

SMART CITIES MISSION AND SOME OF ITS IMPORTANT ISSUES – A CASE STUDY OF SHILLONG CITY, MEGHALAYA

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ABSTRACT

The main focus of study in this paper is on infrastructural facilities and area-based development programmes to be implemented and implemented by the government through smart city mission. Smart city is one of the main agenda of the government to uplift the state and the economy to be at par with the rest of the country. To improve the income levels and employment opportunities of the people and to make, ensure and assure the people to attain the welfare and higher standards of living was the mission of the smart city. Infrastructural facilities such as roads, air and water, internet facilities, Wi-Fi and broadband connectivity, were the main concern of the government to provide the citizens and to make the city as one of the world-class cities. Survey have been carried out to find the development's progress where some of the projects have been implemented and working on. It has been observed that most of the projects are in the initial stages. The reason for the slow progress of the work may be due to the impact of Covid-19 pandemic. Other important issues also are found to be useful if the government implements them under this smart city mission.

Keywords: Smart City, Township, Urbanization, Development, Environment, Infrastructure.

I. INTRODUCTION

The Smart Cities Mission (SCM), launched by Prime Minister of India, Narendra Modi on the 25th June 2015, seeks to improve the quality of life in 100 cities and towns of India. The Smart Cities Mission is an innovative and new initiative by the Government of India to drive economic growth and improve the quality of life of people by enabling local development and harnessing technology as a means to create smart outcomes for citizens. Smart Cities focus on their most pressing needs of the citizens and also as the greatest opportunities to improve the lives of many people in the country. To tap a range of approaches such as digital and information technologies, urban planning best practices, public-private partnerships, and policy change to make a difference in terms of development perspectives.

Shillong city, the capital of Meghalaya, is lucky enough that it has been qualified and allocated a place in the group of 100th smart cities after a long tryst of competitions and challenges, reaching and completing up to the 5th round. It a great joy for the state that it could achieve this feat because through this smart city, it could make the city and the state as one of the world class cities, equipped with modern technologies and equipments. The poor economy and state like Meghalaya also will have a chance to develop and improve faster to all sectors of economic developments and activities. The state which is remaining backward as compared to the other states in the rest of the country would have a better chance and prospect in the future. At present, the state of Meghalaya is experiencing the problems of low level of income and employment opportunities, lacking of job creation opportunities, joblessness of the people, declining of the educational status in terms of *ranking*, etc. This has resulted to higher poverty level and low living standards of the people not only in rural areas of the state but in towns and cities also. The main reason for the state to remain poor and underdeveloped is due to the lacking of funds to develop and setup infrastructural facilities, such as well designed and well defined townships, roads connectivities, proper drinking water and water supply facilities, health and sanitation facilities, safety and security of the people, clean environment, etc. to uplift the welfare and well-being of the citizens.

As we know that Shillong is the main attraction of the people from all walks of life not only from within the state or country but from all over the world. This has increased rapidly the number of people to be accommodated and absorbed in the city, which further hampered the livelihoods of the people. Shillong is already the city with an uncontrolled and planned urbanization and with the introduction and implementation of smart city, further would make the citizens vulnerable to various problems and uncertainties ahead. Therefore, a proper plan should be adopted by the government to minimize the cost of losses arising from the

implementation of smart city projects not only to the citizens but to the environment and its surrounding. It has been noticing that most of the projects carried out in the state for developmental purposes, there is an impact on the environment either short term or long term, depending on the areas, places and nature of the project that are implementing.

Therefore, under Smart Cities Mission Shillong city, which is identified by Government of India as one of the 100 cities to be developed as a smart city. A total amount of ₹98,000 crore (US\$14 billion) was approved by the Indian Cabinet for the development of these 100 smart cities in the country. To implement the Smart Cities Mission, each city will create a Special Purpose Vehicle (SPV), headed by a full-time CEO, and the government will provide ₹1,000 crore (US\$140 million) funding [1]. Thus, Shillong Smart City Limited (SSCL) has been registered as a Special Purpose Vehicle (SPV) and was incorporated on 22nd January, 2019 under the Companies Act, 2013 [2]. It has been mentioned that cities in India are accommodating nearly 31% of the country's population and also contributing about 63% of Gross Domestic Product (GDP) to the country's economy. Further, it is expected that urban areas in the country will increase and can accommodate about 40% of India's population and contribute about 75% of India's GDP by 2030.

