A Primer on
Climate Change Impacts and Disaster Risk Management in Urban Areas of East Asia

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Overview

- The “Primer” – What is it and why have one?
- Climate change impacts in East Asian cities
- Objectives of the Primer
- City case studies and key lessons learned
- Next steps & new products under development
- Break-out groups and feedback

What is the Primer?

- The Primer is a document that outlines city typologies for East Asia
- It identifies both **adaptation and mitigation strategies** at the local level, based on learning from regional and global sound practices
- The Primer is applicable to a range of cities - from those starting to build awareness on climate change to those with climate change strategies and institutions already in place

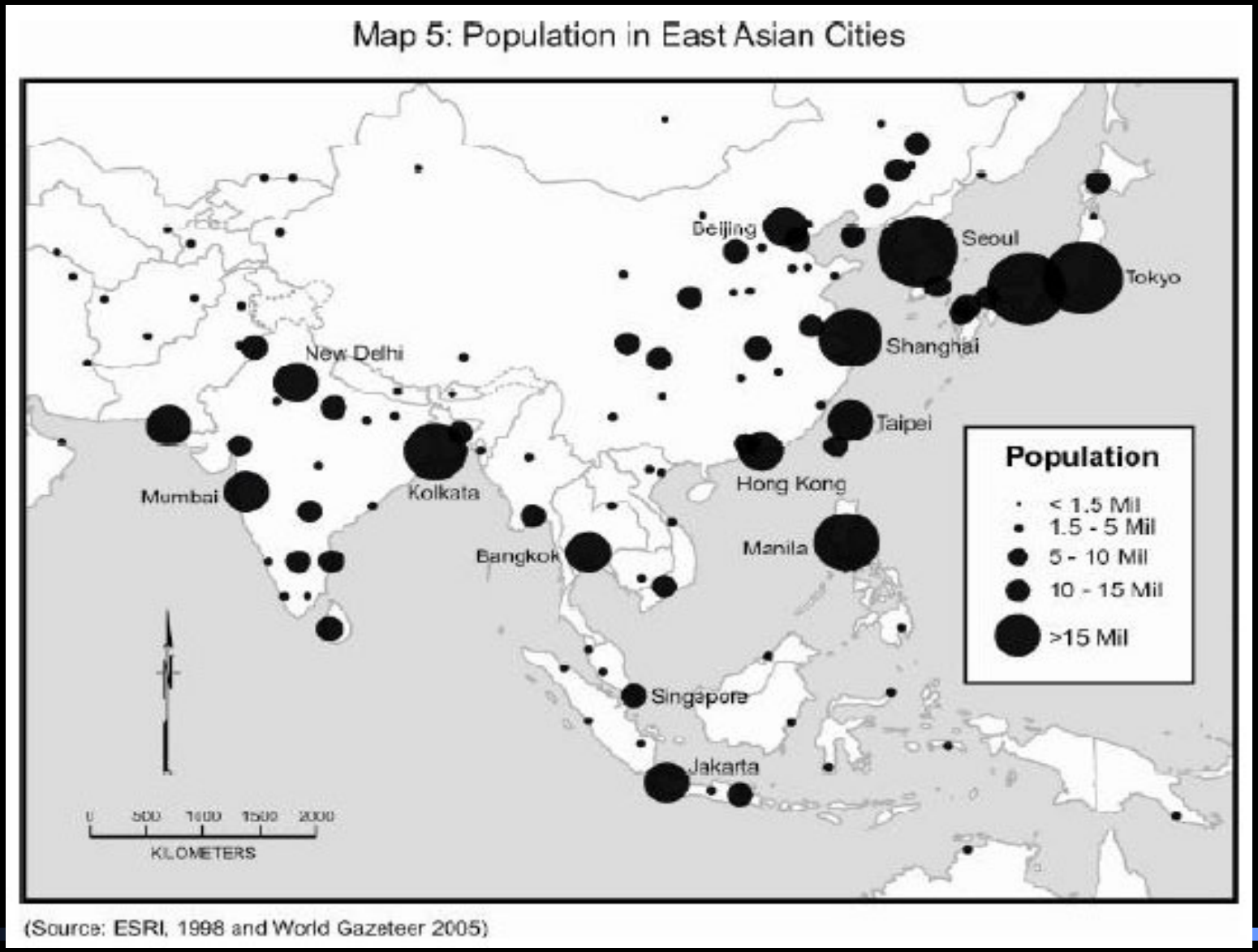
Why do we need a Primer?

