

Financing for Smart Cities in India – An Overview

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Abstract

A 'smart city' is an urban region that is highly advanced in terms of overall infrastructure, sustainable real estate, communications and market viability. It is a city where information technology is the principal infrastructure and the basis for providing essential services to residents. Financing for smart cities is very important role in development of a new concept in India. The government of India annually select the city to particular measure to development cities as a smart. The study focus on To Study the Government findings for Smart City, to know the method of selection of smart city and this paper based on secondary source of information.

Key words: Smart city, Financing, Government.

Introduction

The concept of smart cities is to use digital technology to make a city more efficient and sustainable. The term encompasses a vision of an urban space that is ecologically friendly, technologically integrated and meticulously planned, with a particular reliance on the use of information technology to improve efficiency. Smart Cities India is all set to become the most-populous country in the world by 2030, making it the home to the biggest and the most under-penetrated market for global manufacturers and service providers. Unlike its preceding generations, this growing population is also

Shifting to top tier cities of the country giving rise to new megacities estimated to generate 80% of economic growth, with potential to apply modern technologies and infrastructure, promoting better use of scarce resources.

As per estimates, about 25–30 people will migrate every minute to major Indian cities from rural areas in search of better livelihood and better lifestyles. With this momentum, about 843 million people are expected to live in urban areas by 2050. To accommodate this massive urbanization, India needs to find smarter ways to manage complexities, reduce expenses, increase efficiency and improve the quality of life.

Smart City is a booming international phenomenon. Smart city word originated back in 1998, but the first funding for smart city came in the year 2000. The six dimensions of a smart city are Smart Economy, Smart Mobility, Smart Environment, Smart People, Smart Living and Smart Governance. Every city can become smarter by focusing on any of the above dimensions. A smart city is a community that is efficient, sustainable & liveable. The term smart city has become more and more popular in the field of urban planning. Smart cities can work as a tool for controlling the rapid urbanization and various problems caused by the ever increasing urban population. The implementations of the smart technologies can increase the value of the city. Smart city concept introduces new practices and services that highly impacts policy making & planning

What is a Smart City?

It's a city outfitted with high-tech communication capabilities. It uses digital technology to enhance performance and well being, to reduce costs and resource consumption, and to engage more effectively and actively with its citizens.

According to a recent report from *Navigant Research*, the global smart city technology market is expected to grow from \$8.8 billion annually in 2014 to more than \$27.5 billion by 2023. Eric Woods, research director with Navigant Research said, “Cities are seeking partners and suppliers to collaborate on ambitious programs for sustainability, innovation in public services, and economic development that depends on significant technology investments.

Review of Literature

GIS Steering Smart Future for Smart Indian Cities by Anuj Tiwari & Dr. Kamal Jain (2014) concept of a smart city is a new one. This paper describes the smart city projects in India namely Lavasa: Smart Hill City & Gift: Gujarat International Finance Tec-City. By 2050, the urbanization in India is expected to raise up to 70 percent compared to only 30 percent in 2011. According to the McKinsey Global Institute Analysis Report, India will have 68 cities with 1 million or even more than 1 million Populations, 13 cities with more than 4 million population & 6 megacities with population of 10 million or more by year 2030. A Smart City is the integration of technology into a strategic approach to sustainability. Smart city is a booming international phenomenon.

According to the statics over 2000 smart city projects have been started or going on in Asia, Europe America & Africa. The three pillar basic smart city model is used in this research paper. The Three main dimensions of this model are Economy, Environment & Society. GIS solutions can help the policy makers & planners for decision making purposes. Ultimately this paper helps to understand the use of GIS & its integration with various approaches to formulate, stimulate, interpret and validate the sustainable development of urban areas, steering a smart and sustainable future for smart cities. -Anuj Tiwari and Dr. Kamal Jain, "GIS Steering Smart Future for Smart Indian Cities." International Journal of Scientific and Research Publications, Volume 4, Issue 8, August 2014.

The Vision of a Smart City by Robert E. Hall (2000) the vision of the smart city is the urban centre of the future. The systems and structure will monitor their own conditions and carry out self-repair. The smart materials and structures are also known as the intelligent or adaptive materials. The smart city concept was in a planning stage since late 1998, but it received its first funding in January 2000. The future will require rethinking of the relationships between government, city managers, business, academia and the research community- Robert E. Hall, "The Vision of a Smart City." 2nd International Life Extension Technology Workshop, 2000.

