions to their hydroclimatic challenges.
- [Water-smart Forest and Landscape Restoration Tool](#): To ensure that forest and landscape restoration initiatives are sustainable and successful in the long-term, SIWI is developing the Water-smart Forest and Landscape Restoration tool. Forest ecosystems and water security are highly interdependent. Any forest and landscape restoration effort must consider water aspects as well as being participatory and transparent.
- The Race to Resilience and its partner Sanitation Water for All, launched a comprehensive [climate compendium of case studies for the water, sanitation, and hygiene sector](#). The Compendium includes over 30 practical case studies from partners that bridge the water, sanitation, hygiene, and climate agendas from a policy, coordination, accountability, and financing perspective.

Landscapes for Water – Scaling up Locally-led Climate Action



CITIES AND URBANISATION

Nearly 1 billion people – one in four urban dwellers – live in urban slums and informal settlements, making them particularly vulnerable to the consequences of climate change, such as droughts and floods. As the climate change pressure in those communities increases and the world's cities become a refuge for many, building urban resilience requires understanding the responsibilities across sectors and stakeholders and the range of interdependencies among them. This is needed to deliver climate justice to the most affected, ensure urban equity by integrating diverse urban resilience indicators while strengthening local capacity, facilitating experience sharing, and securing finance for practical approaches to scale existing solutions, as currently only 9% of urban climate investments flow to climate change adaptation projects.

Addressing urban challenges requires a holistic approach, emphasising collaboration with diverse stakeholders, including residents and both public and private sectors, to foster collective problem-solving.

Key to equitable urban development is the integration of unconventional aspects such as political dynamics, essential for steering initiatives towards fairness and justice. Central to this is community empowerment through co-creation, where setting shared agendas, establishing common ground, and building trust between communities and governments are paramount. This approach not only aims to renew social contracts but also ensures the involvement of those in informal settlements, who constitute 30% of urban dwellers. Recognising the importance of co-creation, there is a critical need for rigorous methods and guidelines that uphold inclusivity, transparency, and equity in the collaborative development of solutions.

"It is estimated that if we do nothing about climate change in the next 20–30 years in Lagos, the cost of climate inaction would be US\$39 billion while the cost of action is US\$9 billion."

— Dr Folayinka Dania, Chief Resilience Officer, Lagos State Resilience Office

While extreme heat is a global problem, cities need solutions that are tailored to their unique local contexts and needs. Extreme heat is the deadliest climate-driven hazard, surpassing floods, hurricanes, and forest fires. The past eight years have been the hottest in human history, with 2023 being exceptionally warm. The urban heat island effect exacerbates heat in cities due to infrastructure, pollution, and lack of vegetation. Addressing this requires concerted efforts

in cities, where 1.6 billion people will live by 2070. Arsht Rock's [Chief Heat Officers](#)—city officials who develop and coordinate a unified local response to heat stress—offer an innovative model for accelerating a city's heat adaptation efforts. Innovative urban solutions include integrated planning approaches such as low-water consumption greening and Nature-Based Solutions, building and urban planning codes and regulations, as well as city-wide protocols to protect outdoor workers.

"Melbourne's Urban Forest project activates our community and private sector as well as improving water quality and efficiency in our local parks and gardens. We are trialing cool roof technologies to bring down temperatures in our city during increasingly hot summers and we're ensuring that every neighbourhood has a Drought Ready Park and access to an extreme weather refuge for people who are most in need, as well as heat safe corridors for people to walk and travel through at times of extreme heat."

— Lord Mayor Sally Capp, Lord Mayor of Melbourne, Australia

Inclusive and resilient housing is pivotal for public health, with 55% of health variations attributed to social factors like housing, education, and energy, rather than healthcare alone. Housing serves as a workplace for urban poor, particularly women, where climate-related stresses affect productivity and increase care responsibilities. The costs of ignoring climate change far exceed those of immediate action. For the first time, the [correlation between buildings, health, and climate change is highlighted at COP](#), underscoring the built environment's role in climate mitigation and adaptation, and its significant impact on public health. Achieving equitable urban resilience is contingent on actively involving vulnerable communities in the co-production of strategies and solutions.

"Safe, adequate housing is where health starts. Quality of life improvements and improvements to a home's structural resilience are essential to health and to prevent loss of life and injury resulting from extreme weather conditions, earthquakes and other disasters."

— Ariana Karamallis, Global Advocacy & Development Associate, Build Change

Urban communities need innovative solutions to effectively tackle climate challenges, moving beyond disaster preparedness and prevention financing. Innovative approaches are essential for

Spotlight on Roof Over Our Heads



Previously launched at the COP27 Resilience Hub, the [Roof Over our Heads \(ROOH\)](#) campaign returned with its inaugural publication that documents the life, issues and vulnerabilities of a number of urban communities and their way of building resilience and mitigating climate change. The publication represents ROOH's commitment to advancing climate resilience in housing and habitat materials and design. To date, nine settlements across India have been established as learning labs, serving as incubators for innovative solutions to address the unique challenges faced by informal settlement communities in the face of climate change. These efforts take into consideration the specific microclimatic conditions and the array of choices and constraints available to these communities along with the study of micro markets and the supply side aspect.

These learning labs foster collaboration between urban poor communities, with a focus on the empowerment of women. The publication delves into the strategies and methodologies that underpin these labs, all made possible through the generosity and participation of informal settlement residents. The publication not only serves as a record of achievements to date but also lays the groundwork for future engagement with ROOH partners. This will involve the expansion of these learning labs to 90 more locations, utilising the documented information and data as a foundation for understanding vulnerability in informal settlements. It also allows for the exploration of locally specific and unique approaches to habitat design and construction, concluding with a roadmap for the future, outlining the next steps for the campaign's progression.

engaging urban communities with the global climate change discourse. Funding should focus on practical projects, with governments and the private sector encouraged to support viable initiatives beyond risk considerations. While there have been shifts towards community-government engagement and in a few cases these have led to co-designing climate responsive policies, disadvantaged communities such as residents of informal settlements remain voiceless. Informal settlements are still being criminalised, which is threatening their resilience capacity as they redirect the energy towards fighting evictions and tenure security, rather than improving living conditions. Significant potential is presented by institutionalising youth involvement, as demonstrated in Ghana through the [Youth Climate Council](#). This includes building young people's capacities to influence urban development. Addressing hazardous practices, such as burning electronics despite health risks, requires educating communities about health implications as well as supporting the transition to alternative livelihoods.

"There is a need to build trust between professionals and urban communities. When you come to collect data in our communities, it is important to know what you are doing with the data."

— Nicera Wanjiru, Muungano wa Wanavijiji, Kenyan Slum Dwellers Federation

Learn more...

