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SMART CITY BHOPAL

CONNECTING SMART IDEAS

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CONFERENCE, EXHIBITION & AWARDS

CHASING THE SMART CITY DREAM

As the Government of India has embarked on the journey of building Smart Cities across India, Bhopal is on its path to transform itself from a traditional city into a smart one by leveraging technology and strengthening civic amenities. The city of lakes, apparently, is not leaving any stone unturned to get listed in the first 20 Smart Cities list of the Government of India.

Elets Smart City Conclave Bhopal 2015, organised by Elets Technomedia Pvt Ltd, in association with Bhopal Municipal Corporation, as the Host Partner, brought together government officials, technology providers, investors and experts across India to discuss and exchange ideas for making Bhopal a smarter, cleaner, sustainable city with world-class infrastructure. In the subsequent pages, we bring you the view points and insights of various experts and stakeholders who were a part of this conclave.

DAY ONE



Transforming Bhopal into smarter city



SHIVRAJ SINGH CHOUHAN
Chief Minister, Bhopal

We all know that Bhopal is a city of lakes but we want to put it on the map of Smart cities, having all sorts of modern infrastructure to make lives of citizens better. It is widely believed that those who turn up in Bhopal for a few days often end up living permanently here as the city offers tranquility and other benefits over other major cities. Professionals from varied fields have gathered to discuss possibilities of transforming existing cities into smarter ones. Bhopal is undoubtedly the best city in MP but apart from developing the State Capital, other cities of the State would also be transformed into better cities. I firmly feel that Smart Villages should also be developed where people get better job opportunities and quality of life. I would like to assure BMC that the required land would be allocated for redevelopment concept at the earliest to make Bhopal one of the best cities in the world.

Inaugural Session: Bhopal's Journey to Become a Smart City Challenges & Opportunities

Making clean and green Bhopal



ALOK SHARMA
Mayor, Bhopal Municipal Corporation

Bhopal Municipal Corporation (BMC) is making concerted efforts to make Bhopal a global city as well as a green and clean city. For this, BMC requires at least 50 acres of land where a structure already exists and can be redeveloped for the Smart City project. For instance, a Government staff quarter at Shivaji Nagar is lying vacant and in dilapidated condition, but can be used for redevelopment. An inspection can be done by the authorities concerned to assess whether the huge swathe of land can be handed over to BMC to kick off the process of redevelopment. Organising this conclave was a stupendous task for us to help understand the intricacies involved in materialising the Centre's Smart City project. The deliberations which would be made by experts of their fields would help the Government functionaries to transform the existing cities into modern ones.

Fulfilng the Smart City dream



VIVEK AGARWAL
Urban Development
Secretary-cum-Commissioner &
Secretary to CM
Government of Madhya Pradesh

The Madhya Pradesh Government is not only making efforts to transform the proposed seven cities of MP into Smart Cities, but other cities of the State would also be developed on the lines of the Centre's Smart City project. We want to merge the Centre's four schemes into one, namely— Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Smart City, Pradhan Mantri Awas Yojna and Swachha Bharat Abhiyan with the State Government's two schemes— Mukhyamantri Adhoshanrachana Yojana and Mukhyamantri Peyjal Yojana. We would merge the funds of the Centre and the State Government to strengthen services like sanitation, housing and reliable potable water scheme for the benefit of citizens. We started Bus Rapid Transit System (BRTS) in Indore on the pilot project basis, which is now emulated in some cities of the State. In order to fulfill the dream of developing Smart Cities, the Government is heavily relied on the banks as it has to seek support for the whopping funds required for Smart City project. This conclave has been organised to discuss and learn crucial lessons required to materialise the dream of Smart City project.

Going with the trend



MALAY SHRIVASTAVA
Principal Secretary, Department of Urban Development
Government of Madhya Pradesh

Smart City is not just a concept but a wave of transformation, where people of a particular city can get all kind of essential services like drinking water, sanitation and even transport at the click of a mouse or through a mobile app—which is in trend. Another issue is to have a better solid waste management (SWM) plan in place so that immaculate cleanliness can be maintained by the civic bodies in their respective cities.



