

# INVESTING IN URBAN RESILIENCE

Protecting and Promoting  
Development in a Changing World

Helping cities in the developing world leverage billions of dollars for safe, prosperous, and sustainable growth



# The Urban Context

Cities are key to:

alleviating poverty



creating wealth



fueling growth



**55%**  
of the global  
population  
lives in cities...

...but those cities are  
responsible for more than



**80%**  
of  
global GDP

**T**he world is rapidly urbanizing. 1.4 million people per week are moving into urban areas around the globe.<sup>1</sup> Unprecedented urbanization has transformed the planet from 30% in 1950 to over 54% urban today, and will reach an estimated 66 percent by 2050.<sup>2</sup> Over 60% of the land projected to become urban by 2030 is yet to be developed. Additionally, nearly 1 billion new housing units will need to be constructed by 2060 to house the world's growing population.<sup>3</sup> Much of this growth will take place in the developing world: 90% of urban growth through 2050 will occur in sub-Saharan Africa and Asia.

**People and assets in cities**—who are highly dependent on infrastructure networks, communications systems, supply chains, and utility connections for their well-being are increasingly exposed to hazards. Natural and manmade disruptions to these highly dependent and interconnected systems can have a catastrophic impact on a city's ability to meet the most basic needs of its citizens and can, with cascading failure, become the Achilles heel of a highly efficient and interrelated network.

**The adverse impacts of disasters and climate change are felt most acutely in cities**, which are drivers of economic development and social progress in developing countries, accounting for more than 80% of global GDP,<sup>4</sup> but are also home to many of the world's poor. This concentration of people and assets in cities has its costs: growing economic cost of disasters, disproportionate impact on the urban poor resulting in an increase in urban poverty, varying levels of impact by different urban localities, and finally, the global implications

for supply chains. Presently, the average annual loss from disasters in cities is estimated at US\$250 billion,<sup>5</sup> and it could potentially increase to more than US\$314 billion by 2030.<sup>5</sup>

**However, annual investments of US\$6 billion in appropriate disaster risk management strategies could generate risk reduction benefits of US\$360 billion over 15 years.**<sup>5</sup>

If all countries implemented a “resilience package,” the net gain in well-being would be equivalent to an increase in national income of billions per year. This package would consist of better financial inclusion, development of disaster risk and livelihood insurance, increased coverage of social protection and scalable safety nets, contingent finance and reserve funds, and universal access to early warning systems.<sup>6</sup> Decisions about and investments in urban infrastructure, buildings, and land use taken now will have huge implications for development outcomes in the future, and will prove critical in preventing cities from being locked into unsustainable development pathways, that will expose them to increasingly intense and frequent shocks and stresses.

**There is a window of opportunity for cities and investors alike to meet the challenge of urban resilience.** The international community has recently begun to recognize the importance of the urban resilience challenge, through such initiatives as the Sendai Framework on Disaster Risk Reduction (March 2015), the UN Sustainable Development Goals (September 2015), the 21st Climate Change Conference of the Parties (December 2015), and the New Urban Agenda (October 2016).

<sup>1</sup> UN DESA, 2014. “World Urbanization Prospects: The 2014 Revision, Highlights.”

<sup>2</sup> UNISDR, 2015. *Global Assessment Report on Disaster Risk Reduction. Making Development Sustainable: The Future of Disaster Risk Management*. Geneva, Switzerland: United Nations Office for Disaster Risk Reduction (UNISDR).

