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David Nash

Head of Adapting to Climate Change, Z Zurich Foundation

#### Foreword

In Sydney, Australia, the summer heat turns the city into an oven. Pavements bake. Air shimmers. And lives are put at risk.

The threat is growing fast. In Western Sydney, the number of days above 35°C annually is projected to increase fivefold by 2090, and heatwaves will last days longer than they do today. For the elderly, the very young, and other vulnerable people, the difference could mean life or death. This increasing threat led the city to create its first Extreme Heat Awareness Day to bring the community together to share strategies for managing and mitigating the risk. This is what resilience looks like: local, human, and deeply practical.

We live in an age of what Rocky Mountain Institute founder Hunter Lovins calls 'Global Weirding', where weather no longer follows established patterns. Natural hazard-related disasters, once rare, now hit in quick succession. Each has the power to erase years of progress. Schools and businesses may be closed for weeks or months, setting back educational attainment and causing unemployment. Families can fall back into poverty overnight.

That is why the Urban Climate Resilience Program (UCRP) is focused on adaptation.

Adaptation is too often seen as an afterthought, or worse, a sign of surrender. It isn't. Adaptation is how we protect lives and livelihoods today, while work continues on the underlying problem of how to manage climate change.

We help communities anticipate risk and build capacity to withstand shocks before they strike. That work is rooted in equity. As the former mayor of Houston, <u>Sylvester Turner</u>, once put it: there is no resilience without social equity. Those living on the margins, without secure housing, or access to services, face the greatest climate risk. Resilience means changing that.

Our approach is practical, and people driven. In Greater Manchester, a neglected wetland is being revived as a community hub. In Milan, schoolyards have become oases of shade during heatwaves. These are local solutions making life safer and more secure right now. But scale demands collaboration. No single organization can do this alone. It takes public authorities, private companies, and the people who call these places home.

So, I invite you to join us. Bring your expertise, your resources, your voice. It began in Sydney with a conversation about heat under a bright February sky. It can begin with you, wherever you are.

Resilience is not a nice-to-have. It is the key to protecting lives and our future in a changing world. And together, we can build it.

#### Introduction

Today's climate shifts are evident not only in rising or falling temperatures but in the disruptions they bring to our daily lives. On hotter days, hospital emergency rooms <u>fill faster</u> with sick or elderly patients brought to their knees by the <u>heat</u>. With fluctuations come extreme weather events like flash floods and raging hurricanes which leave scars on communities and cities that can persist for decades.

Schools close, businesses stall, and the most fragile communities - those already facing social and economic pressures - fall even further behind. Such social inequalities exist everywhere, whether it's the deep divide between rich and poor in developed countries, or the struggle to access essential healthcare and education in low-income countries.

We need to build resilience and adaptation measures that will help communities manage these growing risks.

For the Z Zurich Foundation, building resilience is a cornerstone of our mission to create fairer, more sustainable futures. We define climate resilience as a community's ability to keep pursuing its social, economic, and environmental goals while managing climate risks over time. It is not just about bouncing back from shocks. Resilience means maintaining the foundations that allow people to live, learn, and thrive.

Launched in 2023, the Urban Climate Resilience Program is a pilot building on over a decade of hands-on experience in climate resilience

Truly effective adaptation goes beyond off-the-shelf ideas. It means understanding each community's unique strengths and vulnerabilities and working side by side to co-create practical, lasting solutions. UCRP extends our reach into urban areas, where rapid growth, infrastructure stress, and climate hazards collide. The approach combines community engagement through data-driven tools such as the <u>Climate Resilience Measurement for Communities</u> (CRMC).

It allows collaborations that unite local authorities, civil society, and the private sector, specifically through local Zurich Insurance Group (Zurich) Business Units, who can amplify impact through volunteering, in-kind contributions, or local connections. This model, Public-Private-Philanthropy Partnerships, creates solutions that are practical, inclusive, and scalable.

This report is written for those who share that vision: city authorities, businesses, NGOs, and other partners who want to make a measurable difference in the face of climate risk. It offers a clear message: adaptation is urgent and achievable, but it requires collaboration.

It shares the story so far: how UCRP is helping cities embed resilience into everyday life and planning, and why these lessons matter for anyone seeking to adapt to a changing climate.



In the past

## 50 years,

the frequency of extreme weather events has increased fivefold

Source: NASA



Nearly half of the world's population lives in areas vulnerable to climate change

Source: IPCC



In the last 10 years, climate-related disasters caused estimated global losses of



#### **USD 2 trillion**

Source: ICC



In developing countries, adaptation finance needs are

#### 10-18 times

larger than international public finance flows



It's important for us to think about what's coming around the corner; how we prepare our communities for the future. The people who suffer the most are those in low-income neighbourhoods and communities of color, so it is crucial for us to be part of figuring out what the solutions are."



**Lydia Lowe**Executive Director of the Chinatown Community Land Trust





#### Overview

The Urban Climate Resilience Program operates in cities where climate hazards and social vulnerability converge. The goal is simple: enable communities to prepare for and withstand the impacts of climate events, while maintaining the foundations for education, work, and wellbeing.

Across cities in Asia-Pacific, Europe, Latin America, and North America, UCRP is supporting communities that face flooding, extreme heat, or both. Collectively, these initiatives aim to benefit nearly two million people through a mix of community-led action and city-level planning. Hazards vary widely, from El Niño-driven floods in Ecuador to long heatwaves in Australia, as well as combinations of risks in Spain and the United Kingdom, but the program applies the same principles everywhere: inclusion, data-driven planning, and collaborations that deliver impact.

