

Strategy for Smart City Development

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Abstract— Initiatives to set up 100 smart cities in the country by 2022 are underway and being implemented at a very faster pace. With the aim to strengthen and revitalize the urban local bodies the government has introduces a city challenge system for selecting smart cities on the basis of urban amenities, demographic profile and financial situation.

India is the third largest Economy in the world in terms of purchasing power parity (PPP) with a 6.4% share of worldwide gross domestic product (GDP) on a PPP basis. The country also ranks second in terms of population, with more than 1.2 billion people, out of which, nearly one-third are urban dwellers. The urban population in the country has increased from 17.3 % in 1951 to 31.2% in 2011. Over the last decade Indian cities have witnessed a high rate of Urbanization with Delhi leading the race, registering a growth rate of 4.1%, followed by Mumbai and Kolkata with growth rates of 3.1 % and 2.1 % respectively (2).

The new Indian government has taken cognizance of this accelerating expansion. Investments required to stabilize, augment as well as build a robust infrastructure are at the forefront of the governments agenda. The objective of this Knowledge paper is to provide an overview of the opportunity landscape for smart cities in India as well as facilitate Global solution providers to take stock of the current situation and support the Indian government's Smart city initiative. A strong and stable democratic government coupled with the relatively free play of market forces today makes India the most Attractive Investment destination. It would also be imperative to have smart leadership not only at the national level but also at the local municipal level who can take bold decisions in every urban area and more importantly , smart people who are willing to support smart leaders for bringing the necessary change and to implement the plans.

Keywords:- ICT, SPV, MoU, ULB, GIS, GDP, FAR, SEZ, CCTV

I. INTRODUCTION

Smart city, digital city, wireless city and future city are sometimes terms that are used synonymously. From this starting point, it also is evident that interpreting smart city projects as technology projects alone would be a mistake. It is projected that in the next 15 years, urban India will contribute nearly 75% of the national GDP. There is an immediate need for cities in the country to get smarter so as to deal with large-scale urbanization and find new ways to manage complex processes, increase efficiency and improve the quality of life for citizens.

With various announcements and budgetary allocations, the Indian government is increasingly focusing on the creation of various smart cities, Industrial corridors and several rejuvenation projects in order to address rapid urbanization. This opens up several avenues in planning, execution and management of each of the components. Rapid urbanization brings major implications for business as they refocus their offerings, marketing and distribution models towards an increasingly urban consumer base with distinct needs and consumer habits.

Each project under the new government will create opportunities for foreign capital to enter into new territories. In

order to ease the entry of large foreign investments into projects, the government provides with the single window system. Also, many of the proposed smart cities are either designated as special economic zones (SEZs) or will house SEZs in them, and thus, will be geographical enclaves who will have many exemptions from the regular tax laws, customs and excise duties and labour laws. Therefore, the promotion of the new initiatives such as smart cities can be seen as an effort by the Indian government to promote international corporations to invest and operate within sanitized spaces, bypassing the multiple complexities that otherwise characteristics urban India.

Existing cities with historically grown infrastructure and administration system will require a more moderate step – by – step approach to modernization. While the potential contribution and benefits of information and communication technology to modernization can be considerable, smart city projects should never be seen in Isolation, but as one element in a city's continuous effort to find the next best way of operations.

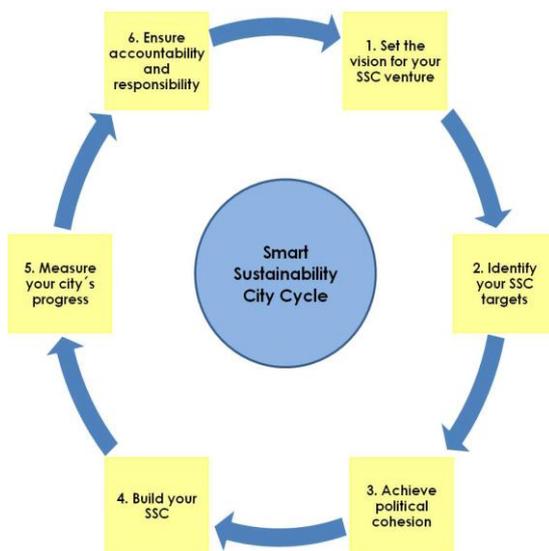
For the city administration it will be a challenge to add new services without too much interference with the regular city management procedures, for the government it will be

challenge to upgrade a vital part of the infrastructure to next generation technology.

