

# CITY RESILIENCE PROGRAM

Investing for the Future



WORLD BANK GROUP



GFDRR

Global Facility for Disaster Reduction and Recovery





# WHAT IS URBAN RESILIENCE?

“The ability of a system, entity, community, or person to adapt to a variety of changing conditions and to withstand shocks while still maintaining its essential functions ”

-World Bank 2016

# WHY IS IT IMPORTANT?

Investing in urban resilience is fundamental to ensuring sustainable development and poverty reduction

- ① Unprecedented urbanization is transforming the planet and the way we live
- ② Most urban expansions occurs near natural hazards, rivers and coastlines, and through informal and unplanned settlements
- ③ Lack of adequate infrastructure and land use planning exacerbate the risks to which urban dwellers are exposed



# A DIFFERENT APPROACH

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Proactively investing in resilience – prior to the occurrence of a catastrophic event – represents a strategic shift from past development trends. It involves effectively addressing the interplay between risks and urban development that enables better management of current challenges while accounting for future scenarios.



## REACTIVE TO PROACTIVE

- Design investments with expectations of when and how shocks will occur
- Engineering designs based on future climate scenarios



## SILOED TO MULTIDISCIPLINARY

- Multisectoral lense to manage risks within a complex urban system



## UNDERSTAND THE BUILT ENVIRONMENT

- Integrate Geospatial Solutions and innovative technology to maximize land value and resilient urban planning



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# CRP STRATEGY

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## TECHNICAL ASSISTANCE

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Leverage breadth of World Bank Group expertise to design and implement a comprehensive response to the resilience challenge

## CAPITAL MOBILIZATION

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Targeted support to cities to develop a pipeline of resilience-building investments and expand financing options available to them



# WHAT ARE THE OBSTACLES TO FINANCING URBAN RESILIENCE?

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City governments lack funds to realize investments in resilient infrastructure



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Lack of bankable projects and pipeline of investments to attract private financiers



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Limited market development to enable flow of funds from private investors to city governments





EMERGENCY  
PREPAREDNESS  
& RESPONSE



RESILIENT  
COMMUNITIES



GEOSPATIAL  
SOLUTIONS



RESILIENT  
INFRASTRUCTURE

# TECHNICAL ASSISTANCE

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# CAPITAL MOBILIZATION

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## MUNICIPAL FINANCE

Financial management  
and credit worthiness



## PRIVATE FINANCE

Land Value Capture  
Public Private Partnership



## OFFICIAL DEVELOPMENT FINANCE

WBG alongside other  
multilateral and bilateral DFIs



## CREDIT ENHANCEMENT

Project de-risking  
and credit guarantees



# RAPID CAPITAL ASSESSMENT (RCA)

This assessment provides a high-level overview of the city on how national, subnational regulatory frameworks and local market fundamentals support the city to access domestic and international capital markets and leveraging private capital. Stop-lights charts are used for each city indicating risk level in each of the private sector mobilization modalities: bonds, bank loans, PPP/Concessions, and land-value capture.

● High Risk Condition ● Moderate ● Low risk

## All cities

WB Region	Country	City	International Bonds	Domestic Bonds	Loans from Commercial Banks	PPP / Concessions	Land Value Capture
Africa	Ghana	Accra	1.29	1.38	1.40	1.67	1.61
Africa	South Africa	Nelson Mandela Bay	2.29	2.50	2.80	2.33	2.50
EAP	Cambodia	Phnom Penh	1.95	1.50	1.20	1.67	1.61
EAP	China	Deyang	2.43	2.25	1.80	2.33	2.22
EAP	Indonesia	Balikpapan	1.90	2.00	2.40	2.00	2.11
EAP	Indonesia	Jakarta	2.00	2.13	2.40	2.33	2.67
EAP	Laos	Vientiane	1.62	1.25	1.40	1.67	1.72
EAP	Myanmar	Yangon	1.29	1.13	1.00	1.00	1.67
EAP	Thailand	Bangkok	2.43	2.38	2.20	2.67	2.78
EAP	Vietnam	Haiphong	1.81	2.00	1.20	2.00	2.78
EAP	Vietnam	Ho Chi Min	1.90	2.25	1.40	2.67	2.89
ECA	Turkey	Istanbul	1.76	2.25	1.80	1.67	2.67
LAC	Argentina	Jujuy	1.57	1.88	1.80	2.67	2.06
LAC	Argentina	Santa Fe	1.67	2.00	1.60	2.67	2.22
LAC	Bolivia	Cochabamba	1.71	1.63	1.40	1.00	1.67
LAC	Bolivia	La Paz	1.71	1.63	1.40	1.00	1.56
LAC	Brazil	Manaus	1.67	2.13	2.00	2.67	2.28
LAC	Brazil	Porto Alegre	1.67	2.13	2.00	2.33	2.78
LAC	Colombia	Barranquilla	1.86	2.75	2.60	2.67	2.78
LAC	Colombia	Medellin	1.95	2.75	2.60	2.67	2.84
LAC	Panama	Panama City	2.43	2.00	2.20	2.33	2.50
LAC	Peru	Lima	1.95	2.50	2.60	3.00	2.50
South Asia	Bangladesh	Chittagong	1.71	1.63	1.80	2.33	1.72
South Asia	Nepal	Kathmandu	1.38	1.50	1.80	2.00	1.83
South Asia	Nepal	Lalitpur	1.29	1.38	1.60	2.00	1.67

