

# CITY RESILIENCE PROGRAM

Investing for the Future



# RESILIENCE IS NOT A SILO

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## Governance & Systems

Institutional  
resilience and reform



## Finance

Financial resilience and capital  
mobilization

## Infrastructure

Physical resilience  
across sectors



## Community

Resilient communities





# 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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# OBSTACLES TO CREATING URBAN RESILIENCE

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Low capacity to  
acquiring, managing  
and utilizing city data  
for resilience



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Lack of technical  
capacity to diagnose  
and implement urban  
resilience measures



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Lack of knowledge  
and experience in  
what comprises  
urban resilience



# 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

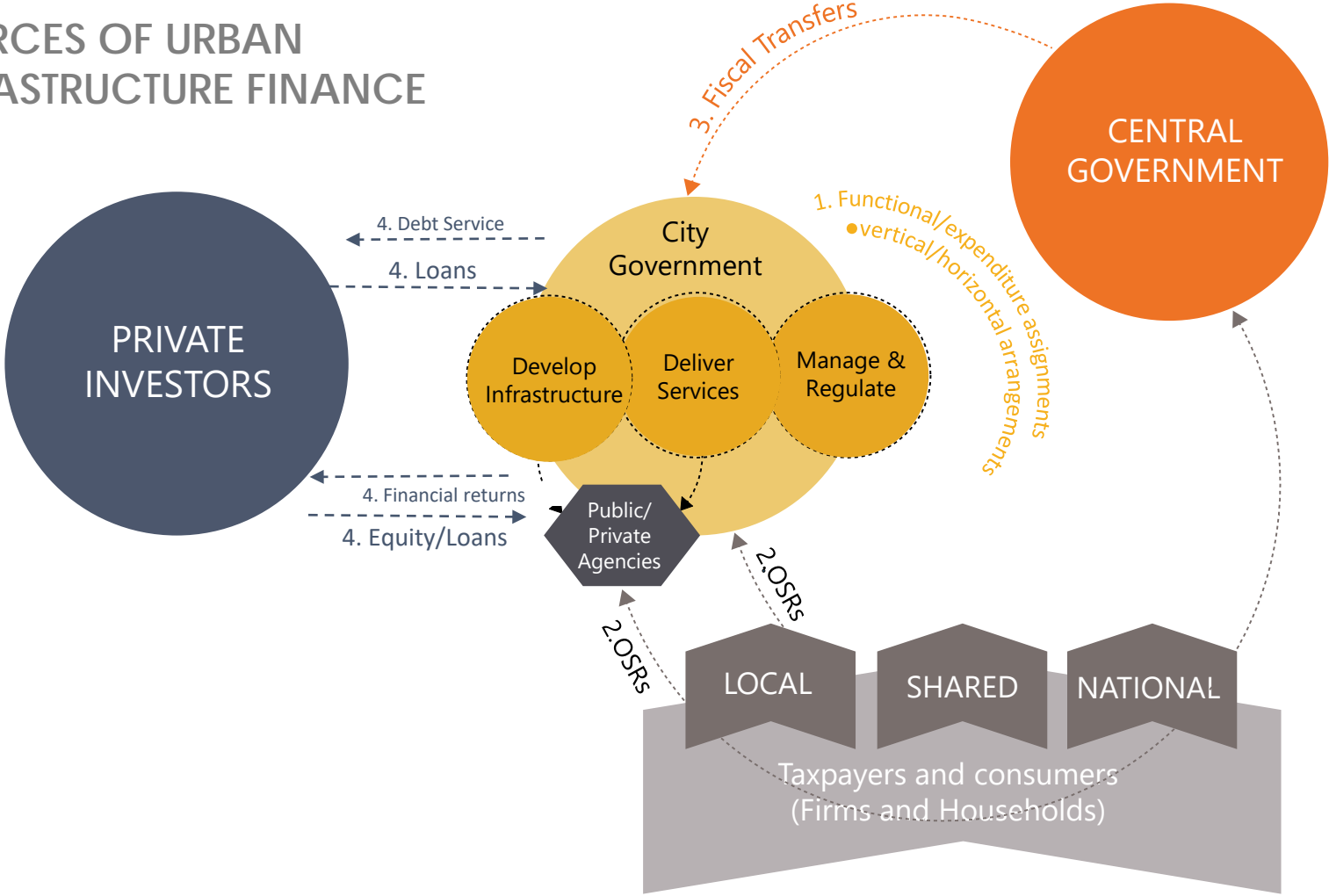


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Limited market development to enable flow of funds from private investors to city governments



