BUILDING CLIMATE RESILIENT AND SUSTAINABLE CITIES FOR ALL

At the intersection of climate change and poverty

Cities Alliance
Cities Without Slums

Hosted by
UNOPS

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Building Climate Resilient and Sustainable Cities for All

Acknowledgements:
This study was undertaken by Arup for Cities Alliance. The publication was funded by the Swedish International Development Agency (SIDA) and supported by the Federal Ministry for Economic Cooperation and Development of Germany (BMZ). Arup research team included the Team Leader, Pasquale Capizzi, senior researcher Kieran Birtill, and analysts Akshaya Kannan and Emily Graham.

The publication includes inputs from various practitioners working in the field, as well as Cities Alliance members. A special thanks to Cities Alliance Programme managers, as well as our members Slum/Shack Dwellers International (SDI), Women in Informal Employment - Globalizing and Organizing (WIEGO), International Institute for Environment and Development (IIED) and ICLEI - Local Governments for Sustainability.

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First published in 2021.
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Please cite this publication as:
Cities Alliance (2021): Building Climate Resilient and Sustainable Cities for All, Cities Alliance/UNOPS, Brussels.

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Photo: Joydeep Mukherjee / Climate Visuals Countdown

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Photo: Konrad Lembcke

FOREWORD

ADDRESSING CLIMATE CHANGE IN CITIES, FOR ALL

Climate change and informality are intertwined causes of urban poverty. The pandemic has once again exposed global society's inequalities and the fragile interconnectedness of our world. The saying "No one is safe until everyone is", often used in the context of vaccine acceptance, also applies to climate change and the kind of poverty and mass dislocation it is provoking.

Since its inception, Cities Alliance and its members have promoted an integrated and inclusive approach to the city in which building resilience for the urban poor is at the core. This publication highlights a wealth of knowledge and practice gained through our projects and initiatives over time. It also provides key evidence of the challenges and opportunities of tackling climate change and bolstering adaptation where it matters most: in urban informal settlements in rapidly urbanizing countries.

Billions of people around the world live in cities that face increased threats from hazards induced by changes in climate. By 2050, billions more urban dwellers will be exposed to the effects of climate change. This situation will amplify in the decades to come, as urbanisation – 90% of which is in the Global South – will continue.

Photo: Konrad Lembcke

The negative effects of climate change are exposing urban inequalities like never before. The over 1 billion people living in informal settlements disproportionately bear the brunt of climate change due to their exposure and physical, social, and economic vulnerability. Owing to the lack of access to basic public services informal communities often resort to unsustainable coping strategies. Over the long term, these activities increase vulnerabilities and negate urban mitigation efforts.

Addressing urban inequality and informality is thus a major way for building city resilience, unlocking mitigation potential, and making urbanisation sustainable for all. We now know that making the 1.5°C target limit, and thus avoiding catastrophic climate impacts, requires that urban and climate change programming become one and the same. Yet, poverty alleviation, slum upgrading, climate change, and infrastructure finance still occupy separate alleys.

There are massive opportunities to build climate resilience and unlock the mitigation potential of cities, by better linking climate and urban upgrade finance. This requires dialogue between urban and climate constituencies, as well as awareness of the opportunities that exist.

Citizens globally need to have a chance to adapt to climate change, including residents of informal settlements. This publication addresses ways in which informality intersects with climate change and identifies the key strategic focus areas that require urgent and concerted action if we hope to achieve the objectives of the global agendas.

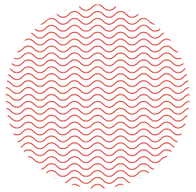
Cities Alliance has been supporting cities across Africa, Asia, and Latin America address informality, while building climate resilience and environmental sustainability for all. Twenty years on, this approach to integrated and inclusive urban governance and planning, to services and infrastructure upgrading, and to local economy development represent a unique body of knowledge, tools, and methods, made available to the global climate community through this publication.

Greg Munro
Director of Cities Alliance

THE URBAN POOR ARE MORE EXPOSED TO CLIMATE IMPACTS AS THEY ARE MORE LIKELY TO LIVE IN DISASTER PRONE AREAS. HERE A MAN BREAKS HIS HOUSE AND TRIES TO SALVAGE THE BRICKS. THE PLACE IS BEING WASHED AWAY BY THE RISING SEA IN SHARIATPUR, BANGLADESH.

Photo: Moniruzzaman Sazal / Climate Visuals Countdown

A Climate Emergency ...



CLIMATE CHANGE WILL AMPLIFY SUPPLY ISSUES FOR ALREADY STRETCHED URBAN SYSTEMS.

The ambient temperature is expected to rise by an additional 2°C in the most populated cities by 2050, while rainfall patterns will continue to vary greatly.

The associated effects of these changes include both extreme events and silent yet transformative processes. Natural hazard profiles will continue to increase, with more intense and frequent torrential rains and floods, heatwaves, droughts, and cyclones. The compound effect of destructive forces and transformative processes will shock and stress human health, urban ecological habitats and ecosystem services, and urban assets.[1]

With a global temperature rise of 2°C by 2050, at least 800 million people will be exposed to rising seas and storm surges.

