

# Metropolitan Regions: The Key 'City Clusters' in Asia

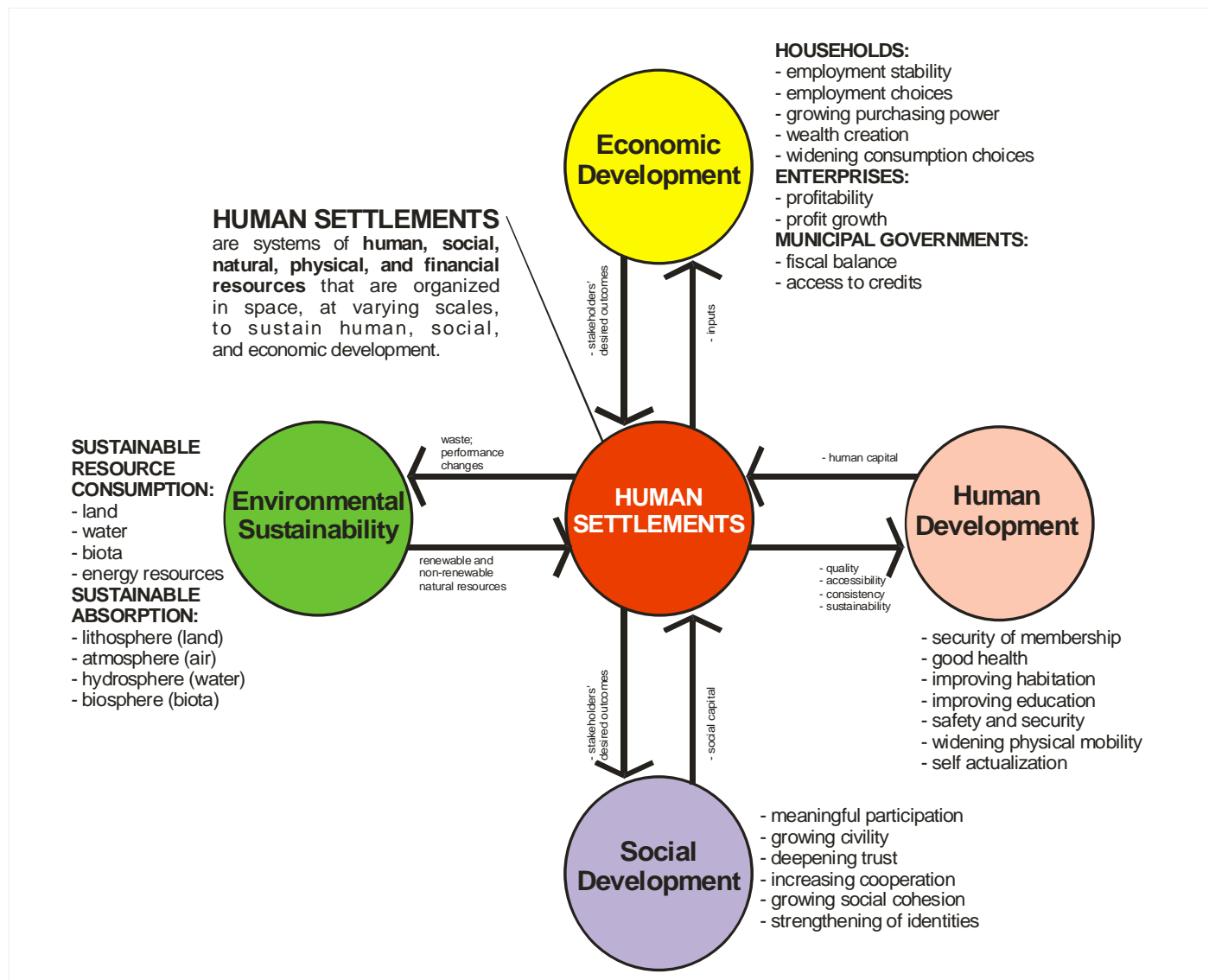
Edward Leman  
Chreod Ltd.

12 December 2013

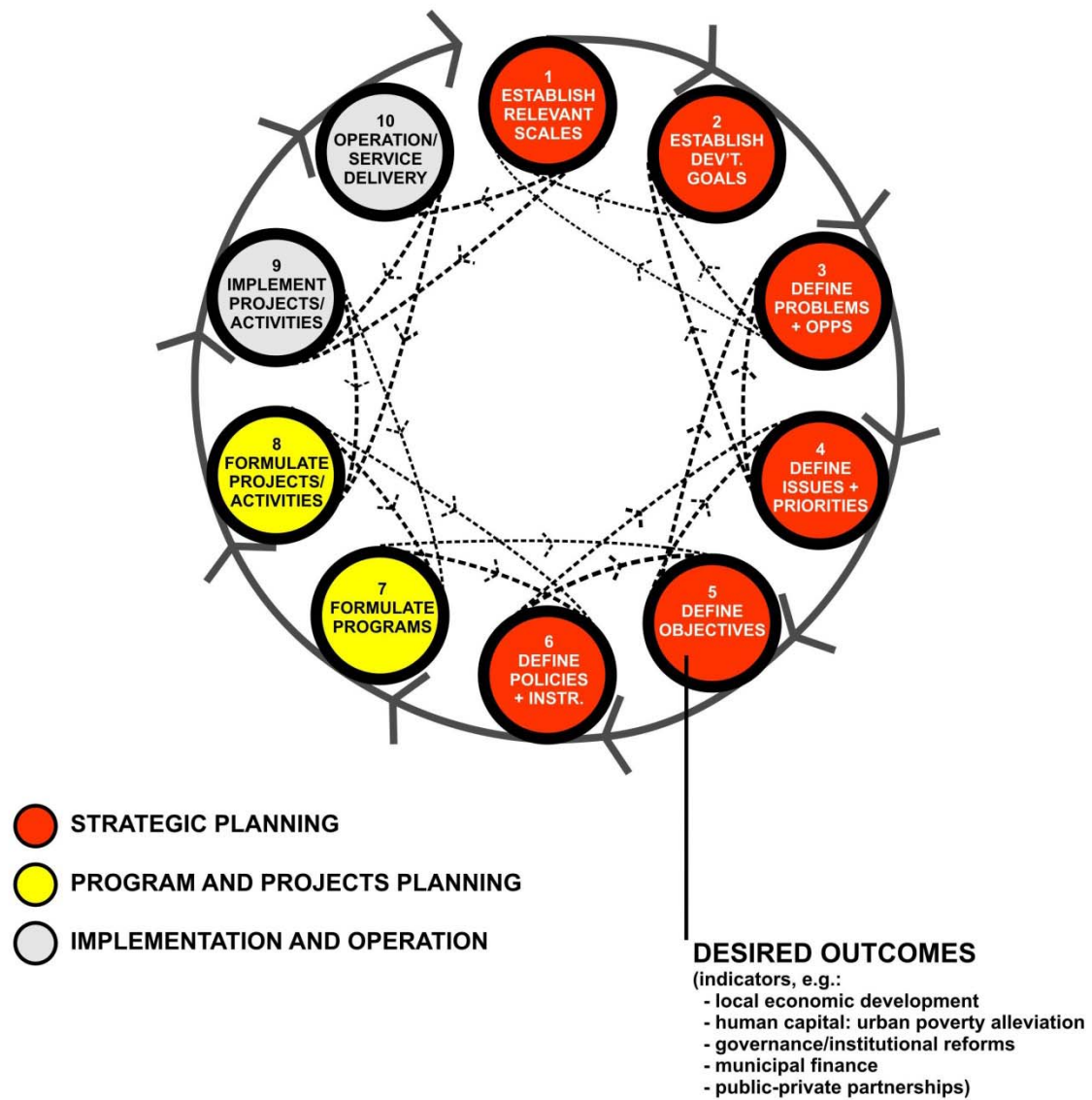
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## **Questions in context of ADB's UOP:**

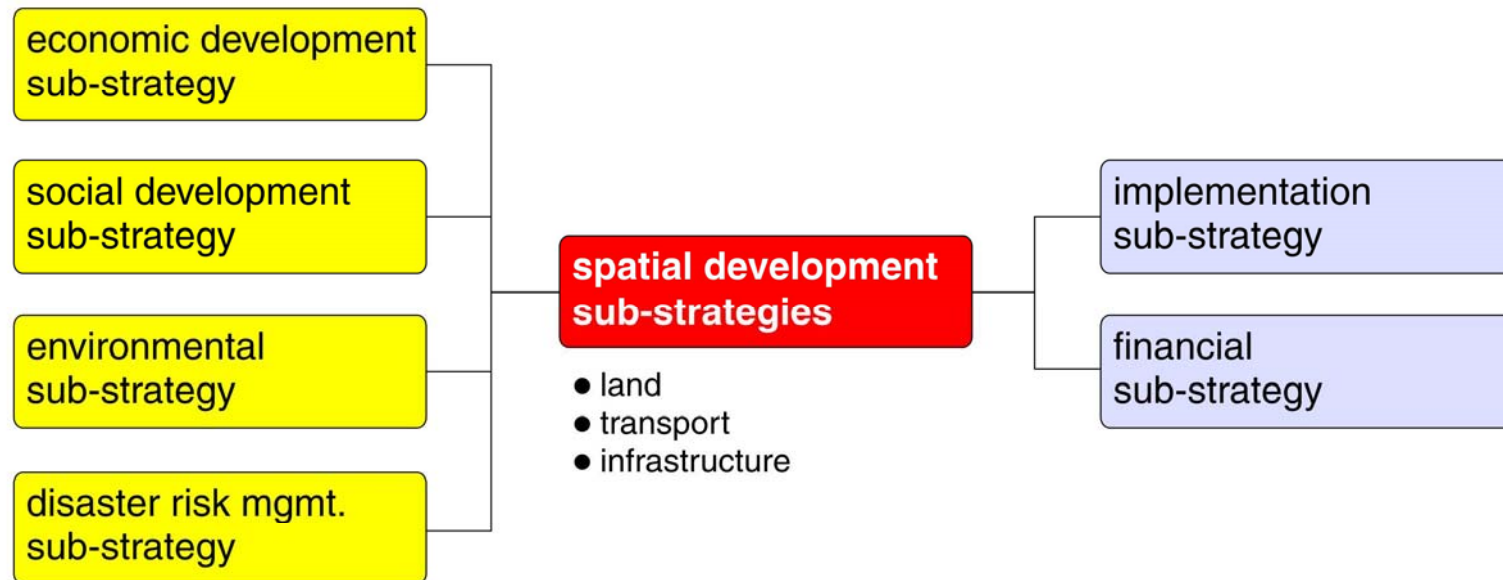
- 1. What is urban 'development'?**
- 2. What is 'integrated development planning'?**
- 3. What are 'urban regions'?**
- 4. What are Metropolitan Regions?**
- 5. Preliminary findings on current City Cluster Study?**
- 6. Should ADB engage with Metropolitan Regions?**



Urban 'Development' more than land and infrastructure







‘integrated development plan’ should be a Development Strategy comprising seven, inter-related key sub-strategies

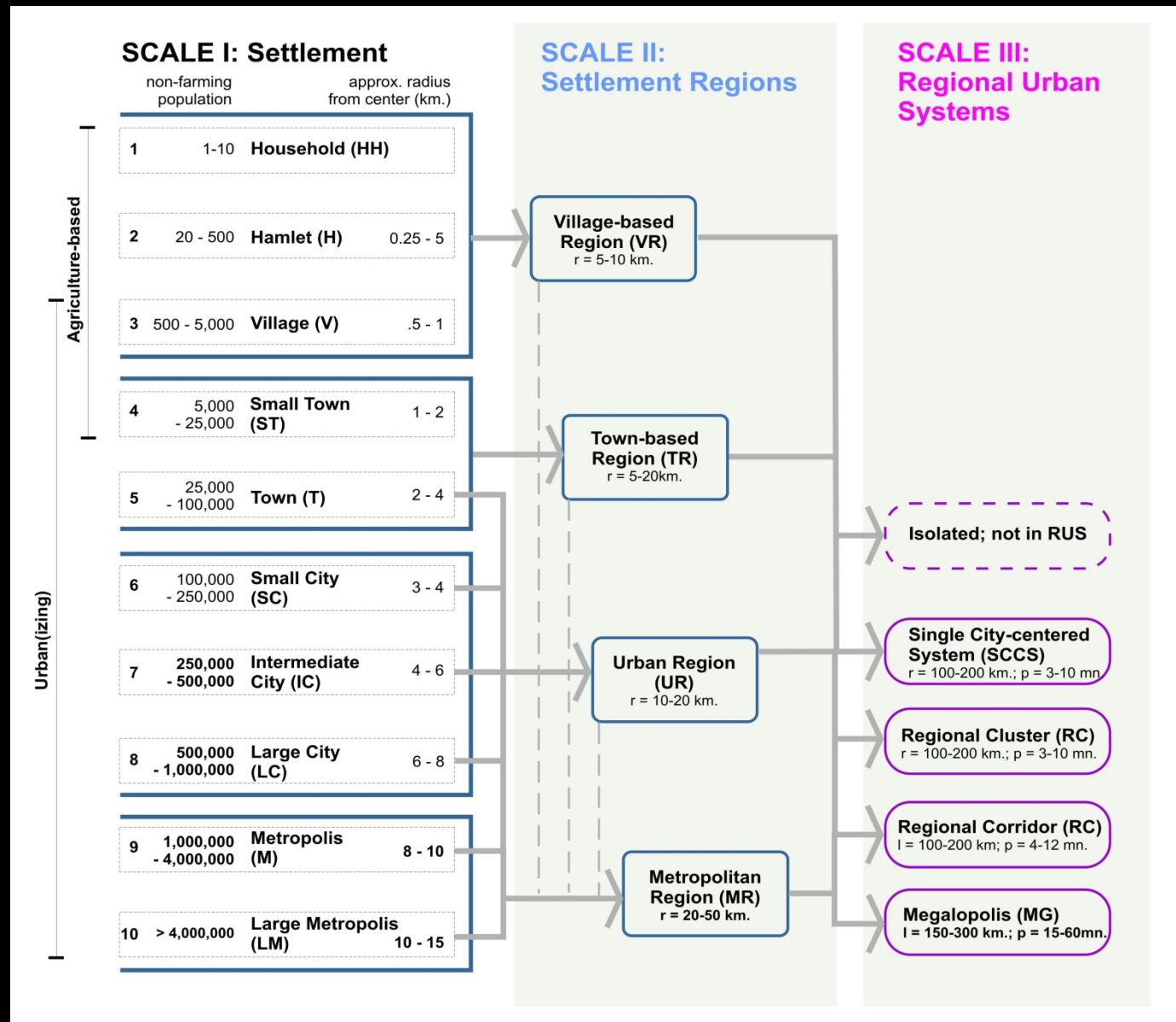
“ADB must...(ii) focus its resources on ***selected urban regions, particularly in secondary cities***, providing an integrated set of investments that will have a tangible impact.”

### National and ***urban region level assessments***

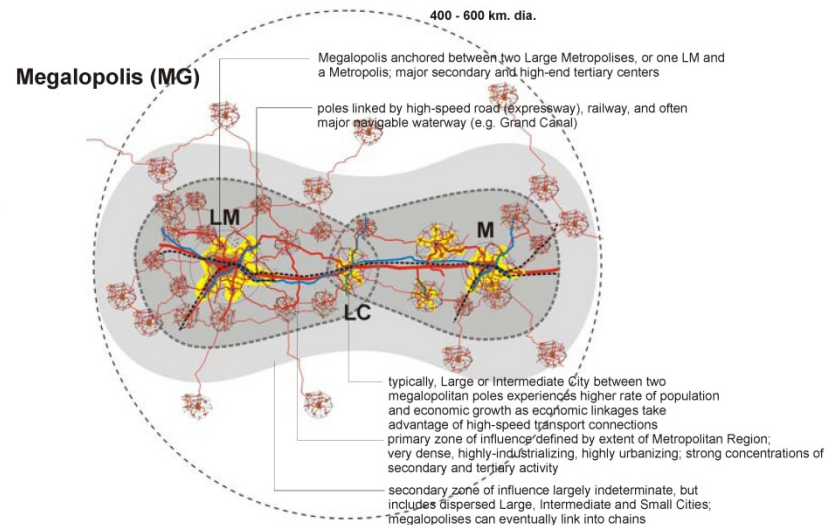
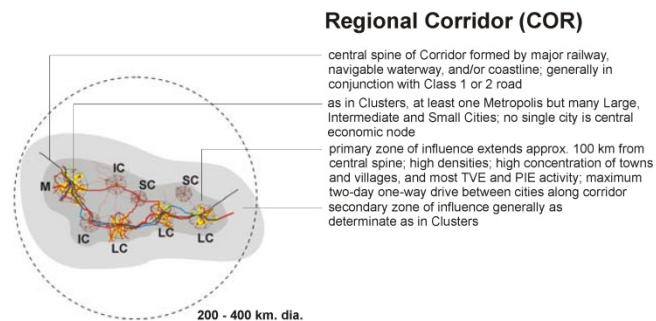
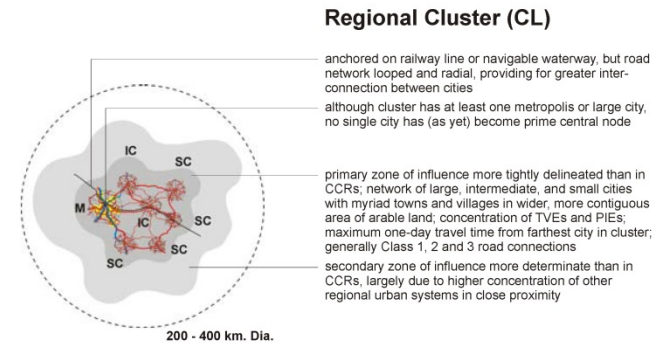
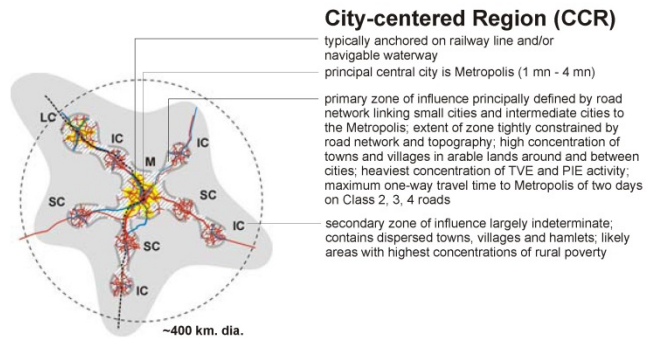
“Operations departments, supported by RSDD, will undertake ***integrated urban region plans*** covering environmental, social, and economic development issues.”

“...such assessments should clearly differentiate the issues for *mega-cities, secondary urban regions, and other levels of the urban hierarchy*, and for both newly and developing areas and established areas.”

