Putting the Urban at the Heart of the 2030 Sustainable Development Goals

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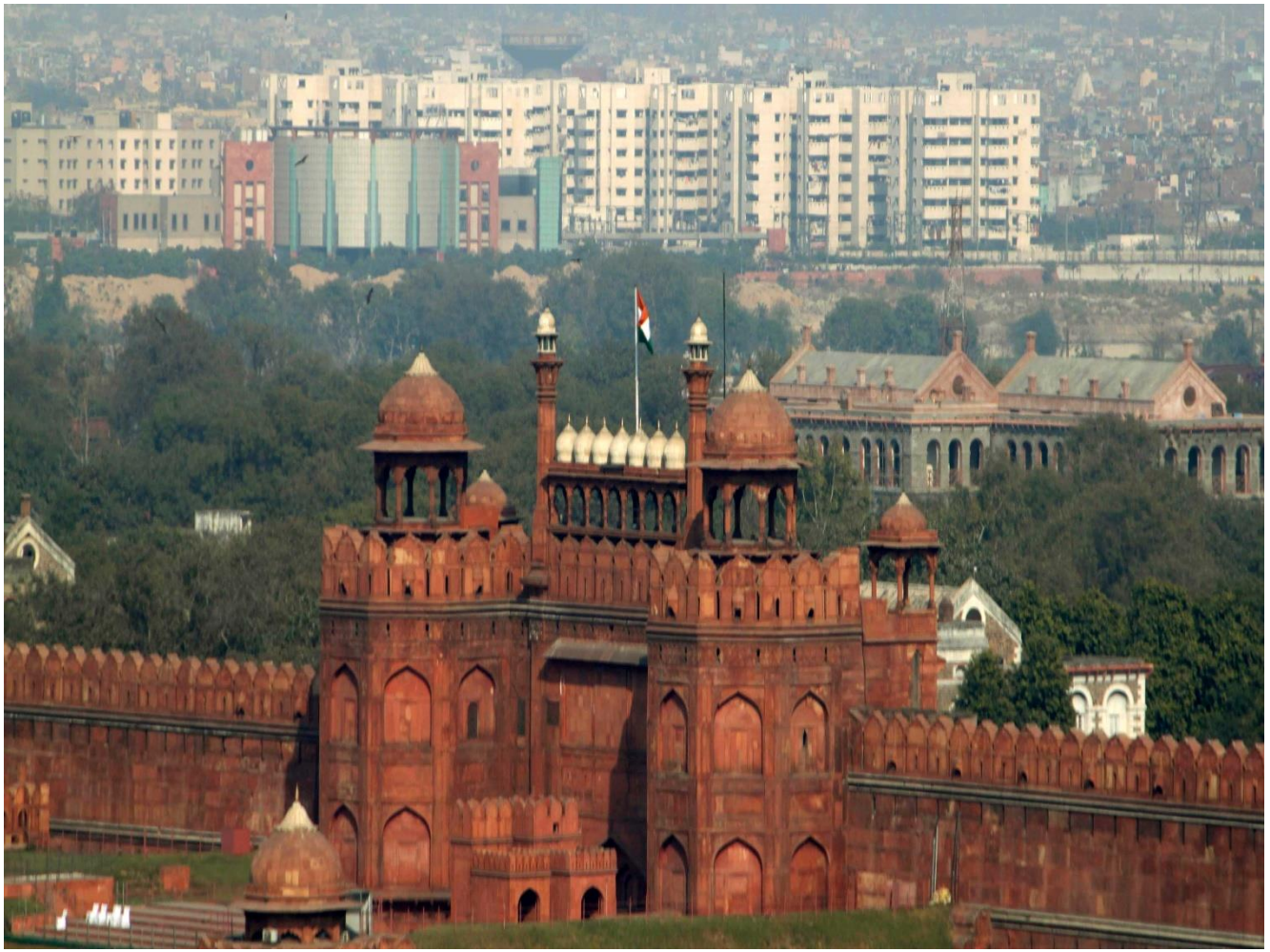
@AromarRevi

Changing cities and towns:
Changing the everyday lives of ordinary people

Structural challenges of enabling urban change in India: integration of the pre-colonial, colonial, 'modern' & informal



Places to Intervene in a System (in increasing order of effectiveness)

12 Constants, parameters, numbers
11 The sizes of buffers and other stabilizing stocks, relative to their flows
10 The structure of material stocks and flows
9 The length of delays, relative to the rate of systems change
8 Negative feedback loops, relative to the impacts they are trying to correct
7 The gain around driving positive feedback loops
6 The structure of information flows
5 The rules of the system
4 The power to add, change, evolve or self-organize
3 The goals of the system
2 The mindset or paradigm out of which the system arises
1 The power to transcend paradigms

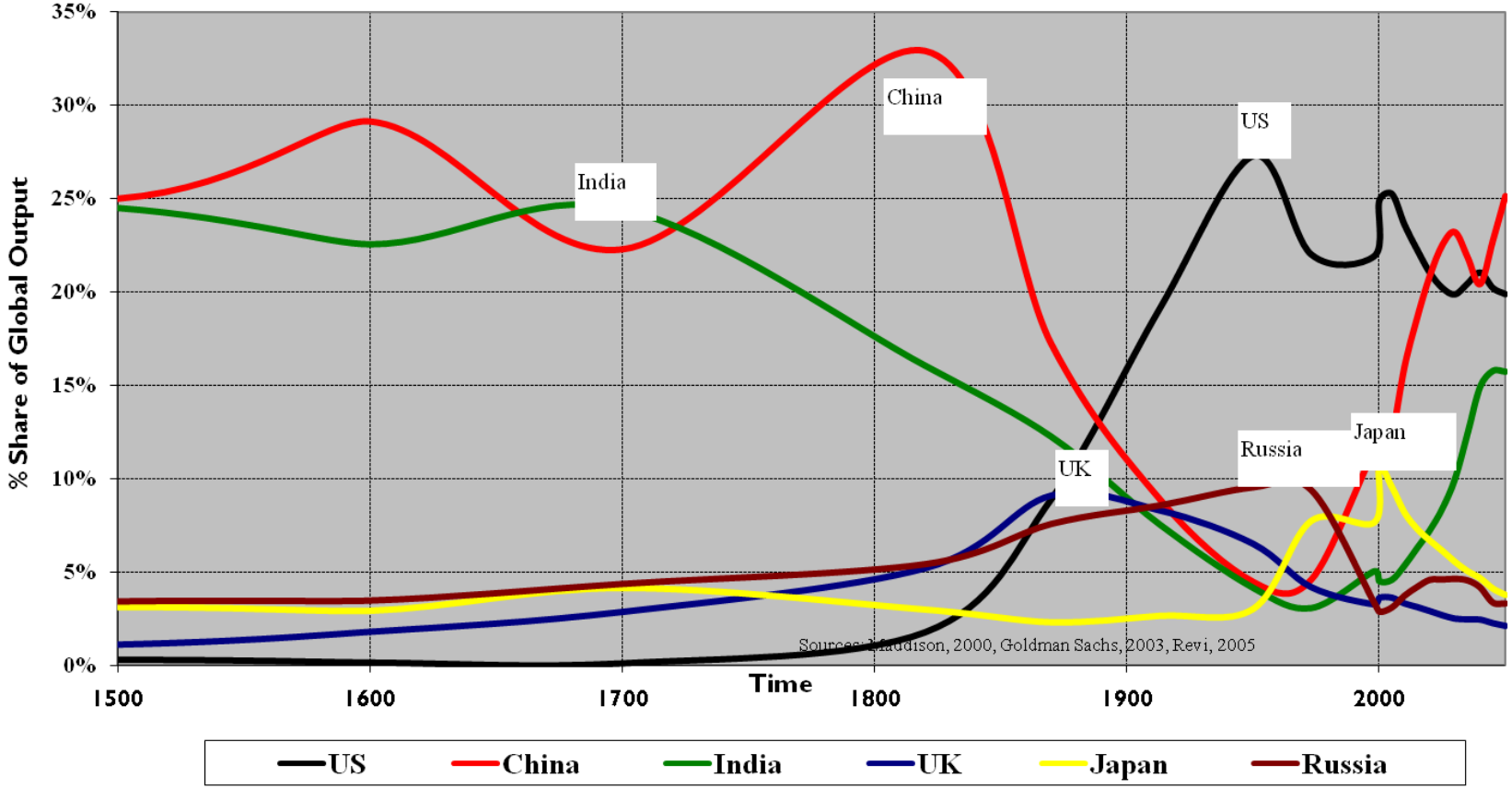
Source: Donella H. Meadows, 1999

Context: the 21st century may be very different from the 'long' 20th century

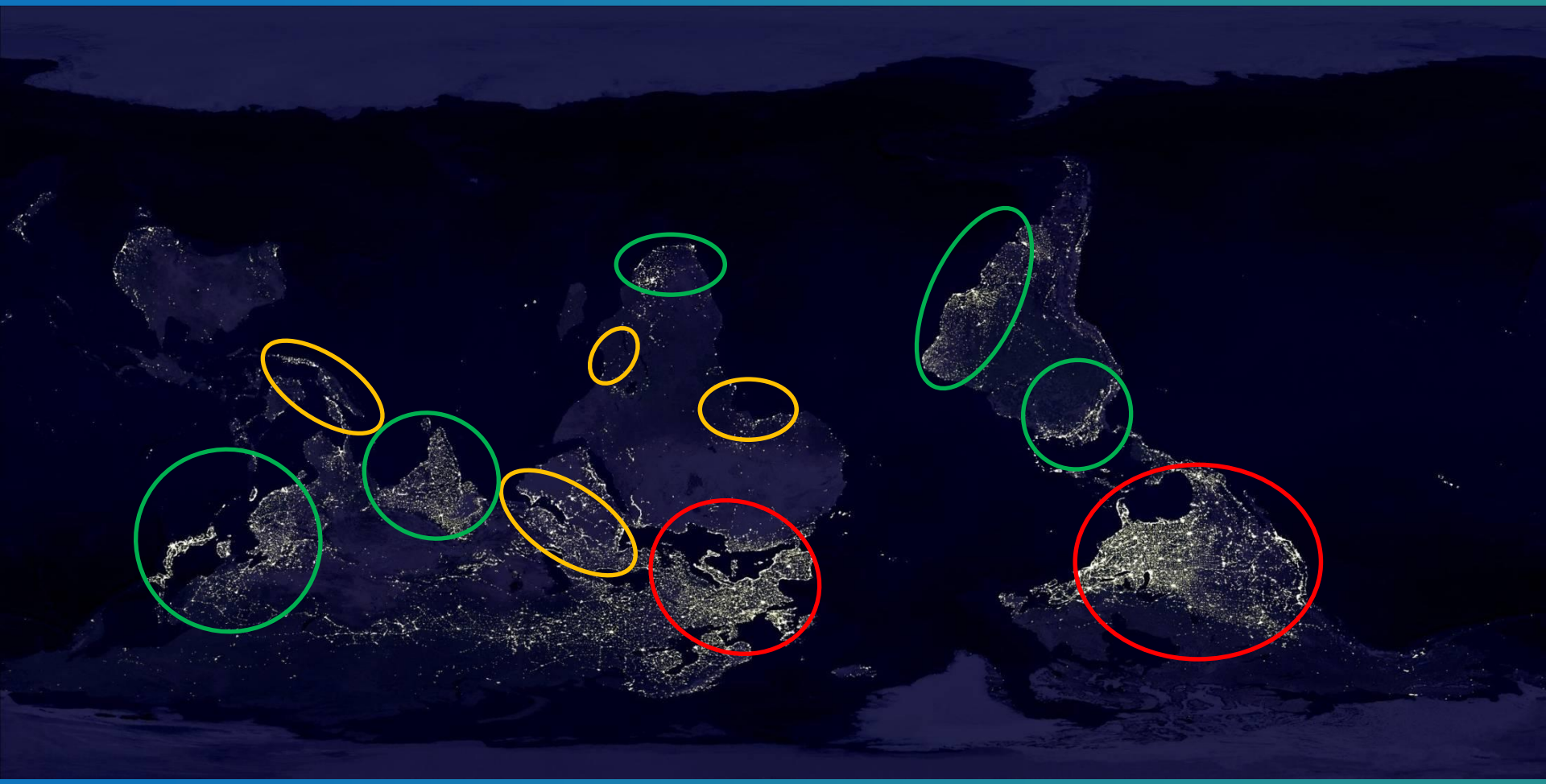
Source: Yann Arthus-Bertrand/GoodPlanet & Johan Otto von Spreckelsen (2014)

There is Only One Earth and its in a small corner of the known Universe (Gagarin, Armstrong et. al. 1960s)

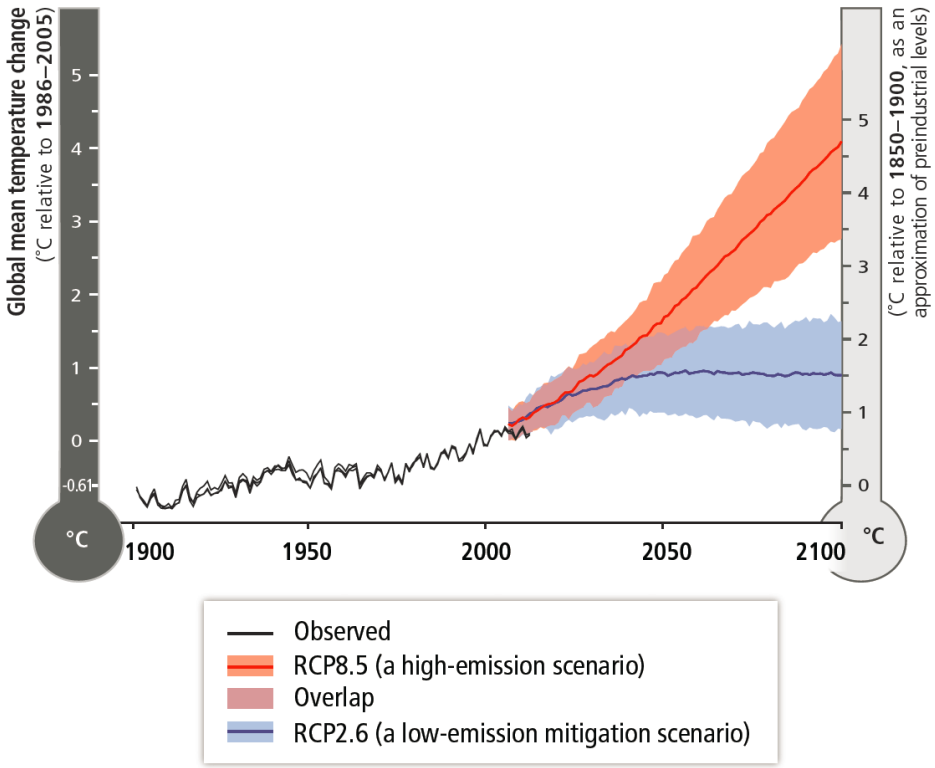
Relative National Share of Global Economic Output (1500 to 2050)

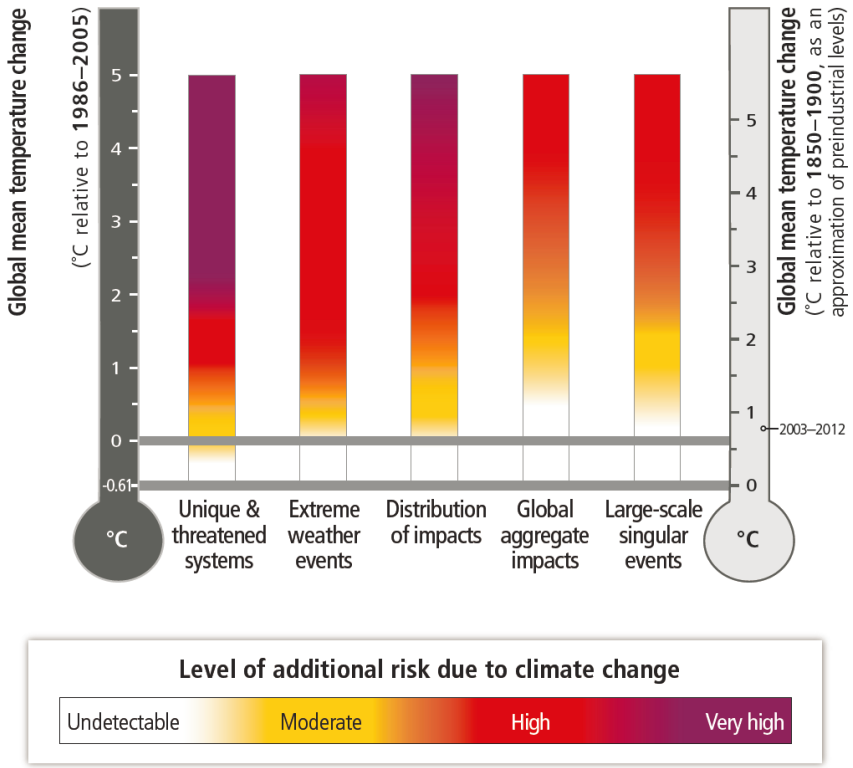


New urban geographies, make new histories?