TEJASWI S NAIK
Commissioner, Bhopal Municipal Corporation

Bhopal's civic body is endeavouring to get the city listed in the first 20 proposed smart cities. The Bhopal Municipal Corporation (BMC) wants to improve the quality of life of people living in the city, along with strengthening the civic services. In the past 10 years, we have been frontrunner in doing innovations. A lot of key projects implemented by us have been appreciated and emulated at a national level, setting up an example for other civic bodies too. With the surge in population and area, BMC is facing a stiff challenge of rendering better civic services to the city, which is currently holding a population of two million people, comprising 19 zones that are spread across 460 sq kms and 85 wards. The lakes of Bhopal are its soul, which are proper and are immaculately maintained by the BMC. In addition to it, we also have a vision for Bhopal for the next 30 years.

Making environment sustainable



TARUN KUMAR PITHODE
Project Director,
MPSWAN, SDC
Government of Madhya Pradesh

It is difficult to define a Smart City but we can say that it's the urbanisation of smaller towns equipped with all modern facilities. Apart from urbanisation, we should also ensure that it caters to the sustainability. We should have a good disposal and drainage system and reduced green house gases so that our environment becomes sustainable. When we say our city should be smart, we must start from our home. Firstly, our homes should be smart, then apartments and then buildings. We should have intelligent transportation, healthcare, water distribution, public safety and surveillance and pipe gas distribution systems. The planning of ICT infrastructure is the main requirement to make a city smart so that whenever we are trying to build a new city or are trying to convert an old city into a smart one, we can really do that based on the communication technologies. ICT also helps in the intelligent use of resources and slashing costs, footprints and energy. When we talk of Smart Cities, we should also ensure that the dream of Internet of things becomes possible through the usage of ICT.

DIGITAL INDIA Changing Landscape of the Country and Madhya Pradesh

Coping with the challenges



PRASHANT CHAUDHARY
Sr Director, Sales- Government, CA Technologies

At present, a lot of IT infrastructure is coming up at the back end which definitely becomes a larger concern for the Government to manage. Unless you have a clear visibility in terms of where the problem is into the IT environment, there's no way we can manage, which ultimately becomes the biggest challenge. Whether it is power, garbage disposal or anything else you look at, everything will be provided as a smart service for which a number of sensors are going to come. It's very important to understand how this entire IT scenario functions. Due to the application trend today, everybody wants to look at managing their IT environment efficiently. Moreover, security of data is also a major concern which should be looked after by the functionaries concerned.



Bhopal Mayor Alok Sharma felicitates Umashankar Gupta, Minister-in-charge, Department of Higher Education, Government of Madhya Pradesh. Also seen in picture Municipal Commissioners of Bhopal and Ujjain.

ULBs in limelight



PRIYANKA DAS
Additional Commissioner, Department of Urban Development
Government of Madhya Pradesh

Today, 'smart' is a buzzword. With the launch of the Smart City mission, everybody is talking about smart governance, smart buildings, smart infrastructure, etc. However, what we need to understand is that smart would also mean inclusiveness, because there has to be one pan-city smart solution which will cater to the needs of all. We also want smaller urban local bodies (ULBs) to become smart. Even before the Smart City mission, we had some initiatives as we tried to provide online citizen services with transparency and efficiency. For instance, property tax collection is a work of the ULBs, but given the political set up in which we work, it's not easy to increase rate of taxation. Nevertheless, a better way of doing this is improving the taxation base which we were able to do using GIS mapping.

Empowering citizens



ANURAG GUPTA, AGM, AISECT

AISECT, headquartered in Bhopal, is one of the biggest education networks of India. It is a 9001:2008 certified organisation and over 20,000 of its branches are operational in India. The Institute is running engineering and management-related courses, along with imparting skill-development training to youth under eGovernance programme. Throwing light on digital empowerment of citizens, it would enable people to avail all basic services through Internet. According to a study, MP has a scarcity of vocational training institutes that can impart training to only 2.5 lakh youth per year, which is not enough. We have to promote the IT sector among the young generation to invoke their interest in the field. Moreover, there are two categories of skill development—organised and unorganised sectors. In an organised sector, we have to set up e-learning centres at the school, college and university levels. Similarly, in the unorganised sector, the Government should train youth at the village and district levels and training must be imparted to make them smart enough to get jobs.