- Cities with fewer trees are cities where people lead less healthy lives. Low-income areas have been disproportionately impacted by the unequal distribution

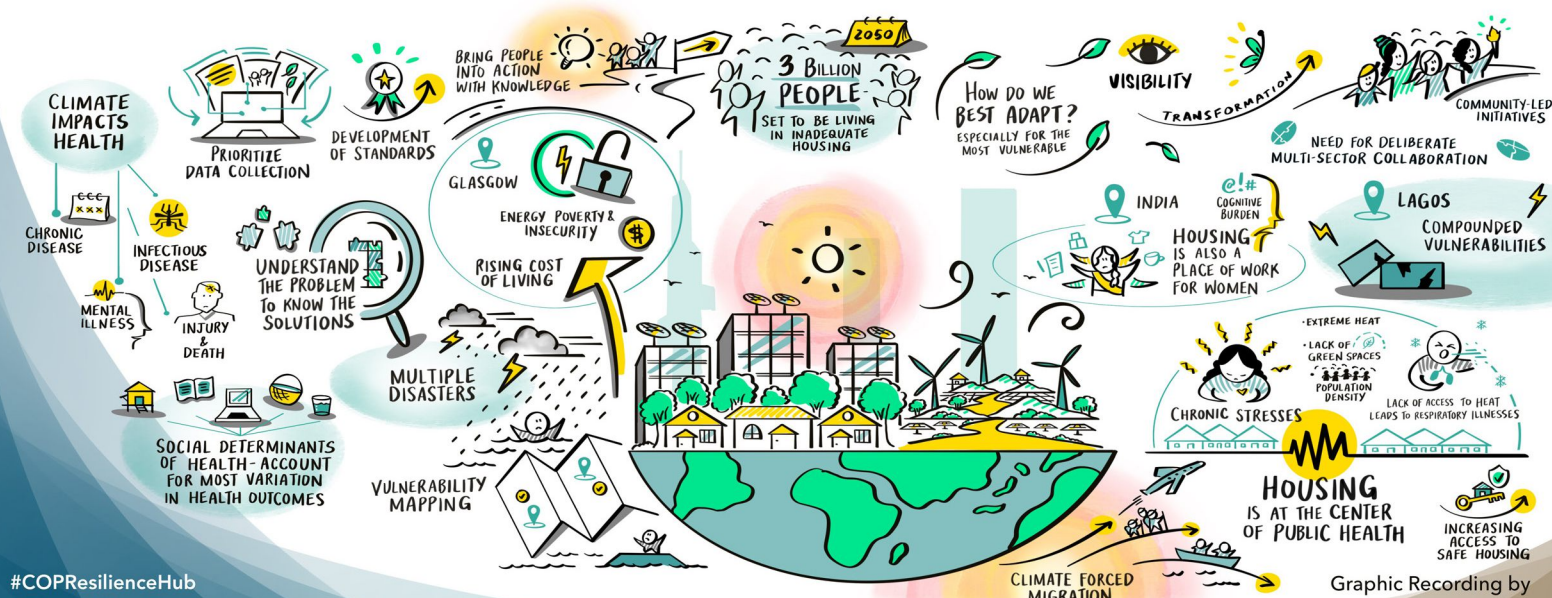
of urban green space, and top-down solutions have largely failed to adequately address their needs. This year, the Bezos Earth Fund announced [a vast initiative partnering with local community groups across the U.S.](#), rejuvenating urban spaces in underserved communities, ensuring more parks, trees, and community gardens.

- The Zambia Homeless and Poor People's Federation and People's Process on Housing and Poverty in Zambia (PPHPZ) believes that climate action aimed at enhancing the adaptive capacities of the urban poor should be locally shaped and locally owned, tailored to their real needs at the community level. Slum Dwellers International (SDI) outlines [how housing is crucial not only for adaptive capacities but, more importantly, for human security against dire climate impacts](#).
- [Urban Power](#) is the [Resilient Cities Network](#)'s multi-city program dedicated to enabling cities to build resilient urban energy systems, develop energy resilience solutions and mobilise funding for their implementation. The program works across three pillars: accelerating climate-focused energy transition, ensuring equitable and just service delivery, and creating jobs in the green urban economy. Participating cities include: [Cali](#), [Cape Town](#), [Rio de Janeiro](#), and [Lagos](#).
- The [Heat Action Platform](#) is a digital resource hub designed to assess, plan, implement, and evaluate heat resilience projects and policies at the regional and municipal levels.

Launches and announcements

- In the context of the first-ever Health Day at COP28, [Resilient Cities Network](#) and Yale University launched the [Urban Pulse](#) initiative with the generous support of The Rockefeller Foundation. The initiative will bring together experts and practitioners to support cities by transforming research into actionable and scalable solutions to face extreme weather events and their direct and indirect effects on the health of billions.

Climate, Housing and Health: How to Build Inclusive and Equitable Urban Resilience



INFRASTRUCTURE, ENERGY, AND MOBILITY

Developing resilient infrastructure that integrates the changing nature of risk, and the changing needs and demands of communities across the globe calls for looking beyond the physical condition of infrastructure to consider the quality and continuity of services, life-cycle costs including long-term operations and maintenance and loss and damage, as well as end-of-service-life considerations. A future-ready, just energy transition will reflect in infrastructure that is resilient, sustainable, and people-centred; that builds systemic resilience and tackles interconnected risks; considers nature-based solutions along with hardened structures; provides equitable access to essential services and is predominantly based on clean energy sources.

Giving a voice to communities at different stages of infrastructure development, working with nature, revising standards, and adopting certifications will play a significant role in building climate adaptation and resilience as well as combating the exacerbated climate impacts we are already experiencing.

Investing in nature-based solutions (NbS) is crucial for addressing the climate crisis, offering significant returns by averting disasters. Key to attracting investments are three factors: risk management across portfolios, alignment with ESG (Environmental, Social, and Governance) and net-zero objectives, and understanding the monetisable benefits and co-benefits of NbS. However, finance alone isn't enough; a systemic approach and effective climate governance are necessary to establish targets and policies, enabling the development of project pipelines. Challenges include outdated regulatory processes and the need to integrate NbS early in procurement processes.

"When you broaden your thinking about what an infrastructure asset is, and how you measure co-benefits, you can then include Nature-based Solutions to create more resilient infrastructure."

— Michaela Chan, National Policy Lead, WFEO SDG13 & Civil Engineer at Arcadis

The infrastructure sector must embrace mature, proven technology at pace while supporting the next generation of solutions to scale. No longer a 'nice to have', [InfraTech](#) is now critical for delivering sustainable and resilient infrastructure, and playing an increasingly important role in de-risking investment to mobilise more private sector finance for sustainable infrastructure projects. Pioneering InfraTech examples include [FLOEWS](#), a Nigerian-based start up with an all-round novel and multi-patented solution that monitors and forecast flood disaster imminence, [Bboxx](#), which was founded to tackle energy poverty and the lack of access to essential products and services across Africa, and [BiomWeb](#), an innovative approach to nature-based wastewater infrastructure.