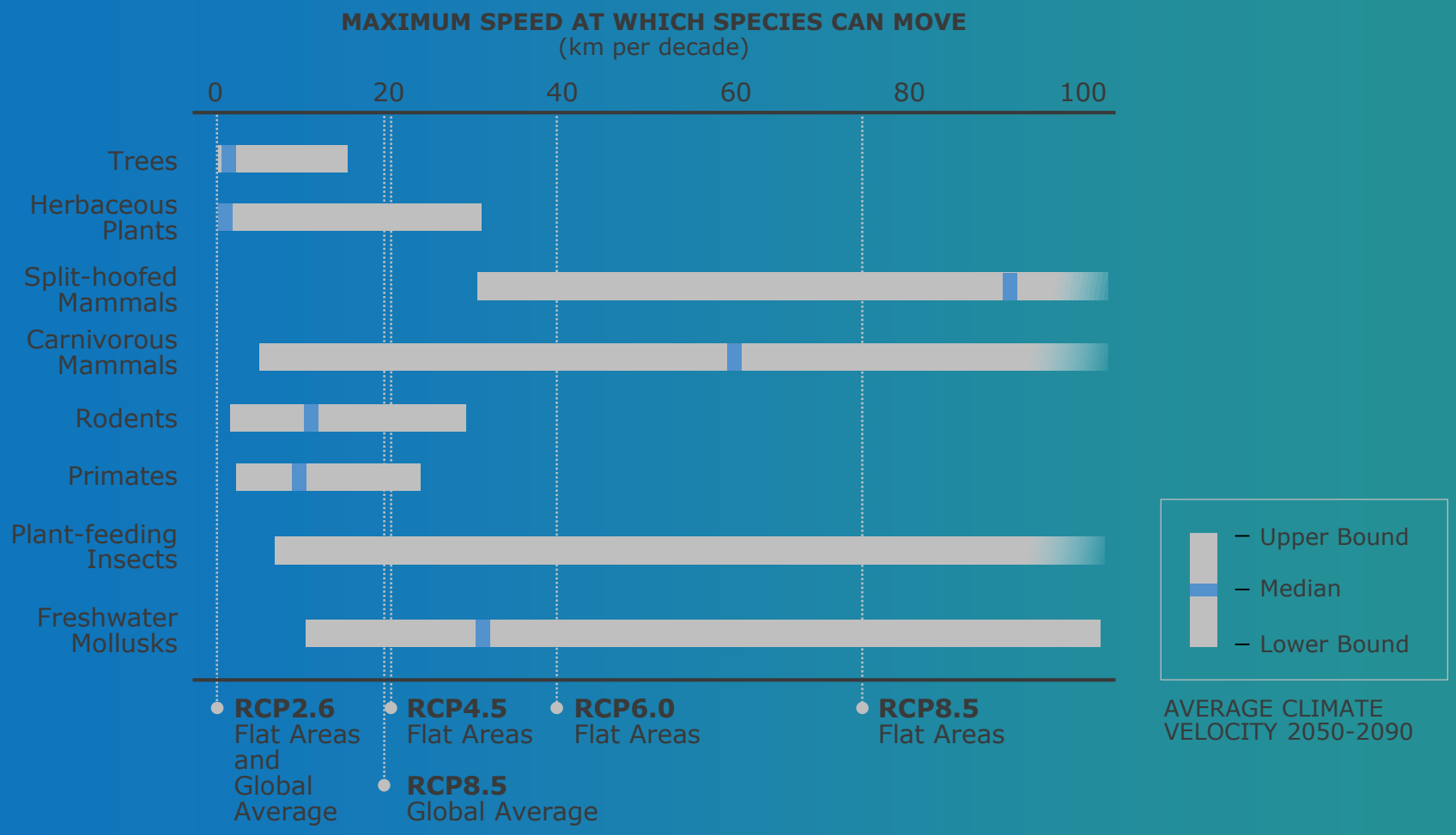
A 4°C world is a distinct possibility by the late 21st century



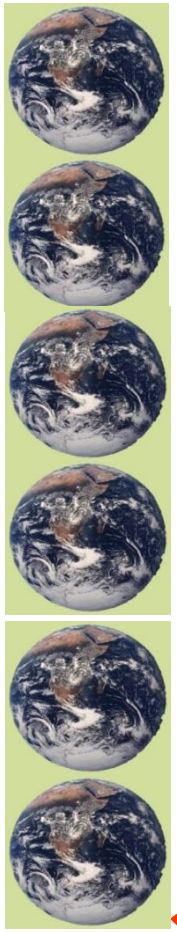


Himalayan Glacial melt (1921-2009)

There are clear limits to adaptation: no more places to run to + nowhere to hide



The Challenges of the 21st century Sustainability Transition



Present consumption requires ~2.0 worlds

21st century Population growth needs **1.5+ worlds**

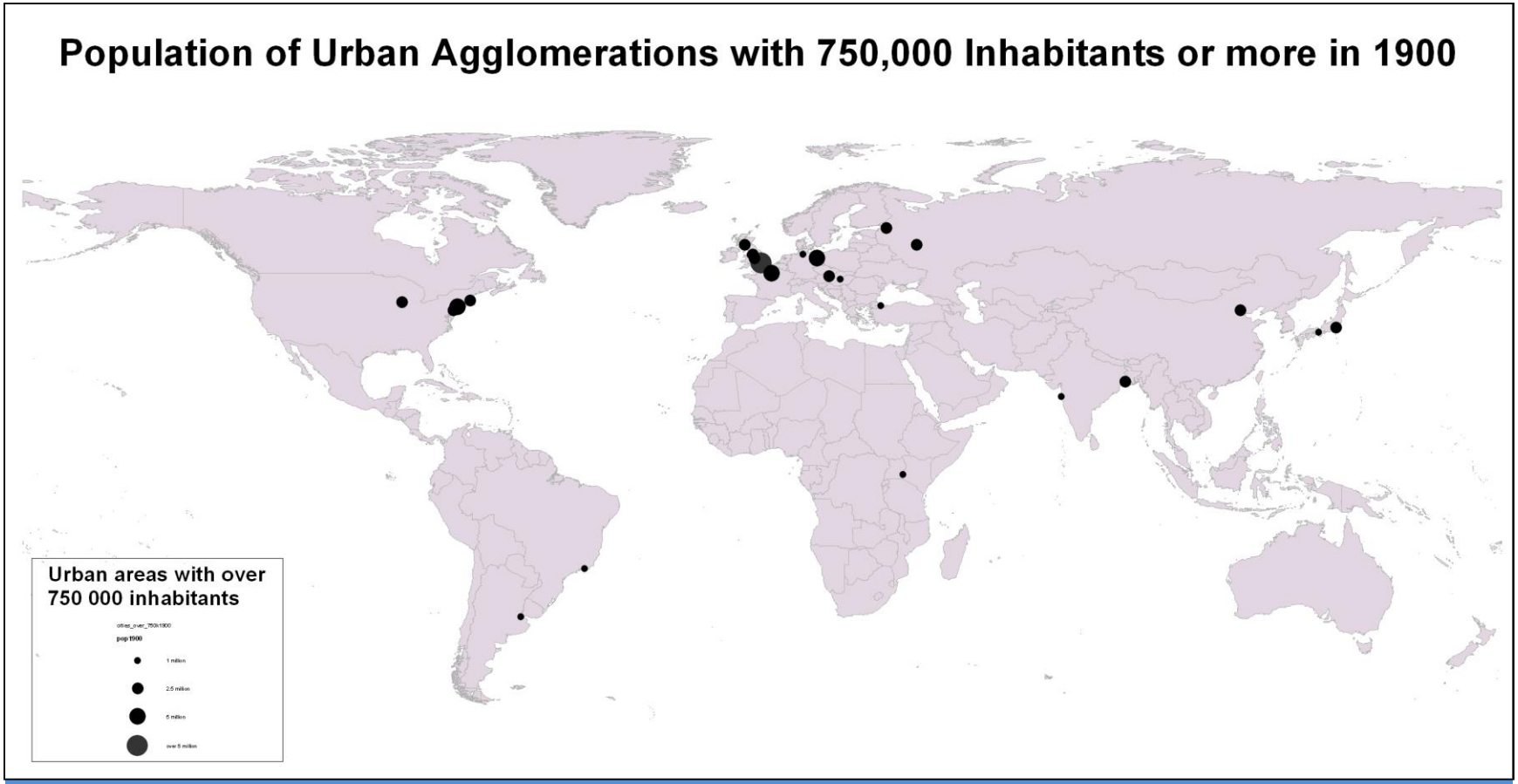
Available
only One
World

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

Why are Cities important?

Source: Yann Arthus-Bertrand/GoodPlanet & Johan Otto von Spreckelsen (2014)

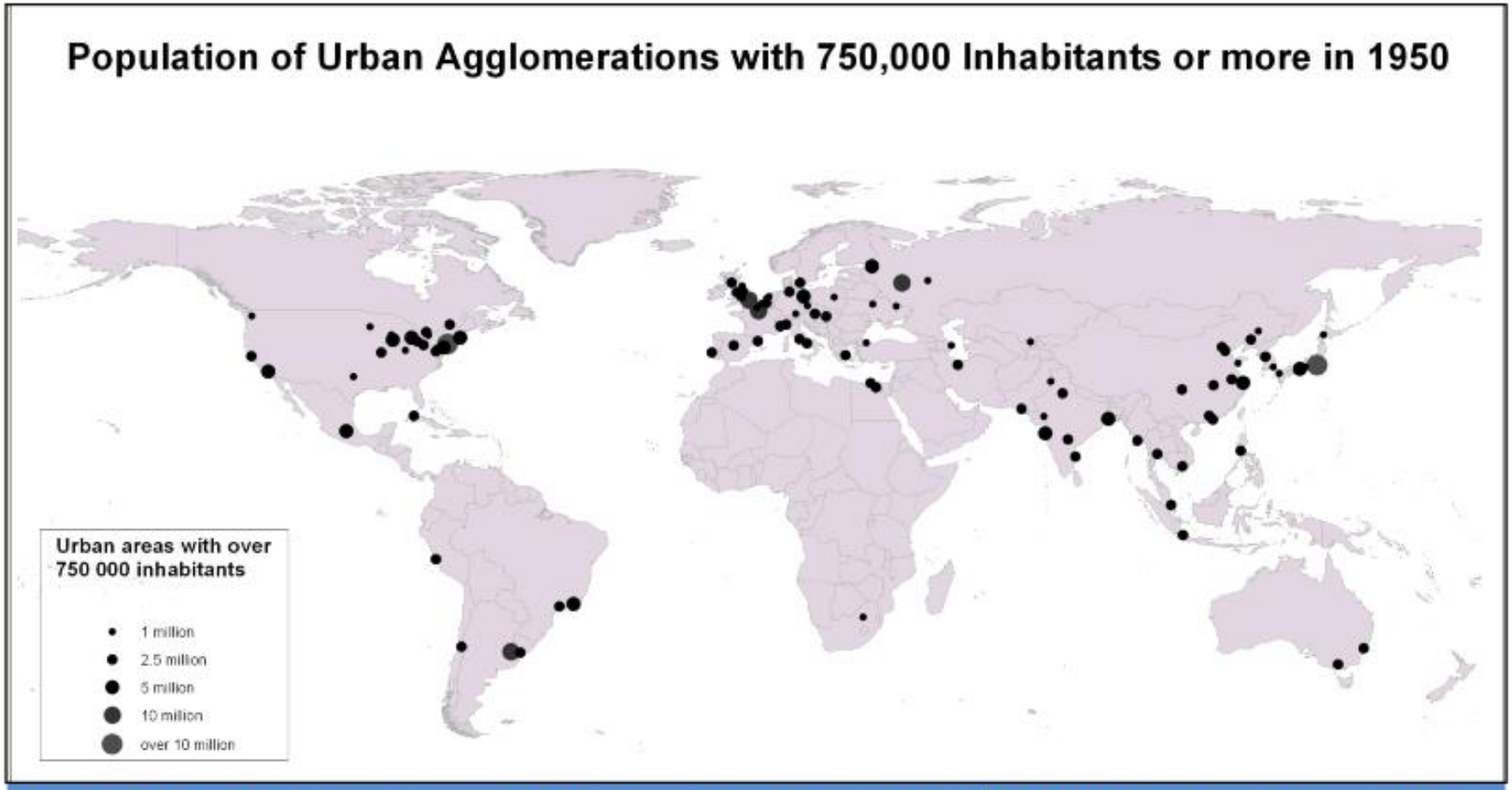
The world in 1900*



Pop:1.5 billion Urban share:13% Gross World product:~$2 trillion Urban share:~30%

Sources: UN (2011), Revi, A, Satterthwaite, D et. al. (2014) ng; De Long (1998)

The world in 1950

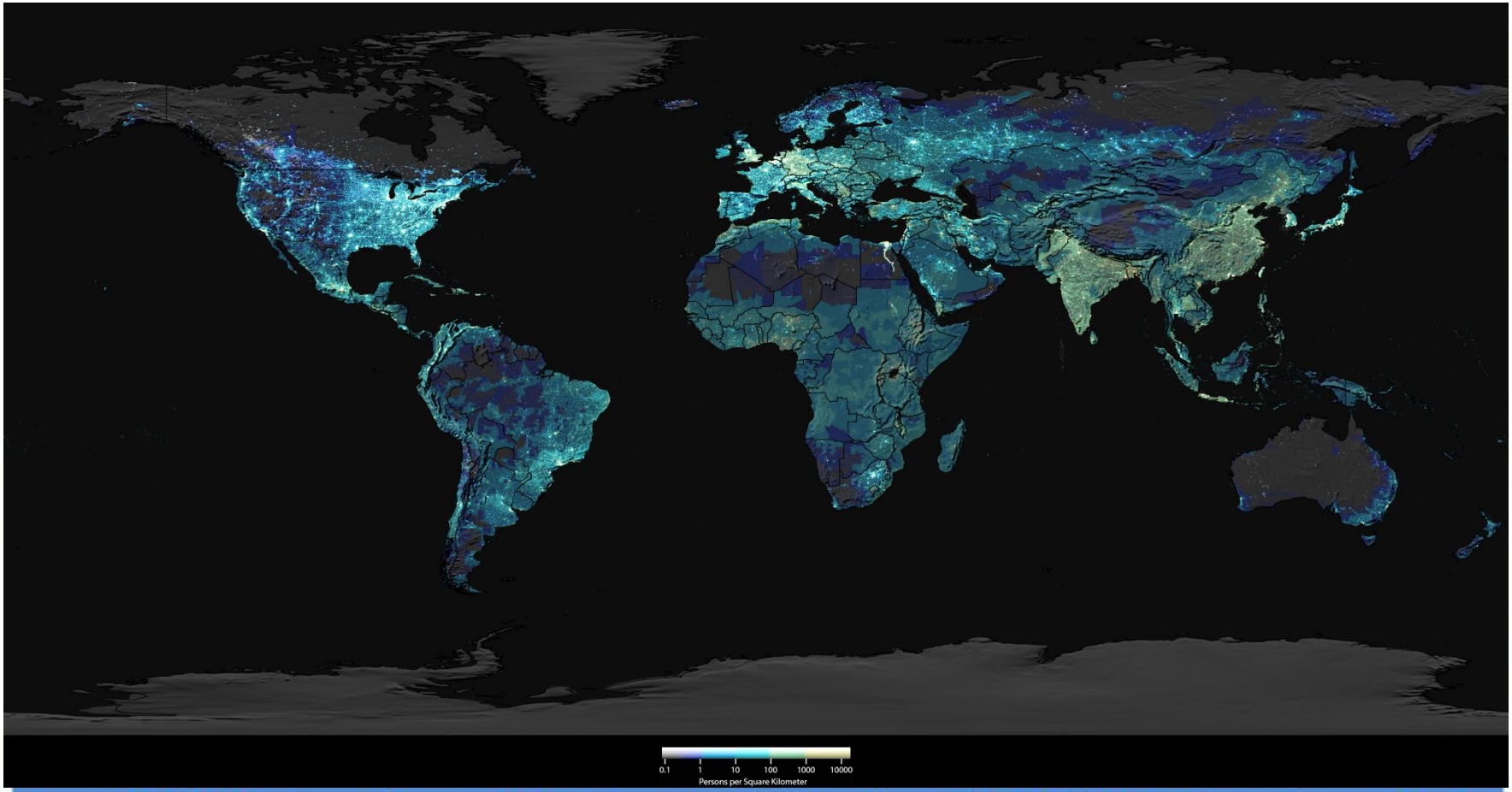


Pop:2.5 billion Urban share:29% Gross World product:~$7 trillion Urban share:~45%