IT is the Heart of a Smart City



PUNEET AHUJA
Senior Technical
Consultant,
Juniper Networks

There are five major points which I would like to highlight on why there is a need for Smart Cities today. The first and most important thing is to overcome the lack of development which is there in our cities, and we want to be in line with the latest trends and cities that are doing better than us. The second thing is that we want to ensure excellent connectivity, while the third is digital infrastructure as a utility and fourth is governance and lastly comes the digital empowerment of citizens. So, unless these things are there, we can't really say that a city is smart. There is a lot of real-time database which needs to be analysed. Information infrastructure is the heart of any smart city. There are three different pillars—devices, network information infrastructure and data centre, where all the analytics take place. Once we have these three pillars in place, we can have any of the smart services running on it.



Audience at the second day of conclave.

Aviation will make cities smart



ANIL SHRIVASTAVA
Joint Secretary, Ministry of Civil Aviation
Government of India

The existence of a Smart City is not possible without smart aviation or smart transport. We can't imagine a smart city without having an excellent aviation sector. In India, per person per capita number of flights per annum is 0.4 of the United States of America. Further, in terms of number of passengers, India is the world's ninth largest aviation market. It is expected that by 2025, India will be ranked number three globally. Also, a few States like Odisha and MP have urged the Ministry that global carriers should touch Indore, Bhopal, Bhubaneswar and other small cities' airports. However, the real question is why even domestic airlines are not interested in commencing operations from small cities. The state governments have to undertake some initiatives to promote aviation in their respective states. In some states, aviation turbine fuel (ATF) costs are as high as 20 to 30 per cent and even in some cases, it is 40-45 per cent higher than the costs of ATF in the neighbouring countries like Sri Lanka, Dubai and Indonesia.

Smart Ways of Ensuring Safe Cities: Importance of Smart Policing

Making citizens' lives easy



LAWRENCE MACDONALD
Vice President Communications,
World Resources Institute, USA

There is not a clear definition of Smart City, but it is about introducing online services for making citizens' lives easy to save their time and increase efficiency of the Government functionaries. For the first time in the history of mankind between 2010 and 2015, more people lived in the cities than in the countryside that has never happened before in the world. It would increase to 70 per cent by 2050. Now, India's urbanisation rate has been slower than the world's, but it is now gradually escalating. Over the next few decades, a majority of population of India is going to live in cities. If everybody started to have cars, then the world will become a terrible place. We need to have better transport system in place, especially non-motorised mode. We have been working in Indore and have built Bus Rapid Transit System (BRTS) with local officials. We also found that the number of people have increased from 10,000 to 50,000 a day and among those 40,000 new commuters, 30 per cent of them are women who were not comfortable travelling in public transport.



A member of audience makes a query during second day of Smart City Conclave Bhopal 2015

Being objective



RICHARD SLATER
Team Leader, Madhya Pradesh Urban Infrastructure Investment Programme

Bhopal is the first city to have already initiated the process of building itself into a smart one. The Madhya Pradesh Government has started the process of consultation, debate and public involvement. A Smart City has its own objectives. Around the world there are various Smart Cities in the US, UK, Europe and Korea and now India is on the bandwagon as well. The idea is that the cities have to compete globally. Each city in itself is a destination of investment. But how can it be made sure that the investment comes to Bhopal or Indore or Jabalpur or anywhere else? The first thing is a city has to be seen as competitive and a place to innovate, where people can come and innovation can take place. It's not just a place where one can get drinking water, energy, roads and any other facility. We can get all the said facilities in hundreds of cities but what is different in a city needs to be highlighted.