- Climate change and its impacts are real
- Climate change impacts are felt at the local level
- Climate change impacts and natural disasters can undermine sustainable development
- Cities should be aware of risks to determine strategies to reduce potential impacts

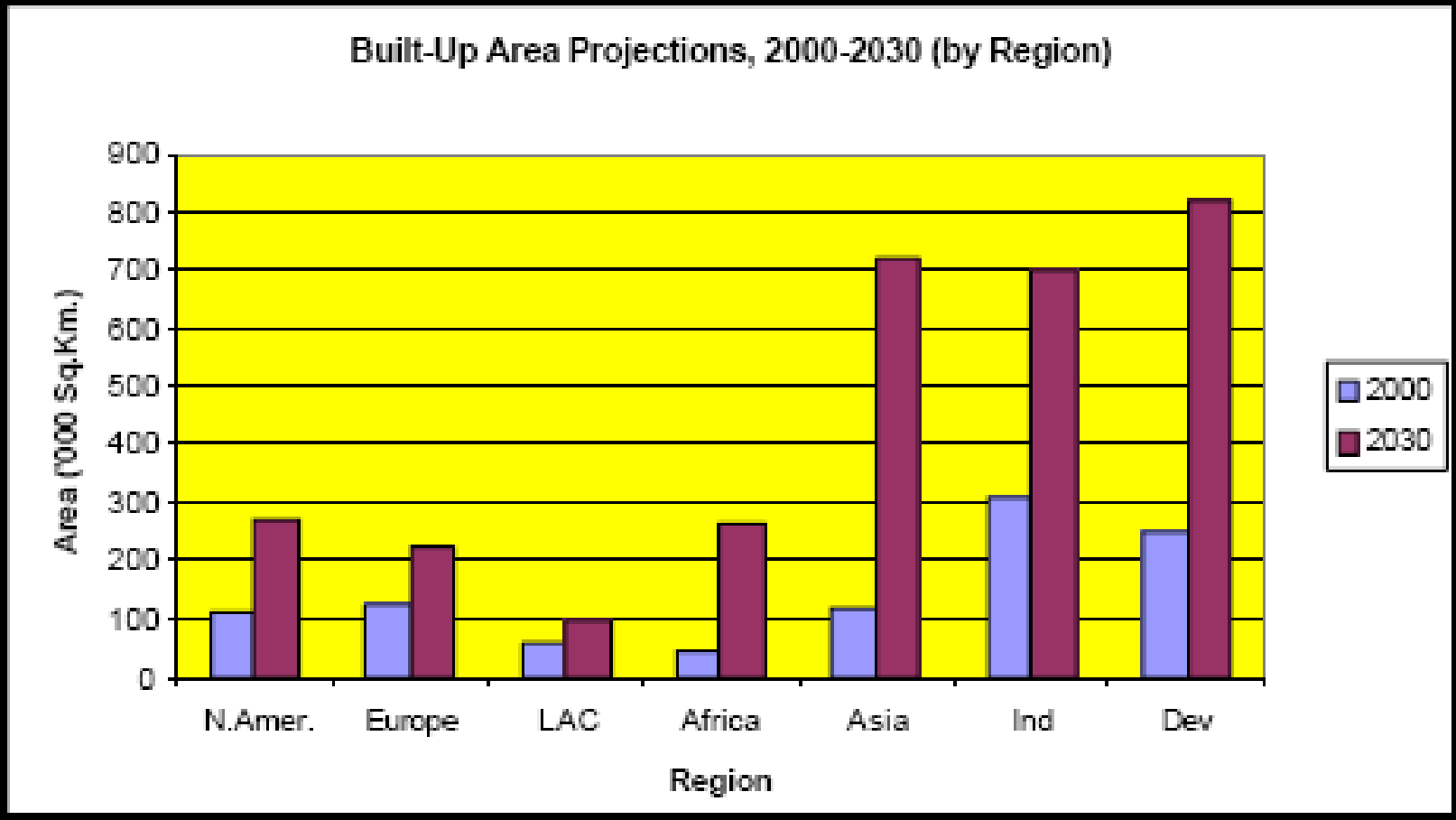
Why East Asia specifically?

