

# Urban India 2050: e-governance, smart cities and butterfly effects

Jagan Shah

Director, National Institute of Urban Affairs,  
India Habitat Center, Lodi Road, New Delhi-110 003, India

\*E-mail: [jshah@niua.org](mailto:jshah@niua.org); +91-(0)9810215768

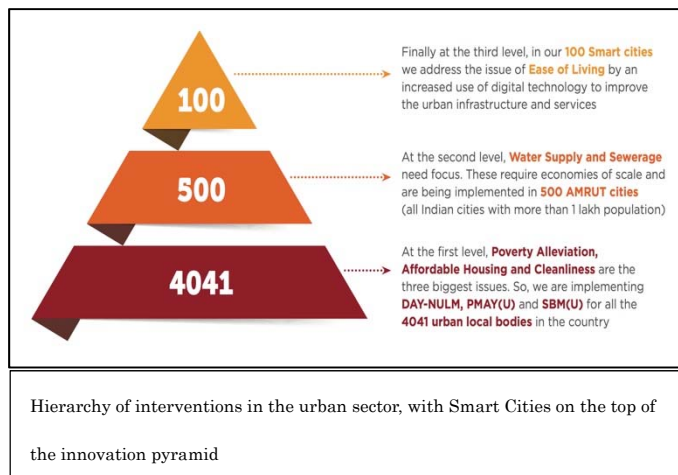
Key words: e-governance, smart cities, digital technology, mapping, data analytics

Indian cities suffer from chronic shortages of essential services like water supply, sanitation and public transportation and inadequate and inefficient management. As result, the quality of life and the quality of the environment in Indian cities has deteriorated. Most cities are unable to plan and execute projects on time and within budget, and this inefficiency is imposing a cost on the development of the country's society and economy.

The impact of digitalization & data science and the proliferation of information & communication technology (ICT) poses a unique and unprecedented opportunity for India at a scale that analog systems cannot possibly achieve. Combined with Geographical Information Systems (GIS), ICT can provide effective solutions for improved governance and urban management. India needs such solutions to be replicated and scaled with speed and assurance across 4041 official cities and more than 7000 urban settlements, which are subject to the ever-increasing pressures of resource depletion and impacts of climate change.

We analyze the chronic challenges of urban governance in India to explore the premise and theory behind the Smart Cities Mission of the Government of India, an intervention strategy for radically altering the prevailing systems. Rather than incremental changes, the Mission envisages a transformation of the urban sector, which rests on the successful introduction of e-governance. Digitalization of processes and widespread use of ICT and GIS is expected to bring convergence across 'silos', transparency, accountability and greater speed of implementation.

100 'smart cities' are presented as the vehicles of government transformation, as the exemplars that create butterfly effects across the entire urban sector.



## References

- 1) Jagan Shah, 'The Advent of Smart Cities in India', *Asian Research Policy*, Vol. 9, Issue 1 (2018). (<http://www.arpjournal.org/usr/main.do>)