Making the cities safe



SRINIVAS VERMA, Inspector General of Police, Rewa, Madhya Pradesh

When we talk about Smart Cities and their safety, the role of police comes into action. In my opinion, not only the cities should be smart, but we should have smart laws, smart police enforcement, quick justice and smart prosecution too. There is a theory called 'broken window' in the western law enforcement. The concept says if one person sees the other breaking the law and not being penalised for it, there is a tendency that the law-abiding citizen also becomes the law-breaking citizen. In order to have smart policing, we need to select the best manpower. For instance, a majority of constabulary in Madhya Pradesh are educated upto 10th standard only, and they do not possess computer skills. Thus, we have to impart high-standard training to our police personnel, especially those from the lower ranks.

Providing effective service delivery



CSR REDDY, Additional Director General, Punjab Police

The main objective of smart policing is to deter criminals from committing crimes, along with providing an effective service delivery. The key components of smart policing are: surveillance equipment, network connectivity, data centre for storage, command and viewing centres, collaborative monitoring and helpdesk. In addition, alarms, sensors and video surveillance also play a major role in a Smart City. Critical Incident Management is also important, especially during law and order situation because an effective and timely response by the police can handle a situation well. In Punjab, we have thrown open Saanjh Kendra (community policing centres) at police stations at sub-divisional and district levels. Here, people need not turn up at police stations to file their complaints and get harassed; instead they can go to these kendras where their complaints would be filed. Moreover, police personnel are deployed in plain clothes at the said Saanjh Kendra, who are totally independent of the local police.

Improvising the traffic system



AVINASH MOHANTY
Deputy Commissioner of
Police, Cyberabad

There are certain aspects of traffic that are integral with city planning. Every year, in India, around 1.5 lakh people are losing lives due to road accidents, indicating that traffic system needs to be improved. In Cyberabad, we have introduced modern traffic-signaling system—Hyderabad Traffic Integrated Management System (HTIMS), integrated e-challan system, cab registration system, social media and mobile applications to disseminate information. The HITMS in Cyberabad covered 221 traffic junctions which are networked and adaptive and connected with central control room.

We also have vehicle actuated mode which measures the flow of traffic and then changes the signals automatically. All these are networked and their timings can be set. The e-challan system kicked off in 2007 is getting a robust response and is being improved on a regular basis.

Interestingly, we have also given small cameras to traffic police personnel who can wear those to record conversation with the offender to maintain transparency while penalising any traffic violator.

Smart Energy for Building Smart Cities

On the verge of becoming a global city



LAL SINGH ARYA
Minister of State, Government of Madhya Pradesh

Bhopal is famous for its cultural diversity across the nation and is now endeavouring to become a Smart City. It is a well-known fact that the Bhopal civic body has done a lot of work to strengthen the civic amenities, which indicates that Bhopal certainly has the potential to become not only a Smart City, but a global city too. This conclave is a platform where experts from various fields would help Bhopal administration to make it a better and livable city and put the name of the city on the global map. I can firmly assure Bhopal Municipal Corporation (BMC) of extending all possible help to realise a dream of transforming Bhopal into a Smart City.

Technology to improve energy



SAMEER DANGE, Territory Manager (Bhopal), Bharat Petroleum Corporation Ltd.

Bharat Petroleum Corporation Limited (BPCL) is producing Euro 4 in the Euro 3 market with a vision that by the time the market is converted to Euro 4 right from the refinery to the fuel tank of the vehicles, we will be able to comply with the emission norms on the day we declare ourselves that we are Euro 4 compliant. We have embarked on a massive solarisation plan for BPCL petrol pumps and retail outlets. Moreover, we are using technology for the past 15 years in terms of smart cards for transportation solutions which are basically cashless transactions, across the length and breadth of the country. We are having nearly 50 per cent of our entire network of total 12,000 retail outlets fully automated. It means that we give out machine-printed bills. If one is registered with BPCL, s/he will get an SMS.

