Role of Building Regulatory Framework for Effective Risk Reduction in the Built Environment
Kobe, March 14th, 2018
ENTRY POINTS

BENEFITS OF EFFECTIVE BUILDING REGULATORY FRAMEWORKS

Building Regulation for Resilience Program

- Disaster Recovery and Reconstruction
- Disaster Vulnerability Reduction
- Cultural Heritage Protection and Restoration
- Disability and Sustainable Inclusive Urban Development
- Climate Change Mitigation and Adaptation

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COST-EFFECTIVENESS OF REGULATORY INVESTMENT

**DISASTER & CHRONIC LOSS REDUCTION**

Ethiopia: Compliance with building code provisions would reduce AAL by 30 per cent by 2050

**CONTINUITY & GROWTH OF PUBLIC REVENUES**

Mexico, Honduras, Dominican Republic: property tax revenues make up less than 0.50 per cent of GDP (as opposed to 2-3 per cent of GDP in high-income countries)

**IMPROVED INVESTMENT ATTRACTION & COMPETITIVENESS**

Cost of compliance and regulatory infrastructure is on average 1% of construction cost in Japan.
OVERALL STRATEGIC GOAL:

CREATING A BUILT ENVIRONMENT TO SUPPORT PUBLIC SAFETY & HEALTH

MAJOR OBJECTIVES:

- STOP THE EXPANSION OF DISASTER AND CHRONIC RISK IN THE SITING AND CONSTRUCTION OF NEW SETTLEMENTS
- REDUCE ACUTE AND CHRONIC RISKS IN HAZARDOUS EXISTING SETTLEMENTS
AREAS OF PROGRAM’S INTERVENTION

National level legislation and institutions

Building code development and maintenance

Local level implementation

Rule of law
- Mortgage finance system that provides capital for safe construction
- Legal framework for real estate market
- Framework for secure tenure
- Property tax regimes and tax rates
- Land valuation mechanisms
- Conflict resolution mechanisms
- Professional societies
- Governance in large cities

Public understanding and support for code compliance as users and citizens
- Framework for public-private dialogue
- Insurance markets
- Accredited training institutes
- Insurance mechanisms in which code compliance is reflected in premium rates
- Voluntary standards and certification mechanisms
# Building Life Cycle & Government Points of Contacts

## Building Life Cycle

- **Siting**
  - Planning & Land Use
  - Government Intervention
    - Map hazard zones
    - Regulate land use
    - Establish cadastral system
  - Priority Actions
    - Establish building codes
    - Certify building designers
    - Establish plan review authority

- **Design**
  - Building Departments & Plan Reviews
  - Government Intervention
    - License construction firms
    - Certify building materials
    - Establish code-based inspections
    - Certify building trades
  - Priority Actions
    - Establish code-based inspections

- **Construction**
  - Government Intervention
    - Establish fire and health inspection for existing buildings
    - Certify building trades
    - Establish plan review authority
  - Priority Actions
    - Establish plan review authority

- **Use & Maintenance**
  - Government Intervention
    - Establish fire and health inspection for existing buildings
    - Certify building trades
    - Establish plan review authority
  - Priority Actions
    - Establish plan review authority

- **Modifications & Change of Use**
  - Government Intervention
    - Establish environmental standards for debris removal & site restoration
  - Priority Actions
    - Establish environmental standards for debris removal & site restoration

- **Decommission**
PRIORITIES FOR BUILDING REGULATORY REFORM AGENDA

- Informal settlements
- Informal with potential for regularization
- Regulated with weaknesses
- High end

- Develop the capacity of national and sub-national institutions
- Promote innovations for effective enforcement of building controls
- Orient regulatory & governance reforms toward compliance advice and support
- Create & adapt building standards appropriate to the poor
- Streamline regulatory process and reduce compliance cost
- Support Educational & vocational training efforts and technical guidance
- Enhance resilience of vernacular construction
- Promote local building products
Country example – Serbia

Before the reform (2014)

3-storey building with 5 illegal floors in the Municipality of Zemun (Belgrade)