Three elements stand out across all case studies. Community engagement drives practical solutions, from youth-led projects in Houston to school-based programs in Madrid. Policy and city partnerships can effectively embed climate priorities into planning, as seen in Sydney's Heat Smart Plan and Milan's adaptation strategies. And nature-based, social and physical interventions - like mangrove restoration in Colombia deliver multiple benefits, reducing flood risk while supporting local livelihoods.

UCRP is reshaping how climate resilience is built. This approach comes to life through:

- Community leadership: it begins with communities, ensuring their voices and priorities guide resilience strategies.
- Multi-sector collaboration: we work closely with implementation partners, Zurich Business Units, city officials, and the private sector to drive impact.
- **Co-creation:** together, we design solutions grounded in lived experience and built for long-term change.
- Scalability: from neighborhood-level action to city-wide strategies, these models can be adapted
  and scaled to strengthen resilience across regions and beyond.

In the next chapter we share examples of pilot interventions with communities and local governments, demonstrating how local action can drive broader systems change.

# Australia



Australian Red Cross staff discuss heat impacts with a community member. Photo Credit: Conor Ashleigh / Australian Red Cross

Location: Western Sydney

Climate Hazard: Extreme Heat

Projected Impact (2023-2026):

Community programming

15,000 people

Influencing / scaling

Measurement in progress

Implementation Partner:

Australian Red Cross / IFRC

#### Climate and social vulnerabilities

In Australia, heat is the country's deadliest natural hazard. In Western Sydney, home to over two million people, the risk is rising with population growth and climate change. CRMC assessments revealed key vulnerabilities; low awareness of risks, social isolation, and financial barriers to cooling, Public transport disruptions and limited green space worsen exposure. Although some households use air conditioning. the cost can deepen financial insecurity, leaving residents unprepared for prolonged heatwaves.

#### Interventions

The program works from the ground up, helping communities act locally while shaping citywide strategies. RediCommunities, led by Australian Red Cross, helps communities design and implement resilience plans through workshops and training, strengthening social cohesion and emergency readiness.

At the city level, the program supported the codesign of the Heat Smart City Plan, Greater Sydney's first coordinated strategy for heatwave preparedness. Developed through multi-sector collaboration, the plan names Australian Red Cross as a delivery partner and establishes NSW Ambulance as the lead agency for heat response.

Building on previous awareness campaigns, Australian Red Cross launched Extreme Heat Awareness Day in February 2025, in partnership with Sweltering Cities, an Australian heat health and wellbeing organisation. This reached over 3.3 million people through media, toolkits, and community events, supported by Zurich Australia\* volunteers.

#### Outlook

Ongoing efforts will provide more workshops, strengthened local leadership, and targeted advocacy. Planning is underway for the second Extreme Heat Awareness Day in 2026, building on the success of its national launch.

A major research study in Adelaide, using the <u>Post Event Review Capability (PERC)</u> framework, will deepen understanding of heat's systemic impacts and inform policy recommendations. CRMC findings will guide future interventions and measure progress. By combining community-driven action with policy influence, Australia's program shows how local action, backed by strong partners, can protect more people from growing climate risks.

#### **Engagement Opportunities**

 Short and Mid-Term | Expanding Climate Resilience (Cities, Social Systems)

Solving complex social challenges, such as climate resilience, requires cross-sector commitment, expertise and innovation. The Australian Red Cross is committed to collaborating with diverse partners to address and alleviate hardship in communities in Australia and the wider region.





Through the Urban Climate
Resilience Program, we work
across multiple scales building individual and
household resilience, working
with communities and trusted
partners to develop and
implement heat action plans,
strengthening sector capacity,
and extending learnings to
influence city, state and
national change."



**Eilish Maguire**Program Lead, UCRP
Australian Red Cross

# Malaysia



Residents in PPR Beringin collect produce to sell from the community's urban farm. The expansion of the urban farm has been highlighted by residents as a need to increase community income that can support future resilience measures.

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Location:

Climate Hazard:

Project

Projected Impact (2023-2026):

• Community programming

Influencing/scaling

Implementation Partner:

Kuala Lumpur

Flooding and extreme heat

6,079 people

up to 261,000 people

C40 Cities

## Climate and social vulnerabilities

Kuala Lumpur faces recurring floods and rising heat, exacerbated by rapid urbanization and limited green infrastructure. Vulnerable communities in Kampung Pasir Baru and PPR Beringin are particularly exposed. In Kampung Pasir Baru, floods disrupt livelihoods and damage homes, while in PPR Beringin, high-rise residents endure stifling heat with little access to cooling spaces.

CRMC assessments revealed additional risks: income insecurity, reliance on informal work, and limited knowledge of emergency protocols.

Although basic services exist, awareness of climate risk remains low, particularly when it comes to heat, and financial barriers prevent households from investing in resilience measures.



The URCP offers a chance to learn and engage with a diverse group of individuals united by the goal of building a sustainable and resilient tomorrow.

By joining forces with the Z Zurich Foundation and our network partner, we can partake in pioneering initiatives that tackle urgent issues and support communities close to us."



Teresa Wong
Chief Risk Officer P&C Segment/
Head of Sustainability Risks,
Zurich Malaysia

#### MALAYSIA - KUALA LUMPUR

#### **Interventions**

In April 2025, the program launched two Community Resilience Implementation Plans (CRIPs) tailored to each neighborhood. These plans include updating early-warning flood systems, underground water storage, and maintaining berms – natural structures that help manage water runoff.