Setting up the solar projects



SR MOHANTY
Additional Chief Secretary,
School Education,
Government of Madhya
Pradesh

When we are talking about the Smart Cities, I would like to talk about the renewal aspect of the smart energy because it's a real smart energy. About three-four years back when renewable energy production was almost zero in Madhya Pradesh, there was a huge advertisement of the successful inauguration of Charanka Solar Park in Gujarat, which went viral in the country. After that the hon'ble Chief Minister asked us whether we can do the same in MP, although MP was zero in renewable energy at that time. We replied to the CM, "As on today, MP has an installed capacity of 2 mega watts (MW) in solar power." We sought a time period of three years from the CM and committed him to convert 2MW into 2 giga watts and become three times of Gujarat which was leader at that time. It's a matter of great pride that we have a registration of 10,000 MW in wind and MP is number one in installation and commissioning of solar projects. We have proposed to set up the largest solar project in the world.

The green city component



DR CK JAIN, Former Director (Commercial), Maharashtra Natural Gas Limited

For any city to be declared Smart City, one of the major criterion includes pollution-control measures and use of renewable energy. The major sources of pollution within the city are vehicular traffic and industries. To tackle the issue of ever increasing pollution, the solution is to use piped natural gas in domestic, industries and commercial sector, along with the usage of Compressed Natural Gas (CNG) in vehicles. So, for starting this City Gas Distribution (CGD) project, we need to fulfill conditions like availability of natural gas, authorisation for setting up a CGD by Petroleum and Natural Gas Regulatory Board (PNGRB) and the most important factor is allocation of natural gas by the Ministry of Petroleum and Natural Gas for CNG and domestic-piped gas. For any smart city, green city component is very important which can only happen by using least polluting fuel, i.e. the natural gas.

Sustainability in spotlight



NIRAJ SETHI, Executive Director, Engineering India Limited (EIL)

With the initiative undertaken by the Government of India to make Smart Cities, a lot of work will be done in the country and we have a huge task ahead of us. The pace of migration from rural parts to urban ones is quite fast and by 2050 a majority of people will be living in the cities. Further, the growth of the GDP in the urban areas is much more than the rural ones. Further, people are usually focused on very small areas of Smart Cities. We talk about the quality of life, employment, physical infrastructure, disaster management and much more. Also, the kind of destruction which took place in Nepal earthquake was monumental. So, disaster management in this region is really not something which is focused upon. The economic, social and institutional infrastructure—all of these need a lot of effort to sustain. Also, the state of our schools, colleges and hospitals is not something which we can boast about. The Smart City is actually an intersection among competitiveness, sustainability and capital.

DAY TWO

Smart Panel on Smart Cities

Smart Gram
Smart
Panchayat

ARUNA SHARMA
Additional Chief Secretary,
Panchayati Raj and Rural
Development Department,
Madhya Pradesh

If you look at the whole infrastructure of a city, the villagers and panchayats are the feeders of the Smart Cities as we are going forward. But if one starts neglecting these, then there will be a lot of problems to be faced. So, to overcome this problem, we have given a slogan called 'Smart Gram Smart Panchayat,' which will be carried forward. It is divided into four parts—the first is having a top-quality infrastructure, the second involves delivery of services through the software and system of operations. The third is the livelihood, which quite relates to the Smart City project, i.e. unless a good quality of livelihood is provided in these places, we are going to suffer migration, problems in slum areas and people moving unnecessarily from villages to the urban areas. Lastly, it is the social change which holds significant importance.

Private players to play a key role



DURGA SHANKER MISHRA
Additional Secretary, Ministry of Urban Development, Government of India

The concept of Smart Cities has not been defined anywhere. It is, in fact, different for different cities. The Central Government has picked up seven cities from Madhya Pradesh, among 98 others, to be transformed into Smart Cities. All the chosen cities have been given a time period of three months for preparing their future plans. Depending on the quality of proposals submitted by the ULBs, as many as 20 cities will be selected in the first year, 40 in the next year while remaining 40 in the subsequent year. For any city, proposal making is the most crucial process and many global players have evinced their interests to help materialise the project. As per the MoUD guidelines, things will be reviewed after every two years. So, the cities are going to compete with each other. Some of the key parameters in the competition includes credibility of implementation, citizens' participation, finance mechanism innovativeness and scalability of smart solutions and robustness of development process. The smart city venture won't be solely the government's, but would also allow partial private stake holdings.



A member of audience makes a query during Smart City Conclave Bhopal 2015.

