

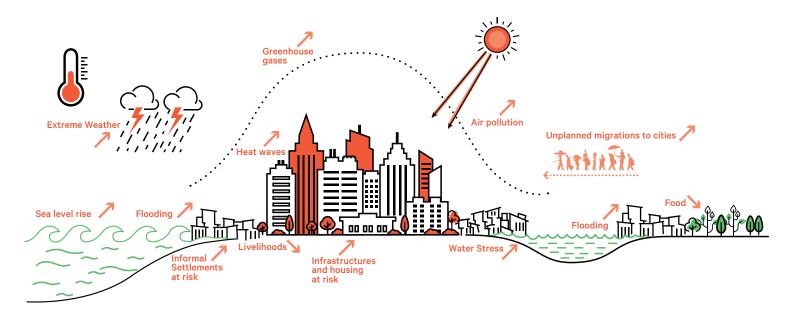
### **@UNHABITAT**

### **Our Climate Action**

The city we need is one that limits global warming to 1.5°C to avoid the future we do not want.

Limiting global warming to 1.5°C will require far reaching transitions in cities in the coming two decades.

Our responsibility is to support urban climate action in every country, city and community.











### We help deliver on the Paris Agreement and the Nationally Determined Contributions in the context of the New Urban Agenda and the Sustainable Development Goals.



### The 2030 Develop ment Agenda

We help deliver the 2030 Development Agenda, particularly SDG11: Sustainable Cities and Communities. Without action on climate change, attainment of the SDG's will become impossible.



### **The Paris Agreement**

Cities and subnational authorities as non-party stakeholders are explicitly invited to scale up efforts to reduce emissions and adapt to climate change.



### The Sendai Framework 2015-30

We address the Sendai framework priorities for action such as enhancing disaster preparedness for effective response and "Build Back Better" in recovery, rehabilitation and reconstruction.



#### The New Urban Agenda

We commit to integrate climate change adaptation and mitigation considerations into urban and territorial development and planning processes by 2036.

### Pursuing the 1.5°C limit | How cities can help get the climate right

Cities are one of the cornerstones in our quest to limit warming to 1.5°C, an absolutely critical threshold to avoid the future we don't want. In order to limit warming to 1.5°C, we must reduce GHG emissions by 40 to 50% before 2030 from 2010 levels. This will require bold and ambitious efforts and changes in the way we plan, design, build and manage cities.

**Scale matters.** Cities will be hardest hit by floods, landslides, extreme heat or water stress affecting large populations. Climate action needs to be ambitious as cities grow at a fast pace in some regions. The urban population is increasing by 1.3 million people, the population of Copenhagen, or Kampala every week. There is no time to waste given the scale and speed of this transition.

**Starting with the poor.** Because climate change is a poverty multiplier, we need to start with the climate refugees and other marginalized groups who have already experienced disasters. We also need to prepare the most vulnerable communities and make them resilient to upcoming risks.

### Cities are where global and local priorities intersect.

Introducing a low carbon city mobility plan not only cuts future emissions, but also brings new jobs to communities while improving lifestyles and health.

### Cities and communities are where joint climate action starts,

learning to live and build a sustainable future differently together, coping with the rapid changes to move towards a low carbon fossil-free future. We need to find ways to mitigate and adapt fast in order to cope with the pace of urbanization.

**Planning differently.** Cities need to take steps to address climate change by promoting climate-proof planning, assessing local vulnerabilities, setting emissions reductions targets, and outlining strategies and regulations to cut emissions and improve adaptation through innovative urban design and mobility plans.

**Building differently.** GHG emissions from buildings represent approximately one quarter of total global emissions. In order to remain under the 1.5°C threshold, emissions from buildings must be reduced by 80 to 90 % by 2050. This requires retrofitting 5% of all buildings in developed countries every year from 2020, and ensuring new urban construction becomes fossil fuel free, along with efficient, compact urban design.

Managing differently. We have already begun a great transition towards sustainable living, valuing preservation and resource optimization. A more proactive approach is needed through harnessing effective solutions and engaging all stakeholders to ensure resources are minimized and fully reutilized, by generating clean and resource-efficient energy, decarbonizing the electric grid and enabling the next-generation mobility.

UN-Habitat supports transformative actions in countries, regions, cities and communities in order to limit global warming to 1.5°C. UN-Habitat helps partners to develop robust adaptation and mitigation plans and strategies to prepare human settlements to withstand climatic extremes, through multi-level and pro-poor approaches. Ambitious climate action is embedded at all levels in our work to help accelerate transformation well before 2030.

### What cities are likely to experience

Global warming is likely to reach 1.5°C between 2030 and 2052, and approximately 3°C in 2100 based on current national government commitments. This will have disastrous impacts on cities. In their last report on the impact of a 1.5°C change IPCC scientists warned that "Every half degree increase in temperature will matter".

#### **Extreme Weather**

Risks of heavy precipitations, storms, hurricanes and floods are projected to be higher at 2°C compared to 1.5°C global warming. Robust adaptation will be needed in light of climate change.

#### **Heat Waves**

Extremely hot days will become more severe and common, leading to detrimental health impacts. With a 1.5°C increase, 14% of the global population will be exposed to severe heat every 5 years. With a 2°C increase, 37% of the global population will be exposed and at least twice as many megacities could become heat stressed leaving more than 350 million people vulnerable to deadly heat by 2050.

### **Water Stress**

In vulnerable regions, the amount of freshwater in rivers, lakes and aquifers is likely to decrease directly affecting cities. With a 1.5°C increase, 350 million people will be exposed to severe drought, and with a 2°C increase 410 million people will be affected.

### **Flooding**

With a 1.5°C increase, 69 million people will be affected by sea level rise. With a 2°C increase, 79 million people will be affected. At least 136 megacities will be affected by floods in the next two decades.

### Air pollution

Around 7 million people worldwide die prematurely each year from air pollution related diseases. Keeping warming below 1.5°C is impossible without reducing short-lived climate pollutants, that can also prevent 2.5 million premature deaths from air pollution each year.