For extreme heat, actions around community cooling spaces were explored, particularly around rethinking and designing public spaces to reduce heat exposure. These physical upgrades are complemented by socioeconomic measures, such as financial literacy workshops and urban farming initiatives to strengthen household income and resilience.

Engagement has been central from the start. Workshops and focus groups involved residents in identifying priorities, while the constant involvement of Kuala Lumpur City Hall (DBKL) ensured that solutions align with city-wide, future strategies. Zurich Malaysia\* also played a key role in mobilizing resources and providing technical expertise in this process, supporting the development and capture of ideas from the community.





It is at the city and community level that resilience is built; and it is in the communities that future fit cities are made

The Urban Climate Resilience
Program demonstrates how cities
can take bold action to localize and
achieve their climate goals. The
program calls for the co-creation of
urban solutions as we adapt to a
changing climate. We need to do this
together with the communities living
in the area as any action plan will
depend on their cooperation,
support, and most importantly, local
knowledge."



#### MALAYSIA - KUALA LUMPUR

#### **Outlook**

The next phase focuses on implementation and integration. CRIPs will continue evolving, guided by community input and linked to Kuala Lumpur's first Heat Action Plan. Short-term pilots will test these actions and determine a way forward to scale up across the city.

As engagement deepens, these neighborhoods will serve as models for other vulnerable areas in Malaysia. By combining practical solutions with strong partnerships, the program demonstrates that even densely populated urban areas can adapt, creating safer homes, stronger communities, and a clear roadmap for climate resilience.

#### **Engagement Opportunities**

#### Kampung Pasir Baru (Kuala Lumpur)

 Mid-term | Drainage Master Planning and Strengthening Natural Flood Defenses (Ecosystems, Cities, Social Systems)

C40 and DBKL are working on creating evidence and long-term plans on a drainage masterplan for the sub-basin where Kampung Pasir Baru is located. Partners are needed to support these studies and plans, which will have a city-wide impact on flood management.

#### PPR Beringin (Kuala Lumpur)

 Mid-term | Creating Cool Community Spaces (Infrastructure, Cities, Social Systems)

Partners are needed to support and campaign for the transformation of public spaces into accessible, people-focused areas that have reduced heat exposure and greenery that promote recreation, relaxation, and environmental well-being.



# Malaysia



A hand fan shares tips on staying safe in extreme heat in Melaka.

Photo Credit Hirzi Fazari Arbi - Urban Scale Studio

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Location: Melaka

Cli

Climate Hazard: Flooding and extreme heat

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Projected Impact (2023-2026):

Community programming

3,760 people

Influencing/scaling

up to 70,000 people

**Y**,

Implementation Partner: Resilient Cities Network (R-Cities)

#### Climate and social vulnerabilities

Melaka is a UNESCO World Heritage Site with a rich, multicultural trading history that draws tourists from around the world. The city faces dual challenges: preserving its cultural heritage, while reducing exposure to floods and rising heat. Kampung Morten, a traditional village near Melaka's city center, is vulnerable to both floods and extreme heat.

Pantai Peringgit also faces growing heat and flood threats. CRMC data highlights waste management issues, safety concerns, and weak community facilities, compounded by poverty and crime in certain neighborhoods. Vulnerable groups include the elderly and low-income families, many of whom lack cooling options or flood insurance.

#### Interventions

The program launched Community Action Plans through targeted workshops, focus groups, and data-driven assessments. In Kampung Morten, priorities include introducing pocket parks, installing flood early-warning systems, and implementing heat-monitoring initiatives to protect residents and tourists.

In Pantai Peringgit, interventions range from applying reflective paint in apartment blocks to conducting drainage studies and exploring nature-based drainage solutions. These steps are supported by strong collaboration with the Melaka Historic City Council (MBMB) and local committees, ensuring that resilience-building aligns with cultural preservation and urban regeneration goals. These pilots are informing Melaka's broader urban heritage and climate adaptation policies, offering models that can be adapted in other Malaysian cities.

#### MALAYSIA - MELAKA

#### **Outlook**

Next steps focus on scaling successful pilots and securing investment for long-term transformation. Upcoming phases include expanding cooling strategies, improving drainage networks, and enhancing public spaces for safety and social cohesion. The program also aims to leverage collaboration with state and national authorities to embed resilience into urban policy and funding mechanisms.

By connecting climate action with heritage conservation, Melaka is proving that resilience and cultural identity can go hand in hand, creating safer neighborhoods while preserving the character that defines this UNESCO World Heritage city.



We feel the rise in temperature. Our houses here don't have ceilings so the heat goes directly into the house. The heat is overbearing."



Mohd Yunus Bin Mazlan
Community Member Kampung Morten, Melaka





This type of program helps us to better understand and bridge the communication between officials, between partners and communities.

Ideally, we can expand, scale up and bring this participatory approach to more communities and more cities."



Nini Purwajait
Lead Programs and Head,
APAC Engagement
Resilient Cities Network

#### **Engagement Opportunities**

#### Kampung Morten (Melaka)

 Mid-term | Supporting Heat-Resilient Home Upgrades (Industry and Commerce, Cities, Social Systems)

R-Cities and the City of Melaka are seeking partners to support home improvement programs that help residents adapt to heat, such as heat-reflective paint, better ventilation, shading, and fans - all designed to preserve and honor the area's heritage.

#### Pantai Peringgit (Melaka)

 Mid-term | Cooling Urban Spaces (Ecosystems, Cities, Social Systems)

Partners are needed to help implement a multi-pronged cooling strategy using green pavements, shady trees, low shrubs (to boost Leaf Area Index), and community gardens that reduce heat and improve food security.





