

## Global Integration and Developing Indian “Smart Cities”: New Hopes and Challenges

Oindrila DattaGupta\*

\* Ms. Oindrila DattaGupta has submitted her MPhil dissertation and currently is a provisional Ph.D student in Centre for International Politics, Organisation, Diplomacy and Disarmament (CIPOD) in the School of International Studies at Jawaharlal Nehru University, New Delhi.

### ABSTRACT

*A city is site of economic agglomeration providing various advantages and opportunities. However, with 2/3rds of GDP generated in Indian cities and rural to urban migration patterns accelerating, India faces a crucial challenge: managing this unplanned rapid urbanization. Hence these cities can be developed as smart and intelligent, focused on becoming engines for innovation and research. Smart city is about integration, coordination and synergistic functioning of different participants. These include several aspects such as smart planning, transparency in governance, smart energy, smart infrastructure, smart buildings, and smart service delivery mechanisms. Essentially, a smart city is not about a single or a certain industry segment but will open multiple growth opportunities across all industries. India, is on journey to build smart cities—world-class, self sustainable habitats with minimal pollution levels, maximum recycling, optimized energy supplies and efficient public transportation. Many of these cities will include special investment regions or special economic zones with modified regulations and tax structures to make it attractive for foreign investment. Development of smart cities calls for global economic linkages and foreign investment. The idea of smart city though attractive calls for many socio – economic challenges too.*

### 1. Introduction

*“The cities of the 21st century are the largest sites of human settlement today, and are increasingly acting as critical nexus points of social, economic, ecological and technological change.”*

- United Nations Environment Program (UNEP)

The city is the apex of civilisation, the birthplace of citizenship. On one hand there is the city of poverty and threat; on the other hand, cities are the crucibles of the new, places of mixing and the creation of new identities; they are the cradles of new ideas. The very process of the coming together of different peoples can create conflict, intolerance and violence. These contrasting images of the city overlap and play off one another may be because the city comprises so many worlds. Indeed,

it is this dynamic ambiguity throughout history which makes cities at the forefront of social change. Cities, then, are of enormous significance (Massey 2005).

Globalisation has become one such element which is being manifested in global south and more prolifically in cities. Cities organise themselves amidst the changing economy and social structure. The changing economy of the country also entails the change in the character of capital and the way the surplus is accumulated. The megacities of global South are seen as global junctions; offer a multitude of potentials for global transformation. Due to their wide range of available human resources and globally linked actors, megacities are considered to be potential “innovative milieus”(Krass 2007:5). With increasing urbanization and globalization, India has

experienced 70% growth in urban population, India is expected to have 68 cities with more than 1 million population, 13 cities with 4 million population and 6 megacities with 10 million population and Mumbai, Delhi will be among largest cities in the world by 2030. As urbanization escalates adverse impacts also accelerate. Rising population aggravate numerous problems in urban areas such as slums, pollution, traffic congestion, inadequate capacity for treating waste water and sewage. So in the contemporary era with new global trend sustainable urban development has become a catch word. It adds new dimension to the existing cities. Smart city is one such concept which has gained currency in recent times. Interaction with global world has led to the emergence of new concept that is smart cities (Jain and Tiwari, 2014). It is projected that urban India will contribute nearly 75% of the national GDP in the next 15 years. Cities are accordingly referred to as the engines of economic growth. There is accordingly a crying need for the cities to get smarter to handle this large-scale urbanization and finding new ways to manage complexity, increase efficiency, reduce expenses, and improve quality of life. The union budget for 2014-15 proclaimed the commitment of National Democratic Alliance (NDA) government to create a hundred new "smart cities" as satellites of existing cities. Smart cities are attractive for the middle class and upper class which will enable better functioning of Indian cities (Burte, 2014). Smart cities will help to cope with several challenges that cities of modern world are confronting. Complex city problems require smarter ways to solve it. However it is not to forget that smart cities also come with baggage of added complexities such as marginalization of poor, growth of urban slums, violation of rights of poor.