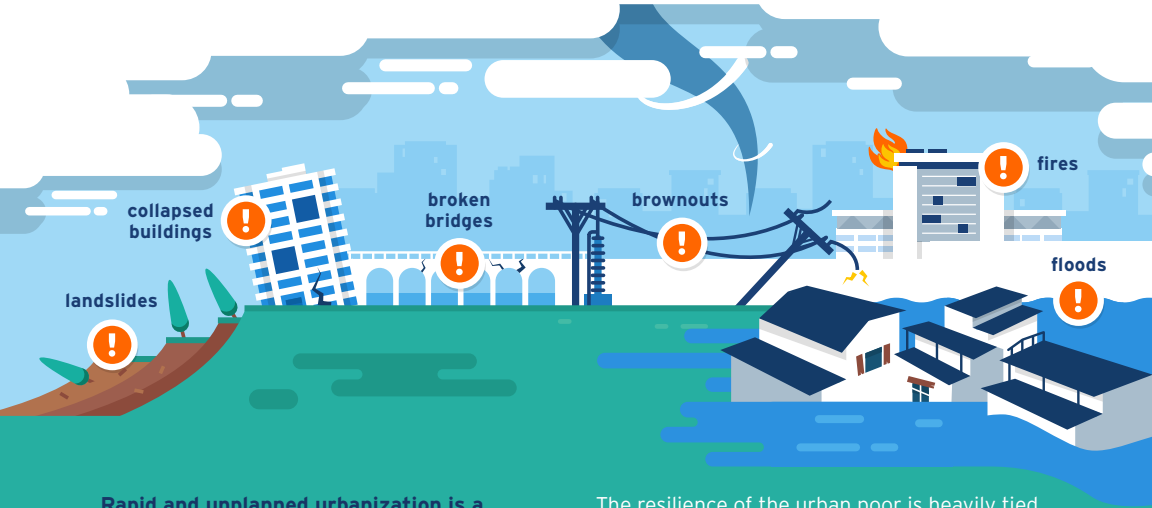
<sup>3</sup> Bilham, R. 2009. “The Seismic Future of Cities.” *Bulletin of Earthquake Engineering: Official Publication of the European Association for Earthquake Engineering (Springer Netherlands)* 7 (4). doi:10.1007/s10518-009-9147-0.

<sup>4</sup> CCFLA. 2015. *State of City Climate Finance 2015*. Cities Climate Finance Leadership Alliance.

<sup>5</sup> UNISDR, 2015.

# The Risks

We need to boost cities' ability to manage and adapt to a wide range of urban shocks and stresses.



**Rapid and unplanned urbanization is a particular driver of risk.** Development in high-risk areas, such as hillside slopes, floodplains, or subsiding land, is often uncontrolled, as the poor and the vulnerable settle in hazardous areas because they are more affordable. Often, these impacts are felt most in the countries least able to manage and adapt to increasing disaster vulnerability and changing conditions associated with climate change.

**There is a growing awareness of the urban resilience-poverty linkages.** Poverty is urbanizing, and the urban poor, especially those in informal settlements, are subject to risks to their lives, health, and livelihoods. More than 880 million urban residents were estimated to live in slums in 2014, an increase of 11% since 2000.<sup>6</sup> Regionally, more than 30% of city residents in South Asia and nearly 60% in sub-Saharan Africa live in slums.<sup>7</sup>

**Risks faced by the urban poor relate to their limited economic base, location, low access to risk-reducing infrastructure and services as well as inadequate governance and disaster risk management.**

The resilience of the urban poor is heavily tied to the quality of governance and government capacity to properly plan and manage public infrastructure required to reduce the risks faced by their lower-income residents. Moreover, disaster risk management requires that local governments engage with households and communities at risk, taking into account the specific concerns of the urban poor especially.

**Failure to invest in urban resilience can reverse development gains by sending millions back into poverty.** Up to 77 million urban residents could fall back into poverty by 2030 in a scenario of high climate impacts and inequitable economic growth. This is a conservative estimate based on a US\$1.25 poverty line which is applied nationally and often understates urban poverty in cities. The primary drivers of increased urban poverty will be higher food prices and the costs associated with an increase in waterborne diseases. Most of the increase in urban poverty due to climate change will be concentrated in the cities and towns of South Asia and sub-Saharan Africa.

<sup>6</sup> UN-Habitat. 2016. *World Cities Report 2016: Urbanization and Development - Emerging Futures*, United Nations Human Settlements Programme. Nairobi, 247.

<sup>7</sup>Ibid.



## BOGOTA

Disaster Vulnerability Reduction Project (**\$80+ million**) has made **350,000 people** safer, resettled **1,067 households** to safer locations and monitored 357 hectares of land for seismic and landslide risk.



# The Solution

To help cities unlock their economic potential and protect the strides made in development across the globe, we need to leverage private investment for urban resilience.

