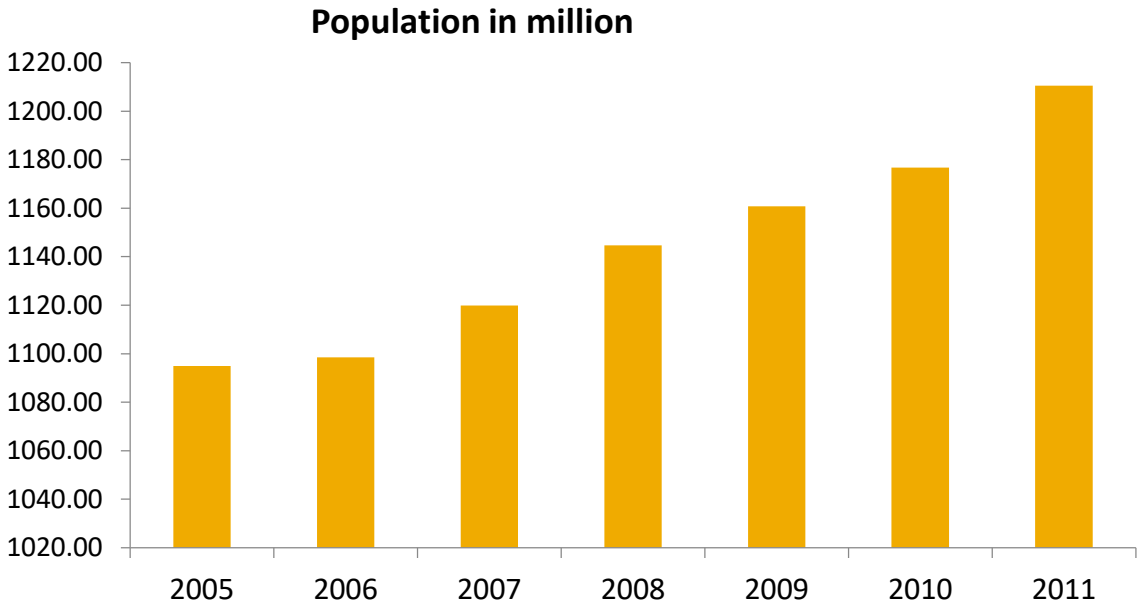
TOWARDS HOLLISTIC APPROACH ON MOBILITY

Shravani Sharma, WRI India

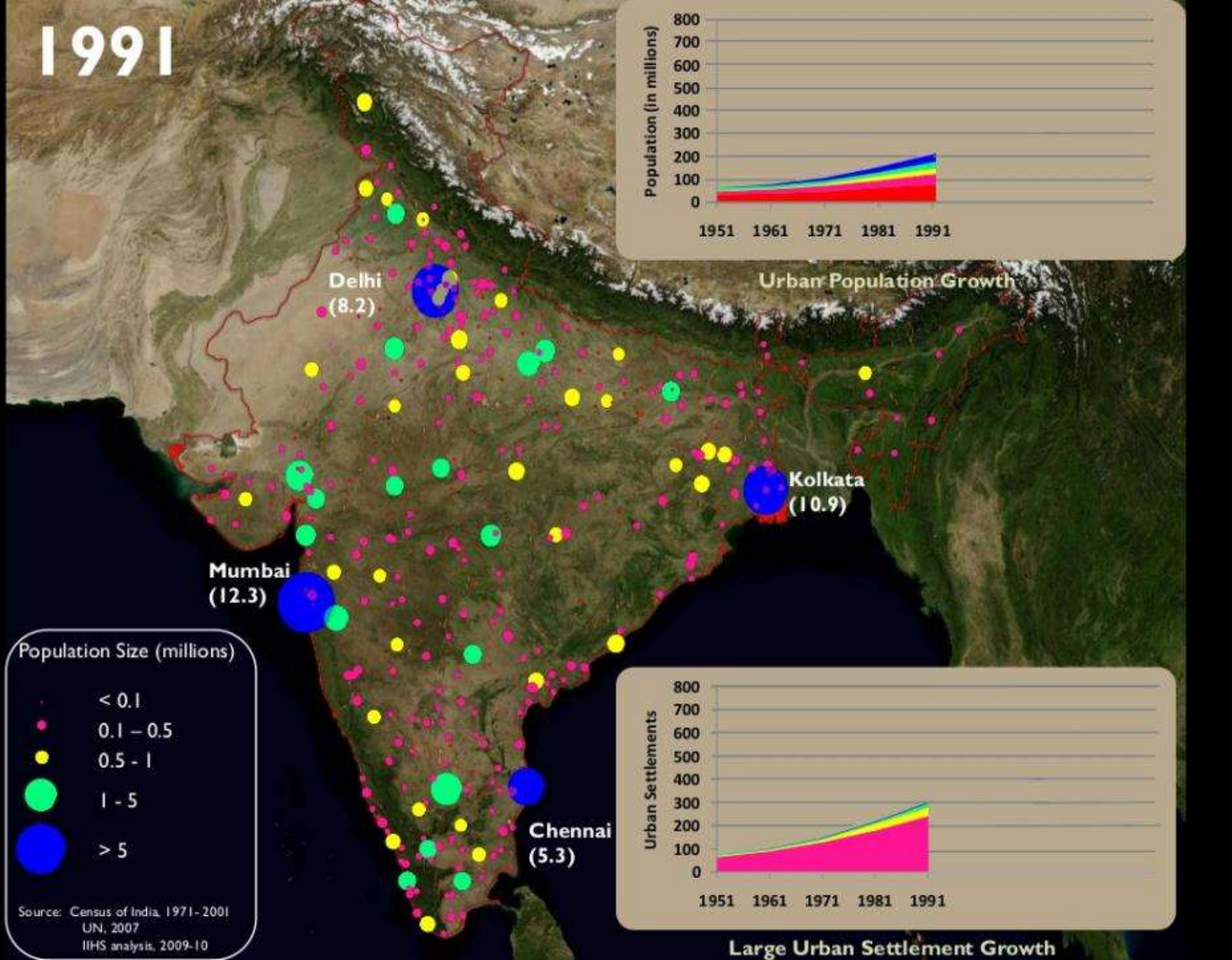
5th December 2019, Hyderabad, India

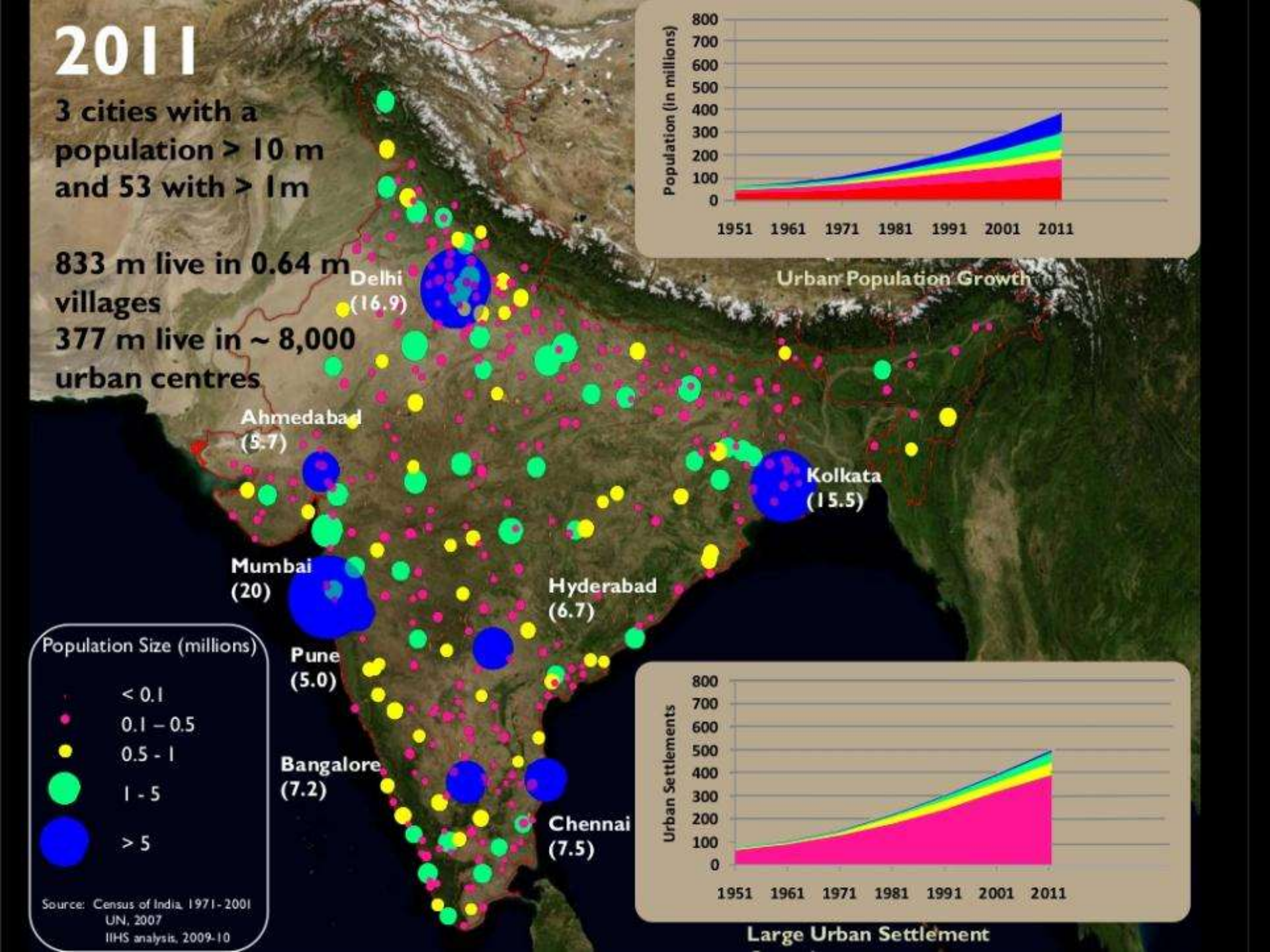
INDIA

- Population: 1.2 Billion (2011 Census)
- The second-most populated country in the world, population expected to surpass China in 2030.
- India occupies 2.4% of world's area and supports 16.9% of the world's population



Source: Census 2011


1991
Population (in millions)
800
700
600
500
400
300
200
100
0
1951 1961 1971 1981 1991
Urban Population Growth
Delhi
(8.2)
Kolkata
(10.9)
Mumbai
(12.3)
Chennai
(5.3)
Population Size (millions)
< 0.1
0.1 – 0.5
0.5 - 1
1 - 5
> 5
Source: Census of India, 1971-2001
UN, 2007
IIHS analysis, 2009-10
Urban Settlements
800
700
600
500
400
300
200
100
0
1951 1961 1971 1981 1991
Large Urban Settlement Growth