### **Declining food supply**

Agricultural yields are likely to fall rapidly as temperatures rise from 1.5°C to 2°C. Tropical regions will be more affected, with up to 45% reduction at 1.5°C increase and 65% reduction at 2°C in West Africa alone.

### Informal Settlements at risk

Limiting global warming to 1.5°C could increase the number of people both exposed to climate-related risks and susceptible to poverty by up to several hundred million by 2050. Those living in informal settlements - currently 1 in 7 of the world's population – will be increasingly and particularly affected.

#### Livelihoods

Livelihoods will be under threat in urban and rural areas in both developed and developing countries. The impacts of 1.5°C could disproportionately affect disadvantaged and vulnerable populations through lost livelihood opportunities.

### Housing at risk

A 2°C warming will exacerbate property loss and the vulnerability of dwellings located on areas prone to landslides and erosion. Housing market shifts will affect access and affordability.

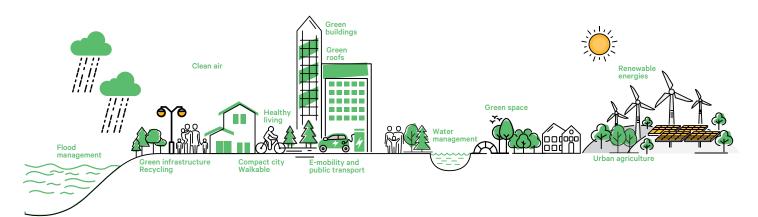
#### Infrastructure at risk

Extreme weather episodes will take a heavy toll on urban infrastructure affecting mobility and access to basic services. Installing robust infrastructure will require huge investments. Estimates of the net value of low-carbon investments in cities are as high as \$16.6 trillion by 2050.

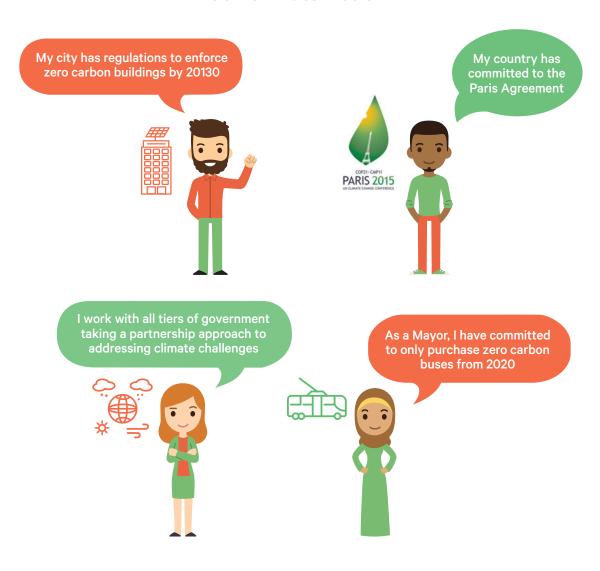
### **Unplanned Migration to cities**

Extreme weather, flooding, heat and water stress will cause unprepared migration to cities to likely increase. 60% of global refugees are already hosted in cities. The flow of new migrants in already stressed cities will add to the complexities of urban planning, management and governance.

### The city we need is one that is Resilient to Climate Change



### **Our Climate Action**



# Climate-proof urban and regional planning

We work at every level to use urban and regional planning to reduce greenhouse gas emissions and build climate resilience. Planning is one of the most important tools we have, to ensure liveable and sustainable cities and regions.

### **Our Activities**

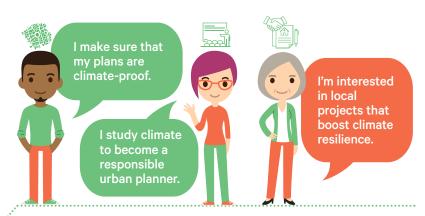
The Cities and Climate Change Initiative (CCCI) seeks to enhance the preparedness and mitigation activities of cities in developing countries. It emphasizes good governance, responsibility, leadership, and practical initiatives for local governments, communities, and citizens. Building on UN-Habitat's long experience in sustainable urban development, the initiative helps counterparts to develop and implement pro-poor and innovative climate change policies and strategies, and to get priority climate investments financed. It also helps national governments introduce climate change into National Urban Policies, aligning city-level work with national plans to address climate change. Tools include the 'Guiding Principles for City Climate Action Planning', a series of benchmarks for action planning in cities, based on international evidence and best practices.

Partners: Government of Sweden, ICLEI, IIED, RECNET, Carbon Footprint, UCLG, The World Bank, WRI.

### **Promoting Low Emissions Urban Development Strategies**

Through the Urban-LEDS project, local governments develop comprehensive Urban Low Emissions Development Strategies, create integrated climate action plans aligned with the Global Covenant of Mayors framework, and implement policies, programs and projects. Urban-LEDS strengthens cooperation and information sharing across all levels of government, positioning them to jointly plan, advance, track and deliver on global climate and sustainability goals. UN-Habitat and ICLEI work together on Urban-LEDS in more than 60 cities worldwide.

Partners: ICLEI, EU



Through Planners for Climate Action (P4CA), UN-Habitat engages planning professionals around the world in climate action, promoting climate into urban planning practice and education, through capacity-building, research and advocacy. UN-Habitat also develops tools for planners that are used on the ground in projects at the city level.



### Why climate-proof planning is essential for a sustainable future

Cities are growing fast and climate related risks will affect large numbers of people

- About 4.2 billion people currently live in urban areas. That is 9 times more than it was 100 years ago.
- The urban population will rise to nearly 5 billion people by 2030, when three out of five people will live in cities.
- A growing proportion of the world's population will be exposed to the direct impacts of climate change.
- From flooding to infrastructure collapse, deadly heat waves to uncontrolled migration, the range of shocks and stresses faced by growing cities are new and amplified to different scales and levels in different parts of the world.
- Over 90% of urban areas are coastal, putting most cities on Earth at risk of flooding from rising sea levels and powerful storms. If no mitigating steps are taken, coastal flooding will cause damage totalling \$1 trillion annually by the year 2050 (IPCC, 2014).