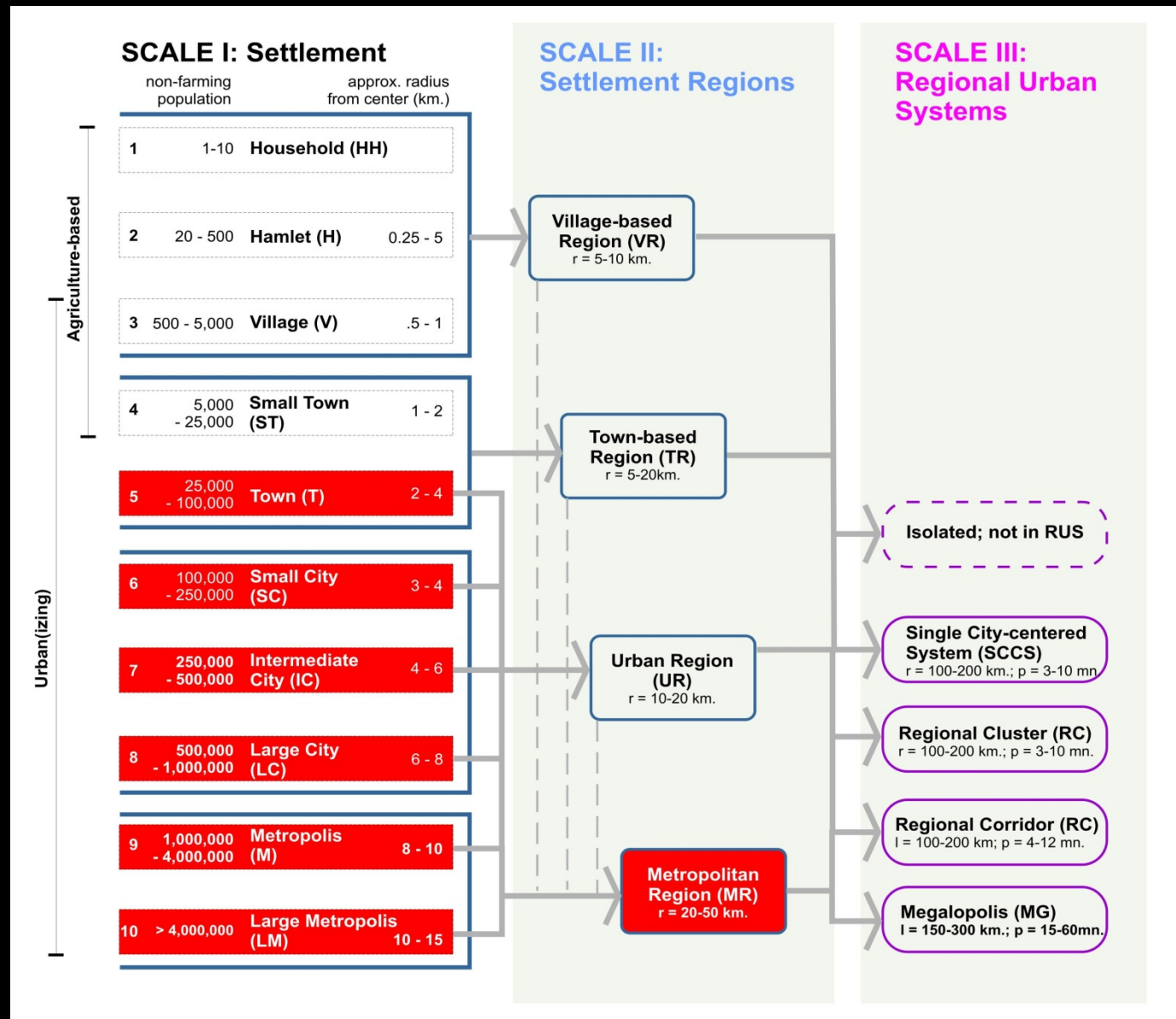
**But, UOP does not define ‘urban regions’... could lead to confusion internally and with DMCs.**



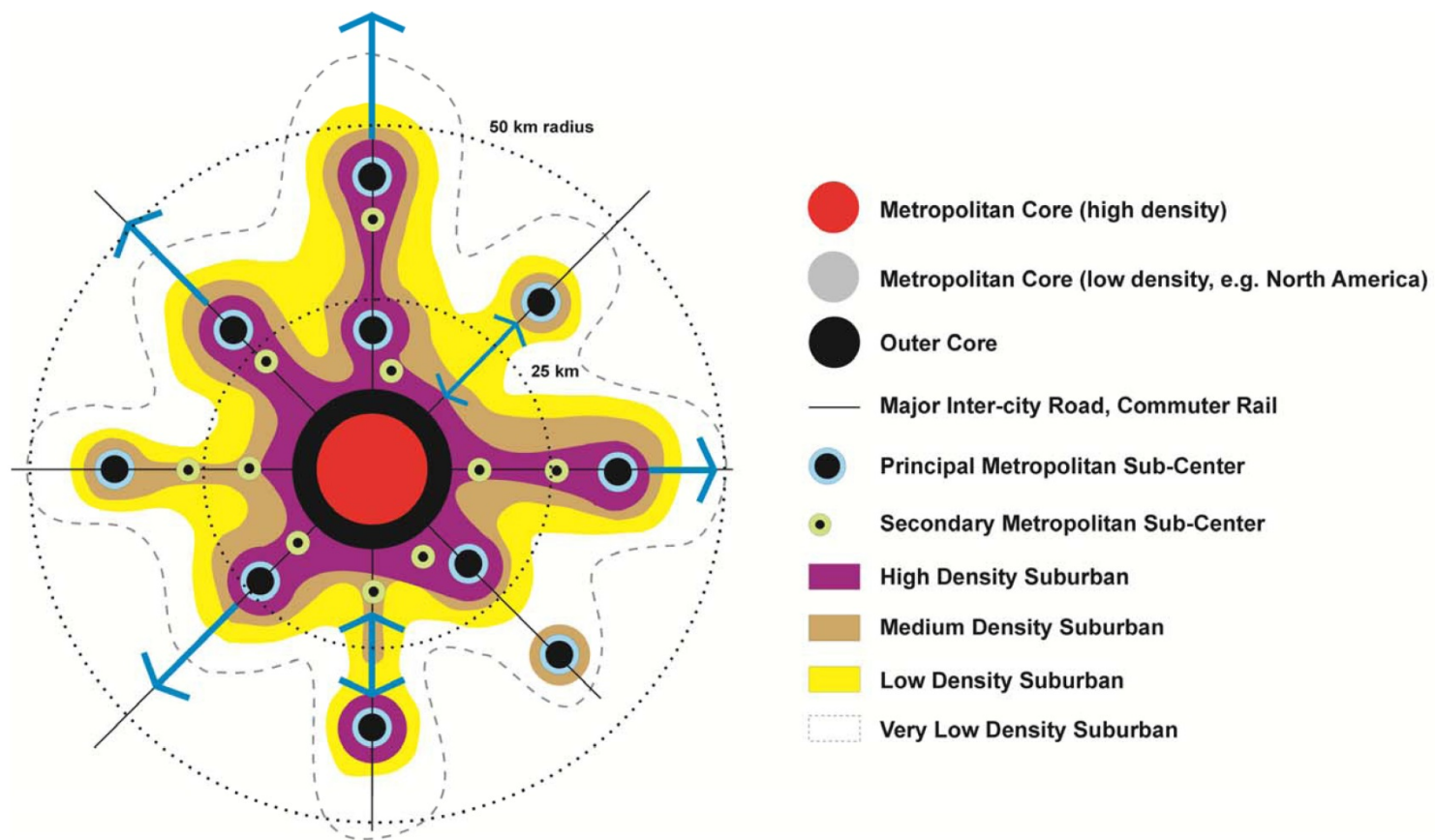
## Settlements, Regions, and Regional Urban Systems



Not Addressing Regional Urban Systems in Study

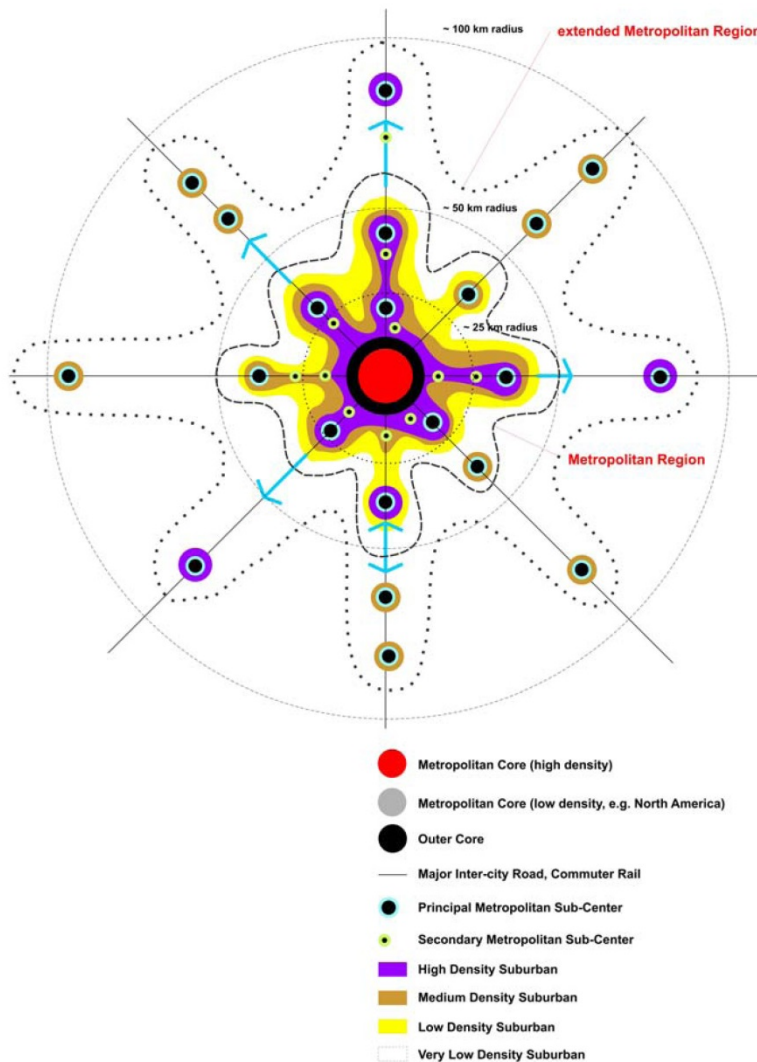


Scope of Current Study



Addressing Metropolitan Regions and...





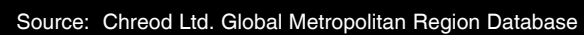
- Metropolitan Region: area within a one hour drive-time from city center (~ 50 km); daily labor market
- Extended MR: two hour drive-time from city center (~100 km); daily supply of inputs to the metropolitan economy



- drivers of national economic growth (75% of GDP in USA, 67% in Europe, 66% in China)
- principal destination of migrants
- generally the fastest growing urban economies
- but also sources of huge and growing environmental and social inclusion challenges
- important to remember: include towns, small cities, intermediate cities, large cities, and the core metropolis
- can be more precisely defined spatially and functionally than UOP's 'urban regions'

- internal economies to firms
  - scale economies
  - economies of scope
- urbanization economies
- localization economies

- individuals and households:
  - pecuniary: incomes and assets
  - accessibility to knowledge
  - experiential: cultural, social, political
- knowledge agents:
  - creation
  - sharing
  - dissemination
  - feedback loops
- governments (potential!)
  - clarity of governance and management responsibilities
  - service delivery efficiencies
  - environmental management
  - revenue streams



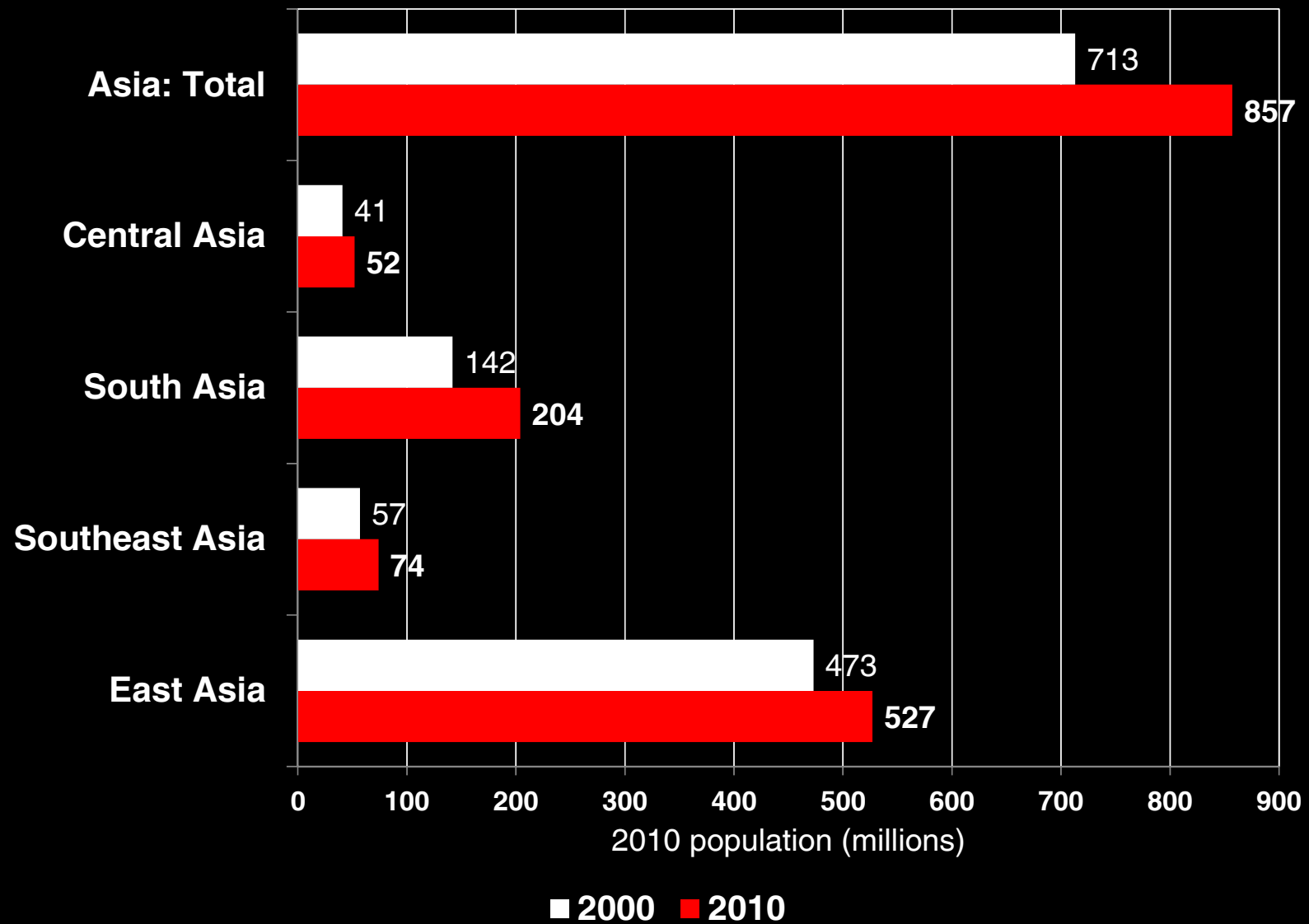
# Asia's Metropolitan Regions, 2010

	East Asia	Southeast Asia	South Asia	Central Asia	Asia: Total
<b>2010</b>					
metropolitan pop. (mn)	527	74	204	52	857
as % of total population	33.7	12.3	12.7	20.2	21.3
# of metropolitan regions	82	21	60	19	182
<b>2000</b>					
metropolitan pop. (mn)	473	57	142	41	713
as % of total population	32.1	10.0	10.3	18.5	19.8
# of metropolitan regions	72	17	43	16	148
<b>change</b>					
metropolitan pop. (mn)	54 (11%)	17 (30%)	62 (44%)	11 (27%)	144 (20.2%)
as % of total population	1.6	1.4	2.4	1.7	1.5
# of metropolitan regions	10	4	17	3	34
metropolitan growth as multiple of regional growth:	<b>2.0</b>	<b>2.1</b>	<b>2.6</b>	<b>1.7</b>	<b>1.9</b>

Source: Chreod Ltd. Global Metropolitan Region Database

## Asia's Metropolitan Regions, 2010





Source: Chreod Ltd. Global Metropolitan Region Database

## Asia's Metropolitan Regions, 2010



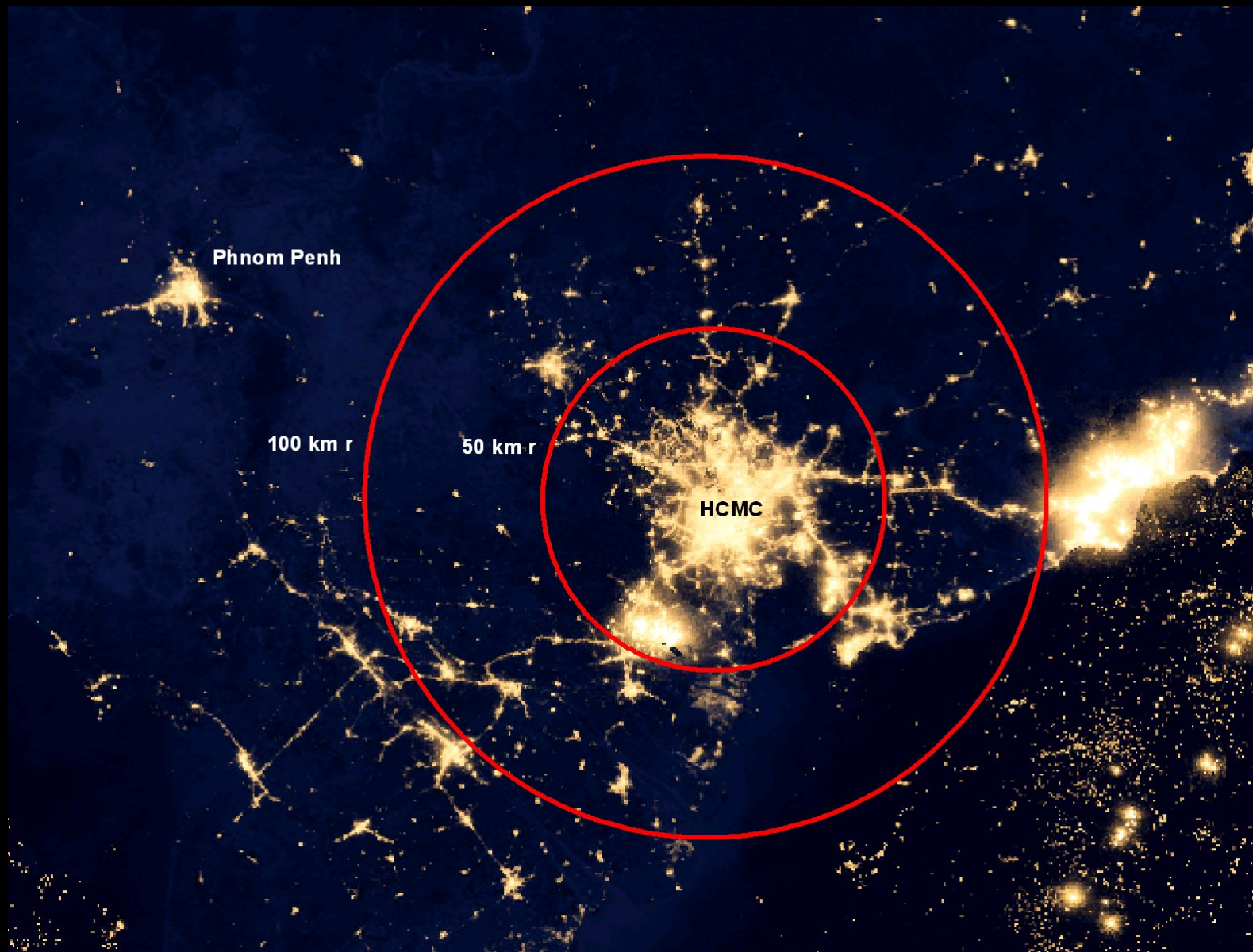


Night Lights, East Asia (2012)

