AN ANALYSIS OF LAWS GOVERNING SMART CITY PROJECTS IN INDIA

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ABSTRACT

Presently, cities are the main source of employment, playing an important role in livelihood of the people. The situation and trends of urbanisation are getting worse and harder to deal with everywhere in the world, even in developing countries like India. In recent years, India has seen a lot of people move into cities, which is hard on the city's infrastructure and growth. In order for cities to keep up with the rest of the country's growth and economy, they need to get smarter and make smarter laws. This will help them provide core infrastructure and a good quality of life for their residents, as well as a clean and sustainable environment through the use of smart solutions. This article gives an organised analysis and overview of Smart Cities, their laws, rules, and regulations, as well as how the India's Smart City Mission, which was just started by the Government of India in 2015, is being put into action. In the last part of the article, the problems that came up with carrying out the mission and what could be done to fix them are discussed about.

Keywords: Smart city, Sustainable Development, Smart Laws, Smart Cities Mission

1. Introduction

Smart City was introduced to make life easy, affordable and sustainable. Depending on different scenarios such as present development of a country, the availability of resources, the need for change, and the what is the need of the society that is to be achieved, the definition and notion of a smart city differs from one person to another, from one city to another, and from one nation to another. Smart City can be defined as "a city with strong performance in the specific areas like human development, government, economy, transportation, environment, and quality of life, contributing in the growth of a country and the initiatives taken by individual as well as a society as a whole." Smart cities have been created as a result of numerous developmental changes brought on by urbanisation. A news site claims that a smart city is one that incorporates technology into all aspects of its operations, including public transportation, IT connectivity, water, power supply, sanitation, solid waste management, urban mobility, e-governance, and citizen participation. Smart cities are not clearly defined anywhere, it is conceived as a perception. To reach a high standard of life on a global scale, the three tiers of government in India, as well as numerous other players, including private investors, are constructing smart cities. Although the results appear to be inconsistent, the government has been enacting reforms since the 1990s, including the 74th Amendment Act and local self-help government. The central government introduced the JnNURM programme in 2005 to promote the growth of smart cities. The Central Government announced the Smart Cities Mission in 2015 through a competition to increase liveability index, economic stability, and sustainability through the adoption of new IT models, digitalization, and improved governance. To transform the existing cities into smart ones through area-based development and pan-city development, 100 cities were chosen. Later, the SCM Mission's AMRUT programme carried out these developments. The Ministry of Housing and Urban Affairs determines the funding and other aspects of the plan of action. In order to address some of the shortcomings in the present urban system in India, the Smart Cities Mission developed a new institution of governance, the Special Purpose Vehicles (SPV). The Special Purpose Vehicle has executive and other managerial authority and is governed by the Companies Act 2013.

2. Smart City

A smart city is described as "developing and promoting cities that provide core infrastructure and give their residents a decent quality of life, a clean and sustainable environment, and the implementation of smart solutions" by the Ministry of Urban House and Development.

The SCM's goal is to promote local area development as well as other developments, which consists of three elements, in order to spur economic growth and raise people's standards of living.

- Area-based development- It aims to improve the liveability of the entire city by redeveloping and retrofitting existing areas, including slums, into better planned ones.
- Green-field initiatives- It will expand the city's boundaries in order to accommodate the growing urban population.
- Pan-city development- It entails applying a few smart solutions to the infrastructure of the entire city.

The goal of the Smart Cities Mission is to promote economic growth and raise standard of living by fostering local area development and utilising technology, particularly that produces smart solutions. By focusing on local area development, the Smart City Mission seeks to address the problem of urbanisation in order to accommodate the rapidly growing population. Cities will be able to employ technology, information, and data to improve infrastructure and services by applying smart solutions. The mission has expanded its definition's ambit to include all round development such as water supply, waste management, energy sources and supply, safety, citizen involvement, the economy and employment, and the education. The Smart Cities Mission was started by the Ministry of Urban Development through the India Smart Cities Challenge. Indian cities competed for financing from the national government to participate in this competition by submitting a smart city proposal also known as SCP. Each chosen city was about to get USD 15.03 million annually from the Central Government to invest in the development of smart cities. The State/Urban Local Body shall contribute matching funds in an equal amount (ULB). The Smart Cities Challenge required participants to submit ideas for how the city may be renovated or changed with the use of minimal resources possible without negatively impacting the system. The cities proposal should be based on a framework that includes everything like living viability, cost effectiveness, citizen engagement, energy, economy, mobility, and other factors. Ranking was done out of the 90 cities that took part in the challenge, the top cities implemented a framework that took feasibility and cost-effectiveness into account. Some of the top ranked cities were: Bhubaneswar, Pune, Jaipur, Surat, Kochi, Ahmedabad, Jabalpur, Visakhapatnam, Solapur, Davanagere, Indore, New Delhi Municipal Council, Coimbatore, etc.. Different projects were alloted, Bhubaneswar chose 985 acres near the train station for its plan and suggested thorough upgrading of the region. Pune's plan was to invest $2,200,000,000 on a chosen locality (Aundh-Baner-Balewadi (ABB)) over