Understanding Smart Cities: An Integrative Framework by Hafedh Chourabi, Taewoo Nam, Shawn Walker, J. Ramon Gil Garcia, Sehl Mellouli, Karine Nahon, Theresa A. Pardo & Hans Jochen Scholl (2012) Smart cities can work as a tool for controlling the rapid urbanization & various problems caused by the ever increasing urban population. The academic research in smart city concept is very less

Urban Planning and Smart Cities: Interrelations and Reciprocities by Leonidas G. Anthopoulos and Athena Vakali (2011). Smart cities are the emerging concept as they introduce new practices and services that highly impacts policy making & planning. Thus, now it is a necessity to understand the smart city's contribution in the overall urban planning. This paper highlights the interrelationship between smart city and urban planning

Objectives of the Study

1. To Study the Government funding for Smart City
2. To know the method of selection of smart city.

Methodology

The study is based on secondary data gathered from Journals, Articles, News Paper and relevant websites etc.

Analysis and Interpretation

The Smart City Mission will be operated as a Centrally Sponsored Scheme (CSS) and the Central Government proposes to give financial support to the Mission to the extent of Rs. 48,000 crores over five years, on an average Rs. 100 crore per city per year. An equal amount, on a matching basis, will have to be contributed by the State/ULB; therefore, nearly Rupees one lakh crore of Government/ULBs funds will be available for Smart cities development.

The project cost of each Smart City proposal will vary depending upon the level of ambition, model and capacity to execute and repay. It is anticipated that substantial funds will be required to implement the

Smart City proposal and towards this end, Government grants of both the Centre and State will be leveraged to attract funding from internal and external sources. The success of this endeavour will depend upon the robustness of SPV's revenue model and comfort provided to lenders and investors. A number of State Governments have successfully set up financial intermediaries (such as Tamil Nadu, Gujarat, Orissa, Punjab, Maharashtra, Karnataka, Madhya Pradesh and Bihar) which can be tapped for support and other States may consider some similar set up in their respective States. Some form of guarantee by the State or such a financial intermediary could also be considered as instrument of comfort referred to above. It is expected that a number of schemes in the Smart City will be taken up on PPP basis and the Special Purpose Vehicle (SPVs) have to accomplish this.

The GOI funds and the matching contribution by the States/ULB will meet only a part of the project cost. Balance funds are expected to be mobilized from:

1. States/ ULBs own resources from collection of user fees, beneficiary charges and impact fees, land monetization, debt, loans, etc.
2. Additional resources transferred due to acceptance of the recommendations of the Fourteenth Finance Commission (FFC).
3. Innovative finance mechanisms such as municipal bonds with credit rating of ULBs, Pooled Finance Mechanism, Tax Increment Financing (TIF).
4. Other Central Government schemes like Swachh Bharat Mission, AMRUT, National Heritage City Development and Augmentation Yojana (HRIDAY)
5. States/UTs may also access the National Investment and Infrastructure Fund (NIIF), which was announced by the Finance Minister in his 2015 Budget Speech and is likely to be set up this year.
6. Private sector through PPPs.

The distribution of funds under the Scheme will be as follows:

1. 93% project funds.
2. 5% Administrative and Office Expenses (A&OE) funds for state/ULB (towards preparation of SCPs and for PMCs, Pilot studies connected to area-based developments and deployment and generation of Smart Solutions, capacity building as approved in the Challenge and online services).
3. 2% A&OE funds for MoUD (Mission Directorate and connected activities/structures,
4. Research, Pilot studies, Capacity Building, and concurrent evaluation).