- Unclear zoning
- Long complicated procedures
- Lack of standardization
- High costs
- Lack of capacity
- High degree of discretion
- Lack of compliance
Country example – Serbia

The reforms

2014: Construction Regulation Framework Law
2015: Integration & standardization (OSS)
2016: National E-Permit System
2017 onward: Ongoing reforms
Country example – Serbia

After the reform

- Over 200 Municipalities are now connected to the National E-Permit System
- New standardized process across the country with lower complexity, faster processing times and reduced compliance costs
- Electronic OSS system fosters transparency & predictability for investors as well as accountability for the public authorities
- Inspectors’ increased competency helps the Municipalities improve compliance
- Land planning and zoning regulations are currently under implementation

Results
HOW TO INITIATE REGULATORY REFORMS?

Level 1
Initial screening

Level 2
Independent detail assessment

Scoping and Dialogue

Building Regulatory Capacity Assessment

Prioritization Of Reforms and Investments

Technical assistance and/or program preparation
BRR: PRODUCTS & SERVICES OFFERING

<table>
<thead>
<tr>
<th>Technical Assistance</th>
<th>Investment</th>
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<tr>
<td><strong>Functional Diagnostics &amp; Capacity Assessment</strong></td>
<td><strong>Instrumentation &amp; Laboratories</strong></td>
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<td>• Projected physical damage &amp; loss estimations in the built environment</td>
<td>• Instrumentation for monitoring of seismic, wind and flood events</td>
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<td>• Evaluation of risks in existing buildings structures</td>
<td>• Laboratories &amp; testing equipment for building materials, building products &amp; assemblies</td>
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<tr>
<td>• Building Regulatory Capacity Assessment (BRCA)</td>
<td>• Equipment for on-site inspection and nondestructive testing</td>
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<td><strong>Legal &amp; Regulatory Foundations for Building Safety</strong></td>
<td><strong>ICT Infrastructure</strong></td>
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<td>• Legal advice and technical review for building legislation and building codes</td>
<td>• Improved efficiency in communication with permit applicants and effective and transparent record keeping</td>
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<td>(participatory process and local relevance)</td>
<td>• ICT infrastructure &amp; software equipment to support automation of building departments and multi-agency approval processes</td>
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<td>• Qualification requirements, plan reviews, inspection, permitting,</td>
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<td>certification &amp; accreditation of building professionals and testing laboratories</td>
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<td>• Support to enabling environment (insurance, incentives, mortgage finance, etc.)</td>
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<td><strong>Capacity Building of Regulators, Building professionals &amp; Builders</strong></td>
<td><strong>Retrofitting of Critical Facilities</strong></td>
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<tr>
<td>• Accreditation of control organizations, incl. building departments and soil, building materials testing facilities</td>
<td>• Evaluation and retrofit of vulnerable facilities critical to disaster response and recovery</td>
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<td>• Development of training for building professionals &amp; construction workforce.</td>
<td>• Developing of retrofitting solutions</td>
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<td>• Development of informal sector strategy</td>
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DISCUSSION

1) Have you implemented/how do you plan to encourage land use and building code compliance?
   • Builders, construction workers: Training/advisory targeting building designers: training, simplification of permitting process incl. e-permitting
   • Home owners: tax return, property insurance, subsidy/grant, security of tenure

2) What are the measures that you have/could explore to augment the capacity of the local municipal Government for land use and building control?
Supported the passage of the Building Act
- Facilitation of discussions with various interest groups and stakeholders

BUILDING ACT WAS APPROVED IN JANUARY 2017

Helps national Bureau of Standards in adapting building code to local circumstances
- Incorporate updated information on coastal hazards
- Support in adaptation of foreign building code to Jamaican context
- Streamlined & consistent presentation of Jamaica Building Code

Assists in developing effective local government implementation
- Training Needs Analysis for regulators
- Process mapping & re-engineering of permitting & inspections
- Developing curriculum for training of regulators and informal builders

Focus on management of urban expansion and the informal sector