# SOURCES OF URBAN INFRASTRUCTURE FINANCE



# TAXONOMY OF INNOVATIVE URBAN INFRASTRUCTURE FINANCE INSTRUMENTS

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## 1 Revenue-enhancing instruments

Special Assessment Districts  
e.g. Tysons Corner,  
Washington USA

Sale of Development Rights  
e.g. CEPACs, Sao Paulo

Impact / Development Fees  
e.g. South Africa

Pollution charges e.g.  
wastewater charges

## 2 Leveraging instruments

### Direct Borrowing

Expanded bond and bank  
borrowing e.g. South Africa

Structured financing  
instruments e.g. revenue-  
backed bonds

Green bonds e.g.  
Johannesburg

Credit enhancements e.g.  
... Philippines

### Indirect Borrowing

PPPs

SPVs e.g. India

## 4 Fiscal transfer instruments

Performance grants e.g.  
County Capacity and  
Performance Grant,  
Kenya

Targeted conditional  
transfers e.g. to  
resilience or emission  
reduction uses

## 5 Infrastructure / targeted funds

Endowment funds e.g.  
Fund for the Protection  
of Water (FONAG),  
Quito

Revolving funds e.g.  
Clean Water State  
Revolving Fund, USA

Sinking funds

## 3 Revenue-enhancing & leveraging instruments

Tax increment financing

Special Assessment Districts (debt instrument)

Sale of Development Rights (equity instrument; can also leverage further debt)



