

# The 'political economy' of India's Urban Environment: a few thoughts

iihs

Aromar Revi

New Delhi 25<sup>th</sup> March 2011

The 21<sup>st</sup> century Indian city:  
Developing an agenda for Urbanisation

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Mumbai: minimum city...



# Mumbai: a cross-section of Slums



Bharat Nagar and other slums, Raoli Junction



Ekvira Nagar, Salt pan land



Ganesh Murty Nagar



Near Airport



# Mumbai's Slum Services: Water Supply





# Mumbai's Slum Services: Solid Waste



Garbage Bin, Near Khotwadi

01/01/2



Garbage dumping place, Andhra Association



Unhygienic surroundings, Anna Nagar



Clean Street, Dadabhai Chawl

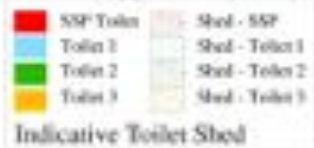
Name of the Slum	Slum Code	Zone	Ward	Location	Area	Slum Land / Toilet Land	Ownership	No. of HH	Density
NEW RAHUL NAGAR	XXXXXX	6	T	Mulund	1.42 hectares	BMC	BMC	300	880 persons/hectare



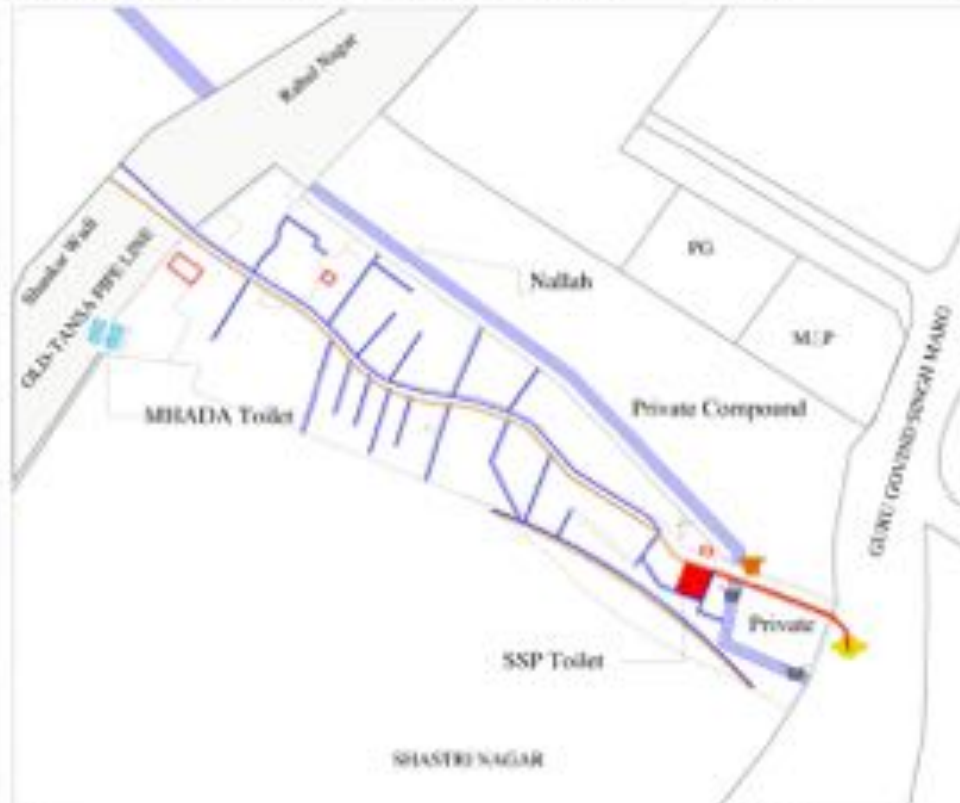
Location



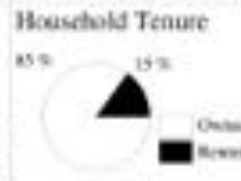
Landuse



Indicative Toilet Shed



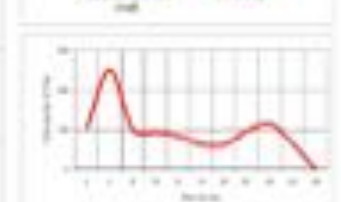
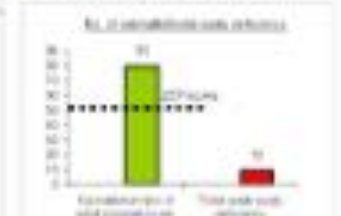
**Major Occupations**  
Auto rickshaw drivers, small businesses and daily laborers



Slum Photograph



SSP Block in the Slum



**TARU-WEDC**  
Water/SP Survey Study  
PLAT-901



Name of the Slum	Slum Code	Zone	Ward	Location	Area	Slum Land / Toilet Land	Ownership	No. of HH	Density
GANESH MURTHI NAGAR	AD1(A)	1	A	Colaba	5.40 hectares	State Government	State Government	2000	1855 persons/hectare



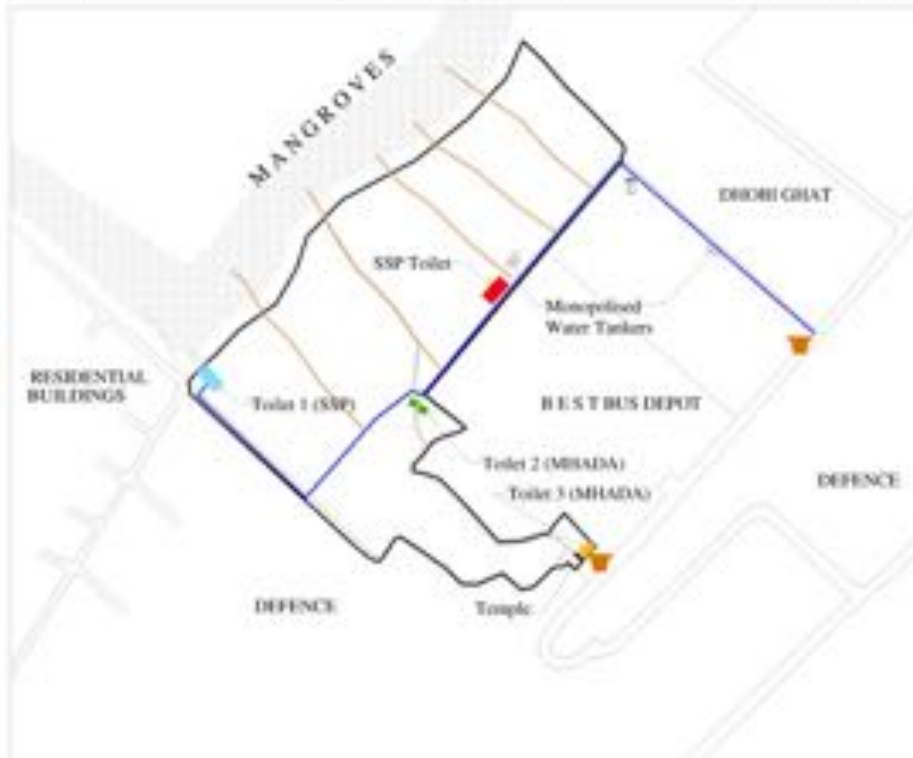
Location



Landuse



Indicative Toilet Shed



DRAINAGE ARRANGEMENTS	WATER SUPPLY ARRANGEMENTS	SANITATION ARRANGEMENTS	SOLID WASTE DISPOSAL
Open Latcha	Water Line	Sewer Line	Municipal bin
Open Pucca	Well	Septic tank	Dumping in Nala
Closed Pucca	Stand Post	Open Detention	Dumping in open
Slope	Hand Pump	Manhole	Dumping in street

Major Occupations  
Construction workers, BBI workers, watchmen



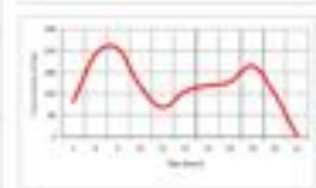
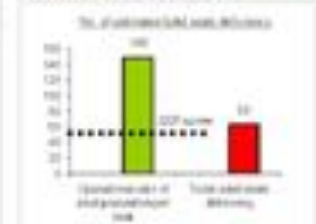
Household Tenure