## CONCEPTUALISING SMART CITIES: OPENING NEW OPPORTUNITIES FOR INDIA

Smartness is analyzed as an individual trait. While studying marketing the concept of smartness refers

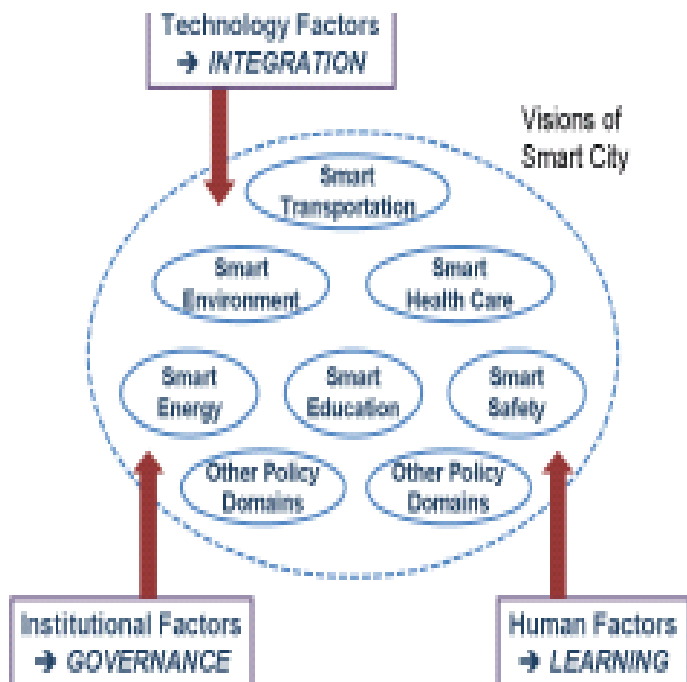
to attentive and aware customer. For social systems (including the city) it is treated as a better understanding of citizens' needs and responding fast to their requirements. Smart city is a new urban concept and is not used in a consistent manner. Smart city entails sustainable development, sound economic growth, and better quality of life for their citizens (Centre on Governance, 2003 in Nam and Pardo, 2011). They associate smart with achieving policy success in their jurisdictions. Hollands (2008) recognized smart city as an "urban labeling" phenomenon. The label smart city is a nebulous concept and is inconsistent. There is neither a single pattern of framing smart city nor a one definition of smart city.

The several working definitions of smart cities are as follows: "City well performing in 6 characteristics (smart economy, smart governance, smart people, smart mobility, smart environment, smart living), built on the 'smart' combination of endowments and activities of self-decisive, independent and aware citizens." (Giffinger et al, 2007). "A city that monitors and integrates conditions of all of its critical infrastructures is a smart city" (Hall, 2000). "It is a type of cities that uses new technologies to make them more livable, functional, competitive and modern through the use of new technologies, the promotion of innovation and knowledge management" (Mishra, 2013). "Smart cities are often small and mid-size metropolitan areas containing flagship state universities. Smart cities are centers of higher education" (Winters, 2011). Washburn (2010) considers it to be a collection of smart computing technologies. Kanter and Litow (2009) consider smart city as an organic integration of system. "A city that gives inspiration, shares culture, knowledge, and life, a city that motivates its inhabitants to create and flourish in their own lives. A smart city is an admired city, a vessel to intelligence, but ultimately an incubator of empowered spaces." (Rios, 2008) Smart city is such city "when investments in human and social capital and traditional (transport) and modern (ICT) communication infrastructure fuel sustainable economic growth and a high quality of life, with a wise management of natural resources, through participatory governance." (Caragliu, 2009).