# CRP STRATEGY

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## TECHNICAL ASSISTANCE

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

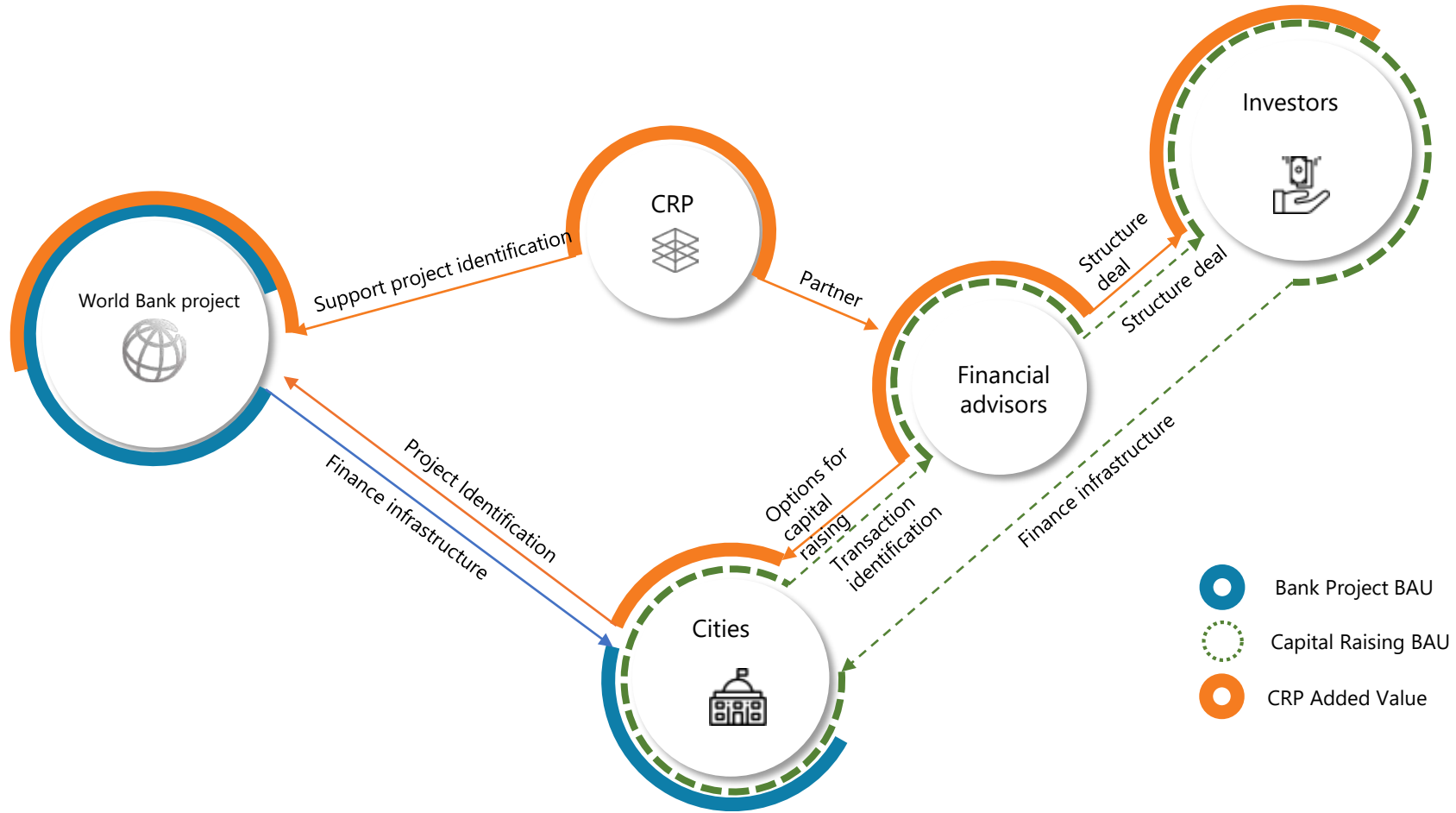
## CAPITAL MOBILIZATION

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



# CAPITAL MOBILIZATION |

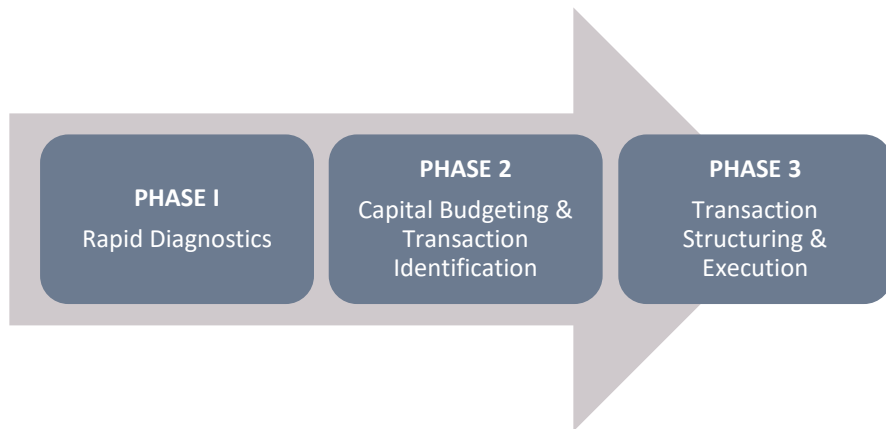
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# A 3-PHASED APPROACH

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CRP's Capital Mobilization Strategy provides a structured, 3-phased engagement process with every participating city to analyze the city's potential for private sector financing and prepare a concrete capital investment plan.



# PHASE I: RAPID DIAGNOSTICS

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**Focus:** Completion of a **Rapid Capital Assessment** that serves as a indicative high-level assessment to understand cities' capacity and enabling environment for attracting private capital by i) raising commercial debt, ii) structuring PPPs, and iii) Land Value Capture (LVC) transactions.

## 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	1.80	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	2.28	2.30	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 Allegre	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	2.94
LAC	Panama	Panama City	2.43	2.00	2.30	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	1.33	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

## Example: 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					●

● High Risk Condition    ● Moderate    ● Low risk

# PHASE II: CAPITAL BUDGETING & TRANSACTION IDENTIFICATION

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**Focus:** Development of a concrete **Capital Investment Plan** tailored to a prioritized investment and that identifies the spectrum of capital mobilization tools which could be structured to finance the respective investment.

## Activity 1 Identify and validate investment projects

Identification, validation  
and preliminary assessment  
of each city's priorities

## Activity 2 Evaluate investments, build investment plan and capital structure

Assess projects' feasibility to raise  
private capital through debt  
instruments, PPP and LVC,  
considering the legal, institutional,  
economic and market conditions.