2011
3 cities with a population > 10 m and 53 with > 1m
833 m live in 0.64 m villages
377 m live in ~ 8,000 urban centres
Delhi (16.9)
Ahmedabad (5.7)
Kolkata (15.5)
Mumbai (20)
Hyderabad (6.7)
Pune (5.0)
Bangalore (7.2)
Chennai (7.5)
Population Size (millions)
< 0.1
0.1 – 0.5
0.5 - 1
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> 5
Source: Census of India, 1971-2001
UN, 2007
IIHS analysis, 2009-10
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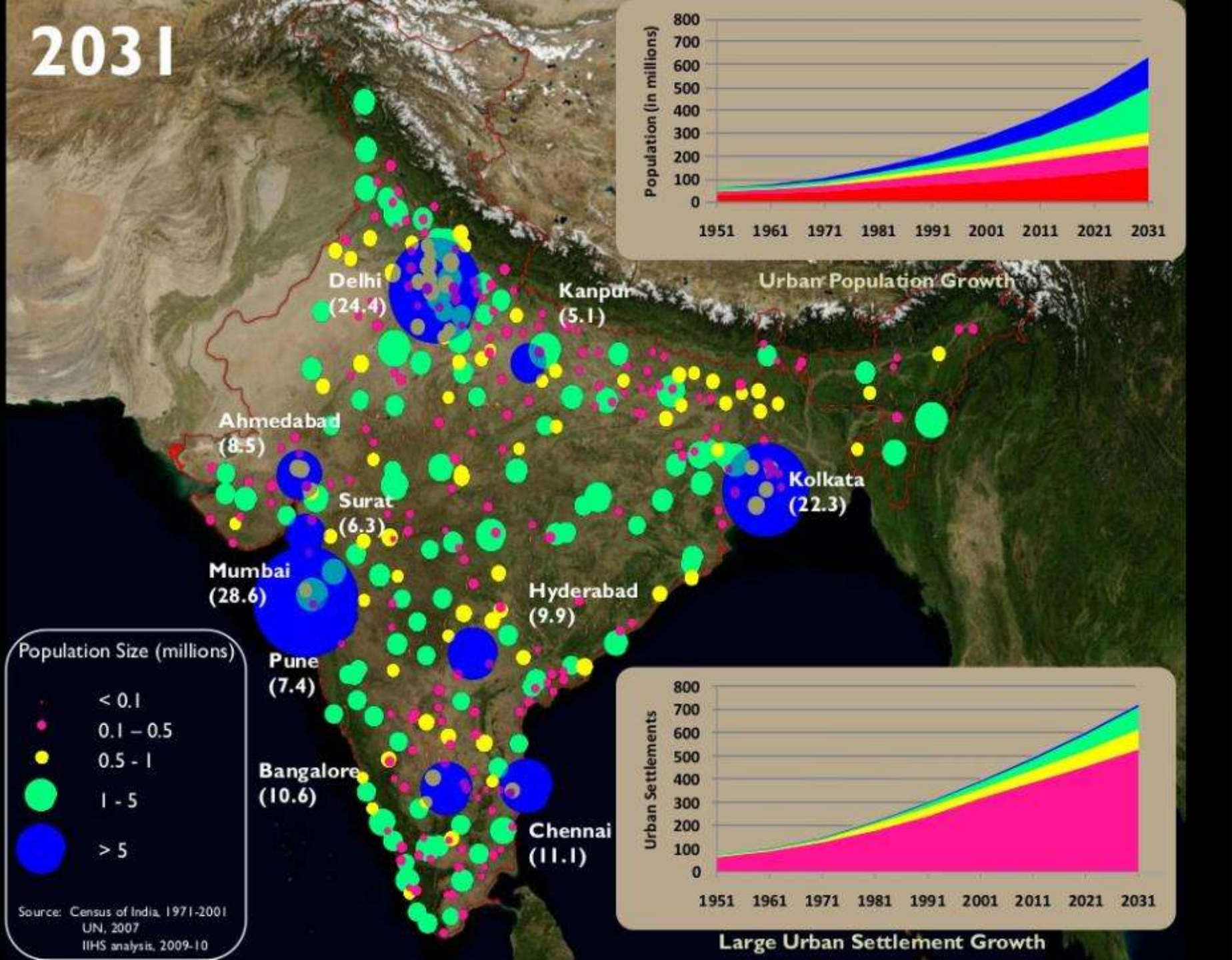
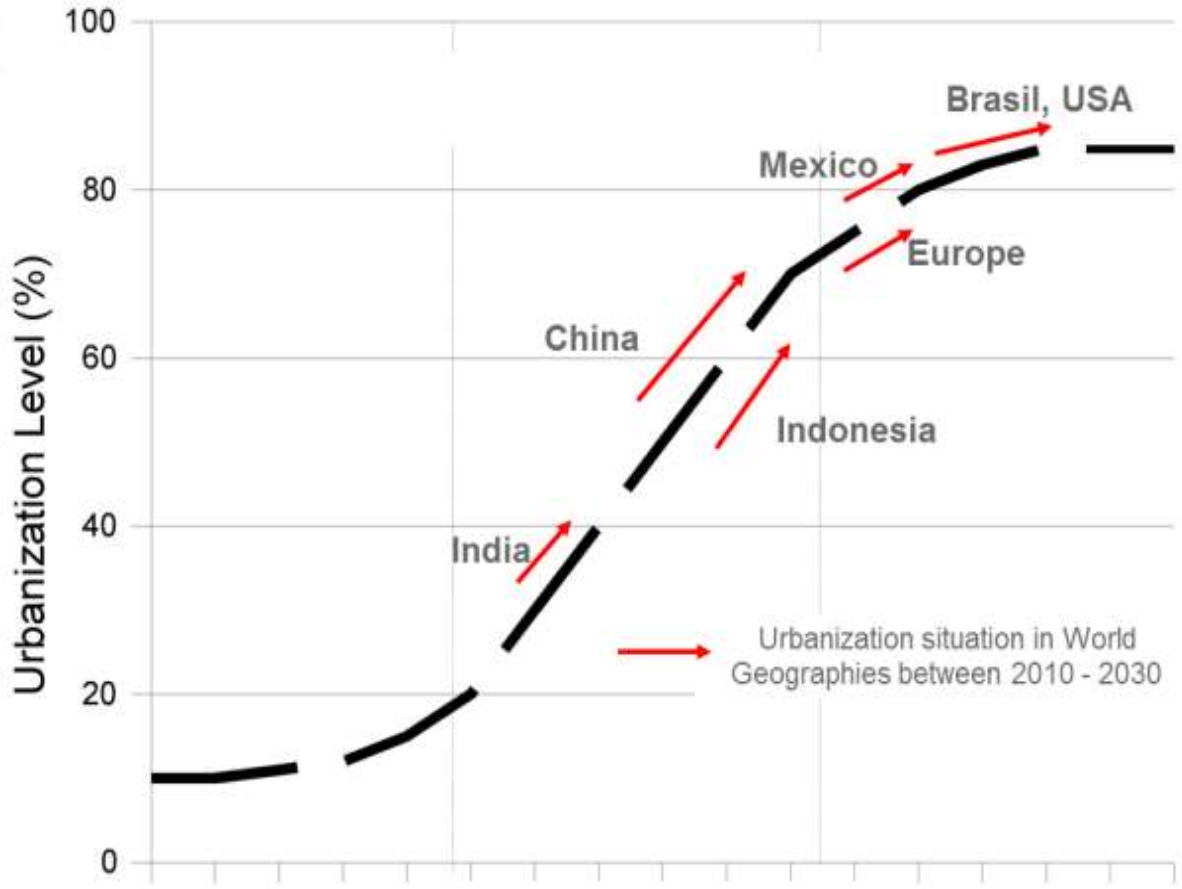
Large Urban Settlement