Sources: UN (2011), Revi, A, Satterthwaite, D et. al. (2014) ; De Long (1998)

SUSTAINABLE DEVELOPMENT SOLUTIONS NETWORK
A GLOBAL INITIATIVE FOR THE UNITED NATIONS

The world in 2013*



Pop: 7 billion Urban share:~50% Gross World product:~$70 trillion Urban share:~70%

Sources: NASA, (2012), UN (2011

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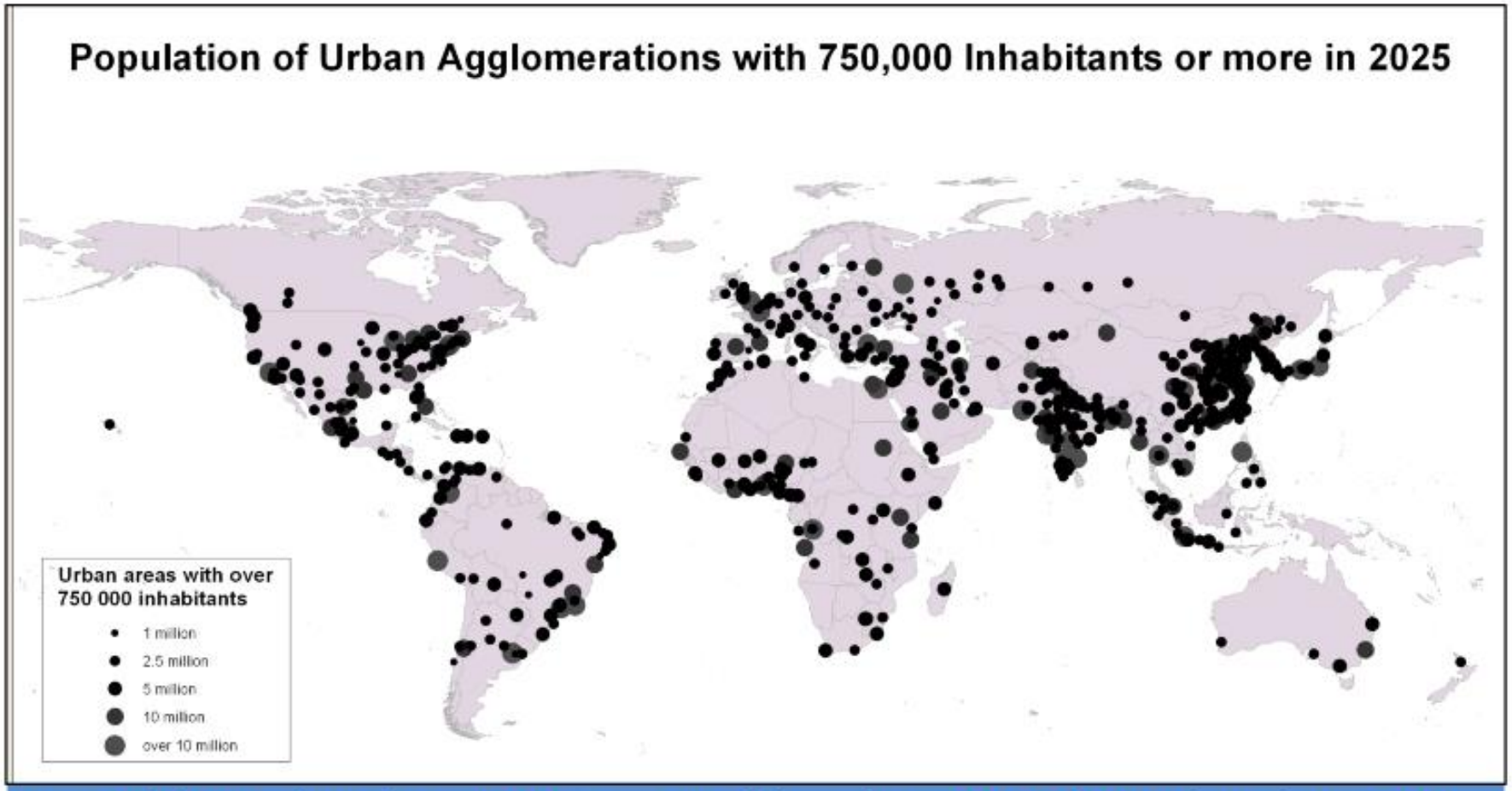
The world in 2025



Pop: 8 billion Urban share:~58% Gross World product:~$85 trillion Urban share:~75%

Sources: UN (2011)

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The Urban opportunity of eight simultaneous Transitions

1. Demographic transition: population stabilisation & aging
2. Health transition: infectious + lifestyle disease burden
3. Education transition: elementary → secondary→ tertiary
4. Energy transition: oil + coal → gas + renewables
5. Environmental transition: 'brown' + 'grey' + 'green' agendas
6. Information transition: post →phone→ cell phone + www
7. Livelihoods transition: agrarian → green manufact + knowledge jobs
8. Economic transition: primary + secondary → tertiary-led

9. Urban transition: rural → 'urban'

Urbanisation is not just a 'Megatrend' it's a 'Gigatrend' a millennial transformation of human culture, society, economy, polity & planetary systems

Source: Yann Arthus-Bertrand/GoodPlanet & Johan Otto von Spreckelsen (2014)

Is (this kind of) urbanisation inevitable?

Dholavira Citadel, India (c. 2500-1500 BCE)

CG Reconstruction, Bisht et. al.

Dholavira, India (c. 2500-1500 BCE)
Climate Adaptation in Action?

The Settlement: Citadel, Lower & Upper Towns

100 Ha. ~ 20,000 + population

Weir and storage tank systems

(85m x 10m x 8 m)

Old Goa: Oriental ‘world city’ (c. 16th century)

Population

1550: 200,000 +

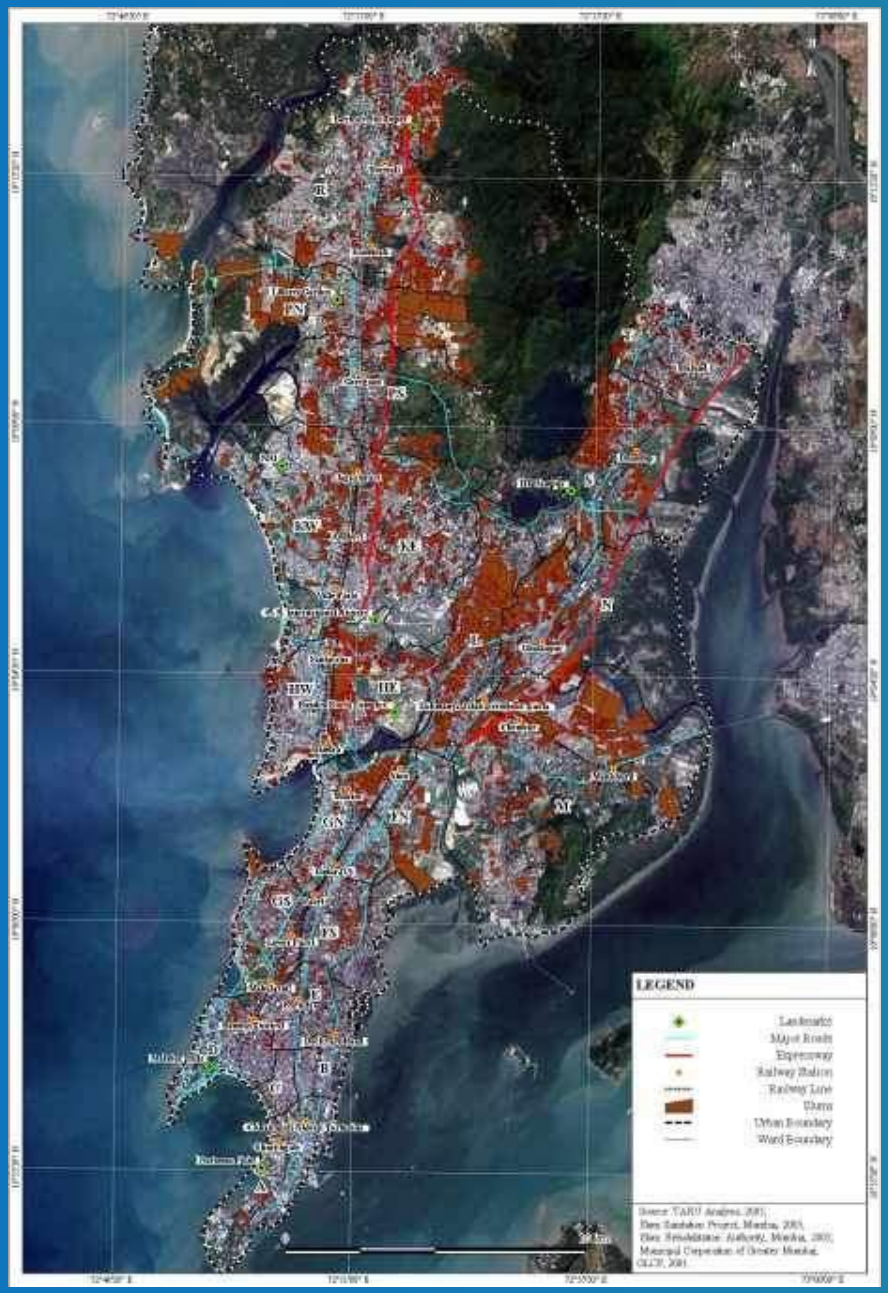
1700: 20,000

1750: 1,500

In its heyday larger than

- Lisbon
- London
- Venice

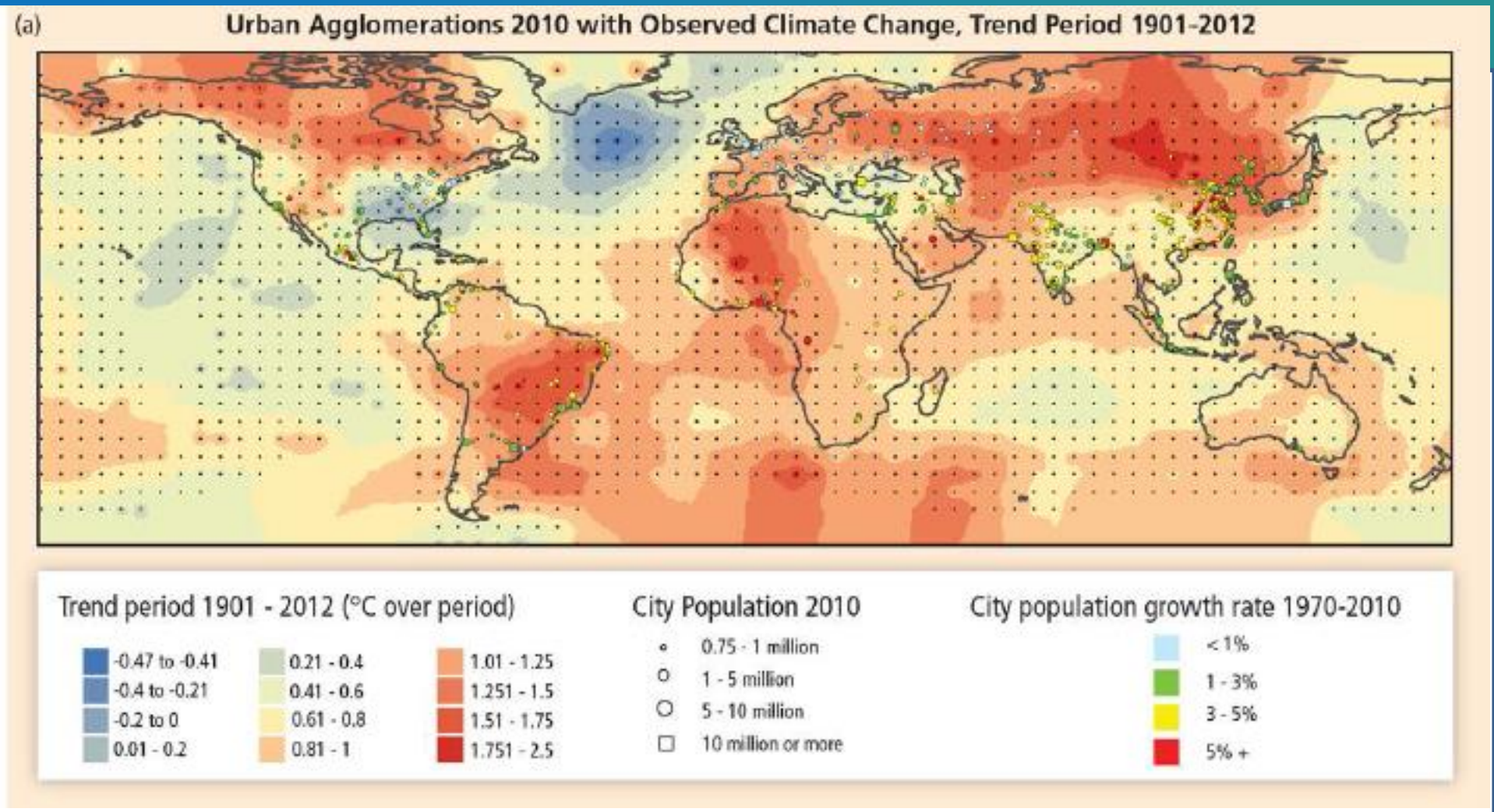
Old Goa Today (c. 21st century)