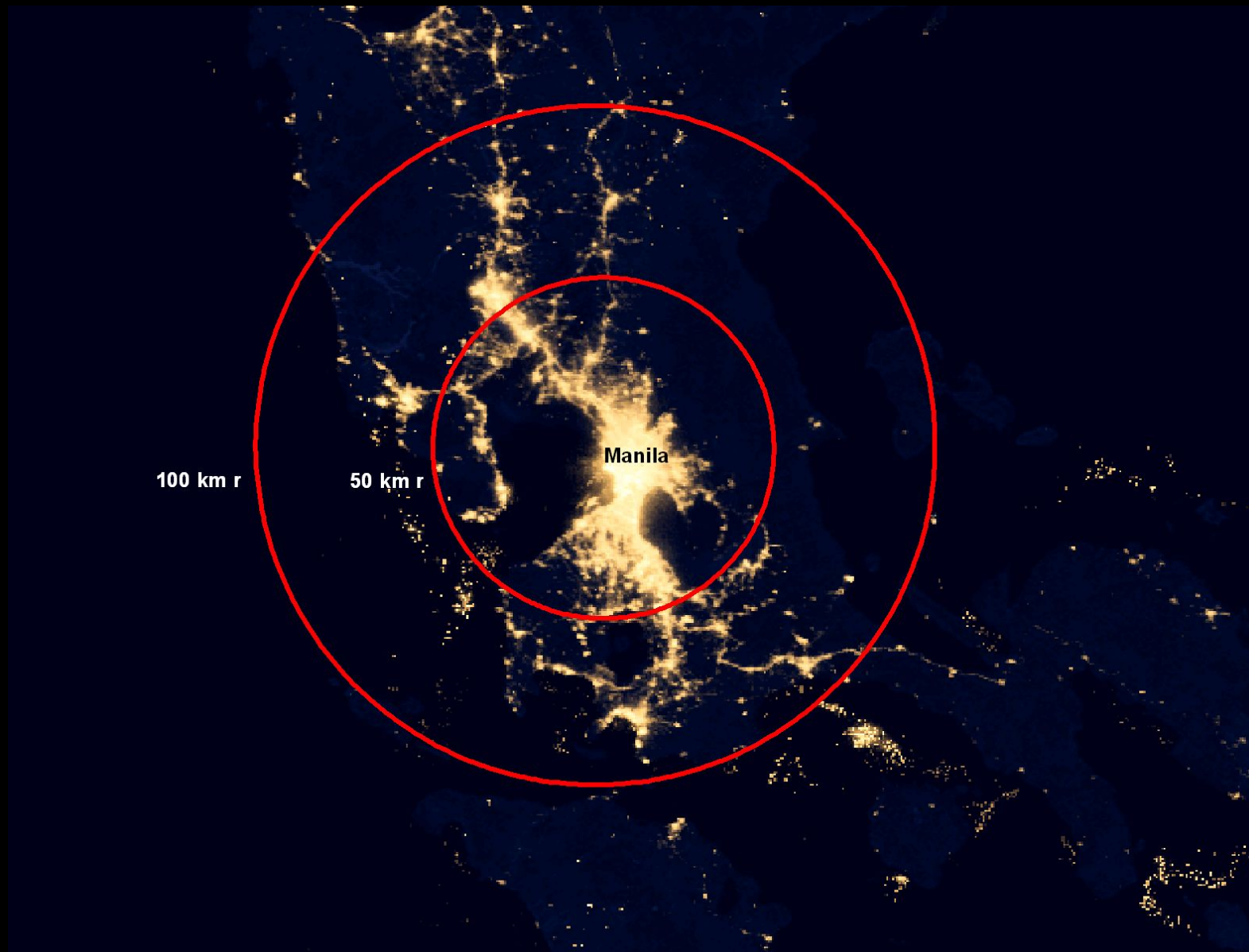


Night Lights, Chengdu and Chongqing EMRs (2012)



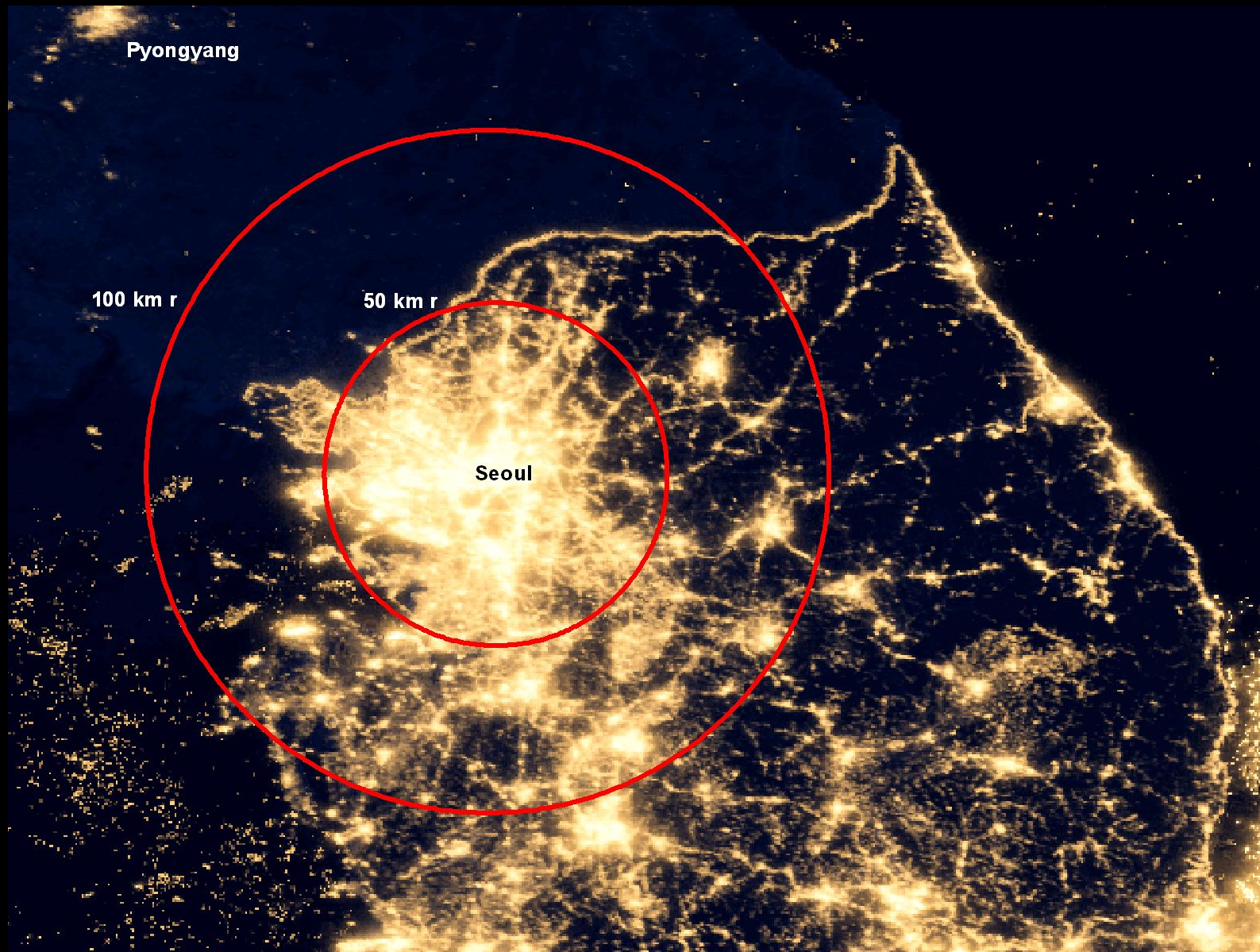


Night Lights, Ho Chi Minh City EMR (2012)



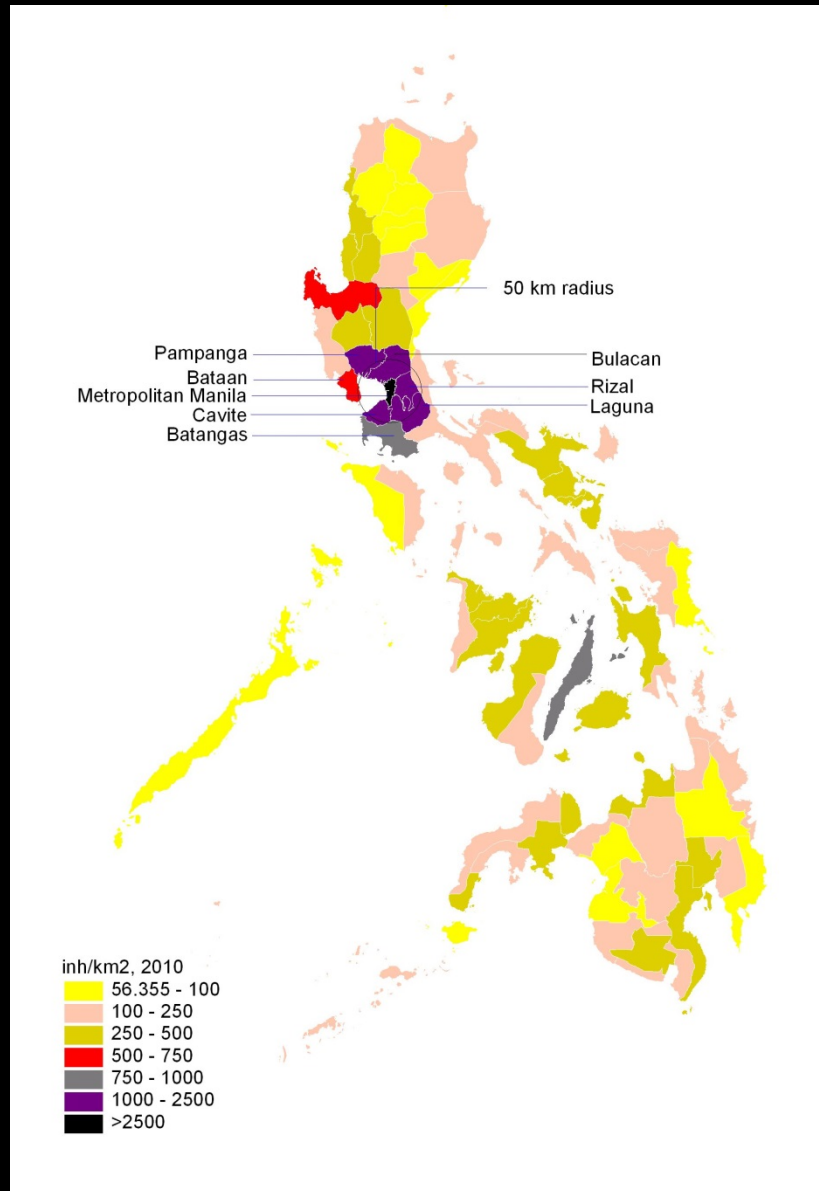
Night Lights, Manila EMR (2012)





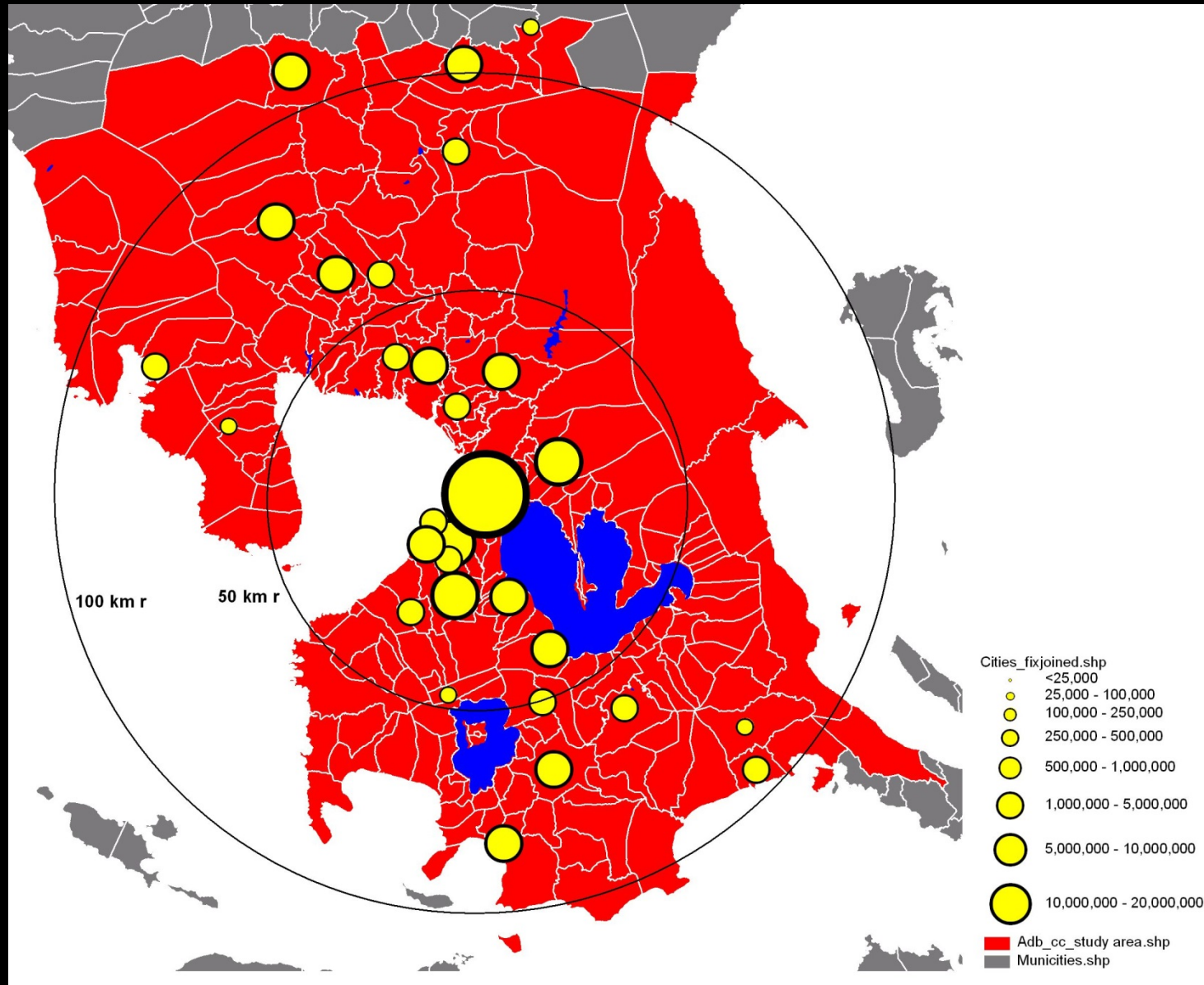
Night Lights, Seoul EMR (2012)

- highest population densities in Manila Extended Metropolitan Region



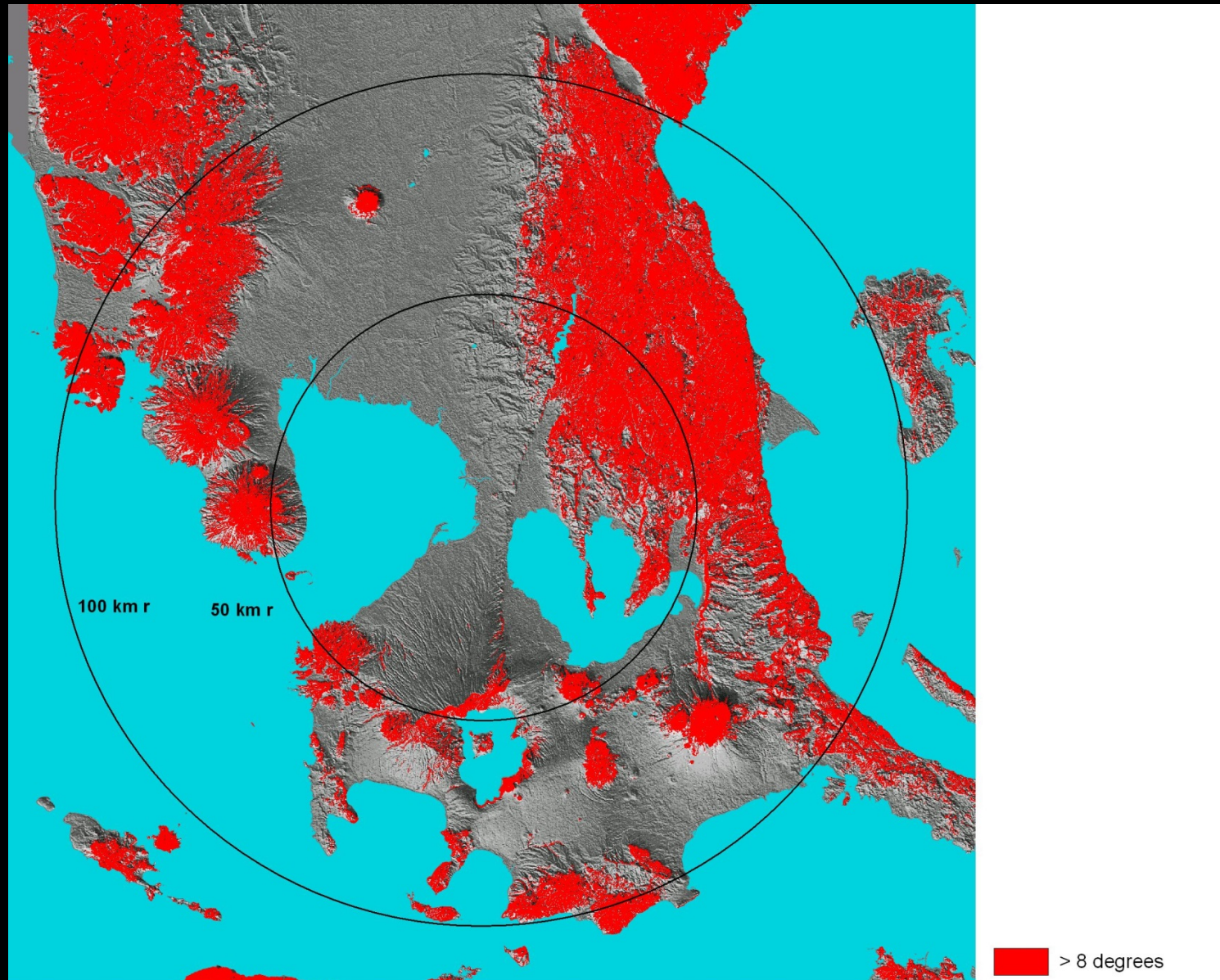
Source: data mapped from 2010 National Census

Population Densities, 2010 (inh/km2)