2031
Population (in millions)
800
700
600
500
400
300
200
100
0
1951 1961 1971 1981 1991 2001 2011 2021 2031
Urban Population Growth
Delhi
(24.4)
Kanpur
(5.1)
Ahmedabad
(8.5)
Surat
(6.3)
Kolkata
(22.3)
Mumbai
(28.6)
Hyderabad
(9.9)
Pune
(7.4)
Bangalore
(10.6)
Chennai
(11.1)
Population Size (millions)
< 0.1
0.1 – 0.5
0.5 - 1
1 - 5
> 5
Source: Census of India, 1971-2001
UN, 2007
IIHS analysis, 2009-10
Urban Settlements
800
700
600
500
400
300
200
100
0
1951 1961 1971 1981 1991 2001 2011 2021 2031
Large Urban Settlement Growth

URBANIZATION 'S' CURVE



WRI INDIA

Photo: Flickr/PauloFehlauer; Sources: UN-Habitat, UNFCCC, WHO

Rise of motorization results in unhealthy, unsafe cities

- 1.3MM deaths globally from traffic incidents
  - Leading cause for young people aged 15-29
  - 90% of the world's road traffic deaths occur in low- and middle-income countries
- Nearly half of traffic fatalities occur on city streets
- Air pollution linked to 6.7% of deaths worldwide
- Oil Imports
- Congestion

Source: WHO

Electric Mobility Work at WRI India

WRI INDIA

Peer to Peer Learnings

Knowledge Exchange

Working together towards a common goal

The Electric Mobility Forum (EMF) *was inaugurated by the Hon'ble Vice President of India, Mr. M Venkaiah Naidu on March 28, 2019 during* ***Connect Karo,*** *WRI India's annual conference on urban transitions.*

A platform designed by WRI India and supported by Shakti Foundation, EMF will bring together diverse stakeholders working on electric mobility in the country. The platform aims to convene and mentor stakeholders and scale up key projects on the ground in multiple states.

Inauguration of Electric Mobility Forum by the Hon'ble Vice President of India (3rd from left). (L to R) Madhav Pai, Jamshyd Godrej, Jennifer Layke, Krishan Dhawan, and Amit Bhatt.

Electrification of Public Transport– 23rd-24th September 2019- Ahmedabad

North East Electric Mobility Conclave – 30th October 2019- Guwahati

WRI's EV NEWSLETTER

Panellists inaugurating the march issue of EVConnect, WRI India's monthly EV newsletter. (Lto R) Prabhjot Kaur, Ravi Pandit, OP Agarwal, and Amit Bhatt.

WRI INDIA SHAKTI

EVCONNECT

NEWSLETTER

INSIDE THE ISSUE

FROM THE CEO'S DESK

WATCH

https://wri-india.org/sites/default/files/April%202019_EV_Newsletter%5B1%5D.pdf

WRI's EV NEWSLETTER

EV Connect | October 2018

A conversation with Mr. Kailash Gahlot, Transport Minister, Government of NCT of Delhi on the issues related to electric mobility...

Read More

EV Connect | September 2018

A conversation with Mr. Ajay Kumar Bhalla, Secretary, Ministry of Power, Government of India, on the issues related to charging...