Giffinger et al. (2007) and Giffinger (2011) detailed six main dimensions:

smart economy that is characterized by innovation spirit, entrepreneurship, economical image/trademarks, productivity, flexibility of labor market, international embeddedness and ability to transform; smart people that are qualified, creative, cosmopolitan, socially and ethnically plural, flexible, open-minded, tending to learn lifelong and participating in public life; smart governance that is characterized by participation in decision making, public and social services, transparent governance, political strategies and perspectives; smart mobility (transport and ICT) is described through a local and international accessibility, availability of ICT infrastructure, sustainable, innovative and safe transport systems; smart environment is evaluated by an attractiveness of natural conditions, pollution, environmental protection and sustainable resource management; smart living is characterized by cultural facilities, health conditions, individual safety, housing quality, education facilities, touristic activity and social cohesion. (Nam and Pardo,2012).Technology is considered to be key drivers of smart city initiative to enhance and manage the functioning of the city (Holland,2008). Smart city is also a digital city and networked city. It requires network equipments such as fibre optic

channels and Wi-Fi networks, public access points such as wireless hotspots, kiosks. Internet based government helps in interdepartmental interconnectivity. Smart government is one of the core constitute for smart city. It is about interconnectivity with citizens, communities, and businesses generate growth, innovation, and progress. Smarter government is truly citizen-centric (IBM,2010). E-governance, is key to smart city by bringing citizens in the decision and implementation process transparent (Pakaleva,2009 in Nam and Pardo,2012). Smart city governance is a citizen-centric, citizen-driven approach. Smart city is also a hub of higher education and smart workforce. Education is magnet that makes a city attractive. A smart city initiative becomes an integrated approach to connecting among entire communities (governments, businesses, schools, non-profits, and individual citizens(Nam and Pardo,2012).Collaboration, Leadership, Participation and partnership, Communication, Accountability Transparency are integral to smart city. A successful smart city requires involvement of every sector to coordinate and it can be a coalition of business, citizen, governments and other institutional framework as outlined by Nam and Pardo(2011). The diagram below shows the vision of smart city (Nam and Pardo, 2011)



Technological innovation is integral facilitator of smart city that ensures collaboration and comprehensive balanced development of skills. Smart city is also about transparent and citizen centric government. The role of leadership is also pivot of smart city strategy. There has always been criticism that smart city as a concept lacks clarity. Smart city is a strategy to achieve the reality of systematic and synergetic urban life. Smart city is mainly taken as an instrument to make city more competitive, economical and efficient to attract more investment. It calls for participatory governance, good infrastructural facilities, communication between consumers and energy providers. Smart city also encourages community participation. It infuses innovation, efficient governance, sustainability and community participation. Smart Cities Council considers problems of socio-political-economic-environmental issues to be addressed intelligently by technology (Burte,2014).What makes smart city different from sustainable cities or eco cities is its emphasis on creating connections between people, government , departments, knowledge institution and people . The parameters of smart cities such as: smart governance, smart technology, smart citizen, smart

energy, smart mobility, smart building, smart health care, smart infrastructure.(Hindustan Times Estate,2014).

## Developing Indian Smart Cities

Smart cities are considered to be critical necessity at the face of growing urbanization trend. It is a new concept in India enthusiastically proclaimed by the new government keeping in mind the urgency and need of urban life. According to In present scenario the important cities of India are:

**Mumbai** which is a financial hub of India with National Stock exchange, housing the head quarters of many financial institutions, MNCs as well as important commercial site of entertainment – a housing the Bollywood film industry is the capital city of Maharashtra. It also had been characterized as a global city by Sassen(2001). Mumbai was the first city to be exposed to the economic, technical and social change associated with rise of capitalism. It has been a home to many migrants, film industry, businessmen in the world. It is the range of manufacturing, finance and services which coined it as a global city. The new global economy has

restructured Bombay's economy and since 1990s it saw a wave of globalisation and liberalisation which led to growth of production and services. Bombay with its history and process of inequality, poverty, violence and politics along with its integration with global markets claims it to be one of the global cities of the south (Patel, 2010).