However a comprehensive development of physical, institutional, social and economic infrastructures are important and required for the country's development. Investments are important in setting up a motion of vicious cycle of growth and development in the country's economy and to improve the quality of life of the people. Therefore, development of smart cities is a step forward in this direction.

The government of Meghalaya has implemented some of the projects in the Shillong city, which is in line with the National Smart Cities Mission. The Union Ministry of Urban Development is responsible for implementing the mission in collaboration with the state governments of the respective cities. The mission initially included 100 cities, with the deadline for completion of the projects set between 2019 and 2023. However, this project is expected to be extended by the government because of the affect of Covid-19 pandemic where most of the works or projects have been postponed [1]. Overall, its progress has been uneven, with many cities yet to achieve the desired levels of transformation.

The vision for the city would therefore be to transform Shillong into a cultural and economic hub in Meghalaya with a focus on tourism and culture and to make it a livable, clean, green, inclusive, modern, safe and citizen friendly and well governed city [2] and [3].

The purpose of the Smart Cities Mission is to drive economic growth and improve the quality of life of people by enabling local area development and harnessing technology, especially technology that leads to Smart outcomes [4].

The objective of the Smart Cities Mission is to promote cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of Smart Solutions. The focus is on sustainable and inclusive development and the idea is to look at compact areas, create a replicable model which will act like a light house to other aspiring cities. The Smart Cities Mission is meant to set examples that can be replicated both within and outside the Smart City, catalyzing the creation of similar Smart Cities in various regions and parts of the country [5].

II. METHODOLOGY

In this paper, the data that the author used are mainly from the secondary sources. Primary data is very difficult to collect during this period of Covid-19 pandemic. Thus secondary data are collected from various sources that are available in the form of books, journals, articles, news items, which is useful and suitable to use in the study. The materials are collected mainly from the internet-based source. The method that the author used in the study is through observations. Personal knowledge, informations and experiences also are applied and used.

III. RESULTS AND DISCUSSION

Some Smart City Projects Implemented by the Government

Under the smart city mission, the government of Meghalaya has started the implementation of smart city projects worth around Rs 160 crore in the Shillong city. These projects include the construction of market complexes, smart road, water supply, intelligent city safety, safety and security, traffic awareness, etc. Some of these projects are mentioned in the table. Smart City Projects in Shillong City [6].

Project Name	Sector	Impact	Implementing Agency	Project Being Up By	Mention The Project Milestones	DPR Estimated Project Cost
To provide adequate clean water supply to households not covered by North East Council Convergence Project	Water Supply	Assured water supply	Public Health Engineering Department	Others	Work in Progress	47.35 Rs Cr.
Intelligent City Safety, Transit services, Basic City Services	IT Connectivity and Digitalization	Improved safety and security of citizens, particularly vulnerable groups (women, children and elders)	Information Technology & Communication Department	Others	Supply, Installation and Commissioning of Services, Firewall & Desktops and related services. (Testing and sign off remaining)	9.98 Rs. Cr.
Commercial Complex at Polo	Area Development	Citizen friendly and cost-effective governance and public services	Shillong Smart City Ltd	SPV	Work order issued.	75 Rs. Cr.
DPR costs	Area Development	Mixed land use and compactness	Shillong Smart City Limited	SPV	DPR for Polo Commercial Complex Completed DPR for ICCF Finalised DPR for 6 km smart roads Completed Situational Analysis Completed	42.7 Rs. Cr.
Retrofitting of Laitumkhrah market	Area Development	Mixed land use and compactness	Shillong Municipal Board	SPV	Work in Progress.	50 Rs. Cr.
Traffic Awareness	Safety and Security	Improved safety and security of citizens, particularly vulnerable groups (women, children and elders)	Shillong Smart City Limited	SPV	Started Broadcasting the Jingles over 93.5 RED FM Radio	0.02 Rs. Cr.
Organised green	Area Development	Citizen friendly and cost-effective governance and public services	Shillong Municipal Board (SMB)	Others	Work in Progress.	4.23 Rs. Cr.