Slum Photograph



SSP Block in the Slum



TARU-WEDC  
Mumbai SSP Review Study  
PLAT NO 11

Name of the Slum	Slum Code	Zone	Ward	Location Area	Slum Land / Toilet Land	Ownership	No. of HH	Density
ANNA NAGAR	GN03	3	GNorth	Dharavi	3.00 hectares	State Government	2000	3320 persons/hectare



Location



Landuse



Indicative Toilet Shed



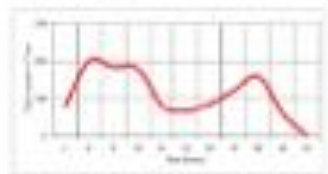
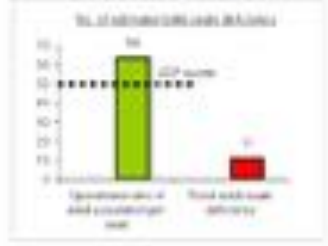
<b>DRAINAGE ARRANGEMENTS</b> Open Kutcha Open Paved Closed Paved Slope	<b>WATER SUPPLY ARRANGEMENTS</b> Water Line Well Stand Post Hand Pump	<b>SANITATION ARRANGEMENTS</b> Sewer Line Septic tank Open Defecation Manhole	<b>SOLID WASTE DISPOSAL</b> Municipal Bin Dumping in Nala Dumping in open Dumping in street	<b>Major Occupations</b> Drivers, rickshaws, daily wage workers, taxi workers  <b>Household Tenure</b> 53% Owned 47% Rented
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Slum Photograph

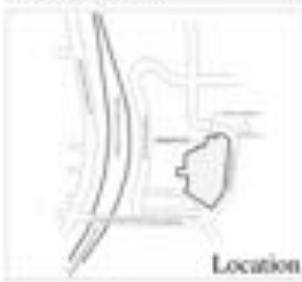
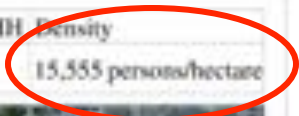


SSP Block in the Slum

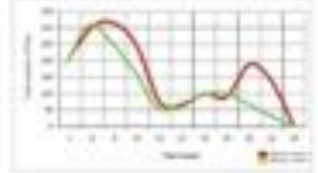
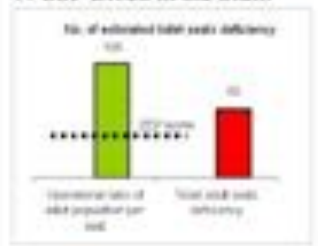




Name of the Slum	Slum Code	Zone	Ward	Location	Area	Slum Land / Toilet Land Ownership	No. of HH	Density
BHIM WADI	FN/042	3	F North	Antop Hill	0.45 hectares	Private	1500	15,555 persons/hectare

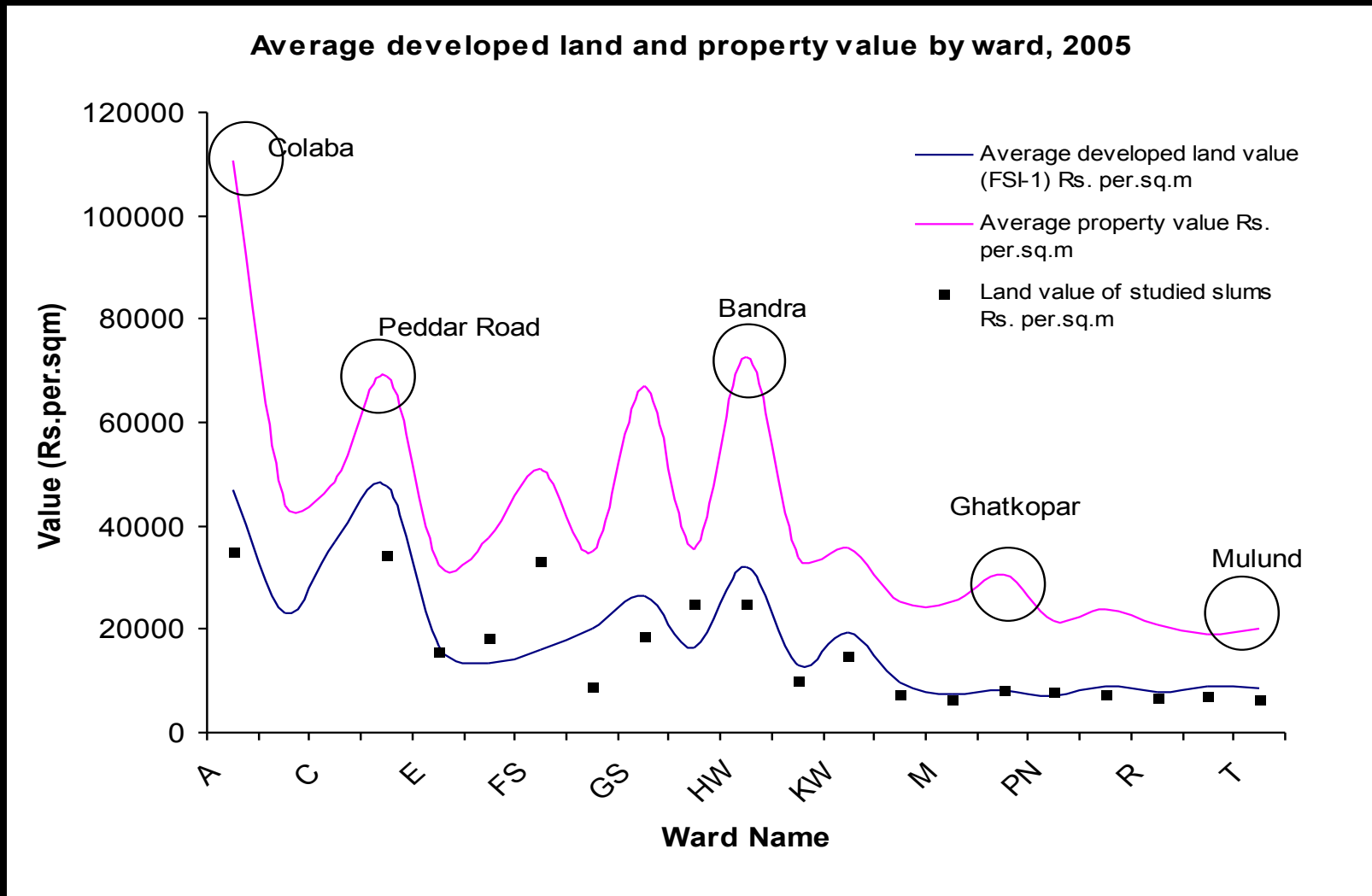


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**TARU-WEDC**  
 Mumbai IDP Crisis Study  
 (RATH 501)

# Mumbai's formal & informal Land Price differentials



Mumbai's (imputed) land market value estimated in 2005 at ~ Rs. 560,000 crores. Distortions in this market primary factor in the huge (55%+) city slum population