## In the last 5 years...

The World Bank Group invested more than **\$9.7 billion** to help cities in 41 countries become stronger and more resilient.



With partners like the Global Facility for Disaster Reduction and Recovery, the World Bank is giving cities the knowledge and technical assistance they need to become resilient.

**\$400 billion**

## Over the next 15 years...

Governments and the private sector must come together to invest at least **\$400 billion** every year to make city infrastructure safer and stronger.

**\$9.7 billion**



**Significant additional financing is required to make urban areas resilient**, especially in the developing world. The global need for urban infrastructure investment amounts to \$4.5–5.4 trillion per year, of which an estimated premium of 9–27% is required to make this infrastructure low-emissions and climate resilient, according to Cities Climate Finance Leadership Alliance (CCFLA).<sup>8</sup> A significant proportion of this demand is from cities in the developing world. For example, in sub-Saharan Africa, infrastructure spending needs (including capital and operations and maintenance) range from a high of 37% of GDP in fragile low-income countries to 10% in middle-income countries.<sup>9</sup>

**However, there are major constraints to mobilizing private capital towards new investment in urban resilience.** Some of the major constraints that cities in the developing world face with respect to investing in climate-adaptive and resilient infrastructure include: limited institutional capacity to plan and implement well-prepared projects; weak governance, policy uncertainty

and currency risk; limited benchmarking data; limited funds to invest in resilience; low capacity of cities to generate their own revenue; and other structural constraints.

**Mobilizing private capital is the best bet for closing the financing gap.** Traditionally, infrastructure investments have been financed mainly with public funds. However, public resources are not sufficient to finance the higher level of investments needed to build new infrastructure, maintain and improve what is already in place, and promote resilience. Conversely, investment capital seems to be abundant: US\$106 trillion of institutional capital is currently available in the form of pension and sovereign-wealth funds.<sup>10</sup> At present, though, only 1.6 percent of capital expenditure is directed to infrastructure.<sup>11</sup> But, institutional investors and sovereign funds have indicated strong interest in considering a broader set of investment opportunities as a way to improve low returns.

<sup>8</sup> CCFLA. 2015.

<sup>9</sup> Briceño-Garmendia, Cecilia, Karlis Smits, and Vivien Foster. 2008. "Financing Public Infrastructure in Sub-Saharan Africa: Patterns, Issues, and Options." AICD Background Paper 15, Africa Infrastructure Sector Diagnostic, World Bank, Washington, DC.

<sup>10</sup> Heathcote, Christopher. August 2016. "Sending the Right Infrastructure Message: How governments can encourage private-sector infrastructure investment." Global Infrastructure Initiative. McKinsey & Company. <http://www.mckinsey.com/industries>



## DAR-ES-SALAAM

Metropolitan Development Project (**US\$300+million**) is strengthening the metropolitan governance system, improving roads, flood control and access to basic services, and benefiting **100,000 low-income households** in **40 communities**.

# Resources for Resilience

The World Bank Group also offers innovative financing products and services that are helping cities resist disasters, recover, and adapt for the future.



**Financing Instruments**



**Tools & Analysis**



**Global Knowledge & Good Practices**



**Policy Dialogue and Reform**



**Partnerships**

**The World Bank Group can help address these constraints and stimulate more private financing.**

Support for overcoming obstacles includes assistance to subnational governments to increase their own-source revenue, improve fiscal management, enhance creditworthiness, improve capital investment planning, and prepare investor-ready projects. The burden of risk mitigation is on a scale of magnitude beyond the capacity of the Bank, or governments or cities, to carry alone. For this reason, in the case of infrastructure, for example, the World Bank Group can play a critical role in leveraging third-party financing at the downstream, midstream and upstream segments of the investment value chain.<sup>12</sup>

**With its depth of experience, extensive in-house financial and technical expertise, and unique convening power, the WBG has the capacity to scale up urban resilience investment globally.** The Bank has worked in more than 7,000 cities and towns across 130 countries, committing over US\$50 billion through more than 900 projects with climate-related activities over the past five years and investing over US\$5 billion annually in disaster risk management. Core investment in urban resilience has averaged almost US\$2 billion per year over the last five years through a portfolio of 79 projects in 41 countries.