## Results Examples

## Ho Chi Minh City

Factors	International Bonds	Domestic Bonds	Loans from Commercial Banks	PPP / Concessions	Land Value Capture
National currency volatility	●				
Key rate		●			
Prime bank lending rate - in domestic currency			●		
National economic outlook	●				
National fiscal and monetary sustainability	●	●			
Legislative context / national frameworks for respective mechanism	●	●	●	●	
City's track record / institutional capacity in respective mechanism	●	●	●	●	●
Bond market infrastructure	●	●			
Availability of bond investors on domestic market		●			
Perceived city creditworthiness	●	●			
Local fiscal flexibility / fiscal autonomy	●	●			●
Availability of government co-financing vehicles			●	●	
Market demand for development sites					●
Land market transparency					●
Secure land and property rights					●
Land use controls					●
Marketability of underutilized public properties					●
Price discovery for publicly owned real estate					●
Legislation for special tax assessments					●
Practice and framework for community participation in land banking					●



# CRP MECHANISM

Engagements with cities are taken on a three phased approached.

Capital Mobilization Technical Assistance

Preliminary assessments to define the set of investments needed to strengthen urban resilience

## PHASE I



## PROJECT SCOPING

Assess the enabling environment to deploy financial instruments for Debt, PPP and LVC

In-depth technical assessment to tailor urban resilience project design

## PHASE II



## DIAGNOSTIC ASSESSMENT

Capital Investment Planning that includes a menu of private capital Transaction options

Implementation of the identified investment project

## PHASE III



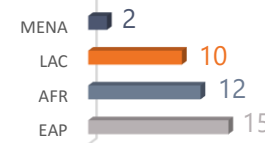
## PROJECT IMPLEMENTATION

Execution of private capital transaction

# CRP'S MILESTONES

**2/2018**

Call for new cities!