# Open Defecation: 0.5 million people per day in Mumbai





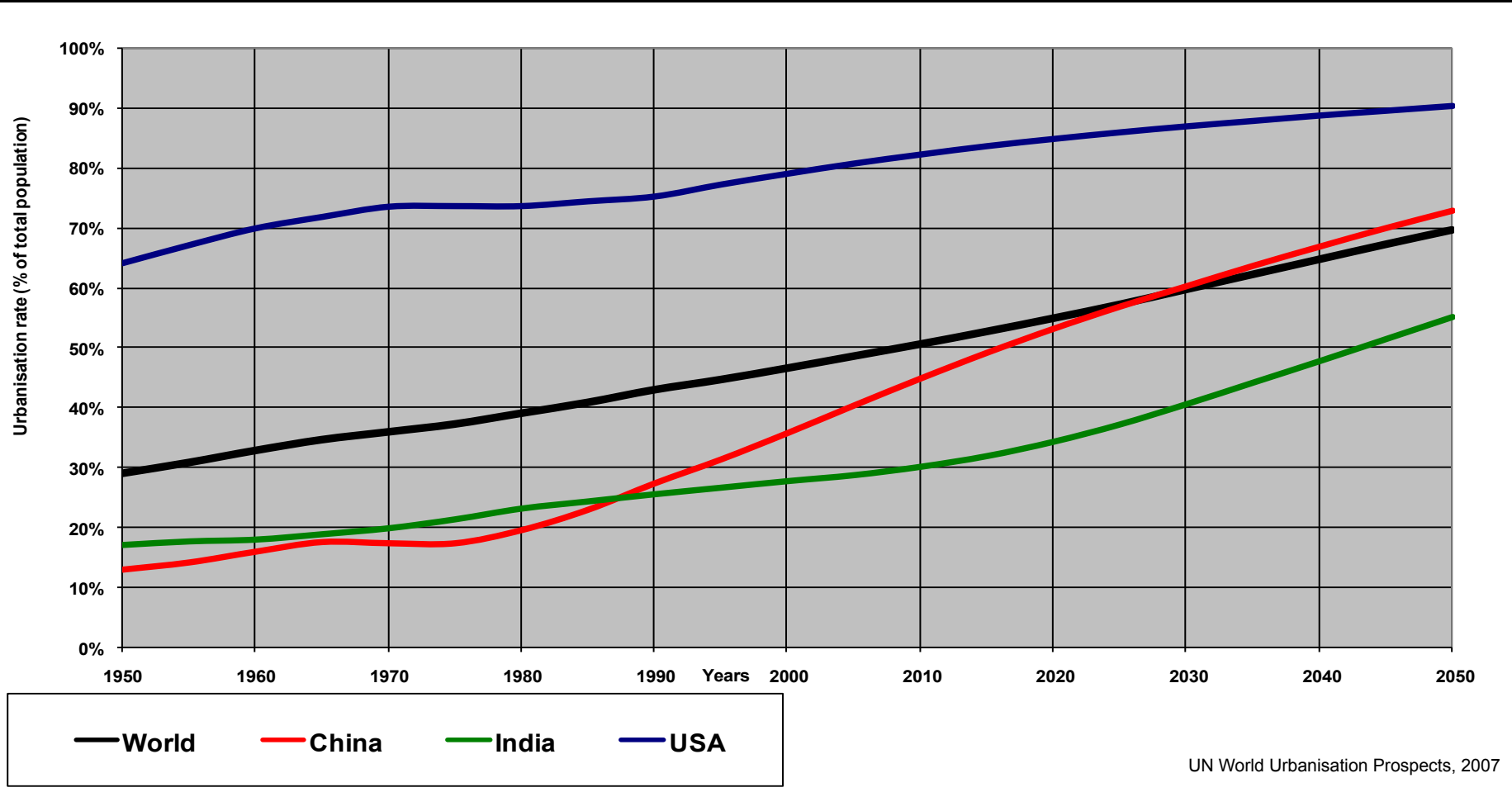
## “City Of Islands”



# Comparative long-range Urbanisation trends (1950-2050)



# Urbanisation trends: India, China & the USA (1950-2050)



India: an dramatic opportunity for balanced *RUrban* development

# Global Health Risk forecast by risk factor (2005-2060)

**Table 1 Cumulative differences in global forecasts of deaths, YLLs, and DALYs between less and more favorable scenarios of individual proximate risk factors (2005–2060)**

Risk factor	Cumulative deaths (millions)	Cumulative YLLs (millions)	Cumulative DALYs (millions)
Undernutrition	70	2,254	2,855
Obesity	68	1,054	1,064
Smoking	31	258	272
Road traffic accidents	107	2,712	3,248
Unsafe WSH	53	1,696	2,103
Indoor air pollution	22	471	649
Outdoor air pollution	87	1,033	1,167
Climate change	1	67	123

Source: Hughes et. al., 2011, Improving Global Health, Forecasting for the next 50 Years



# The Dynamics of Indian Urbanisation (1951-2031)

# 1951

W. Pakistan

Tibet

Nepal

India

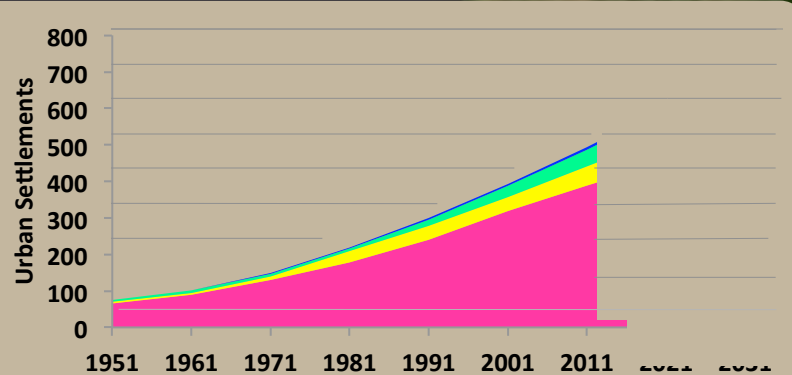
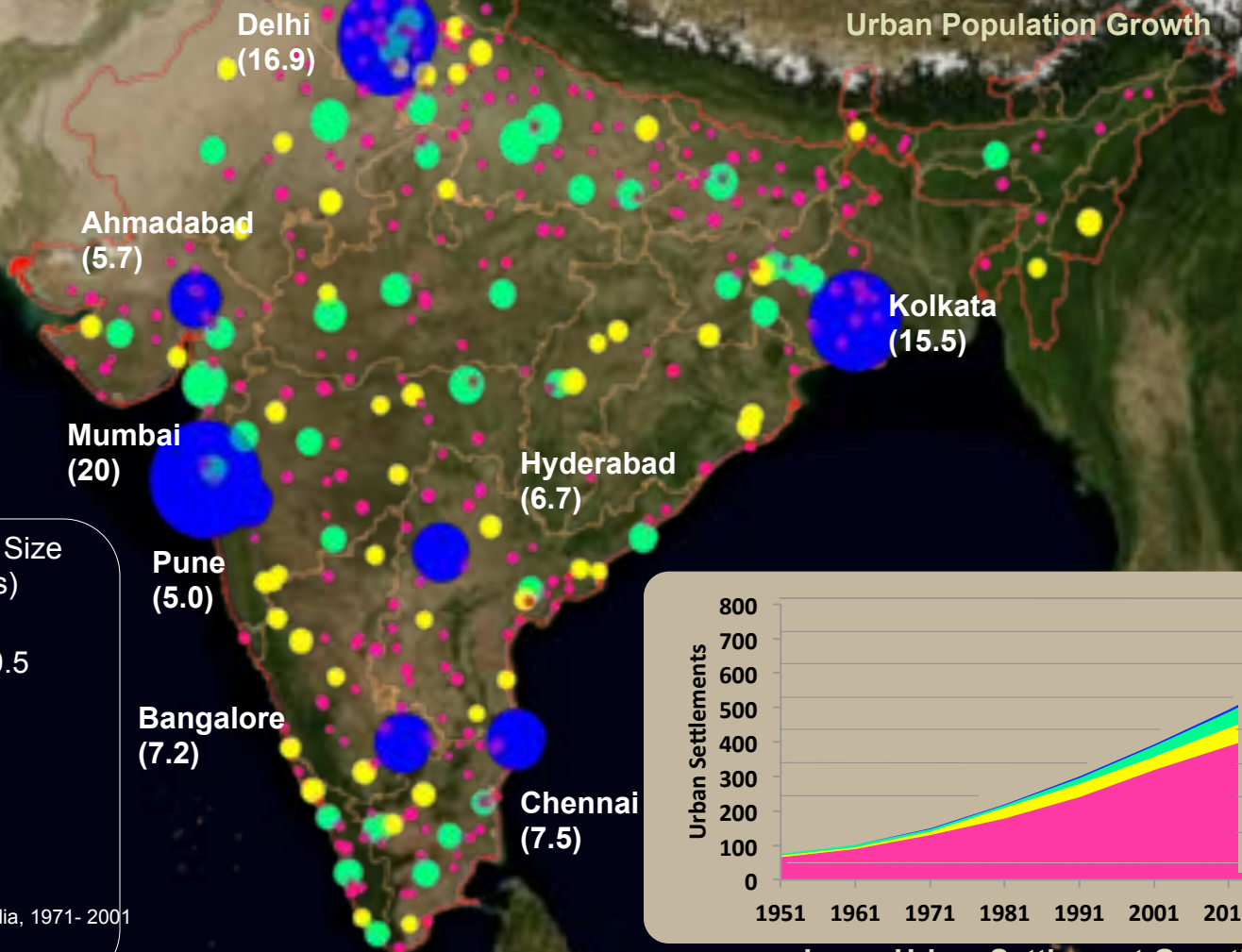
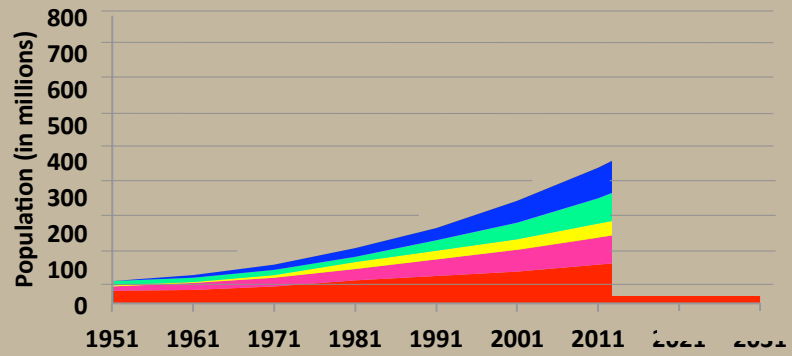
E.  
Pakistan