**New Delhi** is the, is the national capital and also a world class city. It has the second highest GDP in the country. It has also emerged as a cultural centre as well as political capital of India. Delhi has renowned educational institutions, Telecom, IT, Banking, hotels, media houses. Delhi is a consumptive city with middle class and private capital. It is also projected as a heritage city along with harbor of global projects. There is an effort to change the contours of city's political economy and massive enthusiasm by the government to invest, improve the transport facilities, public utilities, heritage buildings and new form of governance. Delhi has also been viewed as a site for economic, political and social changes as well as a focal point for global projects, flow of goods and services across the borders (Mehra and Batra, 2008).

**Pune**, the second largest city of Maharashtra, and is also one of India's major cities with well known educational facilities, serving as a major industrial nucleus. It houses the world's largest two wheeler manufacturers, i.e. Bajaj Auto and Tata Motors. Many software industries like Rajiv Gandhi IT Park, Tech Mahindra, WIPRO, are present. Some of the major software companies of India such as Infosys, TCS, exist in this city.

**Chennai** is the capital of Tamilnadu hosts an international airport, two major ports and five national highways connecting other parts of the India. Its contribution to India's exports of automotive products won it the title, 'Detroit of India'.

**Kolkata** is the major commercial hub of eastern India and also of the north eastern states. It is also a major cultural centre as well educational hubs with

IITs and IIMs, University and reputed colleges. It has been considered by many as post colonial city struggling with economic stagnancy.

**Bengaluru** renamed as Silicon Valley of India acclaims of some of the most recognized educational and research institutes of India .Several public sector industries, software, telecommunication and aerospace industries are located in Bangalore. Its remarkable contribution to the Indian IT sector won the name Silicon Valley of India.

New cities are now being built to accommodate growing urban population. The new cities in India will be the frontiers of modern technology and urban planning techniques developed around HSR (High Speed Rail) stations. These cities will have 0.5-1.0 million residents over the next 10-15 years, spread over around 100 sq km, similar to ones which are developed along the Delhi- Mumbai Industrial Corridor.

India still struggles with significant barriers that continue to hamper the urban development. There are complex leadership structures, land valuation challenges, capability gaps, and funding shortfalls are all part of the urban challenge that is effectively holding India back from a new round of dramatic economic growth. India also needs to address the current problems of developing good infrastructure, solid waste disposal, water management and sewerage system etc. resulting in urban decay, traffic gridlock and thus deteriorating quality of life for many of its citizens. The wave of urbanisation sweeping across India represents India's greatest opportunities as well as one of its most serious challenges ahead. India is a late starter when it comes to urbanization and is unplanned, crowded and complex. Therefore India requires an efficient and sustainable solution for urban development and can utilize the benefits of technology from other parts of the world. "India is in journey to build smart cities—world-class, self sustainable habitats with minimal pollution levels, maximum recycling, optimized energy supplies and efficient public transportation. The cities would come along Delhi Mumbai Dedicated Rail Freight Corridor which is under implementation. In this

endeavour to transform the rapidly growing urban areas into smarter cities, a collaborative partnership between government, industry, academia, and civil society will the pave way for attainment of this dream”(Agent schap NL,2010).

**Delhi – Mumbai Integrated corridor** is one such smart city project in India. Amitabh Kant, managing director and chief executive officer, Delhi Mumbai Industrial Corridor Development Corporation (DMICDC), “There is a very strong case for planned cities. India is going to experience rapid urbanization involving around 300 million people within the next two to three decades....”This Industrial Corridor includes developments of efficient means of transport including establishment of airports, roadways, and seaports in the corridor cities, building and expansion of roadways and rail networks. Later 17 more cities are planned to be developed on a similar pattern. A total of 24 such new generation cities are being planned for phased development across UP, Haryana, Rajasthan, Madhya Pradesh, Gujarat and Maharashtra. The first phase will see seven of them opening their doors by 2018-19. The processes of acquiring land, getting government clearances and generating investment have already started. Plans are also in place to integrate these cities through new airports, new rail links and arteries of ten-lane highways.