Local school children use the shading structure installed in Crecenzago's Via Turroni - a residential street next to the School Oasis project that is highly exposed to sun during the summer months.

Cocation: Milan

Climate Hazard: Extreme Heat

Projected Impact (2023-2026):

• Community programming 9,805 people

Influencing/scaling
 13,726 people

Implementation Partner: C40 Cities

#### Climate and social vulnerabilities

Milan faces intensifying climate challenges, including extreme heat, air pollution, flooding, and health risks. These are amplified by dense urban development and limited green space. Vulnerable people, such as children, the elderly, and low-income households, are most exposed to heat stress because of the neighborhoods they live in. CRMC surveys in Crescenzago highlighted a lack of green space access and limited community facilities to cope with prolonged heatwaves. The need for cooling spaces became a priority during community consultations, particularly in areas with ageing housing stock and underutilized public amenities.

#### Interventions

Through UCRP, Milan piloted the School Oasis project, transforming a schoolyard into a climate refuge with shading, greenery, and permeable surfaces. These spaces double as community cooling centers across the summer months, offering safe, accessible relief from extreme heat.

The initiative combines low-cost, temporary adaptations with community participation: local associations lead activities, while the school acts as a hub for awareness campaigns. In its second year, the School Oasis project is being rolled out to two more schoolyards in the Crescenzago community.

The program also supports planning for climate-ready neighborhoods aligned with Milan's <u>"15-Minute City"</u> vision, embedding resilience into urban policy. Findings from the CRMC assessment are shaping a broader climate action plan, with lessons from this pilot being used to shape citywide plans and forthcoming projects.

#### **Outlook**

The pilot sets the stage for citywide replication. Next steps include securing municipal investment for additional school oases, encouraging new designs and community spaces, integrating shading structure within the city's existing programs and building a long-term strategy for the continuation of these focused interventions in areas across Milan.

By linking neighborhood projects with citywide planning, Milan is showing how local action can inspire broader changes.

#### **Engagement Opportunities**

 Mid-term | Cooling Cities through people-centered spaces (Infrastructure, Cities, Social Systems)

C40 and the City of Milan are looking for long-term partners to support more scaled-up School Oasis initiatives across the City, and other urban design strategies to help communities stay cool and adapt to extreme heat.





Milan has one small flaw which is that it doesn't have many green spaces. Most of Milan is full of houses and buildings and so you can't spend so much time outdoors or have big spaces where you can run and play."



Riccardo School child Milan



Milan is trying to become more resilient. And in particular, it is trying to put at the center of urban transformation the most vulnerable people, the most fragile people, starting with children.

In Milan, children make up 15% of the population, yet they are 100% of our future."



**Demetrio Scopelliti** Architect, City of Milan

# Spain



Spanish Red Cross, IFRC and the Z Zurich foundation representatives in Valencia, June 2024. Photo credit: Soanish Red Cross Location: Madrid and Valencia

💮 Climate Hazard: Extreme Heat & Flooding

Projected Impact (2023-2026):

• Community programming 20,000 people

Influencing/scaling
 80,000 people

Implementation Partner: Spanish Red Cross / IFRC

#### Climate and social vulnerabilities

In Spain, flooding and heat take a higher human toll than any other hazard. Madrid and Valencia face the threat of extreme heat, compounded by rapid urbanization and high population density in vulnerable neighborhoods. Valencia also has a history of significant flooding.

CRMC assessments revealed gaps in risk awareness and preparedness. While early warning systems exist, many residents are unsure how to act, particularly those in low-income communities with limited green space and poor drainage. Households also face financial barriers, such as high energy costs and inadequate access to cooling, leaving the elderly, migrants, and people experiencing homelessness most exposed.

#### **Interventions**

The Pillowcase Project, adapted from the American Red Cross, equips primary school students with practical skills, including assembling a personal emergency kit in their pillowcase. Students lead peer-learning initiatives and climate activities, helping to create resilience champions in schools.

Risk awareness activities and workshops are strengthened by the distribution of heatwave preparedness kits to vulnerable populations. In parallel, the Local Climate Mapping initiative provides clear, local information so residents and city leaders can act on heat and flood risks.

The Spanish Red Cross also drove a major policy shift in Valencia: transforming the Social Emergency Care Center (CAES) into a year-round climate shelter. This now protects people experiencing homelessness during winter and summer extremes.

#### **Outlook**

Ongoing efforts will strengthen climate resilience through greater community engagement and cross-sector partnerships. Plans include building shaded areas in schools and expanding climate mapping into new districts. Zurich\* volunteers will support public awareness campaigns and local events.

Policy advocacy will focus on involving small and medium-sized enterprises in resilience strategies. Knowledge-sharing workshops will connect city authorities, schools, and health services, while CRMC data will measure progress and inform future planning. These efforts aim to make resilience part of the social fabric - through schools, community networks and city planning.

#### **Engagement Opportunities**

 Short and Mid-Term | Expanding Climate Resilience (Cities, Social Systems)

The Spanish Red Cross is committed to scaling up climate resilience through ongoing programmes and projects across Spain.



We are all, to one extent or another, vulnerable to extreme events and, in the face of this, there is a clear need to integrate emergency preparedness into our present and future normality."



**María del Mar Pageo** President of the Spanish Red Cross



\*Zurich Insurance PLC - Spain branch



Women working in the Kadifekale Women's Solidarity Center, February 2025.

Photocredit: ICLEI - Local Governments for Sustainability.

