

Redefining Smart Cities – Tradition versus Branding – a Tale of Varanasi

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1 ABSTRACT

“Smart city is a liveable city to the people with required amenities.” The paper attempts to understand the intrinsic nature of the trending Smart City concept as a solution to the urban problems in Indian context. Smart city concept makes use of technology and ensures the Right to Development and the Right to Equality. The paper questions if the concept imposes the right to compromise a City’s identity as well. The paper highlights the importance of preserving a city’s identity. The paper analysis if the still evolving concept of smart city aims to preserve the spirit of the city or is an another tech based approach with profit making agenda.

The paper discusses about the most promising project of the Indian Government. A case study of Varanasi, how the city flaunts its own diverse and rich cultural heritage. Mark Twain rightly said, “Varanasi is older than history, older than tradition, older even than legend, and looks twice as old as all of them put together.” Varanasi - the ancient surviving city continues to fascinate the world with its history, hymns, rituals, mythology and spirituality. The crescent-moon shaped Ganga Ghats of Varanasi are the abode of divinity have lives and voices of their own. The people of Varanasi start their morning with chanting of prayers along the ghats and take a dip in the holy Ganga to redeem themselves. On one hand where the Ganga ghats are the lifeblood for the people, on the other hand, the liberation from the cycle of life and death along the ghats defines another character of the city. Varanasi, also known as the city of salvation motivates the devout to go to Varanasi in their last days. The city is also well-known for its rich literature, music, art & handicrafts and production of fine silk ‘Banarasi saari’. Organic growth pattern of this densely populated ancient town along the river and its rich cultural heritage pose a unique challenge for urban planners.

The paper explains why the cultural aspects need to be considered during the application of the smart city proposals. In order to keep up with urbanisation and the advancement in technology it is neither desirable nor an option for Varanasi to be a closed system pretending to preserve its originality. Considering the urban challenges the Government of India has decided to replicate the Kyoto model. Kyoto too is a city of pilgrimage and planned along the riverside identical to Varanasi. Every city has its own character and challenges pertaining to it. The aspirations of achieving the components of Smart city should not overlook the vibrant spirit of the city. An understanding of the significance of preserving a city’s identity is imperative to urban planning. The paper explains why the Kyoto smart city model cannot be replicated blindly to transform Varanasi as ‘Kyoto-style smart city’. Lastly, the paper attempts to define the concept of smart city without losing the identity of a city.

Keywords: smart city concept, city's identity, tradition, branding, redefinition

2 INDIAN URBAN AGENDA

2.1 Urban Challenges in India

Urbanisation is an inherent aspect of economic growth for any country which burdens the society and contributes to several issues and challenges it to meet the demand and supply gaps. Indian urbanisation pattern is unplanned and haphazard in general. Urban challenges have always impeded India’s vision of inclusive, equitable and balanced development. Scarcity of resources and energy, inadequate and deteriorating infrastructure, degrading environment, deteriorating service delivery are the major urban challenges faced by India. To accomplish its urban agenda in totality there have been many systemic urban reform schemes and strategies like focus on Regional approach for Urban Planning, Urban land regulations, Urban and Industrial decentralisation, Integrated development of small and medium towns, decentralisation and financial autonomy of urban local bodies, Urban self-employment Program, Economic liberalisation, Urban renewal Mission, Smart City mission etc.

2.2 Smart City Mission

To ensure that the pace of urbanisation is able to eliminate the demand-supply gap and improve the quality of life, Smart city mission was introduced. The inception of Smart City concept began with a target to transform one hundred selected mid-sized cities to modernized cities with improved liveability and as satellite towns of larger cities. Smart City Mission of India is also known to be its Urban Renaissance for its paradigm shift in the Planning approach and implementation. The mission facilitates urbanisation to achieve socio-economic prosperity and sustainable urban development. The strategic components of the mission are City improvement (retrofitting), city renewal (redevelopment) and city extension (Greenfield development) plus a Pan-city initiative in which Smart Solutions are applied covering larger parts of the city.