**SmartCity Kochi (SCK)** is a joint venture between Smart City Dubai and the Kerala government. The project will have a single special economic zone (SEZ) status.

**Haldia Smart city project** is the European Business and Technology Centre (EBTC) are initiating a pilot project to exhibit “smart city concept” at the industrial town of Haldia in West Bengal. It aims at lowering the carbon footprint.

West Bengal Urban Development Secretary Debasish Sen said that the New Town locality at Rajarhat near the metropolis was fit to be developed into a smart city.

**Gujarat International Finance Tech-City** or GIFT is an under-construction in the Indian state of Gujarat. It will have a special economic zone (SEZ), international education zone, integrated townships, an entertainment zone, hotels, a convention center, an international techno park, Software Technology Parks of India (STPI) units, shopping malls, stock exchanges and service units which will help to conceptualise GIFT as a global financial and investment hub.

Indian cities are moving towards technology integration which is in a nascent stage at this moment.

A smart city cannot have only a few hours of water supply a day, or electricity that goes off for several hours, or streets littered with garbage. The general appearance of the city has to be pleasing and clean. In Delhi, it is being proposed that the DDA will develop a new smart city through the land pooling scheme and in that, parts of the NDMC area may also be considered for demonstrating all the components of smart cities," Naidu added(Mail Today, September2014).Using an average figure of 1 million people in each of the 100 smart cities, the High Power Expert Committee on Investment Estimates in urban infrastructure has assessed investment requirements for the services covered comes to Rs.7 lakh crore over 20 years. This translates into an annual requirement of Rs.35,000 crore. "A large part of the financing for smart cities will have to come from the private sector with the states/cities and central government only supplementing that effort," as mentioned by the document on smart cities (Mail Today, 2014)

## GLOBAL INTEGRATION AND INDIAN SMART CITIES:

Cities play major roles in the global economy; all hold dominant positions at the regional level or within very large countries such as China and India. In terms of the `new global dimensions', most of these cities concentrate command functions and are

key locations for finance and specialised services for firms (Sassen ,2000: 4, 59). The roles these cities have played at the national, regional and global level have changed over time. There is a striking continuity, though, in that it is the cities' service functions rather than manufacture that continue to distinguish them. Most emerged in the nineteenth century as the principal trading and transshipment center for a rich hinterland. Usually they were developed by European interests as part of a commercial network often based on colonial control. The cities are significantly involved in the global economy, but they remain affected by the economic condition of the countries where they are situated. Their industrial, commercial and financial opportunities draw a disproportionate share of local and foreign capital. And the exceptional opportunities their labor markets promise encourage in-migration not only from rural areas but also from other cities. They drain human capital and the best educated, most skilled, strongly motivated from within the country and beyond. And their expanding middle class offers employment to a large number of low-income service workers, especially in domestic work, retail sales and security services. The global involvement of cities gives rise to elite consumerism which brings in new types of commodities and influences the demand in the economy. The Indian cities are now considered to be "cities of the future" (Gugler, 2003). The megacities have witnessed a rapid integration into the global circuit of consumer markets and commodity networks, fostering new and more aggressive consumption practices. With the reordering of urban space in a global economic context in which cities compete for capital, jobs, and tourists, property has also become an increasingly significant register through which elite groups pressure the state to "clean up" cities in order to attract transnational speculative investment. Increasingly, the ruling elites are constructing familiar landscapes of hyper consumption (shopping malls, business centers, five star hotels, golf courses, gated housing estates, fancy office towers) taking their architectural cues from New York, Paris, and California which are transforming inner city slums, and pre-urban

agricultural land, forcing the urban poor to relocate to less desirable parts of the city (Davis,2004).