Location: Izmir, Türkiye

뿼 Climate Hazard: Extreme Heat & Flooding

Projected Impact (2023-2026):

• Community programming 14,873 people

Influencing/scaling
 Measurement in progress

Implementation Partner: ICLEI – Local Governments for

Sustainability

#### Climate and social vulnerabilities

Izmir, in Türkiye, faces increasing risks from heatwaves, flooding and drought - pressures that disproportionately affect vulnerable neighborhoods like Pazaryeri and İmariye. These areas contend with a combination of steep topography, inadequate drainage, limited green spaces, and aging infrastructure, all of which complicate emergency response and increase exposure to climate hazards. Community spaces, such as the Kadifekale Women's Solidarity Center - a community garden that promotes women's solidarity - are particularly threatened by seasonal drought and extreme weather

#### Interventions

The Climate Resilience for Communities project integrates resilience into neighborhood development by fostering co-responsibility between communities and local authorities. Planned interventions include improving climate-resilient community gardens featuring greenhouses and rainwater harvesting systems, creating neighborhood committees to strengthen local leadership and support self-organizing groups, and delivering targeted trainings on climate awareness, flood preparedness, and heat resilience. Technical flood risk and vulnerability assessments are underway in five neighborhoods, with a focus on protecting critical infrastructure and community services during emergencies.

#### TÜRKIYE

#### **Outlook**

Through collaboration with the local government and relevant external actors, the next phase will focus on scaling successful pilots, embedding resilience in city policy, and mobilizing investment for green infrastructure.

Tools such as flood risk data and community training materials will support broader municipal planning and inform disaster risk reduction strategies. Moreover, collaborations with initiatives like the <a href="Transformative Actions Program">Transformative Actions Program</a> - which helps local governments turn ideas into investment-ready projects by connecting them with financial and technical partners - will help expand the use of nature-based solutions and develop investment-ready projects.

With strengthened collaboration between ICLEI, local authorities, and the communities, these interventions can shape urban policy and planning in Izmir and serve as a model for other cities in Türkiye and beyond.

#### **Engagement Opportunities**

 Mid-term, Scaling Action with Partnerships (Food and Agriculture, Cities, Social Systems)

Projects implemented on the ground will serve as proof of concept, making their impact clear and measurable. ICLEI and Zurich Insurance Group Türkiye\* are seeking support to scale the UCRP approach to other communities - whether through climate-resilient community gardens or neighborhood committees tailored to each community's unique strengths and needs.

\*Zurich Sigorta A.Ş.



We can help build climate resilience with the right stakeholders and rational solutions. With this awareness, we are pleased to implement this project in Izmir, one of the cities that will be most affected by climate change. Our goal is to expand this model, designed for safer, more resilient, and sustainable cities, to other cities in Türkiye and worldwide."



Yılmaz Yıldız CEO, Zurich Insurance Group Türkiye, Member of the Board of Trustees, Z Zurich Foundation







UCRP is a community-led process - transforming the lives of the most vulnerable. This extensively-tested approach engages local communities in assessing their resilience to climate risks and co-develops prioritized solutions that build on existing strengths. The inclusive nature of the program nurtures community-local government collaboration for climate action."



Sunandan Tiwari
Director Global Implementation
ICLEI - Local Governments for
Sustainability

# Making Climate Resilience a Community Conversation

In the Pazaryeri neighborhood, a group of women gathered for a workshop under the Climate Resilience for Communities project. Held locally and informally, the event provided a space to talk about their lives and the community's deep-rooted challenges, such as the lack of safe public spaces, isolation, and the erosion of neighbourhood solidarity.

Some community members were already aware of climate impacts and how to respond, but that knowledge wasn't being widely shared: "We realized how important solidarity between neighbors is," one woman reflected. "There should be more meetings like this, and a group could be formed."

Through the project, climate resilience is becoming a community conversation. "There has never been a meeting about climate issues, floods, or extreme heat," one of the women noted,



Through this project, we can raise our voices and share the needs of the neighborhood."

Residents who had never joined civic events before are now exchanging ideas and taking initiative: "Once something starts, the neighbors will hear about it and start joining."



# United Kingdom



Volunteers clean up a local park in Greater Manchester. **Photo credit**: Saz Media

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Location:

Climata

Climate Hazard:

Projected Impact (2023-2026):

Community programming

Influencing/scaling

Implementation Partner:

Greater Manchester

Extreme Heat & Flooding

14,000 people

up to 612,300 people

Resilient Cities Network

## Climate and social vulnerabilities

In 2015, <u>flooding affected 65 communities across Greater Manchester</u>, exposing inequalities in resilience. Today, the suburb of Edgeley faces high exposure to extreme heat and limited green infrastructure, while the housing estate Higher Folds is prone to surfacewater flooding and has poor public transport connectivity.

The CRMC revealed a mix of environmental pressures, like low tree cover and poor drainage, alongside social vulnerabilities such as poverty, housing insecurity, and low trust in institutions. These conditions make heatwaves and floods hit harder, affecting health, livelihoods, and recovery, especially for people already facing systemic barriers.



This program is a great opportunity to bring together cutting-edge approaches in engaging with residents to build resilience, whilst also helping the city-region to prepare for the risks that climate change poses, especially flooding and potential heatwaves."

**Dr Kathy Oldham**Greater Manchester's Chief
Resilience Officer

#### UNITED KINGDOM

#### **Interventions**

The UCRP brings together residents, local authorities, and community partners to codesign practical, community-led solutions. In Edgeley, an underused park and a vacant building are being transformed into spaces that strengthen resilience, adding shade, biodiversity, and community amenities. The project also restores heritage features and is creating opportunities for food growing, improving both climate resilience and social wellbeing.