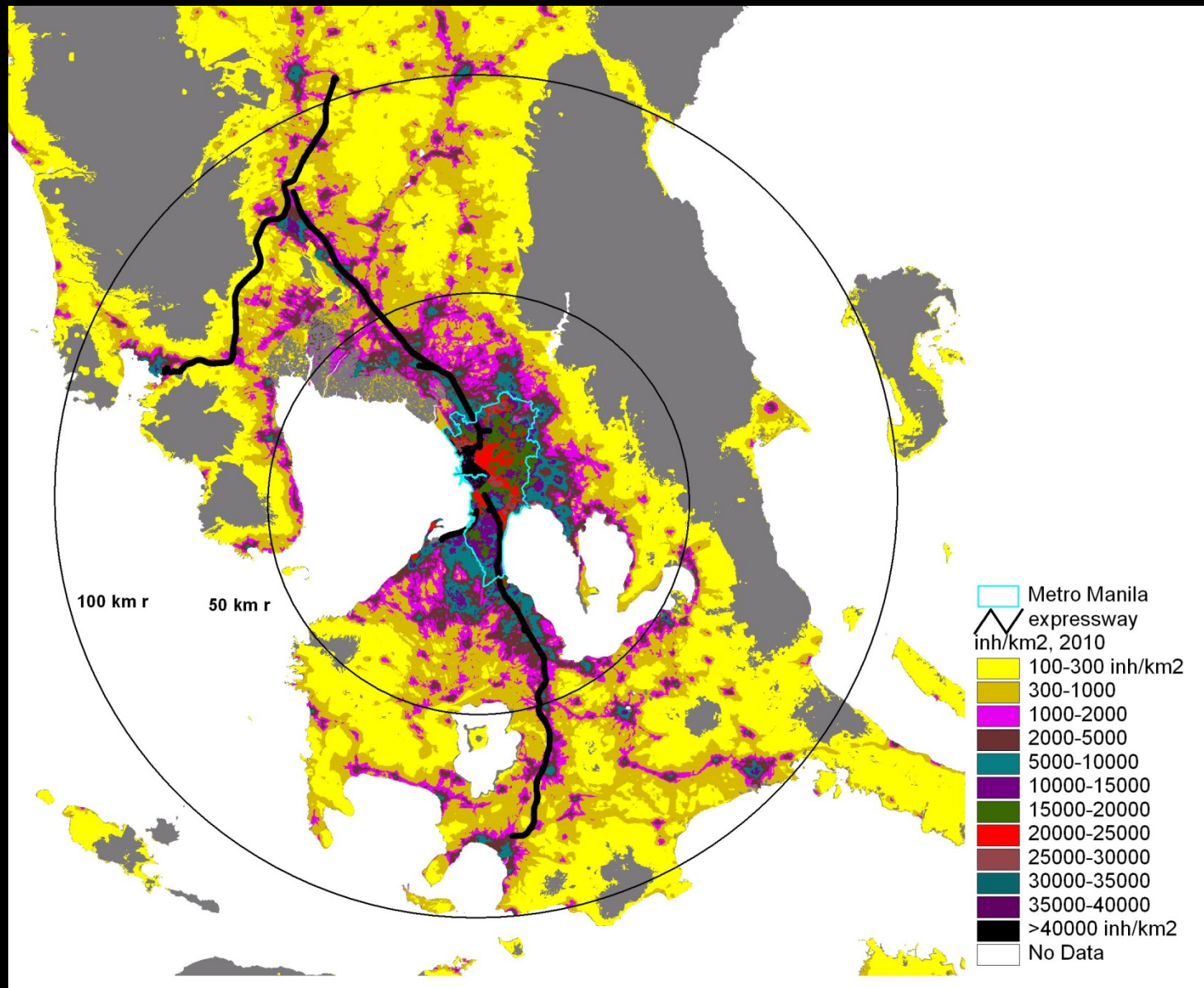


Manila Study Area



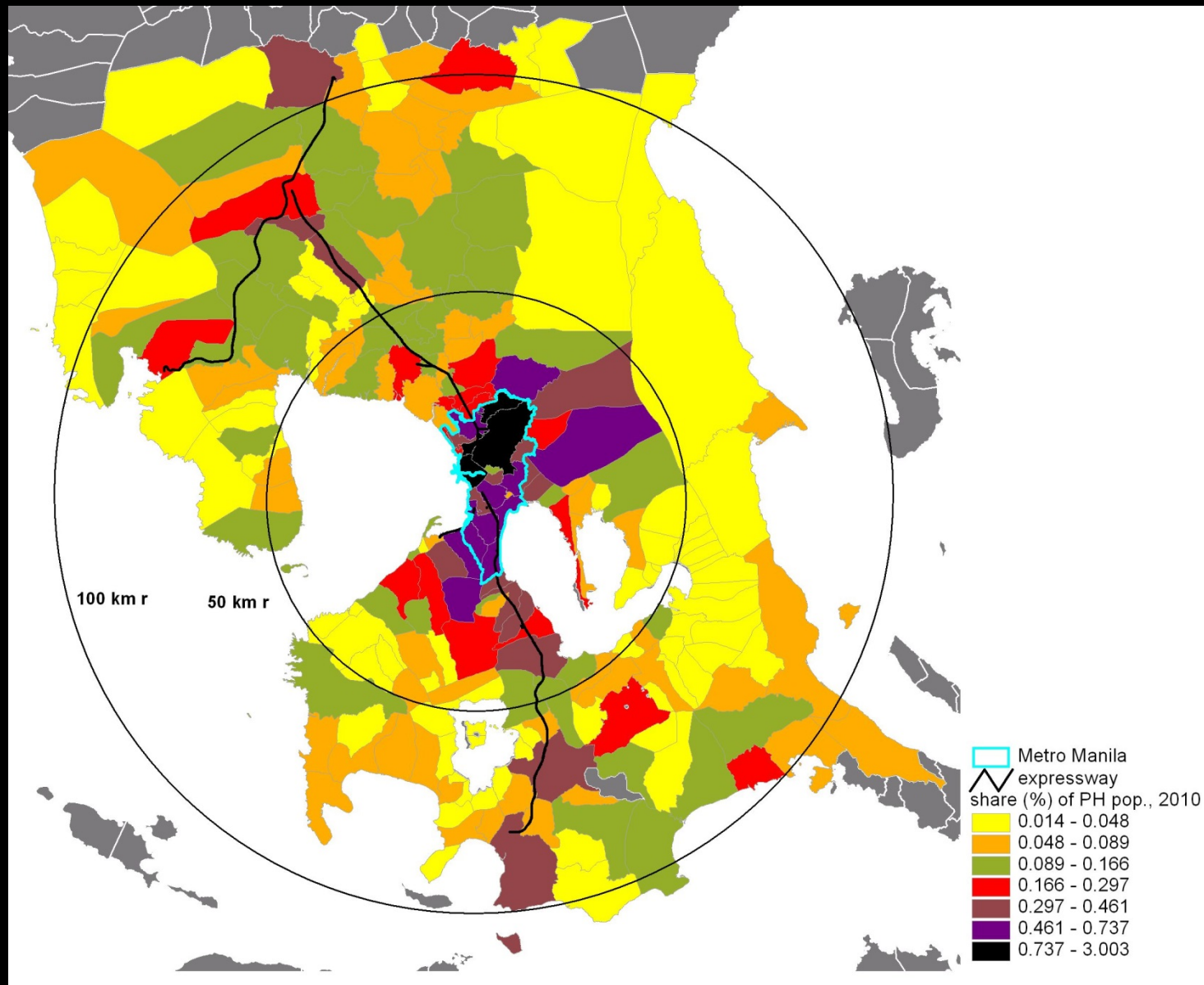


## Manila Region Topographical Constraints



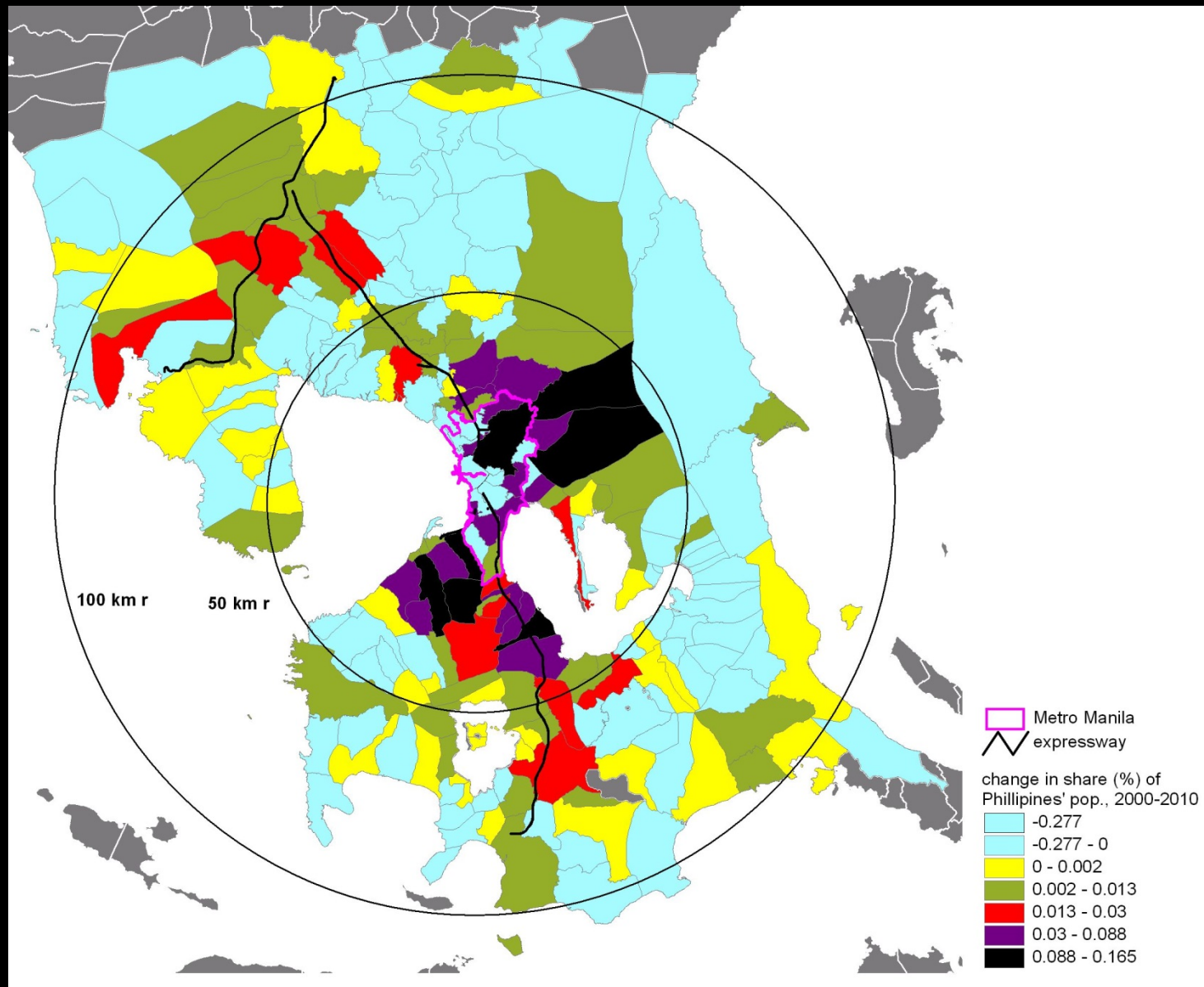
Inhabitants per km<sup>2</sup>, 2010



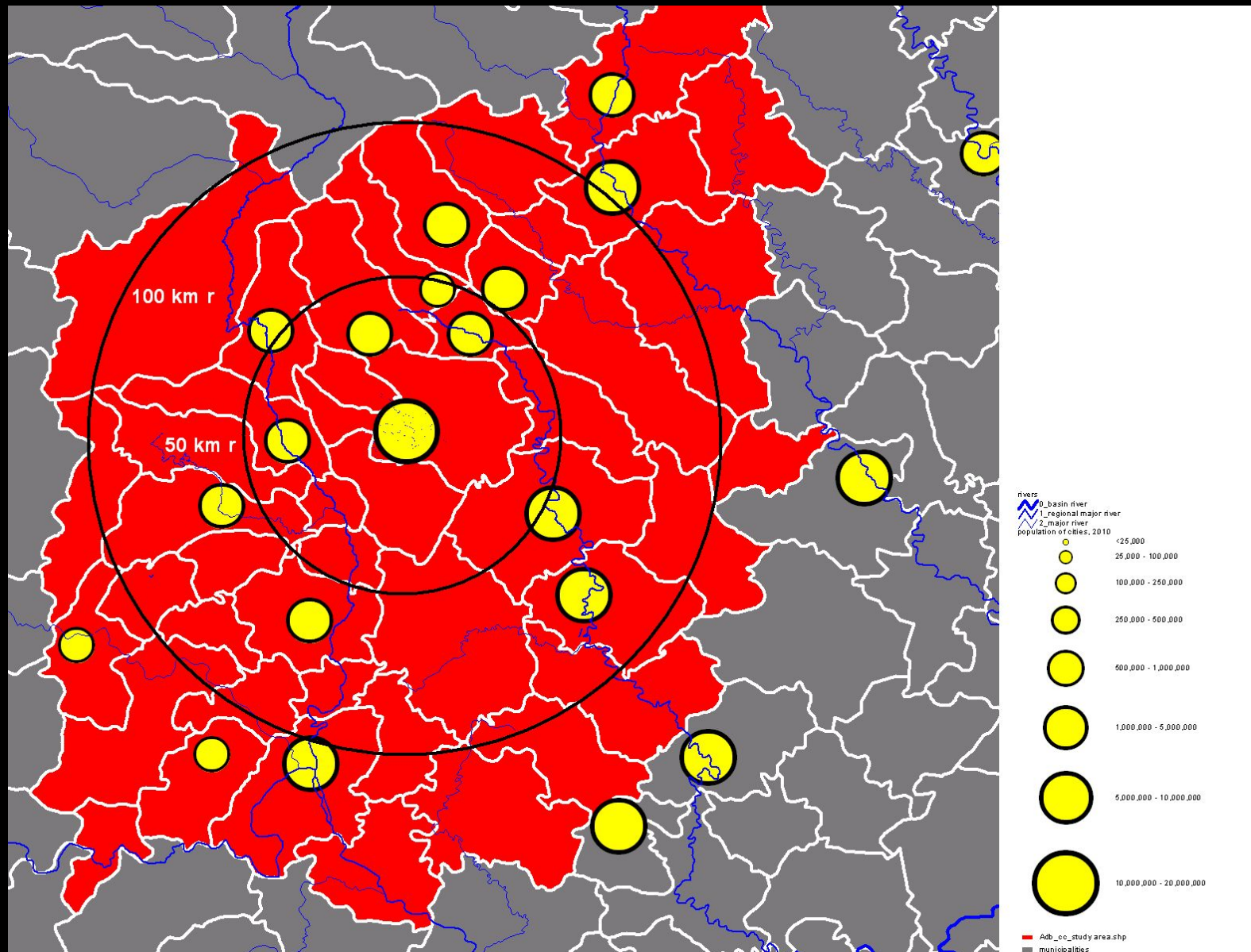


Manila Region: Share (%) of Philippines' Population, 2010



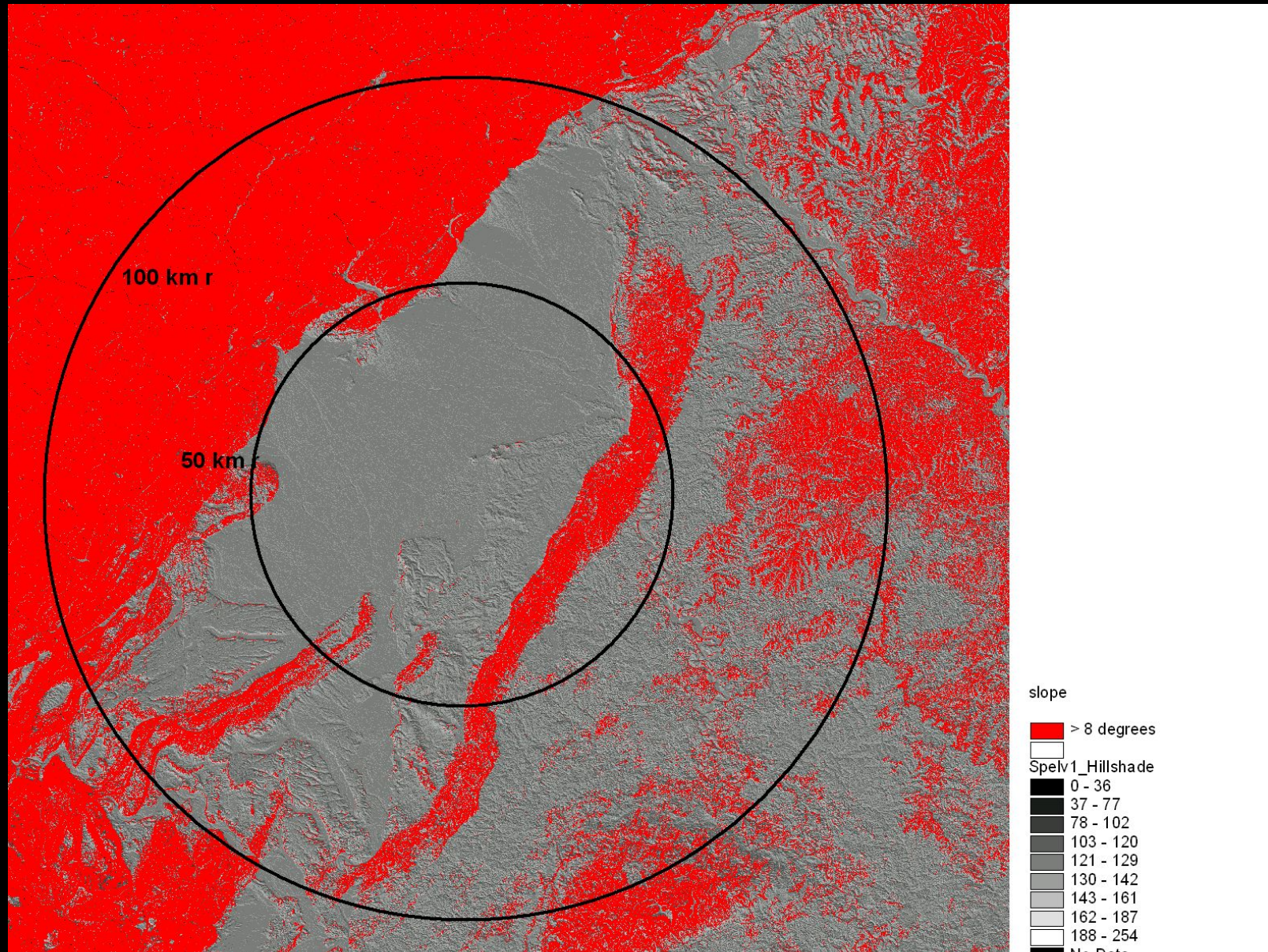


Change in Share (%) of Philippines' Population, 2010



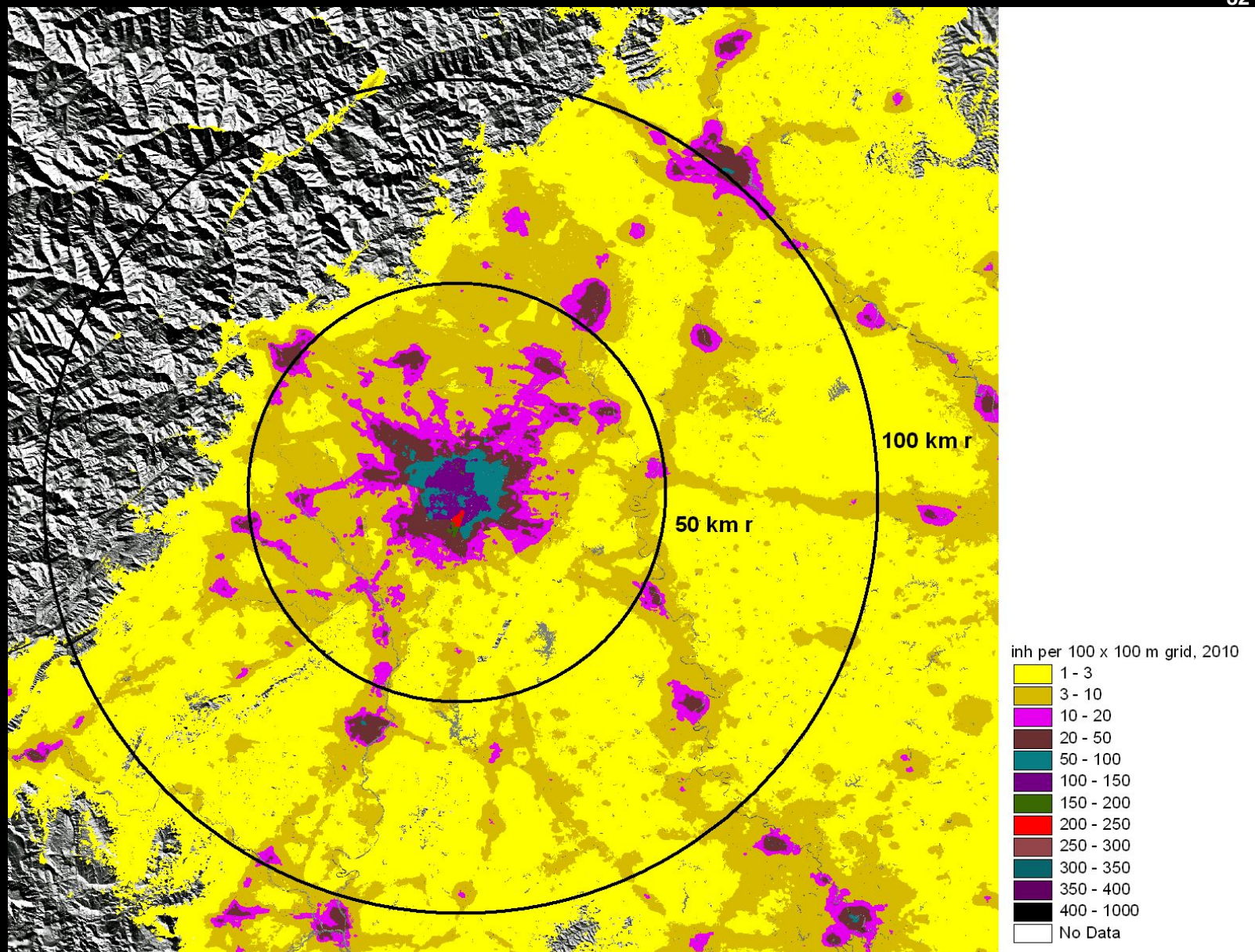