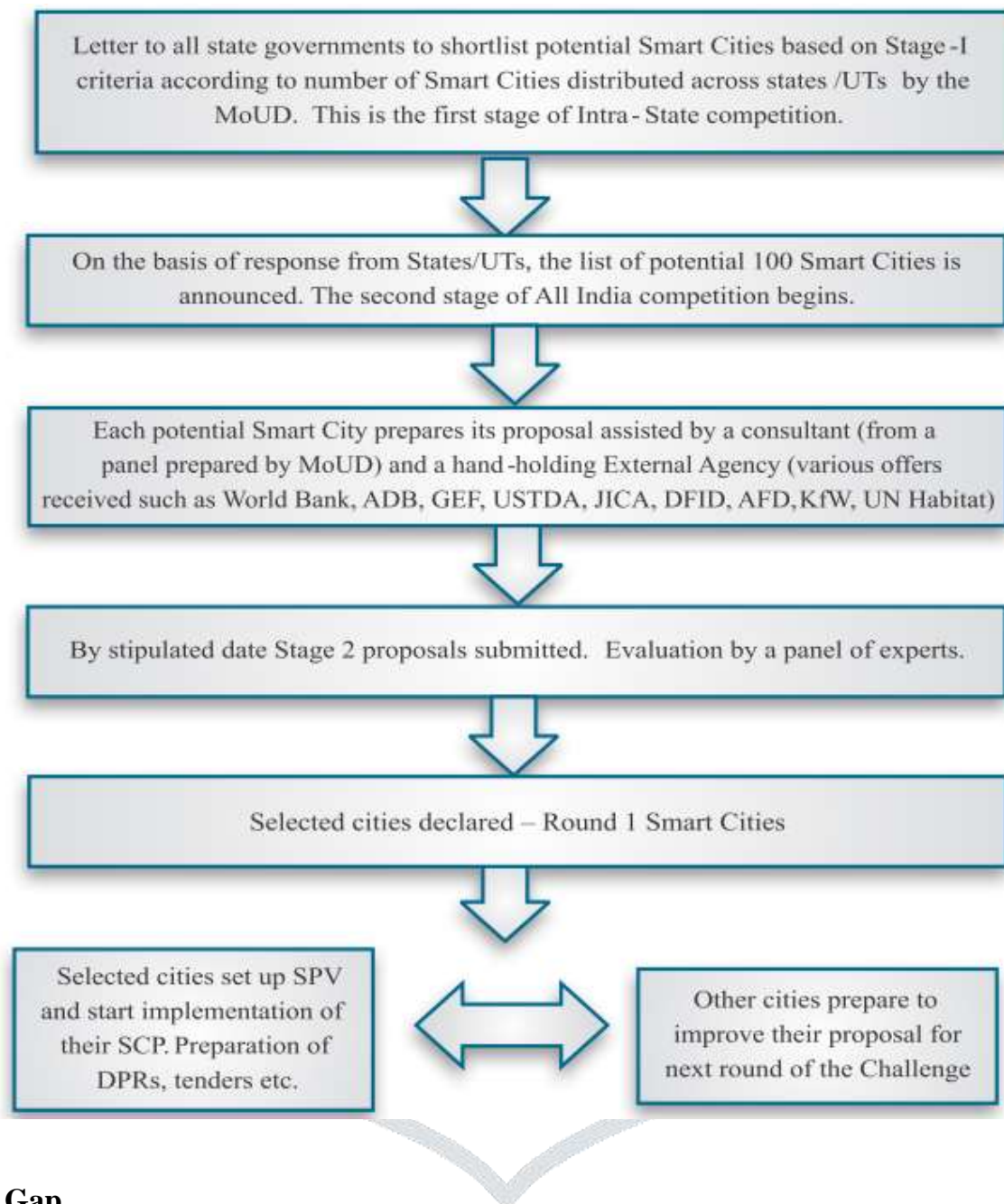
Funds Release

1. After the Stage 1 of the challenge, each potential Smart City will be given an advance of Rs. two crore for preparation of SCP which will come from the city's share of the A&OE funds and will be adjusted in the share of the city.
2. In the first year, Government proposes to give Rs.200 crore to each selected Smart City to create a higher initial corpus. After deducting the Rs. two crore advances and A&OE share of the MoUD, each selected Smart City will be given Rs. 194 crore out of Rs. 200 crore in the first year followed by Rs. 98 crore out of Rs. 100 crore every year for the next three years.

The yearly instalment of funds will be released to SPVs after they meet the following conditions:

1. timely submission of the City Score Card every quarter to the MoUD,
2. satisfactory physical and financial progress as shown in the Utilization Certificate (Annexure 6) and the annual City Score Card (Annexure 7),
3. Achievement of milestones given in the roadmap contained in SCP
4. Fully functioning SPV as set out in the Guidelines and the Articles of Association. A Board Resolution should certify that all these conditions have been met, including a certificate that all the conditions relating to establishment, structure, functions and operations of the SPV as given in para 10 and Annexure 5 are complied with.

Different steps in the selection of Smart cities are given below:



Research Gap

There are number of research paper related Vision of a Smart City, smart city and digital city but there is no particular study related to Financing for smart cities and selection process and present study focused on the challenges of smart city. So this study is attempted

Suggestions

1. There is need to a better administration between state and central
2. Releases funds to smart cities it's based on performance of merit

3. To avoid the inter- state competition in the selection of smart cities
4. State and UT government effective adopted Swachh Bharat Mission in Development of Smart cities.
5. Government should be support PPPs to development of cities.

Conclusion

The smart cities concept has gained a lot of attention lately and it will most likely continue to do so in the future. Smart cities are thus becoming the most important part of any government. Each and every county though small or large is putting efforts to make its cities smart. The finance of the smart city is more important aspects and the government and people also support to development of city smart. With more and more smart sector coming up, life becomes very easy for cities that implemented them.

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