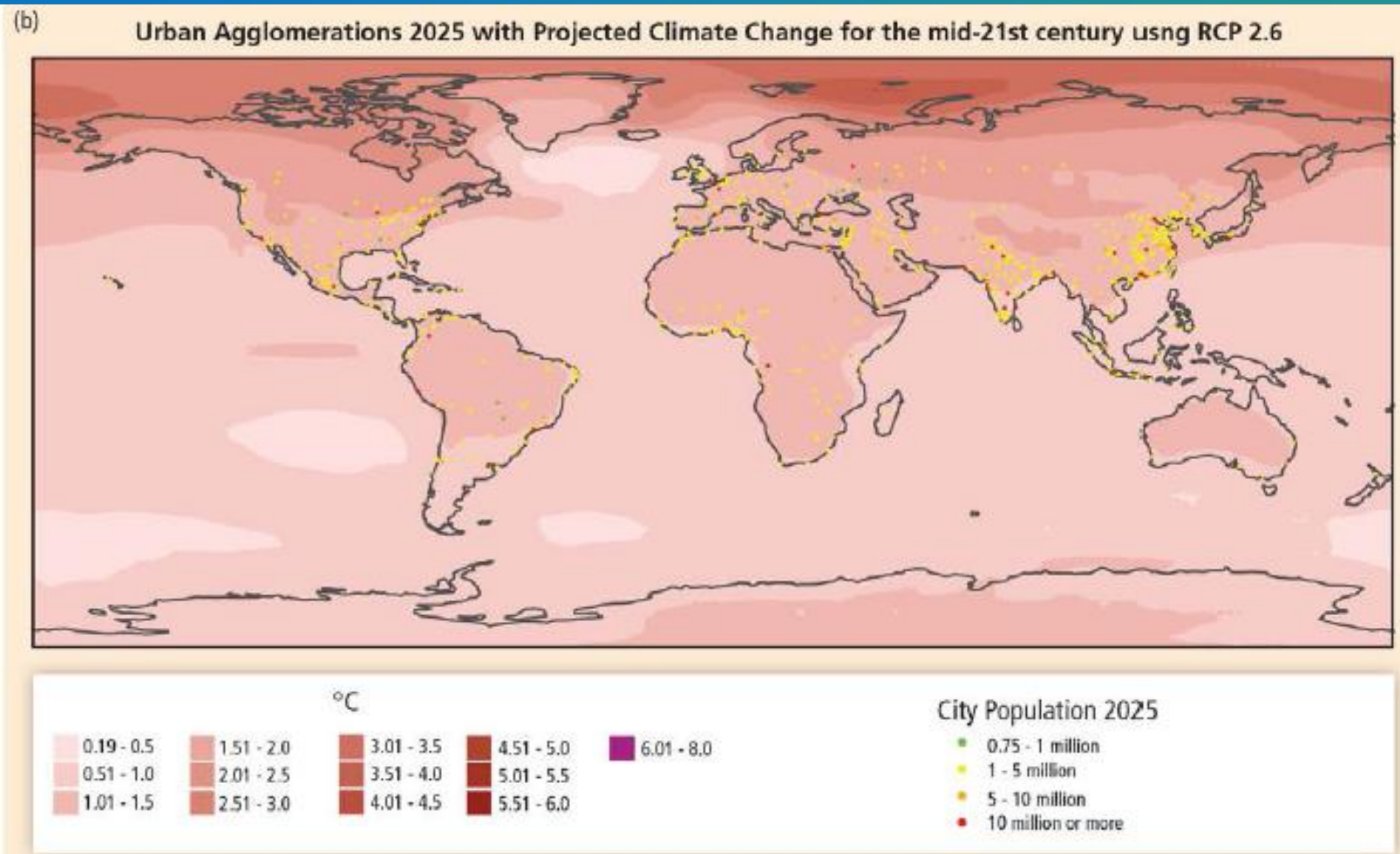
Mumbai: minimum city…

- 6 million+ people living in slums
- Ecological footprints expanding across the subcontinent
- Dysfunctional land & housing markets
- Declining quality of public services & security
- Tardy transformation of landuse & economic functions
- Declining quality of governance
- Steady decline in resource-use efficiency
- Increasing polarisation of wealth ownership

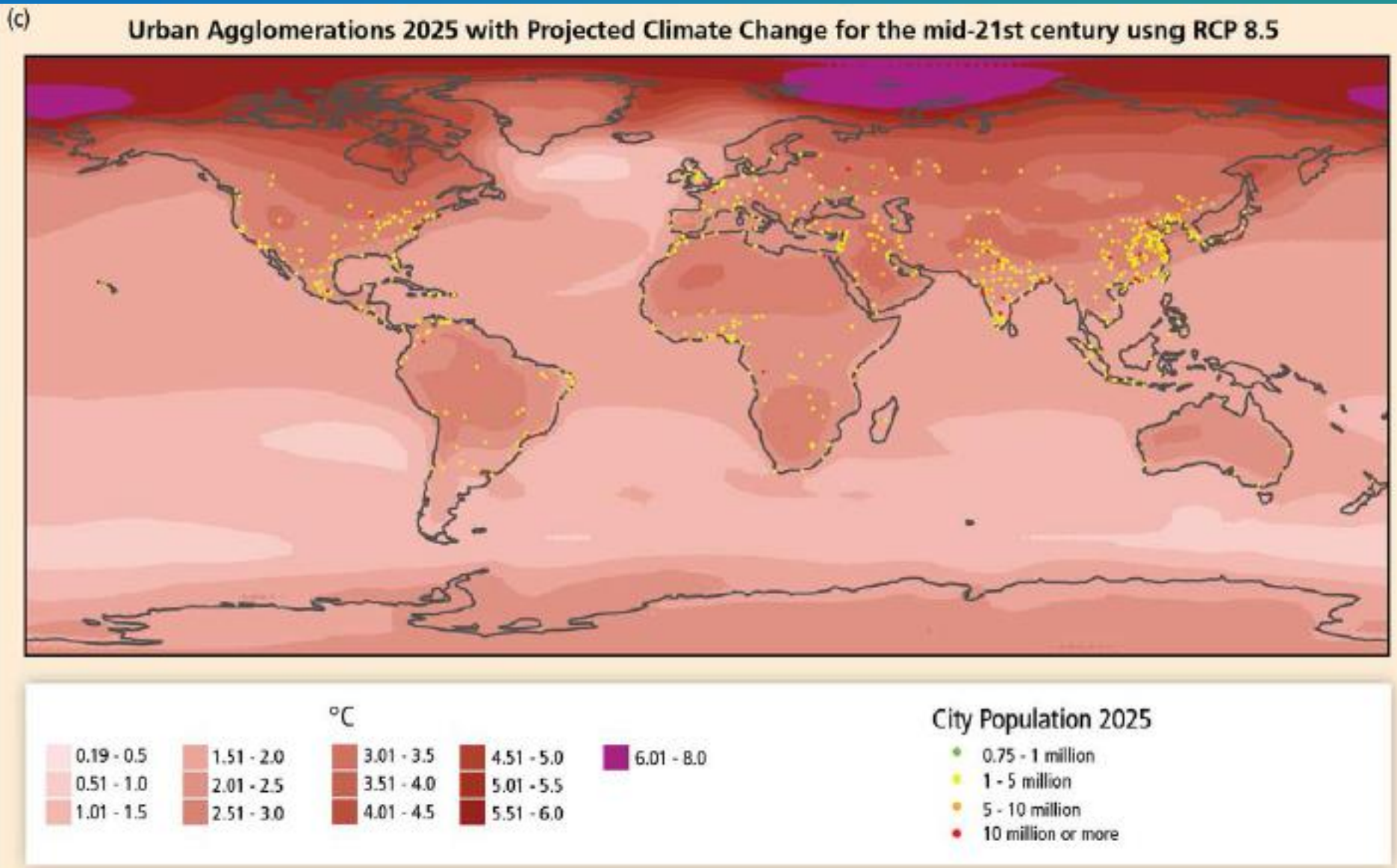
Large Urban Centres (2010) with Observed Climate Change Trends (1901-2012)



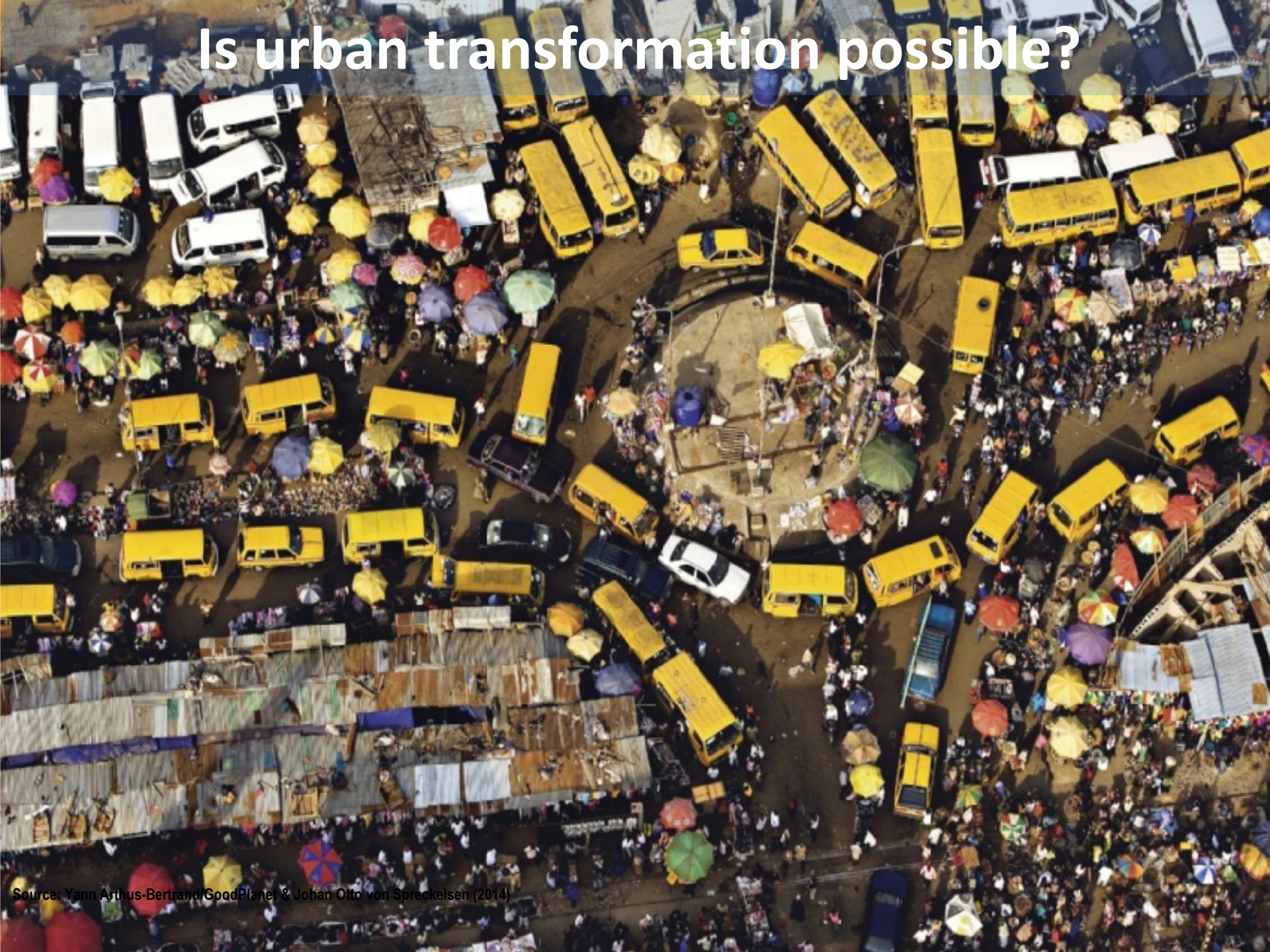
Large Urban Centres (2025) with Project Climate (mid-century RCP 2.6)



Large Urban Centres (2025) with Project Climate (mid-century RCP 8.5)



Is urban transformation possible?



Source: Yann Arthus-Bertrand/GoodPlanet & Johan Otto von Spreckelsen (2014)

Urban transformation: Shanghai (1987)

Source: Reuters

Urban transformation: Shanghai (2012)

Source: Reuters

How is local transformation linked to a global urban transition?

Resolving five ‘dichotomies’

1. Rural vs. Urban
2. National vs. regional and local government
3. Present vs. future benefit
4. Poverty & inequality
5. Precedence of capital

The MDGs & the SDGs

Source: Yann Arthus-Bertrand/GoodPlanet & Johan Otto von Spreckelsen (2014)

How are the SDGs (2015-30) different from the MDGs (2000-2015)?

1. Common genealogy
2. MDGs: development goals for poor people in poor countries
3. SDGs: sustainable development goals for all people everywhere
    1. Closing window of opportunity
    2. New actors at the table
    3. New global ‘governance’ architecture

SDSN Proposal for 10 SDGs (mid-2013)

1. **End extreme poverty including hunger**
2. **Achieve development within planetary boundaries**
3. **Ensure effective learning for all children and youth for life and livelihood**
4. **Achieve gender equality, social inclusion, and human rights for all**
5. **Achieve health and wellbeing at all ages**
6. **Improve agriculture systems and raise rural prosperity**
7. **Empower inclusive, productive, and resilient cities**
8. **Curb human-induced climate change and ensure sustainable energy**
9. **Secure ecosystem services and biodiversity, and ensure good management of water and other natural resources**
10. **Transform governance for sustainable development**

Did the MDGs (2000-2015) do ‘justice’ to urban areas?

1. No ‘urban’ MDG, but some progress
2. Slum MDG ‘achieved’
3. Questions:
   a. Goals for poor people in ‘poor’ countries
   b. Role of local & regional governments?
   c. Urban employment & economic development?
   d. Urban sustainability & Resilience?
   e. Urban social inclusion?

SDGs: opportunities for new 'governance' architecture for Sustainable Development?

- **A new set of 21st century SDGs that address:**
  - Intra-generational & inter-generational equity
  - Giving voice to the concerns of 'there' and 'them'
  - Balance of power between spheres / scales of governance
  - Global Commons
  - Global Financial system & emerging Security architecture

- **A new governance architecture balancing interests of:**
  - Nation-states
  - Local & Regional governments
  - Firms
  - Rights of communities & citizens

A stand-alone
Urban Sustainable Development Goal

a 21st century idea whose time has come

www.urbanSDG.org

Partners: #urbanSDG Campaign

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UN-HABITAT
FOR A BETTER URBAN FUTURE

UCLG
The Global Network of Cities, Local and Regional Governments

Cities Alliance
Cities Without Slums

ICLEI
Local Governments for Sustainability

WORLD URBAN CAMPAIGN
Better City, Better Life

metropolis
World Association of the Major Metropolises

communitas

>170 Cities & regional Governments

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UCLG MEWA

UNTREF

ESNEUX

FECAM

NEVŞEHİR BELEDİYESİ

Local Government Association of Zambia

alcaldía ibarra ADMINISTRACIÓN 2009 - 2014

CCRE CEMR

LATVIAN ASSOCIATION OF LOCAL AND REGIONAL GOVERNMENTS

vvsg

Bilbao

AMERIOS Associação dos Municípios do Entre Rios - SC

AME

STADT. CITY. VILLE. BONN.

AMBF Association des Municipalités du Burkina Faso

AEMERJ Associação Estadual de Municípios - RJ

Krasnoyarsk City administration

VNG International

Δήμος Λευκωσίας Nicosia Municipality

Zababdeh.ps City of Zababdeh online

FAMEP FEDERAÇÃO DAS ASSOCIAÇÕES DE MUNICÍPIOS DO ESTADO DO PARÁ

Red de Mujeres Municipes del Paraguay

Ceprourdes

SULTANGAZİ BELEDİYESİ

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> 170 Cities & regional Governments

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Diputació Barcelona

ULGA Uganda Local Governments Association

Union of Municipalities of Gaza

Prefeitura de GASPAR

AAM ASSOCIAÇÃO AMAZONENSE DE MUNICÍPIOS

îledeFrance

ISTANBUL METROPOLITAN MUNICIPALITY

Union des Villes et Communes de Wallonie

ASOCIACIÓN DE ALCALDES DE PUERTO RICO Autonomía Municipal El país se levanta desde los Municipios.

a.f.c.c.r.e. Association Française du Conseil des Communes et Régions d'Europe

QUITO DISTRITO METROPOLITANO

OURO PRETO PREFEITURA

UCLG EURASIA

Ugledar Municipality Ukraine

BORDEAUX

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ASSOCIATION OF LOCAL AUTHORITIES IN LITHUANIA

Ville de Dakar.org

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BELEDİYESİ

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El país se levanta desde los Municipios.