Codes and standards centred around climate resilience are exerting a transformative influence

in transport infrastructure, energy systems, and mobility solutions. Climate data, both regional and spatial, and investigating cascading effects of hazards, help in comprehending and analysing shocks. Inclusion of 'mean' data over the climate variability enhances resilience planning in transport and energy sectors. Besides sector-specific perspectives, cognisance of interconnectedness of infrastructure systems will ensure applicability standards across diverse contexts. Decarbonisation goals for airports which reflects on the interdependence among transport and energy, further emphasises the crucial need for a common understanding amid multifaceted challenges and dynamic nature of extreme events, requiring a holistic approach before setting standards.

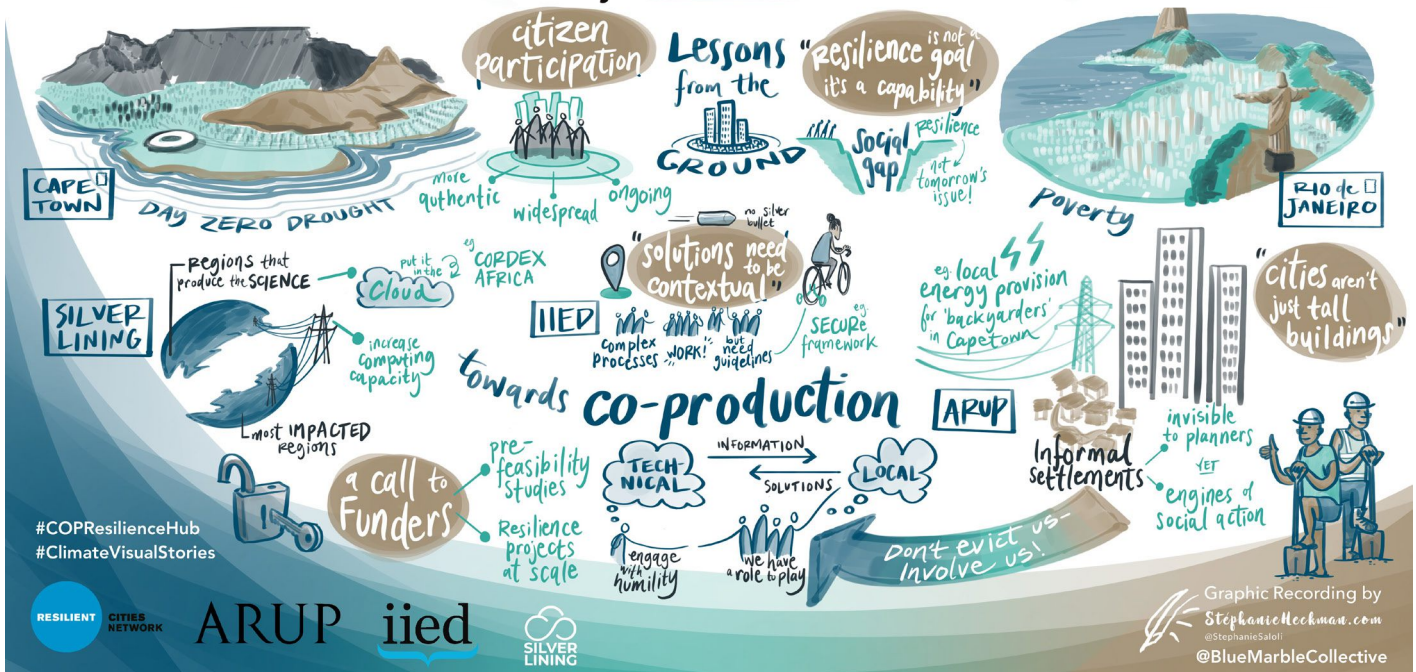
"We must identify the end users and engage with them in a way that helps us understand what resilience means to them, because they will be the judges, not ourselves, nor the funders."

— Jonathan Pooch, Managing Director, DETA, Engineer - Decarbonisation of Industry and Adjunct Fellow at the University of Canterbury New Zealand

Learn more...

- Resources geared towards overcoming the major challenges to wide-scale implementation of Nature-based Solutions include: [Practical Guide to Implementing Green-Gray Infrastructure](#), [Green-Gray Infrastructure Funding and Finance Playbook](#), and [Mangrove-Seawall Engineering Guidance](#). The [Global Green Gray Community of Practice](#) seeks to fundamentally transform the engineering and construction industry to design and build with nature – to create the next generation of climate resilient infrastructure.
- The [Playbook for Nature-Positive Infrastructure Development](#) is a strategic guide jointly developed by WWF, the International Federation of Consulting Engineers (FIDIC), and AECOM. It addresses the critical role of infrastructure in sustainable growth and poverty reduction while highlighting the potential environmental harm caused by poorly planned projects.
- [Urban Power](#) is the [Resilient Cities Network](#) multi-city program dedicated to enabling cities to build urban resilient energy systems, develop energy resilience solutions and mobilize funding for implementation. The program works across three pillars: climate-focused energy transition, delivering an equitable and just service delivery, and

Co-producing Equitable Cities: Catalysts for Just Climate Action



creating jobs in the green urban economy. Participating cities include: [Cali](#), [Cape Town](#), [Rio de Janeiro](#), and [Lagos](#).

- [CDRI's phase-1 of Global Study on Disaster Resilience of Airports report](#) released during [ICDRI 2023](#) provides an incisive look at airports from disaster impact, risk assessment and adaptive capacity context. The findings highlight the layered complex systems with interdependencies existing beyond airport boundaries, challenges with climate data affecting airport's preparedness to climate events. This study aims to propose strategies to enhance the resilience of airports.

Launches and announcements

- The [#EngineeringChange campaign](#) is a global initiative to empower young engineers to participate in sustainable development in their workplaces, communities, and networks. Prior to COP 28, an international consultation of young engineers and engineering managers took place, with the aim of understanding the perceptions, barriers, and opportunities around implementing sustainable development practices in engineering work worldwide. The key findings are published in a [report on ICSI's website](#).
- Race to Resilience partner, International Coalition for Sustainable Infrastructure launched [The Climate Resilient Infrastructure Report: A Focus on Nature](#), the publication seeks to highlight the relationship between climate-resilient infrastructure and nature, showcasing projects that incorporate natural elements in their planning, design, processes, or materials, or that positively impact natural ecosystems. It emphasises the socio-economic and environmental outcomes delivered by this type of approach, helping to articulate the value of nature-positive solutions, and advocating for their adoption, prioritisation, and implementation.



OCEAN AND COASTS

A healthy ocean and resilient coastal communities are two sides of the same coin. Lives and livelihoods in coastal communities are dependent on a healthy ocean and thriving marine ecosystems. Coastal communities are on the frontline of climate change worldwide. Extreme weather events, sea level rise, adverse and significant ecosystem changes, pollution, overfishing, rising levels of acidity, increases in the salinity of freshwater and groundwater, all jeopardise the health of the Ocean and the people who depend on it. These systemic changes put at severe risk the social cohesion of coastal communities leading to migration and population displacement, as well as major disruption to trading systems that underpin economies and health.