The mission comprises of Area-based development and Pan City development. "Smart city is a liveable city to the people with required amenities like clean drinking water, sanitation, toilets, infrastructure etc." Pan City development will provide basic infrastructure and services to the entire city with the application of Smart solutions. The definition of smart cities is unclear but it includes creative, digital, intelligent and harnessing the power of information and communication technology with a special focus on governance and service delivery. Area-based development offers a choice from the three available model strategies. First choice is Redevelopment where old built up areas within the city core or slum areas are completely transformed. The second option of Retrofitting involves improvement of infrastructure and services for a delineated area. The first two approaches will transform existing areas into better planned ones and result in improving the livability of the entire city. The third model for Area-based development is Greenfield Development for city extension. New areas and Satellite towns will be developed around cities so as to accommodate the expanding population in urban areas.

2.3 Right to develop and equality versus the Right to compromise a City's Identity

There is no doubt that with its given objectives and strategies the Smart City Mission will improve the quality of life, create employment opportunities and enhance incomes. Application of Smart solutions will ensure efficient service delivery and lead to more comprehensive and inclusive cities. One also feels that this Smart City Mission is somewhat biased towards providing physical infrastructure and services. Mission focusses on compact areas, transforms them and creates a model which could be replicated. The Smart Cities Mission is expected to serve as an example that could be replicated within the different parts of the same city or some other city. This will create a series of similar Smart Cities in various regions and parts of the country. The model seems promising enough to be a quickfix solution to all urban problems.

An initially appealing and problem solving concept successful in some cases may not appear to be universally appealing at a later stage. Hence it is imperative to question the exact replication of any model beforehand. Urban places own a very diverse and individual character of their own. An important question is How wise is it to replicate the Smart City model and deliberately lose the individuality of one city to another?

2.3.1 City's Identity

Every city has a character of its own. A city's identity defines the city, its individuality and uniqueness. It is the image of the city imprinted on the minds of its residents. It is not about the past or the present scenario of the city but about the transition that the city has gone through. City's identity is how the city identifies itself. It is our duty to preserve the spirit of a city. Cities identity cannot be preserved by just preserving its heritage structures showcasing its art and architecture. There is more to a city's identity than this. It comprises of its culture, people, economy and most importantly its evolving relationship with its local community. It can be preserved only when the aspirations of the people living there are given importance because it is nothing but a large functional community of people.

3 A TALE OF VARANASI

Any discussion about India's Smart City Mission would be incomplete without the mention of Varanasi which has the challenge to maintain its ancient characteristics and retain its spiritual identity while meeting the modern aspirations of its inhabitants. Mark Twain when visited India in the middle of nineteenth century was so impressed by the city on the banks of Ganga that he said, "Benaras is older than history, older than tradition, older even than legend and looks twice as old as all of them put together". How this spiritual

capital of the country is making an effort to strike a balance, to meet the demands of local community to preserve its identity and simultaneously improve their quality of life to match the international standards, is an interesting case study.

3.1 The city profile of ‘Banaras’ or ‘Varanasi’ or ‘Kashi’

Varanasi is one of the oldest living cities in the world. The city is believed to be inhabited since 1200 B.C. There are evidences which even date it back to 3000 B.C. Varanasi, commonly known as a Hindu holy city, is situated on the banks of the river ‘Ganges’ (Ganga) in the Indian state of Uttar Pradesh. Varuna and Asi are the two rivers which join the river Ganga on the north and south border of the city respectively. This heritage city is well-known as the cultural capital of India. It has a very rich and vibrant culture. The city continues to fascinate the world with its history, mythology, rituals and spirituality.

The present city has been developed generally amid the mid-eighteenth century. The city is heterogeneous in character with the integration of diverse layers of art forms, religion, culture, beliefs, nature, profiles, and individualities. It is not only holy place to Hindu, but instead, the city is also home for 4000 Temples and 300 Mosques. The presence of 4 universities and 3 Deemed universities, 150 Muslim schools, about 100 Sanskrit pathshalas,¹ and 50 Inter and Degree colleges make Varanasi the ‘City of Culture’ and ‘learning’. The life of Varanasi is profoundly related to the river Ganga. This stream's religious significance has made the city primarily known for its Ghats and as a result it is a religious bathing place for the pilgrims. It is imperative to understand the city in terms of its physical and cultural aspects to analyse the components of smart city mission.