Megacities , smart cities are new phenomena of globalisation and urbanisation processes. They are results of globalisation and are subject to global ecological, socio-economical, and political change. In India, with the round of the century there has been mark of a rigorous expansion of the urban front, which paved its way and made space for the emergent Indian middle classes, by the process of demolition of the homes and livelihood of the urban poor. This rapid process of urbanization is visible in Delhi, Mumbai, and Bangalore(Roy,2011).Gurgaon has emerged as a global city to an extent that it has been a home for large number of MNCs, call centres for US and UK companies as well as luxurious shopping malls, new architectural styles and distinct life styles. (Haines,2011).Even after the recent global financial crisis, capital continues to flow in the India's cities as never happened before. Foreign investors have generated dollar infrastructure funds with the aid of World Bank and Government of India in order to transform India's troubled crisis -ridden cities into world cities, or global cities in making simultaneously to propel India into the top league of the global economy. There are several interconnected phenomena that occurs in the name of making a world-city both within Indian cities as well as across hopeful emerging cities throughout Asia and the Gulf countries, where there is rise of speculation, and the provocation to overcome the "stasis"(Goldman,2011:230) of urban life where global virtuous entrepreneurs assemble. This is called "speculative urbanism" (Goldman,2011: 230). A good example of this process is the manner competing cities have catapult their urban infrastructure such as housing complexes, water supply, New Town and city centre in order to attract the capital flow for improving city life. All these are also depended on the investment climate at different times of urbanization process. Firstly is the "new architecture of investment capital"(Goldman,2011:231). In 2007 in India, the largest real estate firm of Dubai Limitless LLC, had invested \$15 billion for financing and building one of the India's first privately owned small city or

India's "Knowledge City," and the first of 5 multi-billion dollar private "greenfield" cities to be built on the newly urbanizing rural periphery of Bangalore city. From the middle of 2000s important derivative fund managers managed to shift investments to global cities of the South, although under the conditions of government guarantees.

Secondly, in India a "new architecture of urban governance" (Goldman, 2011:231) is rapidly emerging. The process of city building has now superseded as the center of mass displacement in these global South, because the idea of world-city which is becoming global, but land is now the major obstacle. In Kolkata which is one of the four busy metro cities in India faced a major tiff in land acquisition problem with regard to Singur and Nandigram. In Bengaluru there can be seen a rise of speculative government. The land has become a major hurdle in speculating government plans. Moreover the process of developing cities have also increased the role of transnational networks (Goldman, 2005, 2007), thereby creating a "global architecture of expertise on cities," (Goldman, 2011:232) with number of consultants like McKinsey, PricewaterhouseCoopers, UN agencies like UN Habitat, the UN Development Program, international financial institutions like the World Bank, the Asian Development Bank as well as the global forums, e.g., the World Cities Summit held in Singapore in 2010, the World Bank's Cities Alliance, the Global City Forum, the Global Cities Dialogue, the C40 Cities Mayors Summit, which are co-sponsored by a combination of the above institutions and firms such as Siemens, Philips, Veolia, Accenture, Limitless, Tamouh, Emaar (Goldman, 2011).

The World Bank and other agencies advocates the urban process for lending and "global managerialism," (Goldman, 2011:232). The environmental NGOs and other experts have considered cities to be the new location of green strategy to build green cities, eco-friendly cities which are considered to be the best policy for sustained lifestyle. There are also many new townships coming up, private cities are also in queue such as Mumbai Lavasa the first hill city of India. It is

attractive and fashionable private enterprise city. Global business consultancy firm PricewaterhouseCoopers (PwC) is helping India to design tech-savvy cities like Naya Raipur, Ahmedabad, saying the country needs technology to manage development challenges. Among the cities being designed by the multinational giant is Naya Raipur Smart City in Chhattisgarh where it is building telecom infrastructure, Hazem Galal, PwC's Doha-based Global Leader for Cities & Local [Available at: <http://www.igovernment.in/news/40094/pwc-designing-tech-savvy-indian-cities#sthash.lLybPibS.dpuf>.]