## Activity 3

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



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# PHASE III: CAPITAL RAISING EXECUTION

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**Focus:** support to structuring and execution of Capital Investment Plans and to prepare transaction documentation



Approval of  
World Bank Loan



Support in hedging,  
de-risking and  
credit enhancement



Transaction  
management support  
in private capital  
mobilization (debt,  
PPP, LVC)



Technical  
Assistance on  
regulatory and  
institutional reform



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# CRP GLOBAL FOOTPRINT

To date, CRP has engaged more than **50 cities** across the world on developing investment programs.





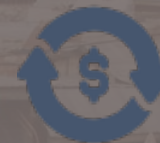
# PROJECT SELECTION CRITERIA

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## Targeted Infrastructure Assets

- Flood-preventive infrastructure
- Water management
- Sanitation
- Energy
- Intra-urban transport and connectivity
- Upgrading of informal settlement
- Land cadaster systems



## Main Transaction Conditions

- World Bank project (loan and technical assistance) is activated and WBG funding is part of capital structure
- Credit enhancement mechanism is conceived either through WBG or partner programs such as the European Fund for Sustainable Development
- Minimum transaction size (including equity and borrowed funds) – USD 50 million



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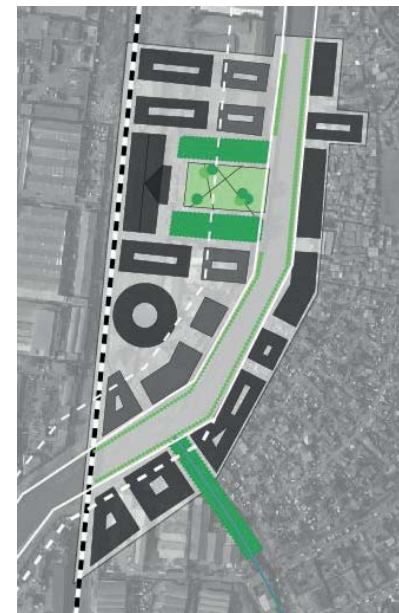
# ACCRA, GHANA

<b>Project description</b>	Extension and widening of main drains in the downstream section of the Odaw river basin; enabling new commercial and residential development (Railway Business District)
<b>Pilot intervention area</b>	47 hectares near Accra's CBD
<b>Estimated project value</b>	\$50 million is a ballpark estimate of brining 47-ha of underutilized land to fully-serviced shovel-ready condition. Full cost of drainage upgrades in Odaw basin is subject for further verification
<b>World Bank participation</b>	The project is part of The World Bank's Greater Accra Resilience and Integrated Development Project, which is pending approval in September 2018
<b>Potential private sector participation</b>	Land value capture, design-build contracting
<b>CRP role</b>	Facilitate a dialogue between the city and the private investors so that the latter would find feasible to cover drainage infrastructure upgrades in exchange for land and construction rights on the Accra's evolving real estate market. Government with help of IFIs will co-invest and aid feasibility of private sector infrastructure investments.
<b>Financial advisor to CRP</b>	Deloitte

*Pilot site location*



*Development sketch plan by Bosch Slabbers architects*



# BARRANQUILLA, COLOMBIA

<b>Project description</b>	Redevelopment of a 429-hectare area along the Magdalena River to convert it into a new vibrant urban core.
<b>Pilot intervention area</b>	The Municipality selected a 250-hectare targeted area and subdivided it into 13 development parcels that will be further prioritized according their land value growth potential
<b>Estimated project value</b>	USD 250-500 million are ballpark estimates for siteworks and horizontal infrastructure
<b>World Bank participation</b>	World Bank lending program in preparation
<b>Potential private sector participation</b>	Land Value Capture, joint development agreements, design-build contracting
<b>CRP role</b>	Enhance the project capital structure by facilitating private sector participation in the waterfront rehabilitation, minimizing the cost burden to the city
<b>Financial advisor to CRP</b>	Deloitte

*Pilot area on city map*



*Waterfront subdivision into development parcels as suggested by the Municipality*