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www.urbansdg.uclg.org

Supporting organisations: #urbanSDG

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International Institute for Kurdistan Sustainable Development

iied International Institute for Environment and Development

Millennium Cities Initiative
EARTH INSTITUTE | COLUMBIA UNIVERSITY

the ecological sequestration trust

dac durban adaptation charter

THE NEW SCHOOL

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SUSTAINABILITY INSTITUTE

LSECities
AN INTERNATIONAL CENTRE SUPPORTED BY DEUTSCHE BANK

Infrangilis
Resilience in practice

Mayor Eduardo Paes & Chair of C-40

"..as a global mayor , and one whose city is who will forever be linked to the global sustainable development agenda, I cannot stress enough the fact that without an urban goal the SDGs will be incomplete"

Over **200** cities, regional governments, international organisations, people' movements & universities, support an stand alone

Urban Sustainable Development Goal

www.urbansdg.org

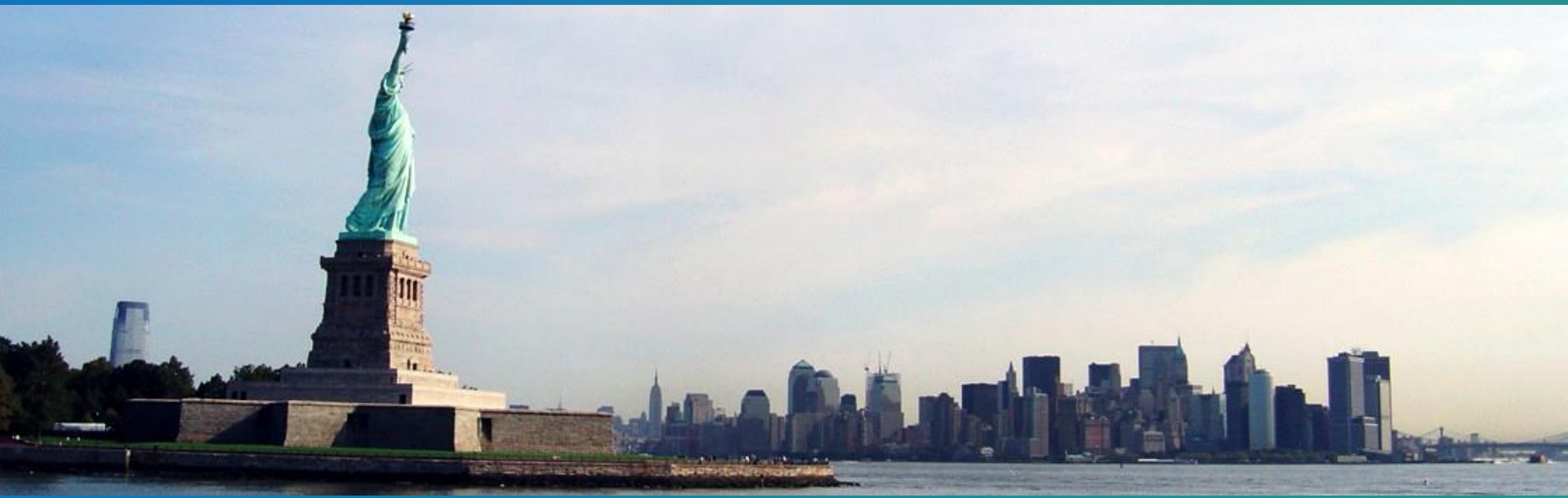
After lots of debate…

#urbanSDG: Counterfactuals

1. The rural-urban dictomy
2. The ‘too many goals’ challenge
3. The infrastructure opportunity
4. The ‘mainstreaming’ into other goals opportunity
5. The ‘localizing’ of other SDGs opportunity

Why use 19th century ideas & institutional frames to address a 21st century challenge?

Operationalising an #urbanSDG: the case of Bangalore & New York City



SDSN: Urban SDG

Make all cities socially inclusive, economically productive, environmentally sustainable, secure, and resilient to climate change and other risks.

Develop participatory, accountable, and effective city* governance to support rapid and equitable urban transformation.

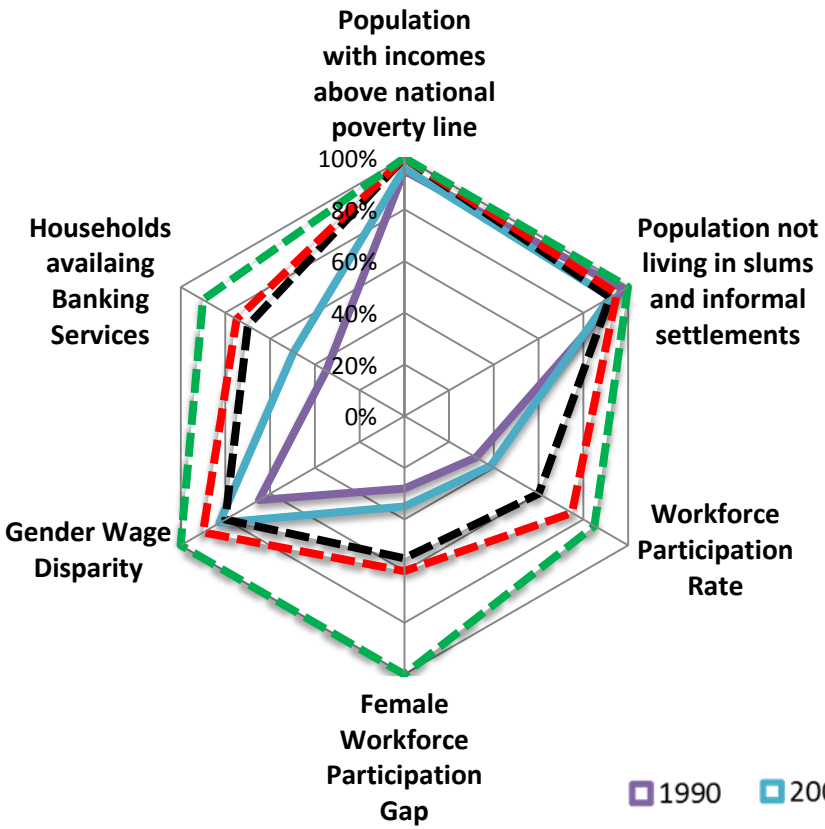
*and metropolitan region

SDSN (2013): Urban SDG Target A

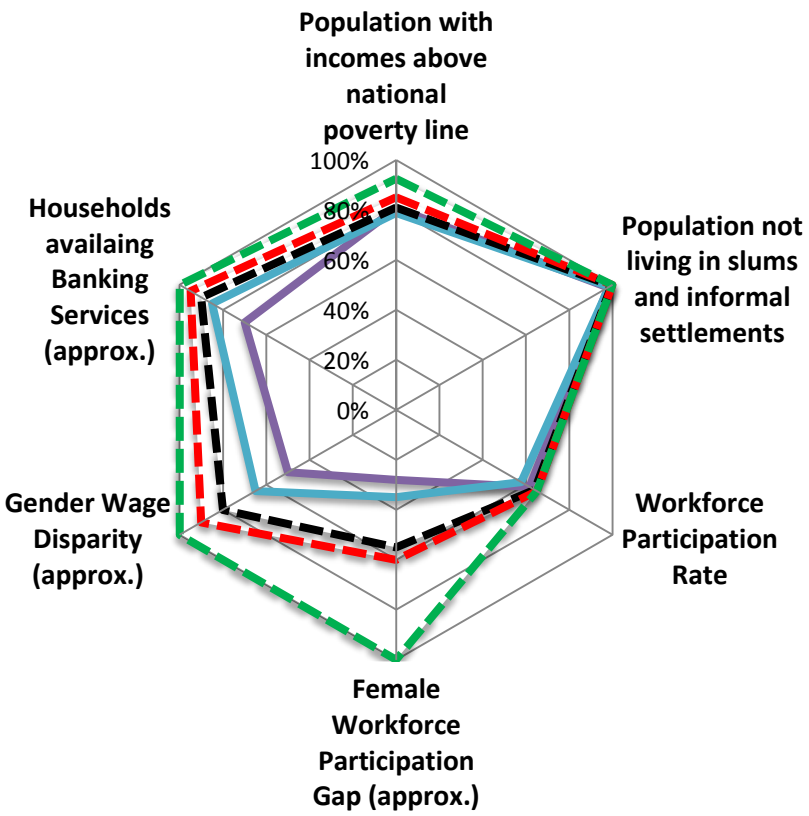
End extreme urban poverty, expand employment and productivity, and raise living standards, especially in slums.

Urban SDG Target A - **Eliminate extreme urban poverty, expand employment & productivity, & raise living standards, especially in slums & informal settlements**

BANGALORE



NEW YORK CITY



1990 2000 2015 2030 BAU

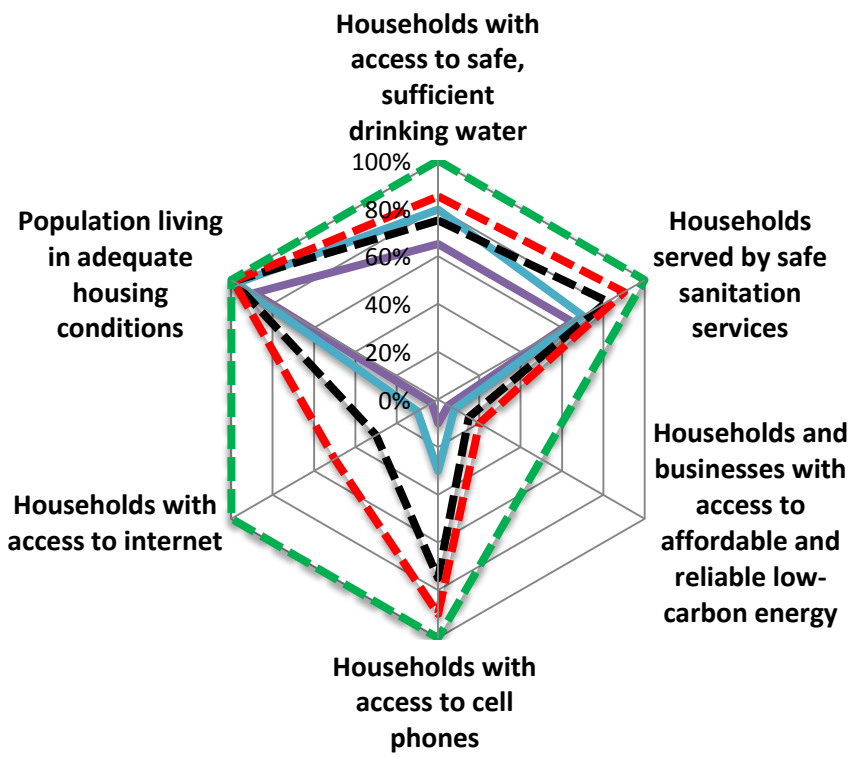
NOTE : Indicative #urbanSDG set (work in progress, do not cite)

SDSN (2013): Urban SDG Target B

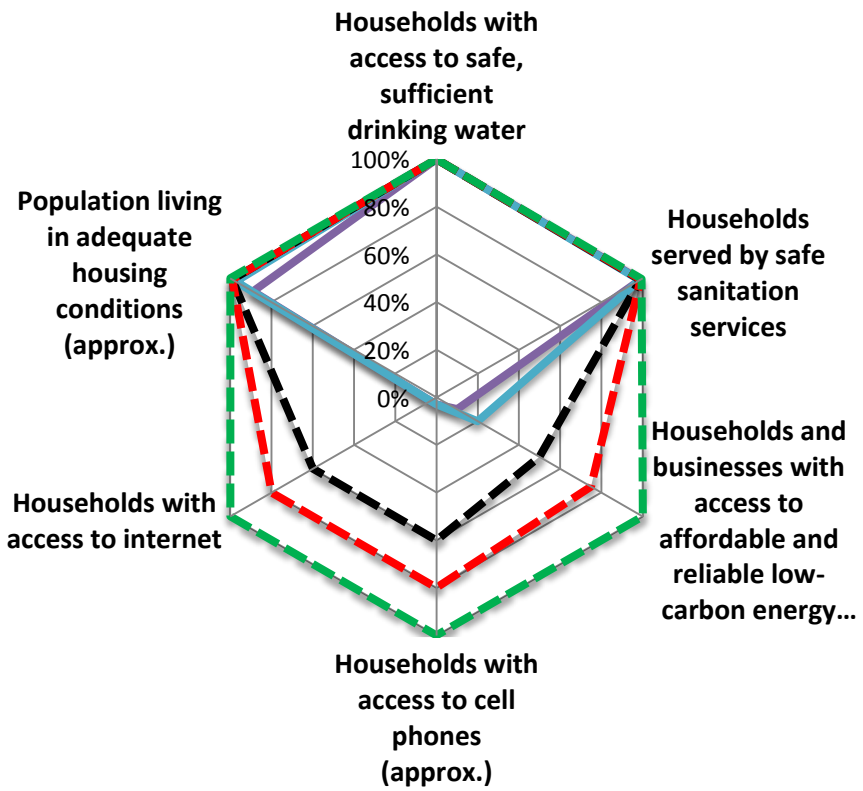
Ensure universal access to a well-designed, secure, and affordable built environment and basic urban services including housing; water, sanitation and waste management; low-carbon energy and transport; and mobile and broadband communication.

Urban SDG Target B - Ensure universal access to a secure and affordable built environment & basic services: housing, water, sanitation & waste management; low-carbon energy & transportation; & communication.

BANGALORE



NEW YORK CITY



1990 2000 2015 2030 BAU

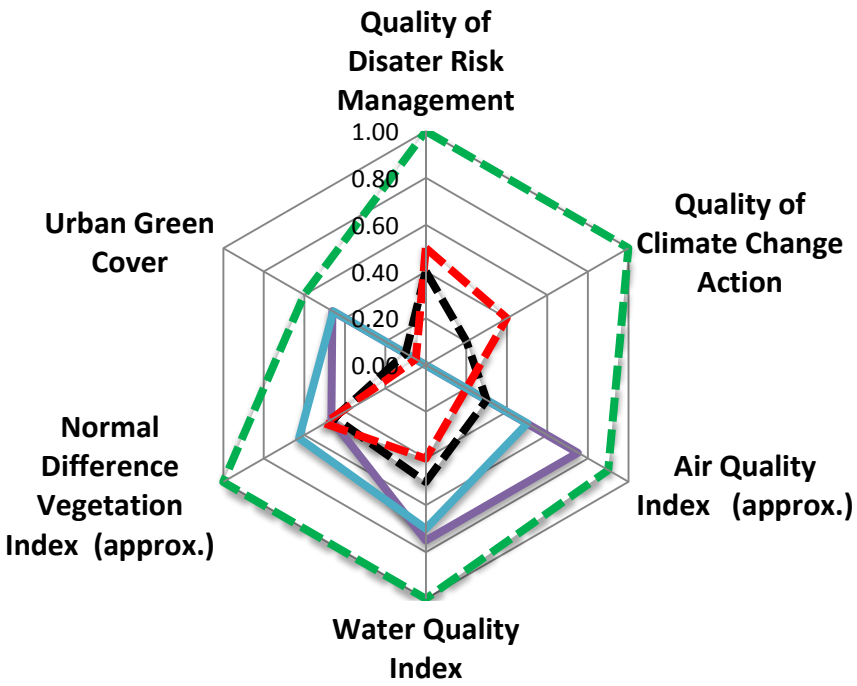
NOTE : Indicative #urbanSDG set (work in progress, do not cite)

SDSN (2013): Urban SDG Target C

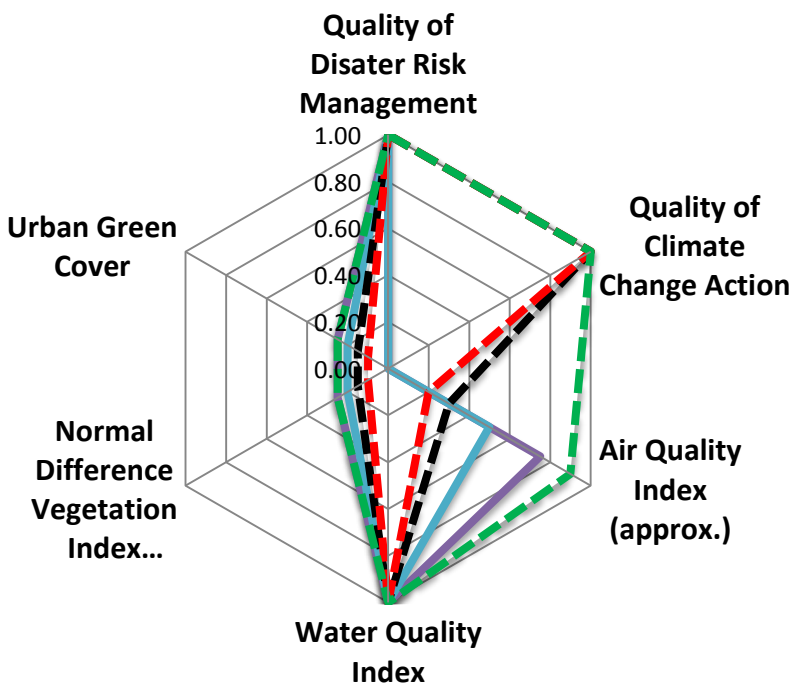
Ensure safe air and water quality for all, and integrate reductions in greenhouse gas emissions, efficient land and resource use, and climate and disaster resilience into investments and standards.