Population Size (millions)



Source: Census of India, 1971- 2001  
UN, 2007  
IIHS analysis, 2009-10

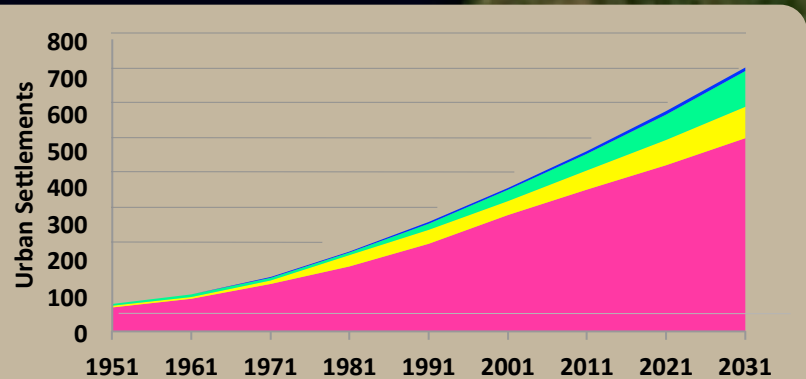
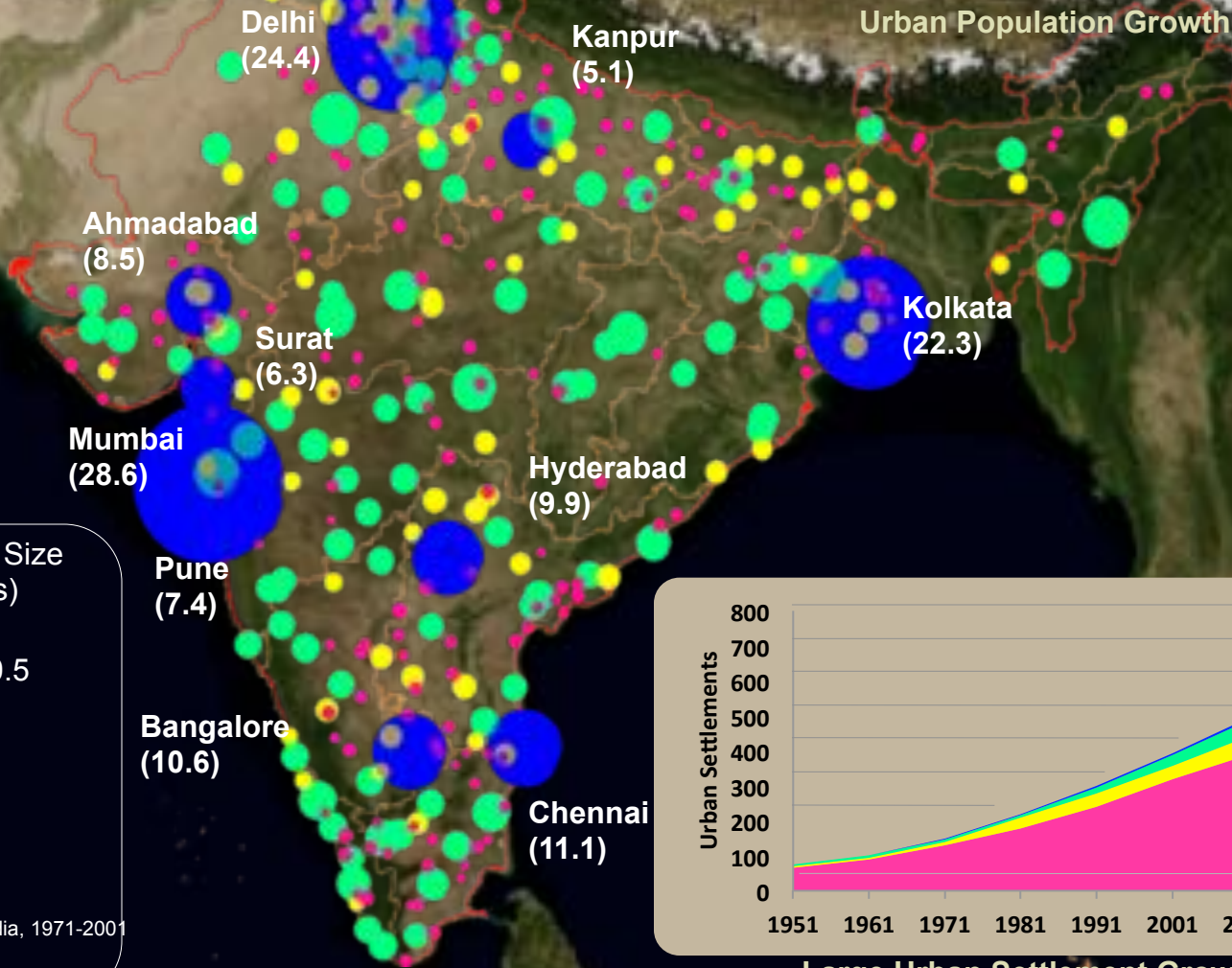
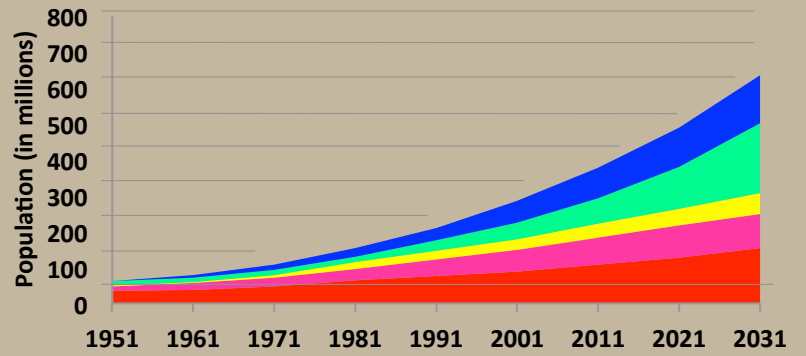
# 2011



