Monitoring Global Urban Expansion
Using Remote Sensing and a Network of City -Based Researchers

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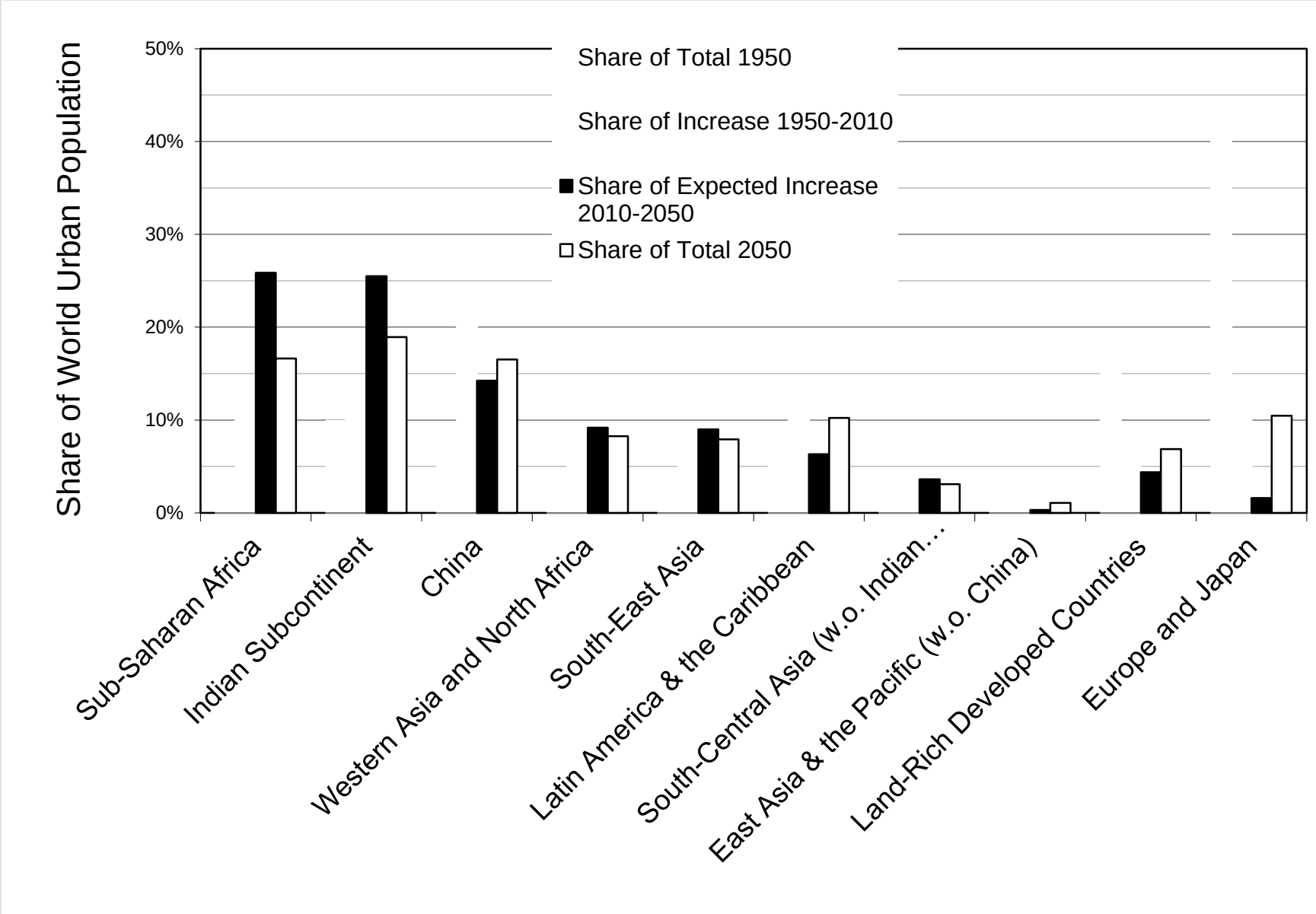
Share of World Urban Population
50%
40%
30%
20%
10%
0%
Share of Total 1950
Share of Increase 1950-2010
Share of Expected Increase 2010-2050
Share of Total 2050
Sub-Saharan Africa
Indian Subcontinent
China
Western Asia and North Africa
South-East Asia
Latin America & the Caribbean
South-Central Asia (w.o. Indian…
East Asia & the Pacific (w.o. China)
Land-Rich Developed Countries
Europe and Japan

- Presently no goal, or metrics, that pertain to the development and performance of the world's cities.
- Proposed research program is to make progress in filling that void.
- Broad goals: adequate, properly serviced, affordable lands for growing populations.
- The proposed methodology for carrying out this task is the Monitoring Urban Expansion program.

Task 1: Identify the universe of cities

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- Universe of 4,245 cities ÆSample of 200 cities
  - Stratified on three dimensions
    - I. Region
    - II. City population size bins
    - III. Number of cities in country > 100,000 inhabitants

World Regions	
1.	East Asia & Pacific
2.	Southeast Asia
3.	South & Central Asia
4.	Western Asia & Northern Africa
5.	Sub-Saharan Africa
6.	Latin Am. & Caribbean
7.	Europe & Japan
8.	Land Rich Developed Countries

City Population Bins	
1.	100,000 - 471,000
2.	471,000 - 1,250,000
3.	1,250,000 - 4,850,000
4.	4,850,000 +

Number of Cities in Country >100k	
1.	1 to 9
2.	10 to 19
3.	20 +

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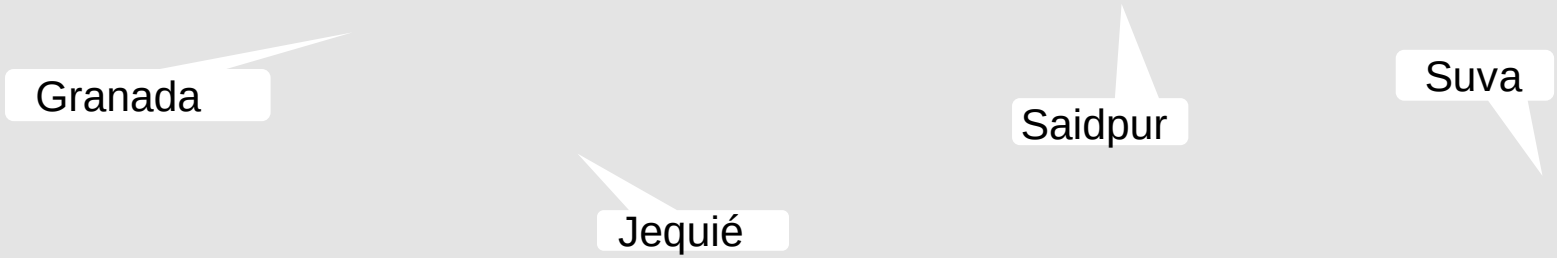
- 8 regions × 4 population bins × 3 cities in country bins = 96 ‘boxes’.
- 76 non-empty ‘boxes’ in universe.
- Sample city selection is roughly proportional to relative frequencies of urban population in the different boxes
- Weighting ensures that the sample is representative of universe.



Task 2: Select the sample of 200 cities

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Urban Expansion in Accra, Ghana 1991 - 2014

Phase II:
The Quality of Urban Layouts

Phase II:
The Quality of Urban Layouts

Phase III:
The Land and Housing Survey in the Global Sample of Cities

Phase III:
The Land and Housing Survey

City Footprint

Expansion Area

Phase III:
The Land and Housing Survey

Thank you!

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