3.1.1 Physical aspects of Varanasi

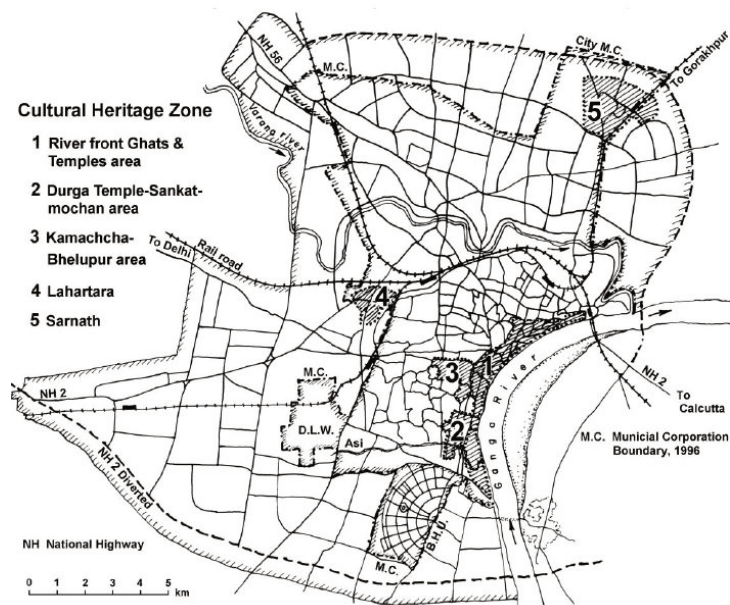


Fig. 1: Varanasi, Municipal boundaries and Cultural Heritage Zones

The main city of Varanasi has been spread over an area of 84.55 Km². Varanasi Municipal Area is further divided into different five zones – Core Area, Trans Varuna area, South Varuna Area, South Assi Area, and Ramnagar area. The Core Zone is the oldest part and has grown organically near the ghats of Ganga, also known as the heart of the city. This is the principal territory of the city with a high population density and most of the attractions of the city. All the fundamental activities occur over here including the economic activities, tourist attractions, and other religious activities. This core is known to popularise Varanasi globally for its Ghats (riverfronts) and Galis (narrow streets). There is organic growth around the main Kashi-Vishwanath temple.

¹ Schools of an ancient Indo-European language of India, in which the Hindu scriptures and classical Indian epic poems are written and from which many northern Indian (Indic) languages are derived.

The Trans Varuna Zone is the territory of upper Varuna, a tributary of Ganga River, which has a distinctive characteristic. It is the outer city area with new advancement and low population density. Sarnath is the main fascination for sightseers and pilgrims primarily from Japan.

The South Varuna Zone is the pivotal territory of the city which has the second highest population density. This territory mainly consists of residential areas which are planned in a haphazardous way. The South Assi Zone is the area where the Banaras Hindu University (BHU) is located. It is a suitably planned campus in the shape of a protractor attracting people across the world. The Trans Ganga Zone is the territory outside the municipal boundary but included in the planning boundary. Though it is not an intergral part of the primary city the infrastructure development is ongoing since scarcity of land is a major issue within the municipal limits.

3.1.2 Vibrant Spirit of Varanasi

The riverfront heritage comprises the segments of the city stretching within 200 meters from the riverbank. Eighty-four riverfront Ghats, along the banks of Ganga form a crescent-shape, cover a length of 6.8 kilometers. The areas along the Ghats are predominated by numerous shrines and temples.