Urban SDG Target C - Ensure safe air & water quality for all, & integrate reductions in greenhouse gas emissions, efficient land & resource use, & climate & disaster resilience into investments & standards

BANGALORE



NEW YORK CITY



1990 2000 2015 2030 BAU

NOTE : Indicative #urbanSDG set (work in progress, do not cite)

… and even more debate what did we get?

UN OWG: Post 2015 Sustainable Development Goals

July 2014

Goal 1. Ending Poverty

Goal 2. End Hunger, food security and sustainable agriculture.

Goal 3. Promote Health and well-being

Goal 4. Promote Education

Goal 5. Promote Gender equality

Goal 6. Provide Water and sanitation

Goal 7. Provide Energy

Goal 8. Promote Economic growth and employment

Goal 9. Provide Resilient infrastructure

Goal 10. Reduce Inequality

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 12. Manage Consumption and production

Goal 13. Manage Climate change

Goal 14. Protect Oceans, seas and marine resources

Goal 15. Protect Terrestrial ecosystems and forests

Goal 16. Promote Justice and institutions

Goal 17. Promote Global partnerships for sustainable development

An Intermediate Outcome (2014)

1. An urban Sustainable Development Goal is inspiration, aspirational and operationalisable
2. It can bring together multiple sectors, actors and processes in new ways that focus on the synergy between opportunities that overcome the many current systemic & structural challenges
3. This will not be easy, will require a re-imagined institutional and financial architecture, processes & metrics
4. It should be more equitable, politically and economically viable, cheaper and more efficient that 'unstructured' Business-as-Usual
5. The commitment of member-states, regional & local governments, communities, enterprises & the knowledge sector to transform governance could make this possible

What may we be missing?

1. Too many goals; too many targets and indicators to focus and act on
2. Rural prosperity and development seems to have disappeared
3. Linkage between cities; productivity, employment and poverty reduction is broken
4. Infrastructure is tied to industrialisation: what about villages, agriculture, services and not all cities are industrial?
5. Implementation architecture overlapping and confused
6. How much resources & means of financing still in play
7. Weak emphasis on legal, regulatory and institutional capacity

8. Limited dialogue with the primary agents of change

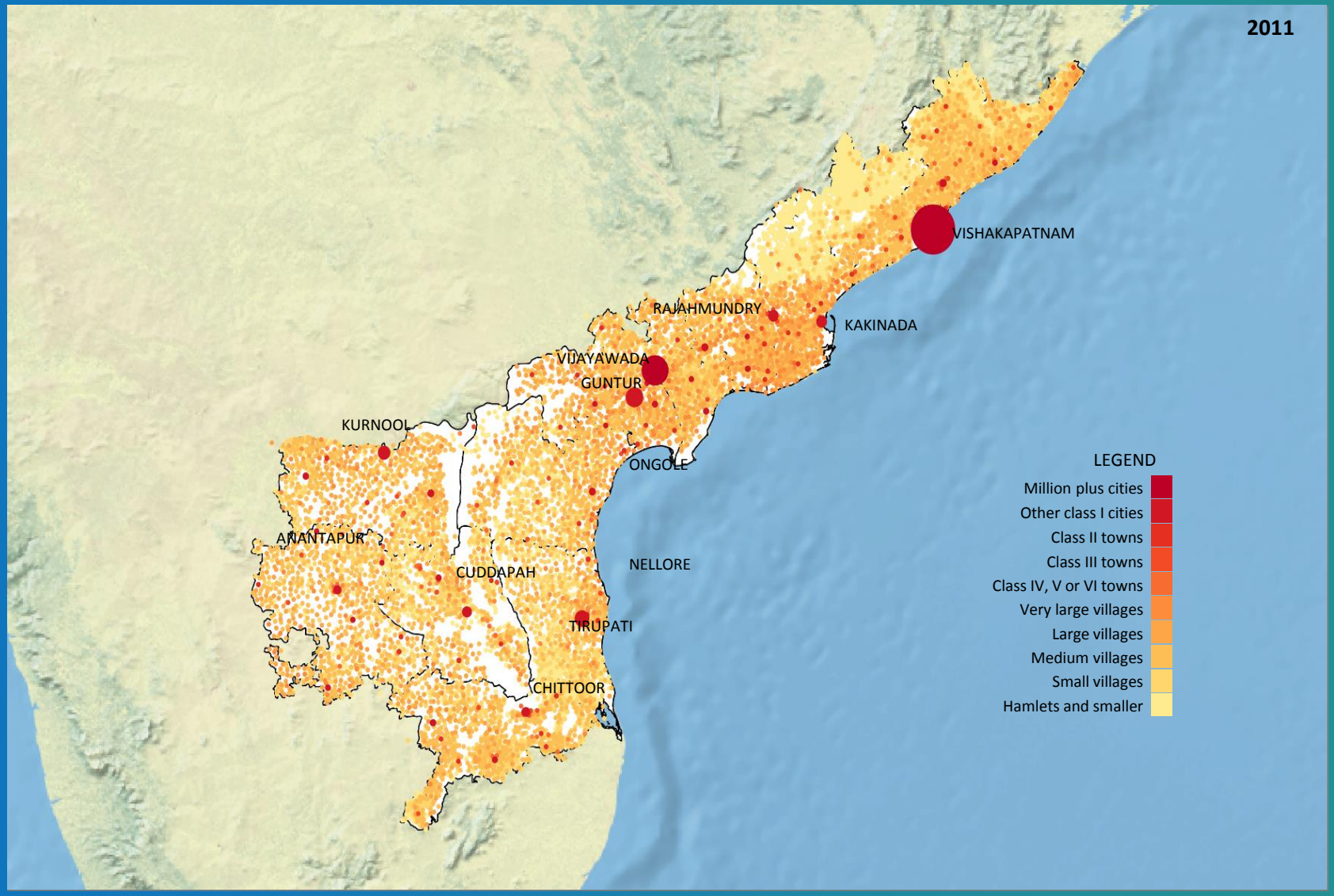
The big challenge: how do we implement in 2016?

How would you look to implement this at state / provincial level

A early-stage case from Andhra Pradesh, India

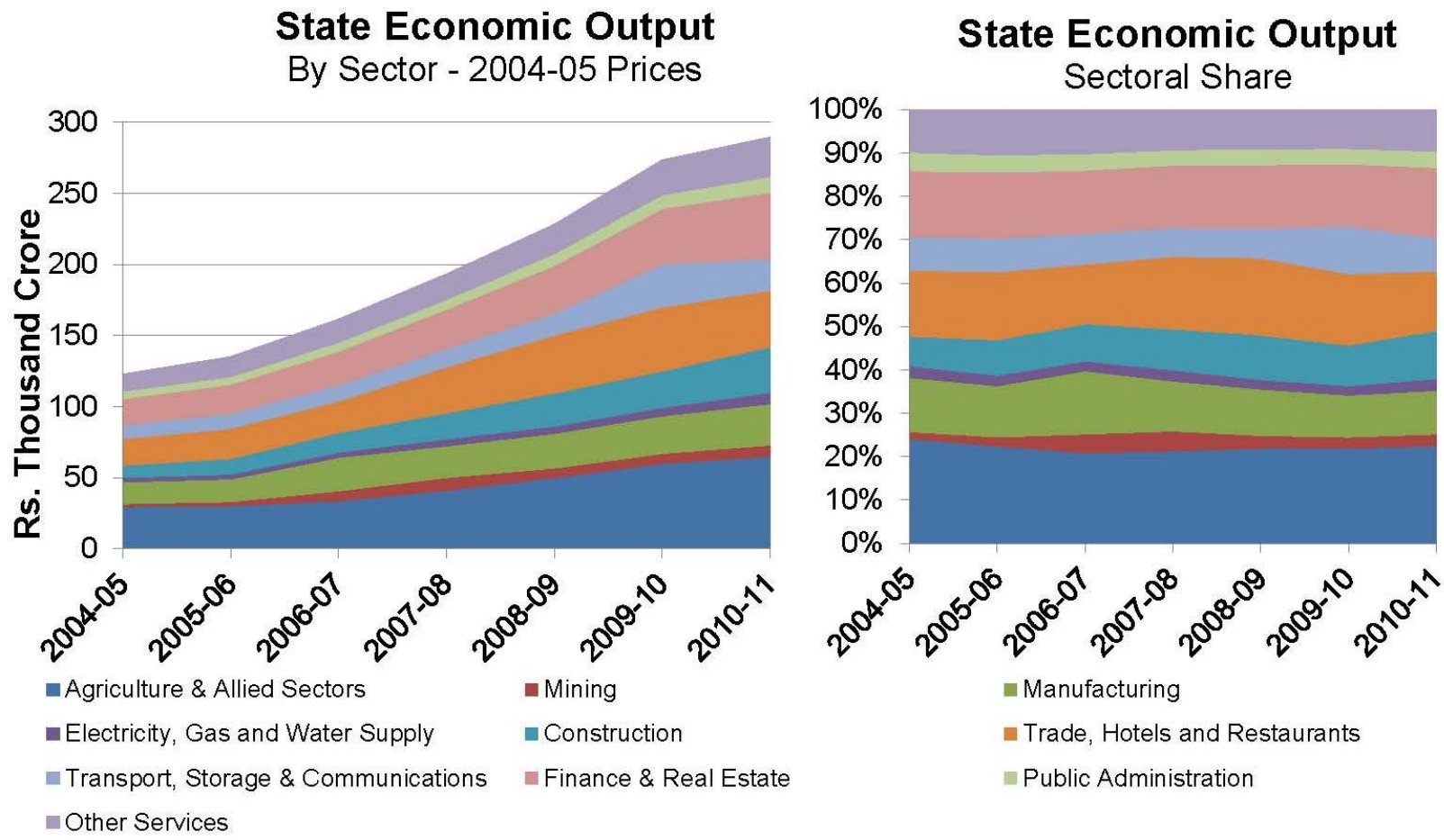
Settlement Structure of Andhra Pradesh

2001, 2011



Source: Census of India 2001, 2011; IIHS Analysis

Andhra Pradesh: Economic output & structure



Source: NAS 1971-2012; NSS 61-68 Rounds,; IIHS Analysis

Andhra Pradesh: Economic output & Employment

SIVARAMAKRISHNAN COMMITTEE: ANDHRA PRADESH CAPITAL

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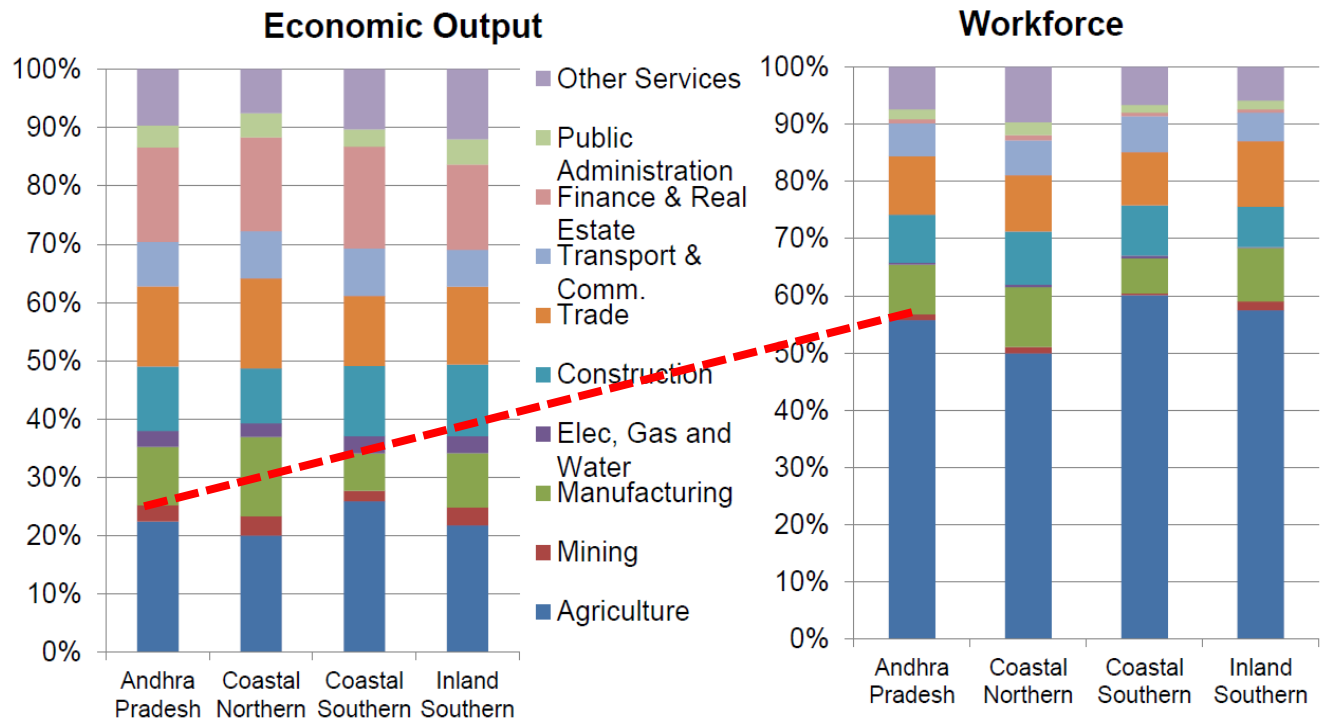
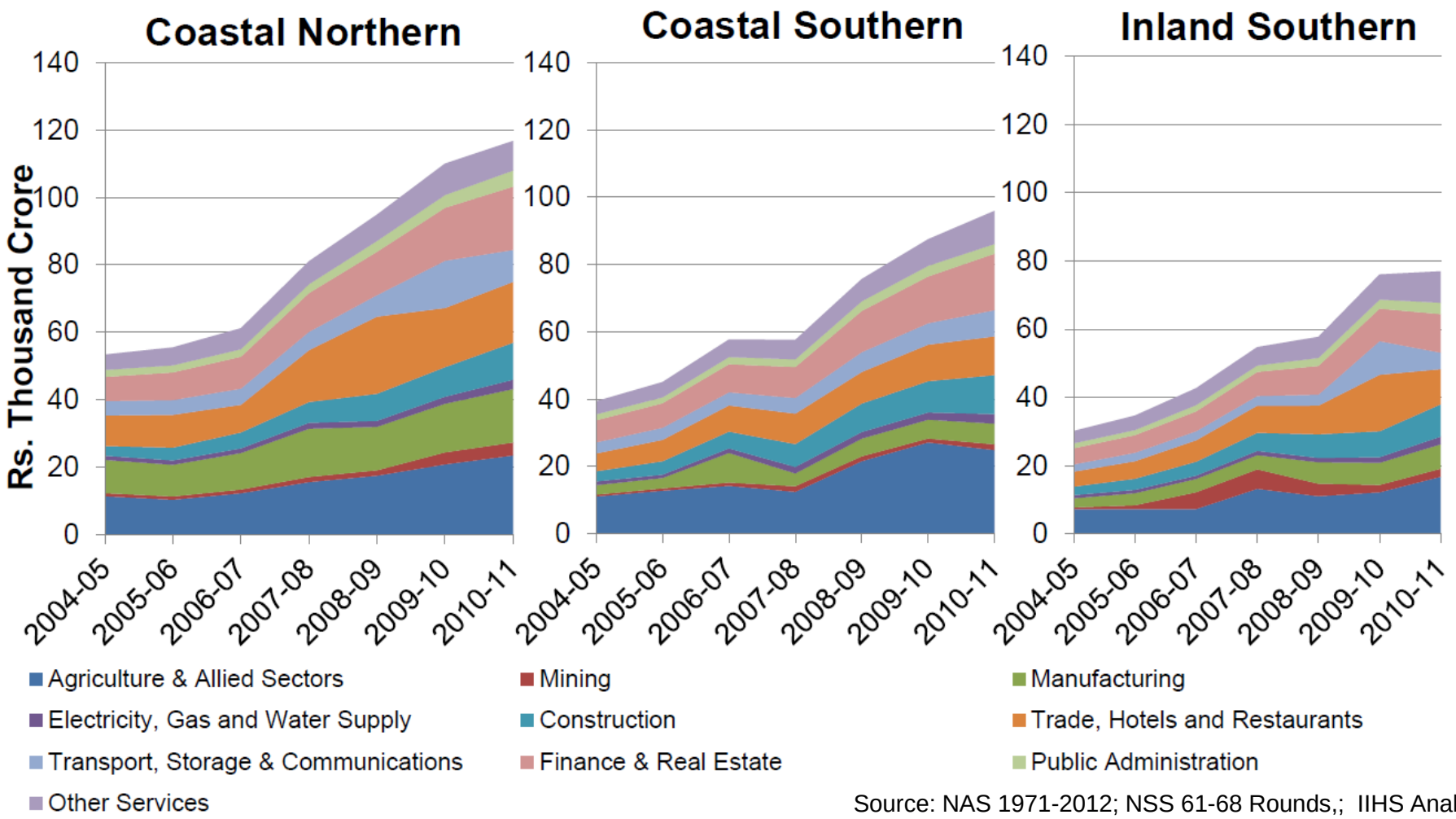
Andhra Pradesh: Output & Workforce