This includes residents of some 570 cities across the world.[2]

Today, 255 million people in cities face extremely high levels of water stress. By 2030, 470 million people are expected to live in cities with extremely high water stress.[3]

Climate change is exacerbating the global water crisis, while revealing existing threats to urban water security, along with underlying issues related to poverty and gender, e.g., most (72%) of the water collection burden falls on women.[4]

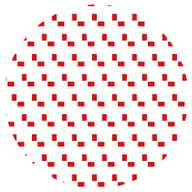
Many cities are unprepared to handle modest disruption in food, water, and energy supplies.

Climate change will amplify supply issues for already stretched urban systems.

In 2019, weather-related hazards triggered the displacement of about 25 million people in 140 countries.[5]

Without ambitious climate action, climate change could force the internal migration of 86 million across sub-Saharan Africa by 2050.[6]

... in an Urbanizing World



Today, 55.2% of the world's population lives in cities.

This number is expected to rise as more and more people flock to urban areas in search of opportunities and a better life. By 2050, almost 70% of the global population will be urban.[7]

Cities worldwide have contributed to a decrease in global poverty since the 1990s, but not everyone has gained equal access to socio-economic opportunities.

Poverty and inequality in cities still manifest spatially in informal settlements, while new forms of inequality emerge in the access to services and political representation.

More than 1 in 8 people, meaning 1 billion globally, live in informal settlements.

Of these, 80% live in three regions: Eastern and South-Eastern Asia (370 million), sub-Saharan Africa (238 million) and Central and Southern Asia (227 million).[8]

1 BILLION PEOPLE, GLOBALLY, LIVE IN INFORMAL SETTLEMENTS

Many informal settlements are in hazard-prone areas such as steep slopes and coastal and fluvial flood zones.

Increased climate-driven migration from rural to urban centres by those affected by natural disasters and climate stresses is further intensifying unplanned urbanisation.

The demand for land, decent shelter, transport, employment, energy, and social and environmental services has outstripped supply in many urban areas.

Internal social and environmental issues also exacerbate cities' vulnerability to external threats. An estimated 3 billion people will require adequate and affordable housing by 2030, with no significant options in sight.[9]

By 2050 more than 40% of the global population is projected to be living in secondary cities. Many will be living in informal conditions.

Secondary cities often have higher informality levels but lack sufficient attention and investment.

The informal economy accounts for 50% to 80% of urban employment in cities across the Global South.

This employment is characterized as vulnerable, where workers have no access to social protection, decent working conditions, or workers' rights.[10] In some countries, the urban informal economic sector is the economy.

The pace, magnitude and complexity of urbanisation trends have caught all levels of government and city practitioners largely unprepared.

The nature of modern urbanisation, compounded by mega-trends such as climate change, migration and economic turmoil, have rendered traditional planning and urban management approaches obsolete. The concept of urban resilience has emerged to enable local government and people in cities to apprehend complexity and deal with it.

ADDRESSING URBAN INEQUALITIES AND POVERTY CONTRIBUTE TO BUILDING CLIMATE RESILIENCE, UNLOCKING MITIGATION POTENTIAL, AND MAKING URBANISATION SUSTAINABLE FOR ALL CITIZENS. IN AFRICA, 80% OF JOBS ARE IN THE URBAN INFORMAL SECTOR.

Market in Kampala, Uganda.

Photo: @ Cities Alliance

INTER· SECTIONS

CLIMATE CHANGE AND URBAN INFORMALITY

CLIMATE CHANGE IMPACTS ARE NOT DISTRIBUTED EQUALLY GEOGRAPHICALLY, NOR ARE THEY SOCIALLY JUST. IMPACTS ARE HIGHER ON PEOPLE WHO LIVE IN INFORMAL SETTLEMENTS. AS A RESULT, THERE ARE UNIQUE CHALLENGES TO BUILDING RESILIENCE WHERE URBAN INFORMALITY AND CLIMATE CHANGE INTERSECT.

Informal settlements are often more exposed to climatic hazards

because of their location on unsafe land within cities. Informal settlements typically occupy land that is unsuitable for living, such as riparian areas, steep slopes, or low-lying coastal areas. Quite simply, these are locations where no one else wants to or can develop. The increasingly destructive forces induced by climate change, such as urban flooding, sea-level rise and water stress, will increase the exposure of perhaps billions of people in informal settlements in the future, as well as their risk of disaster-driven displacement.

Urban informal areas are more vulnerable to the negative effects of climate change because of physical conditions of service, trunk and basic infrastructure.

Typically, infrastructure in informal settlements lacks the capacity to withstand natural hazards or sustained stresses. Catastrophic failure of infrastructure results in disasters with loss of lives and assets. Inadequate service infrastructure, such as water and sanitation, also increases public health hazards.

The vulnerability of slum dwellers is compounded by multidimensional poverty.

A lack of secure land tenure, dependence on subsistence livelihoods, and costly and unreliable basic services all reduce the ability of slum dwellers to cope with the negative effects of climate change or to participate in practices such as investing in resistant housing, safe water, or building resiliency to bounce back after disasters.

Social exclusion and marginalization reduce the ability of slum dwellers to influence climate resilience investments that concern them.

Lack of representation of the urban poor in governance may also imply that climate resilience and mitigation plans are irrelevant or even hostile to their needs.

Local population pressure can lead to ad hoc measures that are unsustainable at scale.