the course of five years in order to completely alter its liveability across all dimensions and bring it in the category of best global cities. Pune has discovered nineteen ICT solutions for the two most prevalent problems by interactions and research in water and mobility. The city of Ahmedabad has made a commitment to developing its transportation infrastructure, putting in place water harvesting systems, and starting to handle solid municipal trash in accordance with the prevailing regulations. On the other side, the city of Bhopal proposed for the reconstruction of Shivaji Nagar, which aims to maximise the value of underutilised public land in the centre of the city. The region will undergo a significant transformation into a commercially and environmentally sustainable paradigm. All smart city characteristics will be integrated into a forming a developed urban environment, assuring a relationship between people, places, and buildings. It embodies TOD principles[1] to produce a compact, walkable, and sustainable spatial morphology and is strategically situated between two main transit axes (BRTS & planned Metro). Each of the plan has to be implemented in accordance with the rules by constantly keeping checks to reduce any hurdles.[2]

3. Characteristics of Smart City

1. Smart Governance
2. Smart Economy
3. Smart Mobility
4. Smart Environment
5. Smart People
6. Smart Living

4. Smart City Legislations

Smart City concept is new in India, thus it does not have a comprehensive legislations. Smart Cities are regulated based on the Smart Cities Mission Guidelines and other regulations, which has been discussed in the later part.

4.1 Company Law

A SPV is a limited liability partnership, corporation, trust, organisation, or other working body

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[1] The Eight principles of TOD are walk, cycle, connect, transit, mix, densify, compact, and shift, illustrating the relationship between transport and land use.

[2] Swapnil Ratnakar Mane, Vishwas Mahadeo Palve, Parag S. Sarode, A Systematic Overview of India's Smart City Mission, International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181 Published by, www.ijert.org NTASU - 2020 Conference Proceedings, Special Issue - 2021

registered under the Companies Act of 2013 and established to fulfil a particular objective. According to the Smart Cities Mission Guidelines 2015, the main agenda is to promote local development and use technology as a tool to build smart solutions for inhabitants in order to increase economic growth and improve quality of life in selected cities. The most significant of the many difficulties the mission faced was urban management. The government strategically intervened by introducing the Special Purpose Vehicle (SPV), a new city administration mechanism to oversee Smart Cities (Ministry of Housing and Urban Affairs, 2015). Administration, academia, and professionals have several reasonable concerns about the constitutional legitimacy of SPV's establishment. An SPV, often referred to as "variable interest entities," "Special purpose entities," or "finance vehicle corporations" (FVC), is a form of legal structure (typically a limited partnership or a limited company) established to achieve limited, particular, or transient goals.[3] Typically, companies utilise SPVs to protect the company from financial risk. It could have one or more authorities. Planning, evaluating, designing, approving, releasing funding, implementing, managing, operating, monitoring, and evaluating projects are the main responsibilities of SPVs. Joint ventures, subsidiaries, public-private partnerships (PPP), turnkey contracts, etc. are all ways that projects might be implemented. The project cost might be properly integrated with ongoing revenue sources. It works alongside local governments.

4.2 I.T. Laws

India has made a significant advancements in the area of privacy rights, and the country is currently creating its first wave of smart cities. The right to privacy has evolved via number of instances and legal rulings. The first time the issue was discussed in M.P. Sharma v. Satish Chandra[4], where S.96 of the Cr. P.C. was questioned in relation to search and seizure. The Right to Privacy was not recognised in police matters way back then, according to a bench of eight judges. Later, it was decided that police surveillance is permissible on those who are likely to become habitual criminals in the case of Kharak Singh v. State of U.P[5]. Again in this case, the right to privacy was not recognised. The court in Govind v. State of M.P[6]. did not address the privacy in light of police regulation. In the case, R. Rajgopal v. State of Tamil

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[3]Kranti Kumar Maurya and Arindam Biswas, The Rationale of SPV in Indian Smart City Development Department of Architecture and Planning, Indian Institute of Technology, Roorkee, Uttarakhand, India.
[4] 1954 AIR 300, 1954 SCR 1077.
[5] 1963 AIR 1295, 1964 SCR (1) 332.
[6] 1975 AIR 1378, 1975 SCR (3) 946.

Nadu[7], the Supreme Court subsequently recognised the Right to Privacy. Finally, In the case of Justice K.S. Puttaswamy vs. U.O.I., a five-judge court ruled in favour of the legitimacy of the aadhar by 4:1. Judge bench, It was held that Right to Privacy is a fundamental rights.