- East Asia is urbanizing rapidly: 2 million new residents every month
- Climate change induced disasters in East Asia cities affect their economic growth
- East Asia cities are already vulnerable to multiple natural hazards – even without climate change impacts

Asia's Mega Cities



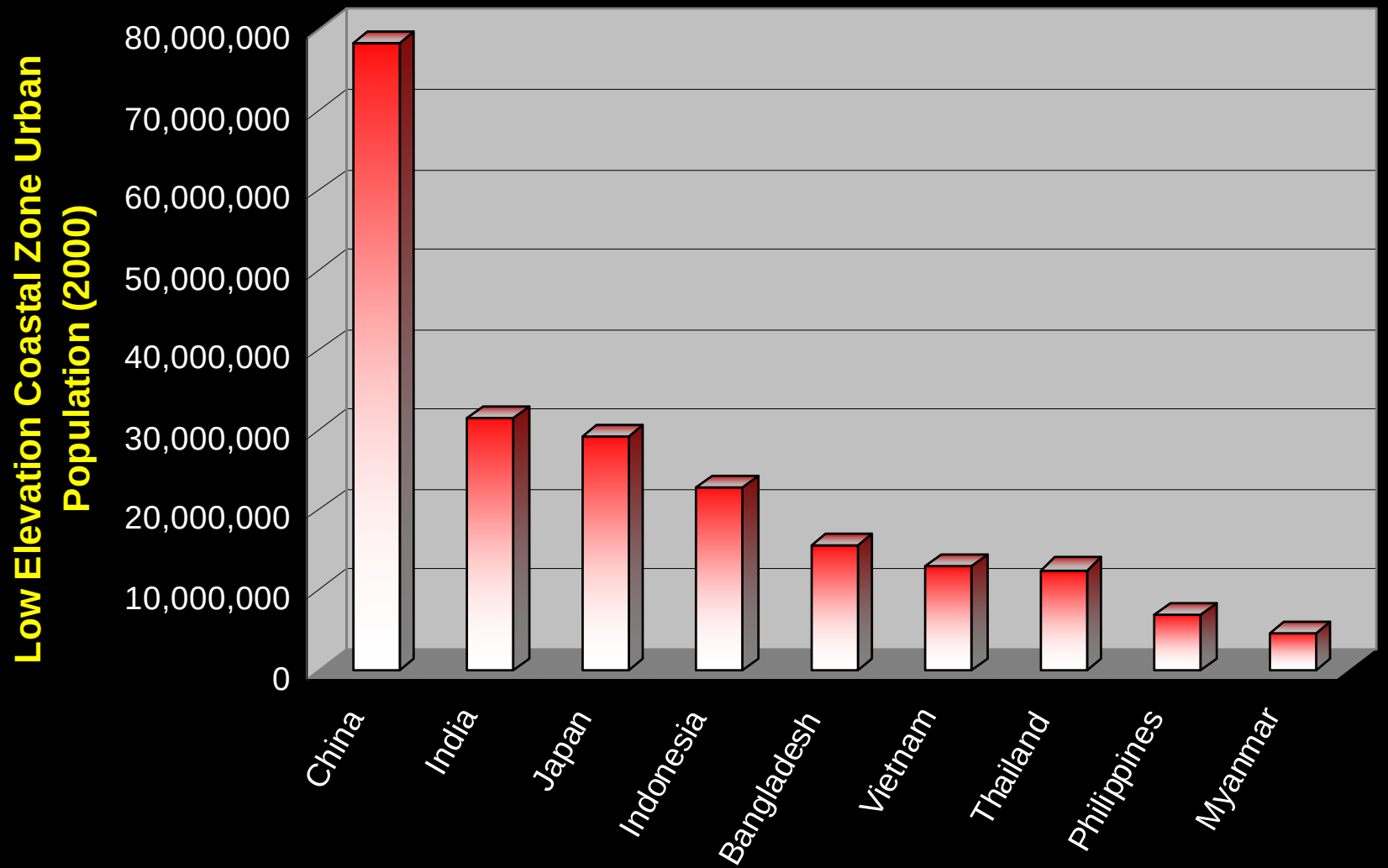
Urban growth needs to be climate-proofed