Growing communities are often forced to develop spontaneous strategies, such as cutting fuelwood, encroaching on wetlands, or drilling boreholes. These strategies can negatively affect biodiversity and ecosystem services that, if left intact, can help to reduce vulnerability and build resilience to climate change.

There are also opportunities for building resilience in informal settlements, however, and a wealth of knowledge and potential waiting to be recognised and supported, especially where informality is the norm.

People in informal settlements are already resourceful.

In coping with shortcomings in service delivery and livelihoods, slum dwellers develop flexibility, e.g., adopting alternative technologies, urban agriculture and recycling. If acknowledged, cohered and supported, their bottom-up strategies may effectively complement wider urban climate action.

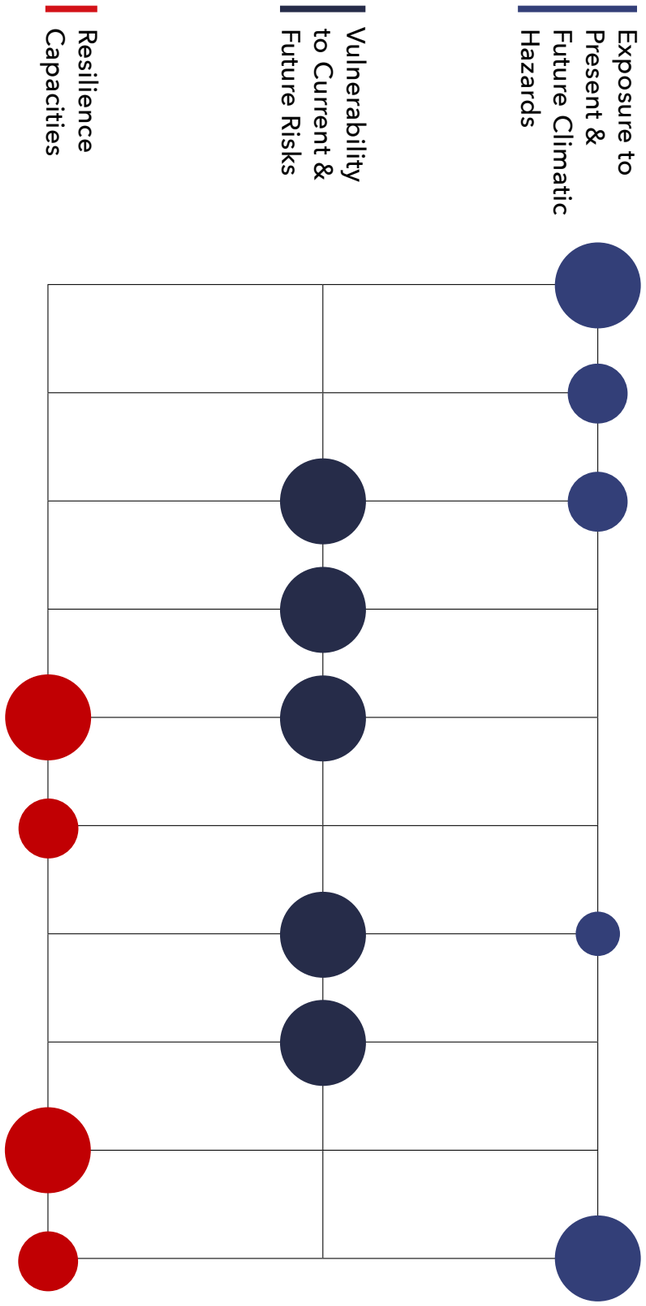
The informal economy presents an enormous opportunity for cities to build their climate resilience.

With the informal sector representing up to 90% of city-wide economy, there is a tremendous potential to unlock sustainable and innovative development.[11] Acknowledging the contributions of this sector will support a sustainable integration into the formal economy

Photo: Konrad Lembcke

CLIMATE CHANGE & URBAN INFORMALITY

This diagram illustrates how climate change interacts with urban informality. The size of the circles shows the significance of the nexus. However, each of these intersections can also be turned into opportunities.



Unplanned Urbanisation

Land Tenure Insecurity

Poor Social & Trunk Infrastructure

Poor Access to Basic Services

Multi-dimensional Poverty

Informal Livelihood Sources

Precarious Public Health Conditions

Lack of Formal and Decent Employment

Social and Political Marginalization

Knowledge and Education Gaps

All photos on this page: Molly Bergen/WCS, WWF, WRI

CLIMATE RESILIENCE

AND SUSTAINABILITY

Building urban climate resilience requires an integrated process to:

Reduce the vulnerability and increase the capacity of local services and infrastructure to protect, provide for and connect slum dwellers and citizens overall.

Reduce personal vulnerabilities and build people's capacity through resilient infrastructure and livelihood generation at scale.

Reduce the physical exposure of people and assets to growing climate-change- driven hazards.

Strengthen the governance of urban systems to effectively plan for growing climate resilience challenges, and involve all stakeholders in developing climate resilience solutions.

Generate innovative and synergetic financial streams that cut across sectoral boundaries to enable climate resilience for all.

In addition, achieving sustainable and low-carbon development also requires that cities to be able to:

Unlock the potential of the informal economy to support circular economies.

Maximize the low-carbon potential of community-driven solid waste management, alternative off-grid energy solutions and other low-carbon solutions.

