Urban Resilience Matters

April 2–4, 2019 | Beirut, Lebanon

#ResilientMENA
Urbanisation

Casablanca, Morocco

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By 2030...

Weather-related and other disasters will cost cities $314 billion (approximately the GDP of Egypt) every year, threatening urban residents' homes, health, and livelihoods. Climate change may force up to 77,000,000 urban residents back into poverty.
URBAN RESILIENCE

WHY IS IT IMPORTANT TO ADDRESS IT?

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

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WHY IS IT NOT HAPPENING YET?

URBAN RESILIENCE

The Solution
We need to help developing cities overcome the four major obstacles to investment in resilience.

- **Lack of government capacity**: Cities can struggle with regulatory systems that deter private investment, political uncertainty, and difficulties planning, financing, and implementing projects.

- **Lack of private sector confidence**: Low confidence is driven by both low government capacity restraints and a lack of data and standards that can be used to measure an investment’s performance.

- **Challenges in project preparation**: High up-front costs to prepare projects mean that few urban resilience projects are prepared and offered to investors to finance.

- **Financing challenges**: The best bet to overcome technical financing hurdles such as limited funding for local entrepreneurs, lack of creditworthiness, and foreign exchange risk is mobilizing private finance.

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DRIVERS OF DISASTER RISKS

Poverty, inadequate designs, aging infrastructure...

Vulnerability

Natural Hazard

Disaster Risk

Climate change

Exposure

Unplanned Land Use

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What makes achieving urban resilience challenging?

- Climate Change & Natural Hazards
- Economic & Financial
- Risk and Uncertainty
- Interconnectedness
- Complexity
- Forced Displacement
- Pandemics
- Conflicts

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COMPONENTS OF URBAN RESILIENCE

- Social Resilience
- Economic Resilience
- Infrastructural Resilience
  - Policies and Institutions

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THE WORLD BANK’S ROLE

- Analytics & Global Knowledge
- Financing
- Technical Assistance
- Capacity Building

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FINANCING

#ResilientMENA Yemen emergency urban services program
Urban Resilience Master Plan, City of Beirut
ANALYTICS & GLOBAL KNOWLEDGE

BUILDING REGULATION FOR RESILIENCE
Managing Risks for Safer Cities

INVESTING IN URBAN RESILIENCE
Protecting and Promoting Development in a Changing World

City Resilience Program

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CAPACITY BUILDING

The World Bank’s Tokyo Development Learning Center

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MAINSTREAMING RESILIENCE ACROSS SECTORS
RESILIENT HOUSING
POOR-QUALITY HOUSING IS:

- **A matter of life and death**
  4% of natural disasters are earthquakes. 60% of deaths from natural disasters are caused by earthquakes.

- **Families’ most important, and sometimes only, asset.**
  The home represents between 50%-90% of a family’s assets.

- **A source of economic instability**
  Reconstruction costs >4x prevention costs. The bill is paid by the government.
HOW CAN THE WORLD BANK HELP?

- Affordable and Reliable Housing Assessments
- Policies and Incentives
- Financing for:
  - Infrastructure Investments to prevent occupation in hazard areas or to protect public spaces
  - New housing in safer areas (inc. Preventive resettlement)
  - Safer homes in existing areas
PUBLIC BUILDINGS
Mexico, September 2017

1:14:00 PM

Source: El Universal México 2017

1:14:20 PM

Source: Publimetro México 2017
What makes these schools unsafe?

- No maintenance plan
- No regulatory environment
- Poor design
- Lack territorial planning
- Poor quality/technology construction
- Low institutional capacity
- No financial capacity
- Lack of risk information
- No schools inventory
- High demand for new schools
GLOBAL PROGRAM FOR SAFER SCHOOLS

Boosts and facilitates investments at scale for safer and more resilient school infrastructure at risk from natural hazards

- DESIGNED TO TAILOR IN-COUNTRY/CITY SOLUTIONS AT SCALE
- FACILITATES GLOBAL KNOWLEDGE SHARING
- BUILDS ENABLING ENVIRONMENT
What started as a $400 million World Bank project soon triggered a cascade financing effect, resulting in five international institutions providing $2 billion in total financing.
RESILIENT INFRASTRUCTURE
## THE CHALLENGE

**INFRASTRUCTURE IS VULNERABLE TO CLIMATE AND DISASTER RISKS**

<table>
<thead>
<tr>
<th>Infrastructure is built in highly hazard prone areas</th>
<th>Risk assessments are not properly used in planning</th>
<th>Policy and Planning don’t address disaster and climate risk</th>
<th>Options needed for connectivity (Redundancy)</th>
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<tbody>
<tr>
<td>Proper geotechnical studies are not carried out</td>
<td>Design codes and standards are not updated</td>
<td>Infrastructure is not designed for safe failure</td>
<td>Tools needed to address these vulnerabilities</td>
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<tr>
<td>Lack of updated and easily accessible asset management system</td>
<td>Lack of <strong>funding and political will</strong> for resilience and maintenance</td>
<td>Infrastructure is <strong>poorly maintained</strong></td>
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<tr>
<td>Disaster recovery process and protocols are needed</td>
<td>Poor financial planning</td>
<td>Poor understanding of systems functioning in the aftermath of a disaster</td>
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APPLY A LIFECYCLE APPROACH TO INCREASE THE RESILIENCE OF INFRASTRUCTURE

THE OPPORTUNITY

- Life cycle approach is applied to highlight that infrastructure undergoes processes of growth, reorganization / development, deterioration / conservation, and destruction.
- Addressing resilience opportunities at various phases of the life cycle enables a reflective, stable, and systems oriented resilience capacity (socio-ecological resilience).
- The objective is to respond and evolve rather than stay static and vulnerable to threats of climate hazard-induced structural or systemic failure.
- Disaster risk financing techniques can help price the risk faced by lifeline-critical infrastructure (beyond normal maintenance) and allows for better financial planning that contributes to increasing the resilience of infrastructure.