The government has started with the construction of a new market complex at Laitumkhrah with the cost of Rs 50 crore. The existing market complex has become outdated and ruined. Therefore, new market complex will be available soon when the project is completed. The market complex in the area will serve the people of not only from the city but from all over the state and the country also.

Another smart city project adopted by the government is the construction of a market complex at Polo, close to the already constructed market complex, worth around Rs 80 crore. When completed, it is expected that the complex will become one of the centre of attractions in the city and the state of Meghalaya. In the first phase, around Rs75 crore have been sanctioned to this project and it is anticipated that it will be completed in time.

These two smart market complexes in the city will be a blessing for the people of the city and the state. They will provide jobs and employment opportunities not only to shopkeepers but to all the people who are involved in these complexes, in terms of security, services, maintenance, management, etc to make the markets look smarter.

It has been mentioned that the road from Governor's House to Polo will be converted into a smart road under the mission and a detailed project report is being prepared for the project and estimated to cost Rs 30 crore. Further, a world-class iconic structure will be built at Barik junction in an area of around 3.5 acres under the smart city mission. It has been reported that the iconic structure will have facilities like parking lot, park, museum, stalls and among others to cater to the needs and requirements of the citizens [7].

The government has allocated Rs 47.35 crore of funds to provide adequate clean water supply to households in the city not covered by North East Council Convergence Project. Apart from the water supply that already provided and supplied by the Public Health Engineering (PHE) department, the government under the smart city mission also has an objective to provide clean water supply to every household in the city. The project is still progressing and waiting for the time to complete. It is expected that twenty four hours water supply should be provided and given to the households in the city. Because scarcity of water supply is a serious problem for the people not only for cooking and drinking purposes but for health and sanitation as well. Sometimes, lacking of water creates and causes social tension and trauma among the people. Automatically, it leads to the denial of the rights to live and access to water and its utilities. Their welfare, health and sanitation facilities were the outmost important of the people because most of the citizens in Shillong city live under abject poverty. They are depending mainly on the ration provided and supplied by the government. So inaccessibility of potable water and water supply is a direct hit to the already affected problems that the citizens have experienced.

Information Technology connectivity and digitalization is another project adopted by the government under the smart city mission. The main objective of the project is to improve the safety and security of citizens particularly vulnerable groups such as women, children and elders. The total cost of the project is about Rs 10 crore. Awareness programmes on traffic and road safety among the masses are organized and broadcasting on the 93.5 Red FM Radio at the total cost of Rs 0.02 crore. Apart from the above projects, Rs 4.23 crore were sanctioned to organize awareness programmes to make the city green and clean. Environment is important and it should not be disturbed and destroyed for the sake of development. Because in the long run, the environment could not absorb the burdens into its carrying capacity. Therefore, protection of environment is the need of the hours.

Some Issues of Smart City Development Projects

Smart city area-based development projects [8] includes

(a) Smart Roads – Roads and road connectivities are the backbone of the state as well as of the country's economy. Better infrastructural facilities were the pride of the state's economic growth and development where it can show off to the rest of the country and even to the world. Under smart city mission, roads should be the top priority of the state government to implement. Expressways and high class roads should be constructed to make the city looks smarter.

(b) Smart Transport Facilities – As it has happened in the Shillong city for a long time now, transportation and communication systems was a big challenge because of limited and unavailability of land and spaces for the expansion and extension of the roads. Thus, to have such a project under smart city mission was a great blessing for the Shillong city in particular and the state in general. Therefore, when smart transport

facilities would be setup and implemented in the city, flow of commuters would be easier and faster. The burden of traffic jams and roadblocks will be automatically checked and removed to make and facilitate the transport and communication services easily and quickly. Loss of revenues and resources in transport and communication services could be minimized to a large extent. The maximum benefits will be enjoyed not only by the citizens but by the government also.