**The World Bank Group has the powerful financing products and services to help cities and the urban poor become more resilient.**

The Bank's current urban strategy is built around five thematic areas, one of which is making pro-poor policies a city priority. The World Bank Group can further help leverage the private capital required through a suite of existing instruments that identify risks, provide mitigation solutions and facilitate investment at the household, community, city, and national levels. These instruments are complemented with services to support urban resilience, such as analytical tools and methods, frameworks for policy dialogue and reform, and procedures for working across sectors.

**Importantly, as investing in urban resilience not only requires significant amounts of capital but also forward-thinking, long-term planning, the World Bank Group (along with other multilateral development finance institutions) is uniquely positioned to support visionary city leadership with the needed financing and technical support which can span not only years, but also decades.**

<sup>1</sup>OECD, January 2015. "Fostering Investment in Infrastructure."

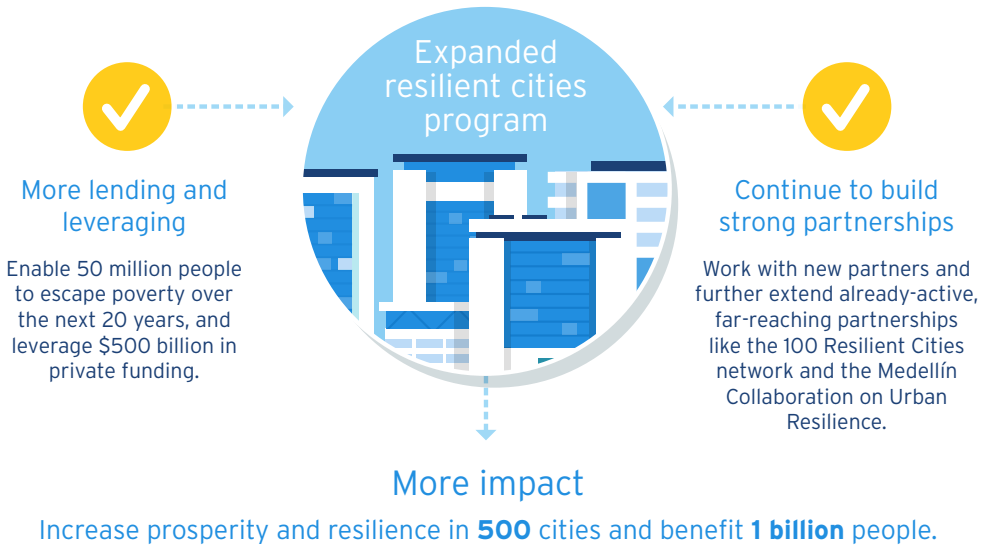
<sup>12</sup>Levy, J. 2016. "Public-private investment to close the infrastructure gap." Voices <http://blogs.worldbank.org/voices/print/public-private-investment-close-infrastructure-gap>



## CAN THO

Urban Development and Resilience Project (**US\$250+ million**) is reducing city's flood risk, promoting sustainable urban development, and enhancing risk-informed planning and response to benefit more than **10 million people**.

# What's Next?



**There are concrete opportunities to scale up investments in urban resilience.** Private sector financing can be leveraged through a strategic expansion of co-financing, lending, guarantees, and other risk management instruments, and through concessional financing. A scaled-up Resilient Cities Program aims to benefit **1 billion people** over the next two decades, crowding in **US\$500 billion** in private capital to finance resilience in **500 cities** and enable 50 million people to escape from poverty. The program would support more than 400 World Bank task teams that engage with cities to better respond to demand for investment in urban resilience. This will be complemented by work in cities that is supported by the Bank's Climate Change Action Plan. The Bank has pursued over a dozen external and internal partnerships that will be fundamental to achieving these ambitious objectives.

By making urban resilience a formal business line, the World Bank Group can scale up its ability to **provide financing, leverage resources from the public and private sectors, support better policies, strengthen partnerships, and develop and share the knowledge** needed to make cities and the urban poor more resilient.

Learn more about how the World Bank Group can partner to invest and help your city become more resilient. Go to:

[www.gfdrr.org/resilient-cities](http://www.gfdrr.org/resilient-cities)