

The term 'Smart City' in an era of rapid urbanisation has become immensely fashionable in the policy arena. However, the interpretation remains quite vague, varying from being a digital city, swanky roads and metros rails, down to developing a Knowledge Park within an existing city.

Very few ideas have evoked as much global interest and support as Prime Minister Sh. Narendra Modi's intention to create 100 new 'Smart Cities' in India, a country which houses one in every six human beings on the planet. From London to Dubai and Seoul to Tokyo – 'Smart Cities' is the flavour of the season.

While the Smart City concept has varied dimensions and facets, it is imperative to focus on key parameters, essential to the 'Right to Live', which is as much a birthright, if not more, of every Indian citizen. A Smart City ideally should have a well-designed and inclusive infrastructure for transport, accommodation, trade and commerce, education, water, food and healthcare, knit together by a well laid state-of-the-art IT network. This should aim to act as an 'autobahn' for integrating each and every aspect that is relevant to and touches human life. Besides adequate employment opportunities, a Smart City must offer a safe and secure environment to its inhabitants. Integration of all these parameters would ensure sustainability and enable every business enterprise to become self-sufficient. Smart Cities should focus on managing complexity, increasing efficiency, reducing expenses and improving quality of life. Complex ICT networks geared to provide savings in time and energy and provide higher reliability would be in place.

A Smart City is a combination of smart economy, smart mobility, smart people, smart living, smart governance, smart environment and smart money. In such cities, technologies make the disparate strands of everyday life sync with each other. Network of ultra-sensitive low power sensors, wireless networks and mobile-based applications, intelligently interpret and trigger responses to provide a seamlessly better quality of living experience. Seamless

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transacting using cash free methods like plastic money, e-wallets and e-money will be the order of the day.

The current inability of our cities to attract investment in infrastructure required for building and retaining talent, is leading the creative minds to spatially cluster and converge in urban centres within the country. It also leads to irreversible brain drain that contributes to the development of the so called developed countries of this world. The new government's intent to build 100 new cities is a massive opportunity for it to showcase its vision, capability and commitment. It seems like the 'Right to Live' that every Indian citizen has traditionally been deprived of and yearned for may finally be a reality. However, lack of planning and/or incompetent or lax implementation of a plan may lead to an indefinite delay in realising the dream. The inclusion of each of the aspects is critical to fulfill the ever-evolving needs, lifestyle and aspirations of an Indian citizen, especially the new generation that is entrusted with the task of leading India towards 2050.

It is heartening to see that the role of professionals and subject matter experts in preparing this urban blue print and road map has clearly been understood. However, these professionals must have in-depth understanding of the dynamics of local geo-political and social context, without which they may lose track and relevance. Developing redundancy of information and disaster management plans that include emergency and response measures is an indispensable aspect of creating Smart Cities.

Special focus has to be laid on building safe drinking water dispensing points supported by sanitation and suitable water infrastructure, adopting better food storage techniques to preserve quality and nutrition, energy management, development of integrated multi-modal safe and secure transport infrastructure, structural fire and life safety and prevention and mitigation against natural and man-made disasters. Above all, adopting a customised approach to physical and electronic security after understanding the threat, vulnerability and risk associated with every district/region is most essential.

'Resilient' Smart Cities

'Resilience' is best defined as the capacity of individuals, communities, institutions, businesses and systems within a city to survive adapt and grow despite the chronic stresses and shocks they face. Simply put, resilience enables people to live better in good times and bounce back stronger after shocks, stresses and emergencies. The focus is to preempt catastrophes as well as shape responses to it.

Our Smart Cities must be designed to be resilient to physical, social and economic challenges, address emergencies (like earthquake, fire and floods) and stresses (unemployment, inefficient transport, road rage and violence, food and water shortages

and waste disposal). The city must be able to respond to adverse events and overall be able to deliver basic amenities and services in good and as well as bad times to all citizens.

Smart Cities internalise and learn from past-experiences and innovate new solutions. They rebound rapidly after disruptions, and prevent failures from ripping into systems. They cater for spare capacities and resilience resources and have flexible strategies and high standard of preparedness to respond to any kind of situations.

Kyoto – Varanasi Partnership – Sign of the Times to Come

Prime Ministers Shinzo Abe and Modi witnessed the signing of a historic partner city affiliation agreement between Varanasi (Kashi) and Kyoto for heritage conservation, city modernisation and culture. Varanasi would be India's first 'heritage smart city'.

Kashi-Kyoto – A Marriage made in Heaven?

Varanasi faces a number of challenges. Its basic infrastructure is inadequate and crumbling. The roads are potholed, traffic is a nightmare and the environment is polluted. River Ganges, its lifeline, remains heavily polluted and ghats are poorly maintained. The urban development has been haphazard, waste disposal is inefficient, corruption remains endemic and the city has not cashed on its tourism potential.

In contrast, Kyoto (city of ten thousand shrines) in Japan, has successfully balanced age-old culture, tradition and infrastructure with modern amenities and new technology. Kyoto would inspire Varanasi's journey to a Smart City without diluting its heritage, culture and legacy. The main pillars of Kashi modernisation would be: smart, integrated habitat factoring in Kyoto experience and Indian ground realities, revamping and cleaning of streets, taking wires under-ground, managing solid waste efficiently, providing facelift to ghats, treating effluents adequately, overhauling drainage, creating high capacity water treatment plants, constructing new roads, bridges and flyovers, including a ring road. Development of a Greenfield city across the Ganges, multi-modal public transport (road, metro, rail and water), education and skills, sustainable practices, enhancement of cultural heritage, organised tourism, smart governance, aware people and sustainable revenue models would be central to the programme.

From 'Look East' to 'Act East'

Prime Minister Modi's high profile five-day visit to Japan in from 30 Aug to 03 September 2014 marked the beginning of an important strategic shift in India's policy towards East Asia. Japan has committed USD 33.5 billion in investment infrastructural programmes including smart cities and bullet trains.

Modi's intention to create 100 'smart cities' has evoked global interest. Smart cities would

offer better life and focus on people, housing, transport, communications, water, energy, waste management, education, healthcare, safety, security, environment, business, commerce and livelihood. Japan, Singapore, China and developed countries have evinced interest in engineering/re-engineering smart integrated urban habitats in India. Home grown talent is in abundance.

Conclusion

Re-engineering of urban, rural, agricultural, industrial, digital and financial infrastructure would be a game changer. India's new government has thus far shown great urgency to convert the Prime Minister's vision and policy statements into specific frameworks, initiatives and projects. Jan Dhan Yojna has already enabled millions of bank accounts in less than a week. Modi's call to provide separate toilets for boys and girls in each of India's schools has received unanimous support from corporate India.

Kashi-Kyoto represents the beginning of a nation-wide 'Smart Cities, Smarter India' movement. Properly implemented, Modi's programmes could transform the lives of millions in rural and urban India.