Singapore, South Korea and Japan already have developed smart cities in Asia. Singapore can meet 80% of all its buildings to meet the green certificate. Smart Seoul 2015 project initiated world's first free Wi-Fi city by 2025. China will make the biggest contribution to the smart buildings market with 46% followed by Japan with 19% and India with 11%. It plans to connect every home in country to the internet. Singapore with its closeness to India and with its relevant skills and experience in creation of smart and liveable cities in Asia is ideal for India to collaborate with Singapore to build smart cities.

Indian government's declaration to create 100 Smart Cities has the potential to generate a new competitive landscape for India that will be attractive for foreign direct investments by global multinationals. IHS Asia-Pacific Chief Economist Rajiv Biswas has noted that the total investment associated with the development of 100 smart cities in India is US\$1 trillion with a significant share of this investment to be from foreign government and private sector inflows.

"The potential economic impact effects from the development of India's smart cities development will act as a significant catalyst for economic growth through a number of drivers, including increased FDI inflows, accelerated REITs (Real Estate Investment Trusts) development, increased competitiveness, and job creation." (Rajiv Biswas, 2014).

The estimated total investment for the Delhi Mumbai Industrial Corridor (DIMC) project is US \$90 billion and the GIFT smart city \$10 billion, together amount to \$100 billion.



"The prime minister has a vision of developing 100 smart cities as satellite towns of larger cities and by modernising the existing mid-sized cities," Jaitley(Oct 1, 2014,PTI) had said in his budget speech.

As per current rules, 100% FDI is allowed through the automatic route for the development of townships, housing and built-up infrastructure, subject to stringent conditions. Between April 2000 and July 2014, construction development, including townships, housing and built-up infrastructure in the country received FDI worth \$23.77 billion, or 10.4% of the total FDI attracted by India during the period(Seth,2014).

This agenda of smart city is linked to the economic vision of creating centre of investment for private capital. The section on urban policy was titled "Urban Areas – High Growth Centres" which stated, that the cities should no longer remain a reflection of poverty and bottlenecks. They should rather become symbols of efficiency, speed and scales. Smart Cities refer to entirely new cities (greenfield projects) built from scratch or existing cities (brownfield project) These cities will be made "smart" by investing in technology and infrastructure. Smart Cities is now a buzzword as technology firms like IBM and Cisco initiated "building smarter cities" through technology. In Gujarat, the Dholera Special Investment Region (SIR) and Gujarat International Financial Tec (GIFT) City are example of smart city projects. GIFT City is a greenfield project which is being built as a financial centre, while Dholera SIR is a brownfield project designated as a large industrial area. The Smart City plan is part of an agenda of creating Industrial Corridors between India's big metropolitan cities in India such as the Delhi-Mumbai Industrial Corridor, the Chennai-Bangalore Industrial Corridor and the Bangalore-Mumbai Economic Corridor. The corridors developed by the Indian Government are in collaboration with foreign governments who have found new avenues of investment for domestic private enterprises. Japan is aiding India in its smart cities project by investing \$4.5 billion in the first phase of the DMIC project through lending from the Japan International Cooperation Agency (JICA). JICA has undertaken master planning for 3 "smart cities"-

Ponneri in Tamil Nadu, Krishnapatnam in Andhra Pradesh and Tumkur in Karnataka - in the Chennai-Bangalore Industrial Corridor. The United Kingdom is collaborating with India in developing the Bangalore-Mumbai Economic Corridor project with the efforts of private companies from Britain. India has signed an agreement for developing the 100 Smart Cities. Cisco has outlined the ICT Master plan of four smart cities under the DMIC project- Dholera in Gujarat, Shendra in Maharashtra, Manesar in Haryana and Khushkera in Rajasthan. Japan is keen to cooperate to transform Varanasi into a smart city(Financial Express,2014)

The Smart City agenda requires foreign capital to enter into new territories in the developing countries. For easing the entry of large foreign investments into such projects, the government ensures a single-window clearance system. Some of the proposed Smart Cities have been allocated as Special Economic Zones (SEZs) or will accommodate SEZs in them. SEZs are considered to be geographical enclaves who have several exemptions from the regular tax laws, customs and excise duties and labour laws (Idiculla, 2014).