**1/2018**

35 cities engaged  
12 cities selected for  
financing market  
testing



**12/2017**

WB President  
introduced CRP at the  
Paris One Planet  
Summit

**11/2017**

Comprehensive  
Financial Solutions  
For City Resilience  
Conference



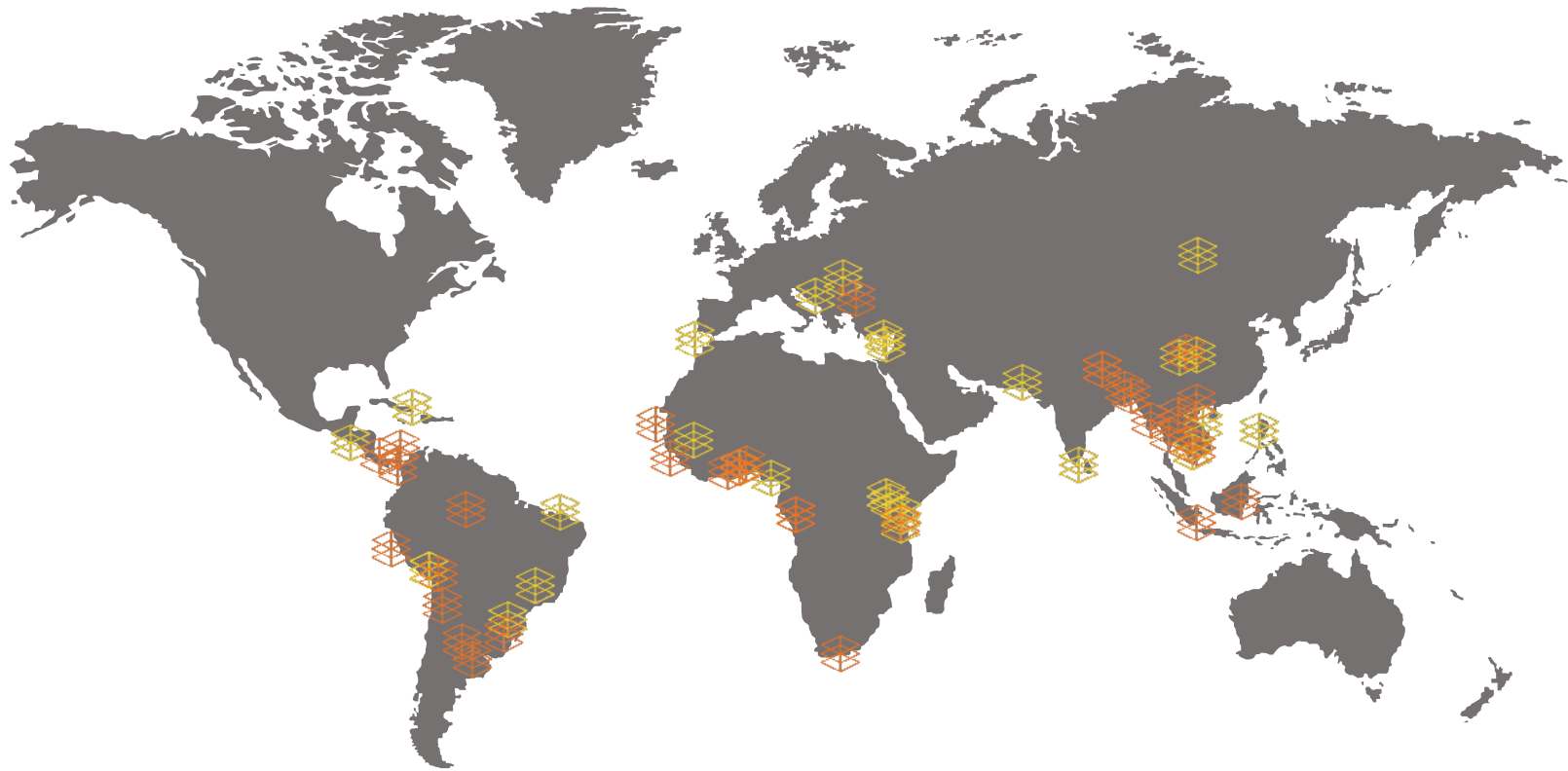
**6/2017**

CRP Launch



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# CRP'S PORTFOLIO

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Cities CRP engages with



2018 new cohort of cities

# HAIPHONG

-Case study

CRP Phase II Capital  
Mobilization activities

Activity

## ACTIVITY I

Identification, validation  
and preliminary  
assessment of  
Haiphong's priorities

## ACTIVITY II

Assess Projects'  
feasibility to raise private  
capital, including debt  
instruments, PPP and  
LVC

## ACTIVITY III

Supporting development  
of enabling environment  
for urban resilience  
projects, realization and  
financing

Key Tasks

- Review current urban resilience agenda
- Prepare a stakeholders' map indicating role, potential impact and attitude towards prioritized projects
- Systematic analysis of materials developed during previous CRP assignments
- Development of a standardized toolkit to reflect the specifics of Haiphong city
- Define short-listed projects

- Pro forma financial model for the selected project(s)
- Desktop systematic analysis to inform qualitative assessment and down-selection of funding mechanisms
- Targeted interviews, consultations, workshops
- LVC market testing
- Optimal capital structure
- Roadmap for Project implementation

- High-level review of key limiting factors for project implementation and private capital deployment:
- PPP laws and regulations
  - Bidding criteria
  - Experience in and quality of urban resilience investments
  - Dispute resolution mechanisms
  - Institutional design
  - Public capacity to plan and oversee PPPs
  - Methods for selecting and awarding projects



# Barranquilla

## -Riverfront rehabilitation project

CRP facilitates a dialogue between city officials and private developers with the aim of structuring a joint development effort with shared funding responsibilities for critical infrastructure upgrades.