Chengdu Study Area





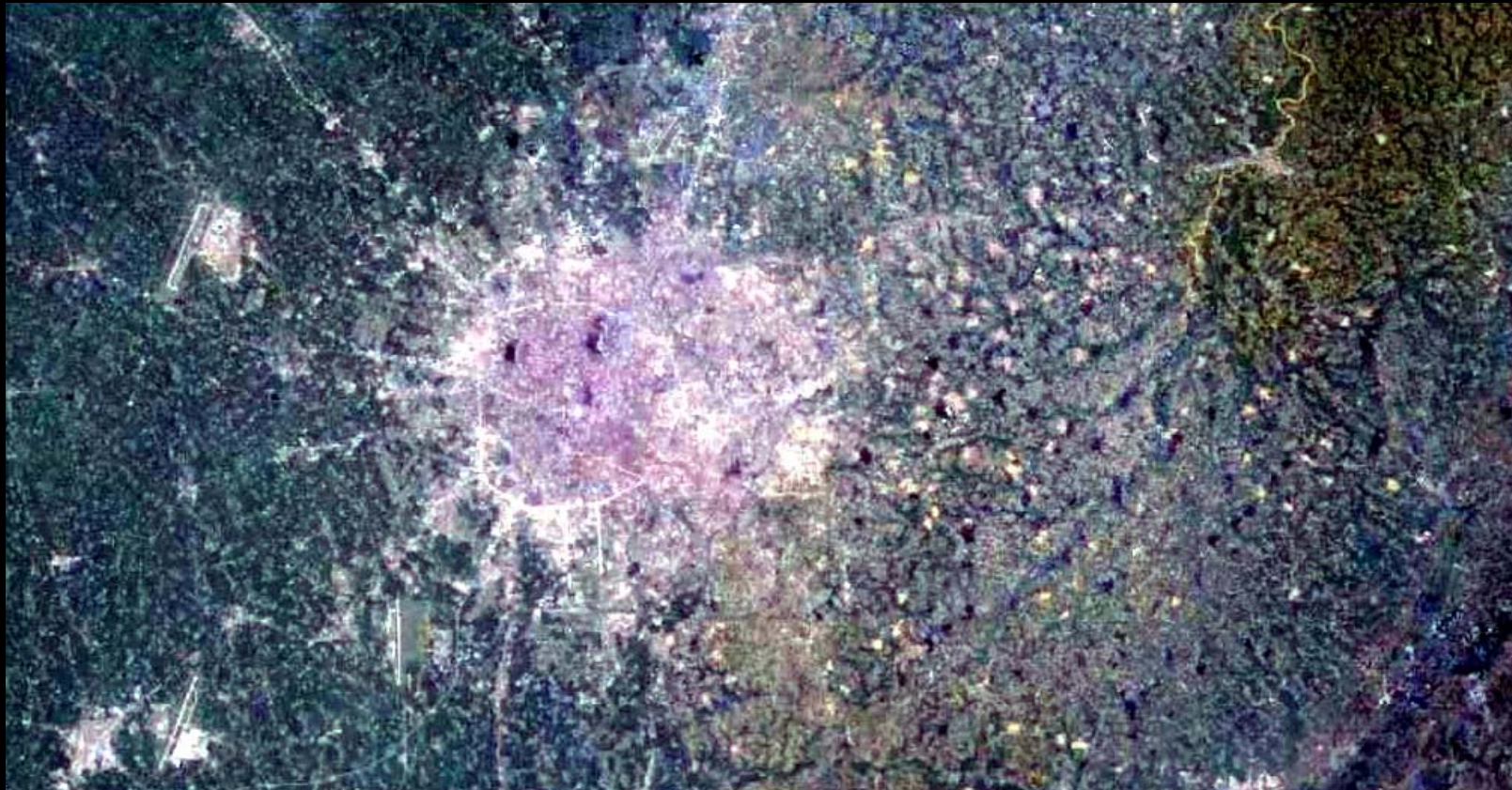
## Chengdu Topographic Constraints





Population Density, 2010

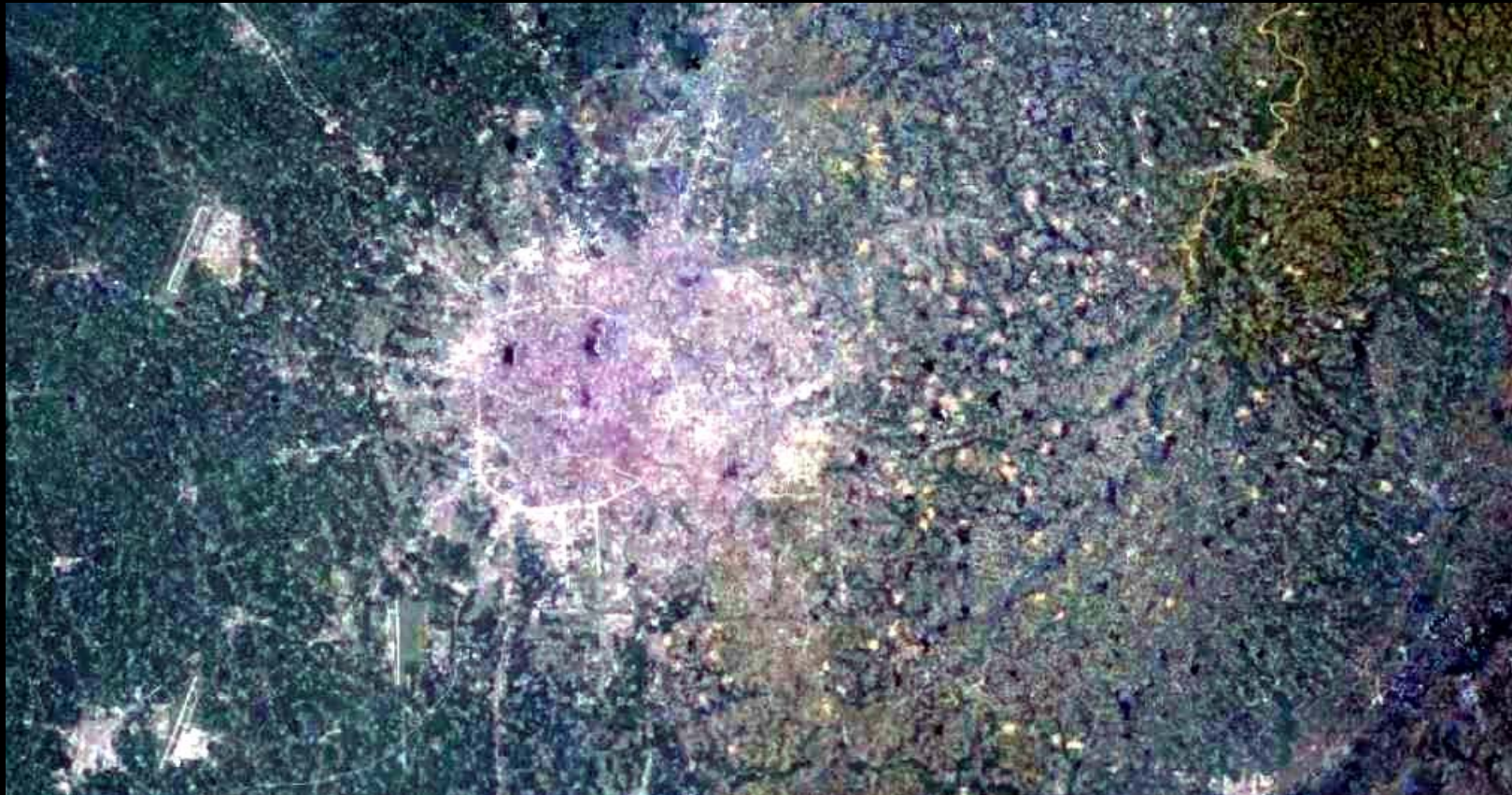




- compact and monocentric

Chengdu, 1984

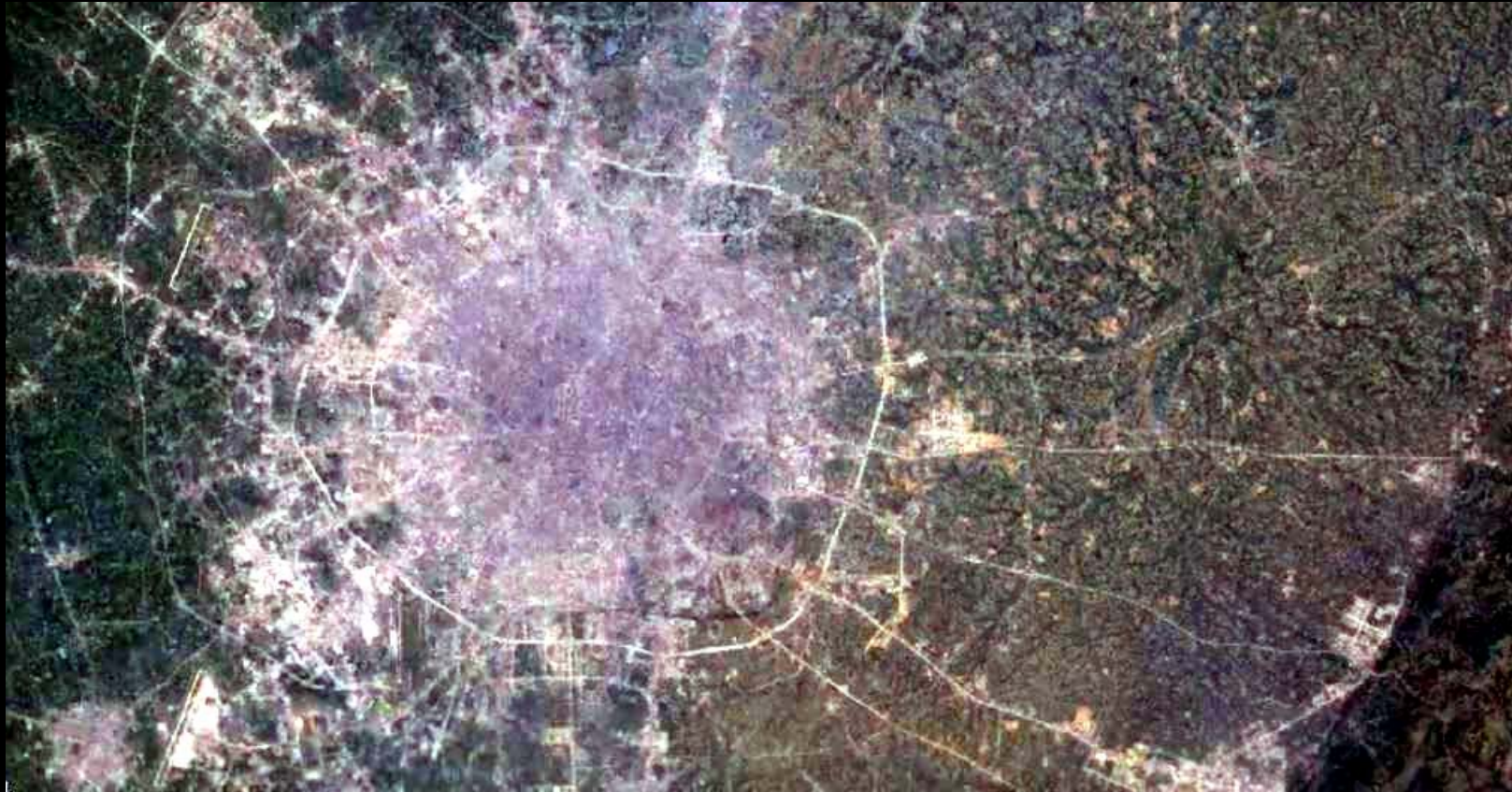




- virtually no change

Chengdu, 1990

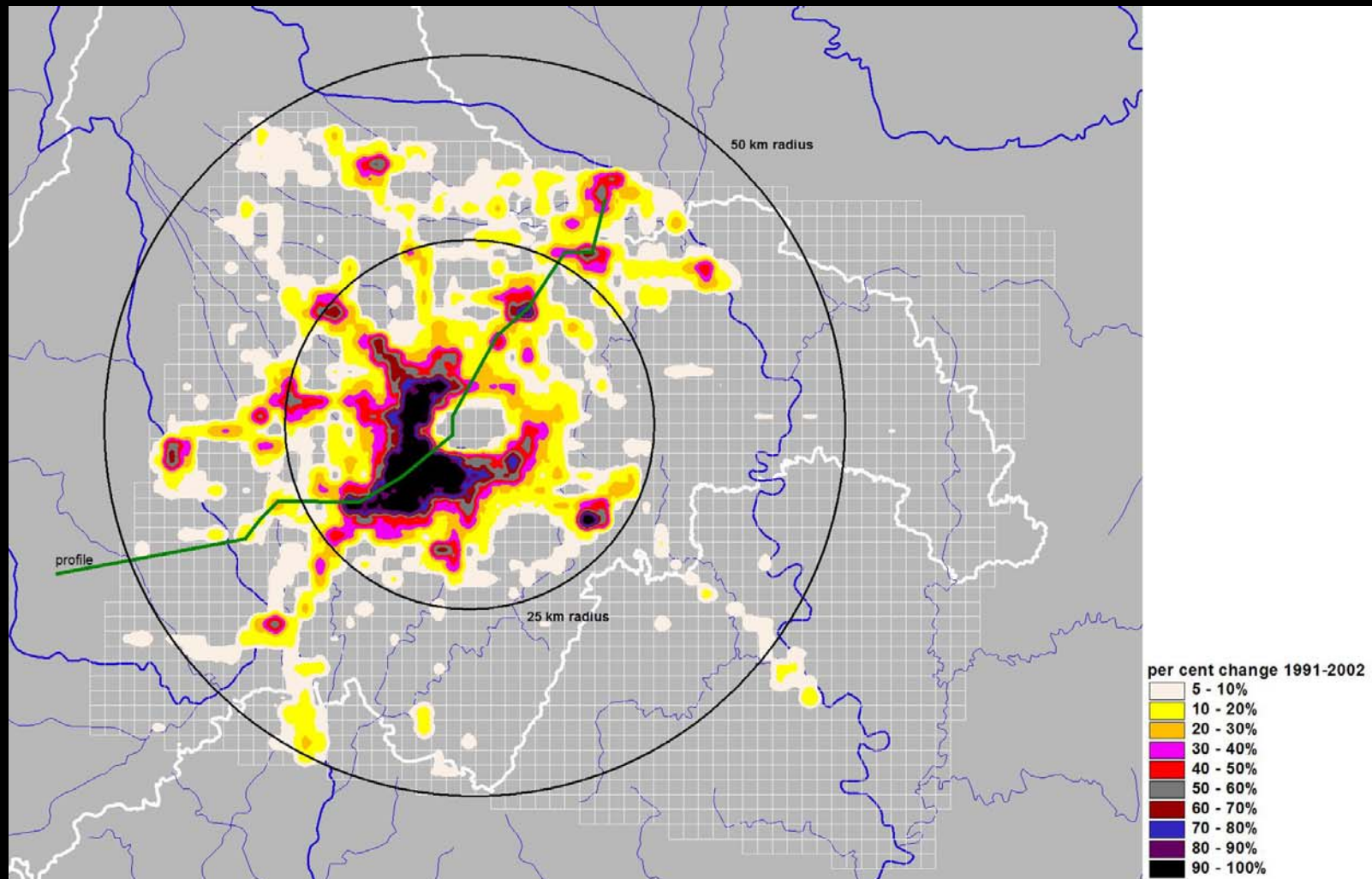




- big changes: ring roads and expressways

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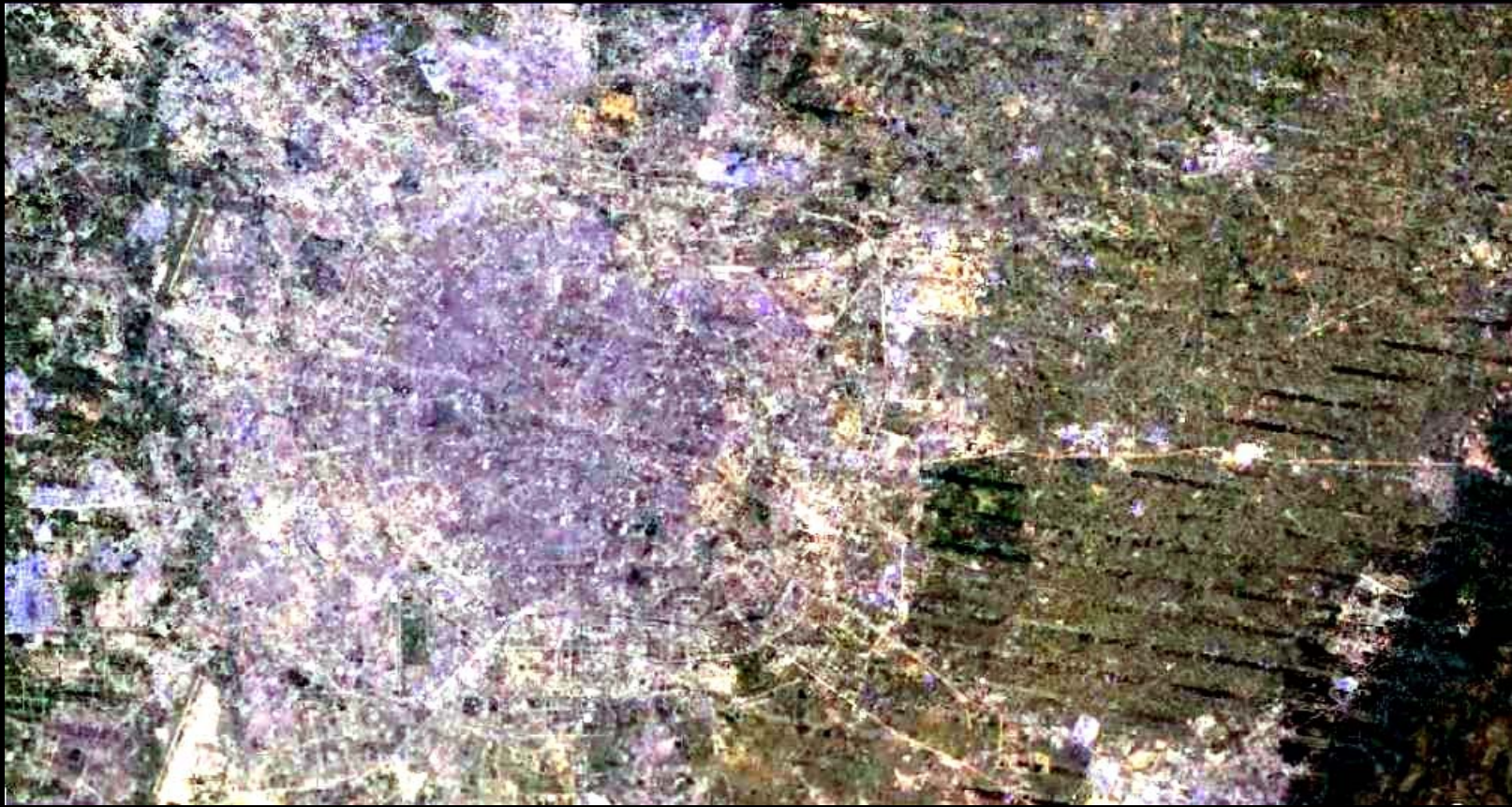
Chengdu, 2001