Building on the What If? Ideas Collective, this work has already sparked local engagement and secured backing from partners, including the English Cities Fund.

In Higher Folds, a locally led partnership is delivering environmental and employment initiatives, from sustainable drainage systems to community greening and youth training programs. These efforts deliver resilience multipliers - from reducing flood risk, creating jobs and strengthening community pride to build lasting resilience for the future.

Insights from these neighborhood projects are shaping investment-ready regeneration plans, directly informing local government strategies and guiding the development of Greater Manchester's first city-wide Community Resilience Framework.

#### **Outlook**

Greater Manchester is embedding resilience into its regeneration and climate strategies. This shift has received strong political support including at the Greater Manchester Green Summit. The UCRP is helping translate community insight into investment-ready propositions and demonstrating how locally led approaches can shape fairer, greener places.

The program will continue to prioritize equity, ensuring that those most at-risk from climate impacts are prioritized, and that local voices shape every stage of decision-making.

These projects in Greater Manchester show that cooler streets, greener spaces and stronger community leadership can together deliver a safer, fairer future.





Resilience for Communities is all about working with communities.

I think sometimes when we do resilience projects at this city level, communities can feel like things are being done to them. And actually, we want to switch that round and do things with communities."

Karl Astbury
Resilient Cities Network



# **Engagement Opportunities**

#### Stockport

Mid-term | Transforming Public Spaces for Climate Adaptation (Infrastructure, Health, Social Systems)

RCN and Stockport Council seek partners to co-design and manage a SUN park by converting derelict land and an underused park.

#### **Higher Folds**

Mid-term | Implementing Sustainable Urban Drainage (SuDS) (Infrastructure, Cities, Water and Sanitation)

Partners are invited to collaborate on small-scale sustainable urban drainage installations such as rain gardens, swales and permeable driveways. These installations will be paired with community engagement, co-design, and climate education.

23

# Colombia



Watering mangrove seedlings at the Mangrove Nursery, the Colombian Red Cross, Atlántico section

9

Location:

Copacabana (2022-2025),

Barranquilla, and Soacha

Flooding

🥋 Climate Hazard:

rojected Impact (2025-2027):

Community programming

Influencing/scaling

Implementation Partner:

15,948 people

up to 147,100 people

Colombian Red Cross

#### Climate and social vulnerabilities

As the climate changes, a persistent threat of flooding menaces Colombia. In Barranquilla, entire neighborhoods sit on filled-in land near the Mallorquin Swamp, leaving homes exposed to floods caused by torrential rains and storm surges. Many residents lack land titles, excluding them from formal disaster assistance and compensation schemes.

Migrant families face additional barriers, including informal employment, insecure income, and limited access to public services. Elderly populations are equally vulnerable, often isolated and without economic safety nets. Weak governance and unsustainable urban growth exacerbate these risks, leaving communities unable to withstand repeated shocks



#### COLOMBIA

#### **Interventions**

The program applies a three-phase resilience approach focused on governance, community empowerment, and nature-based solutions. In Barranquilla's La Playita and Villa del Mar neighborhoods, we support micro-projects such as mangrove nurseries to restore ecosystems that reduce flood risk while promoting sustainable livelihoods. Community networks have been formed to prepare and respond to emergencies by implementing flood protocols and delivering emergency kits. Governance agreements strengthen collaboration with municipal authorities, while knowledge-sharing initiatives connect community leaders with regional stakeholders.

To sustain momentum, the project integrates environmental education, home gardens, and productive nurseries into Community Sustainability Plans. These initiatives not only protect against flooding but also address food security and economic resilience, creating multiple benefits for vulnerable families.

With the municipality of Soacha, the project has built key public and private alliances that empower community leaders in risk management and strengthen the Colombian Red Cross' advocacy.

#### Outlook

The work in Colombia demonstrates how resilience extends beyond physical defenses. By combining ecosystem restoration with social and economic strategies, these interventions help communities reduce risk and recover faster after disasters. Local partnerships have already attracted additional investment, including the Planeta Azul Prize and AECID funding, which will support scaling into neighboring areas.

Going forward, the project will focus on strengthening sustainability plans, embedding climate resilience into municipal policy, and expanding advocacy at national and regional levels. These efforts ensure that even communities facing legal and structural barriers can access the tools and support they need to adapt and thrive.



#### **Engagement Opportunities**

 Short-term | Restoring Coastal Ecosystems (Ecosystems, Cities, Social Systems)

The Colombian Red Cross needs additional partners for mangrove nursery projects that restore coastal ecosystems, boost climate resilience, and support local livelihoods.

# Ecuador



Member of a community risk management committee

Photo Credit Plan International Ecuador

9

Location: Portoviejo (2021-2024), Guayaquil

#

Climate Hazard: Flooding

\*

Projected Impact (2025-2027):

. Community are gramming

• Community programming 63,240 people

Influencing/scaling

up to 336,760 people

Implementation Partner:

Plan International

#### Climate and social vulnerabilities

Guayaquil, Ecuador's largest city, faces growing flood risk driven by rapid urban expansion, fragile infrastructure, and heavy rains intensified by El Niño events. In 2024, severe floods affected more than 27,000 people and destroyed thousands of homes.

Informal settlements such as Monte Sinaí and Nueva Prosperina are particularly exposed due to poor drainage and housing conditions. Social factors deepen vulnerability: children and young people face disrupted education, women often bear the burden of caregiving during crises, and many households lack basic services and access to emergency resources.

