International Journal of Academic Research
ISSN: 2348-7666; Vol.3, Issue-7(4), July, 2016
Impact Factor: 3.656; Email: drtvramana@yahoo.co.in

Smart Cities - Future Perspectives: A Review

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Abstract: *The idea of a smart city with gated communities and overcrowded informal settlements seems incongruous. Twenty six percent of households in urban India use dirty or unclean fuel like fire wood, cow dung cake etc.; this is not a smart energy choice since use of dirty fuel contributes to indoor air pollution. Any city or town aspiring to be smart needs to work on ensuring that the basic physical infrastructure is in place. It is only after that can technology help in stemming leakages and facilitate differential pricing. As the new government envisions a 'smart' urban future for India, it is perhaps the right juncture in time to reflect on the challenges we start with and the capacity needed for future proofing our cities.*

Key words: *smartness, smart city, Urban Commons*

Introduction

Smart city has become a buzzword, thanks to our Prime Minister Narendra Modi's Vision of creating 100 smart cities. The Kyoto-Varanasi partnership agreement that was signed during the P.M. visit to Jaipur has only increased the curiosity about smart cities. Before we look at Indian smart cities, let us understand the global scenario. By 2050, 70% of the world's population will live in cities. It is established cities directly contribute in increasing national G.D.P. and also improved productivity and innovation. The concept of smart cities is aimed at solving the rapid urbanization challenges. Using information and communication Technology (ICT) as the core focus, smart cities are expected to combine a sustainable future with continued economic growth and job creation.

Smart cities can be created by adding "smartness" into existing cities or building new cities with best in-class physical infrastructure and internet connectivity. Examples abound on the smart city initiatives in Singapore, Spain's Barcelona and South Korea's Songdo. In fact, China plans to move over 250 million people to smart cities by 2025.Singapore, which already boasts superlative infrastructure, is taking "smartness" to the next level and aims to become the first "Smart Nation", through the Smart Nation Platform. Essentially, a plan in improving policy making and implementation along with a seamless feedback mechanism from the citizens to help in continuous improvement and providing better quality of life to the people.

The importance of cities and urban centres has been growing in India's economic development during the post liberalization period. In the earlier budget presented on July 10th, 2014, the Union Finance Minister made a budgetary allocation of Rs.7, 060/- crore for 100 smart cities. The Minister spoke of the "Vision of developing" 'one hundred smart cities', as satellite towns of larger cities and modernizing the

existing mid-sized cities". Before we get too far a head into the story, it should be noted that despite the world wide buzz over building smart cities, there exists no clear definition of a smart city. The fact is that there are many interrelated notions that have been floated in the context of cities. These include creative, cyber, digital, e-governed, entrepreneurial, intelligent, knowledge, wired etc., These notions are not necessarily mutually exclusive since harnessing the power Information and Communication Technologies (ICT) is integral to each of them. The notions of using ICT for development is also articulated in the Millennium Development Goals (MDG) . In fact, one of the targets for tracking progress in the eighth MDG relates to co-operating with the private sector and making available the benefits of new technologies, especially I.C.T.s.

Design and management:

Smart city would be e-governed, aim for continuous improvements in design and management, plan for climate oriented development, ride on benefits of automation and develop applications for its residents. To begin with, making a city smart would require it to develop people centric technological applications. The notion of harnessing the power of ICT for development and in particular for improving transparency and governance is not new in India and this idea predates the idea of building smart cities. The vision of national e-governance plan is to "make all government services accessible to the common people in their locality, through common service delivery outlets, and ensure efficiency, transparency, and reliability of such services at affordable costs to realize the basic needs of the common people" . The effective roll out of this plan across the 4041 statutory towns, 3894 census Towns, 475 Urban Agglomerations.

What is being suggested is that it should be about achieving convergence of various initiatives to ensure that every rural habitation, future town is becomes smarter. This approach can be thought of as bottom up planning for future urbanization, a preemptive strategy aimed at planning for growth rather than a reactive strategy in the face of urban sprawl. Today, most measure taken by the government are reactive than proactive. Delivering the Yousuf Meherally Memorial Lecture in September, 2011 Vice-President M.Hamid Ansari spoke of the challenges in improving urban governance and service delivery. Two issues raised by him are relevant in this context. The first point made by the Hon'ble Vice President is that "The scale of investments and choice of projects to direct them have been subject to political pulls and economic pressures. While some critics speak of "elite capture" of our urban spaces and indeed of all "Urban Commons", others bemoan that exclusionary "urbanization is benefitting certain social groups to the detriment of others and directing resources to large metropolises depriving small and medium towns of funds needed for infrastructure and essential services". Secondly, he mentioned that "our urban spaces and governance mechanisms have become the theatres for political conflicts and economic struggles. Our urban spaces have also been used for promoting reforms as well as for contesting such reform measures. Not only does the government need to address the lack of basic services for the current residents, the planning also needs to factor in

future population growth. In fact, the city development plans prepared as part of the Jawaharlal Nehru Urban Renewal Mission do not have reliable estimates of the future population growth of cities. This brings us to the next component of a smart habitation and this relates to the built up environment and ensuring access to basic services.