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DISASTER RESPONSIVE SAFETY NETS
The cycle of poverty and vulnerability resulting from natural disasters

Pre-disaster assets → Disaster asset & livelihood loss → Negative coping → Falling into / back into poverty → Recovering from disasters → Asset re-accumulation → Repeat...

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What is a Disaster Responsive Safety Net?

Population

Poor not in regular SP program / vulnerable / near-poor

Regular program beneficiaries (sub set of the poor)

Scalability Component

Benefit amount

Regular benefit

Additional grant amount

Regular Safety net program beneficiaries

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In response to typhoon Yolanda in 2014, the government of the Philippines released $12.5 million between November 2013 and February 2014—three months after the disaster struck—in emergency cash transfers to 4P beneficiaries, leveraging by humanitarian actors. In particular, the existing 4P delivery platform and national targeting systems were used by WFP and UNICEF to top-up benefit amounts to 4Ps households in affected areas. Emergency support was provided for two months and included a negotiation to lift conditionalities of the regular program (Bowen 2015). In Pakistan, in response to the 2010 and 2011 floods, government provided cash payments to millions of affected households. The Citizen’s Damage Compensation Program (CDCP) made a one-time payment of Rs. 20,000 ($204) to beneficiaries by issuing 2 million prepaid VISA-branded “Watan” cards. The government partnered with a private bank, United Bank Limited, to deliver the cash to beneficiaries via debit cards. The CDCP was later extended to support recovery, delivering two additional payments of Rs. 20,000 per recipient, totaling $409 million per payment period. Similarly, the Bolsa Familia program in Brazil provided in-kind and cash benefits to 162,000 families in 279 municipalities within 10 days of the massive floods that hit in January 2011. Its central registry helped identify the affected families.
DISASTER RISK FINANCE
Insurance (parametric/indemnity) CAT Bond, Risk Pools

Contingent lines of credit: CAT-DDO, etc. IPF w/ Contingent Component

Emergency Loan — Accelerated + streamlined processing. Retroactive financing (<40%). Often slow implementation. No immediate liquidity.

IPF + Contingent Emergency Response Component — Quick reallocation of resources to recovery. No general budgetary support or immediate liquidity.

IPF w/ Contingent Component

Contingent Lines of Credit

Insurance — Quick payouts can be significant. Premium cost.

Opportunity costs.

Emergency Loan — Predictable + Cost-effective.
FROM A SECTORAL FOCUS TO AN INTEGRATED MULTI-SECTOR APPROACH
The City Resilience Program (CRP):
A change of paradigm in the way resources are mobilized for infrastructure financing

Away from Business-as-Usual as Cities need more than traditional sources to finance their infrastructure gap

From Sole Provider to Catalyst

• CRP channels WB resources into “bigger” projects and boosts the bankability of capital investment programs
• CRP assists cities to attract additional sources of financing including commercial debt, PPP structuring and monetizing or capturing value from land and real estate

WB Loan as an Anchor

• CRP anchors its transaction with a WB loan that is being developed under business-as-usual with the national government
• CRP has expertise in finding creative ways to support WB loan delivery in challenging or restricted situations e.g. through engaging financial intermediaries

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CASABLANCA, MOROCCO

CITY RESILIENCE PROGRAM

THE CHALLENGE: Development patterns in Casablanca have been haphazard and unmoored from traditional economic nodes

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CASABLANCA, MOROCCO

CITY RESILIENCE PROGRAM

THE OPPORTUNITY: Re-habilitation of Casablanca’s historic real estate assets near the new tramway line and high-speed train station to catalyze urban regeneration

TOTAL AREA for the abattoir site of **5.5 hectares**
- Built in 1912, **closed in 2002**
- Connected to the **new tramway line**
- 500 meters from **new high-speed rail station**

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WORLD BANK GROUP
Social, Urban, Rural & Resilience
THE CHALLENGE: Urban regeneration in Porto Alegre’s 4th District is hindered by flash flooding, exposing the area to sustained blight.
PORTO ALEGRE, BRAZIL

THE OPPORTUNITY: An initial public investment in drainage upgrades in the 4th District is able to facilitate district-wide urban upgrades and mitigate the area’s exposure to disaster risks, infrastructure and social challenges.

TOTAL INVESTMENT in excess of $500 Million

- **$390 million** in private capital
- **$80 million** in World Bank-financed drainage investments
- **$30 million** in public funds for land assembly

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HELPING CITIES ACHIEVE TRANSFORMATIONAL CHANGE