## SMART CITIES : CHALLENGES AHEAD

As Sujata Patel(2012) comments Indian cities are representing dualities. Now there is a recent growth of smart cities all over Asia and India is not behind. India has taken up the project on smart cities which will be home to millions of people is planned to be constructed between Delhi and Mumbai as part of the Delhi-Mumbai Industrial Corridor (DMIC). There is enormous competition arising among the cities regarding infrastructural development. This is a problem in smart cities; there is a belief that this is a way in which there will be a ripple effect of demand: demand of services, demand of education this demand will incorporate productive labour in these cities. However these services will raise a competition and a lot of people will have to leave, and as a result they flood the informal market. Implementation of smart cities is

not so easy in India because problems related to land acquisition acts as a major hurdle for the state. Grappling the facets of post colonial cities is daunting task since there are layers of complexities. There is manifold diversity and divergences which are reflected in the cities of India today. There is a reflection of gap between the middle class people and urban poor in the cities of India. There is structural adjustment and neo liberal policy been implemented in the country. The advent of neo liberal policy has directed public private partnership towards urban India. Today there are immense foreign investments in urban India which has created dualities which has appeared in SEZ. It has been criticized to be exploitative and violating labour laws. Cities are the hub of accumulation; they are seen as investments for better life. However the cities distance the poor from enjoying the benefits of development. There is displacement of the poor as the SEZ takes land from the poor. India is an agrarian country and heart of India is still villages. However as the cities expand the division of society between elite and poor also expands. This will also lead to an unequal country where the marginalization is sharp which will show repercussions in political social and cultural ambit(Patel,2012).

The technocratic initiative of smart cities is also worrisome. In this smart urbanism policy the foreign investments, World Bank aid the cities which are engine of growth. A number of enterprises such as Schneider Electric, Hitachi, Accenture, Toshiba, General Electric, Microsoft, Oracle, have heavily promoted 'smart' technologies to the cities of developing countries. The private enterprise dominates the development of smart cities. The vision of the smart city aspirations matches the views of very particular, minority section of the population; that is a well-educated middle class can afford to use new technologies. In the smart city there can be little space for people at the margins, as viewed in the cities of the Global South, where there is the risk of increasing the distance between the smart city and areas which exist off the map, off the grid (Vanola, 2014).Smart city is also considered to be like a corporate storytelling. Smart cities are proposed as a satellite for middle class surprisingly a

class based spatial categorisation of the population (Burte, 2014).

The Indian cities are characterised by polarisation of society. However the criticisms of the Indian cities have been that they are the growing machines of politics, social inequality. The emergence of cities also calls for the identity based politics, grass root movements along with the integration of global economy. The sad picture of cities is the dislocation of poor, where cities descend into confusion, chaos and despair (Shatkin, 2014)

## CONCLUSION

There can be no single definition of smart cities can be formulated since they have evolved over time and have taken new shape and functions. The cities of China, Asian Tigers, India have become markets for foreign exchange whether it is automobile, consumer electric goods. Most of the TNCs ,MNCs have them based in poor country(Sassen,2000:23 in Gugler,2003).These cities play a global role in propagating ideologies, leading producers of films, television, music which reaches beyond borders. Certain cities are not important political players but important cultural players. Some of them are key centres for protest movements. The cities of global south depict a picture of contrasts. On one hand there are shopping malls, hotels, luxurious spas, eating places, public institutes and on other hand there are slums, beggars, small businesses, street vendors, and places of worship (Edensor and Jane, 2011) .Smart city is an attractive card which will attract large number of foreign investors. It will pave the way for jobs, investment, and better lifestyle, opportunities for global and human capital. As many experts point out smart cities are great business opportunity, attracting affluent middle class as well as inviting ambiguities and there is always a keen effort on part of the decision makers and planners to meet the needs of all sections of the people rather than just emulating the western model of cities.

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reported by PTI Sep 22 2014

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