Raising global ambition on the role of the ocean in climate action is critical. It must happen together with accelerating the investment of public, philanthropic, and private capital to implement ocean-climate solutions.

"We have seen great success utilising Indigenous knowledge in fisheries management, but what was missing was attention to the roles of women."

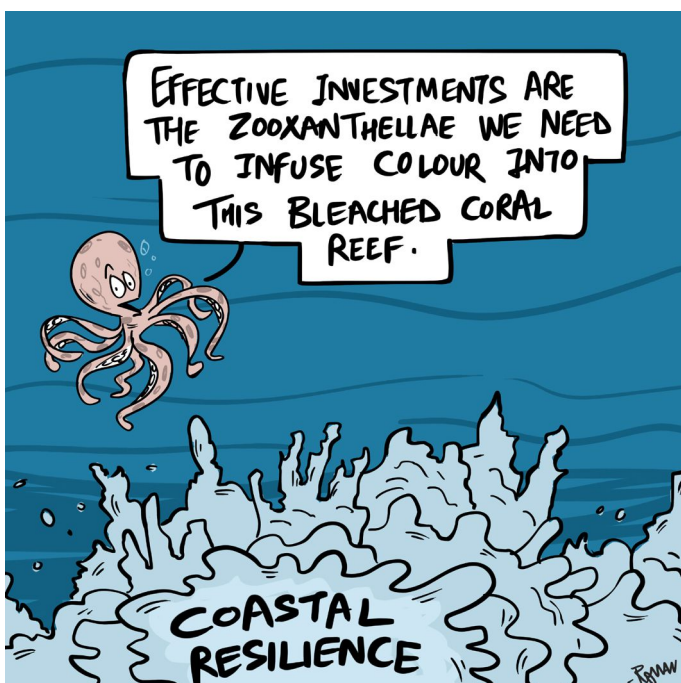
— Ledama Masidza, Head of Partnerships & Program Development, Oceans Alive Trust

In the fisheries and aquaculture sectors, women face both overt and covert barriers due to entrenched social and gender norms. Despite these challenges, women demonstrate agency, creativity, and entrepreneurial spirit, actively participating in leadership roles at various levels. Key to their empowerment is the involvement of men in addressing these inequalities. Understanding and respecting the diverse economic, social, and cultural contexts is crucial for promoting behavioural change and progress. Policies and practices need to focus more

Spotlight on addressing inequities in small-scale fisheries and aquaculture

- In India in the State of Odisha – 60,000 village ponds and reservoirs (considered out of bounds for women) were made available to women by government policy change. Pond polyculture was allowed, and this has led to increased food security and incomes.
- In Assam and Odisha states, school feeding programs introduced aquatic foods and this has had a positive effect on pond polyculture development and on nutrition.
- Despite cultural taboos around women fishing, in northern Mozambique there is a community of powerful women who are free divers and spear-fishers. They weren't allowed into the boat with the men – so they got their own boat, and they did their own fishing.

Cartoon based on events at the Hub by the visual artist Rohan Chakravarty.



on providing communities with access to resources and information, ensuring governance is fair and equitable.

"Our Indigenous communities were denied traditional access to their waters. The new law we worked on is based on human and territorial rights and we have managed to gain access to 246,000 hectares of land and waters. We are training local anthropologists, marine biologists, fish workers so the law can be applied through collective action."

— Pamela Mayorga, ECMPO, Chile

There is a growing tide of locally-led solutions that are building resilience in coastal communities. The project pipeline exists and there is a need to support local projects to grow while building avenues to connect investors to these solutions. To support this, USAID's Coastal Resilience, Carbon, and Conservation Finance (C3F) initiative will encourage the flow of private sector capital into coastal resilience and blue carbon projects. Alongside this, ORRAA is leading the development of the "Octopus Desk" – a blended finance marketplace platform connecting eligible blue resilience project developers with investment

partners, which will enable sustainable blue economy transaction match-making. Together, these initiatives will help bring projects and investors to the table to bridge the financing gap and accelerate the scaling of solutions that build resilience in climate vulnerable coastal communities.

"We are thrilled to announce that USAID has selected ORRAA as our anchor partner for C3F. ORRAA will leverage its considerable expertise in driving investment into ocean resilience. These activities advance the President's Emergency Plan for Adaptation and Resilience (PREPARE) and will serve as a foundation for future USAID partnerships with local stakeholders that build capacity to develop bankable, climate-positive projects and address information asymmetries between local communities and investors – leading to investments that safeguard local resources and livelihoods."

— Ann Vaughan, Senior Advisor for Climate Change, USAID

Ports can be a gateway to a resilient future, playing a major role in the lives and livelihoods of coastal communities as well as connecting multiple inland and coastal systems. Since the launch of the Maritime Breakthroughs Agenda at COP27, initiatives such as [Resilience4Ports](#), have been connecting port owners, operators, community groups and NGOs to identify and scale best practice for port resilience.

Learn more...

- [Climate and Ocean Risk Vulnerability Index](#) organises data and information across the land and seascape to provide decision makers with the complete climate risk picture they need to take action.

- The [Coastal Risk Index](#) harnesses the power of data to enable financial institutions, investors, insurers, and policymakers to better assess coastal risk and improve decision-making in the climate crisis.
- The [Voluntary Carbon Market to Restore Mangroves and Support Local Communities](#) aims to improve the communities' resilience by generating long-term revenue from their local forests and supporting [sustainable seaweed farming](#).

Launches and announcements

- A new alliance of funders, [ORCA \(Ocean Resilience and Climate Alliance\)](#), has pledged US\$250 million investment to safeguard the Arctic, activate blue carbon positive business models, scale community-led action in the Global South, advance ocean carbon sequestration, accelerate offshore wind, and decarbonize global shipping.
- The "Unlocking Blue Pacific Prosperity Plan" aims to protect 30% of the countries' waters and exclusive economic zones by 2030 and will receive [US \\$125 million](#) from GEF and [USD \\$100 million](#) from the Earth Bezos Fund.
- The Pacific Resilience Facility has received an US\$100 million investment by Australia to provide grants for climate adaptation, disaster preparedness, nature-based solutions and projects that respond to loss and damage.
- The maritime sector, responsible for transporting 80% of the world's trade, is facing a transformative period. The Lloyd's Register Foundation launched [a multi-year Global Maritime Trends 2050 research programme](#) that will deliver a series of 'deep dives' providing evidence, insight, and foresight on the large-scale challenges affecting the maritime industry between now and 2050.
- The [Resilience4Ports Knowledge Library](#) - the first collection of ports resilience guidance, tools and reports, mapped by the maritime resilience breakthroughs they support and the Port Resilience Framework for Action goals that they help to achieve.



Cartoon based on events at the Hub by the visual artist Rohan Chakravarty.

ARTS, CULTURE, ANTIQUITIES, AND HERITAGE

Culture, including arts, heritage and the creative industries, empowers people to imagine and realise a low-carbon, just, climate resilient future. Between technological innovation and individual choice lies the communal realm, a social world of remembering, creating, sharing, and belonging that binds people to places and to each other.