Read More

EV Connect | August 2018

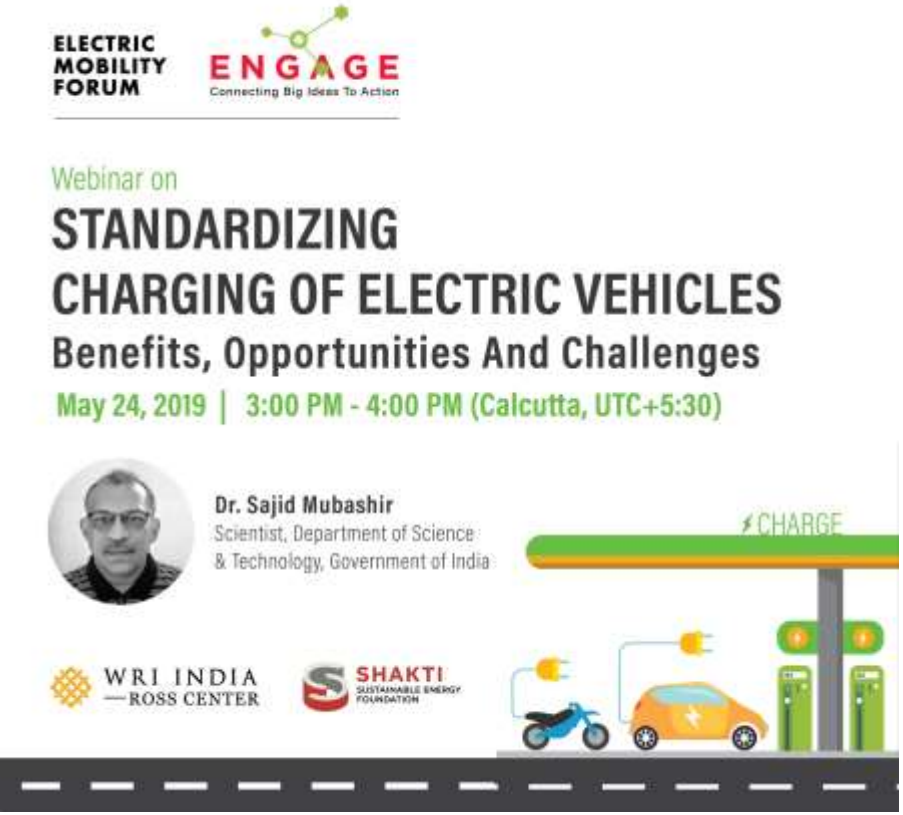
The first edition of the newsletter includes a conversation with Mr. Amitabh Kant, CEO, NITI Aayog on the importance of electric...