Enable communities in informal settlements to be environmental stewards of their local areas.

To accomplish these outcomes, Cities Alliance emphasises three focus areas in which the highest impact can be achieved with our experience, approach and tools.

 # 1 ENHANCING BASIC SERVICES FOR CLIMATE RESILIENCE AND SUSTAINABILITY;

 # 2 BUILDING SAFE, RESILIENT INFRASTRUCTURE;

 # 3 PLANNING AND DESIGNING CITIES AND COMMUNITIES FOR RESILIENCE.

Photo: Konrad Lembcke

#1

ENHANCING BASIC SERVICES FOR CLIMATE RESILIENCE AND SUSTAINABILITY.

Resilient and sustainable urban communities rely on quality, safe and affordable basic services, such as water, sanitation, hygiene, and energy in cities. Conversely, their chronic or sudden disruption undermines resilience. In slums with poor or no access to basic services, climate change multiplies and heighten risks to safety, health, and livelihoods. For instance, chronically waste-clogged drainage channels in slums can result in destructive floods, while climate-induced water stresses can force slum dwellers into unsustainable strategies, such as drilling boreholes. With billions of slum dwellers at risk, investing in basic services is the single most impactful climate action area for building urban resilience.

Photo: @ Cities Alliance

WHY BASIC SERVICES FOR CLIMATE RESILIENCE?

- Investment in water, sanitation, hygiene, and energy enables billions of people in slums to build resilience. Slum upgrading improves infrastructure, finance, and management of affordable quality services.
- Safe, resilient, affordable water is vital in cities exposed to floods, droughts, and heatwaves. In slums, investments may prevent waterborne disease, add water security, and curb environmental damage.
- Effective sanitation and liquid and solid waste management are crucial to prevent destructive floods in unplanned areas and health hazards such as cholera.
- Decentralized renewable energy sources provide safer, reliable access, lower household costs and reduced emissions. They also help limit the overexploitation of resources such as fuelwood.
- Slum upgrading protects ecosystems from overexploitation. An ecosystem's natural function s can be harnessed for regulating hazards (e.g., stormwater catchment) and to supply resources sustainably (e.g., water).
- Opportunities exist for circular and informal urban economies in community service provision. This can enhance households' ability to cope with adverse climatic events.
- While needs are clear, there is no global concerted climate action on basic services for the poor. Urgent action is needed.

OUR EXPERIENCE

- Since 1999, Cities Alliance, through its grant- making and due to its strong membership framework, has enabled millions of slum dwellers in cities across Africa, Asia and Latin-America to adapt to climate change through affordable, safe and quality services. We focus on increasing the physical and financial resilience of communities through the provision of reliable and affordable services, i.e., water, sanitation, energy, solid waste management and housing.
- The Cities Alliance Community Upgrading Fund (CUF) provides financing for small infrastructure projects selected by the communities, helping residents with tangible outputs while longer-term objectives are achieved. The CUF programme has benefitted over 1 million people. Our programmes in Uganda, Burkina Faso, Ghana, Liberia and Vietnam have delivered 190+ community infrastructure projects.
- In Monrovia and Paynesville, Liberia, which are exposed to floods, heatwaves, and sea-level rise, our work includes an ongoing CUF community water project that benefits about 190,000 people.
- In Bwaise, Uganda, we enabled 1000 households to improve their solid waste management capacity, which is key to preventing floods and related health hazards driven by erratic rainfall.
- In Brazil, Cities Alliance in partnership with its members, provided technical assistance to the government on large-scale projects on slum upgrading, providing 2.2 million housing units and enhancing climate resilience for the urban poor.

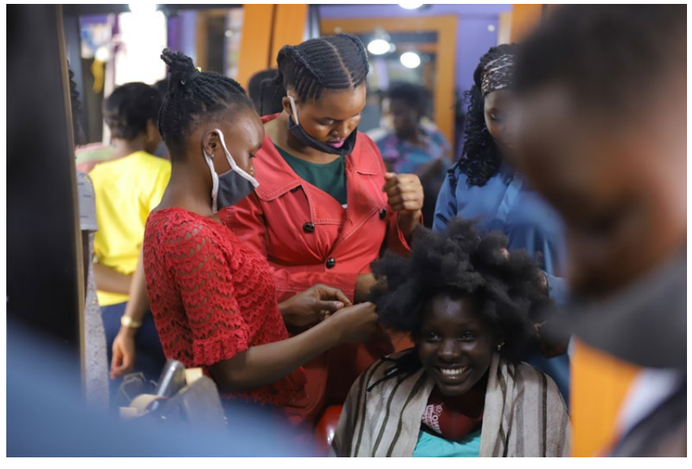


Photo: @ Cities Alliance

WHAT DO WE DO?

Cities Alliance is enabling the provision of enhanced basic services by mobilizing all actors in this process. We identify finance and financial mechanisms, foster strategic planning in policy and design, and deliver physical upgrading and capacity building for improved supply through the following:

- Strategic planning with local governments ensuring involvement of local communities.
- Generation of data for demand-driven supply, e.g., feasibility studies for basic service provision and willingness/ability-to- pay pricing. This includes slum enumeration schemes, filling data gaps and adding risk mapping in settlement profiles.
- Identification of climate change constraints for basic service delivery, through climate risk assessments specific to basic services.
- Participatory physical planning and design of water, sanitation, solid waste management and energy infrastructure and delivery mechanisms.
- Deployment of renewable off-grid, mini/micro-grid services in slums, e.g., renewable (roof-mounted solar) energy generation, storage, and distribution.