Solid waste biggest concern for ULBs



ARUN PRAKASH
Commissioner
Jhansi Municipal Corporation

The selection process of Smart Cities project is very democratic and scientific. We hold responsibility to take it as a mission and implement it effectively. However, solid waste management is one of the biggest challenges for the civic bodies nowadays. In Jhansi, we have opted plastic waste management and waste-to-compost model. There is a proper mechanism of 'collect door-to-door plastic waste', for which we have engaged the ragpickers. We have sensitised citizens to collect plastic waste of an entire month and inform the civic body to get it collected from their houses. In the next stage, the waste is transported to the process centre and segregated into the biodegradable and recyclable category. Finally, it is disposed as per the environment concerns. We are producing manure out of bio-waste and liquid compost is also being produced to sprinkle on vegetables, flowers and lawns. Smartness comes from the self and people's participation. The competition, which has been introduced among the ULBs, has enlightened us towards the core aspects of Smart Cities.

Citizens' participation key to success



UMASHANKAR GUPTA
Minister-in-Charge, Department of Higher Education
Government of Madhya Pradesh

Smart City is an issue of utmost importance not only for the Urban Local Bodies (ULBs), but also for the government bodies and private players involved in urban planning and development. There is no doubt that Smart Cities should be created but villages should also be made smarter at the same time. The Government of Madhya Pradesh is looking forward in this direction and providing basic amenities in villages to prevent migration from rural parts to urban areas. We have to assess city-specific requirements before implementing Smart Cities plan and citizens' participation will play a key role in developing these cities.

ULBs must be financially strengthened



PALASH SRIVASTAVA, Director, PPPI & Programmes, IDFC

On the lines of telecom sector, we can create a smart movement in the proposed Smart Cities. Telecom service is available in the far flung and remote areas today while with the increasing population and migration, tax and revenues are also going up. Over the years, the cost of lands has also been escalating. Tax increment financing is an important component, but it has not been understood deeply. Abroad, land owner can take loan as per the increased cost of land. Property and other taxes should also be realised properly. Also, we have to identify our resources and assets—physical and financial. Green financing will help one to get easy and long-term financing, which is the need of the hour. India is the only country that is working on creating green funds. We should also focus on new construction for Smart Cities, but first thing to become smart is, using optimum resources and managing the assets.

Smart Ways for Financial Inclusion - Inclusive Approach for Generating Smart Revenue



wooing entrepreneurs to invest in MP



V L KANTHA RAO
Commissioner, Department of Industries,
Government of Madhya Pradesh

The job of the Department of Industries is to facilitate the investment in Madhya Pradesh through development of industrial areas and by providing incentives to the industrial units. We also handle a self-employment scheme, called Mukhyamantri Swarojgar Yojna (Chief Minister's Employment Scheme) and Mukhyamantri Yuva Udyami Yojna (Chief Minister's Young Entrepreneur Scheme), where we target about 20-25,000 young entrepreneurs and give them loans through banks with considerable subsidy and support.

Apart from the Urban Development Department and Municipal Corporation, Smart Cities also involve industrial units and entrepreneurs. Transformation of a city into a smart one requires a lot of investment, sourcing and supply of material, which is possible through entrepreneurs. It will provide opportunities for entrepreneurs to set up their establishments. Another aspect is development of smart industrial area for entrepreneurs; we should ensure that the citizens of industrial area get smart amenities. Further, we want entrepreneurs to come from abroad and invest in MP.

Ensuring hawkers' livelihood in Smart Cities



SHASHANK SRIVASTAVA
Mayor, Katni

The Government of Madhya Pradesh has unveiled two schemes to reduce unemployment and generate huge job opportunities. Mukhyamantri Swarojgar Yojna and Mukhyamantri Yuva Udyami Yojna provide loan up to ₹10 lakh and ₹1 crore, respectively. Municipal Corporations also offer loans, ranging from ₹10,000 to ₹20 lakh to street vendors and hawkers. So, we should spare a thought to vegetable sellers and hawkers and try to make a hawker's zone in the proposed Smart Cities, ensuring their livelihood.