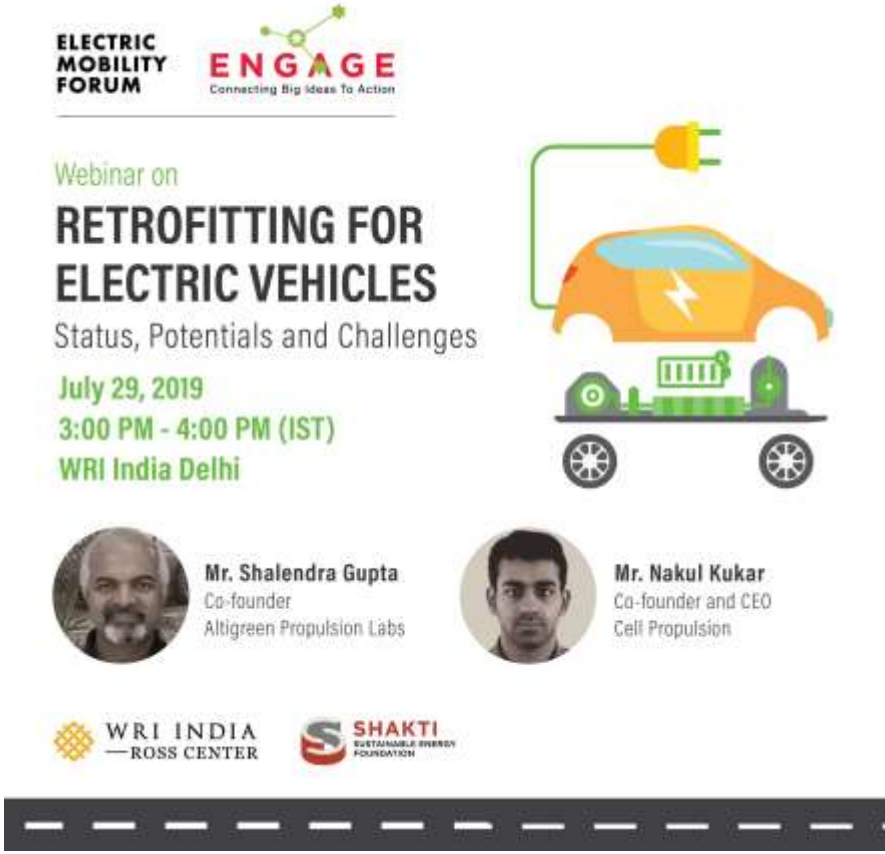
Read More

And Many more……

https://wri-india.org/ev-connect-newsletter

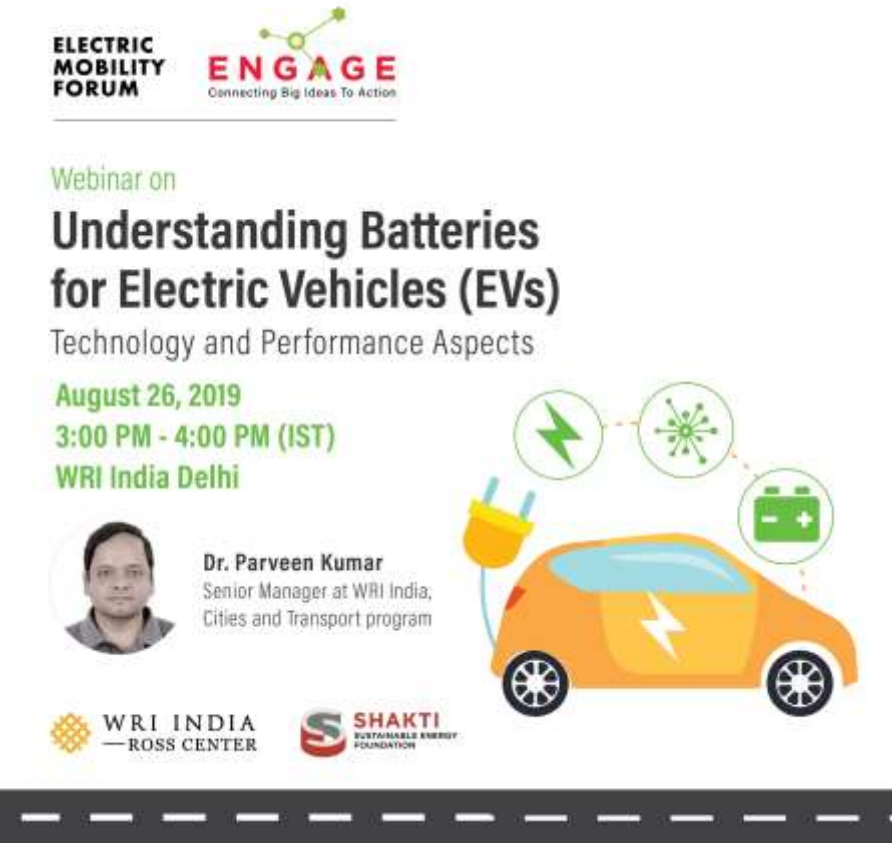
WEBINARS ON FOCUSSED TOPICS

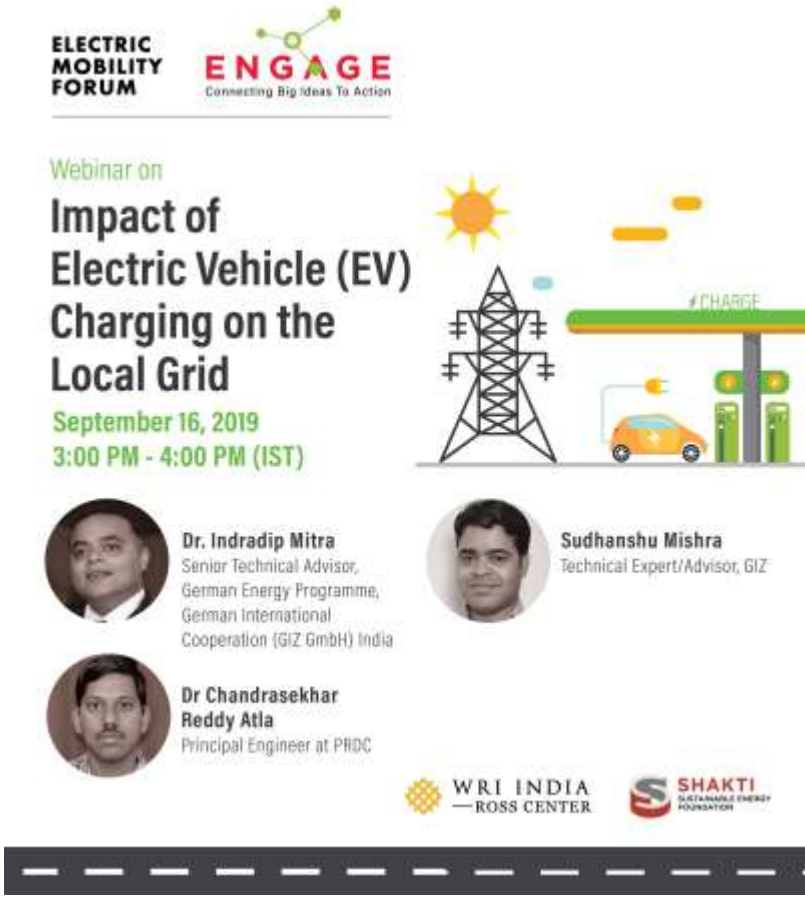




https://thecityfixlearn.org/webinar/standardizing-charging-electric-vehicles-benefits-opportunities-and-challenges

WEBINARS ON FOCUSSED TOPICS



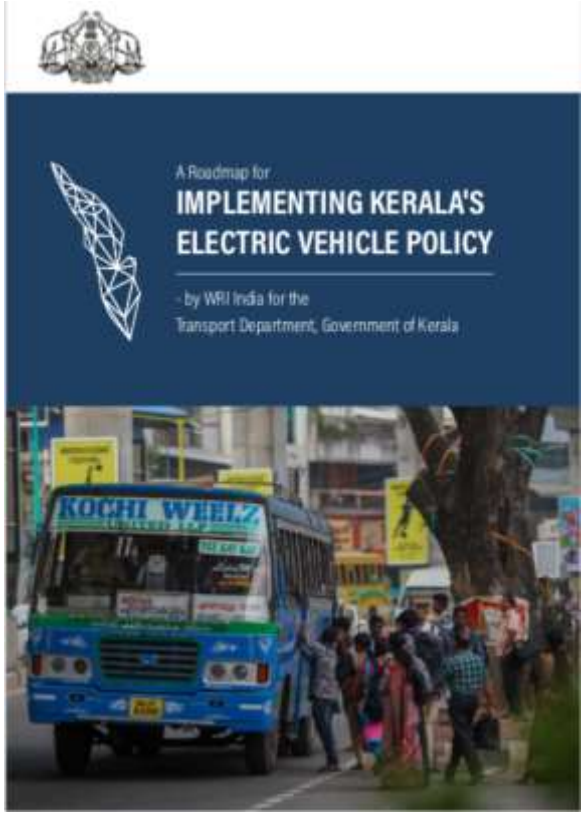


And Many more……

KERALA ELECTRIC MOBILITY ROADMAP

TURNING POLICY IDEAS INTO ACTIONS ON THE GROUND

- Three-phased road map for transition
  - Pilot
  - Scale-up
  - Self-propelled
- Presented to the Chief Minister