Source: Angel et al., 2005

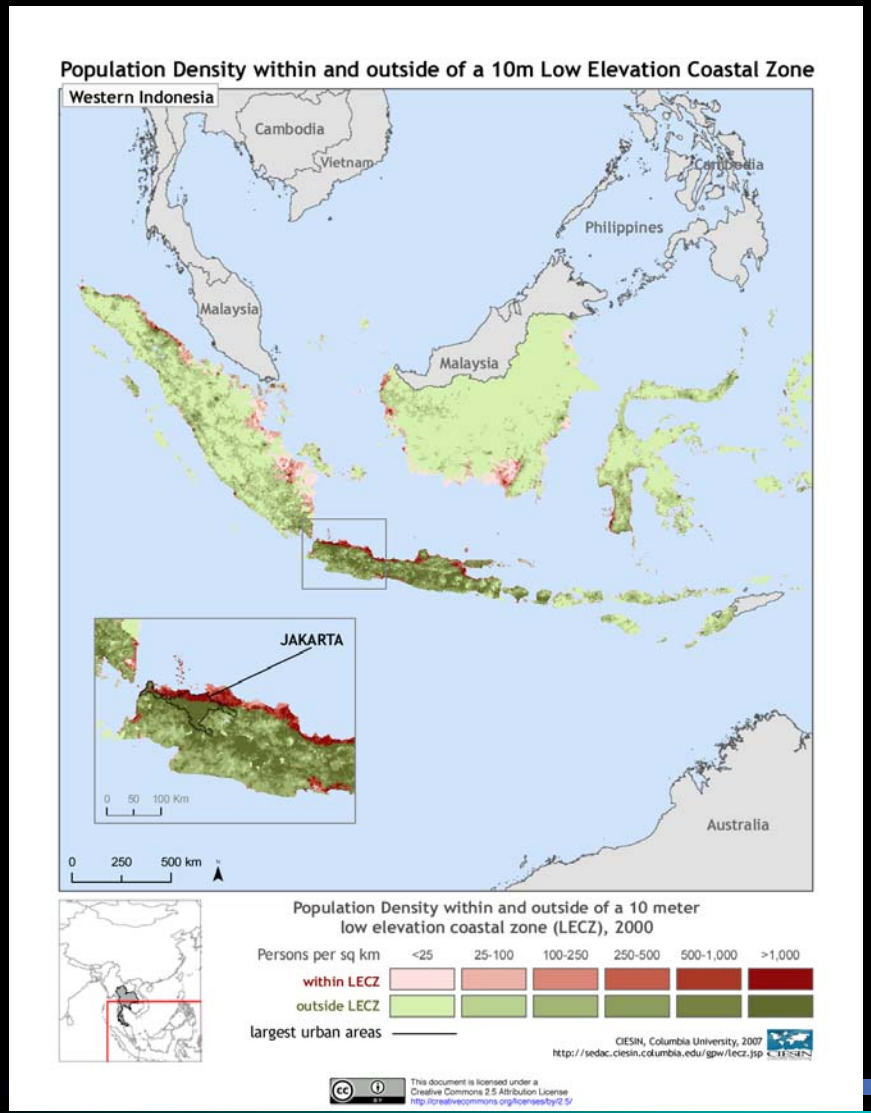
If average densities continue to decrease, doubling of the developing world's urban population by 2030 will result in a tripling of their built-up areas.

