

Chapter 7

CONCLUSION

7.1 Unprecedented migration from rural to urban areas has necessitated the creation of Smart Cities. Their development is perhaps the only solution to the problem of unplanned urbanisation. The new government's proposal and will to make 100 smart cities, for which ₹ 7600 crore was allocated in the annual budget of 2014-15 is part of the vision. According to a report by Resurgent India titled Smart Cities by 2050 about 70 % of the population is expected to be living in cities. India will need about 500 cities to accommodate the influx and smart cities offer practical tool box to deal with unprecedented urbanization. Urban Migration and the physical expansion of cities and Metropolitan areas are adding immense pressure on energy resources, environment, infrastructure, sanitation health care, public funds and other basic facilities utilities. Cities world over are facing issues of congestion and pollution while steep real estate prices lack of access to affordable housing are leading to the creation of sensible instability. In developing and growing cities Governments are struggling to match the city infrastructure to accommodate the rapidly growing population. Cities with a declining rate of growth and consequently declining tax revenues are forced to deal with obsolete infrastructure and systems. Therefore, there it has become imperative that the issue of urbanization is tackled keeping in mind the futuristic needs that technology and society are veering towards.

7.2 Perceptions of smart cities vary from economies to economies as discussed earlier in previous chapters, however many cities claim the smart tag even though most of their initiatives are centered on green concepts. Cities launch initiatives to cover areas with high fiber optic broadband network to become smarter. However even though all of the above improve things, it is not an exact definition of smartness. There are many sustainable and green initiatives taking place all across the world but cities implementing the changes are often failing to leverage information and communication technology (ICT). What make Smart city different from sustainable cities or

eco friendly cities is its emphasis on creating connections and systems not only between millions of smart devices present in modern day cities but also between business, public sector ,knowledge institutions and inhabitants of the city besides providing host of employment opportunities with rapid physical mobility . It provides feel good factor and enables to quench modern day human aspirations.

Possible Business Models

7.3 Ideal model to develop Smart Cities in India would vary, it could be either Build Own operate (BOO) , Build Operate and Transfer BOT , BOM or open business model , BOO means that the smart city planner independently build the city infrastructure and deliver smart city services . The operational and maintenance of the services is entirely under the planners control.

7.4 BOT Model requires the planner to appoint a trusted partner to build city infrastructure and provide smart city services for a particular area within a time period. After completion the operation is handed over to Smart City planner/Manager.

7.5 Build operate manage, in this model the planner appoints a trusted partner to develop the city infrastructure and services. This partner also operates and manages the smart city services. The city planner acts as a regulator only to monitor and regulate city management. Most of the PPP are built on this model and it is anticipated that most of the Indian cities will be built on this model which is author's assessment.

7.6 Open business Model, in this the planner allows any qualified company or business organisation to build city infrastructure and provide city smart services .Some regulatory obligations are imposed by the planner. Most services are financed by the central government or cities. However funding can come by via specific funds for urban development /smart city initiatives. FDI could also be an appropriate model in Indian context.

7.7 To summarise following are the parameters of a smart city in Indian perspective :-

- (a) Smart Governance: Includes policies and digital services from government that help adopt green and intelligent solutions through incentive subsidies etc.
- (b) Smart Technology: Connects the home, offices, mobile phones and car on a wireless IT platform. It includes adoption of Smart grid System, smart home solutions and high speeds broadband connection and perhaps 4G technology graduating to 5G.
- (c) Smart Citizens: Must embrace smart and green solutions in daily activities. Be proactive in adopting smart concepts and smart products and smart life style.
- (d) Smart Energy: Uses digital technology through advance metre infrastructure (AMI), distribution grid management and high voltage transmission systems for intelligent and integrated transmission and distribution of power.
- (e) Smart Mobility: Enables intelligent mobility through innovative and integrated technologies and solutions, such as low emissions cars and multimodal transport systems.
- (f) Smart Health Care: Use e-health and m-health systems and intelligent and connected medical devices. Policies to encourage health wellness and well being for citizens and health monitoring and diagnostic as opposed to treatment.
- (g) Smart Buildings: Are green, energy efficient and intelligent with advanced automated infrastructure that control and manage lighting temperature security energy consumption independently.
- (h) Smart Infrastructure: Has intelligent and automated systems to manage communicate with, integrate into intelligent infrastructure. Energy grids, transportation networks , water / waste management systems ,telecommunications