- suburban towns becoming satellite cities

Change (%) in Builtup Land Area, 1991-2002

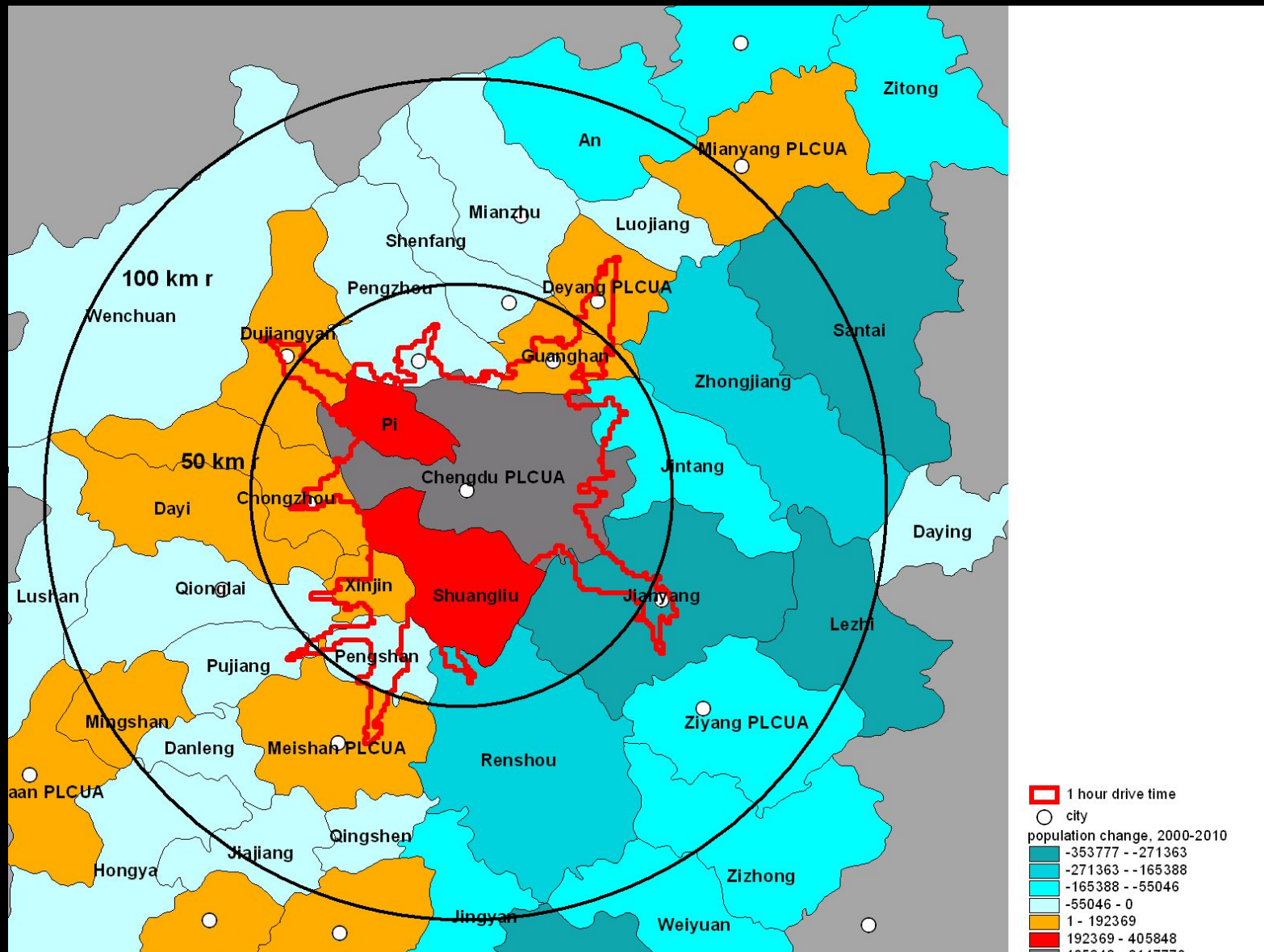




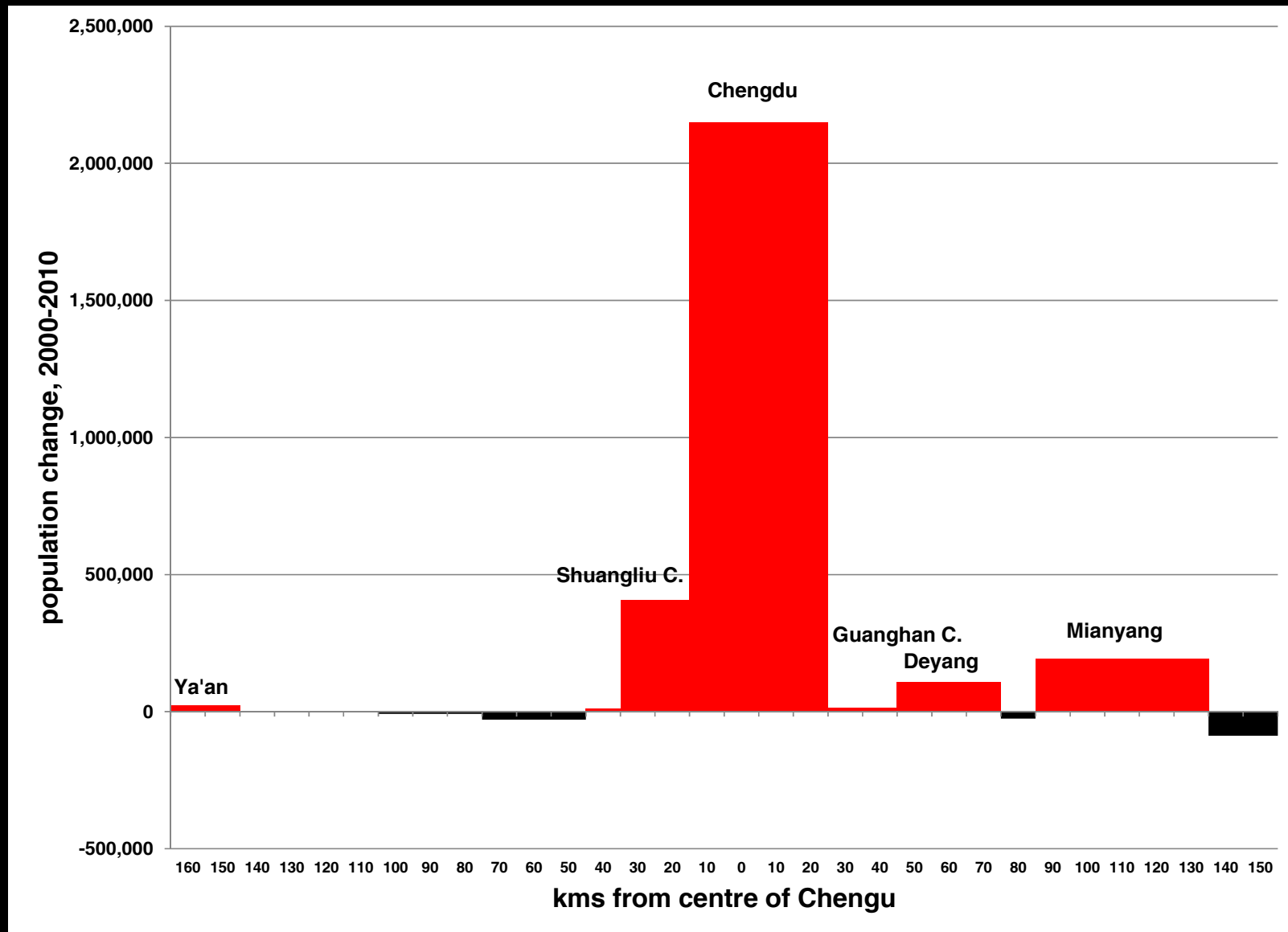
- continuing at even more rapid pace

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Chengdu, 2010

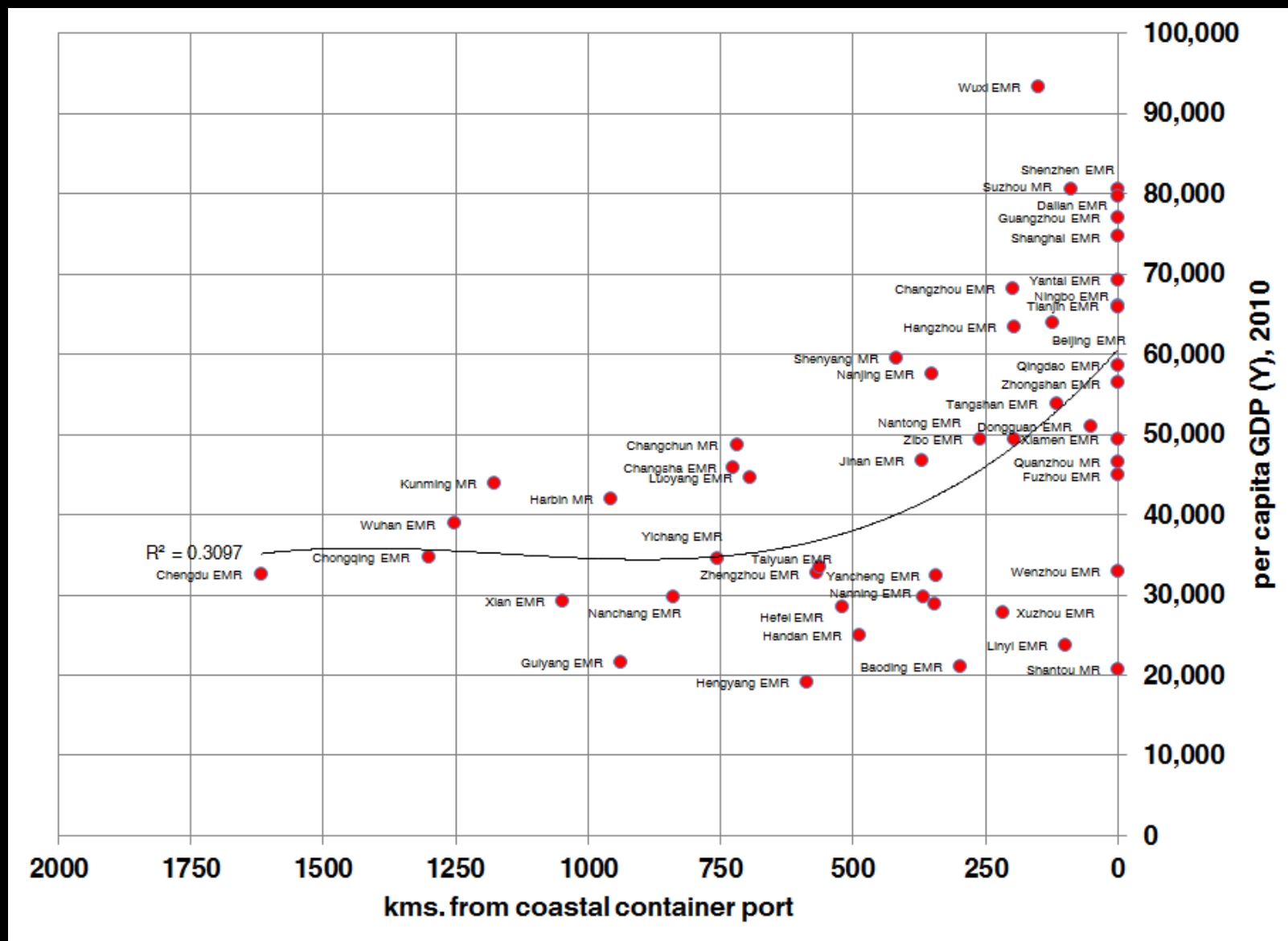


Population Change, 2000-2010

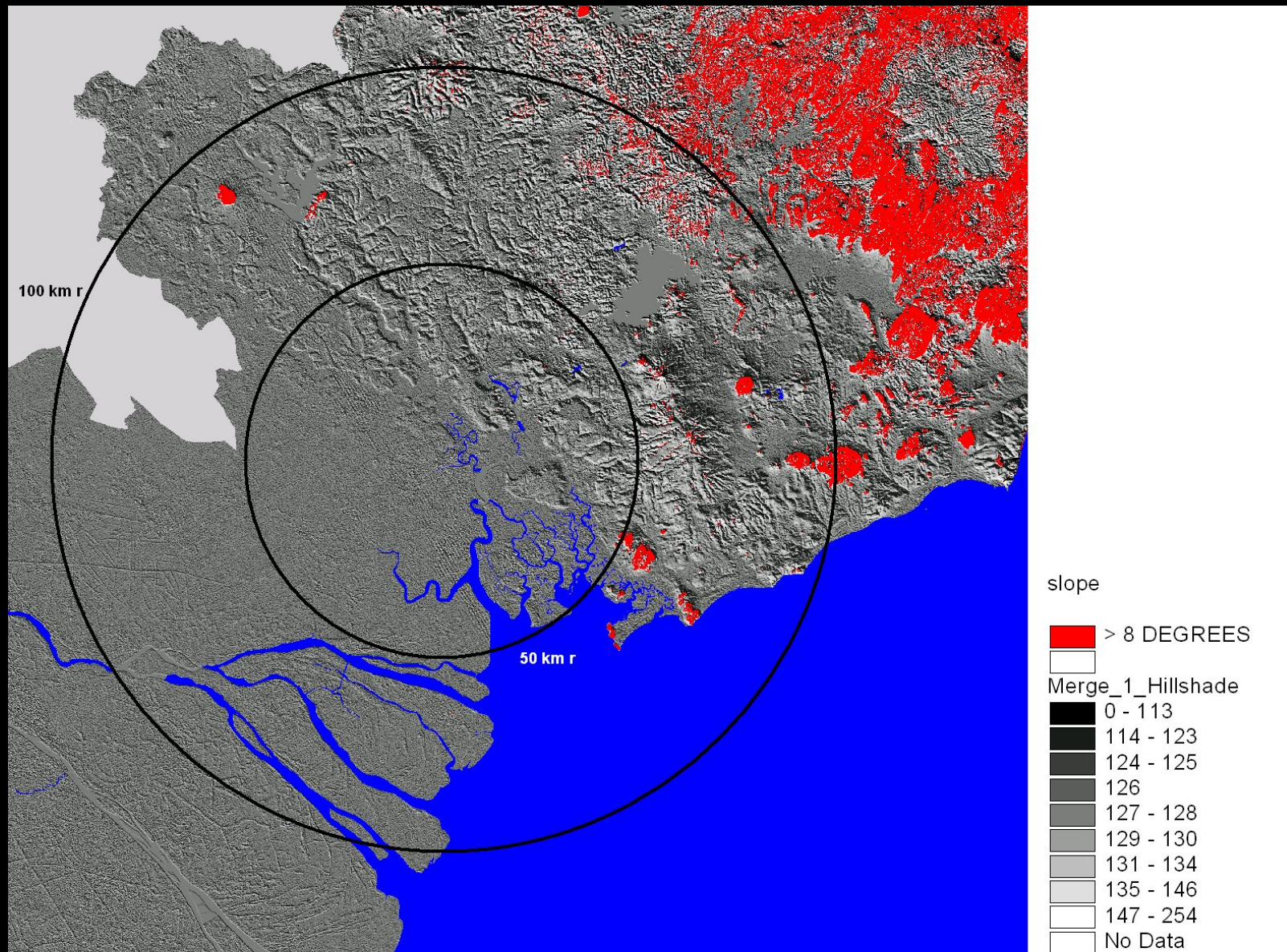


Population Change, 2000-2010



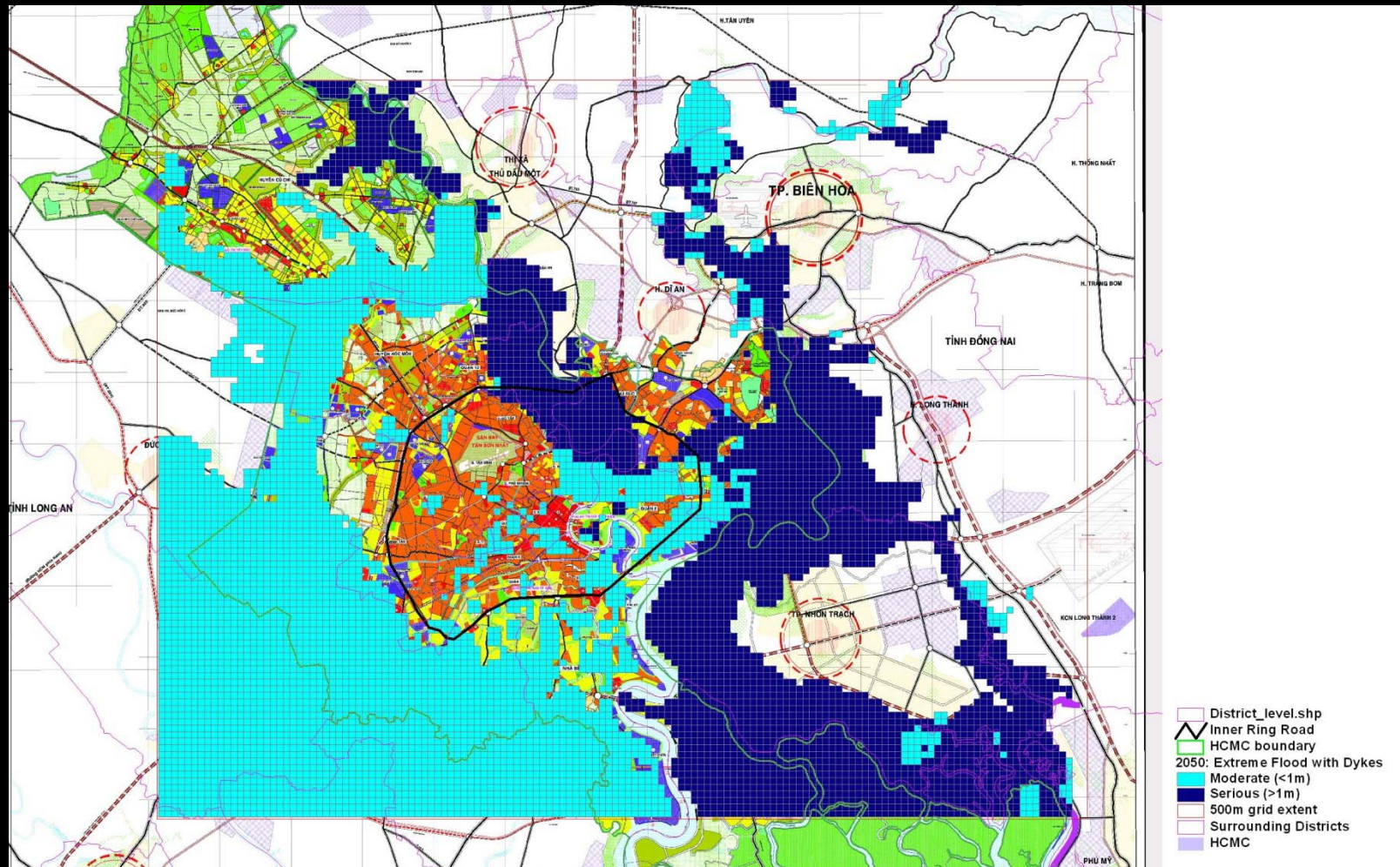


Distance Matters



Topographic Constraints, HCMC EMR

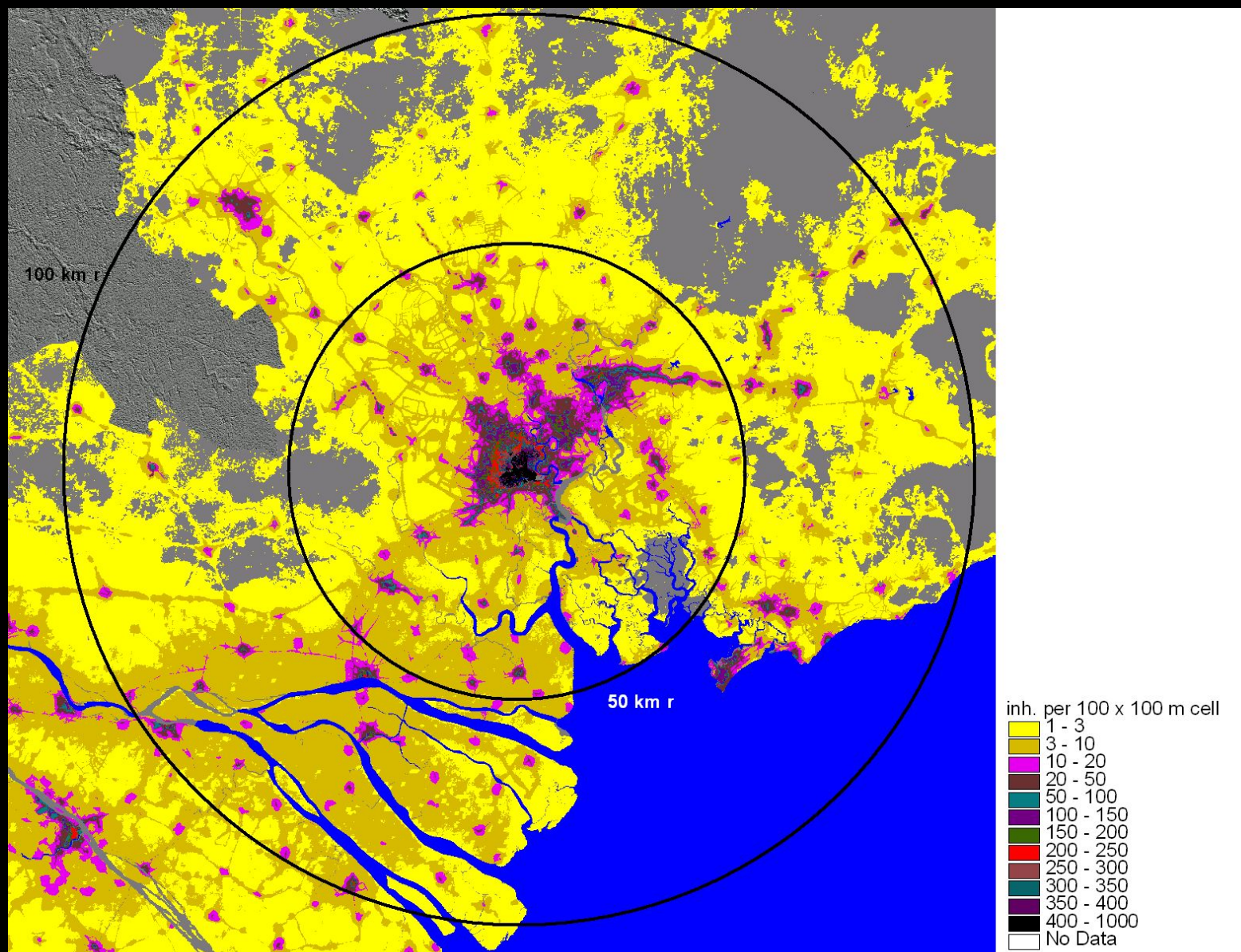




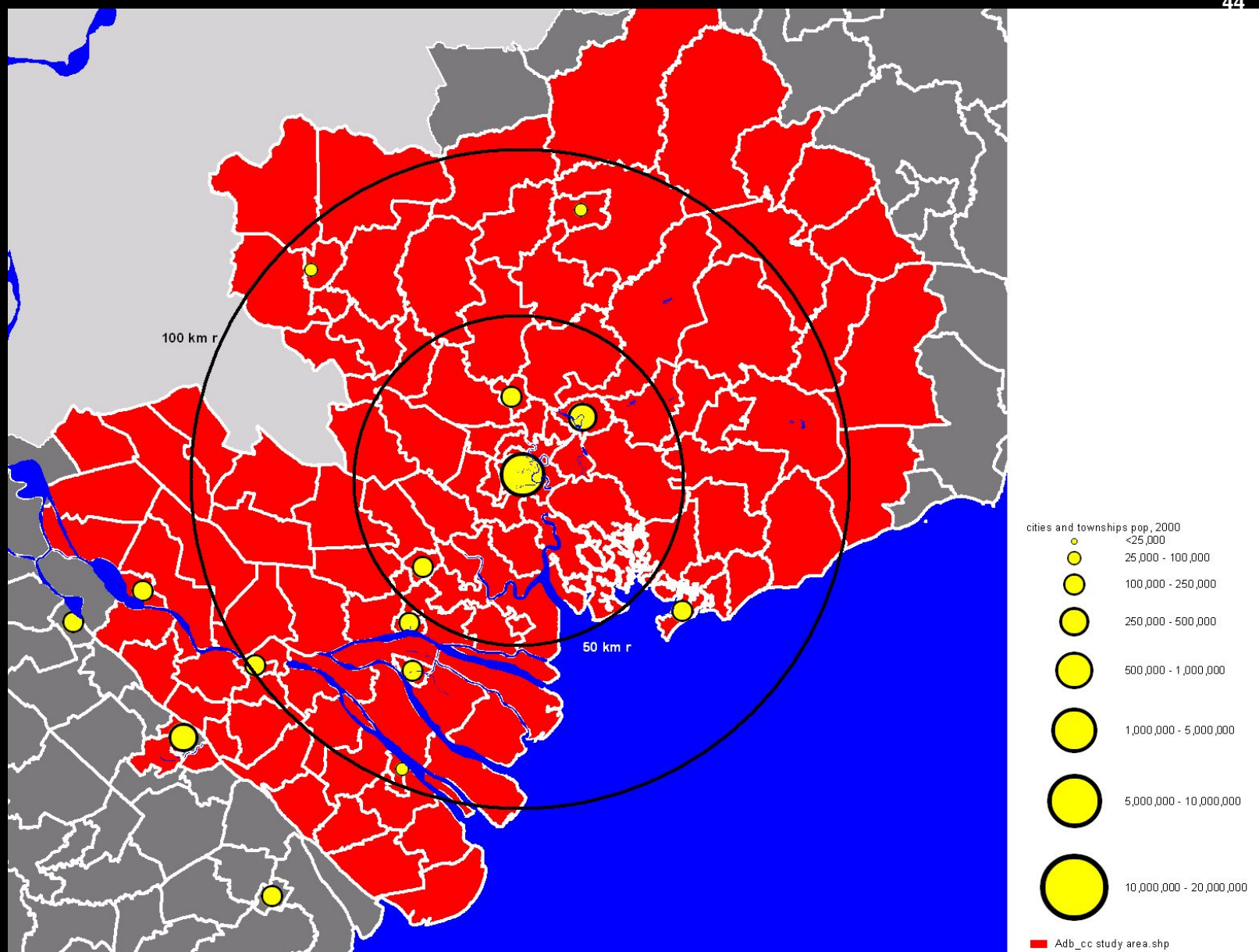
- ADB TA model of 50-year flood in 2050 under SLR scenario
- 71% of master planned area flooded