#### Cities sprawl, consume and contribute to GHG

- Though cities around the world represent 0.5% of the total global land area, they are major contributors to the global ecological footprint.
- Cities contribute to 37-49% of global CO<sub>2</sub> emissions, a phenomenal impact from such a small proportion of the globe.
- Urban land cover will increase by 1.2 million km² by 2030, nearly tripling global urban land area between 2000 and 2030, if current trends continue. This means a considerable loss of biodiversity destroying the green infrastructure that is key in helping areas adapt to climate change impacts. Population and assets will be increasingly exposed to higher risk levels.
- By 2030, the world is projected to have 43 megacities with more than 10 million inhabitants, most of them in developing regions. Also, their large spatial extent is expected to have significant impacts in terms of CO<sub>2</sub> emissions and on the local and regional energy balance, weather and climate.
- In most developing counties, rapid urbanization has resulted in an explosion of massive, sprawling, relatively low-density urban settlements. But rising oil prices and carbon constraints make urban sprawl increasingly untenable in terms of infrastructures, energy cost and mobility.

### **Developing and Financing City Climate Action Plans**

UN-Habitat supports cities in the elaboration and implementation of Climate Action Plans with the primary objectives to reduce their carbon footprint and improve their resilience to the impacts of climate change. UN-Habitat also helps cities identifying high-priority climate investments; prepare roadmaps for pre-feasibility and feasibility projects towards optimal project design in order to mobilize funds. It builds on the Compact of Mayors, focusing on committed Least Developed Countries. It is also linked to the 'Guiding Principles for City Climate Action Planning' (see below) which is tested in pilot cities under this initiative and the Cities Climate Finance Leadership Alliance that support the testing of innovative financing approaches in developing countries.

Partners: Government of Sweden, ICLEI Africa

#### **City Resilience Profiling Programme**

The City Resilience Profiling Programme (CRPP) provides national and local governments with tools for measuring, diagnosing and increasing resilience to multi-hazard impacts, including those associated with climate change. Working through partnerships with institutions and donors such as UNISDR, EC DG DEVCO, academic and research institutes, private sector actors, and NGOs, the CRPP has developed a comprehensive and integrated urban planning and management approach for profiling and monitoring the resilience of any city to all plausible hazards. The CRPP methodology is a multi-hazard, multi-stakeholder and multi-sectoral approach to urban resilience that considers the complexities of urban systems providing not only recommendations for action.

Key Partners: UNISDR, EC DG DEVCO

### **Urban Planning and Design Lab**

The Urban Planning and Design Lab (UPD-LAB) has been conceived to promptly respond to the requests of national and local governments to support sustainable urban development. It acts as the integrative facility of UN-Habitat in which spatial planning is used as the tool towards concrete and implementable projects. The LAB focuses on: citywide strategies; planned city extensions and new towns; urban infill, densification and renewal; planning guidelines and capacity development; climate change and urban planning. The LAB is currently working in concrete projects joining international and local expertise in more than 20 countries and 40 cities in Latin America, Africa, the Middle East, Europe and Asia. It has developed responsive urban planning and climate change strategies for coastal areas of Côte d'Ivoire, a resilient masterplan for the capital of Belize, Belmopan, and planning interventions for several cities in India.

### **Initiatives**

Non-State actors are increasingly committed to local climate action. Local governments and professionals are key players in that process and need to be integrated in preparing and implementing strategies and plans in order to scale-up climate action. Already, the role of city and regional planners and plans in addressing climate change has been made explicit in the 2030 Agenda for Sustainable Development, as well as in the New Urban Agenda. UN-Habitat is well aware of their strategic role and stands ready to support them.

### 

#### Planning is part of the solution!

- Planning helps build more sustainable communities, facilitates economic development and connectivity, and improves the choices available for where and how people live and work.
- Planning facilitates and guides decision-making and helps balance private, government and community interests for future net benefit.
- Planning helps identify hazards, mitigate and reduce risks; it also identifies and protects environmental, social, cultural and heritage values.

#### **UN-Habitat helps:**

- Shape urbanization towards more sustainable and low carbon pathways to mitigate the effects of climate change.
- Support countries to develop urban planning methods and systems to address urbanization challenges linked to climate change.
- Prepare resilience and adaptation plans against climate related risks in order to make cities ready to recover from shocks that can intensify existing stresses and put people and business at risk.
- Plan towards resilience to help protect and enhance people's lives, secure development gains, foster an investible environment, and drive positive change.

### Approaching urban design differently will help deliver low carbon development

- Urban form significantly affects direct GHG emissions, and is strongly linked to the throughput of materials and energy in a city and the wastes that it generates. Research suggests that key drivers of energy and GHG emissions are density, land use mix, connectivity, and accessibility.
- Cities should be compact, integrated and connected. UN-Habitat's principles of sustainable neighborhood planning prescribe high density, adequate space for mobility, mixed and limited specialized land-use. We need to break away from sprawled-out superblocks in favour of a high-density neighbourhood approach, with narrower streets, a high number of intersections, and improved public transport.
- Greening is another dimension of mitigation and adaptation through the preservation and inclusion of green space in cities. Green roofs for urban agriculture, parks and river walks are essential urban features to address warming. Increasing the tree cover by 10% helps reduce energy needs in heating or cooling by 5-10% (Chicago Study).



### **Global Covenant of Mayors for Climate and Energy**

This Covenant is an international alliance of cities and local governments with a shared long-term vision of promoting and supporting voluntary action to combat climate change and move to a low emission, resilient society. With more than 9,000 cities and local governments from 127 countries representing more than 770 million people, it is the largest global coalition of cities building on the Paris commitments, setting ambitious climate reduction goals, taking ambitious action to meet those objectives, and measuring their progress publicly and transparently. UN-Habitat works with ICLEI to support cities in establishing their low emission pathways and the carbon *Climate Registry* to help measuring, managing and disclosing city environmental data. UN-Habitat is member of the Founders Council of the Covenant. https://www.