(c) Smart Parking – There is also a thought that even the smart parking would be constructed in Shillong city under the smart city mission to reduce the problems of congestion in the roads and parking spaces. However, it might be only a dream if the government do not take it seriously. The challenging tasks for the government is the availability of land and spaces for such big project to be implemented. In Shillong city, land is limited and become scarcity because of the rapid increased of the population. The expansion of urbanization further added up to the problems of spaces not only for parking purposes but for recreational activities also. If such smart parking facilities are available, the city will be at ease from the problems of traffic jams and frequent fighting for parking spaces.

(d) Construction of Flyovers – Construction of flyovers was a big dream for the state of Meghalaya. The plans and ideas have been conceived for a long time now but to implement it, it was a very challenging and very difficult task to do. So, under smart city mission, the government of Meghalaya should grasp the opportunity and construct the flyovers in the city to ease the transport and communication systems, services, etc and also to make the free flow of commuters and vehicles in the roads.

(e) Pedestrian Pathways – The most sacred and forbidden thing that everyone should do is perhaps not to interfere the pedestrian pathways. The pedestrians should have the right to enjoy while strolling around the smart city without discrimination. As we have seen and learned through our experienced that the footpaths meant for the pedestrians, often claimed by the street vendors, installed their tents, platforms, shops, etc and dumped their items to lure the people and make their bargains. The objectives of the vendors is to grasp the opportunities while the sun shines and make their livelihoods a better. This is their life. Thus, through smart city mission, the pedestrian pathways should be made accessible easily without any problems and hindrances to every commuter.

(f) Solid Waste and Sewerage Management System – Solid-waste and sewerage management system is the most desired issue under the smart city area-based development projects of the state of Meghalaya. In every part of Shillong city, disposal of solid-waste and sewerage management system is the challenging tasks not only for the people but for the government also because of the unavailability of the areas or the spaces to be accommodated the wastes. Sewerage system is the best alternative option to check and control the overflow of waste materials disposed off by the citizens. This system also will protect and prevent the waste and pollution that percolates into the air, water, and especially to the environment.

(g) Health and Sanitation – Health is wealth and cleanliness is next to godliness, goes the saying. However, in Shillong city dirtiest is next to their doorsteps. People who are living and settled in the low land areas and nearby the rivers and streams in and around the city are the worst affected. The waste materials and waste disposals done and released by the citizens all over the city are dumped and stocked in these areas forever. Pollution and contamination of water in the rivers and streams, air and its surrounding was only in the imaginations of the people. Many people could not believe why these things has happened to such a beautiful city – Shillong. Therefore, implementing the smart city mission was the only hope and expectation of the people not only to those in the city but to the state as a whole. The problems of health hazards, sanitation, etc could be resolved in a better manner. For example, national and international projects and schemes have been adopted and implemented to clean the rivers in the city but is almost become futile because of massive wastes accumulated in the rivers. The more you clean the wastes, the more you would receive next because of wastes overflow. This is not a joke but reality.

(h) Storm-Water Drainage System – Floods is frequently happened in the Shillong city. This is occurring in the rainy seasons. Never before floods is seen in Shillong but in recent years floods has claimed the life of many people. No wonders and surprises, this is the man-made natural disasters and calamities. People encroached into and did not allow the water to move and flow freely in its own direction but blocking the way and then the water went berserk and caused damage to the inhabitants. Thus, storm-water drainage is an alternative to stop and check the damage caused by water during rainy seasons. Under smart city mission, it is

expected that the government would undertake and carry out the project at the earliest to save and protect the citizens who are vulnerable from such natural disasters and calamities. Shillong city has been affected and experienced these problems every year because of lacking of drains and unplanned drainage system. Overflow of water often caused landslides and mudslides in the city, which further endangered the people to live peacefully.

(i) Redevelopment of Iewduh – Iewduh or Bara bazaar is the biggest market in the state of Meghalaya. It is one of the most popular markets in the state where most of the indigenous people earn their incomes and livelihoods. However, design and development of the market is improper where the pedestrians, commuters and customers are facing a lot of problems to walk, move, marketing and shopping. Roads and footpaths are the most risky and dangerous things for the people to move around. Free access to the market is the need of the hours to enhance the spirit and mood of the people and to uplift the welfare and livelihoods through their business in this market. Therefore, under the smart city mission, there is an expectation that the economy of the state also will improve once the market is redeveloped. The market will cater and improve all types of business activities and also attract not only the people from the state but from outside the state also to come and do their businesses. The market also will help the rural economy where most of the farmers in the state are depending mainly on this market. They could sell and supply their produces easily and quickly. The revenues that are generating and earning from the market will further enhance the economy of the state.