Smart cities in India should implement robust legislative and governance frameworks covering technical standards, open data, and data security and data protection regulations, drawing on the strategies used by cities throughout the world. These regulations will be crucial for preserving individual rights while maintaining the efficiency and sustainability of smart cities. Some of these regulations already exist, like India's Open Data Policy and the data protection requirements outlined in Section 43A of the Information Technology Act 2000. The adoption and implementation of these rules in the context of smart cities should be monitored to give desired results.[8]

The only law addressing the issue is Section 72 of the Information Technology (IT) Act of 2000, has a very limited scope. It specifies a fine for violating the privacy of any electronic record, but only for offences committed by those in positions of authority as defined by the Act, such as adjudicating officers and certifying authorities. As a result, there is a big disconnect between individual privacy needs and India's current legal protections. The IT Act of 2000, the Telegraph Act of 1885, the Terrorism Act of 2002, and the proposed Communications Convergence Bill, on the other hand, have measures that legally restrict privacy. The main issue surrounding data protection and efforts to raise privacy standards in India have only been discussed in the context of preserving India's enormous potential for business process outsourcing. The privacy implications of the government's collecting, retention, and exploitation of personal data have not yet received much attention. The intentions of the government in handling personal data are not questionable for historical and cultural reasons.[9]

Use of data to address issues is an important challenge. Smart cities actually revolve around providing the appropriate data to the appropriate individuals at the appropriate time to address

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[7] ((2017) 10 SCC 1), (Puttaswamy I).
[8] Kiran A B, Elonnai Hickok, and Vanya Rakesh, Smart City Policies and Standards Overview of Projects, Data Policies, and Standards across Five International Smart Cities The Center for Internet and Society, June 8, 2016.
[9]Sheetal Asrani Dann, The Right to Privacy in the Era of Smart Governance: Concerns Raised by the Introduction of Biometric-Enabled National ID Cards in India, Journal of the Indian Law Institute , January-March 2005, Vol. 47, No. 1 (January-March 2005), pp. 53-94, https://www.jstor.org/stable/43951951.

pertinent use in specific circumstances. However, the adoption of data-driven approaches for problem solving has been hampered by some fundamental difficulties.

- We may say that one of the main issues has been the absence of a "Culture of Data." Despite the fact that many different agencies have access to a lot of extremely important data, not much of it is leveraged to derive insights and produce actionable intelligence for city governance. Different stakeholders are not collaborating on data issues, and the potential economic value of data is not being fully realised. The issue of data governance is one that the cities haven't properly addressed. City administrations frequently take a easy approach to solving the complex issues that their communities face. This may be observed in practically every professional field, including urban planning, transportation, and water management, to mention a few. This oversimplification results in the delivery of less-than-ideal solutions.

- There is a lack of a City Data Policy. Despite the fact that the city government and its stakeholders recognise the value of data and desire to harness its potential, there is frequently confusion around data policy that prevents them from doing so. Understanding the parameters of data exchange, privacy, security, and ownership in the context of the city requires a data policy. Large amounts of data are in the "grey zone," where it is necessary to have clear laws that strike a balance between privacy, legality, and public value. Data ownership and safety-related problems should be addressed via data policy laws.

- There is lack of city data alliance. Government data by themselves are insufficient to address urban issues. Businesses, communities, organisations, and universities all collect data separately. Therefore, it is crucial for any city to evaluate the data requirements of different stakeholders. All-important organisations, both government and non-government, that produce and hold data essential to better city planning and operation must collaborate to comprehend, develop, and promote data-driven solutions for the problems that city faces. Non-governmental organisations (NGOs) and other organisations that work on data privacy and security issues must collaborate closely with other organisations. The lack of such involvement across various local stakeholders, however, presents a hurdle to the city's attempts to use data-driven ways to address problems. One cannot overstate the importance of a data alliance in the city.

- There is lack of a suitable data platforms which compiles data of various departments. Technical incompatibility between these platforms frequently limits effective data

exchange and exploitation across a city even though there is no physical constraints. There is need of common programming interfaces, data representation formats, and data models are required in order to effectively share and manage data in the city, robust open data portals and secure but user-friendly data exchange systems.

- There is no appropriate regulation regarding the misuse of data, even if towns implement regulations and establish platforms for open data or data exchange. To generate information, education, and understanding about the use of data, it is crucial to engage with civic organisations, communities, and other relevant stakeholders. Education of data use is very important. Open government projects like open data are hampered by a lack of legal backing or clarity about privacy issues. Therefore, there is a clear need to overcome these hurdles through bringing a legislation by keeping in mind technology, procedures, and community concern.[10]

Thus, this give rise to one of the major problem of managing big data analytics i.e. to analyse data which is of large quantities and by the evaluation of those data or pattern behaviour, it helps in making better decisions.