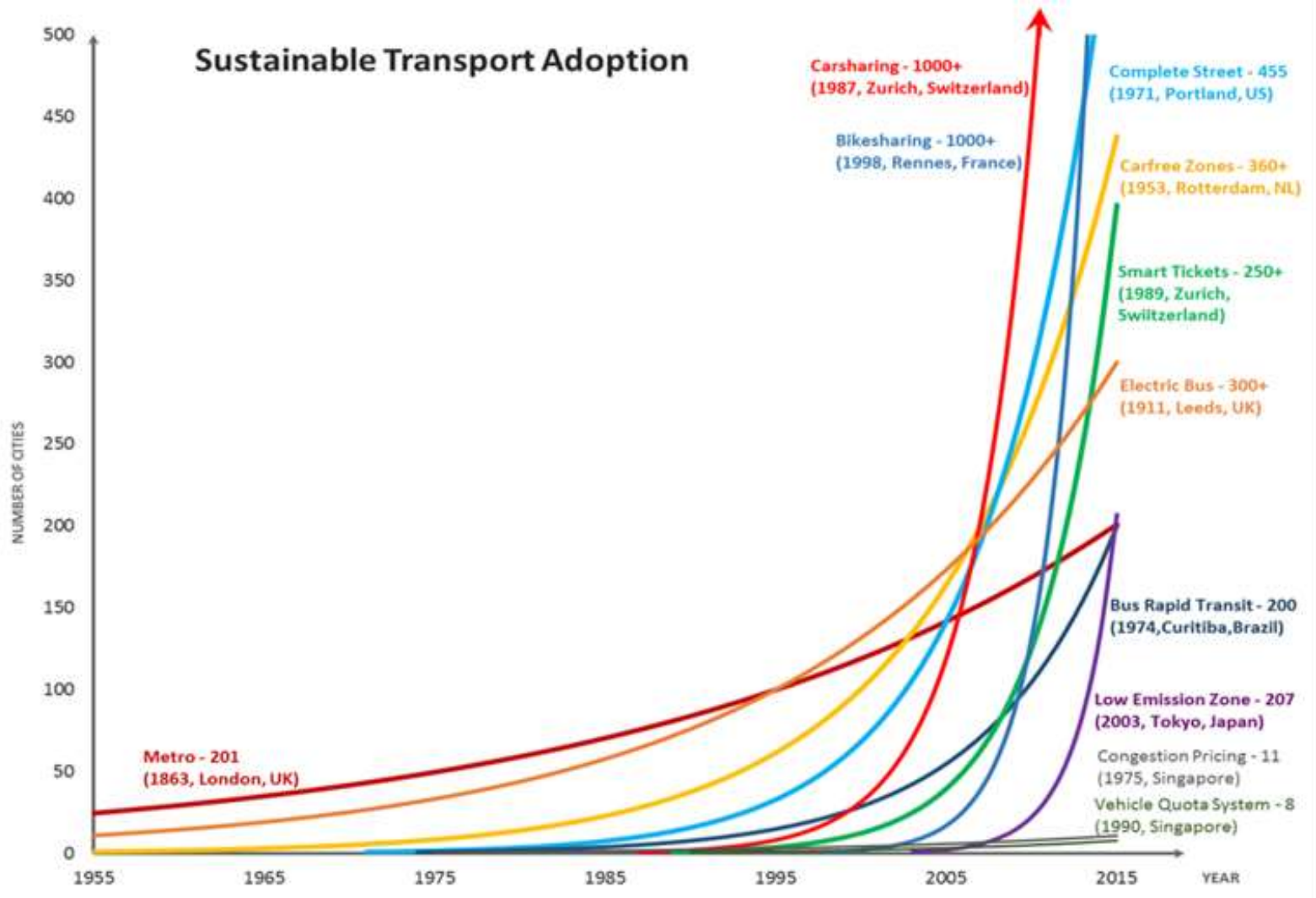


COLLABORATION WITH DELHI GOVERNMENT

- Planning and implementation of charging infrastructure network
- Wider level outreach strategy for Delhi EV policy
    - Raising awareness through various mediums

Picture: WRI Staff sensitising DIMTS on electric mobility

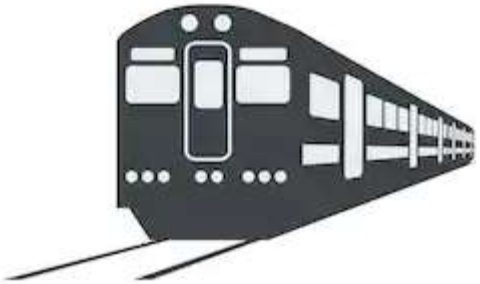
Scaling Sustainable mobility – Global Trends



Source: Dalkmann, WRI

http://thecityfix.com/blog/on-the-move-advancing-sustainable-transport-getting-from-here-to-there-holger-dalkmann/

What are the options of transport that comes to your mind when you hear the word “Public Transport” within a city?