Traditional knowledge, culture, and heritage are often not acknowledged, nor validated in climate action and policy. Local and social knowledge, often expressed through cultural experiences and values, already have the building blocks for resilience and adaptation, yet this has not been understood generally. Through community-centred approaches, culture-based strategies strengthen resilience by supporting social networks and diverse knowledge systems and practices.

Culture is a powerful force that shapes all our lives wherever we are in the world. Cultural heritage, including traditional knowledge, strengthens resilience, helps communities to adapt to climate impacts, protects places and offers green, regenerative solutions. The arts speak to hearts and minds, inspiring action and helping us to understand climate change through storytelling and shared experiences. The creative industries – design, music, fashion and film, shape our lifestyles, tastes and consumption patterns. All therefore can play a key role in adaptation planning.



Mundano, founder of Cataki, on creating '[Recycling relationships](#)'

Indigenous communities have long used traditional methods to preserve forests, which are essential for their livelihoods and differ from national policies. These practices are crucial for ecosystem maintenance, as Indigenous knowledge benefits forest conservation, maintaining ecosystems critical for livelihoods. Organising workshops to evaluate adaptive capacities and vulnerabilities in heritage sectors is essential for understanding climate impacts and aiding informed decision-making. Women's participation in climate resilience is key for community development, enhancing overall adaptive capabilities. Climate change not only disrupts lives but significantly impacts cultural heritage and community structures. There is a critical need for more evidence-based case studies that explore and elucidate the intricate connections between culture and climate change. These studies would help in comprehensively understanding how cultural practices, traditions, and heritage interact with and respond to the impacts of climate change.

"Climate change justice goes beyond putting money in a fund, it is about preserving cultures and communities."

— Adrian Martinez, La Ruta Del Clima, Costa Rica



Using art and puppet to co-create climate solutions with the community and raising awareness: [Puppets for Climate Justice Series - "What can leaders do?"](#)

Spotlight on Green Mountain Pioneers

"Mountain tourism is an industry that is heavily dependent on nature, and the central idea of valuing nature feels critical to tourism existing, and for many industries around it. When you look at those solutions that exist in mountain regions, there's a lot of appetite for circular water solutions, but it's very nascent and they need more finance and localised policy solutions."

— Sarisher Mann, Sustainable Alpine Tourism Initiative (SATI) Founder, 'Green Mountain Pioneers' film producer, and Global Head of Sustainable Finance Marketing BNP Paribas CIB



Art serves as a powerful tool to communicate climate issues, facilitating dialogue, learning, and transformative action. Indigenous, traditional, and local knowledge, alongside cultural and artistic expressions, play a crucial role in climate resilience and adaptation, yet are often undervalued in climate research and policy. Marginalised communities, including slum dwellers, fisherfolk, and farmers, are frequently excluded from decision-making processes, despite their valuable insights. Art bridges the gap between intangible heritage and formal recognition in policy and legal contexts, challenging conventional notions of evidence. Emphasising the role of art in research, there is a need for greater integration of diverse knowledge systems in climate policy, alongside financial support for such initiatives.

"Art is a form of research and artists are researchers. They are thinkers and theorists. Artivism should be seen as practice-based research and enter into policy, activism, and help provide responses toward the climate crisis."

— Dylan Mc Garry, Empatheatre, South Africa

Learn more...

- [Centring local values in assessing and addressing climate-related losses and damages](#)
- [Preserving Legacies](#) envisions a world where we celebrate our diverse cultural heritage and safeguard every site against current and future climate impacts.
- [Re-Action Collective](#) aims to reinvent the outdoor industry through circularity across communities and sports, mainstreaming repair, reuse, rental and redesign.
- [ADAPTNOW](#) is an Interreg EU Alpine Space project which aims to support adaptation strategies across mountain regions.
- [CREA Chamonix Citizen Science](#) is at the forefront of citizen science and climate research in the Mont Blanc region.
- Empatheatre used art (play and animation) as [evidence in courts of law](#), as well as to [bring attention to "invisible" workers such as the waste pickers](#).

HEALTH AND WELLBEING

Building on the conversations at COP26 and COP27, the aim of the Health and Wellbeing theme was to galvanise action across the health, climate and urban nexus, helping people in these fields create the space for collaboration and the locally applicable tools needed to accelerate and unlock transformative changes. At COP28, the first Health Day was held, bringing a focus on health in the formal climate negotiations for the first time. The Resilience Hub brought key themes of community health systems resilience, climate financing for health and mental health.

Critical community-led interventions seldom make their way into national and international climate adaptation and health system strategies.

Contributions from communities during times of crisis are critical, with notable examples from the Ebola Crisis where local knowledge and wisdom were critical to the response. There are emerging case studies and practices of how locally-led initiatives and interventions can play a critical role in enhancing resilience at grass roots level. To build climate-resilient health systems, an integrated approach that incorporates community knowledge and responses is crucial. Locally-led, multisectoral coordination is essential for addressing broader individual and community needs beyond health outcomes, encompassing livelihoods, mental health, and food security. This approach must consider the diverse cultures and their unique risks and resilience strategies. Quality integrated data is vital for effective assessments, risk management, and tool development in this context.

“Service providers, especially child health workers, interact directly with communities. From our learnings they are vital agents of change to concurrently support the health system’s resilience by playing a role in climate adaptation actions and to bring their

community representative voice into the decision-making process”

— Dorothy Muroki, Former Abt Associates Chief of Party ICAN project

“We can’t build climate resilient responsive health systems that can respond to these increasingly unpredictable challenges unless we work collaboratively and co-produce evidence with those frontline communities and health workers.”

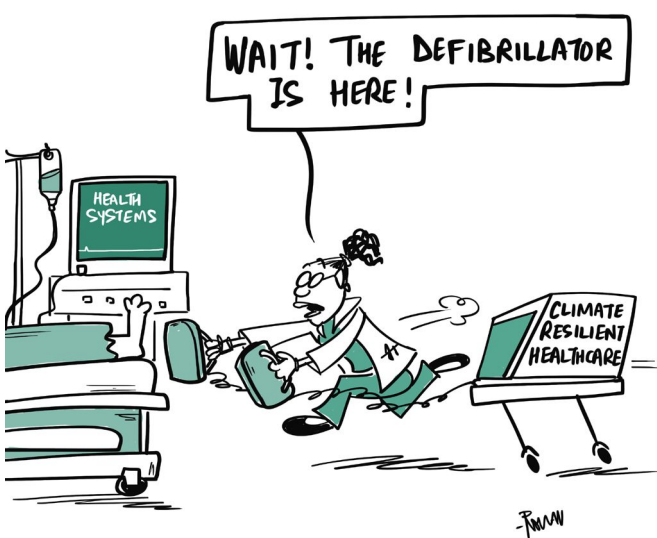
— Prof. Susannah Mayhew, London School of Hygiene and Tropical Medicine

Psychological resilience in climate adaptation involves a compassionate, social approach, recognising the role of resilient individuals in sustaining community resilience and vice versa. Climate change exacerbates social and economic disparities, leading to significant mental health and psychosocial challenges. Tackling these requires community-based solutions and strengthening social bonds. Psychological resilience should be viewed as a collective goal, enhancing behavioural, psychological, and emotional aspects to foster solidarity in environmental crisis response, without ignoring the need to address structural and systemic factors that manifest at individual and community levels.