Andhra Pradesh: Regional Economic output



Source: NAS 1971-2012; NSS 61-68 Rounds,; IIHS Analysis

Andhra Pradesh: Environment

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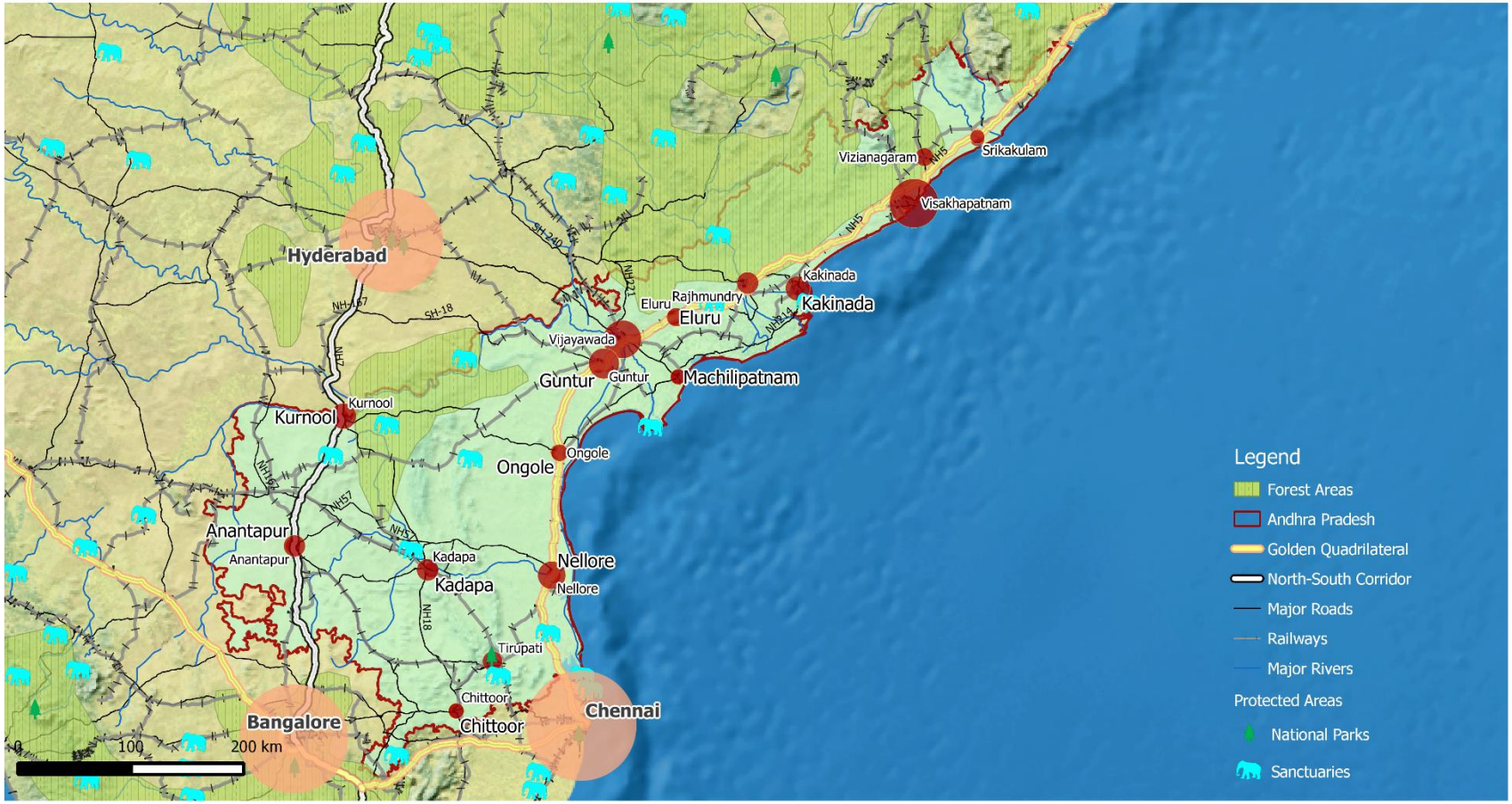
ENVIRONMENT

NATIONAL PARKS, SANCTUARIES AND FORESTS



Data Source, Yr: India State of Forest Report, 2011; Google Maps, India Biodiversity Portal

Image Used: SRTM 250m (CGIAR-CSI) **Coordinate System:** WGS 84 **Map ID:** SA06PJS280514 **Date:** 28-05-2014

Geospatial Lab

Andhra Pradesh: Power Infrastructure

SIVARAMAKRISHNAN COMMITTEE: ANDHRA PRADESH CAPITAL

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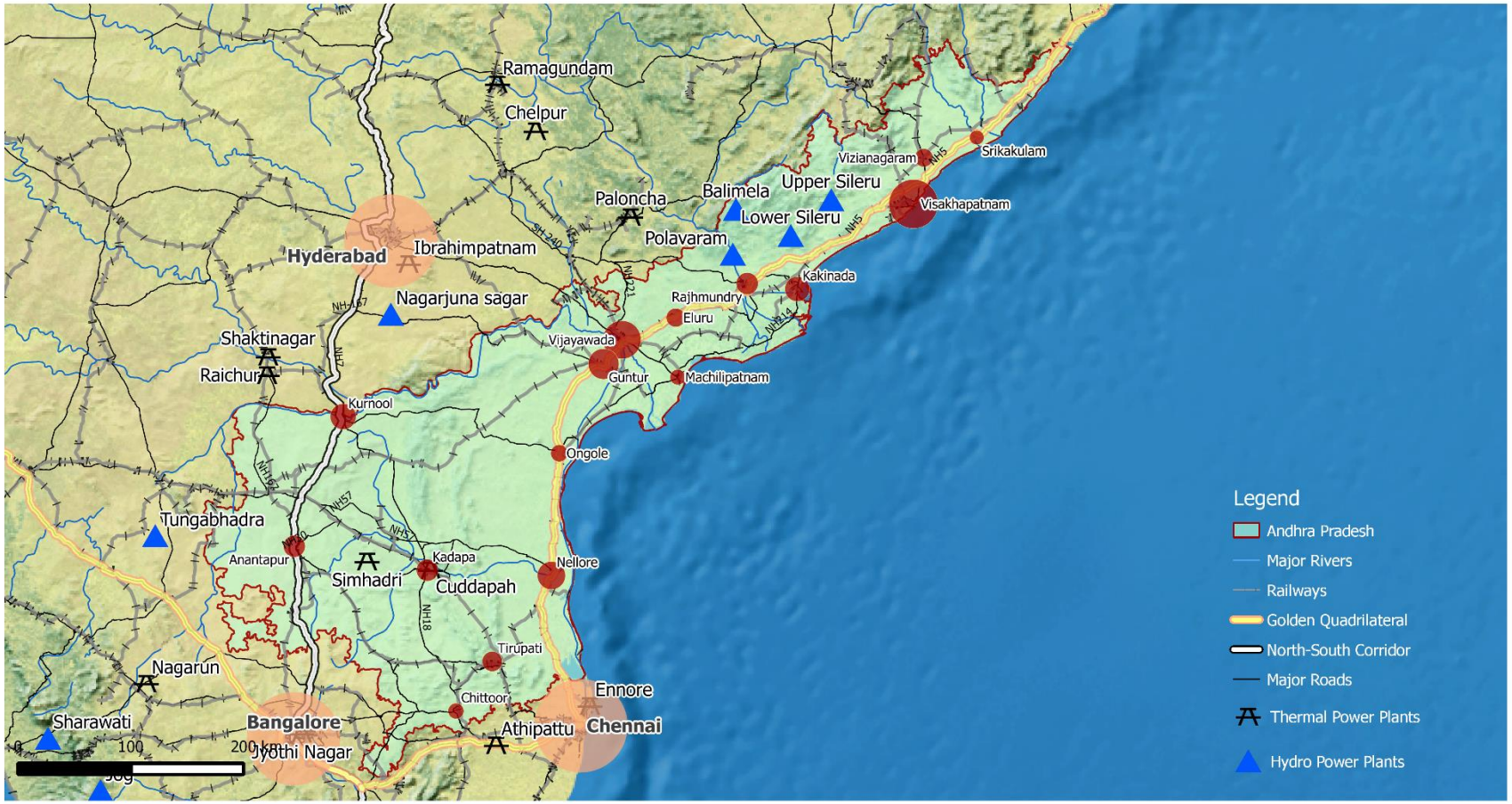
INFRASTRUCTURE

HYDRO & THERMAL POWER PLANTS

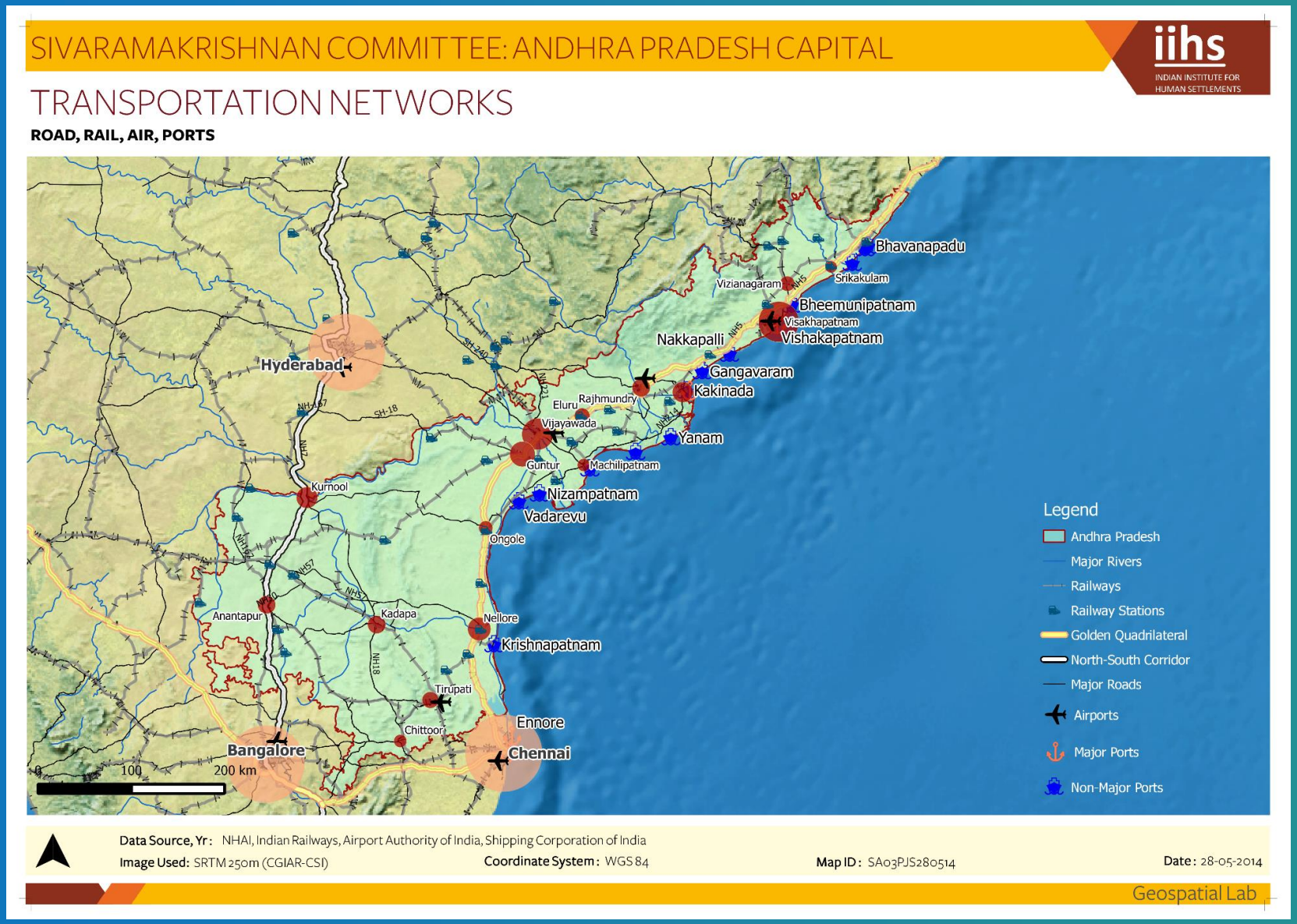


Data Source, Yr: Ministry of Power, GoI
Image Used: SRTM 250m (CGIAR-CSI)
Coordinate System: WGS 84
Map ID: SA05PJS280514
Date: 28-05-2014