### globalcovenantofmayors.org https://carbonn.org

### **Planners for Climate Action**

Planners for Climate Action (P4CA) is a global collaboration to promote the value and contribution of better planning to sustainable cities facing the impacts of climate change. Registered on the UNFCCC Non-Party Stakeholders Zone for Climate Action (NAZCA), the coalition is at the heart of the on-going dialogue and collaboration with the stakeholders to achieve the Paris Agreement. Under P4CA, the community of planners is able to have a voice on the importance and value of effective urban and territorial planning practices. P4CA Partners commit to incorporate climate change in their planning practices, help ensure that all cities have ambitious mitigation and adaptation plans, build the capacity of planners and support research that can help strengthen knowledge on the impact of planning practices.

### http://climateaction.unfccc.int/

### **Our tools**

### **Guiding Principles for City Climate Action Planning**

This guide introduces to the typical steps required for city-level climate action planning along a set of globally applicable principles. The aim is to help cities to reduce greenhouse gas emissions and adopt low emission development trajectories, as well as adapt to the impacts of climate change and build local climate resilience. The principles have been endorsed by 48 partners including the World Bank, Global Environment Facility, UN-Environment, UNISDR, UCLG, ICLEI, WRI and many others.

https://unhabitat.org/the-guiding-principles/

### Planning for Climate Change - A strategic values-based approach for urban planners

The tool is designed for city planners and other professionals to better understand, assess and take action on climate change at the local level. While climate change is a global issue, this guide is specifically intended for urban communities in low and middle-income countries where the challenges are unique and the stakes of planning for climate change are high. In partnership with Ecoplan International. https://unhabitat.org/books/planning-for-climate-change-a-strategic-values-based-approach-for-urban-planners-cities-and-climate-change-initiative/

### Highlights www.www.www.

### Measuring and building resilience in Asuncion and Yakutsk

Through the City Resilience Profiling Programme, UN-Habitat and the city of Asuncion (Paraguay) helped build consensus on strategic lines of action for urban resilience based on extensive urban and climate data analysis. In particular, the project helped to achieve increased cross-sectoral collaboration on water cycle management improvement in order to effectively address current and projected climate challenges.

In Yakutsk (Russian Federation) UN-Habitat collaborates with the municipal government to tackle priority challenges, such as the impacts of permafrost thawing due to climate change. On-going engagement has already resulted in the establishment of an interdepartmental resilience committee, the publication of a City Profile report, identifying regional climate impacts based on extensive data collection.

#### Planning for climate change in Belmopan, Belize

UN-Habitat's Urban Planning and Design Lab supported Belmopan City to develop a climate friendly city wide strategy with a long term vision. The project focused on public spaces, density, and climate resilience as priority issues. The project included the planning of a city extension to accommodate the rapid growth of the city of Belmopan.

#### **Urban Design in Saudi Arabia**

Through a city scale approach to neighbourhood level design, UN-Habitat supported the planning of five Saudi cities - Medina, Taif, Tabuk, Dammam, and Buraydah - a joint collaboration of the Lab and the Climate Change Planning Unit. Tha main principles brought into the design of cities have been: compactness, connectivity through public transport, mixed use, blue and green networks.

### **City Resilience Action Planning (City-RAP)**

The tool has been introduced in 25 cities to improve local, national and sub-regional capacities to reduce vulnerability and build resilience to natural and man-made hazards in Southern Africa. It enables municipal technicians in low capacity cities to conduct a quick and effective assessment of the city's vulnerabilities to help prepare an action plan. It targets small to medium limited capacity cities with little data available with a focus on improving local solutions and promotes cooperation among nations that face similar issues related to climate change and urban resilience. http://dimsur.org/

### **City Resilience Profiling Tools**

Through a multi-stakeholder and action-oriented diagnosis of the city, the CRPT provides a framework for local governments to collect the right data from their city, evaluate it and generate a resilience profile. UN-Habitat provides local governments with the support, training and guidance to confidently implement the tool and engage partners in the process. Other related tools include the Disaster Resilience Scorecard for Cities, the Quick Risk Estimation tool and Lobelia, a 'climate engine' to helping analyse climate trends and link to other types of data. http://urbanresiliencehub.org/tools-for-action/

### **Developing Local Climate Change Plans**

A guide to get started on climate change in any city, through a simple planning process based on understanding long-term climate change impacts, urban development challenges and the needs of citizens. It describes "quick win" activities that address both climate and urban issues simultaneously as well as many case studies. https://unhabitat.org/developing-local-climate-change-plans/

#### **Urban Planning for City Leaders**

A guide designed for decision-makers offering insights from experiences on what it takes to have an impact and to transform an urban reality through urban planning. It presents many successful practices that emphasize strategies to address real issues. It provides inspiration around key principles of good urban planning that can result in real urban transformation. Climate change triggers good planning practices likely to mitigate emissions and make cities more robust to future changes. https://unhabitat.org/books/urban-planning-for-city-leaders/

#### **Urban Patterns for a Green Economy**

A series of guides exploring the fundamentals of urban planning and design towards a green economy from four entry-points: 1/ leveraging density; 2/ optimizing infrastructure; 3/ working with nature; and 4/ clustering for competitiveness for cities to play their specialised roles in urban development. The guides examine the specific challenges within the city realm and different approaches behind effective urban patterns, using a series of compelling examples. https://unhabitat.org/series/urban-patterns-for-a-greeneconomy/

### **Partners**





































# Pro-poor approaches to climate action

Climate change disrupts homes and livelihoods, pushing people into poverty. We directly address vulnerability in cities and communities by embedding the multiple effects of climate change in strategies and actions for low income and informal settlements.

### **Our Projects**

### **Pro-Poor Planning for Climate Resilience of Marginalized Neighborhoods**

Merging the work of the Climate Change Planning Unit (CCPU) and the Participatory Slum Upgrading Program (PSUP) in addressing the effects of climate change and urban poverty, UN-Habitat has initiated the "Pro-Poor Planning for Climate Resilience of Marginalized Neighborhoods Project" within the African, Caribbean and Pacific (ACP) region. Funded by the Swedish International Development Agency (Sida), the project has focused on Montego Bay (Jamaica), Ouagadougou (Burkina Faso), Bamenda (Cameroon), Lami (Fiji) and Honiara (Solomon Islands).