Photo: @ UNOPS

Photo: @ Cities Alliance

- Procurement and construction of infrastructure and facilities, including solid waste management equipment for primary collection, water distribution infrastructure, water kiosks, biofuel toilets, waste collection points and sustainable cooking facilities.
- Establishment of operational mechanisms for utility, community-driven or mixed operational settings, including financial mechanisms to generate livelihoods through community-driven service delivery.
- Capacity-building of technical personnel in local government for improved service delivery, e.g., circular economy approach.
- Economic empowerment, e.g., establishment of community-based enterprises for solid waste management.
- Scaling-up of local basic service provision/upgrading into city and national policy.

We also help communities work toward better and more sustainable use of services through education, awareness, and income generation through:

Creation of cooperation platforms for improved dialogue and engagement between communities and governments.

Establishment of pricing strategies that ensure affordability of services, in cooperation with local governments and communities.

Community education and awareness- raising activities on climate change, environment, and basic service management, including waste sorting and recycling, household heat mitigation techniques and water management.

Photo: Rebecca Merrill, Global Border Health Team, NCEZID

WHAT DO WE ACHIEVE?

The actions of Cities Alliance and partners, in partnership with local communities and local governments, lead to improved access to affordable quality and resilient services that are critical to enabling slum dwellers as well as cities overall to better cope with changing climatic conditions.

Our programmes facilitate increased and improved physical services, while also increasing the knowledge and capacity of slum residents to personally cope with the effects of climate change and work with local government in a longer-term relationship for building climate resilience.

WHY CITIES ALLIANCE?

Cities Alliance and partners are unique in both our level of involvement and our participatory approach to working with slum communities to improve their basic services.

Our approach, proven over 20 years globally, makes Cities Alliance uniquely placed for leading urgent climate action to deliver basic services for all.

OUR STRATEGIC FOCUS

Cities Alliances is committed to the following key areas connected to basic services for strengthening climate resilience:

- Improving basic service provision in informal settlements, particularly for those vulnerable to climate change, with a focus on water, sanitation, solid waste management and energy for the urban poor.
- Working with the urban poor to better understand their relationship to the natural environment and the importance of nature-based solutions in the fight against and the preparation for a changing climate.
- Leading global climate action on basic service provision.
- Advancing the renewable agenda in informal settlements to contribute to resilience and the Race to Zero.
- Supporting civil society and social innovators through seed funding, capacity building, networking, and international visibility.

Photo: @ Cities Alliance

#2

BUILDING SAFE, RESILIENT INFRASTRUCTURE

Infrastructure is the backbone of city resilience. Conversely, inadequate, insufficient, or unsafe infrastructure can expose communities to higher risks of sudden disasters or fail to benefit the most vulnerable people. Large-scale infrastructure projects near informal settlements can even worsen the conditions of inhabitants when failing to consider their needs. It is vital that infrastructure increases the resilience of communities by protecting them, providing for them, or increasing their connectivity locally. This can be done by designing everyone's needs into investments, bridging the chronic infrastructure gap in informal settlements, and safeguarding people from potential negative impacts of large infrastructure. The current and growing estimated global gap of US$ 3.5 trillion[12] for infrastructure can be the opportunity to benefit everyone and build resilience at an unprecedented scale in the process, while advocating for a low emission pathway through the usage of sustainable construction materials.

Photo: Sisi ni Amani / ArtistsActivists

WHY INFRASTRUCTURE FOR CLIMATE RESILIENCE?

- Climate resilient infrastructure provides, protects and connects communities. It makes people safer and enables socio- economic development. Conversely, a lack of inclusive and resilient design can result in catastrophic failure and marginalization.
- Informal settlements suffer chronic infrastructure underinvestment, which hampers development and puts millions of people at daily risk from climate change. Even large projects for cities may negatively affect people in slums when they fail to consider environmental and social impact.
- Climate change requires that infrastructure projects are designed to help communities adapt to and withstand increased hazards. Well-designed, climate-proof infrastructure in slums can save lives and unlock economic opportunities.
- Nature-based solutions that involve slum dwellers in design, decision-making and stewardship, for instance, protecting mangroves and wetlands for flood protection, are viable for climate resilience.
- Climate funds are modest compared to needs and the estimated US$ 3.5 trillion gap in infrastructure relevant to SDGs*. Sectoral infrastructure must be made climate resilient and to work for everyone, including the poor.

*G20 Initiative: "Forecasting infrastructure investment needs and gaps". The survey refers only 56 countries, which may imply an even larger gap.