## Topography and Climate Change Risk in HCMC EMR

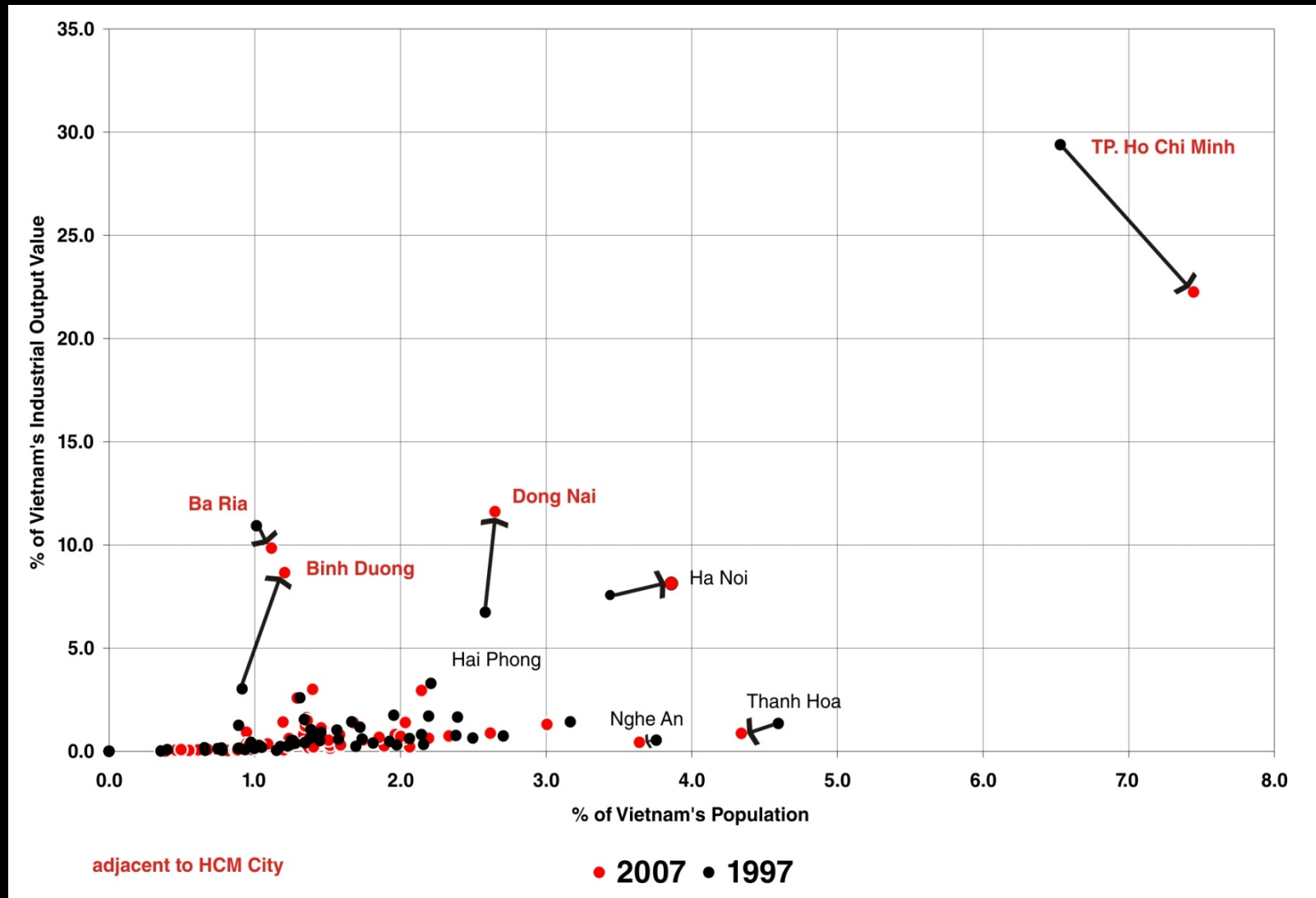




Inhabitants/km<sup>2</sup>, HCMC EMR (2010)



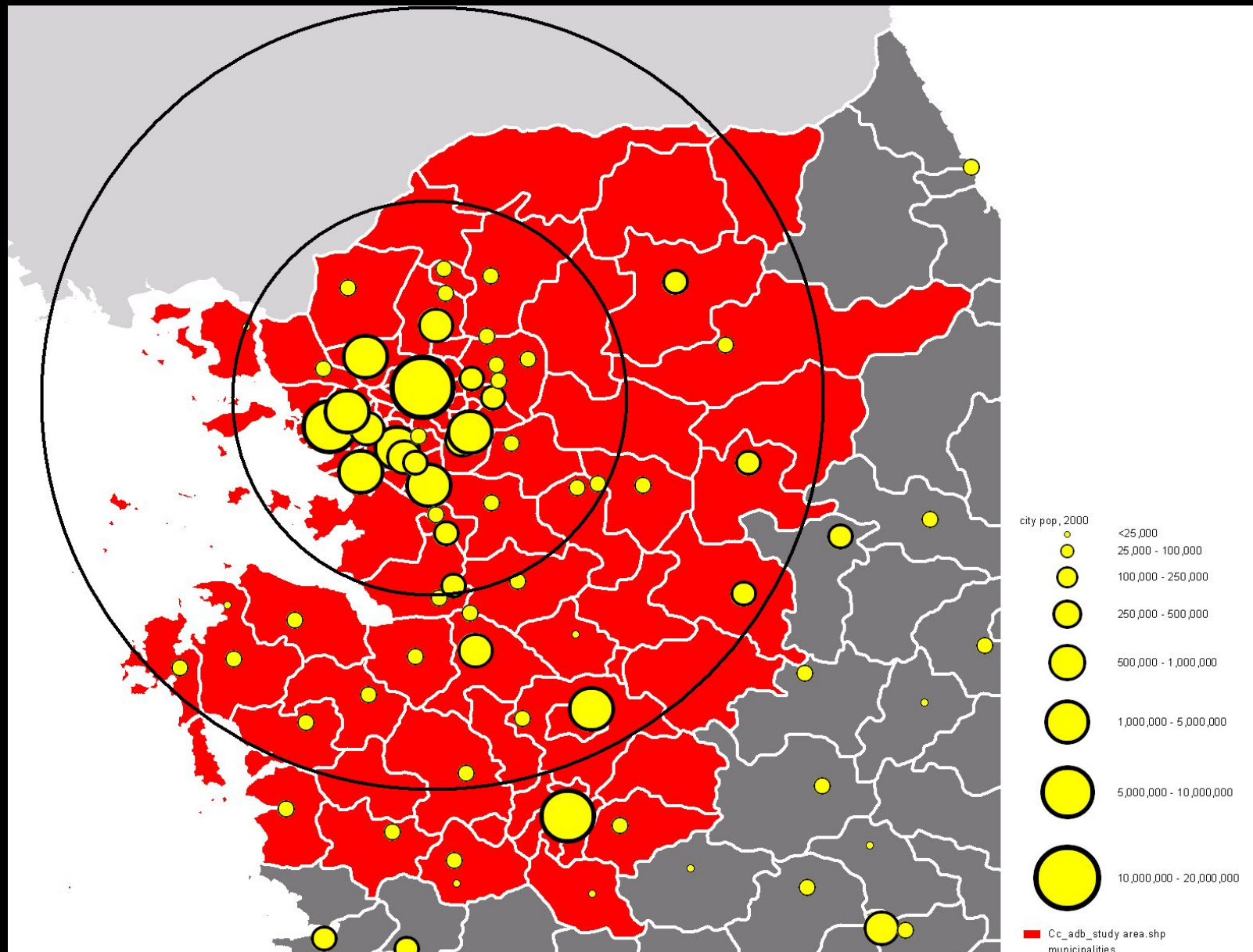
Study Area, HCMC EMR



- moving to adjacent provinces within the EMR

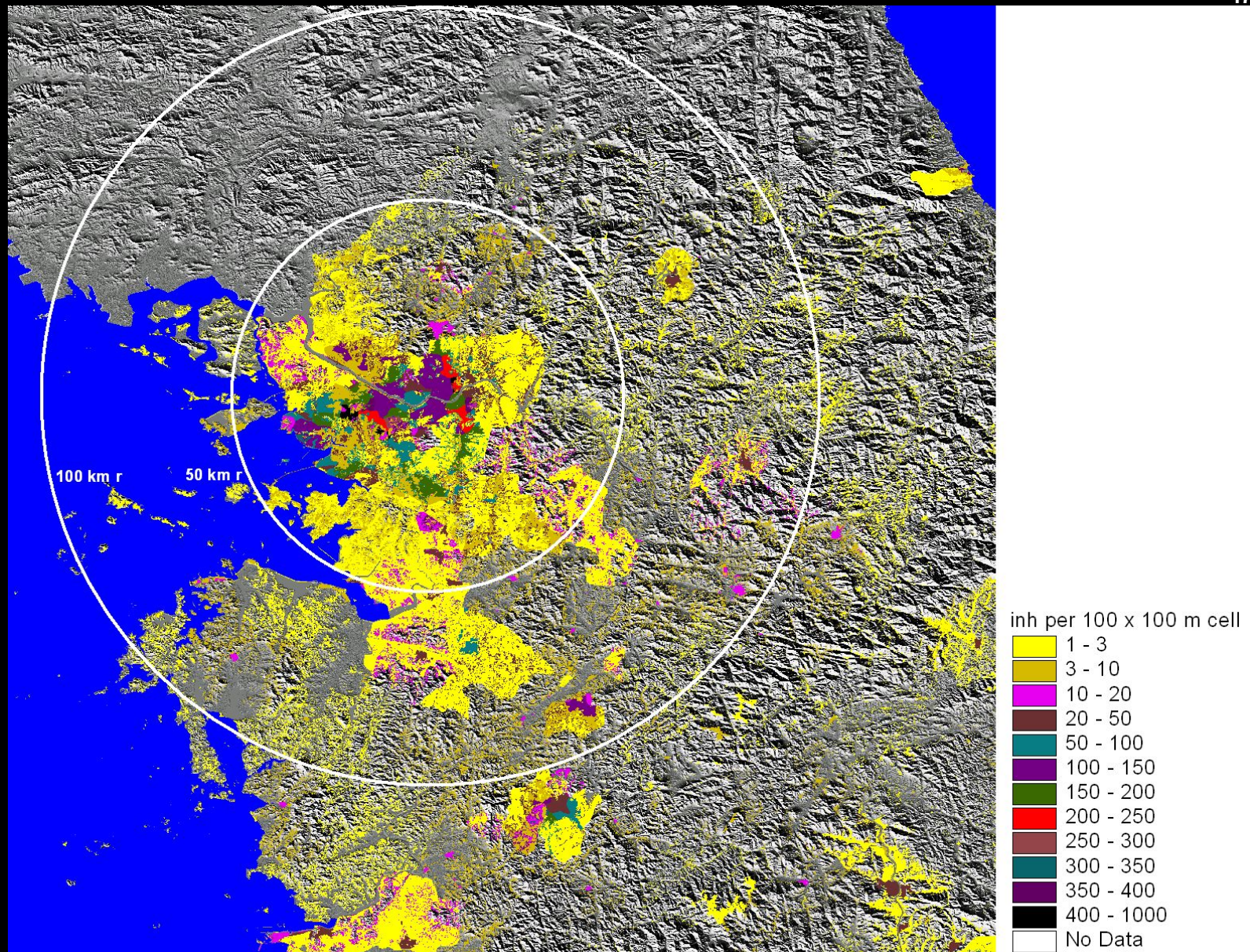
Industrial Dynamics, HCMC EMR





Study Area: Seoul EMR



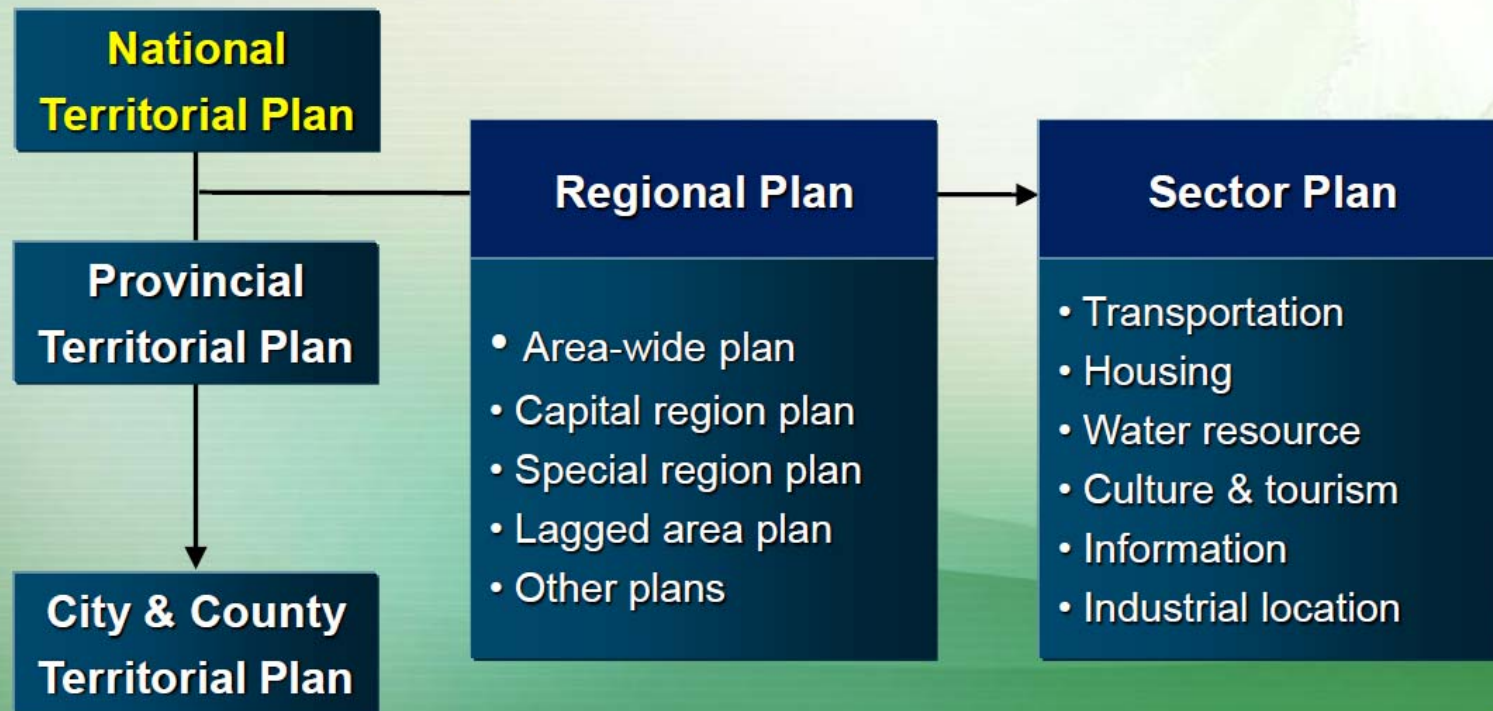


Inhabitants/km<sup>2</sup>: Seoul EMR



- ❖ The CNTP works as the basis of the Provincial Plan
- ❖ Regional and sector plans need to be consistent with CNTP

< Hierarchy of the Territorial Plan in Korea >



16

- long and strong history in strategic planning at MR scale
- institutions in place to plan and implement