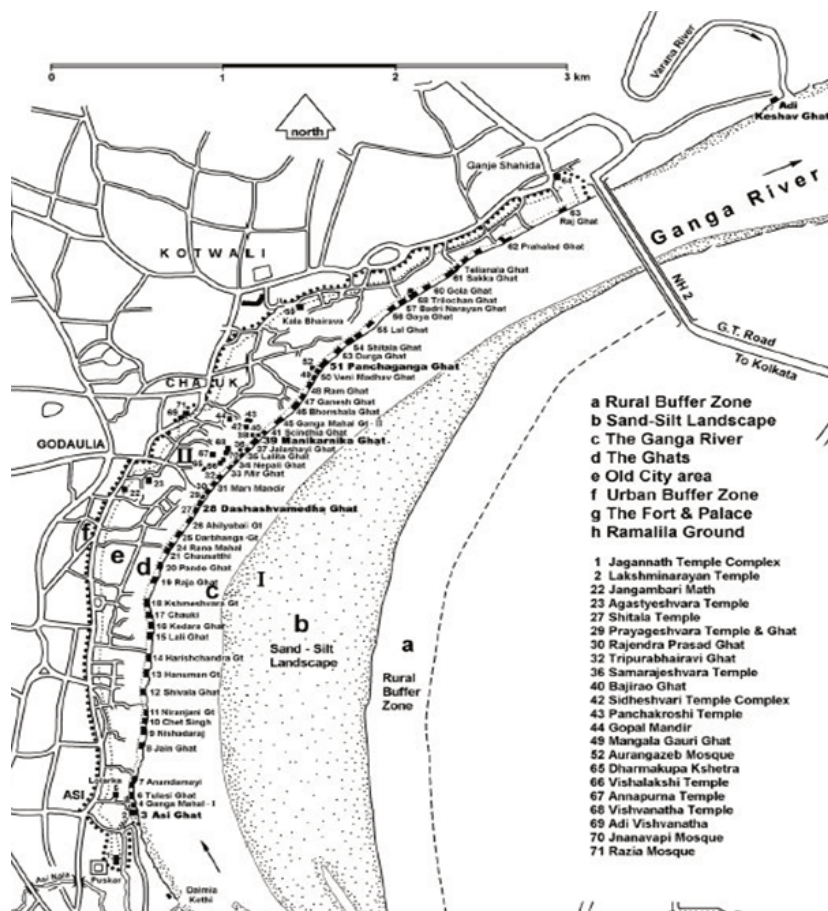


Fig.2: Varanasi, the Riverfront: World Heritage Sites

The Varanasi Ghats symbolize the legacy of Indian tradition because they serve as a charming ensemble of momentous design, culture, traditions and the people. The Ganga Ghats, cultural heritage resources, are the center of the pre eminent ceremonies and celebrations from which all devout begin their day by taking a sacred dip in the holy Ganga and finish up by giving a gift to the riverfront clerics, as a thanksgiving. A belief in Hinduism that death in Varanasi brings salvation makes Death a big attraction. It is believed that those who are cremated in Varanasi attain 'Moksha' (Salvation) or freedom from the cycle of life and death. The Ghat of Manikarnika is used predominantly for the cremation process, whereas other Ghats are important for morning and evening prayer ceremonies. It is estimated that around 200 bodies are cremated every day at the Manikarnika Ghat. The process of life and death can be experienced at the same time on the Ghats of Holy River Ganga. The death finds salvation in the city whereas commerce finds life. Furthermore,

the Dom community derives its livelihood amongst the dead. It is the local community, living here on the riverbanks for generations, solely responsible for the supply of woods for cremation purpose.

‘Varanasi weavers – continuing the thread of tradition’, The city is also famous for its 800-year-old traditional art of silk weaving of ‘Banarasi Saari’² by the local residents. Even today there is huge demand for traditional weaved silk in the city. Varanasi is also known for ‘Banarasi Paan’ and other local cuisines. It is tremendously rich in art, literature, music, handicrafts. Nevertheless, it is also famous for local narrow cobblestoned streets. ‘Varanasi walks’ – the streets of the city are exceptional and have catered the major pedestrian traffic to the local markets, the temples, and holy shrines. The narrow streets of Varanasi connected to the Ganga Ghats have always attracted tourists to stay in the main city core area and experience the spirit of Varanasi. Therefore, it is recorded that every day around 40,000 suburbanites visit the city, which increments to 65,000 during festive seasons. Large number of visitors helps to boost the economy but also increases the burden on the already inadequate infrastructure and services in the city.

3.1.3 Challenges faced by Varanasi

The city of Varanasi befalls under Class II city (as per Census of India) with a municipal population of 1,201,815, whereas the urban agglomeration population is 1,435,113. The city’s population has increased annually; nevertheless, the growth rate is moderate and declining. It is due to the fact that city lacks infrastructure and efficient service delivery to meet the aspirations of its residents. Land scarcity further adds to the problem.