Photo: Allison Kwesell / World Bank Photo Collection

OUR EXPERIENCE

In addition to our work in improving basic services, Cities Alliance engages in larger projects worldwide, including major trunk infrastructure, and enables direct leveraging of infrastructure investments. We ensure that infrastructure finance goes to the right places, and we safeguard the rights of local communities affected by infrastructure projects:

- Through housing support centres, we provide access for cities and communities to technical advisory and financial services on sustainable housing construction and upgrading; provide training, creating value chains with local SMEs; and support the provision of affordable, resilient, and quality building materials.
- In Kampala, Uganda, we are leading a consortium of government and civil society stakeholders in a social safeguards project. The project aims to facilitate the responsible relocation of communities and support community-led rehabilitation of the local wetland area.
- Since 2009, US$ 31 million in technical assistance by Cities Alliance leveraged further investments in urban development of $1.7 billion.
- In India, we financed the Community Led Infrastructure Financing Facility (CLIFF), which by end of 2004 had supported 9 housing projects benefiting more than 2,700 families and 2 sanitation programs benefiting 215,000 families.

WHAT DO WE DO?

Short and long-term infrastructure programming is required to build climate resilience in informal settlements. In some circumstances it may be necessary to add a network of discrete (in cases multi-functional) infrastructure to improve conditions short- term, but such interventions need to be combined with longer-term spatial plans and policies. As part of our integrated programmes, Cities Alliance undertakes both short and long-term interventions, such as the following:

- Safeguarding of communities facing relocation and/or other negative impacts from major infrastructure projects.
- Delivery of a network of decentralized infrastructure in local informal communities.
- Creating mechanisms for the upscaling of catalytic infrastructure investment for larger impact. Small-scale infrastructure interventions are scaled through pre- feasibility assessments and the mobilization of follow-up investment.
- Advocacy of large-scale infrastructure investment which supports the urban poor in building their climate resilience.
- Training local teams to the United Nations Office for Project Services (UNOPS) safeguards standards in basic infrastructure construction, generating safe and sustainable practices.

Photo: @ Cities Alliance

OUR STRATEGIC FOCUS

Cities Alliances is committed to the following key areas connected to building safe, resilient infrastructure for all:

- Continuing to safeguard and promote the needs of the urban poor through major infrastructure projects for increased climate resilience.
- Increasing the provision and affordability of infrastructure at the community level, fostering and promoting local innovation and participatory delivery.
- Increasing the focus on building climate resilience of existing and new infrastructure through improved design and delivery.
- Promoting the increased delivery of low carbon, renewable infrastructure as part of wider city climate-change mitigation efforts.
- Increasing the availability of finance for infrastructure for communities and in informal settlements

WHAT DO WE ACHIEVE?

- Our programmes ensure that the large infrastructure projects are inclusive and do not diminish the climate resilience of the urban poor, but rather build their capacity to manage climate shocks and stresses.
- We also contribute to improved living standards and personal climate resilience through small-scale infrastructure interventions, through the Community Upgrading Fund.

WHY CITIES ALLIANCE?

The Cities Alliance Secretariat is hosted by UNOPS, which enables us to deliver our mandate through customized grants, local procurement, and targeted advisory services. The mission of UNOPS is to serve people in need by expanding the ability of the UN, governments, and other partners to manage projects, infrastructure and procurement operations in a sustainable and efficient manner in some of the world's most challenging environments.

We are therefore uniquely placed to advocate and ensure that infrastructure is delivered where it matters most: helping local and national governments to engage with communities for developing inclusive, climate-resilient infrastructure investments.

Photo: Molly Bergen / WCS, WWF, WRI

Photo: UN Women / Ryan Brown

#3

PLANNING AND DESIGNING CITIES AND COMMUNITIES FOR RESILIENCE

Where and how people settle is a defining issue within a changing climate that is increasing risks of disasters for billions of people. The underlying causes of informal settlements include a mix of economic, historic, land-tenure, and poverty issues. Almost always, these issues are underpinned by the lack of spatial city growth strategies and ineffective land-use planning, which place or keep the poor in areas most at risk from natural hazards. The making or breaking of climate action depends on the ability of cities to show spatial leadership and inclusive, climate-responsive land-use planning. Only through good urban planning and design can cities avoid, prevent, and protect everyone from risks, especially the most vulnerable.

All photos on this page: @ Cities Alliance

WHY PLANNING FOR CLIMATE RESILIENCE?

- Climate change is a defining challenge for cities that struggle to plan for coping with fast-paced development, manage resources and deliver services. Yet, city strategic spatial and land-use planning informed by climate data and involving all city actors are crucial to avoid, prevent, reduce, and mitigate risks for all. Effective planning and intelligent urban design reduce exposure and identify critical infrastructure and services required for resilience. However, in many cities management is often unresponsive, and neglects the poorer parts of the city.

- In the face of rapid urban growth, the lack of city-wide strategies, land-use plans, markets, and a functioning land administration system often results in household formations and migrants seeking out unplanned land to settle informally.

- Informal settlements are highly exposed and unsuitable for habitation or require significant support to lower vulnerability to natural hazards. As the intensity and frequency of hazards increases, informal settlements globally are ever more at risk.

- Overall resilience of a city is only as strong as its weakest link. The urban poor are at the frontline of climate change; thus, integrated policies of urban planning and management must be centred around local climate risks and consider the urban poor.

Photo: Land Rover Our Planet

OUR EXPERIENCE

- Cities Alliance has 20 years of experience in enabling good urban planning and design, building climate resilience to the benefit of everyone in cities. Our experience spans national urban policies, strategic city planning and local land-use and zoning:

- With our assistance, the governments of Ghana, Uganda and Vietnam have prepared National Urban Policies (NUPs). The Cities Alliance, UN-Habitat and OECD created the National Urban Policy Programme supporting development and implementation of NUPs globally.