(j) Public Information System – Another silver lining of hope that smart city mission could offer is the smart public information system. It is expected that better public information system, equipped with modern science and technology, to make the Shillong city one of the very smartest cities in the country. This is the twenty first century, and it is the century where science and technology are playing an important part in mankind. It has become an inseparable component in people's life. Therefore, informations and knowledge are sharing among the people and also with the rest of the world at a greater speed. Thus, many social, political and economic benefits are deriving through information systems either for the state and the country or the world.

(k) Public Safety – The objective of every state or country is to ensure that public safety is guaranteed to the citizens. Meghalaya also considered public safety as the top priority to assure the people and the citizens not only in the towns and cities but in the state as a whole. Law and order are enforced and maintained to check and protect the welfare and well-being of people and the citizens. So under smart city mission, it is expected that public safety is ensured and provided and to make the people live peacefully. No external or internal insecurities should hamper the people. Safety should be the hallmark of the state.

(l) Power Supply – Under smart city mission, power and power generation is the integral part of the development project. The reason to emphasize here is not only to provide power and electricity to the citizens in the city from the sources that already tapped but to find out an alternative solution how to generate power from new sources. Because the state has already affected by power supply shortage for many years now, and to make the city smart, the government might face some challenges in terms of providing power to the citizens in the city. The government have to cultivate power from other new sources by hook or by crook otherwise the state and the city might be roaming in the darkness. However, it is expecting that under the smart city mission, Shillong city would be power's problem free.

(m) Solar Lighting – To make the city shine and smart, solar lighting is the best available alternative solution of power at present. One of the area based development projects under smart city mission is to implement and provide solar lighting to the city to the maximum according to the needs and requirements of the people. The energy is derived directly from the sun and sunlight. However, due to climate change, solar lighting also become vulnerable because most of the time the weather condition is changing and become unfavourable even for the solar power.

(n) Rehabilitation of Vendors – Street vendors is a serious concern and also a big challenge for the authority to regulate, control and manage. Every time problems arising between the street vendors and the authority or the government but to solve and resolve the problems and issues is still hanging in the balance. Therefore, under smart city mission, there is a plan to rehabilitate and relocate the street vendors so that the city will look clean and smart. It expected that when the project is implemented, the street vendors also will have a better chance and prospect of their businesses. Their incomes and livelihoods will be improved and no

deprivations will be bestowed to them. They should have the rights to practice and conduct their businesses without the interference of the authority.

(o) Other Important Facilities – Apart from the above areas of development, it is necessary that the government should develop the city in all rounds for the benefit and betterment of the state and the country as a whole. Any kind of beautification should be setup and fitted in and around the city to make the city looks attractive and beautiful. Landscaping, designing and decorating, which is suited in the city is encouraging but without disturbing the environment.

IV. CONCLUSION

After all, development and environment are the integral parts of the society. However, too much concentration on development alone is a one sided affair because without taking into consideration the importance of the environment and its issues, the state, country or the world will be at risk. One of the main agenda to be focused at this juncture in any country's development is the environment. One might think that there is no impact and affect on the environment and it's surrounding when the development projects are carried on. But implementing of any project, especially big projects will no doubt affected the environment, even with a proper care and safety control measures are being taken into consideration.

However, to make things better for the state and the country's development, smart city mission is one of the best examples. Many states and cities in the country, who have been implementing the smart cities mission, have become increasingly successful. Surat has emerged at the top among Indian cities to have successfully implemented smart city mission and governance through institutionalized use of data. Indore is another city, known as India's cleanest city, is now country's best smart city too. Smart city awards also are given to those cities and states, who are delivering and implementing successfully the mission. Apart from Surat and Indore, Pimpri Chinchwad in Maharashtra, Bhopal in Madhya and Pune has bagged the awards respectively.

V. REFERENCES

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