The pressure of tourism development and city growth has had a definite toll on the rich heritage of the city. The natural heritage is debasing constantly and eventually the built heritage is left to dilapidation and destruction. The indigenous skills and arts are dying. For instance, one of the most magnificent buildings was in the process of changeover into a heritage hotel that will eventually result in the loss of heritage value and promote the various environmental pollutions.

The government has been facing challenges in any new development in the city because of its dense and compact heritage with narrow-lane settlements. Therefore, to accommodate the population growth in the city core area, the strategy to demolish some old heritage structures has been implemented by the government.

The Government has regulated development along the riverbanks by legislations. “In all the towns situated along the Ganga River, no development activities can take place 200 meters from the riverbank.” It specifically prohibits new construction on the riverfront Ghats unless these buildings are temples, maths, or ashrams (monasteries), and only if these have approved construction plans or are only being renovated. Overall, these legislations aim to protect the integrity, sacredness, and the ancient glory of cities along the Ganga.

The challenge is to meet the demands of the people without compromising its rich heritage.

3.1.4 The ‘smart’ makeover of India’s Spritual Soul – Governement Intitiatives

The concept of Varanasi smart city project is developed with an aim to transform Varanasi into ‘World-class pilgrimage’ which are based on six key focus areas: 1) ‘Surmay Kashi’ – to preserve old’s cultural heritage, spiritual and religious aspects of a city. This has focused on the ‘Impact less’ rejuvenation or redevelopment of Ganga Ghats from Panchaganga Ghat to Assi Ghat (Fig.2). 2) ‘Nirmal Kashi’ - the cleanliness of Holy River Ganga and the solid & waste management to make Varanasi clean, green and liveable. 3) ‘Surakshit Kashi’ – to ensure the safety and security of all elderly people. 4) ‘Sammunnat Kashi’ – to enhance the local economy and to create more business opportunities in a city. 5) ‘Ekikrit Kashi’ - The development of Information Technology (IT) solutions such as control centers, surveillance and traffic control systems. The redevelopment of e-governance unified with mobile app and portal for better monitoring and evaluation of the process of on-going projects. 6) ‘Sanyojit Kashi’ - The development of new linkages and corridors for improvement of non-motorised and motorized transportation. Decongestion of roads and narrow streets will be achieved with the help of Area Based Development, whereas Pan City will have multi-modal public transport system with Intelligent Traffic Movement Systems. ‘Varanasi smart city limited’, the government authority is committed to make city ‘Smarter’, ‘Sustainable’ and ‘Cleaner’.

² Handloom silk sarees commonly referred to as ‘Banarasi silk’ sarees have been very popular among Indian women.

3.2 Kyoto Model – The city profile

Furthermore, the paper questions if the planning objectives of Kyoto smart city mission be replicated for the city of Varanasi? Why or why not? Therefore, it is imperative to find out the analogies in both cities. What are the distinctive character and opportunities in both cities?

Kyoto is located in the Kansai region of Japan, was previously known as Miyako, and is the capital of the southern part of Kyoto prefecture. The city with a population of 1.47million, is popularly known for new cultural capital, research and learning centers. The city is best known for its history for being the old magnificent capital of Japan for one thousand years. The city planning concept and framework of Kyoto have seen various historical changes during and later world wars. On one hand, the city is home to 40 institutions of higher education and top universities such as Kyoto University. On the other hand, the city is the finest piece of preservation in Japan which has around 2,000 religious places, 1,600 Buddhist temples and 400 Shinto shrines, additionally palaces, scenic landscaped gardens, clean water bodies and architecture intact. Tourists are immensely affectionate of Kyoto canals that line a portion of the older well-carved streets with a gridiron pattern. The historic monuments of ancient Kyoto are recorded by the UNESCO as a world heritage site, has increased tourists which have further strengthen the city’s economy. It is also the city of manufacturing for many luxury items or Japanese crafts such as Japanese Kimono.³ These weavers are produced by the local people in their plants, nevertheless, such businesses have been declined in the last few years.

