

Urbanisation & Smart Cities **India**

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URBANSIATION

Overview

- 2/3 of national GDP comes from urban India
- There are about 8,000 cities and towns in India
- Share of urban population in 2011 was 31%
 - 50% in China, 78% in Mexico, 87% in Brazil
- Megacities - Delhi, Mumbai, Kolkata
- Every minute for next 20 years, 30 Indians will migrate to cities
- By 2050, 70% Indians will live in cities

URBANISATION

Challenges

- shortage of 26 mn. houses (2012)
- Cost of houses too high for majority of lower income groups
- 25% of urban India dwells in slums
 - Limited or no water supply, sewerage or lighting
- Continuous piped water only in a few cities
- public transport is scarce
 - Only 500 cities have public transport
- Sewage treatment well below 50% for most cities
- Very large number of towns do not have ULBs (Urban Local Bodies)
 - ULBs short of resources

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Government Initiatives - Rural Employment Scheme

- MGNREGS - Rural Employment Guarantee Scheme
- Wage employment for 100 days in a year
- Since 2006 around USD 25 bn paid as wages
- Number of person days paid
 - 2012-13 2.3 bn
 - 2013 -14 1.6 bn

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Government Initiatives - JNNURM

- 2005-2014 - provisions for urban poor
- Investment of more than USD 20 bn
- Reform linked funding
- Focusing on
 - Housing
 - Water supply and sanitation
 - Urban transport
 - More than 14,000 ITS enabled buses procured
 - Road network
- Project completed 227 out of 538
- To be replaced with a new mission



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Urban Mass Transit

Public Transport

- City Bus Services
 - Owned by ULB
 - On PPP models (Bhopal, Raipur, Jaipur)
- BRTS - Bus Rapid Transit Systems
 - 9 cities have BRTS
 - Successful only in Ahmedabad
- Metro - U Bahn
 - Delhi, Kolkata, Bangalore, Gurgaon, Mumbai
 - Covering 250 km
- Monorail
 - Mumbai Monorail

go international



URBANISATION

Metro Projects (U-Bahn)

- Operational - Delhi (190 km), Kolkata (28 km)
Bangalore (16 km), Mumbai (11 km)
- Under construction
 - Delhi Metro Phase III (140 km)
 - Mumbai Metro (USD 4,43 bn.)
 - Bangalore (USD 1,41 bn.)
 - Kolkata East West (14,7 km)
 - Chennai (45 km) and Hyderabad (72 km)
- Projects in pipeline - USD 35 bn
- 9 projects on PPP
- Planned Ludhiana, Pune, Jaipur, Lucknow, Nagpur others
- Operational network by 2022 - 1,783 km



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Monorail Projects

- Mumbai - Phase I operational (USD 450 mn.)
- Planned Projects - 216 km, USD 3,5 bn
 - Mumbai Phase II
 - Kozhikode
 - Thiruvananthpuram
 - Delhi
 - Bangalore
 - Chennai



URBANISATION

Opportunities - Urban Mass Transit

- Rolling Stock
- Signalling and Train Control Systems
 - CBTC System
- Fare collection Systems
- Intelligent Transportation System (Buses)
- Lifts & Escalators
- Tunneling System

URBANISATION

DMIC - Delhi Mumbai Industrial Corridor

- Mega infra-structure project of USD 90 billion
- Developing Industrial zones across six states
- Manufacturing as the key driver
- 24 manufacturing cities planned
 - Dedicated freight corridor of 1,483 km
 - 4,000 MW power plant
 - Three seaports
 - Six airports
 - Sustainable development concept

- Expected to better the lives of around 180 mn people



SMART CITIES

Global perspectives

Definition

- Governance
- Energy
- Homes and Buildings
- Mobility
- Infrastructure
- Technology
- Healthcare
- Citizen

Smart Cities

- Barcelona, Hamburg, Rio de Janeiro, Amsterdam

SMART CITIES

Smart Cities - Indian perspective

- No smart-city identified as of now
- The government plans to identify
 - 20 smart cities in 2015
 - 40 in 2016
 - 40 in 2017
- Cap of two-three smart cities per state
- To choose 100 from 4041 towns and cities
- PPP as the funding model
- 500 cities rejuvenation also included
- Funds needed in 20 years - USD 650 bn

SMART CITIES

Smart Cities - Indian perspective

- Countries showing potential interest
 - United States
 - Visakhapatnam, Ajmer and Allahabad
 - Japan
 - Varanasi
 - Singapore
 - Vijaywada-Guntur
 - Australia, Germany, Sweden, France
- Smart cities in the making?
 - GIFT
 - Lavasa

SMART CITIES

Opportunities - New urban services

- Open Data & Applications
- Water Management
- Smart Lighting
- Traffic Management
- Smart Parking
- Video Surveillance

THANK YOU!

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