



**Building Sustainable and Resilient Cities**

## World Cities Day 2018

### Environment and Climate Resilience

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Globally, all cities are vulnerable to severe impacts from a range of shocks and stresses. Cities and city inhabitants are facing additional and amplified challenges as a result of rapid urbanization and climate change. The built environment is expanding and, globally, continues to be modelled on the outdated and unsustainable practices, while growing unplanned and unmanaged urbanization results in urban communities being built in areas of high risk. The natural environment is becoming increasingly unpredictable as climate change alters weather patterns, temperatures and sea levels. The results of these shifts manifest in many different ways; cities and urban communities on flood planes or low lying coastal areas are at particular risk, while droughts generate migration flows to cities, which need to be well managed to ensure its benefits. Environmental management of cities, including consumption and production norms, emissions, and waste water and solid waste treatment, contribute to climate change and affect environmental health, leaving the urban poor most vulnerable.

#### KEY WORDS

Climate Change, Disaster Risk Reduction, Urban Planning, Urban Resilience, Ecosystem Approach, Urban Energy System, Natural Hazards, Climate Change Policies, Vulnerability, Inequality,

#### FIGURES AND KEY FACST

- River flooding poses a threat to over 379 million urban residents, with earthquake and strong winds potentially affecting 283 million and 157 million respectively.<sup>1</sup>
- An estimated 90 per cent of all wastewater in developing countries is discharged untreated directly into rivers, lakes or the oceans. The resulting de-oxygenated dead zones are now thought to affect more than 245 000 km<sup>2</sup> of marine ecosystems, equivalent to the total global area of coral reefs.
- By 2020, nearly 1.5 billion people in the developing world will live in slums. Often built in highly exposed areas, the vulnerability of these populations to the effects of climate change is greatly increased.

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<sup>1</sup> Global Assessment Report GAR, 2015. UNISDR

- Cities are major contributors to climate change, consuming 78% of the world's energy and producing more than 60% of all carbon dioxide as well as significant amounts of other greenhouse gases.

#### ISSUE SUMMARY

Cities are well placed to roll out the large-scale application of green solutions that are needed to adapt to and mitigate our changing natural environment and promote sustainable, resilient built environments. As the proportion of the world's population living in urban areas increases from 54% to 68% by 2050, significant areas of new towns, cities and urban extensions remain to be built. This offers huge potential for us to change the way we consider and construct the built environment and its impact on the natural world. Urban planning and development can support the reduction of emissions in major urban sectors such as transport, buildings and waste management.

Local governments are well-placed to guide positive growth and introduce innovative measures into city planning and service provision however forging partnerships with other city, regional and national actors is key as many of the environmental or demographic challenges stems from outside the city boundary.

Advances have been made in raising awareness on sound environmental practices among governments and urban populations, however there is a lapse in translating this knowledge into action, particularly in the development of sustainable local, regional and national urban development policies, plans and practices. Some existing gaps need to be addressed at both national and local level in terms of policy, capacity and resources. Cities need to establish clear standards that take into account local particularities but that also support the achievement of globally agreed goals on emissions reductions, risk and resilience, and equality.

#### GUIDING QUESTIONS

Panelists, including Bahrain, facing climate risks typical of many small island states, Shanghai facing flood risks, Manchester, recently dealing with fires, and ActionAid representing urban populations that are often most vulnerable to climate and environmental risks will initiate discussion by representing their experiences in relation to the following questions:

- How have risks been assessed and mitigated?
- What are the bottlenecks to promoting nature-based solutions to challenges like urban flooding and pollution?
- What are the main challenges to making our built environment more resilient?
- What are the main changes needed encourage citizen awareness about responsible consumption and production?