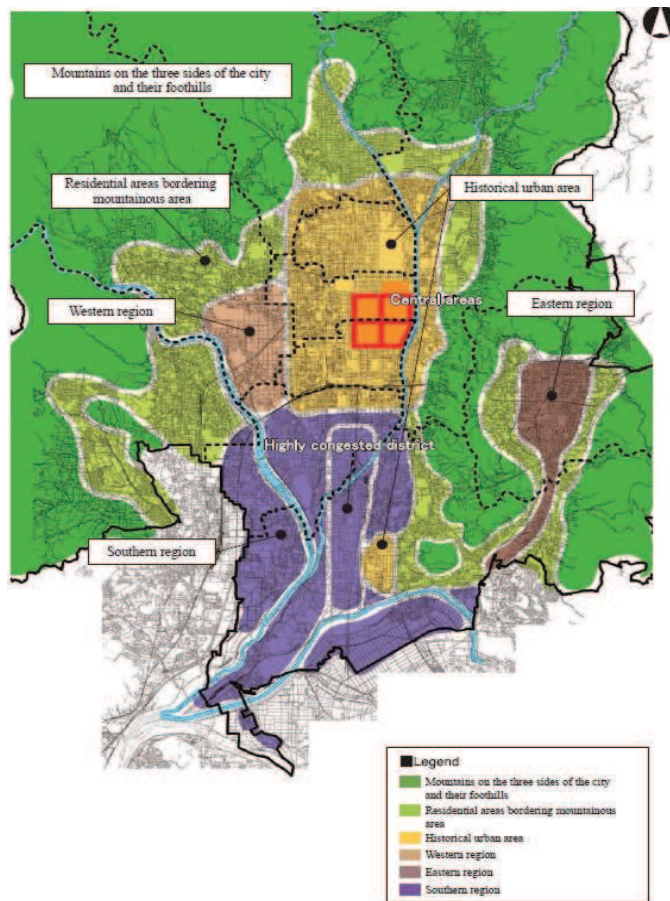


Fig.3: Kyoto, City Planning

3.2.1 Physical aspects of Kyoto

The city planning of Kyoto is divided into different zones: the main center or historical urban areas are surrounded by the streets imbricate into the urban areas, found to be the most functioned urban area. The region is also famous for its historical buildings, bridges, and landscape which are developed in its own way. The streets of the zone have its own characteristics, for instance, Karasuma Street harbors business offices, Oike Street being a symbol street for landscape development and both Shijo and Kawaramachi Streets

³ The kimono is a traditional Japanese garment.

accommodate shopping arcades. The northern and western region is world heritage sites with an alluring residential area which are blended with mountain views. The eastern region of the city consists of other historical sites in the neighborhood and articulated as a phenomenal rich green landscape. The areas have become organized and urbanized as an outcome of the development of a traffic network. Lastly, the southern region is the large plain area along with the waterfronts, farmlands, residential areas, and factories. The area is highly congested, consists of scattered residential, green parks, and industrial areas along the side of the Katsura River.

3.2.2 Kyoto Smart City mission

The government initiatives to preserve the harmony with their vicinities were designated as “Historical Climate Preservation District”. Under the act, the districts designated as preservation districts, the land parcel should not fall under any new development. The concept of a smart city mission - ‘eco-city’ in Kyoto was launched to advance energy supply and demand on a global scale. The mission also targets the development of large-scale housing with advanced technologies and new social system with resident’s participation. The concept of the smart solution in the city follows to establish a system to curtail CO₂ emissions without bringing out any change in the quality of life. The Initiatives were taken to prevent global warming and to create recycling-orientated approach. This includes recycling of cooking oils, purification of exhaust gas reduction, environmental education, and revitalization of local communities.

3.3 Understanding an ‘Identifiable image’ of a city

Due to the abrupt changes in innovation and move from nearby to a globalized domain, the urban communities are in look for better approaches to advance themselves. Somewhere, the urban cities are enforced to contend with one another to become an attractive tourist destination, working environment, and culturally rich places. The ascending competition of “updating continuously” among urban cities have been observed, in the impression of creating strategies cities to ‘support’, to ‘sell’ and ‘promote’ them inside the global market. Nevertheless, the concept of knowing a ‘city’ on its ‘identity’ is doubtless has disappeared. As mentioned earlier, every city has its own identity and character. Therefore, the fundamental objective of this attempt is to conceive an ‘identifiable image’ of a city of Varanasi. Under the smart city mission programme, the Japanese city, Kyoto, will administer cooperation to achieve conservation of cultural heritage and modernization to deal with the rapid urbanization in Varanasi. Kyoto and Varanasi contribute similar analogy historically and culturally, despite there is an ample difference in where they stood on an end.