Statistical back ground:

According to Indian census of 2011, a total number of 13.75 million house holds live in the slums, i.e., 17 percent of India's urban house holds lived in slums. It would be higher if one was to generate estimates of urban households living in slum like conditions. In 2011, 63 percent of the 4,041 statutory towns reported having slums. The idea of a smart city with gated communities and over crowded informal settlements seems incongruous. Twenty six percent of house holds in urban India use dirty or unclean fuel like fire wood, cow dung cake etc., This is not a smart energy choice since use of dirty fuel contributes to indoor air pollution. Any city or town aspiring to be smart needs to work on ensuring that the basic physical infrastructure is in place. It is only after that can technology help in stemming leakages and facilitate differential pricing. So, in this context of urban India , it would require smart thinking to improve the access to water, sanitation and other dwelling characteristics.

Strengthening rural urban connectivity:

Currently, in percent terms, around 31 per cent of Indian live in urban location which is low compared to many similarly placed countries: 45 percent in China, 54 per cent in Indonesia, 78 per cent in Mexico and 87 per cent in Brazil. Many believed that India would be catching up fast and is set to urbanise at an accelerated pace. There are projections that by 2031, about 600 million Indians would live in cities.

This projected high urban population has many implications for Indian growth strategy but first; let us settle an important question. Should we welcome the accelerating urbanization including rural urban migration or see it is a failure of policy which needs to be corrected ? As observed by Dr.Ahluwalia, correlation between urbanization and growth is quite straightforward and has been amply documented as near universal international experience. Densification of habitation and economic activity generates efficiencies by exploitating economy of agglomeration. This allows for faster creation of wealth. If nurtured properly through appropriate policies and incentives so that costs imposed by congestion do not nullify the gains of agglomeration, poor may become partner to such wealth creation leading to inclusionary growth.

In a sense the increasing attention to urbanization is a pointer to the unfinished agenda of the Indian growth history. Way back in 1954, when Arther W.Lewis first published his " Lewis model" of economic growth, at the risk of oversimplification, it may be said that Indian quest for transition from a poor and subsistence economy to a rich and modern one in the period of a few five year plans got translated into two sub-goals: to susbstantially raise the rate of Gross Fixed Capital Formation to ensure expansion of the modern sector and to ensure transition for its surplus labour from subsistence sector to this fast expanding modern sector.

Government Initiation:

The recent Union Budget and the policies of the new government have once again established planned and well serviced urbanization as the chosen path to rapid economic development for India. Infrastructure, technology and 'smart' urban development has been put high on the agenda of growth. The every day experience of over croweded, chocotic and polluted cities with failing infrastructure and inaccessible governance institutions makes urban planners a natural scapegoat for blame . The solution then lies in better, future proofing' or making plans that cater to real projections of growth and with an equitable and fair planning for all. Future proofing in this context means plans that reflect the needs of the future in a realistic and reliable manner, while being representative of the challenges of the present.

High Powered Expect Committee (HPEC Report) :

A recent report on Indian Urban infrastructure and services (HPEC Report, March, 2011) finds that there is a backlog of 50 to 80 percent in investment on urban infrastructure in most cities in India. The estimated investment required in urban infrastructure is of the time of Rs.39.2 lakh crores in the period 2012-31. This accounts for increasing the spending on urban infrastructure from 0.7 per cent in 2011-12 to 1.1 per cent by 2031-32. The report goes on to say that the backlog of investment is not only in terms of physical infrastructure but the need for upgrading governance and service delivery in urban areas. The recent and significant reports on the status and expected growth of cities in India viz. Mc Kinsey Global Institute's India's urban awakening 2010. HPEC Report on Indian urban Infrastructure and services 2011 and the Ministry of Urban Development's National Mission on substainable Habital Report, 2010 concur on the key institutional challenges for urban planning in India. All three reports conclude that urban planning in India is plagued with fragmentation, centralization and an out dated focus on land use planning. The fragmentation starts with the separation of the Ministries dealing with urban Development , Housing and Poverty Alleviation. Despite the intentions of the 74th constitutional Amendment, 1992 the function of making plans has still not been decentralized to urban Local Bodies, making planning a technical exercise conducted by state planning authorities and departments. Integration of the siloed and mainly physical master plans with other infrastructural plans. Implementing line agencies of the state have little or no input to the land use plans being made. Social Development goals such as the Jawaharlal Nehru Urban Renewal Mission (JNNURM) is a step in the right direction but still a long way to go for achieving decentralized and integrated planning by urban Local Bodies.