Source: Census of India, 1971-2001  
UN, 2007  
IIHS analysis, 2009-10



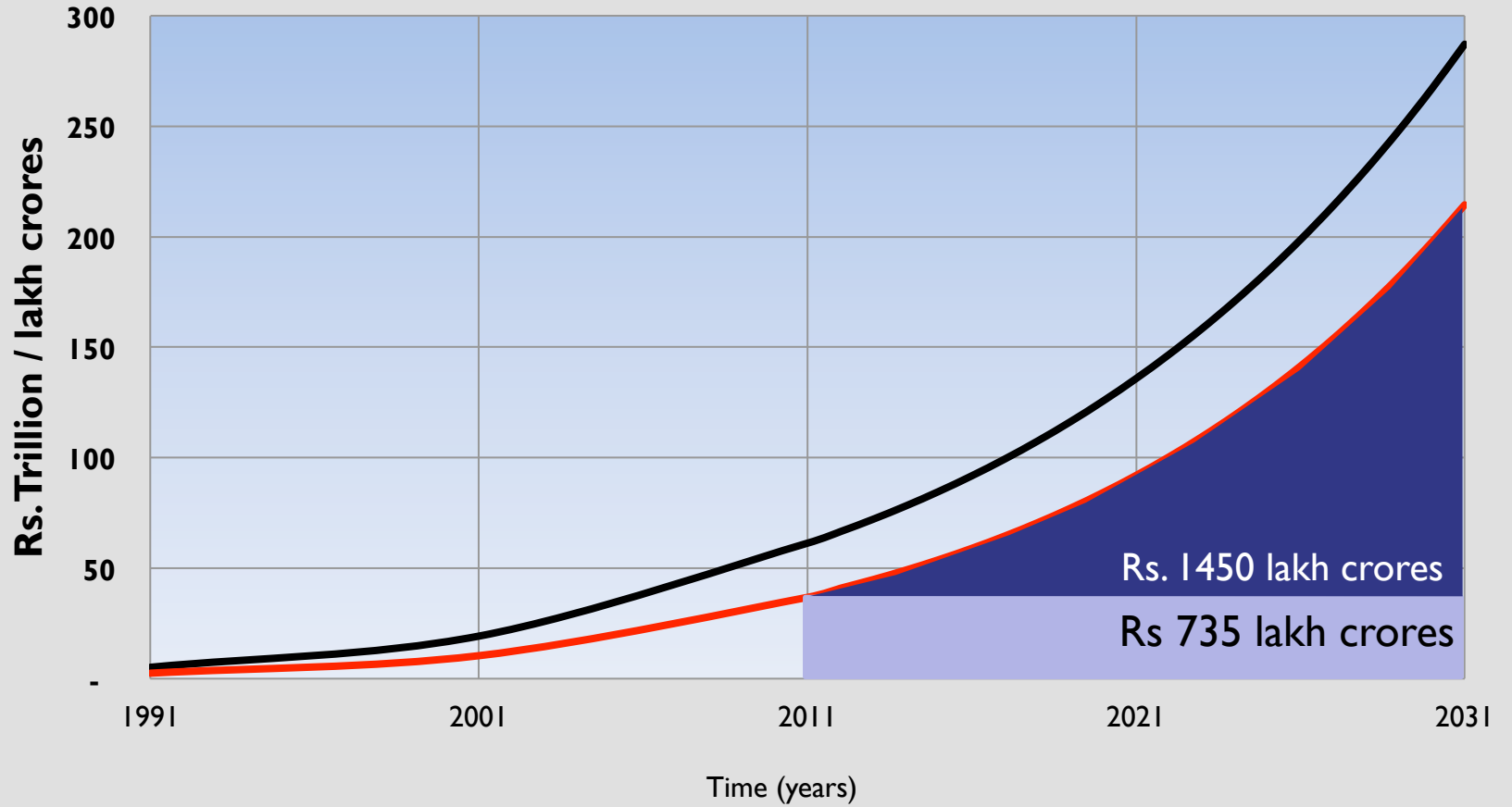
# 2031



Source: Census of India, 1971-2001  
UN, 2007  
IIHS analysis, 2009-10

# The Growth of India's Urban Economy (1991-2031)

# Growth of India's Urban Economy (1991-2031)

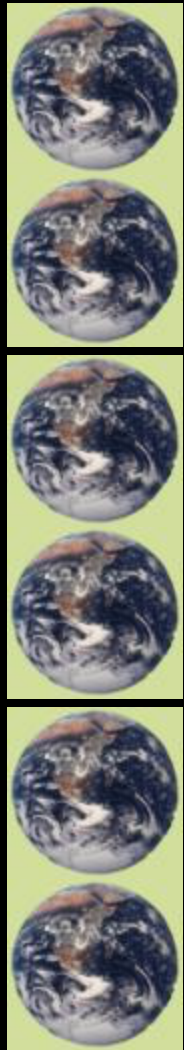


— GDP (current prices)    — Urban GDP



# Indian Cities & the global 21<sup>st</sup> century Sustainability transition

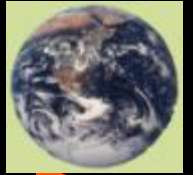
# The Challenge of the 21<sup>st</sup> century Sustainability Transition



Present consumption requires **~2.0 worlds**

21<sup>st</sup> century Population growth needs **1.5+ worlds**

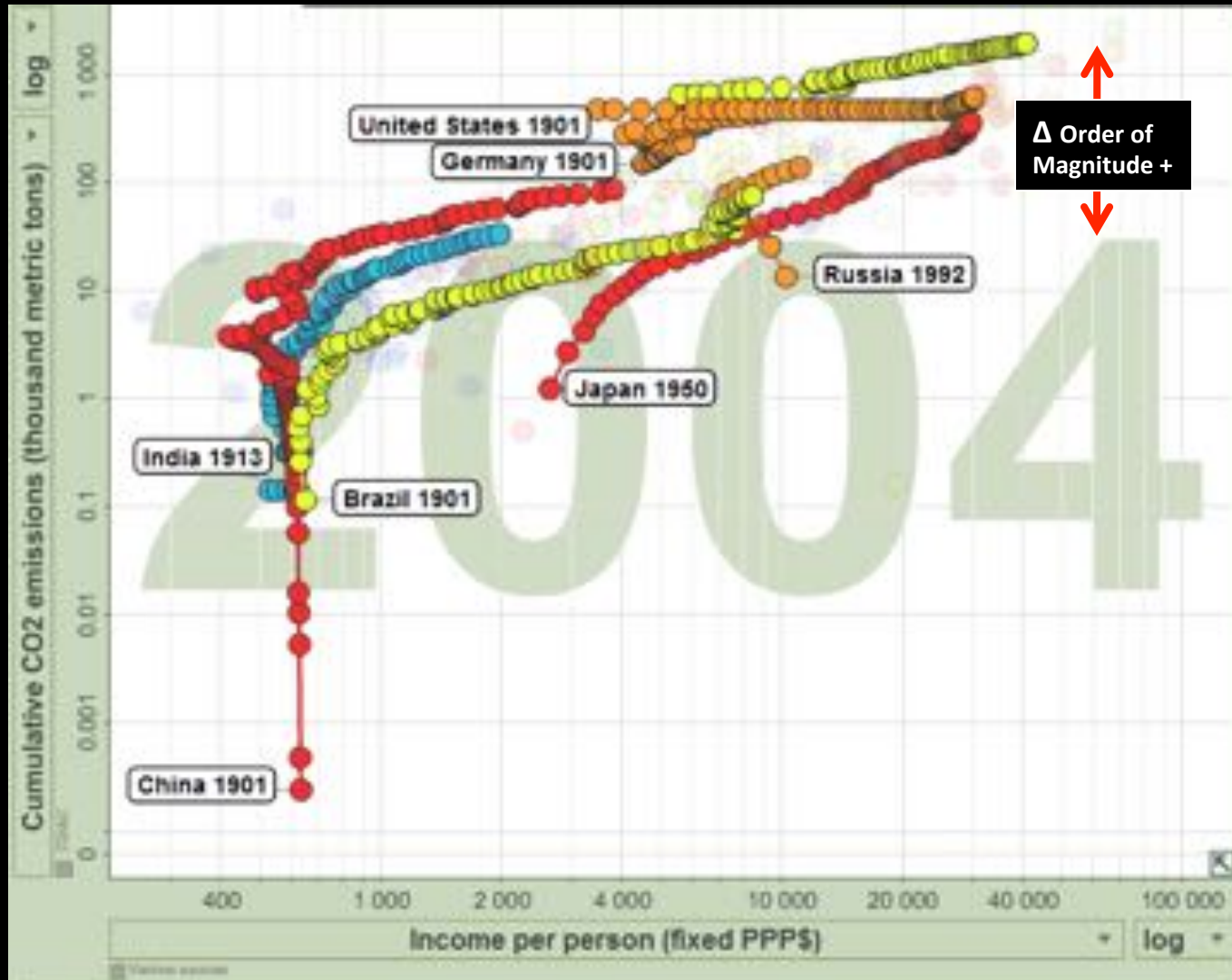
Ending poverty at present throughput **~2.0 worlds**