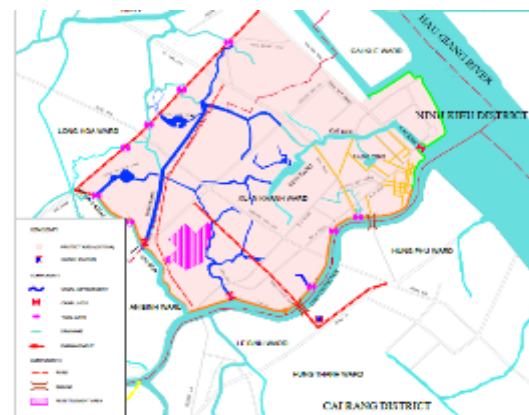
# CAN THO, VIETNAM

<b>Project description</b>	Investment in flood control, drainage & wastewater systems, connectivity and resettlement in flood affected areas near Can Tho's historic center and waterfront; unlocking upgrading possibilities through private real estate investment.
<b>Pilot intervention area</b>	2,675 hectares for pilot intervention in resilience investments and a resettlement district of 54-hectares in a flood-protected area.
<b>Estimated project value</b>	Initial upfront investment in flood risk management, environmental sanitation and resettlement is in excess of USD 300. Total projected cost of infrastructure upgrading exceeds USD 500 million.
<b>World Bank participation</b>	The World Bank provides a USD 250 million loan (approved) to finance flood preventive and connectivity measures, and technical assistance package for spatial planning, fiscal risk management instruments, and social protection.
<b>Potential private sector participation</b>	Land Value Capture and different concessional schemes for drainage & water systems and transport links (DB-DBOM-DBFOM)
<b>CRP role</b>	Facilitate a dialogue between city officials and private investors to structure a fair and transparent process of disposition of development rights in high-potential areas of Can Tho's urban core. This will entitle private investors to cover a portion of area-wide infrastructure upgrades, flood-protective measures and resettlement costs.
<b>Financial advisor to CRP</b>	PWC

*Project area on satellite view*



*Intervention areas mapped (resettlement, canal improvement, embankment upgrade, etc.)*



# PORTO ALEGRE, BRAZIL

<b>Project description</b>	Redevelopment of Porto Alegre's 4 <sup>th</sup> District, currently deprived and prone to flooding. This area offers unique value-add opportunities for real estate investors, promising to become a catalyst of urban renewal in the entire city.
<b>Pilot intervention area</b>	Porto Alegre 4 <sup>th</sup> District comprises over 900 hectares, nestled between the city's downtown and international airport. Pilot project area to be defined in due course
<b>Estimated project value</b>	Critical infrastructure upgrades have been preliminarily identified and estimated to cost up to USD 80 million
<b>World Bank participation</b>	The World Bank identified risks and made recommendations to the government on how to tackle flood events in the poorest parts of the 4 <sup>th</sup> District. Currently, World Bank project (loan and technical assistance) is pending approval.
<b>Potential private sector participation</b>	Land Value Capture
<b>CRP's vision</b>	Facilitate a dialogue between city officials and private developers to structure a join collaborative effort for fulfilling critical infrastructure needs. Private investors will be mandated to cover a portion of area-wide infrastructure upgrades and resettlement costs. Government and IFIs will co-invest and aid feasibility of private-sector investments.
<b>Financial advisor to CRP</b>	Deloitte

*Project location in Porto Alegre metro area*



*Development sketch*



# QUILMES, ARGENTINA

**Project description** Urban redevelopment project targeting an underserved community in Barrio Itatí (Municipality of Quilmes) south of Buenos Aires. The project entails public utility upgrades, formalization of land tenure, and house retrofitting inside of Barrio Itatí as well as catalytic development of the surrounding vacant urban sites.

**Pilot intervention area** 56-hectare in Barrio Itatí. Pilot intervention TBD

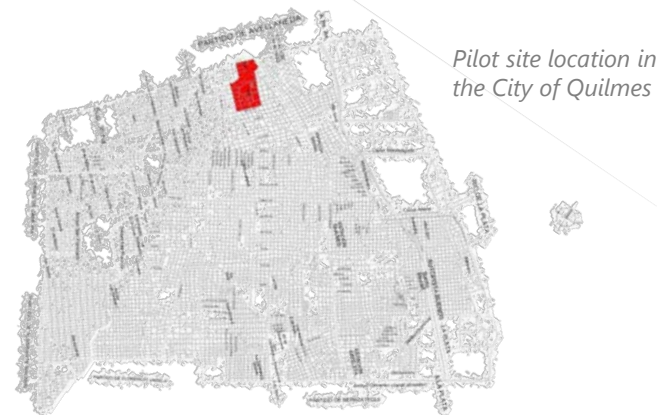
**Estimated project value** Initial infrastructure improvements are estimated to cost USD 50-60 million. Catalytic commercial development on a nearby greenfield site can increase the project's value to USD 80-100 million.