### Opportunity



Area boasts high potential for land value growth due to proximity to riverfront, which is attractive to private investors.



The city is committed to foster improvement of the area



Current land regulations allow deployment of various LVC instruments.

### CRP contribution

Initial verification of project scope is completed; Land area for the pilot project within the Barranquilla waterfront rehab area is pending identification

The city created a Development Agency that is in charge of the waterfront rehabilitation.

Capital mobilization advisory to assess funding sources, uses and financial gaps for a pilot infrastructure project the waterfront rehab area starts soon





# Porto Alegre

## -Urban Regeneration project

CRP facilitates a dialogue between city officials and private developers with the aim to structure a joint development effort. City aims to attract private sector investment in resettlement and critical infrastructure by: 1) Recouping land value growth attributable to private-led developments 2) Monetizing city-owned assets 3) Securitizing the value of city-owned assets

### Opportunity



Area boasts high potential for land value growth granted development roadblocks are lifted



The city is committed to foster improvement of the area



Critical infrastructure upgrades have been preliminarily identified and estimated to cost up to \$80 million



Private sector is lured by proximity to downtown and waterfront and is eager to invest

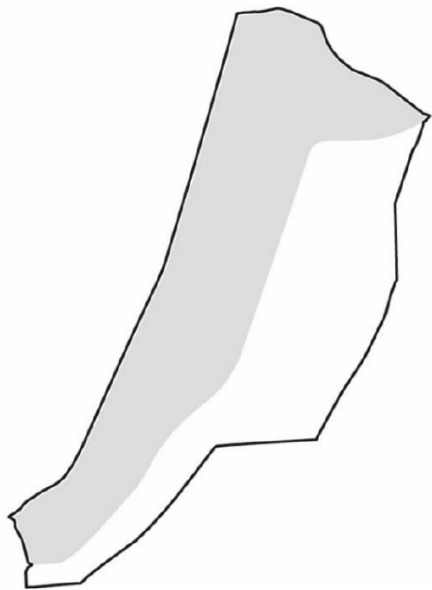
### CRP contribution

Initial verification of the urban renewal scope is completed; Land area for the pilot project within the 4th District is pending identification

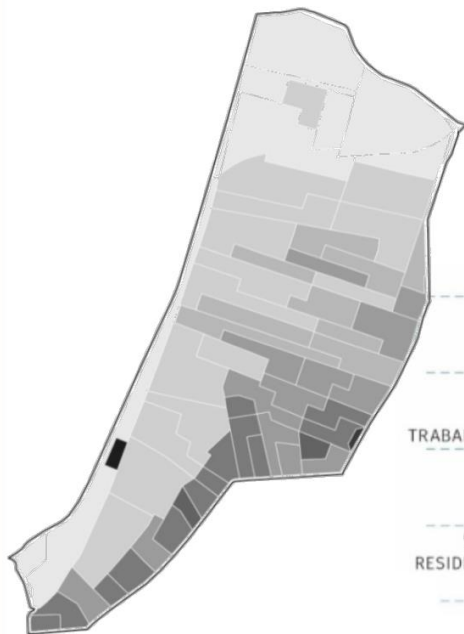
Working closely with city officials, CRP made recommendations on how to tackle flood events in the poorest parts of the 4th District

Capital mobilization advisory starts soon

Urban revitalization attracts people: increase of total density by up to 5X (from 35k to 175K)



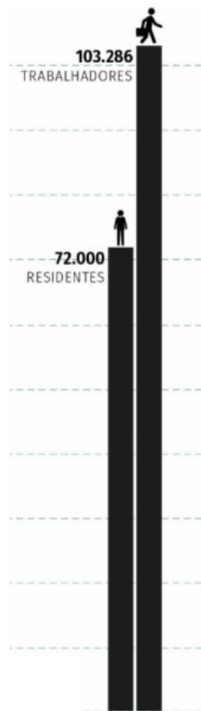
Experimental sector-  
341.9ha



Current density



Density after  
rehabilitation



# ECONOMIC RECONVERSION OF PRE-EXISTING AND ATTRACTION OF NEW BUSINESS



- Education
- Education and health
- Mixed use-housing, trade and services
- Entertainment, culture and recreation
- Information technology and creative economics