**Available  
only One  
World**

This transition will be played out in Indian & Chinese cities

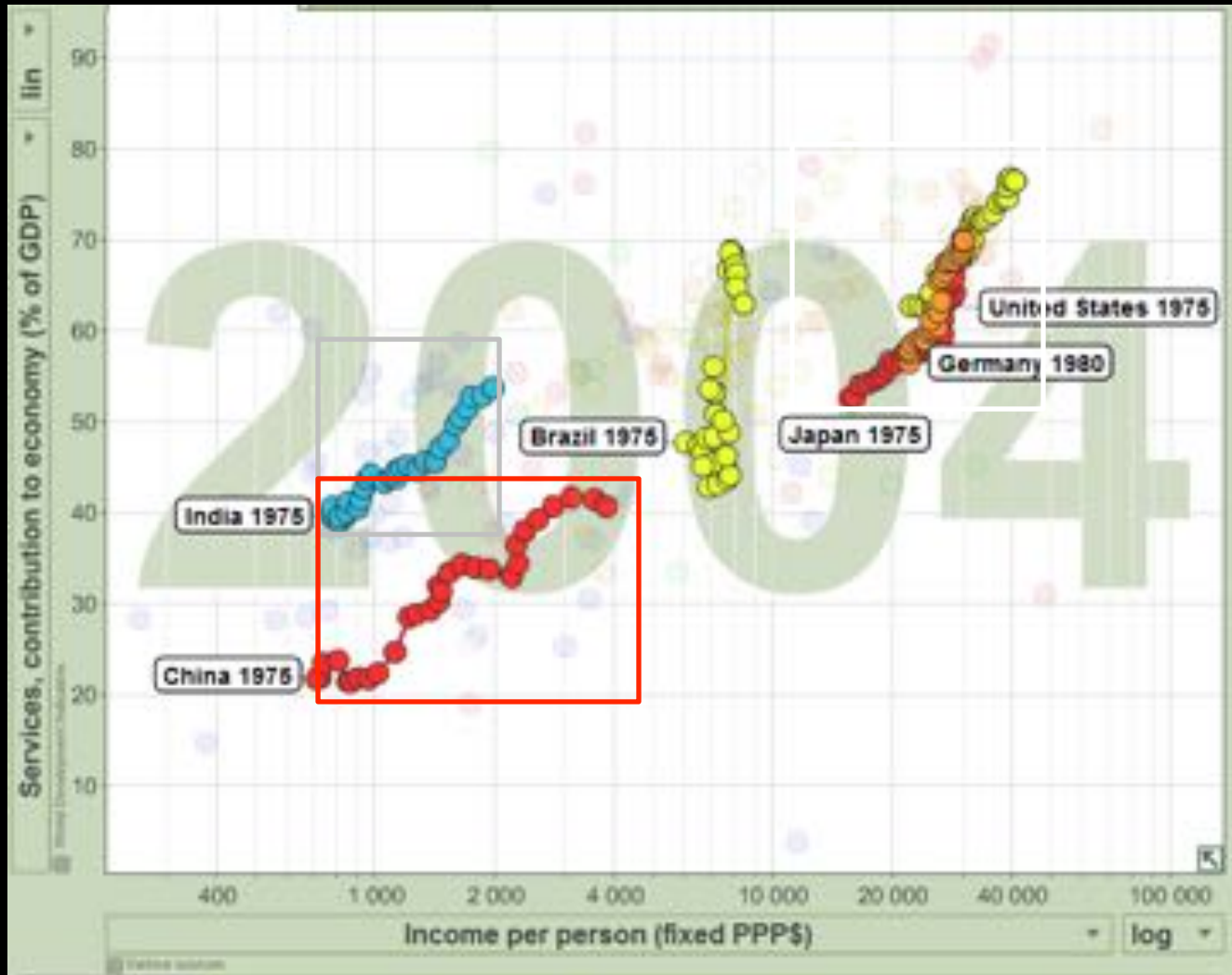
# 20<sup>th</sup> century pre-emption of 'ecological space' (1900-2004)



**Cumulative Carbon emissions** over the 20<sup>th</sup> century potentially **pre-empts** ecological & hence **human development 'space'** in the global South