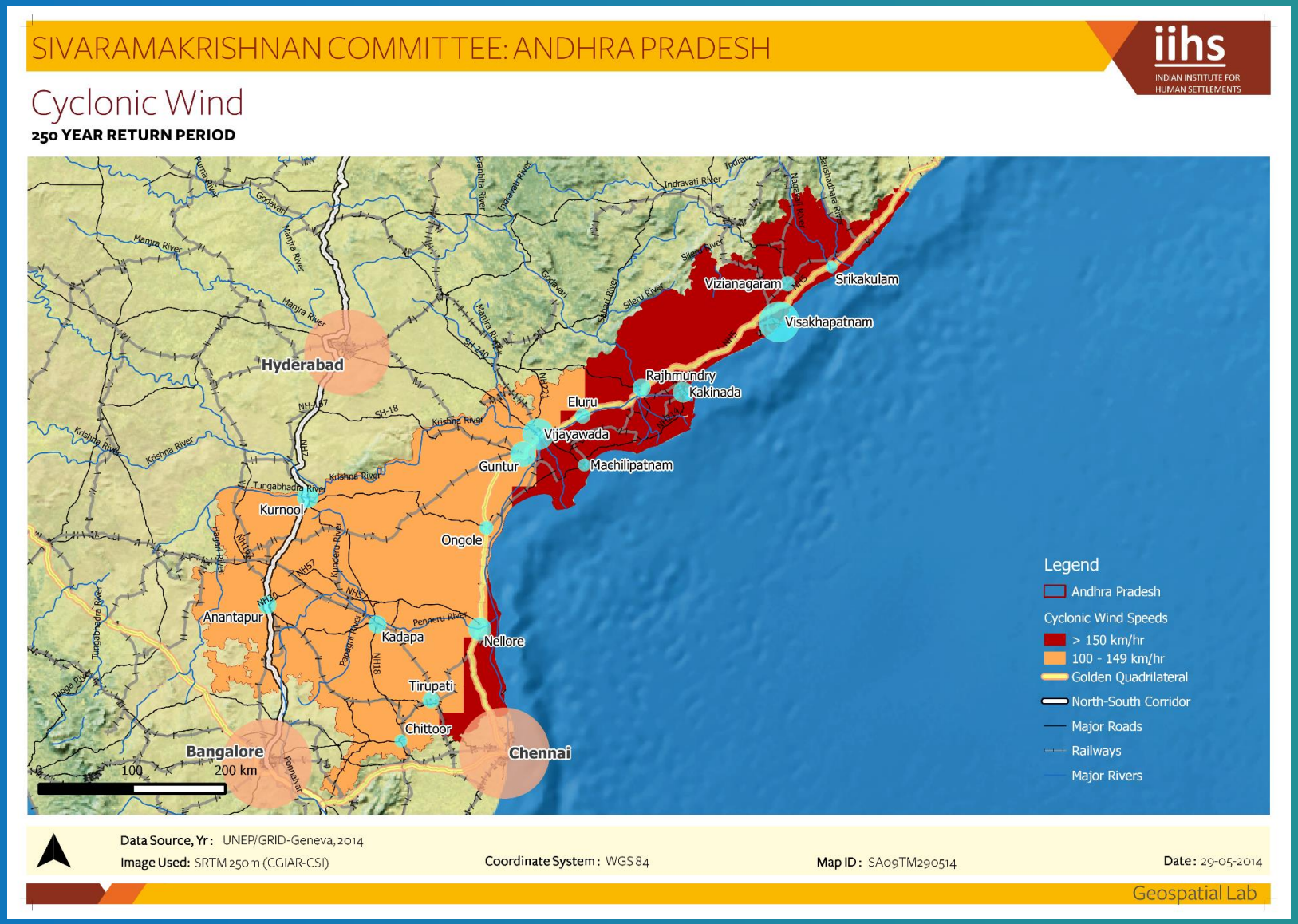
Geospatial Lab

Andhra Pradesh: Oil & Gas Infrastructure

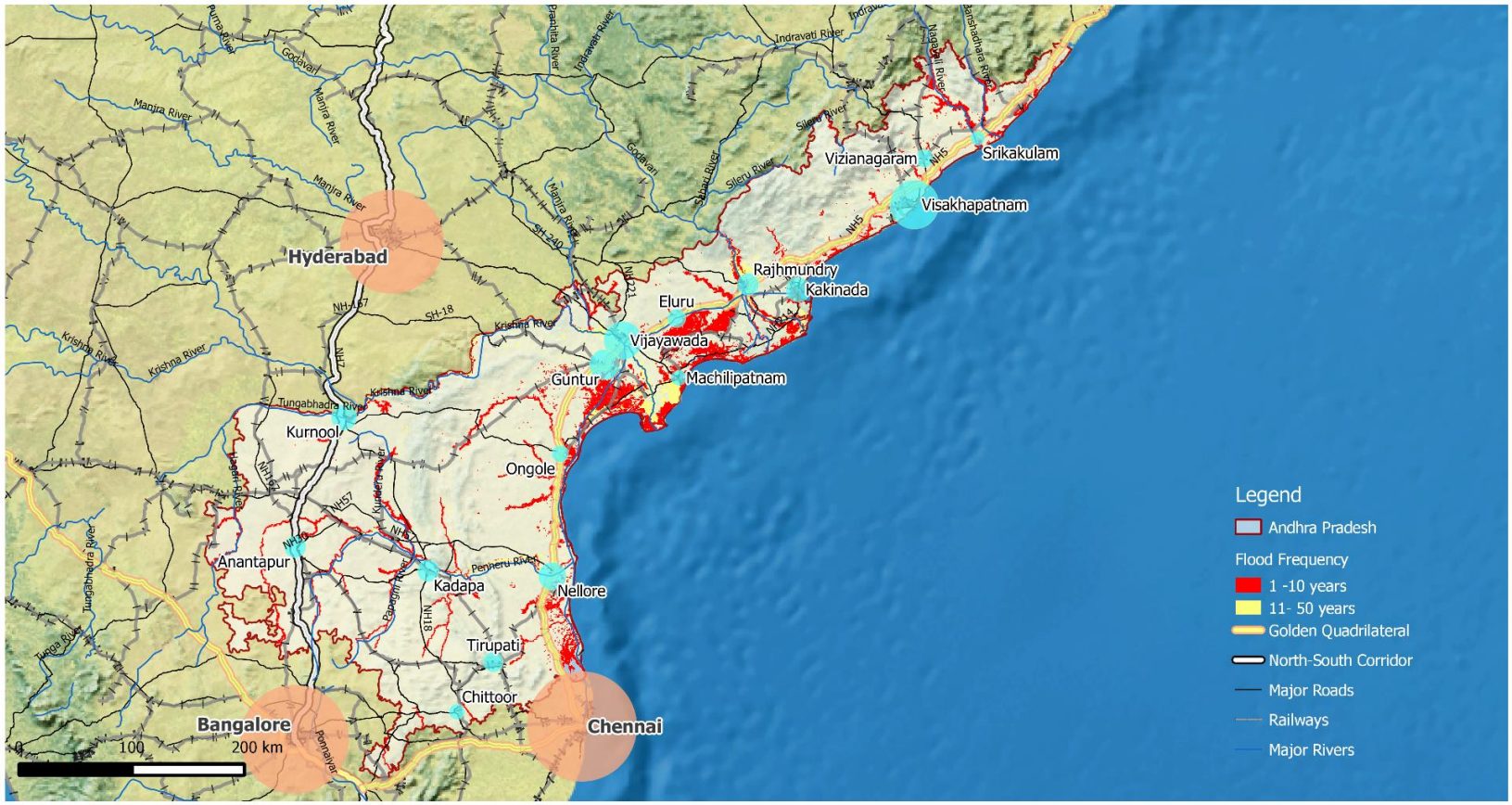
Andhra Pradesh: Road & Rail Transportation Networks



Andhra Pradesh: Cyclonic Storm Risk



Andhra Pradesh: Flood Risk



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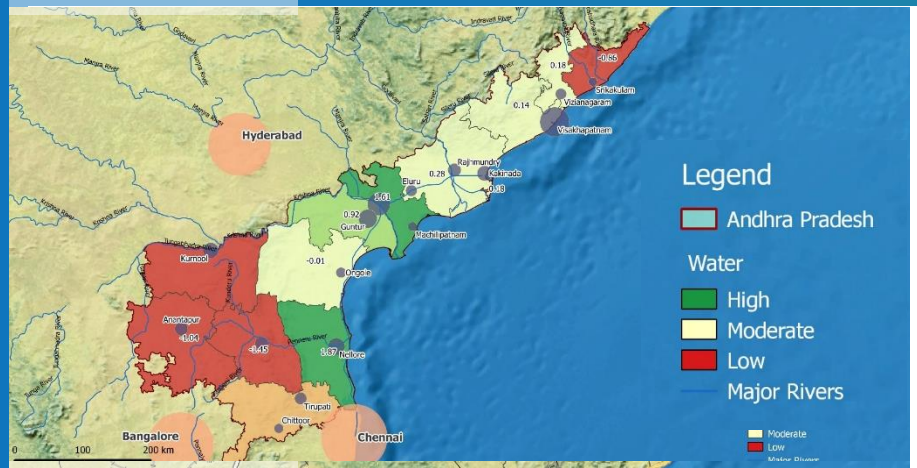
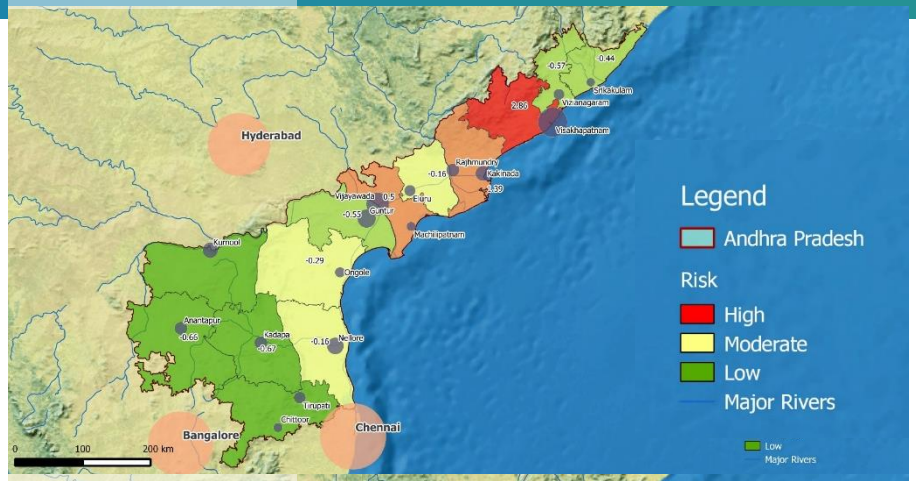
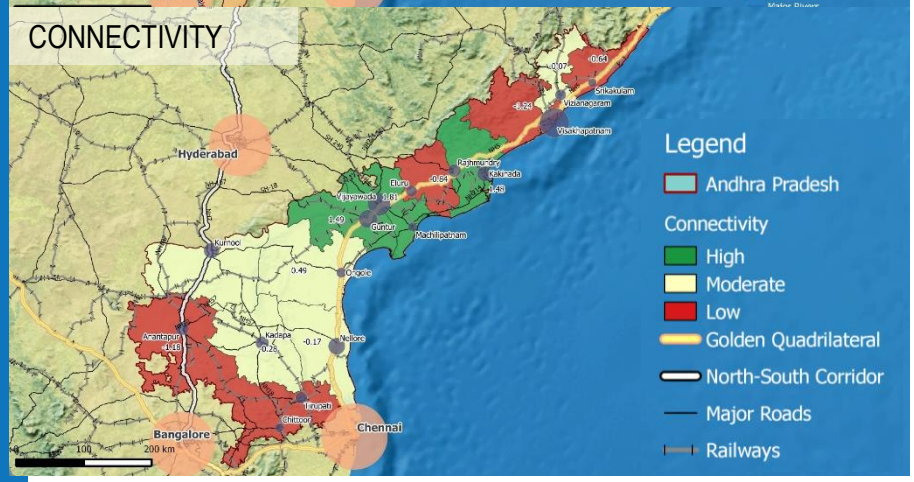
WATER



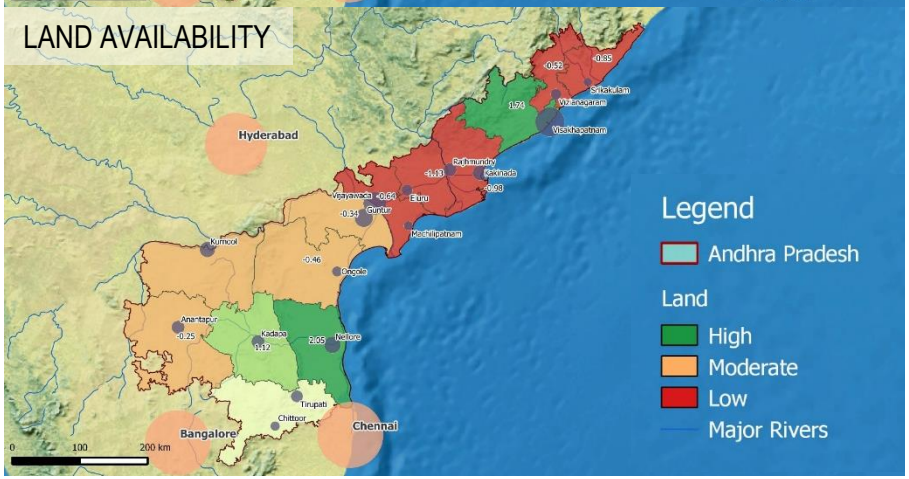
RISK



CONNECTIVITY



LAND AVAILABILITY



How would you consider implementation at national Level?

A early-stage case from South Africa

CORE ELEMENTS OF THE IUDF

VISION

Liveable, safe, resource-efficient cities and towns that are **socially integrated, economically inclusive** and **globally competitive, where residents actively** participate **in urban life**

STRATEGIC GOALS

- Access
- Growth
- Governance
- Spatial transformation

LEVERS

- Integrated Planning
- Integrated transport and mobility
- Integrated and sustainable human settlements
- Effective land governance and management
- Integrated urban infrastructure
- Inclusive economic development
- Empowered active communities
- Effective urban governance

Strategic priorities

IUDF Policy levers - I

POLICY LEVER	STRATEGIC OBJECTIVES
Integrated Transport and Mobility	• Enhanced mobility and connectivity through improved access. • Greater productivity and employment by reducing time and cost spent in travel. • Reduced emissions and efficient use of resources .
Integrated and sustainable human settlements	• Improved quality of life through access to services. • Multi-functional spaces with more housing and economic choices. • Well-serviced, safe and vibrant communities.

IUDF Policy levers - II

POLICY LEVER	STRATEGIC OBJECTIVES
Integrated Planning	• Spatial transformation and creation of inclusive cities. • Foster constructive collaboration across the intergovernmental system.
Efficient land governance and management	• Sustainable urban form and land use. • Strengthen the revenue base of municipalities.

IUDF Policy levers - III

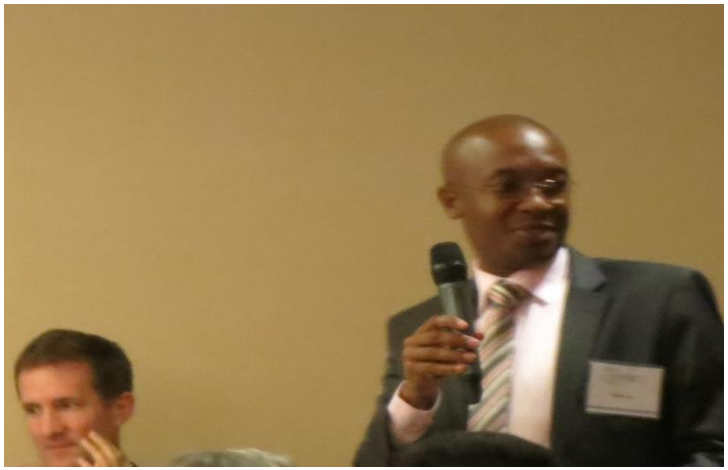
Policy Lever	Strategic objectives
Integrated Urban Infrastructure	• Universal access to social and other services which supports equality and inclusivity. • Protection of the ecological resources resulting in environmental benefits. • Sustained economic growth.
Inclusive Economic Development	• Increase and sustainability of small and large enterprises. • People who have self-respect, new skills and social networks as they participate in productive work. • Community upliftment through support to livelihoods. • Elevated national standards as economic benefits spread out to rural areas

IUDF Policy levers - IV

Policy Lever	Strategic objectives
Empowered active Communities	• Robust and sincere public participation processes. • Encourage innovation and productivity. • Improved lives of people and their physical environment.
Effective Urban Governance	• Fiscal and institutional capacities to meet the demands of urban growth. • Create resilient, inclusive and liveable cities.

Mobilising across spheres & geographies

Convening ‘world-city’ Mayors



Enabling transboundary learning..

Next Steps for the #urbanSDG Campaign

1. Mobilise: phased widening & deepening the Campaign
2. Convene: internally & externally
3. Negotiate: with member States & other stakeholders
4. Communicate & Inspire: cities are the future
5. (Co)-Reframe: globally, nationally & with constituents
6. Experiment: to be ready to deliver in 2016
7. Educate: ourselves and the world
8. Implement, implement, implement…


Is there something missing?

Places to Intervene in a System (in increasing order of effectiveness)

12 Constants, parameters, numbers
11 The sizes of buffers and other stabilizing stocks, relative to their flows
10 The structure of material stocks and flows
9 The length of delays, relative to the rate of systems change
8 Negative feedback loops, relative to the impacts they are trying to correct
7 The gain around driving positive feedback loops
6 The structure of information flows
5 The rules of the system
4 The power to add, change, evolve or self-organize
3 The goals of the system
2 The mindset or paradigm out of which the system arises
1 The power to transcend paradigms

Source: Donella H. Meadows, 1999

Auroville (1968-2014..)

On a parched, degraded, coastal plateau in South India…

…a remarkable experiment in building …

…a universal township was started in 1968…

21st February 1968 the inauguration ceremony of Auroville

… based on a revolutionary plan…

…it took 20 years to start restoring the ecosystems…

… c. 40 years later the heart of this city of Dawn was completed…

Auroville now starts to build a city of the future…