In addition, there will be proper parking lots in vending zones. Industrialisation shouldn't hamper the development of a city. As far as 'Make in India' is concerned, ULBs can play a major role. The civic bodies must ensure basic amenities in the city areas and its outskirts. The Corporations should help eradicate unemployment and settle the hawkers from a congested place to a particular zone. Also, the hawkers' zones should be developed in such a way that people should have adequate parking space.

India emerging as an investment destination



NITEEN YEOLA

Second Secretary-Designate, High Commissioner of India, Colombo, Ministry of External Affairs

The Union Government is making a lot of concerted efforts to promote India as an investment destination globally, and there are a plethora of success stories. We need to understand the domestic as well as investors' perception. The 'Make in India' campaign has significantly changed the perception of people about our country and now other countries are looking at us much more positively than earlier. In 'Make in India' and 'Make in MP', a lot of emphasis has been laid on attracting investment but at the same time, we should also think of responsibilities of investors and industries. There has to be a symbiotic relationship between the regulation and the industry. If we have to make the campaign successful, we have to strike a balance between the environment and industry. The credibility would depend upon how effectively regulations and legislations are being implemented. In the context of 'Ease of doing business in India', a lot of things have been changed at the ground level. Parallel processing, single window clearance and making things online have taken place. So, we need to have a targeted approach and an attitudinal shift is also required.

Ready to host 'Simhastha'



AVINASH LAVANIA, Commissioner, Ujjain Municipal Corporation

'Simhastha' is a Maha Kumbh, which is attended by around five crore people in a small duration of one month in Ujjain, Madhya Pradesh. Every year, this 30 day-long event starts on April 22 and continues till May 21. So, we have attempted that the entire planning of 'Simhastha' is done on the GIS map. All the plots allotted to sadhus are visible on the GIS map comprising 42 different layers. Combined with the GIS planning, we have developed a software called 'Plots' that enables various departments to access all information on the allotment of plots and amenities like toilets, water taps and sewerage. It also helps immensely in executing the projects. The entire Kumbh area has been divided into six zones— each zone further divided into sectors and all planning has been taken up accordingly. For public transport, entire road planning is being done on the GIS. We also ensure that all the plots must not have service roads so as to prevent the congestion of people's movement during the Kumbh.



R Parsuram, State Election Commissioner, Madhya Pradesh asks a question to one of the speakers during Smart City Conclave Bhopal 2015.

Smart Infrastructure and Smart Transportation for Building Smart Cities

The need to strengthen road transportation



DR C S KUMAR, Transport Commissioner, Government of Odisha

Transportation is one of the important components of the Smart Cities project to develop the country in a smarter way. According to reports, if the country is growing at the rate of seven to eight per cent, the demand for transportation, particularly the road transportation, is surging at the rate of 15-20 per cent. Today, the road transport is 90 per cent while rail transport is just a meagre ten per cent in India. However, the ratio between the road and rail transport was 60:40 at the time of Independence.

The importance of road transport in coming days is going to increase. A large number of people are dying in road accidents and to prevent these, the Government of India suggests 3Es which are—Engineering, Enforcement and Education. However, it requires a lot of planning and implementation. The Odisha Government is trying to automate all sectors, including transport department. We offer time-bound public service delivery comprising issuance of driving licence, fitness certificate and permits.

Transforming Naya Raipur



DILIP SHEKDAR, Consultant – Architect, Naya Raipur Development Authority, Chhattisgarh

The Naya Raipur Development Plan 2031 is based on the Grid Iron Pattern. It is divided into 40 sectors, out of which 21 are residential ones. The area along the highway is earmarked for transport-related activities and main rail line is proposed in the northern part of the city. Education and recreation-related projects are proposed to come up in the southern side. The enhancement of the plan in accordance with the principles of the Transit Oriented Development is underway. In all, the plan is focused on creating a healthy and environment-friendly city with a state-of-the-vibrant-art infrastructure and other facilities in place. Nearly 75.2 kms of four lane/six lane roads have already been constructed, whereas road network of 61 kms is under-construction in Naya Raipur. The city is having an underground power distribution system, along with Supervisory Control and Data Acquisition (SCADA) system to have online monitoring and control of power-supply. Street lighting is using latest technology with network control and LEDs while solar power is being widely used in the administrative buildings and traffic signals.