As the new government envisions a 'smart' urban future for India, it is perhaps the right juncture in time to reflect on the challenges we start with and the capacity needed for future proofing our cities. It is important to stress here that a 'Smart City' model for India cannot be limited to the high-tech avator being implemented in Europe and South East Asia. A smart urban future for India would have to be technically advanced, socially inclusive and economically diverse.

Until liberalization of the economy in 1991, the function of urban

planning was mainly the domain of state agencies. However, retraction of public functions especially from sectors such as housing and land development after liberlisation opened up the field for a wide and diverse range of factors. Private property developers, public private partnerships, international real estate players, professional consultances, single window industrial development agencies, private service and infrastructure providers and civil society actors such as N.G.Os and INGOs are just some of the stake holders in urban development-all of which employ and work with planners. While all these stake holder influence the course of urban development, public planning agencies still make 5 and 10 year Master plans. This form of land use planning has long been abandoned in most parts of the world and liberalized nations such as the U.K. and Netherlands have completely abandoned the practice. Instead, strategic and multisectoral plans are made that guide physical development. Physical planning is done by private developers, negotiated with urban Local Bodies on a Project basis. The only city level planning that takes place is integrated land use and infrastructure planning that determines land use and urban structure at a very large scale.

Conclusion:

To say that Indian cities deserve more investment and a better governance structure is nothing new. How ever , hitherto, the prime argument has been the dismal level of service delivery in Indian cities. The preceeding discussion shows that case for sufficient urbanization is much more stronger from the point of view of achieving a faster and inclusive growth. In short, cities need to emerge as 'engine of inclusive economic growth'.

The Government has identified four corridors-Delhi-Mumbai, Bangalore-Chennai, Amrit-Kolkata and Vizag-Chennai-for building smart cities. Details from the urban development minister M.Venkaiah Naidu has indicated that the state governments will play a dominant role in the formation of smart cities. A recent news report estimates an annual funds requirement of Rs.35,000 crores for the smart cities. We will require India specific measurement criteria and a smart city index reflects the basic infrastructure and how "smart" a city is. Also, it is important that rural areas closer to the smart cities directly benefit from the new infrastructure. Building new cities is necessary, however it could take decades to complete. Hence, the government must focus on improving basic infrastructure in the existing cities and towns. Once we have the basic infrastructure, " Smartness" can be added through I.C.T.- creating surveillance systems for public safety, providing efficient emergency services, adding intelligence or improving e-governance.

Finally, we need a change in our mindset to appreciate and safeguard public property. It is appalling to see educated people being indifferent. A sustained awareness campaign needed starting with the schools to enforce the right attitude. More interactive sessions with bureaucrats or ministers on the lines of the recently held PM – students session can help reinforce the message. Most importantly, we need to demonstrate improve civic sense for building a smart India. Urbanisation creates efficiencies by compressing spaces and bringing together the productive

forces which helps in the growth process. However, careful planning is required if the cities have to become centers of productive enterprise, hub of creativity and spaces of shared abundance. Infact, exploring the possibilities of the organic growth of a city and integrating it with the vision of a modern habitate could provide us the blue print for cities of the future.

References:

1. Bhagat RB and Mohanty S, *"Emerging pattern of urbanization and the contribution of Migration in Urban Growth in India"* Asian population studies, Vol.5, No.1, 2009.
2. Bose, Ashish, "*India's Urbanisation*" (Second revised edition), Tata MC Graw Hill Publishing Company, New Delhi, 1980.
3. Rama Chandran R, "*Urbanisation and Urban Systems in India*", Oxford University, New Delhi, 1989.
4. Shaw Annapurna, "*Urban Policy in Post-Indipendent India An Appraisal*", Economic and Political Weekly, January 27, 1996.
5. High Powered Expert Committee (HPEC), "*Report on Indian Urban Infrastructure and Services*", Ministry of Urban Development , Government of India, 2011.
6. Graham S, "*Bridging Urban Digital Divides: urban Polarization and information and Communication Technologies*", in Urban Studies, 2002.
7. Eger J, "*Smart Communities: Becoming smart is not so much about developing technology as about engaging the body politic to reinvent governance in the digital age*", in urban Land, 2003.
8. Mahadevia, Darshini, "*Branded and Renewaled Policies, Politics and processes of urban Development in the Reform Era*" , Economic and Political Weekly, Vol.XLVI, No.31, 2011.
9. Mc Kinsey Global Institute, "*India's Urban awakening: Building inclusive cities",* Sustaining Economic Growth, Mc Kinsey and Company, India, 2010.
10. *Report of the National Mission on sustainable Habitat* (NMSH) Ministry of Urban Development, Government of India, 2010.
11. Indian Express, Daily News Papers, 22nd September, 2014.