- We have facilitated City Development Strategies (CDS), an action-oriented process, developed and sustained through participation, to promote equitable growth in cities and their surrounding regions for more than 140 municipalities globally.

- Cities Alliance has supported local capacity for over 4,800 local government staff in Ghana, Uganda, and Vietnam.

- In Accra, Ghana, we promoted improved cross-boundary working between 13 municipalities who previously worked within defined boundaries and lacked coordination. In Greater Monrovia, Liberia, Cities Alliance worked with municipalities of Monrovia and Paynesville that were previously similarly uncoordinated.

Photo: @ Cities Alliance

- In Agra, India, Cities Alliance supported the mapping of 378 slums, providing accurate data on Agra's informal settlements for use in comprehensive city planning.

Photo: Sustainable Sanitation Alliance

WHAT DO WE DO?

Addressing exposure to climate change requires the ability to understand and work at national, city and community scales, with all actors. Cities Alliance facilitates participatory processes ensuring that local hazard exposure and vulnerabilities in climate- change prone areas are understood by planners and communities alike, with delivered solutions appropriate to local context. We provide specific technical planning support, as well as wider institutional support, as follows:

- Technical assistance to help cities prepare city development strategies workshops to define a strategic vision, SWOT analysis, local awareness raising of CDS activity, and the development of an implementation strategy.
- Hazard risk mapping at community and city scales.
- Participatory land-use planning in slums.
- Improving wider socio-demographic data collection capacity at both city and community scales, to inform planning.
- Technical training for spatial planning, including environmental and climatic risks.
- Integrating formal, informal, and customary land rights by supporting authorities and communities to engage in planning dialogue for access to infrastructure and services and to improve land access and records
- Arranging multi-stakeholder platforms for city planning. In places, Municipal Development Forums, which were designed to bring all stakeholders into the urban development process, have been made statutory bodies.
- Supporting the creation of National Urban Policy Programmes.
- Advocacy work to raise the profile of secure funding for and build capacity of secondary cities.
- Creating city networks for knowledge sharing and urban development.
- Providing strategic support to organisations and institutions that work with and for cities on the ground.
- Developing the Cities for Women Framework as a first step to help local stakeholders gain an understanding of the current engagement of women in the various dimensions of their environments. The framework allows for participatory processes whereby women can be active participants for improvement of their cities.

Photo: Nazarene Missions International

Photo: Cameron Zohoori

WHAT DO WE ACHIEVE?

The work of Cities Alliance and partners leads to improved planning with greater participation of local communities, including slum dwellers, and improved dialogue with local authorities. This work contributes to reducing exposure and vulnerability of slum communities to the threat of climate hazards.

WHY CITIES ALLIANCE?

All global climate actors converge on the need for climate-resilient urban planning and design. Cities Alliance can leverage its 20 years of experience in urban strategic and land-use planning and urban design, from national to community levels. Strong, unparalleled experience in integrated and multi-actor city planning is instrumental to deliver City Climate Resilience and Sustainability Strategies and Action Plans.

The new generation of CDS are widely informed by climate change and can be leveraged to develop practicable action with high buy-in of national and local governments, slum dwellers, and the private sector alike.

OUR STRATEGIC FOCUS

Cities Alliances is committed to the following key areas connected to planning and designing cities and communities for resilience:

- Building upon existing planning processes with an increased focus on climate resilience.
- Continuing to support participatory land-use planning in informal settlements.
- Continuing to improve city planning capacity, including coordination across layers of governance and between municipalities.
- Supporting risk mapping and climate risk data collection across the cities, including in slums.
- Promoting the participation of women, children and other vulnerable groups in resilience planning processes.
- Enabling local governments to raise municipal finance to leverage the full potential of devolved powers.
- Continuing to build planning capacity of secondary cities for climate resilience.
- Supporting countries to integrate urban and climate action policies.

DUE TO RIVER CORROSION, WATER EROSION, HUNDREDS AND THOUSANDS OF PEOPLE LOSE THEIR HOMES AND AGRICULTURAL LANDS EVERY YEAR. HERE TWO CHILDREN STAND ON A FLOODED RIVERBANK, IN THE BHOLA REGION, IN BANGLADESH.

Photo: Moniruzzaman Sazal / Climate Visuals Countdown

CLIMATE VULNERABILITY:

GENDER, YOUTH AND MINORITY GROUPS

OUR FOCUS ON GENDER AND YOUTH IS A STRENGTH, BUT MORE WORK CAN BE DONE WITH CITIES AND PARTNERS TO DEVELOP PROGRAMS THAT IMPROVE THE CLIMATE RESILIENCE OF THE MOST VULNERABLE.