#### **Interventions**

The first project phase from November 202-December 2024 focused on strengthening preparedness and local leadership. Over 76,000 people benefited from resilience initiatives, including training, infrastructure improvements, and emergency planning. Key actions included forming 23 Community Risk Management Committees, developing nearly 2,400 family emergency plans, working directly with almost 3,000 children and adolescents through various interventions, training more than 500 of them to become resilience leaders.

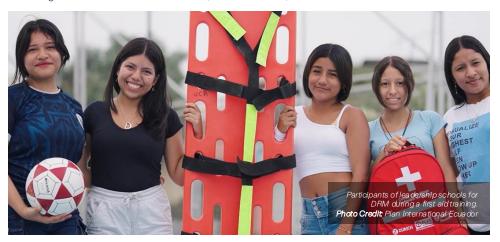
Schools played a central role, with over 940 students and 125 teachers participating in disaster risk education. Municipal and national authorities were also engaged through drills, risk governance workshops, and technical training. Advocacy efforts have increased flood awareness, reaching more than 67,000 people through public campaigns.

#### Outlook

The next stage aims to scale impact by deepening partnerships with local government and building resilience into everyday decisions about housing, services, and public spaces. Priorities include updating risk assessment tools, implementing municipal action plans, and introducing nature-based solutions to strengthen protection against flooding.

At the community level, inclusion remains central: women, youth, and low-income families will receive targeted support to lead preparedness efforts and access resources. At the national level, the program will continue delivering training for public officials and launching awareness campaigns on flood risks and climate change.

These steps will help build strong foundations so local authorities and communities can act together, ensuring that flood resilience is sustained, institutionalized, and accessible to the most vulnerable.



#### **Engagement Opportunities**

Mid-term | Developing Youth Leadership in Disaster
 Preparedness (Water and Sanitation, Cities, Social Systems)

Partners are needed to scale and support an initiative that empowers young people to become leaders in disaster response. Through handson training, students learn to assess risks, create action plans, and coordinate emergency efforts in their communities.



Resilience is adapting to change. It is to face things, but also to learn from them. We have been taught how to differentiate the areas.

Which are the safe areas, which are not. In these rural areas, we can also suffer from risks because these risks do not distinguish between social classes or where you live.

Risks are unpredictable and we need to be prepared."



**Bianca**Participant
Guayaquil Disaster Risk Leadership School

# United States



Volunteers prepare ground for a Pocket Prairie in Alief, Houston. **Photo credt:** Blue Cowaid Productions



Location:

Olive

Boston, Houston,

Extreme Heat & Flooding

Climate Hazard:

Projected Impact (2022-2025):

Community programming

Influencing/scaling

lare at

Implementation Partner:

137,860 people

up to 80,000 people

Resilient Cities Network (R-Cities)

## Climate and social vulnerabilities

North American cities are living proof of the fact that a high GDP is no guarantee of climate resilience. Some of the communities devastated by climate shocks are in the richest countries in the world.

In the past decade, Houston has endured <u>seven federally-declared disasters</u> from hurricanes to winter storms. In Boston, overbuilt neighborhoods experience higher temperatures and flood risks.

CRMC data showed that density and limited green space are exacerbating heat and flood vulnerabilities in Boston's Chinatown and Lower Roxbury communities. Residents of Trinity Houston Gardens have experienced food insecurity during disasters, and in Alief, urban sprawl and a lack of green space intensify heat and flood risks.



We are trying to ensure whole of government approach to resilience. So local government, state, and federal government resources, and this helps us diversify how they approach resilience. We really see resiliency as a big puzzle, and our mission is to put this puzzle together, enabling everyone to play their part in putting the pieces together."



Ksenia Acquaviva
Senior Administrator, Waterfront and
Resiliency Initiatives, City of Boston

#### **Interventions**

The UCRP engages local partners and residents to co-create solutions using the CRMC tool. In Boston, the COOL DOWN Chinatown! initiative introduced the city's first neighbourhood heat action plan, supported by awareness campaigns and micro-grants for cooling measures. In Lower Roxbury, young people co-designed and built new cooling stations using an open-source toolkit, providing relief from extreme heat and offering a scalable model already being adapted in other neighbourhoods.

In Houston, the Resilient Alief Project has trained youth leaders in emergency preparedness, organized tree planting and greening initiatives, and created pocket prairies that reduce flood risk while strengthening community pride. In Trinity Houston Gardens, food security was expanded through Target Hunger, linking over 1,500 residents to social services and supporting more than 4,500 families with food distribution. Upgraded community facilities now provide safe food storage and are expected to serve more than 600 residents annually. These interventions are being integrated into Houston's Resilience Hub strategy, ensuring that community-led actions strenathen citywide resilience.

#### **Outlook**

These interventions are designed for immediate impact and long-term value. By combining data-driven analysis with grassroots action, Boston and Houston are embedding resilience into everyday life and municipal planning. The next phase will build on what works, expand solutions to more neighborhoods, and show how practical actions can shape citywide resilience.

Looking ahead, both cities aim to leverage partnerships and local investment to sustain momentum. The program also emphasizes equity, ensuring that vulnerable communities are prioritized in future planning. By strengthening trust between residents, governments, and partners, these efforts set the stage for stronger, fairer cities. Both Boston and Houston are demonstrating how neighborhood-led action can inform municipal resilience strategies, reinforcing R-Cities' role as the connector between communities, city authorities, and funders.

Across Boston and Houston, these interventions are already reaching thousands of residents and generating models that other R-Cities members are exploring, creating a pathway for replication globally.