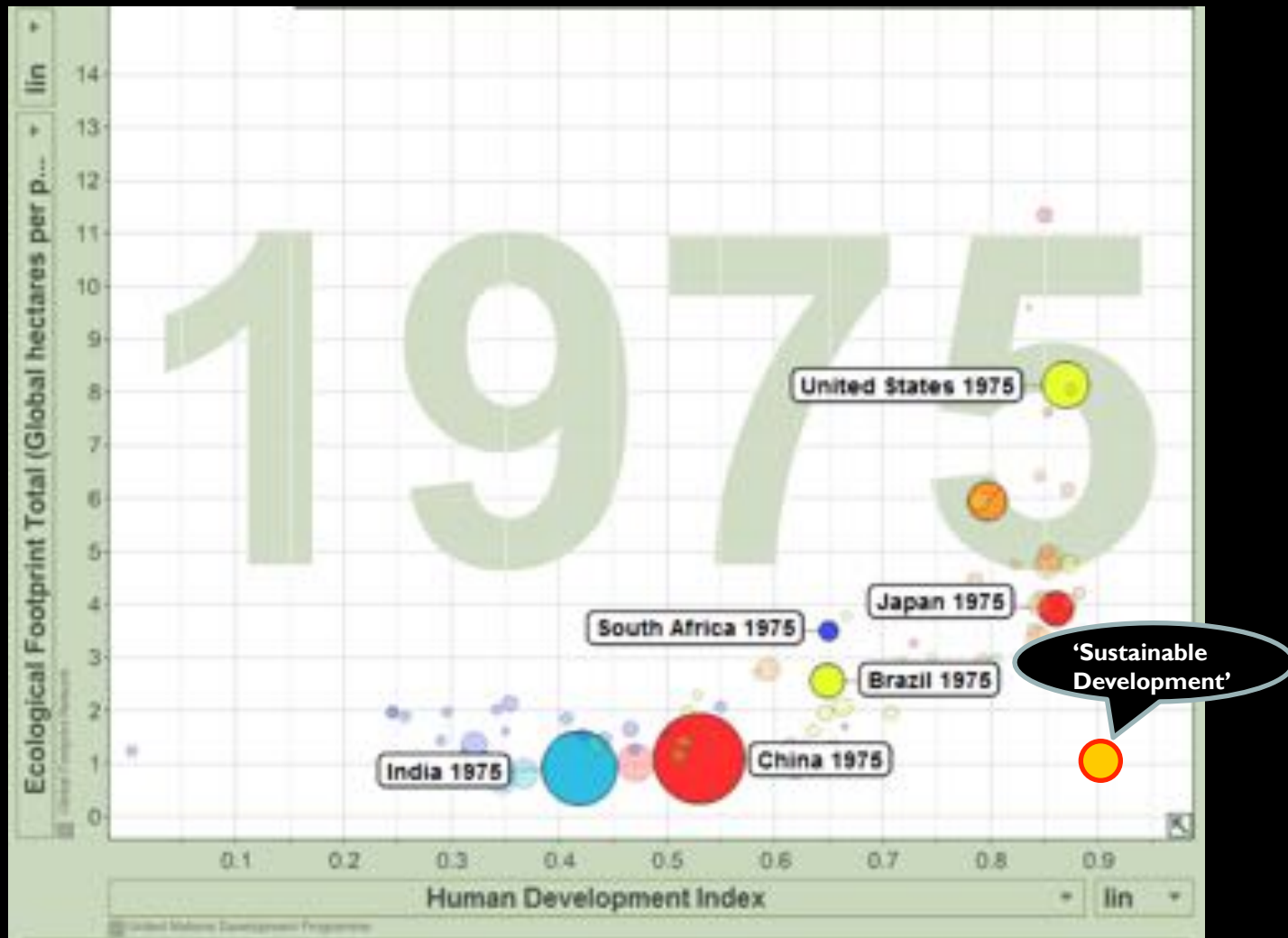


# Can Services-sector led growth enable a Sustainability Transition?



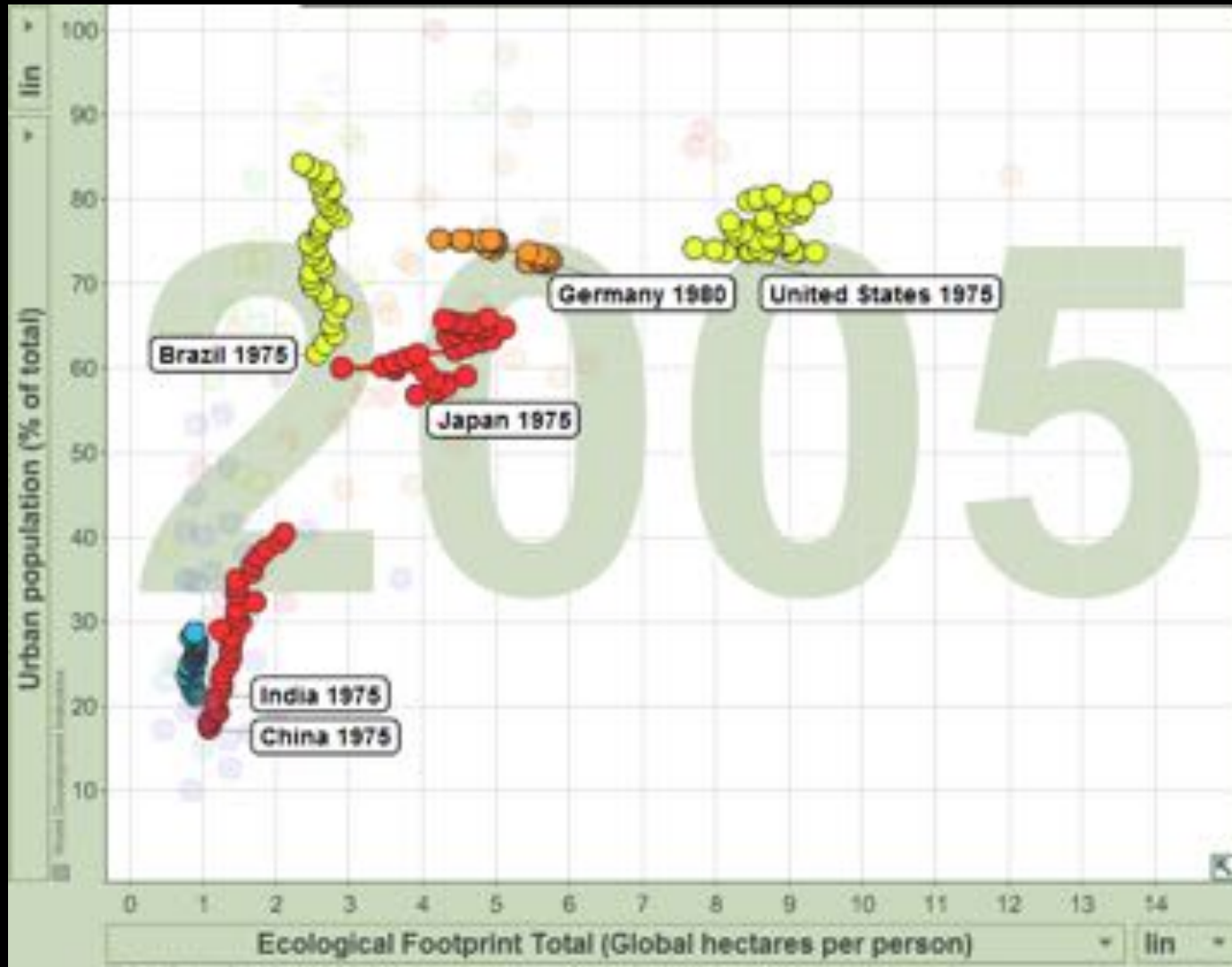
**Services-sector growth** led to very **different outcomes** in the US, Japan & Germany. China has chosen a conventional manufacturing-export led strategy unlike India

# Ecological Footprint vs. HDI (1975)



The 'holy grail' of national Sustainable Development a **HDI of ~ 0.9**  
& **Ecological Footprint of 1 global Ha/per capita**

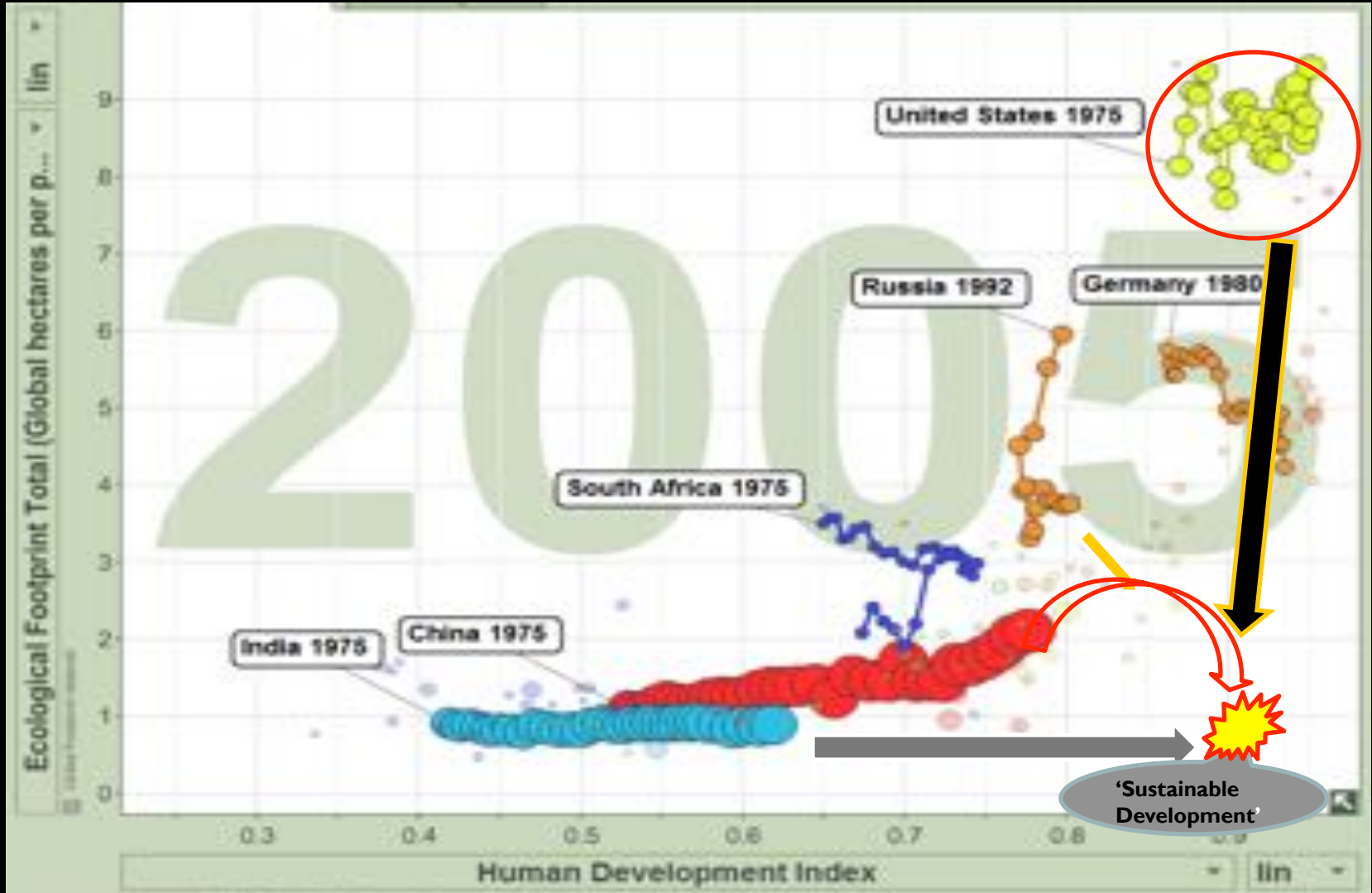
# The Sustainability transition will be fought & won in cities



Early 21<sup>st</sup> century 'tunnelling through' will be fought and won in Asian and 'emerging economy' urban areas and around new metabolisms economies and sufficiencies