UN-Habitat has launched these projects under its Cities and Climate Change Initiative (CCCI), funded by the Government of Sweden and Adaptation Fund. PSUP has operational experience in 160 cities, from 35 different countries.

http://www.worldurbancampaign.org/un-habitat-launches-climate-resilience-project-marginalized-neighborhoods

### Increasing the resilience of informal urban settlements in Fiji

Fiji experiences frequent cyclones (on average, one cyclone per year) and with them damaging winds, rain and storm surges. Besides cyclones, the country suffers from other extreme events associated with climate change such as extreme rainfall, flooding, droughts and temperature extremes as well as sea-level rise. The project focuses on informal settlements across four urban areas and towns in Fiji, through: institutional strengthening for enhanced local climate response; local resilience strengthening enhancing resilience of community level physical, natural and socio-economic assets and ecosystems; awareness raising, knowledge management and communication. The project is funded by the Adaptation Fund since 2017.

https://www.adaptation-fund.org/project/increasing-resilience-informal-urban-settlements-fiji-highly-vulnerable-climate-change-disaster-risks-2/

UN-Habitat helps strengthening relationships between sub-national government, NGOs and local civil society organizations to address climate change at the neighborhood level.





### The urban poor are increasingly vulnerable to climate change

One in seven people urban dwellers live in slums and informal settlements and are highly vulnerable to climate change.

Informal settlements are often disproportionately affected by climate change impacts because of:

- Geographical location steep slopes, floodplains, coastal shores and river banks, which have a high exposure to climatic hazards.
- Socio economic characteristics of residents high levels of poverty and illiteracy contribute to low adaptive capacity of communities.
- Deprivation of risk-reducing infrastructure storm water drains, proper roads, bridges, and water and sanitation facilities, health care, and emergency services.

### UN-Habitat builds climate resilience in marginalized settlements, particularly in the Least Developed Countries.

Climate resilience is the capacity of social, economic and environmental systems to cope with a hazardous climate-related event, trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure, while also maintaining the capacity for adaptation, learning and transformation.

As a mayor, I address the most vulnerable first by coordinating actions and planning with the people.

### Enhancing the climate & disaster resilience of the most vulnerable rural & emerging urban human settlements in Lao PDR

The project's main objective is to enhance the climate and disaster resilience of the most vulnerable rural and emerging urban human settlements in Southern Lao PDR by increasing sustainable access to basic infrastructure systems and services, emphasizing resilience to storms, floods, droughts, landslides and disease outbreaks. The specific objectives are: to develop institutional capacities of the national government and local authorities to increase the resilience of human settlements and infrastructure systems; to enable communities to improve their well-being/health conditions by developing local capacities and resilience strategies for their settlements and infrastructure systems; to enhance climate and disaster resilient infrastructure systems; to ensure project compliance with the Adaptation Fund and UN-Habitat standards for Knowledge Management, Advocacy and Monitoring. The project was approved by the Adaptation Fund in 2016.

Partners: AF, the Government of Lao PDR

https://www.adaptation-fund.org/project/enhancing-climate-disaster-resilience-vulnerable-rural-emerging-urban-human-settlements-lao-pdr/

### **Initiatives**

### **Cities & Climate Change Science Conference**

The Conference was co-organized by UN-Habitat, UN Environment, Cities Alliance, C40, ICLEI, Future Earth, the Intergovernmental Panel on Climate Change (IPCC), the World Climate Research Programme, the Sustainable Development Solutions Network, and United Cities and Local Governments. Held in Edmonton, Canada (5-7 March 2018), the conference created an enhanced understanding of the impacts of climate change at the urban level, the range of possible responses, and the role of cities in the implementation of the Paris Agreement and other international global agendas, including related to informal settlements. This conference sought to contribute to a positive and integrated engagement between the scientific community, urban practitioners and policy-makers.

https://citiesipcc.org/

### Highlights www.

#### **Multilevel governance for Climate Action in Fiji**

The Participatory Slum Upgrading Programme, from June 2014 to December 2015, in Fiji, has helped strengthening relationships between national and sub-national government, NGOs such as the Peoples Community Network as well as active inclusion of land stakeholders such as the Taukei Land Trust Board as a critical partner in the Town Wide Upgrading project (accessing traditional land for development).

#### Resilience action planning training in Burkina Faso

In 2016, the "Planning for climate resilience in informal settlements in Burkina Faso" project kicked off activities in Ouagadougou, by training stakeholders in resilience action planning. 32 professionals from different level of government were introduced to the theoretical knowledge and equipped with the practical skills to implement the City-RAP Tool within a municipality or neighbourhood.

#### Mitigation activities in Lao PDR

In Lao PDR, the "Enhancing the climate & disaster resilience of the most vulnerable rural & emerging urban human settlements" project has completed 3 provincial, 8 districts and 189 settlements' vulnerability assessments, helping to address climate change challenges in the country.

Through community consultations, planning meetings and workshops with representatives from central, provincial and district governments, technical capacity has been built and community action plans developed.

I participated in a public workshop to help preparing a flood risk map in our area. This is really important to better understand and plan our future life in my community!



UN-Habitat uses participatory approaches to foster inclusive development and empower local population.



### **Our tools**

### **Quick Guide for Policy Makers on Pro-Poor Urban Climate Resilience in Asia and the Pacific**

This guide focuses on the need to enhance understanding of the region's key urban stakeholders on climate change, discusses how it affects efforts to realize sustainable urban development, and explores what actions can be taken to synergize continued commitments to poverty reduction alongside urban climate resilience.