## Modernizing existing businesses

- Bars, restaurants, shops
- Self-employed professional services

## Business-Anchor Establishment

- IRGA (rice R & D)
- AMBEV (Beer District)
- GERDAU (Tower of Knowledge)
- University (Research Groups)

## Training Clusters of Knowledge

- Health
- Education
- Creative economy
- Information Technology and Microelectronics

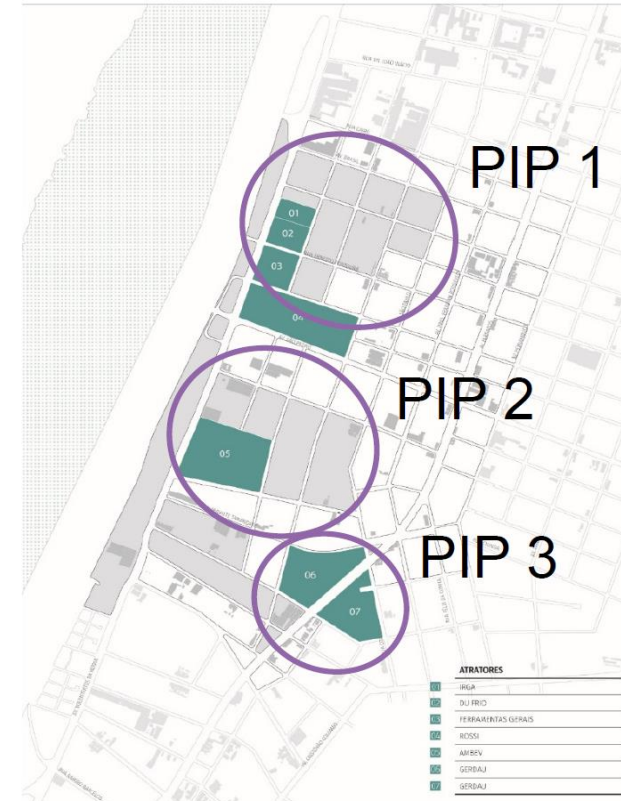
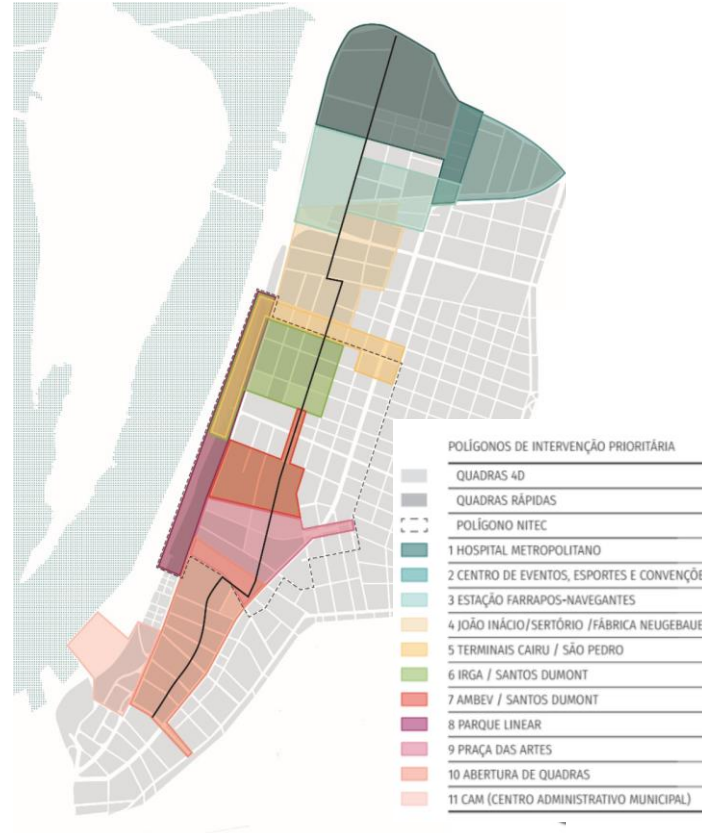


**Increased income generation,  
changing socioeconomic dynamics  
of the region**



## HOW TO GET THERE?

1. Definition of PIPs - Priority Intervention Polygons
2. Selection of strategic PIPs according to installed capacity pre-existing infrastructure, mobility, amenities, socioeconomic dynamics (economic activities, housing)
3. Development simulation
4. Implementation of the Business Plan for the implementation of the Master Plan



**THANK  
YOU**

