



City
Resilience
Program

The World Bank Group's (WBG) City Resilience Program (CRP) is an effort to assist city governments to build greater resilience to climate and disaster risks. For many major cities in the world, strengthening urban resilience is a multibillion dollar agenda that requires strong partnerships and new sources of capital. Cities are sometimes held back from pursuing the necessary investments because they lack the technical expertise and/or the access to capital to finance them. CRP tries to fill that gap by i. leveraging the WBG's broad set of sectoral expertise in designing urban resilience projects, and ii. better connecting cities to the necessary financing. The aim of CRP is to catalyze a transparent pipeline of well-prepared and bankable investment opportunities and to improve access for private and institutional investors to crowd into new markets. It is in this sense that CRP seeks to act as the bankers of the city, and to facilitate strategic investments that address the vulnerabilities and risks that cities face in a holistic way.

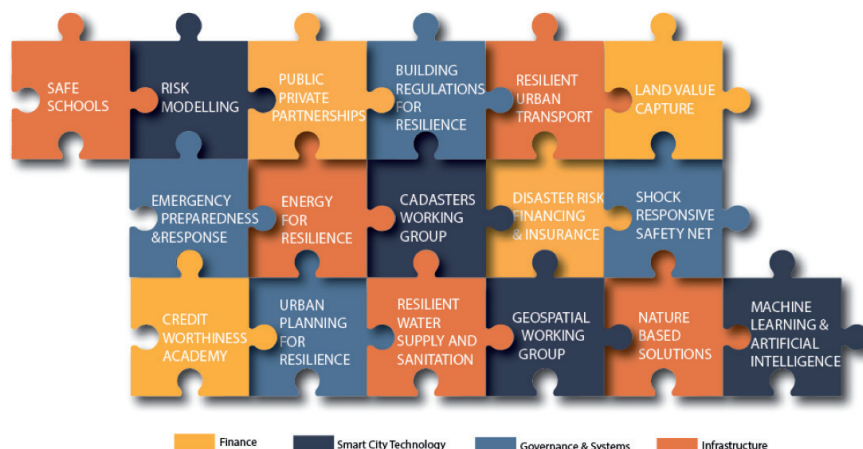
Technical Excellence for City Resilience

INTRODUCTION

Cities face a multitude of challenges that are inherently multi-sectoral and interdependent in nature. Comprehensive development plans must balance a community's aspirations for growth and quality of life, with risk reduction and hazards. In order to strengthen resilience in an effective way, cities have to work across a wide range of sectors that include infrastructure and the built environment, governance and systems for emergency

preparedness and response, and sustainable means for financing resilient-enhancing investments. By bringing to bear the World Bank's broad set of expertise and convening power, CRP supports cities to address the different elements that comprise resilience and to conceive of projects that are more ambitious in their technical design and financial scope, in other words, to pursue "better and bigger projects".

Figure 1. CRP Technical Working Groups



CRP TECHNICAL WORKING GROUPS

In order to consolidate and streamline technical support across sectors, CRP convenes a number of technical working groups that engage across the wide range of sectors that comprise urban resilience. The working groups provide ongoing technical advice and implementation support to project teams engaged in the cities. They provide input to project design to ensure that city

level investments integrate best practices and innovation, and attain the highest standard in terms of quality, scope and comprehensiveness. The aim is to conceive of a more ambitious project from the beginning, by proactively engaging both the required technical experts and potential co-financiers.

As much as possible, CRP will crowd in existing Bank programs,

knowledge networks (KSBs) and other initiatives in an effort to unlock synergies rather than create parallel teams and systems. The working groups are also tasked with managing a global learning platform that includes a repository of case studies and best practices, as well as example terms of references for each sector-specific diagnostic assessments and other preparatory work.

INFRASTRUCTURE

Resilient Urban Transport

This working group brings together experts in Disaster Risk Management and Transport solutions, to improve infrastructure throughout the lifecycle from systems and planning, to engineering and design, to asset management, contingency and response.

Seismic Resilient Water Supply and Sanitation

This working group brings together water and sanitation experts that work particularly to promote resilient infrastructure.

Energy for Resilience

This working group brings together energy specialists that work to promote resilient energy infra-

structure in urban centers.

Global Program for Safe Schools

Experts convened in this working group work to facilitate large-scale investments for the safety and resilience of new and existing school infrastructure at risk from natural hazards.

Nature Based Solutions

This working group brings together expertise in conserving natural habitats and deploying natural resources such as wetlands to miti-

gate natural hazards and act as natural defenses against floods, storm surges and the effects of sea level rise. Experts will promote

“green infrastructure” where possible as an alternative or complement to “hard” infrastructure and engineering solutions.

GOVERNANCE & SYSTEMS

Emergency Preparedness & Response

Ready2Respond provides timely, technical expertise to prepare and implement Emergency preparedness & Response investments. Emergency Preparedness & Response is the first line of defense for protecting public safety in the face of hazards.

Building Regulations & Resilience

The working groups provides technical assistance to promote efficient and effective building

regulatory frameworks to cities, including a focus on monitoring of seismic, wind and flood activities, laboratories and testing equipment for building materials, products and assemblies, and retrofitting of critical facilities.

Shock-responsive Safety Nets

Experts convened in this working group bring together experience in how to upgrade informal settlements for greater resilience, and protect the most vulnerable

population from disaster and climate risks.

Urban Planning for Resilience

This working group integrates efforts to strengthen urban resilience within a broader framework of urban planning and design, looking at localized urban development processes and making sure that urban design processes are sustainable and contribute to greater quality of life in cities.

SMART CITY TECHNOLOGIES

Machine Learning and Artificial Intelligence

Machine learning and artificial intelligence provide a new and innovative way to use complex datasets and big data to provide situational awareness pre and post disaster for decision-makers. This working group focuses on accessing the platforms and approaches that are available to decision makers to harness the power of data mining and self-learning computer algorithms, to support disaster risk management activities.

Geospatial Working Group

This working group brings the

philosophies and practices of the global open data movement to the challenges of reducing vulnerability and building resilience to natural hazards and the impacts of climate change across the globe. Focus is on promoting geospatial technologies, and sharing, collecting and using data.

Disaster Risk Modelling

Disaster risk modelling and risk assessments provide valuable information on the potential risks from earthquakes, floods, drought, volcanos, and landslides to people and assets. Risk models are a use-

ful analytical tool to assess the likelihood, and the cost of a potential future hazard event. With this information, decisions can be taken to manage future risk, and risk information is provided to more people faster, cheaper, and with greater functionality.

Cadaster Working Group

This working group brings together experts to promote adequate and effective cadasters as an effective land use and zoning mechanisms that protects against developments exposed to natural hazards.

FINANCE

Land Value Capture

This working group brings together experts in the design and implementation of land value capture strategies for infrastructure investments.

Credit Worthiness Academy

Linked to the World Bank's Credit Worthiness Initiative, this working group provides assistance to

cities to improve their financial performance and secure private investment they need to fund climate-smart infrastructure and services.

Disaster Risk Financing and Insurance

The experts convened in this working group focus on assistance to cities to improve their financial resilience against climate

and disaster risks, and promotes sustainable and cost-effective financial protection policies and operations for municipalities.

Public Private Partnerships (PPPs)

This working group convenes private capital and project finance experts with experience in structuring large-scale PPP transactions for infrastructure financing.

For further information <https://www.gfdrr.org/en/city-resilience-program>