Climate change disproportionately affects women and those in women-led households in urban informal settlements, who experience negative effects in specific ways:

- A lack of independent economic opportunities for women in informal settlements means higher vulnerability to the effects of climate change. Because they control fewer economic resources, women have less capacity to cope in the event of disasters or climate-induced stresses, or to recover from climate-induced events or pandemics. These events also disrupt informal livelihood sources, further affecting women's economic autonomy.
- In many communities, the responsibility for the recovery of property following shocks (e.g., flooding) falls mainly on women. Also, as primary caregivers, women's coping capacities are further stressed, meaning that their need for climate-resilient services extends beyond themselves.
- Women's dependency on services such as safe sanitation and their role in providing basic services expose them further. Women may be left with higher-risk alternatives, e.g., unsafe public restrooms.[13]
- Women often experience inequalities in access to resources, including bank lending, training opportunities, information, and technology, which limit their abilities in climate change adaptation. It can also be hard to organize around the constraints of women's work if their work patterns are atomized. Well-considered approaches to building climate resilience are needed.

Considerations of gender and vulnerability are at the forefront of Cities Alliance work in building climate resilience in slums:

- Municipalities and partners need gender- responsive programs that improve the climate resilience of the most vulnerable. In Kampala, Uganda, our "Cities for Women" programme developed and applied a tool to increase the engagement of girls and women in urban planning.
- Cities Alliance has developed a guidance note for development practitioners on "Realizing Gender Equality in Cities." This provides a simple but holistic framework for gender mainstreaming in cities.
- We support gender-focused basic services. In Paynesville, Liberia, for example, water kiosks are designed and built with women, based on a women's needs assessment and engagement process.
- Climate risk awareness raising for disadvantaged groups is important. In Yangon, Myanmar, we supported the Women for the World organisation in efforts to raise awareness of the on-ground impacts of extreme heat on the urban poor and to create community-based proposals for heat mitigation.
- Savings groups, often established by women and with majority female membership, are particularly important for increasing the personal resilience of women in informal settlements. Our Country Programmes mobilized over 609 community savings groups across Ghana, Uganda, Liberia and Vietnam.

Other vulnerable groups include youth and children, those with disabilities, and minority groups (e.g., minority ethnic groups, refugees, and migrants) who may find it harder to access support for building climate resilience.

Photo: Konrad Lembcke

BRIDGING THE NEXUS:

THE CITIES ALLIANCE

By 2050, billions more urban dwellers will be left struggling to cope with the impacts of climate hazards, with impacts felt well beyond the confines of urban slums—that is, unless drastic action is taken to improve the resilience of the urban poor and slum dwellers.

Such action will require the partnership of Cities Alliance members, including UN agencies, multi-lateral organisations, bi-lateral agencies, knowledge partners, municipalities and local informal communities and their representative organisations. New support will also be needed including from major climate change actors and funding mechanisms and new private actors.

APPROACH

Photo: Konrad Lembcke

The Cities Alliance approach for building climate resilience is summarized in eight key points:

1 Connecting actors for climate-resilience action across scales:

The unique nature of the Cities Alliance partnership enables us to bring together national governments, municipal decision makers and organisations of the urban poor and act as the honest broker to facilitate partnerships at global, national and local levels.

2 Empowering communities to adapt to climate change:

The empowerment of the most vulnerable is at the centre of our agenda, in particular creating agency for women, children and minority groups. Slum dwellers are both most affected by climate change and most in need of a voice. We not only provide a platform, but also a chance for poor people to shape their own development through a participatory approach, fostering local innovation and linking climate resilience to local livelihoods.

3 Long-term support:

Our Country Programmes are designed and delivered over many years. This long-term approach is vital to developing trusted and true relationships with community and local governments for engagement, capacity building and real, sustainable progress.

4 Enabling local and national governments to work together across different sectors:

We work with local governments to break silos, promote shared understanding of informality and an approach to planning that delivers positive change for all.

5 Promoting an integrated, holistic, gender-sensitive approach to the provision of services:

We address the whole cycle in service delivery, with detailed needs assessment, inclusive design and delivery alongside communities; livelihoods integration; and long-term technical, financial and operational sustainability and upscaling.

6 Advocating that addressing poverty and informality is central to building climate resilience:

It is imperative that the climate change agenda is for everyone, including women, girls and disadvantaged communities. We bring urgent attention and credibility to the urban-informality-climate resilience nexus, engaging key climate actors through platforms like COP and IPCC.

7 Ensuring that finance, including climate finance goes to the right places:

International finance typically favours large projects and often doesn't reach local resilience strategies. Even if climate funds do reach sub-national levels, slum upgrading is often not seen as a local government priority. We promote the urgent need for intermediary funding mechanisms for climate action in slums.

8 Developing evidence for local climate action:

Climate-resilient upgrading must be built on wrobust socio-demographic and climate data. We work with partners like SDI to collect local data, build data collection capacity, and develop climate risk awareness in slums and cities overall.

Photo: @ Cities Alliance

IMPROVING THE ABILITY OF THE URBAN POOR TO COPE WITH CLIMATE CHANGE BUILDS CITY RESILIENCE AT THE GLOBAL SCALE.

According to the fifth Assessment Report of the Inter-Governmental Panel on Climate Change (IPCC)[14], 2.5 billion people live in urban areas that have limited capacity to adapt to climate change and lack climate resilience.

More than 1 billion people in informal settlements are extremely vulnerable to natural hazards, compounded by climate change. Their vulnerability is high because of poor socio-economic, environmental and infrastructure conditions. The result is unacceptable levels of climate risks for the urban poor, at a massive scale.

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CITIES WITHOUT SLUMS