II. METHODOLOGY

The Indian government's mission to roll out 100 smart cities across the country is a national priority. These 100 smart cities will leverage innovation and technology for e-governance and digital India initiative. Also they will focus on employment generation, Involve citizens in decision-making and policy execution, as well as improve the quality of life. Moreover with renewed efforts for clean and green India, these upcoming smart cities on the Swachh Bharat initiative and zero emission. With an aim to strengthen and revitalize urban local bodies (ULBs), the government has introduced a city-challenge system for selecting smart cities on the basis of urban amenities, demographic profile and financial situation especially the portion spent on municipal salaries (2)

Smart and Sustainable City transition cycle



Strategy recommendation to government to successfully fulfill the dream of "100 Smart cities" in India.

1. Allocate appropriate funds.
Allocate sufficient funds at centre/ state level for smart city initiatives.
2. Build Competency.
Focus on building technological innovation capabilities, R&D centers, innovation hubs etc.
Provide training to people to develop the required skill sets.
Retrofit the existing technology as per the requirement.
3. Favorable Policies

Formulate investor friendly policies to attract investment.

Lay down transparent partnership terms with foreign countries.

Encourage citizen's participation.

4. Benchmark with Best Practices.
Study international smart cities and replicate best practices.

Strategy recommendations to Technology companies to tap the smart city opportunity in India.

1. Identify Opportunity areas.
Keep track of upcoming smart city projects and initiatives.
2. Solution Fitment.
Understand the required capabilities for the project.
Build new capabilities and retrofit the existing ones.
3. Build dedicated team.
Build a cross functional smart city specific team having all the capabilities to fulfill the project
4. Identify Potential partners.
Participate in relevant consortiums.
Map synergies.
5. Collaboration with state Governments.
Work closely with state governments and urban local bodies in designing plans and providing advisory services.
6. Thought Leadership.
Develop white paper showcasing upcoming technology in smart cities.
Participate and sponsor events/ seminars
7. Bring global Capabilities.
Bring global expertise to India to fulfill the required aspirations of the project.

III. CONCLUSION

Apart from the central/ State government which act as key bodies, tie ups with foreign countries to invest and participate is a must in the development of the Smart cities in India. Partnership with technology vendors and government is a key to assist the mission of smart cities. For the development of Smart cities PPP is a suggested module wherein 80 – 85 % of the Project cost should be borne by the Private sector. Technology companies should identify, collaborate, participate and bring Global expertise to India. Government should allocate funds, build competency, make favourable policies and benchmark best practices.

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IV. REFERENCES

- [1] United Nations department of economics and Social Affairs. World urbanisation prospects
- [2] Retrieved <http://www.pwc.co.uk/issues/megatrends/issues/rapid-urbanisation.jhtml>
- [3] Presentation by the Secretary, Ministry of Urban Development, government of India, as part of the consultation workshop organised on 30 and 31 January 2015
- [4] Investment opportunities in Corridors, NIMZ and Cluster under IIUS. <http://www.embindia.org/files/Industrialcorridors.pdf>
- [5] Press information bureau , Ministry of Urban development (2015). Retrieved from : <http://pib.nic.in/newsite/printrelease.aspx?relid=11843>.
- [6] Retrieved from : <http://giftgujarat.in/gift/implementation.aspx>.
- [7] Retrieved from: [http://www.100resilientcities.org/cities/entry/bengaluru#/-](http://www.100resilientcities.org/cities/entry/bengaluru#/)
- [8] National Mission for clean Ganga , Government of India. Retrieved from: <https://nmcg.nic.in.namaniganga.aspx>
- [9] Ministry of Urban Development , Government of India. Retrieved from : <http://moud.gov.in/hriday>.
- [10] Smart cities, Government of India. Retrieved from: <http://indiasmartcities.in/site/index.aspx>
- [11] Retrieved from : <http://indiasmartgrid.org/en/resource-centre>.
- [12] IBM(2014).Retrievedfrom: : <http://citythewwwavegroup.com/ibm-smart-city.php>
- [13] India today. Retrieved from : <http://businesstoday.intoday.in/story/smart-cities-in-India-as-property-investment-destination/1/210791.html>.