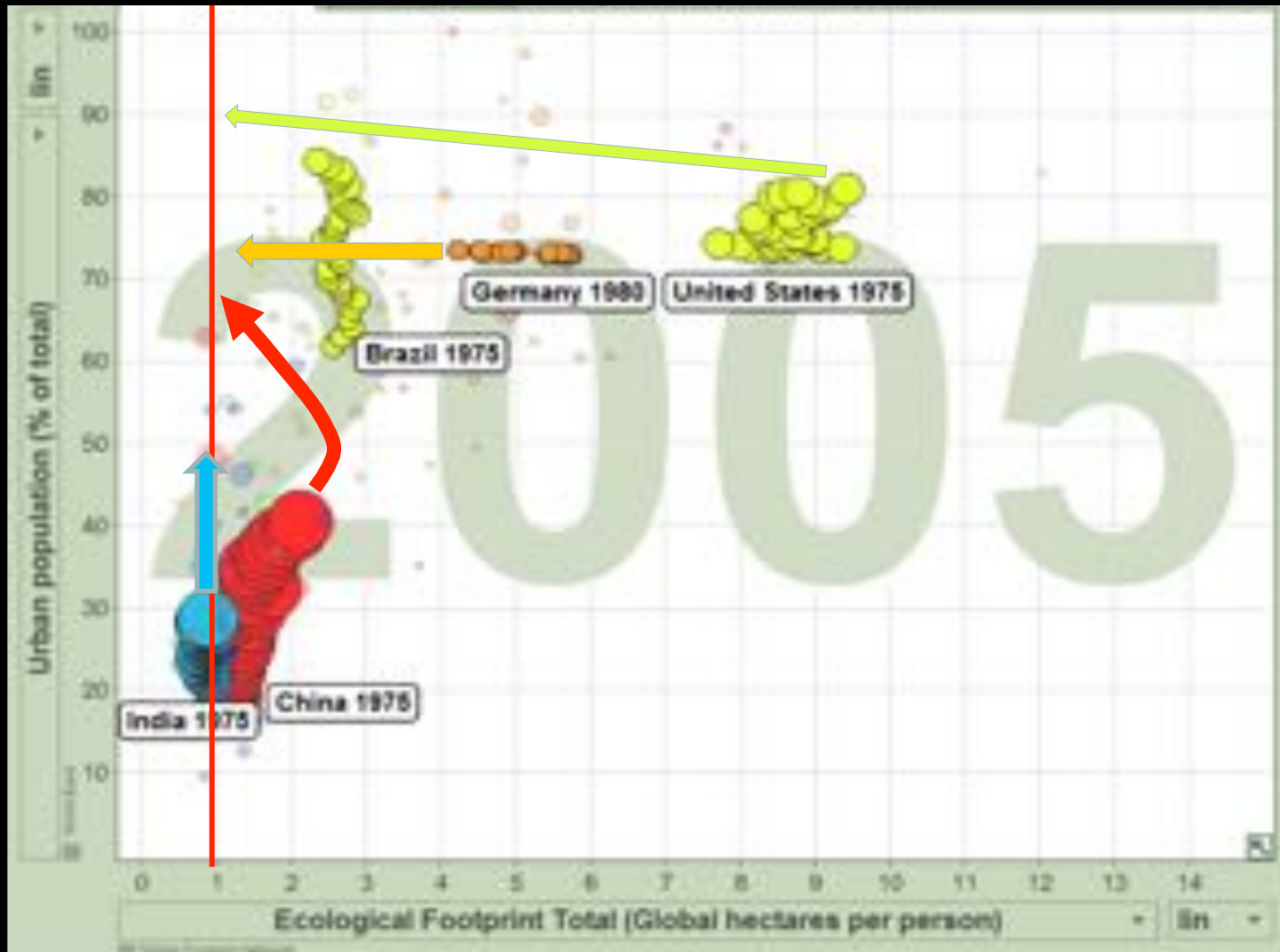


# Future History - Sustainability Transitions: 2005 →

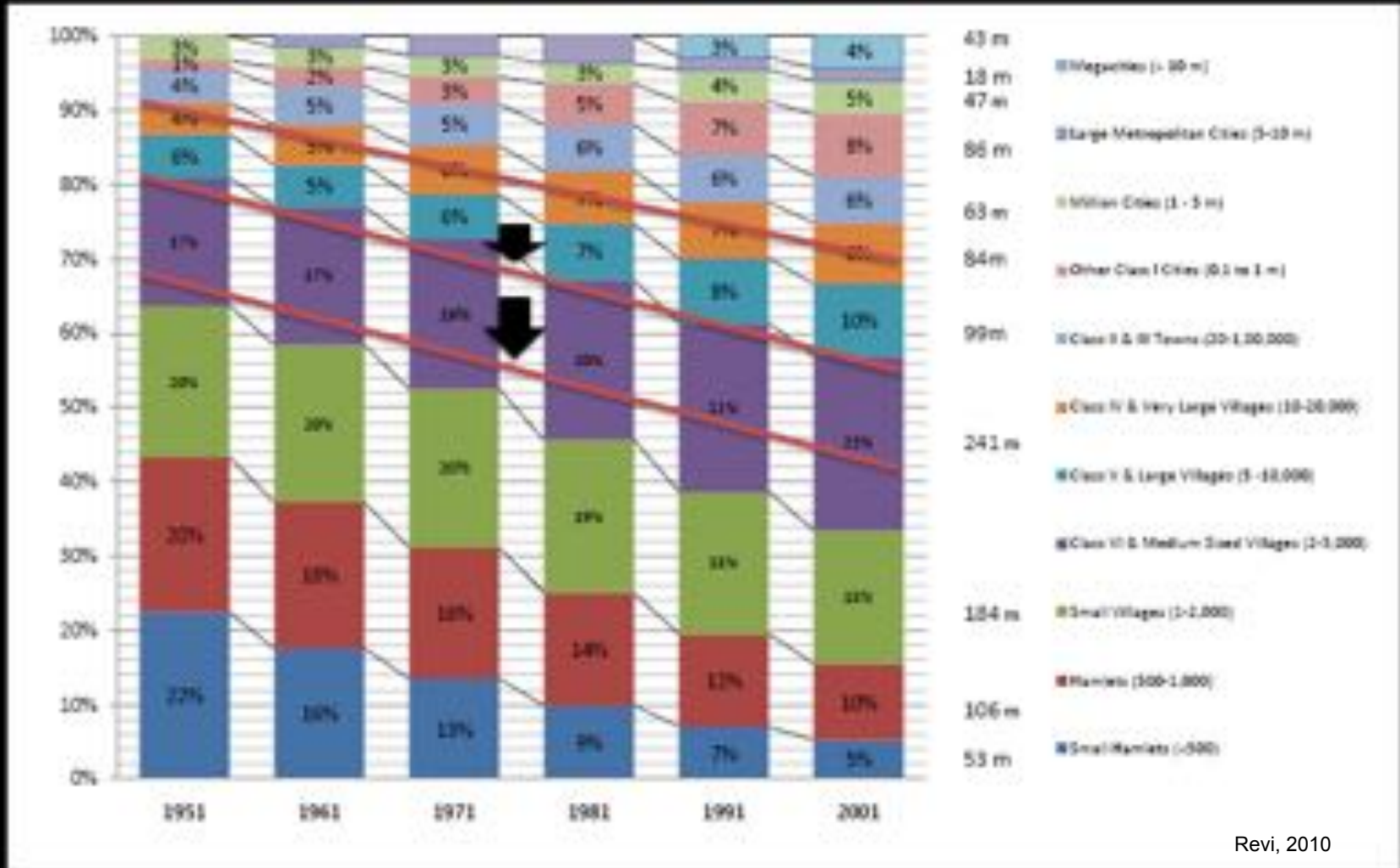


Can China traverse the environmental Kuznets curve Germany & USA converge without serious Human Development decline India 'tunnel through'; or will there be serious international 'resource' conflict?

# A new form of urbanisation?



# India's Settlement structure matched to deliver Climate adaptation & mitigation co-benefits



~ 7,800 urban areas and ~ 0.55 million rural settlements in 2011 – the opportunity for decentralised production and consumption systems and economic structure



# Catalysing five national outcomes by the 2030s

'Inclusive' Economic Growth

Reduced Poverty and Inequality

Social Transformation

Environmental Sustainability

Unified & Robust Polity



# Who really 'manages' Urban India?

## Top Management

- MPs & MLAs 5,300
- Higher Judiciary 650
- IAS & IPS 8,200
- CXOs (top 500 corporates) ~ 5,000
- NGO leadership ~ 1,750

**Total** 20,900

% educated & trained in urban practice < 5%

## Middle Management

- Senior Municipal officials ~ 4,000
- Senior Engineers ~ 8,000
- Urban Planners ~ 2,000

**Total** ~ 14,000

% educated & trained in urban practice < 20%