Citizen advocacy highly needed



BIJU KADAPURATH
Director and Global Smart Cities Expert, PWC

We have played a vital role in transforming over 30 international cities into smart ones, almost in every continent. With the help of Centre of Excellence based in the US, we did 'Smart Astana' project in Kazakhstan. The project followed the European model of smart cities, having six components. As the guidelines of MoUD suggest, Smart Cities will have 24x7 water and power supply, among others. These are basic elements in other countries, but India is still struggling to strengthen all the said amenities. So, a holistic approach is extremely important to develop Smart Cities and three sets of beneficiaries of urbanisation—citizens, government and industries need to come together to bring vibrant economy. We, as stakeholders, need to take ownership and not only rely on the government for every small thing we want. We need to look at the spectrum of investment and outcome. Citizen advocacy helps understand the requirement and without leadership commitment, no plans can take off. Bhopal is known for its quality of life and people should aspire to move in this city because of the availability of world-class amenities.

Smart transportation need of the hour



ABHISHEK KUMAR
Technical Secretary to Minister of IT, Government of Telangana

An easy way to make a city smart is reducing the number of personal vehicles and strengthening the public transport. Abroad, there is a nice concept designed, which includes four or six lanes, and each lane remains dedicated to its specific users for heavy vehicles or public transport, personal vehicles, two wheelers and the pedestrians. So, we have to look forward how it can be emulated in the upcoming cities. When we talk about smart transportation, people want to access information through mobile apps on their smart phones, apart from dashboards about the frequency of AC/non-AC buses, routes, arrival-departure timings, among others. The word 'smart' is closely connected with SMAC, which stands for Social, Mobility, Analytics and Cloud that will play a key role to make transport smarter. The Government of Telangana has introduced 'She-Shuttle' in Hyderabad to ensure women safety.

Public transport lacks women safety



AMIT BHATT, Strategic Head, Embarq India

There are three key attributes which a Smart City should show, (a) livability having people-centric approach, (b) contribution of vibrant economy, and (c) very low resource consumption. These things have to be balanced and then we can use technology as a catalyst. A livable city offers safety and security while vibrant economy creates job opportunity. We need to promote public transport in a big way and a large number of women should use it. Workforce participation in the country is almost at the lowest level in comparison to the global data and what is even more striking is that workforce participation is less in urban areas as compared to the rural ones.

Road Ahead for Building Cities

Land management holds importance



R PARASURAM
State Election Commissioner,
Government of Madhya Pradesh

Making a city livable is all we require for Smart Cities. Smart means everyone becomes well off, including people from the lowest strata of the society, and not only upper middle class and middle class people. The Government should generate more employment opportunities for the migrants in rural and urban areas. Also, a city can never be smart if only smart populace keep turning smarter. The State Government should take care of supply and management of land in every city. The delay in most of the projects happens due to land acquisition issues and we can't ignore the land requirements of the informal sector. Transportation and availability of space should also be looked into, ensuring last-mile connectivity for people as multimodal transport often fails due to non-availability of the last-mile connectivity. Also, sanitation and drainage are important issues to be addressed while developing Smart Cities.

Smart Cities require smart planning



ALOK SANJAR
Member of Parliament, Bhopal

Bhopal is indeed a beautiful city but we need to make it smart. There is an adage 'where there is a will, there is a way', and the city administration has a strong willpower to do it. Prime Minister Narendra Modi-led Government is showing us the right direction to work in a constructive way. We have been working strategically for a long time now and will continue to do so. Citizens will have to be smart enough to make our city smarter. Also, there has to be a proper planning and research before the work of transforming Bhopal into a Smart City starts.

The dream of Prime Minister Modi will surely bear fruits, but we will have to work in a time-bound manner. Pradhanmantri Adarsh Gram Yojna and Smart Cities mission, the brainchild of Prime Minister, will surely set an example for the next generation.