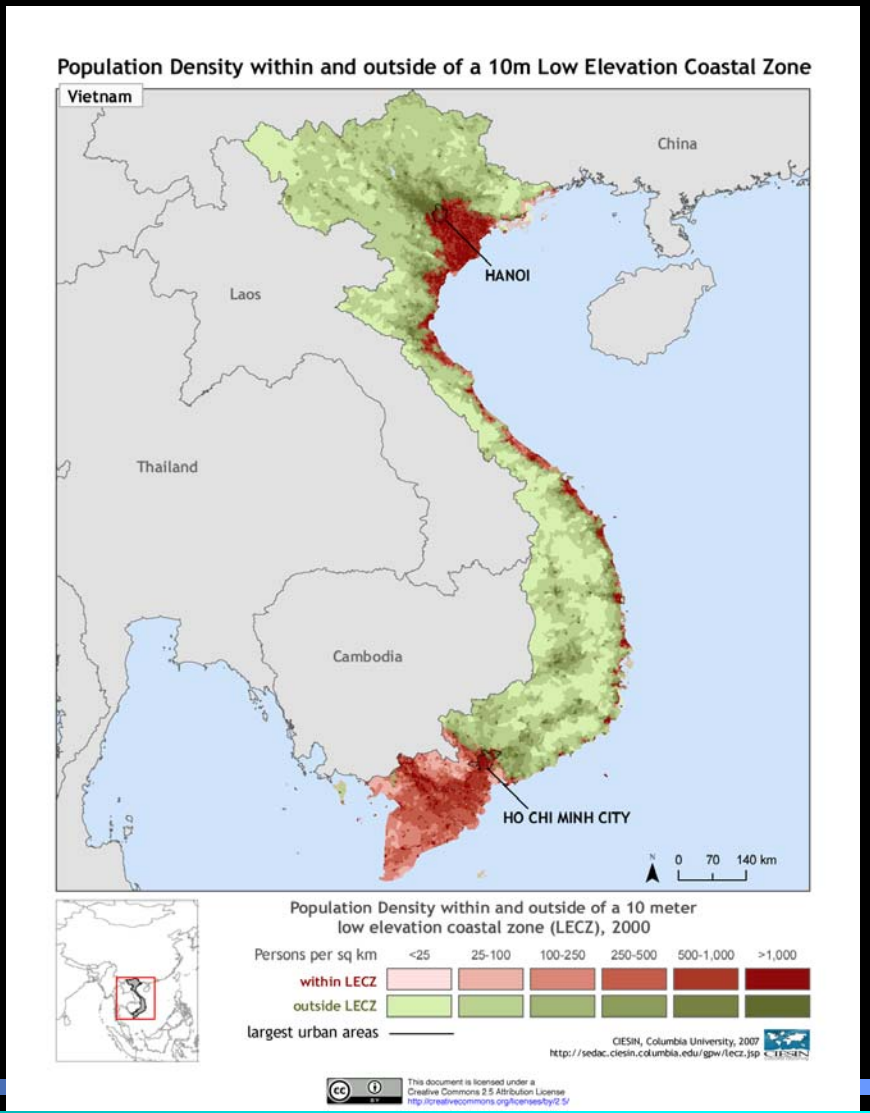
East Asia is at high risk



Source: SEDAC, Columbia Univ., 2007

Major population centers are severely impacted





Source: SEDAC, Columbia Univ., 2007

Objectives of the Primer

- To understand the issues and impact of climate change at the city level
- To engage in a participatory approach to establish vulnerabilities to potential climate change impacts
- To learn about the **why** and the **how** through illustrative examples from other cities
- To build resilience to future disasters into planning and design through **no-regrets** endeavors
- To understand the requirements for moving from theory to practice
- To engage in partnerships and shared learning with other cities facing similar problems

Organization of the Primer

- Section 1 - Understanding the Impacts of Climate Change
- Section 2 - Explaining Climate Change Impacts and Disaster Risk Management
- Section 3 - Assessment Exercise in the Determination of a HOT SPOT
- Section 4 - Creating Your City Information Base
- Section 5 - Sound Practices: Examples of Adaptation and Mitigation
- Section 6 - City Profiles of Sound Practice (on CD Rom)

Organization of the Primer

Section 1

Impacts of CC on urban areas

Section 2

CC & DRM

Mitigation

Adaptation

Section 3

Is your city a CC & DRM **HOT-SPOT?**

Hazard	**Vulnerability**	**Resilience**
Political Str.	**Adm. Capacity**	**Fin. Capacity**

Organization of the Primer (contd.)

Section 3

Is your city a CC & DRM **HOT-SPOT?**

- **Hazard**
- **Vulnerability**
- **Resilience**
- **Political Str.**
- **Adm. Capacity**
- **Fin. Capacity**

Section 4

City Information Base

- **Process**
- **Framework**

Section 5

Sound Practices Examples

- **Mitigation**
- **Adaptation**

Organization of the Primer (contd.)

Section 6

City Profiles of Sound Practices (on CD)

Detailed Profiles

Short Profiles

WHY?

HOW?

POLICY DETAILS

IMPLEMENTATION DETAILS

COORDINATION

Primer Approach

Targets all stakeholders

City Leaders	City Managers	Civil Society
Section 1	Section 1	Section 1
Section 3	Section 2	Section 2
	Section 3	Section 3
	Section 4	Section 5
	Section 5	
	Section 6	

Case Studies Overview

City	Geography	Population
Tokyo	Coastal, Very High EQ Hazard	34,250,000
New York	Coastal	19,712,000
Jakarta	Coastal, Moderate EQ Hazard	18,200,000
London	Coastal	8,300,000
Milan, Italy	Inland Plateau	5,000,000
Singapore	Coastal	4,400,000
Hanoi	Coastal	1,800,000
Thua Thien Hue, Vietnam	Coastal	1,000,000
King County/Seattle	Coastal, High EQ Hazard	570,000
Albuquerque, USA	Inland Plateau	472,000
Venice, Italy	Coastal	270,000
Rockville, USA	Inland Plain	54,000
Dongtan, China	Coastal, Moderate EQ Hazard	--