**World Bank participation** Barrio Itatí project is included in World Bank loan that is being prepared to support urban resilience undertakings in Argentina; the loan is subject for approval by end 2018

**Potential private sector participation** Land Value Capture and different concessional schemes (mainly, DB/DBO)

**CRP's vision** Provide a package of technical assistance measures aimed at optimizing the project's capital structure. This includes exploring opportunities for private sector participation in the urban regeneration activities in Barrio Itatí.

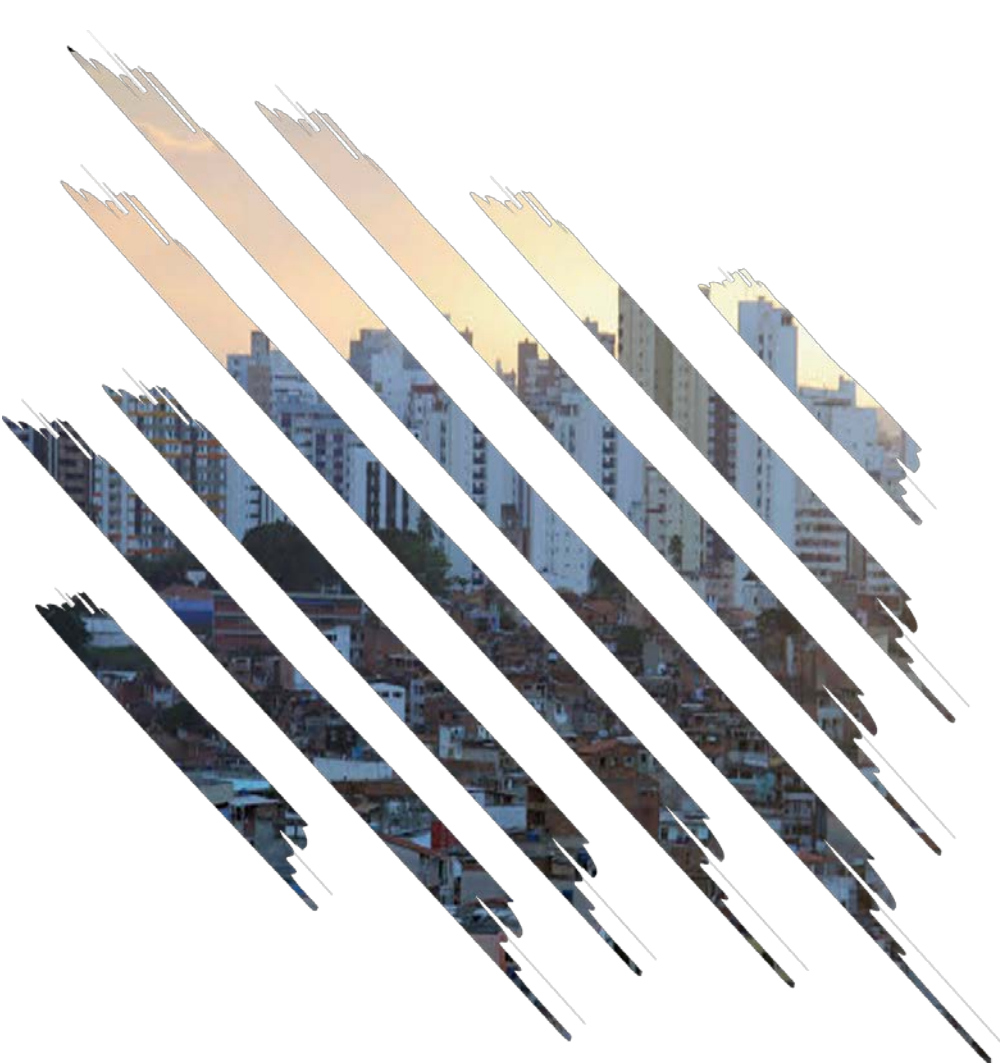
**Financial advisor to CRP** PWC



*Pilot site location in the City of Quilmes*



*Prioritized intervention areas in Villa Itatí*



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