Through examples across the region, the Quick Guide illustrates propoor approaches to urban climate resilience that are holistic, flexible and participatory and that can be effective to foster inclusive and sustainable development – an essential task for policy makers in meeting the key urban challenges in the Asia-Pacific region.

https://unhabitat.org/books/quick-guide-for-policy-makers-on-pro-poor-urban-climate-resilience-in-asia-and-the-pacific/

### Addressing the Most Vulnerable First - Climate Action in Informal Settlements

This thematic guide is aimed at national and municipal government officials and civil society leaders in low- and middle-income countries, to encourage them to make and implement policies and plans that tackle the challenges of climate change and development in informal settlements.

https://unhabitat.org/un-habitat-thematic-guide-addressing-the-most-vulnerable-first-pro-poor-climate-action-in-informal-settlements/

### Land, Environment and Climate Change: Challenges, Responses and Tools

This publication provides an overview of some the most important landrelated environmental and climate change problems that the world is facing. Land, Environment and Climate Change offers an overview of the relationship between land tenure, land management approaches and the environment

**Partners: Global Land Tool Network** 

https://unhabitat.org/books/land-environment-and-climate-change-challenges-responses-and-tools/

### Principles of action www.

Climate resilience for the most vulnerable lies in:

- Understanding the physical conditions, demographics and vulnerability of human settlements.
- > Supporting community-led initiatives.
- Empowering citizens through inclusive approaches and inclusion.
- Improving livelihoods.
- > Enhancing access to climate funding.

To build climate resilience and develop adaptation processes, a multi-faceted approach is required, taking into considerations physical, economic, social and political conditions. Moreover, collective processes allow a better identification of priority areas and targets for action.



With the reality of Climate Change, we cannot approach slum upgrading & urban development as before, everything we do must be climate-feasible.

**Dr. Asad Mohamed,**Director of blueSpace –
Caribbean Network for Urban
Land Management



Cooperation and exchange between institutions of higher education and UN-Habitat is promoted through the Habitat UNI partnership, with universities worldwide.

With the help of international organizations and funds, we are planning the development and maintenance of basic services in low-income settlements.'



UN-Habitat supports local and national authorities in identifying adequate additional funding to carry out slum upgrading activities and expanding programmes to be truly city-wide, notably through the Participatory Slum Upgrading Programme (PSUP).

### Partners www.www.www















































## Multi-level governance of climate action

We bring together all levels of climate action towards achieving common goals. Vertical integration from city to country level will help assemble actors to agree on plans, policies, strategies and implementation.

### **Key projects**

### **Urban Low Emission Development Strategies**

Accelerating climate action through the promotion of Urban Low Emission Development Strategies is a flagship project funded by the European Union.

During its first phase, Urban-LEDS 1, ICLEI and UN-Habitat guided and supported eight model cities in Brazil, India, Indonesia and South Africa to develop comprehensive Urban Low Emission Development Strategies (Urban LEDS) and action plans. The new phase (Urban-LEDS 2) includes a new emerging economy, Colombia, and three new Least Developed Countries: Bangladesh, Lao PDR, and Rwanda. It presents a strengthened focus on adaptation as well as climate resilience, and will ensure a comprehensive climate and development approach.

### http://urban-leds.org

### **Myanmar Climate Change Alliance (MCCA)**

The MCCA aimed to mainstream climate change into the Myanmar policy development and reform agenda, with the support of the Global Climate Change Alliance (GCCA), funded by the European Union. The project aims at strengthening the climate change related institutional and policy environment through the sharing of technical knowledge and best practice, training and institutional support. It also promotes evidence-based planning and policy making through the integration of climate change into sub-national and local level development planning initiatives.

http://myanmarccalliance.org/en/home/



### Why is multi-level governance essential to climate action?

The complexity of urban problems obliges policymakers to tackle different issues simultaneously and in a coordinated manner.

This requires delivering climate action at different scales through the involvement of all levels of governments. Collaborative climate governance leads to more effective, longer-lasting solutions towards a low carbon and climate resilient future.

Co-ordinated multilevel action can help implement Nationally Determined Contributions (NDCs) as required by the Paris agreement. As Parties to UNFCCC, national governments are responsible for preparing and implementing NDCs. Two-thirds of all NDCs contain some urban content (2016). The challenge now is effective implementation.







Through the Urban-LEDS project, UN-Habitat organizes local capacity building activities in collaboration with representatives from national government agencies to guide cities through the formulation of Low Emission Development Strategies and plans, and holds participatory workshops in order to build more collaborative efforts between the different levels of governance.

### Vertical integration and learning for low-emission development in Africa and Southeast Asia

This four-year project supports the governments of Kenya, South Africa, Vietnam and the Philippines to build capacities for Local Climate Action, strengthening policy coordination processes and learning networks between local actors. Key activities include the organization of good practice workshops and regional conferences, training and capacity development on how to mainstream climate in local planning, comparative cross-country study and vertical dialogues.

The project is undertaken by an international consortium of five organisations driving local action in the political agenda: Adelphi, UN-Habitat Regional Office for Asia and the Pacific, Sustainable Energy Africa, the Institute for Law and Environmental Governance and OneWorld.

The project is supported by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety as part of its International Climate Initiative (IKI).

http://www.fukuoka.unhabitat.org/projects/asian\_subregion/detail02\_ en.html

### Principles of action www.

Climate action requires multi-level governance through:

- > Discussions between all levels of government to improve communication and coordination mechanisms
- > Integration of all levels of government in national and regional processes
- > Capacity-building at all levels of government to develop climate-related skills and knowledge
- Adequate budget allocation at all levels.

Collaborative and integrated plans, policies and actions are needed to achieve common goals in adaptation, mitigation and empowerment of local government. By doing so, national policies can leverage existing local experiments, accelerate policy responses, foster resource mobilization and engage local communities, cities and sub-national authorities to translate national targets into actions.



UN-Habitat supports the preparation of national strategies that will result in sectoral strategies and actions to address climate change in developing countries.



I have participated in the publication of best practice examples of how to mainstream climate change policies at the local level.

Scientist

UN-Habitat supports the publication of knowledge products regarding urban climate change action and multi-level governance.



My Government has included cities in our country's top priorities of the National Adaptation Plan. We know that cities need to be better planned in order to reach our commitment to the Paris agreement.

UN-Habitat helps countries update their Nationally Determined contributions so as to raise their levels of ambition in terms of human settlements and urban content.