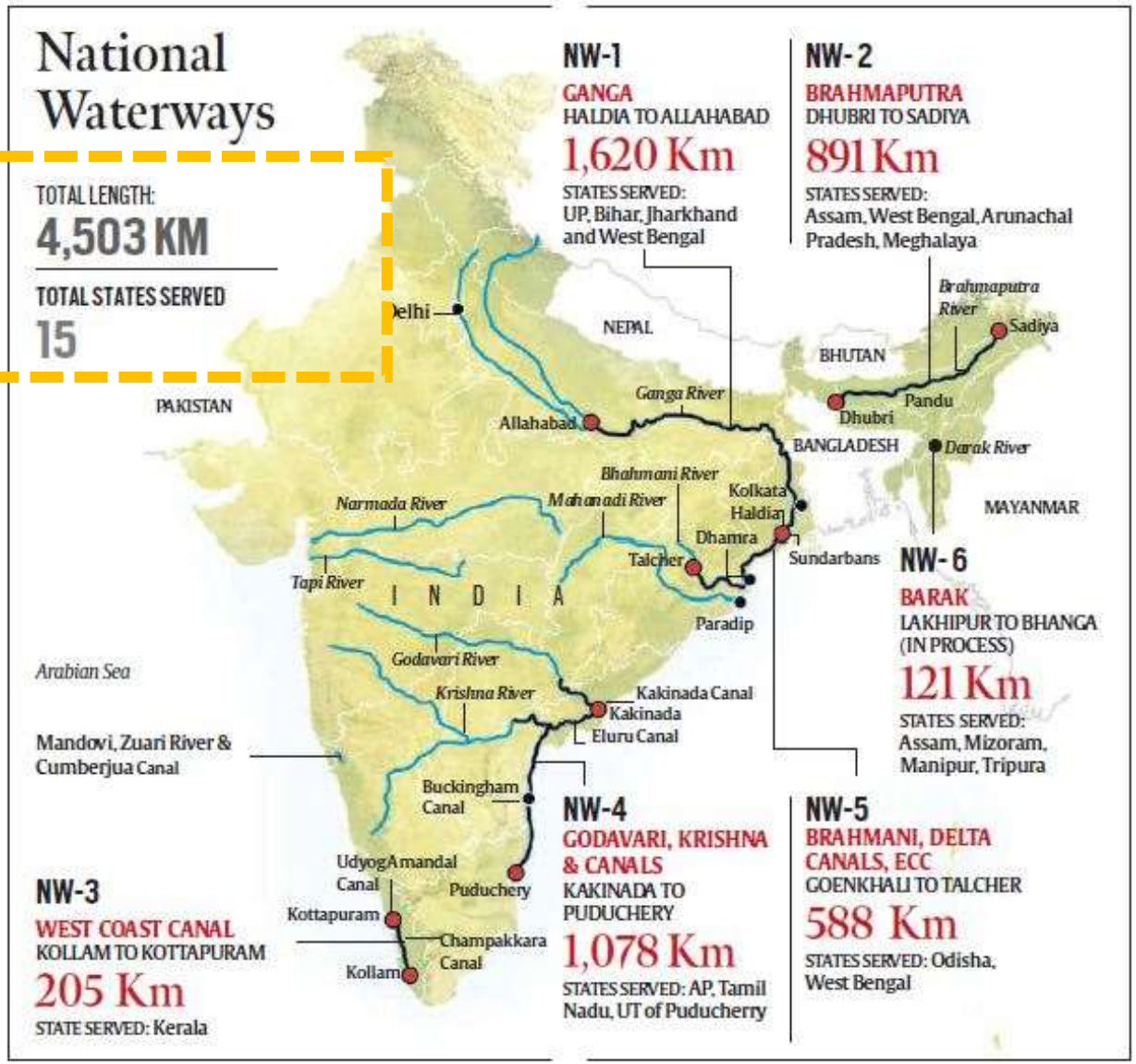
What are the options of transport that comes to your mind when you hear the word “Intermediate Public Transport” within a city?

INLAND WATER TRANSPORT SYSTEM

- ***Travel Distance and Travel time saved:***
- ***Maximum Asset Utilisation:***
- ***Reduction in cars on road hence reduction in pollution:***
- ***Cost-effective and sustainable:***
- ***Benefits of converting to solar powered panels:***

KERALA'S SOLAR POWERED INLAND WATER TRANSPORT SYSTEMS

- *India's first solar powered ferry successfully was launched in November 2016 .*
- *The battery chemistry used for the same are LFP (Lithium Iron Phosphate) and LTO (Lithium Titanium Oxide).*
- *The Ferry is 20-Meter-long and 3.7 Meter height with a 7 Meter beam, with 75 seats capacity*
- *They have also managed to have savings per year as high as 35,000 US dollars per year.*



https://iasbaba.com/2015/09/iasbabas-daily-current-affairs-24th-september-2015/

NATIONAL LEVEL RECOMMENDATIONS:

- **Identify geographical location** with high potential to **deploy electric and solar powered boats**,
- Develop plan for necessary **basic infrastructure** to support IWT,
- **Create awareness** to develop whole ecosystem, which include **manufacturing,** etc.
- Needs to **rethink on City Mobility plans, City Development Plans, Policies** such as FAME etc.
- There could be a **IWT committee** that has a bottoms up approach, who would take the suggestions from the states and then make national level policy reforms.
- **Encouraging** new entrepreneurs, start-ups, research and academia to do more on IWT.
- Ensure **safety, reliability, resilience, affordability** and trust in these IWTs
- **IOT** could be introduced so that people have **information** about these IWT's ETA,ETD etc.
- There needs to be more thinking on how to **integrate IWT with other modes of transport** to make **clean, seamless and smooth door to door connectivity** in cities.

THANK YOU!!!

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