I Strategic Planning of the Seoul EMR



## < Paradigm Shift of Regional Development Policy >

**1960s-1970s**

**Growth pole development** and industrialization

**1980s-1990s**

**Control of over-concentration in the capital region** and promotion of provincial regions

**2000s**

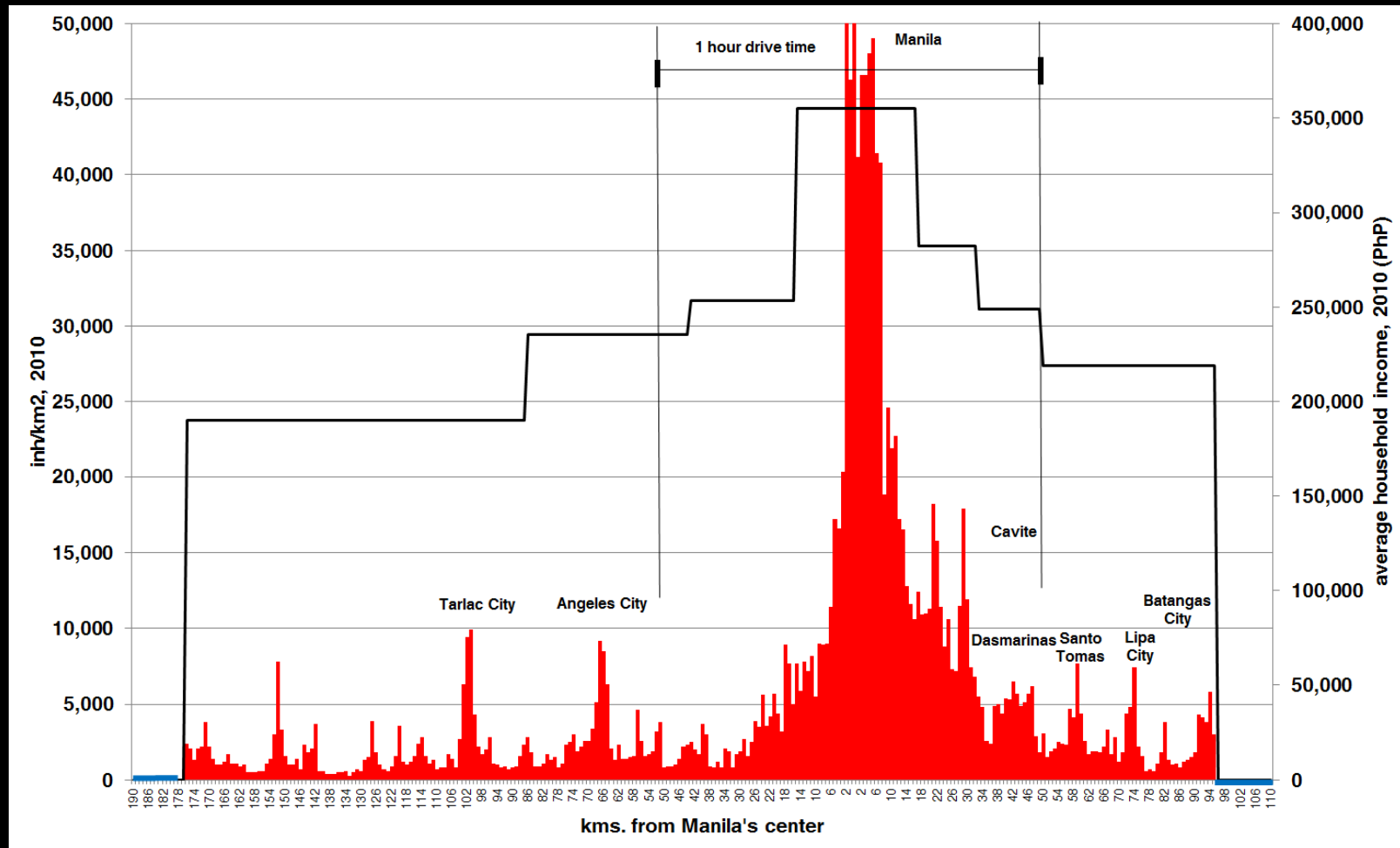
**Balanced national development** and decentralization of public agencies

**2010s**

**Regional competitiveness** and green territorial development

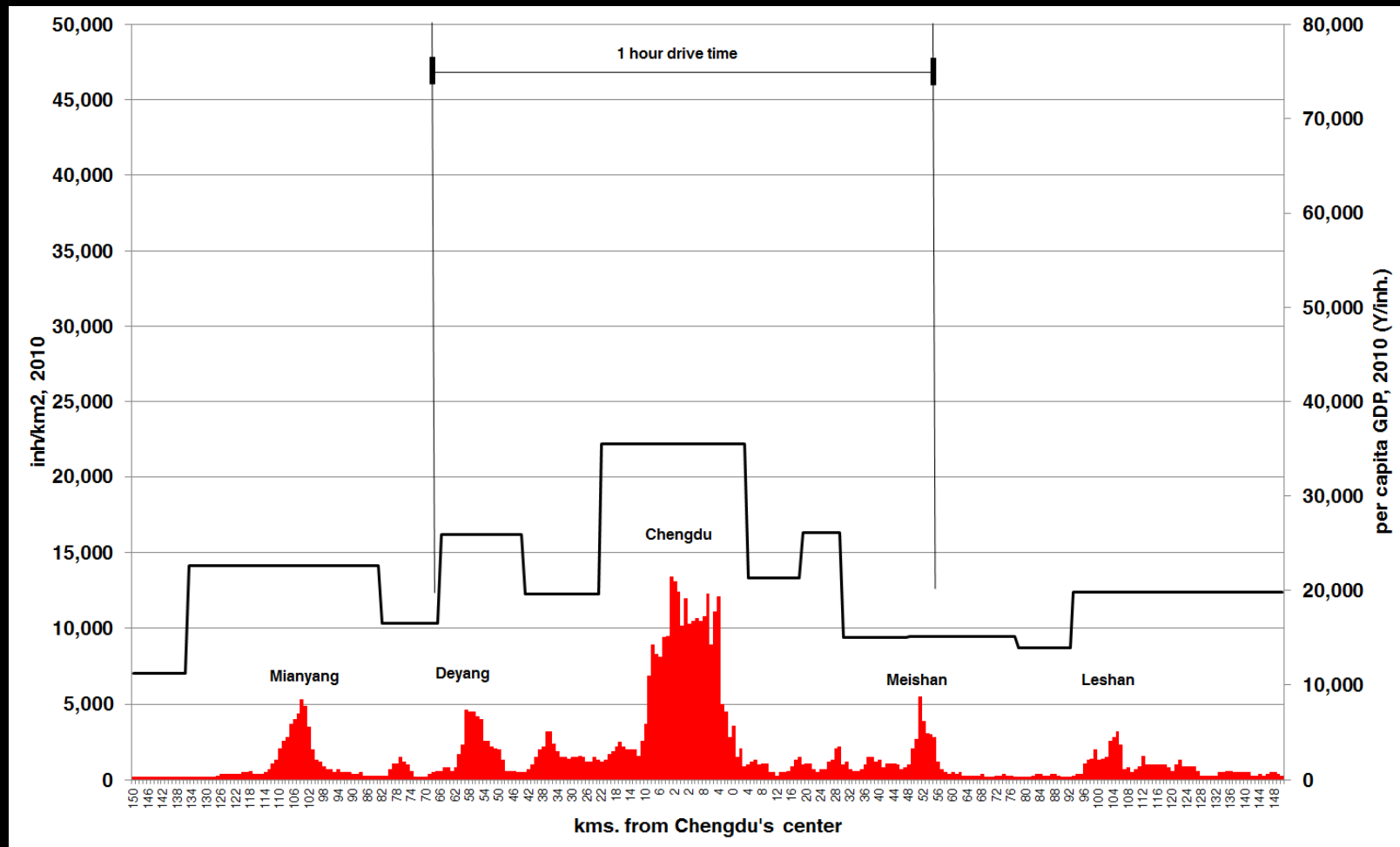
32

- strategic shifts in keeping with actual development



- spillovers mainly within 1-hour drive-time area

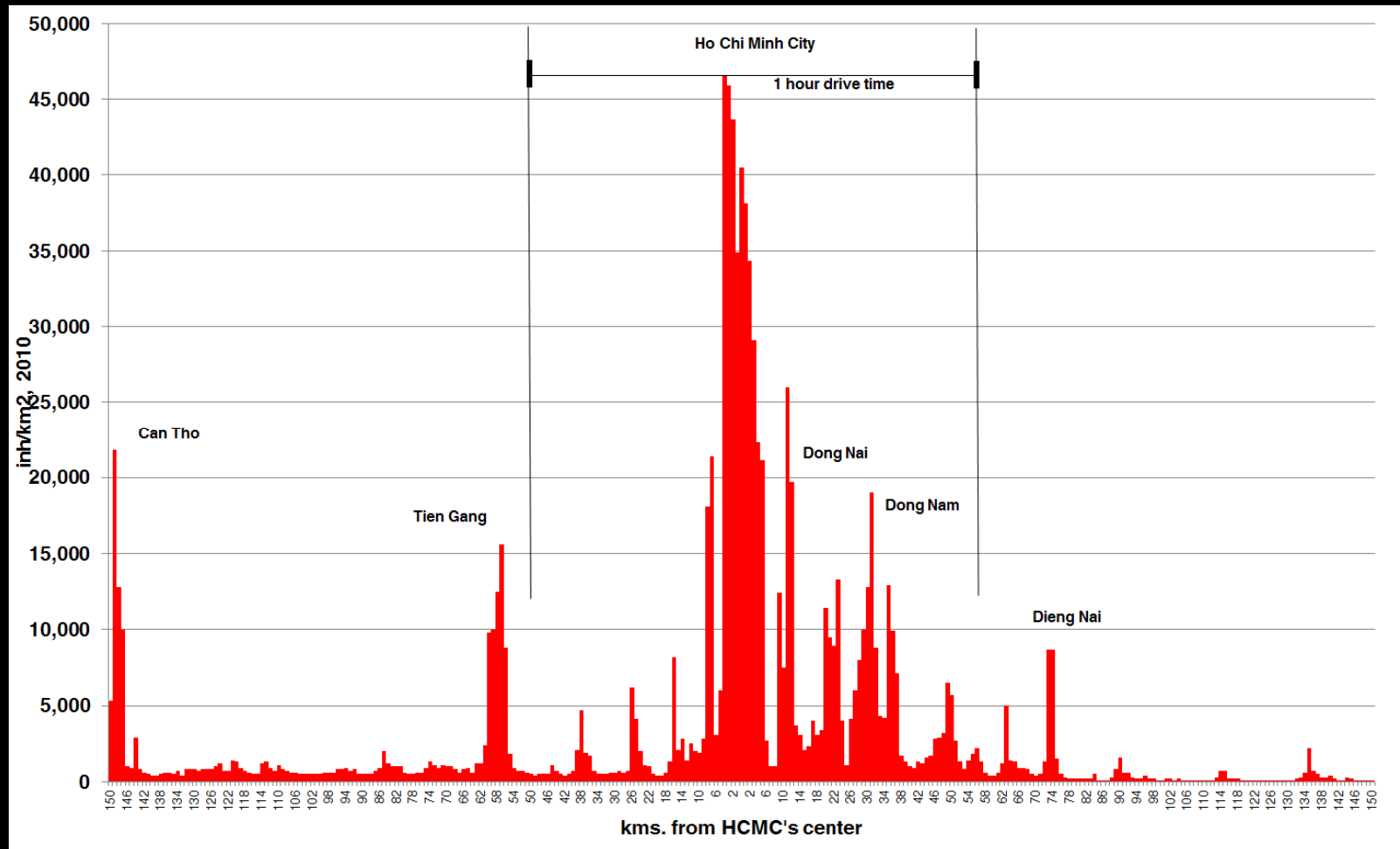
## Densities and Household Incomes, Manila EMR



- economic spillovers minimal

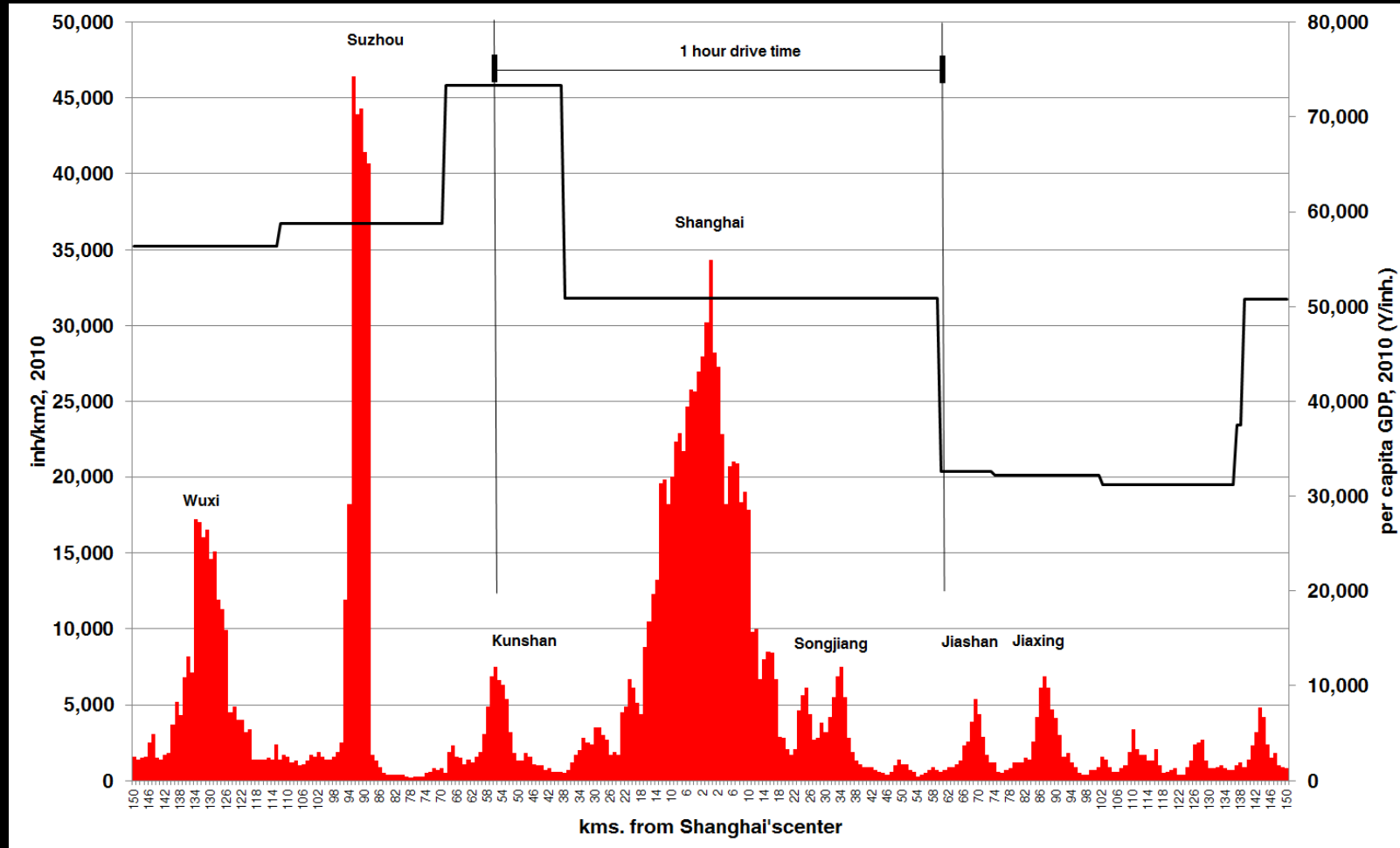
Densities and per capita GDP, Chengdu EMR





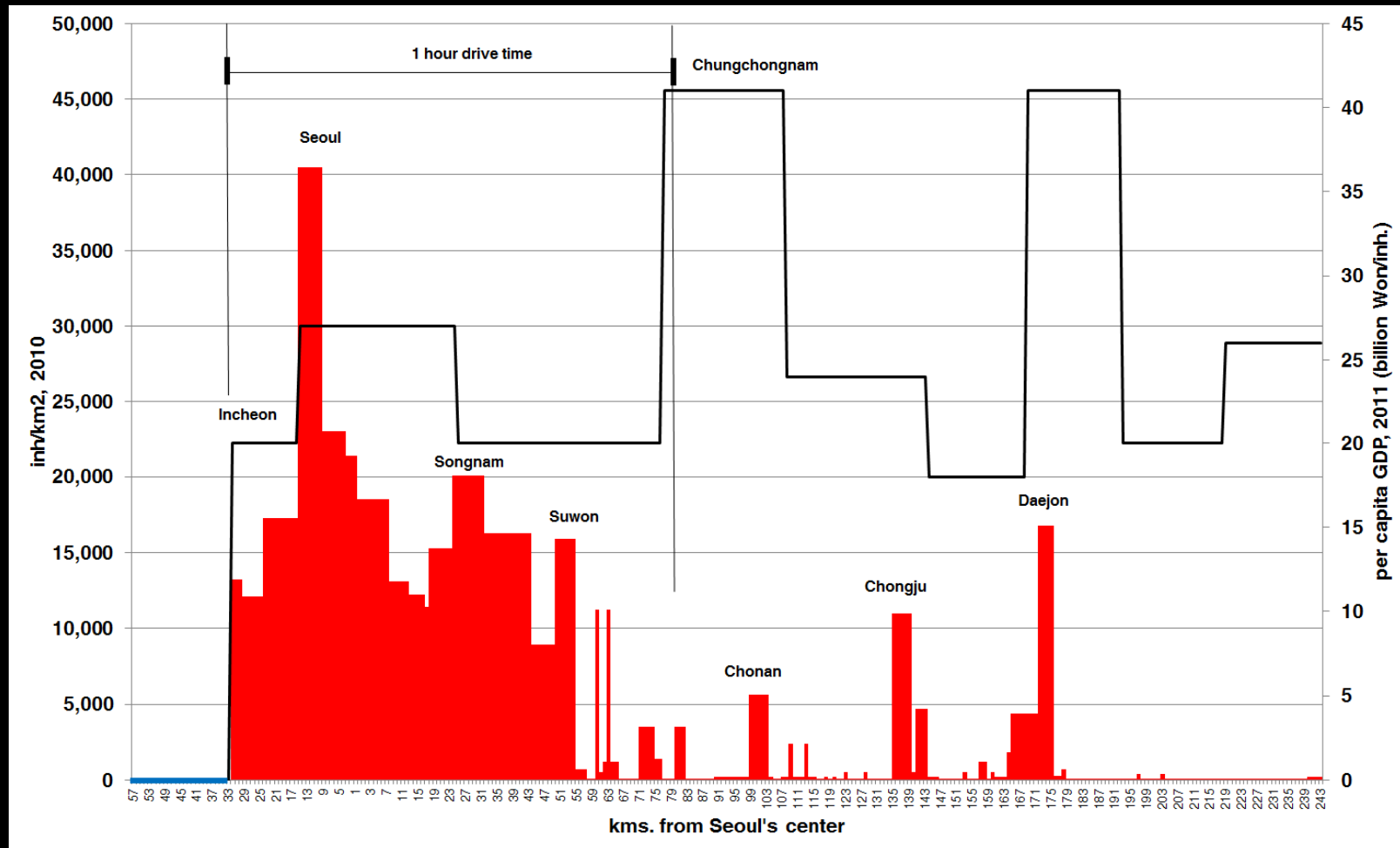
- [industrial output to be added as right scale]

Densities and Industrial Output: HCMC EMR



- spillovers to adjacent cities: mature metropolitan economy

Densities and per capita GDP: Shanghai EMR



- spillovers to adjacent cities: mature metropolitan economy

Densities and per capita GDP: Seoul EMR



- geography matters
- benefits attenuate with travel time and densities: connectivity and concentration are key
- location relative to export markets matters
- spillovers are contingent on size and maturity of metropolitan economy
- strategic planning at the MR scale makes a big difference...as long as institutions in place to implement

- should ADB, as part of its country portfolios, include strategic metropolitan regions?
- should such engagement be limited to secondary cities within MRs or include policy and institutional reforms in core metropolis...investments to promote connectivity across the MR?
- should ADB pilot integrated development strategies at the MR scale?