### **Initiatives**

### **Cities and Regions Talanoa Dialogue**

The Cities and Regions Talanoa Dialogues – launched by ICLEI, the Global Covenant of Mayors for Climate, and UN-Habitat – in early 2018, are designed to convene local and regional governments and national ministries of climate, environment and urbanization, along with host organizations and climate stakeholders to take stock of, shape and strengthen Nationally Determined Contributions (NDCs). The Cities and Regions Talanoa Dialogues are a response to the Talanoa Dialogue, launched by the Fijian Government at COP23, the 23rd United Nations Climate Conference, as part of efforts to strengthen climate action. Over the course of 2018, more than 52 Cities and Regions Talanoa Dialogues were held in more than 37 countries.

https://talanoadialogue.com/

### **Key tools**

### Addressing climate change in National Urban Policy (CCPU/RMPU)

This guide recommends how to mainstream climate change considerations into National Urban Policy, thus helping to empower national governments, local governments, and other stakeholders to effectively address climate change. It is primarily addressed to decision-makers and stakeholders engaged in formulating, implementing, monitoring and evaluating National Urban Policy. The 16 recommendations address 3 areas of action:

- 1. Low-Carbon Urban Development ('Mitigation');
- 2. Climate Resilience ('Adaptation');
- 3. Urban Climate Governance

https://unhabitat.org/books/addressing-climate-change-in-national-urban-policy/

### Sustainable urbanization in the Paris Agreement: Comparative review of NDCs for urban content

This review provides an analysis of the urbanization content of national climate pledges. It argues that sustainable urbanization can be a catalyst of climate action and how urban focused climate action is good for climate but also the sustainable development of communities.

https://unhabitat.org/books/sustainable-urbanization-in-the-parisagreement/

### Publications on multi-level governance with GIZ and ICLEI

UN-Habitat, ICLEI and GIZ are collaborating on producing a series of knowledge products that help to conceptualise multi-level governance and its application around the world. Case studies on climate action and NDC implementation help understand how-multi-level governance can deliver climate action.

https://unhabitat.org/talanoa-and-beyond-raising-ambition-with-cities-and-regions/

### Integrating Human Settlements into National Adaptation Plans, A Supplement to the UNFCC Technical Guidelines on National Adaptation Plan Process

Integrating human settlements aspects into NAPs enables countries to achieve more resilient and sustainable urban development. This guide aims to support countries in integrating human settlements into their NAPs and will be launched during COP24.

### Highlights www.www.www.

### Climate change national strategy in Myanmar

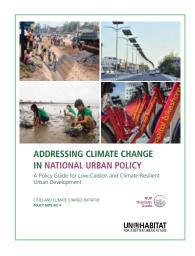
In 2015, Myanmar formulated and validated a first draft of its Climate Change Strategy and Action Plan, as part of the UN-Habitat supported Myanmar Climate Change Alliance programme. The plan was developed with the involvement of local government and stakeholders, alongside awareness raising and capacity building activities.

#### Low-emission development plans in Indonesia

On March 2018, ICLEI met with Urban-LEDS model cities, Bogor and Balikpapan respectively to assess the cities' progress in implementing their urban low emission development plans and to introduce the project's second phase, Urban-LEDS 2. The need for multi-level governance dialogues to achieve Indonesia's GHG emission reduction was highlighted.

#### Social media campaign on climate actions

In July 2018, the Fijian COP23 Presidency launched a social media campaign to share stories that have been formally submitted to the Talanoa Dialogue Portal, the Talanoa Stories. More than a thousand stories have been collected, detailing innovative and inspiring actions taking place around the world.





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### Low Carbon and Resilient Basic Services and Buildings

We boost low carbon action for urban mobility, energy, water and waste management and sustainable buildings. We work on concrete steps in cities to achieve global climate change mitigation, sustainable, resilient and inclusive urban development.

### **Our Projects and Tools**

The Urban Electric Mobility Initiative (UEMI) aims to boost the share of electric vehicles across all modes and integrate electric mobility into a wider concept of sustainable urban transport that achieves a 30% reduction of greenhouse gas emissions in urban areas by 2030. UEMI's objective if to help phase out fossil fuelled vehicles and increase the share of electric vehicles (2, 3 and 4-wheelers) in the total volume of individual motorized transport in cities to at least 30% by 2030. The Initiative delivers tools and guidelines, generates synergies between e-mobility programmes and supports local implementation action in over 20 cities around the world.

#### www.uemi.net

**Urban Pathways:** The project promotes Low Carbon Plans for urban mobility, energy and waste management services, working on concrete steps in more than 20 cities towards maximum impact on global climate change mitigation efforts and sustainable and inclusive urban development. Urban Pathways offers a number of tools and on-lines learning resources on mobility and energy. It is supported by the German Government.

### www.urban-pathways.org

**The Future Radar Project** aims to advance innovative urban mobility solutions in partnership with the European Technology Platform ERTRAC and the European Green Vehicle Initiative. It promotes dialogue and exchange between cities in Europe, Asia and Latin America on urban electric mobility solutions and developing implementation concepts for innovative e–mobility actions.

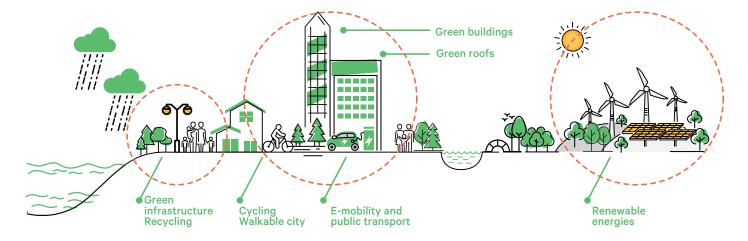
https://www.ertrac.org • https://egvi.eu

# Climate Action

### Addressing mitigation through low carbon infrastructure, services and buildings

- The design of today's transportation systems, buildings and other infrastructures will largely determine tomorrow's CO<sub>2</sub> emissions.
- Worldwide, transport as a whole is responsible for 23% of total CO<sub>2</sub> emissions from fuel combustion and road transport is responsible for 20%.
- Buildings and construction account for more than 35% of global final energy use and nearly 40% of energy-related CO<sub>2</sub> emissions. Since about 50% of the building stock that will exist in 2050 is yet to be built, this sector represents tremendous opportunities for mitigation through the use of low carbon technologies.
- Research suggest that "going green" in terms of infrastructure and buildings could cut future emissions half or about 10 Gt CO<sub>2</sub> per year from 2040 onwards—the same quantity that is currently being emitted by the United States, Europe and India together.