“Extreme heat has to be viewed as one of the most dangerous results of the changing climate. We’re going to have to re-envision urban planning to take into account extreme heat and climate shocks, we need to rethink the insurance industry, and we’re now swimming against a tide that has turned against women in many parts of the world, with visible pushback on women’s rights and opportunities.”

— Hillary Clinton, former US Secretary of State

Women bear a disproportionate health burden, facing both market and climate shocks, especially in the context of extreme heat impacts. For example, in Rajasthan, India, female salt rakers have seen their livelihoods [jeopardised](#) by rising temperatures, with other female-dominant occupations such as small



Cartoon based on events at the Hub by the visual artist Rohan Chakravarty.

farmers, garment workers, and waste collectors also heavily affected. This issue transcends health, affecting economic, social, and political realms, as [women bear a larger burden for this type of risk and exposure to extreme heat than men](#). Solutions require a bottom-up approach, focusing on simple, cost-effective measures such as categorising heatwaves, green roofs, cooling pavements, cool kits, green sanctuaries, and early warning systems to increase awareness and mitigate the effects of heatwaves. A holistic approach should include considerations for gender-based violence, women's rights, and a just transition, ensuring that gender-sensitive climate policies are included in international agreements and national strategies. Ensuring women's representation at all decision-making levels is vital for effectively addressing climate impacts.

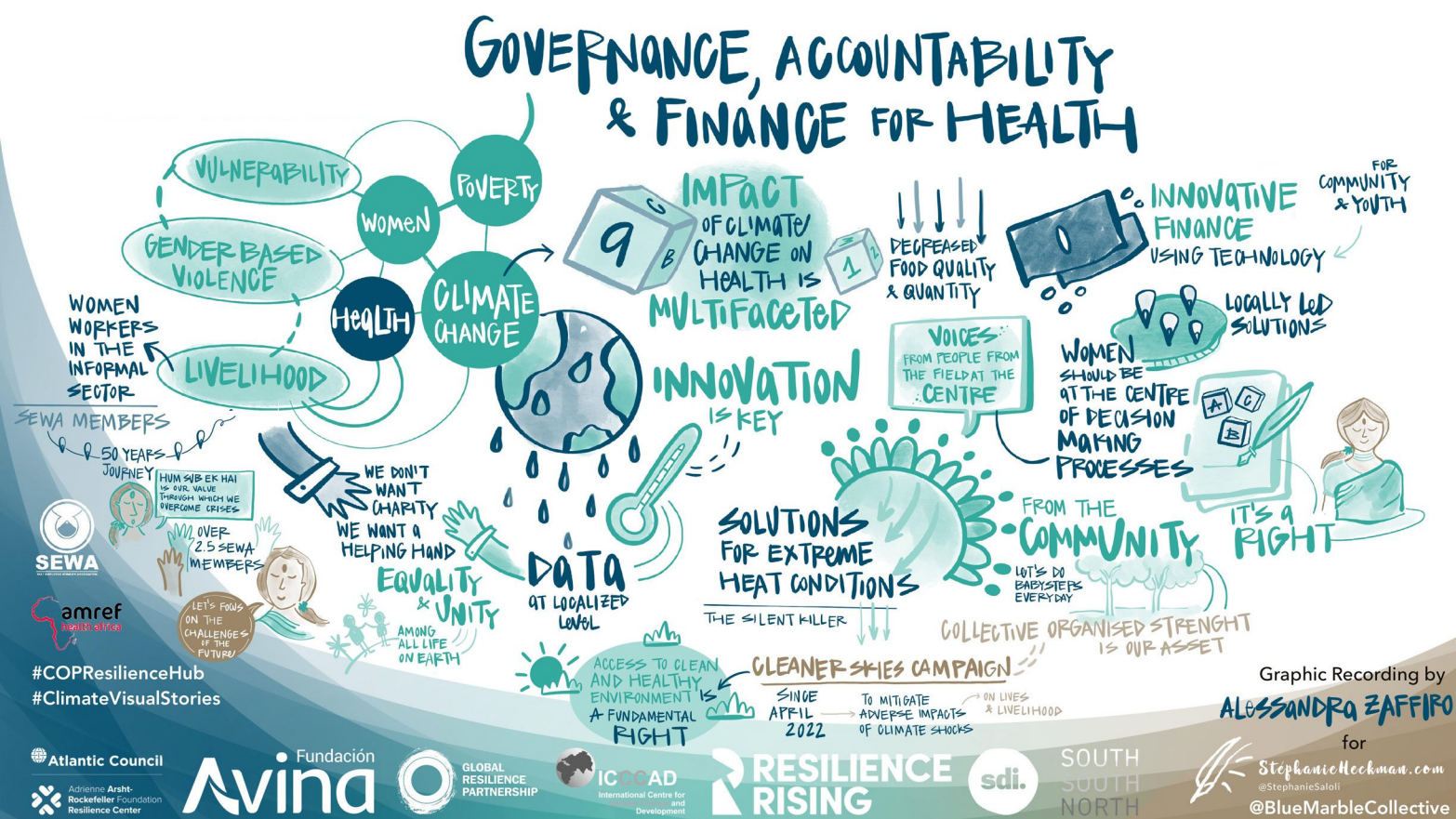
"Having access to clean air, clean water, and clean soil are fundamental rights of every woman on this Earth."

— Reema Nanavaty, director of the Self-Employed Women's Association (SEWA)

Exposure to extreme heat significantly affects maternal health, leading to complications, foetal development issues, and disrupted maternal healthcare, especially in regions with poor reproductive health investment and prevalent gender inequality. Climate change affects maternal and child health, leading to dehydration-related complications during pregnancy, low-weight births, and perinatal

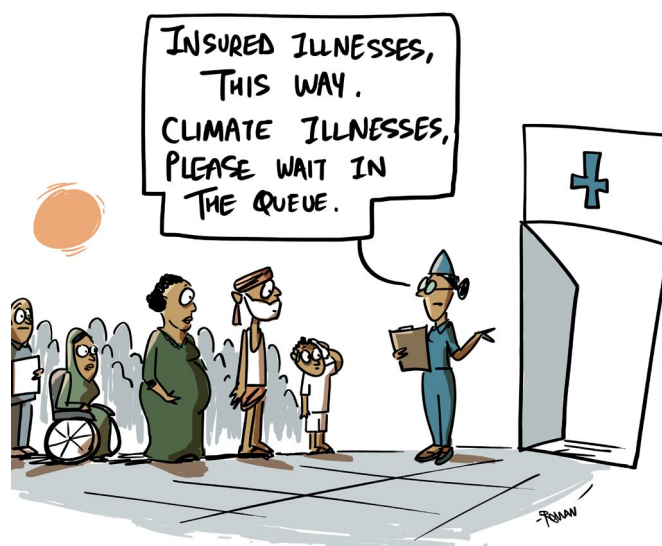
mortality. Additionally, climate shocks often disrupt access to sexual and reproductive health services, leading to poor menstrual hygiene, infections, and delayed prenatal care. Sexual and reproductive rights should be integrated into climate resilience work, focusing on the experiences of marginalised pregnant individuals and healthcare workers. There is a need to accelerate partnerships between climate adaptation and maternal health communities to implement and scale evidence-based interventions and best practices.