The city evolution of Kyoto has been more than 1,000 years old, where the city of “Kashi” or Varanasi is studied one of the earliest cities in the world. The major distinction between both the cities is that Kyoto is the city of 10,000 shrines, whereas Varanasi bluster plethora of temples and Ghats along the streaming river Ganga. The modernized Kyoto city has kept its old city, shrines and heritage monuments viable with wide streets, whereas Varanasi has deteriorated its antecedent grandeur. Certainly, the transformation of Varanasi into Kyoto style cannot solely depend upon the parallels lines of old glorious past, heritage, culture, rivers, Ghats, Education.

The ‘identifiable image’ of Varanasi broadly classified into many categories: (1) Oral traditions and expressions, (2) Social practices, rituals and festive events; (3) domestic knowledge and curative nature practices and (4) Traditional craftsmanship & arts, (5) Memorial, icons & saints, (6) The holy river Ganga. The other cultural heritage of the city standing erected in shady lanes is sandstones houses with common spaces and backyards lead towards the holy river Ganga. The strong belief in Hindu deities that “God resides whose home is heaven” have made them transformed their homes into small temples. Similarly, another belief of Hindu deity that “Varanasi is a ticket to heaven” has made numerous royal families to establish their presence in the city. Certainly, the city of Varanasi has its own spirit or soul over the centuries which has emerged through an assemblage of food and culture, arts, education, religion, and commerce.

The inhabitants when questioned, what is exceptional about the city? The answer was the ‘Varanasi spirit’. In profuse ways, Varanasi symbolizes the best of India, but at the same time, it likewise symbolizes the worst as the old Varanasi which has organic growth is descriptively being broken down. An ‘identifiable image’ of a city is an important objective under the smart city mission in Varanasi. Therefore, the city of Varanasi has a distinctive identity and character despite it has the same physical planning as the city of Kyoto.

4 CONCLUSION

In case of Varanasi, the Kyoto model cannot be blindly replicated to achieve similar objectives because of the difference of culture, traditions, implementing agencies and institutions. Though it can be seen as a guiding tool how Kyoto managed to prosper and preserve its heritage simultaneously. Some of the strategies can be modified to adapt to the Indian scenario and then implemented.

Based on some similarities or some common peculiar characteristics no two places should adopt exact same development models. Every city has its own problems, potential and people. They determine the growth pattern of the city. So it should have its own solutions, scope and service levels. Incorporating cultural aspects while urban planning is always very challenging but it holds a very eminent place. Traditional knowledge should be utilised while planning. If smart city proposals are a “copy-paste” due to similar city profiles or urban issues it will result in ‘Cities with no life of their own’. It will lead to emergence of identical machines attempting to serve the inhabitants yet failing to meet their aspirations. In order to prevent the entire urban system from functioning as a machinery with no feelings it is essential to reconcile old tradition and modern technology. Smart Urban Planning focussing on cultural aspects is the need of the hour to achieve sustainability. The evolution of a city’s identity is dynamic as city itself is dynamic, which indicate it comprises of historic buildings, social spaces, local community, and cultural traditions just not historic buildings.

The concept of smart city not only increases the efficiency of cities with integration of digital technologies but also preserves the culture and spirit of that city. Smart city considers and preserves the unique elements of urban identity while transforming the urban fabric. Smart city is a city that is fully aware of the aspirations of its inhabitants. For the future vision, cultural heritage and people are inevitably interlinked with each other. Urban Planning is all about Planning for the people and not just the spaces. The people should always be given a choice to retain their individuality. Smart city ensures the active participation of its inhabitants in the policy formulation, planning strategy and implementation. Ideally Smart city should strike a balance between modern technology and indigenous methods. A careful analysis needs to be done before trying to replicate any model. Only the valid propositions of technological advancements that are compatible to the local traditions must be adopted that too on not so rigid grounds. There should always be a flexibility and intent to give priority to the interests of the local community. A way forward for Urban planning – all cities should be equal in terms of potential and opportunity for the people while also providing them separate choices in terms of lifestyle, culture, traditions.

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