As the first country where the UCRP was implemented, the United States has also served as a testing ground for adapting the CRMC tool to urban contexts, with lessons already shaping implementation in Melaka, Greater Manchester, and beyond

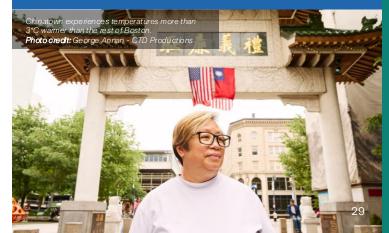


This initiative has demonstrated impact in just under three years, helping to advance solutions that address the unique needs of vulnerable communities. By amplifying these efforts, we ensure that resilience strategies benefit and are informed by the communities they serve.

Collaboration is key to creating long-term, sustainable solutions. Non-profit organizations, businesses, and other stakeholders coming together is what allows successful resilience initiatives to scale across Houston."

Angela Blanchard Chief Recovery and Resilience Officer, City of Houston





#### **Engagement Opportunities**

#### **Boston**

 Short-term | Supporting Small Business Climate Adaptation (infrastructure, Cities, Social Systems)

Chinatown Main Street and the City of Boston seek partners to help small businesses access portable cooling and air quality devices to prepare for extreme heat.

 Mid-term | Scaling Urban Cooling Solutions (Ecosystems, Cities, Social Systems)

Architecture for Public Benefit and YouthBuild Boston aim to scale and replicate their Design Toolkit for Urban Cooling Infrastructure.

These solutions are being used to inform Boston's Heat Adaptation Working Group, with replication planned across other neighbourhoods.

#### Houston

 Mid-term | Expanding Tree Canopy for Heat Mitigation

AliefVotes and Alief Super Neighborhood Council seek partners to plant and maintain 400 trees along key commercial corridors and medians in Alief.

 Mid-term | Strengthening Community Resilience (Food, Cities, Social Systems)

Target Hunger is looking for support to upgrade its facility with a new roof, improved parking, enhanced fencing, and fire alarm system.

The integrated service model is shaping the City of Houston's approach to resilience hubs, offering a replicable framework for other communities.



I truly believe that young people have the ability to demand more when it comes to our community, because we shape a unique perspective, whether it's with language access, working with parents in an immigrant rich community, and also navigating complex challenges.

Whether it is with education or organizing community projects because once we figure out that we do indeed have a seat at the table, we're able to reinvest intergenerationally and become a more resilient community."

**Tommy Wan**Program Director, AliefVotes



#### Conclusion

In today's world, severe climate shocks are no longer rare one-off events. This report has highlighted how the Urban Climate Resilience Program is helping cities adapt to this new reality. Through proactive efforts, cities can prevent climate events from becoming climate disasters. Across multiple cities, the program is working to protect people and livelihoods through solutions that are practical, inclusive, and built to last.

Despite differences in geography and hazard, from extreme heat in Boston and Milan, to storm surges and rising sea levels in Barranquilla and Valencia, common threads emerge. Every project places communities at the center, from youth leadership in Houston to school-based programs in Madrid. Each combines local action with institutional support, ensuring resilience is not left to individuals alone. And across all locations, data-driven tools like the CRMC provide the evidence to prioritize needs and measure progress.

Building resilience delivers multiple dividends: it saves lives, reduces economic losses, and creates greener, healthier spaces where communities can thrive. This work also reinforces social equity by prioritizing those most at risk - children, women, and low-income households - so that adaptation strengthens not just systems, but fairness and equity.

Looking ahead, the priority is to scale what works: transforming pilots into citywide strategies, embedding resilience into urban planning, and securing the resources that make this possible.

Public authorities, businesses, and communities each have a role to play. Yet global adaptation finance still falls far short of what is needed, making programs like UCRP essential for demonstrating how resources can drive measurable, lasting change.

The challenges are significant, but so is the opportunity. With every schoolyard that becomes a cooling refuge, every mangrove nursery restored to protect a coastline, and every household equipped to face the next flood, resilience moves from theory to reality, ensuring meaningful, lasting changes can be clearly demonstrated and reported.

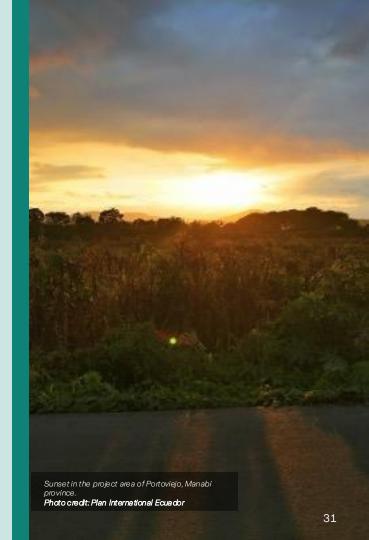
## This report is both a record of progress and an invitation: be part of the change.

If you have learned from our work above, reach out to the Z Zurich Foundation today. We have the ecosystem, groundwork, setup and impact measurement systems ready. What we need now is Public-Private-Philanthropic-Partnerships.

By bringing resources, expertise, and influence together, we can create cities that not only withstand climate shocks but continue to grow and prosper through a changing climate.

#### Contact us

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### Acknowledgements

We sincerely thank our partners and their different teams on the ground for their dedication, insights and meaningful work with communities, which is vital to the success of the Urban Climate Resilience Program.

We also thank Zurich and Zurich Resilience Solutions teams in the different countries for their expertise and active involvement in bringing this initiative to life across the globe.

















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