Health is the primary asset for informal workers and is the most critical determinant of their ability to earn a livelihood and sustain their families. For daily wage earners, a few days of ill health is detrimental and a significant drain on their family's resources. Medical bankruptcy traps many in poverty for years. Climate change worsens the situation as it is having an adverse impact on their livelihoods. Informal workers face direct exposure to various climate shocks because of their working conditions. Impact on food security, education, and mental health are added hurdles that have adversely impacted the lives of informal workers. Innovative approaches to governance, accountability, and financing for health and climate are required, ensuring they are based on the principles of participation, transparency, and equity, and grounded in the knowledge and lived experience of people who are most affected by climate change and health problems.



Launches and announcements

- The [Roadmap for Care and Change](#) was identified in the Sharm El Sheikh Adaptation Agenda to pool evidence and emerging knowledge into a strategy to present at COP28 for how mobilisation for climate adaptation and resilience, such as partners and aligned collaborators to the Race to Resilience, would be able to at the same time incorporate the work of psychological resilience. The Roadmap describes 13 “Early Adopter” efforts to start to put that strategy to work, as well as unpacks the knowledge and growing experience that underlies it. That includes detailing a five step implementation cycle local communities can follow and work with the global COP² network to co-create solutions most impactful for them.
- The Asian Development Bank (ADB) launched a new initiative to better understand and invest in adaptation to the impacts of heat stress on women and girls across Asia and the Pacific. Under the new [technical assistance program](#), ADB will research how the growing threat of heat stress affects women and identify specific policies, actions, and investments that can help governments reduce the impacts of heat on women and girls. The program will be implemented in Bangladesh, Cambodia, Pakistan, Sri Lanka, and Tajikistan. ADB also announced a partnership with Arsht-Rock to invest in building resilience against heat stress for women through insurance in Asia and the Pacific.



Cartoon based on events at the Hub by the visual artist Rohan Chakravarty.

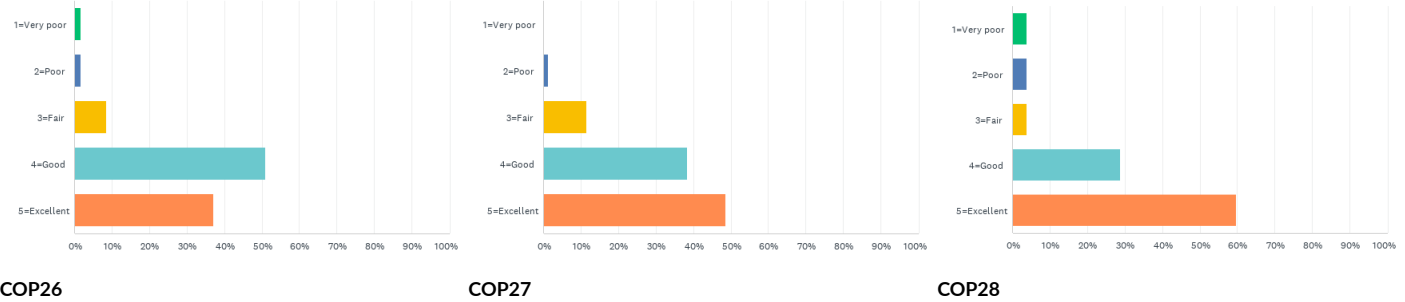
Secretary Hillary Rodham Clinton, Former Secretary of State, United States of America and Global Ambassador for Heat, Health and Gender, Adrienne Arsht and Eleni Myrivili, Global Chief Heat Officer, UN-Habitat, and Senior Fellow, Adrienne Arsht-Rock join the panel discussion on Empowering communities: Women at the heart of climate resilience.



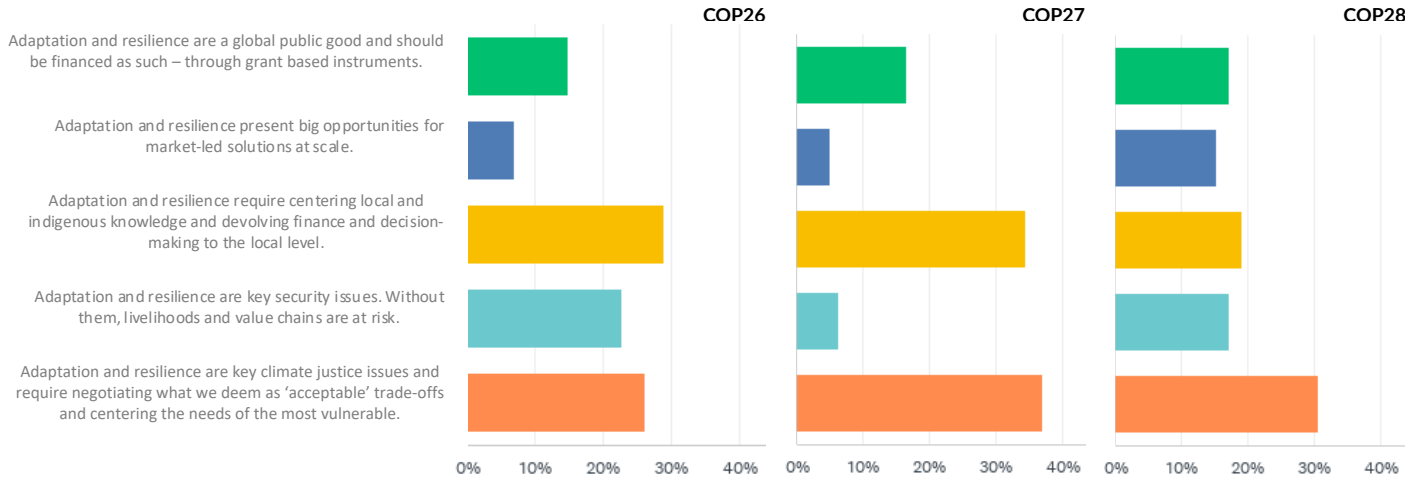
HIGHLIGHTS FROM THE POST-RESILIENCE HUB SURVEY

After COP26, COP27 and COP28, the Resilience Hub sent a post-event survey to all its registered participants. Insights so far reveal an improvement in the overall rating of the Hub’s programming, from 37% (COP26) to 49% (COP27) to 60% (COP28)