The City we need adopts renewable energies, low carbon infrastructure and buildings.



**The EMPOWER Project** aims at substantially reducing the use of conventionally fuelled vehicles in cities through changes in driving behaviour as a way to improve urban traffic flows, increase air quality, reduce  $\mathrm{CO}_2$  emissions and oil consumption. In several European partner cities, EMPOWER explores the use of positive incentives delivered through smart phone applications to persuade people to make modest shifts in their transport choices. UN-Habitat facilitates international outreach and replication of the project in other regions.

**The EMPOWER Toolkit** brings together a range of knowledge, expertise and learning from the project to be used by all those involved in designing, implementing and delivering transport services to reduce the use of conventionally fuelled vehicles.

### http://empowerproject.eu

### Rapid Planning – Sustainable Infrastructure and Environmental and Resource Management for Highly Dynamic Metropolises

Rapid Planning is an action oriented urban research project with the objective of developing and testing a rapid trans-sectoral planning methodology for supply and disposal infrastructure development in rapidly growing cities. Funded by the German Ministry for Education and Research, it is being implemented by a consortium of 12 universities and private research institutions. Case cities for the research include Da Nang (Vietnam), Kigali (Rwanda), Assiut (Egypt) as well as Frankfurt (Germany). The Rapid Planning suite of tools is currently under development. It is a new "metabolic" planning approach employing a trans-sectoral methodology with the common denominator of material and energy flows in cities as the basis for their infrastructure planning.

Initiative (UEMI) UN-Habitat promotes the

use of electric vehicles to help achieves a

30 percent reduction of greenhouse gas emissions in urban areas by 2030.

### http://rapid-planning.net/

### Highlights www.

#### E-Rickshaws in Kochi, India

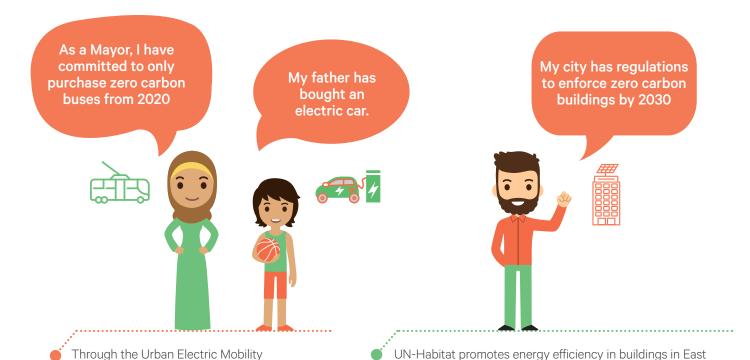
UN-Habitat partners with the city of Kochi to conceptualize and implement a pilot project of electric auto rickshaws. This includes cooperation with the public transport operator, local manufacturer of e-rickshaws and associations of auto rickshaws drivers. The project will help achieve the national objective to have 30% of vehicles run on electricity by 2030.

#### **Mainstreaming Sustainable Social Housing in India**

The MaS-SHIP project is meant to guide decision makers towards adopting more sustainable consumption and production patterns in the housing industry. MaS-SHIP informs on the best paths to create housing projects, provide decent employment, optimize the production and consumption of building materials, and reduce the environmental impact of the sector, namely carbon emissions from the whole supply chain.

Africa through capacity-building and knowledge transfer for low

carbon technologies in the field of sustainable housing.





### **GEF Sustran East Africa: Promoting Sustainable Transport Solutions for East African Cities**

The project aims to reduce growth of private motorized vehicles and decrease traffic congestion and greenhouse gas emissions in Addis Ababa (Ethiopia), Kampala (Uganda) and Nairobi (Kenya). The envisaged strategic response is to upgrade these cities' transit systems by implementing improved non-motorized transport infrastructure and applying travel demand management while supporting transport policies. In each of the cities the project aims to establish a Bus Rapid Transport (BRT) demonstration corridor.

### http://gefsustran.sutp.org/

Promoting Energy Efficiency in Buildings in East Africa: The project aims at promoting capacity building and knowledge transfer for energy access, efficiency and low-carbon technologies in the field of sustainable housing. Through design-build teaching method, a practical approach based on learning by experience, schools of architecture run design and construction studio courses which culminate in full-scale prototype buildings. Funded by the European Union and implemented by the Secretariat of the African, Caribbean and Pacific (ACP) Group of States.

SHERPA is a self-evaluation tool for project managers, communities, and other stakeholders involved in the planning, design, construction and assessment of housing projects. The tool assesses housing projects from the initial inception through the site selection and design process to the end of the life cycle. It also assess the recyclability of the building materials used. SHERPA is supported by the One Planet Network and developed by UN-Habitat, CRAterre-ENSAG, VTT Technical Research Centre of Finland and the University of Cambridge, in collaboration with the Kenya Slum Upgrading Programme, Yaam Soldarité and Architecture sans Frontières Nepal.

https://unhabitat.org/sherpa/

### Principles of action www.

- Through a rapid and effective transition to sustainable energy systems, cities actively contribute to reducing domestic emissions of carbon dioxide. They can play a vital role in reducing the global carbon footprint from transport, energy, housing and other consumptions.
- Green paths include the construction of higherdensity, energy-efficient housing, upgrading mobility systems through innovative public transit, car sharing, electric cars and bicycles.
- For emerging technologies to unfold their full potential in climate protection, policies must ensure that these technologies are actually replacing rather than just supplementing the older, dirty technologies.
- City leaders have a huge responsibility in making strategic choices toward greener pathways through upgrading existing infrastructures and introducing new mobilities and energies. Once infrastructure is in place, it determines long-term carbon emissions.

### **Partners**





















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Prepared by the Climate Change Planning Unit | UN-Habitat