4.3 Sustainability Laws

Sustainable living is one of the key factors of the Smart City Mission. All the regulations such as Water Act 1974, Air Act 1981, Environment Protection Act 1986,etc. has to be kept in mind while formulating any developmental plans. It should not cause adverse affect on environment. The UN adopted 17 Sustainable Development Goals (SDGs), among which Goal 6 relates to clean water and sanitation and Goal 11 to sustainable cities and communities, illustrating the significance and importance of sustainability in urban areas. Rapid urbanisation is depleting the city's resources, particularly its physical, social, and infrastructure resources. Urbanization's current state and trends have made life more difficult and miserable everywhere, including in emerging nations like India. With rapid and unplanned urbanisation, India's proposed smart cities are marked by high pollution, urban sprawl and slums, dense population, traffic jams, high cost of living, corruption, careless governance, subpar health and educational facilities, frequent power outages, water shortages, and inadequate sanitation facilities. The majority of Indian cities have already utilised their resources to the point that they are no longer sustainable. The 100 suggested smart cities initiative's success depends on environmental sustainability.

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[10] Data Smart Cities: Empowering Cities through Data, Smart Cities, Ministry of Housing Affairs, Government of India.

When we consider a number of elements like climate resilience, disaster risk management, low-carbon urban energy systems, ecosystem-based adaptation, fundamental public health measures, livelihood diversification, early warning systems (such as for cyclones and coastal flooding), integrated water resources management, and improved sanitation facilities, a smart city would be environmentally sustainable. Quality of life and favourable environmental circumstances can be sought through sustainable environments. Utilizing current technology wisely can improve resource and energy management, allowing for better adaptation to the shifting urban environment.[11]

5. Challenges

- Difficulty in choosing a smart city. At present selection of hundred smart cities is based on the giving equal chances to both states as well as the Urban Local Body. Consequently, each State/UT will have a specific number of possible smart cities based on this formula, with each State/UT having at least one. The Atal Mission for Rejuvenation and Urban Transformation, or AMRUT, has allocated funding using this distribution formula as well. After the Mission has been in place for two years, the distribution of smart cities will be reassessed. The Ministry of Housing and Urban Development may need to redistribute some of the remaining prospective smart cities among States based on an evaluation of how well States/ULBs performed in the challenge. Choosing a smart city and enforcing rules and regulations in it are highly challenging tasks.

- Failure rate is higher in many cases than the success rate. Similar to project carried out under JNNURM, the top 5 development categories like transportation, energy and ecology, water and sanitation, housing, and economy, constitute over 80% of the SCM budget. To reduce pollution, investing in transportation is the states first priority. Most states are transitioning to electric vehicles (EVs) from conventional internal combustion engines (ICEs). One such retrofitting was carried out by Pune city shortly after the introduction of the electric bus, when a fault with the charging transformers caused the buses to stop operating and rest at their locations in the garage. Recently, there were many incidents of electric scooters which caught fire and started to burn. Thus, implementation should be done with due diligence.

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[11]Arun Pratap Mishra, Urban Transformation, Sustainable Environment and Smart Cities: Case Study of Allahabad City, India IJARSGIS, VOLUME 4 Issue 1&2, June & December 2018, Pg-10-21, ISSN: 2394-8698 (P), ISSN: 2395-4388(O).

6. Conclusion and Suggestions

The 74th Constitutional Amendment Act, passed by the Government of India in 1992, officially recognised urban local bodies and created the necessity for the development of cities that were being agglomerated by the urban migration. Local government was empowered to make a change. But in the year 2015, the Smart City Mission was launched. As of the end of November 2019, 2,342 projects totaling Rs 90,929 crore had been tendered, of which 1,675 projects totaling Rs 51,866 crore were either in progress or had already been finished, according to data provided to the Lok Sabha by the Ministry of Housing and Urban Affairs. It could be said that most of the project was bidded but not started for a relevant amount of time. Thus, Smart Cities Mission has failed in its implementation in many cities due to some reasons which are:

- Non functioning SPV's
- Overlapping of power between SPV'S and Urban Local Bodies
- Inadequate I.T. Laws which results in cyber attacks
- lack of widespread public understanding of the idea of smart cities
- Minor players or stakeholders, lack of participation
- SCM lacks a financial model that can direct national and local authorities on how to request and set up funding for various projects.
- Effective requirement of PPPs or fully private investment (public-private partnership). between central government (MoUD), state government, and local government agencies on various issues related to financing and sharing of best practises.

Thus, it is apparent that the development of Smart Cities needs fundamental restructuring in the legislation while covering all the ambits or components of Smart City.