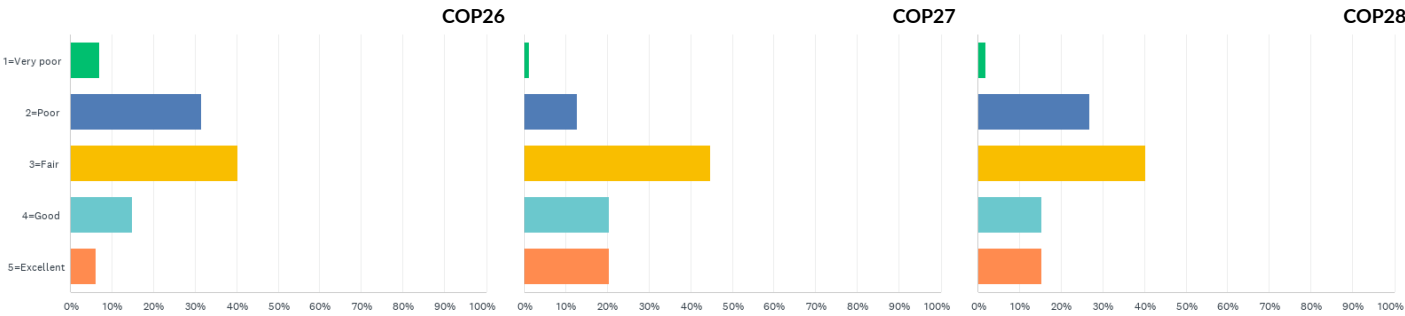
What overall rating would you give to the Resilience Hub event programming?



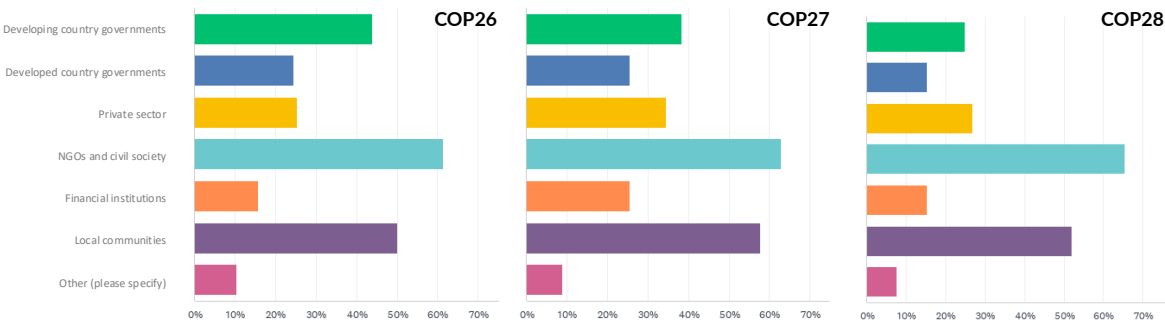
Which of the following statements do you think best represents the dominant narrative of the adaptation and resilience conversations (in the Resilience Hub as well as elsewhere)?



To what extent do you think progress in securing accessible adaptation finance for developing countries was met at this COP?



Which actors/stakeholders appear to be most actively scaling up adaptation and resilience actions?



REFLECTIONS AND NEXT STEPS ON THE ROAD TO COP29

COP28 demonstrated incremental progress, marked by agreements to “transition away” from fossil fuels. The framework for the Global Goal on Adaptation and operationalisation of the Loss and Damage Fund were established. Notably, 159 countries endorsed the UAE Declaration on Sustainable Agriculture, placing food at the forefront of climate action. The COP28 agreement also acknowledged the imperative for ‘multilevel’ action in cities. However, despite these positive developments, the world is still off-course to achieve the goals outlined in the Paris Agreement. Despite widespread recognition of the challenges faced by Least Developed Countries (LDCs) and developing nations, the financial requirements for adaptation remain significantly higher than the committed funds.

“To quote the former president of the Philippines, Gloria Macapagal Arroyo, “The power of one, if fearless and focused, is formidable, but the power of many working together is better.” After our third year of putting on the Resilience Hub at COP with all our partners, I couldn’t be prouder of what we have collectively achieved, from the stories shared, the relationships forged, and the impact delivered.”

— Seth Schultz, CEO, Resilience Rising

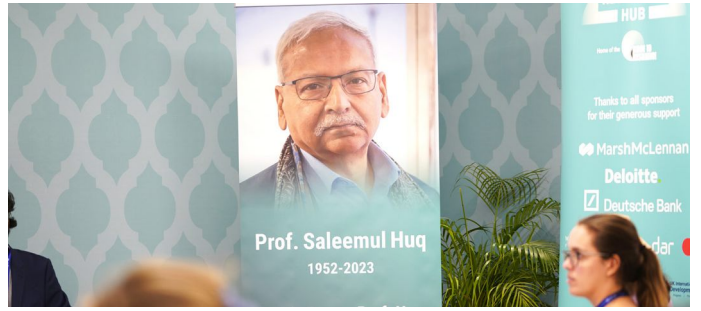
COP28 advanced the goals and frameworks for adaptation established at COP27.

The current focus should shift towards translating these objectives into concrete actions. COP29 must conduct a comprehensive review of ongoing actions and elevate ambitions to safeguard lives, livelihoods, and housing. The global stocktake emphasised the imperative to fortify national commitments during negotiations. Updating these commitments necessitates capacity building and strengthened international collaboration in the lead-up to COP29.

The Resilience Hub will continue to serve as the focal point for the Race to Resilience Campaign and Sharm el-Sheikh Adaptation Agenda, collaborating closely with COP Presidencies and the High-Level Champions Team. This collaboration aims to mobilise the highest levels of ambition from non-state actors in order to effectively address the needs of the most vulnerable and climate-affected. Gratitude is extended to the numerous partners who contributed their energy, dynamism, and expertise, making this year’s Resilience Hub a resounding success. Looking ahead, we eagerly anticipate engaging with both familiar and new partners in the upcoming year.

The COP28 outcomes signal that the next two years will be critical for climate action. At COP29, governments must establish a new climate finance goal, reflecting the scale and urgency of the climate crisis. And at COP30, they must come prepared with new nationally determined contributions that are economy-wide, cover all greenhouse gases and are fully aligned with the 1.5°C temperature limit. Now is the moment to radically step up our efforts to not only scale up mitigation but also adaptation action to minimise the climate impacts that will inevitably remain.





**Thank you for taking part in the
Resilience Hub at COP28!**

**Keep in touch and follow the Resilience
Hub on the road to COP29:**

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९-१० मिटर सम्म

चेतावनी अवस्था
१०-११ मिटर सम्म

खतरा
११ मिटर भन्दा

RESILIENCE
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समन्वय: राष्ट्रीय विपद् जोखिम सूचीकरण तथा जल तथा मौसम विज्ञान विभाग, राजीपुर नगरपालिका