Sound Practices and Lessons

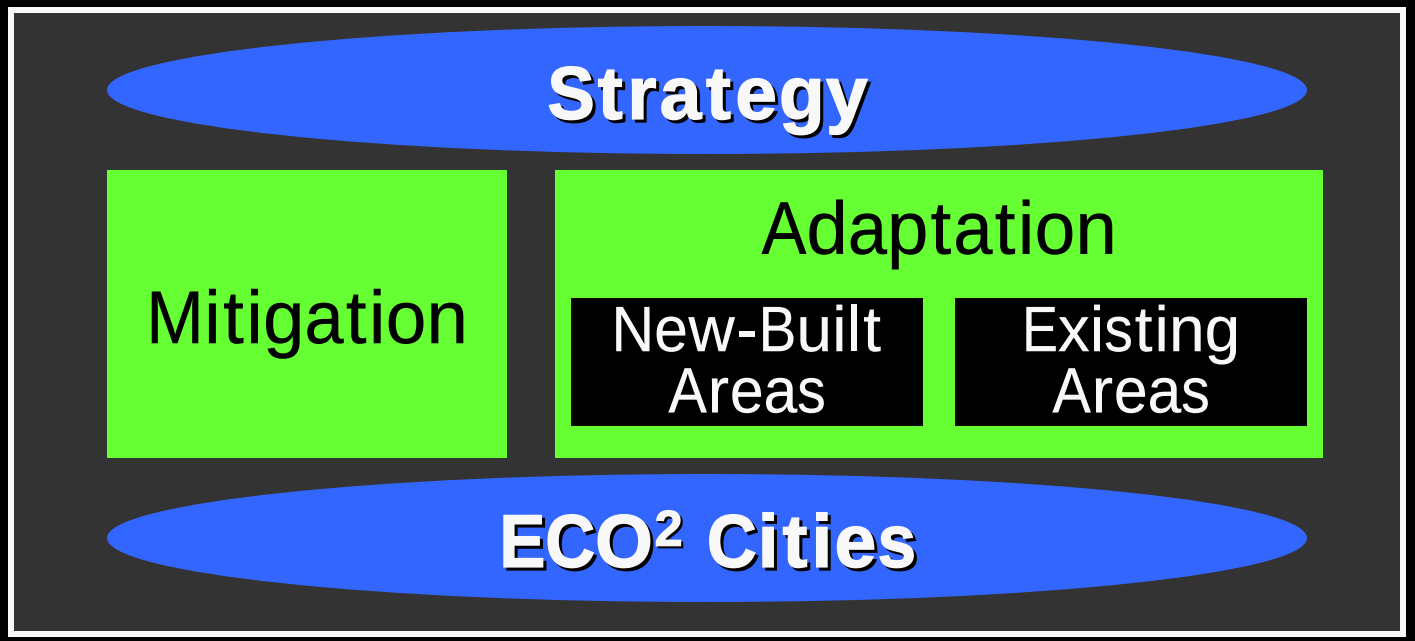
1. **Organizational structure and Information-base**
2. **Institutional mechanism**
3. **Ownership by line departments**
4. **Climate change and DRM strategy**
5. **Public awareness**
6. **Accounting and reporting of GHG inventory**
7. **Hazard risk financing**
8. **DRM system considering CC impacts**

Sound Practices and Lessons

9. **Mitigation**
   a) **Energy sector**
   b) **Transport sector**
   c) **Built environment**
   d) **Forestry and urban greenery**
   e) **Financial mechanisms**
10. **Adaptation**
   a) **Infrastructure**
   b) **Water conservation**
   c) **Urban density**

Next Steps and New Products

- We will revise the Primer based on feedback
- We will respond to demand for further follow up and assistance from clients
- ECO^2 cities concept



Breakout Groups

1. **Case Studies and their applicability (Angelika)**
2. **Hotspots analysis (Ravi)**
3. **Usability (Mukami)**
4. **Linkage between climate change and disaster risk management (Rajib)**
5. **Value added of the Primer vis-à-vis other resources (Jerry)**

Thank You!

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