



Towards a 'smart' future

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Decoding and analysing the government's 100 smart cities programme

GN Bureau

The government's ambitious plan to develop 100 smart cities across the country was the focal point of discussion among the speakers at the NextGen Cities conference, held in Bhubaneswar, Jaipur, Guwahati and Raipur. The experts deliberated on a range of topics including planning, sustainability, transport, housing for poor, disaster management, technology, etc. which are essential components for developing a smart city.

Defining the concept of a smart city, the panelists said that the smartness of cities should not be limited to

just using software, sensors and networks. A comprehensive approach towards smart cities is needed. Smart cities should be affordable where people can live and grow irrespective of their income. Moreover, the citizens should have a say in the formulation of smart city policies.

Echoing this sentiment, Onkar Singh Lakhawat, chairman, Rajasthan heritage protection and promotion authority said that the discussions on smart cities should be held in "mohallas". In this way, opinion and views of people living in that area can be sought to make their city smarter. The policy makers should also deliberate on ways in which the city would cater to people's need.

Giving an example of the city of

Barcelona, Sudhir Krishna, former secretary, ministry of urban development, said that a city's smartness should reflect in its planning, infrastructure and beautification. Decades ago, thousands of people used to live in slums in Barcelona. In the past 60 years, the Spanish city has made great strides in improving the living standards of its people and promoting urban sustainability.

Consider this statistic – Barcelona and Atlanta are home to about the same number of people, but Barcelona's carbon footprint is only 4% of Atlanta's, clearly a shining example of compact urban development. Planning is also important in execution of urban infrastructure projects, Krishna said. While laying down the roads, the

(L-R) Rajpal Singh Shekhawat, Jaijit Bhattacharya and Sudhir Krishna at NextGen Cities conclave, Jaipur

administration should also plan for sewage pipelines, optical fibre, transportation, etc. in a coherent manner.

Promoting sustainability

The experts also debated that smart cities should be more sustainable, inclusive and safe. City administrators should not be indifferent to green spaces, rivers, ponds and reservoirs. The indifference has caused enough damage already. “We can’t drink surface water in most places as it is polluted. Around 80 percent of this pollution is because of the urban system and not due to industrial waste,” noted DN Pandey, member, Rajasthan state pollution control board.

Highlighting the importance of artificial green infrastructure such as sewage treatment plants, Pandey said, “Singapore gets five to seven percent of its drinking water supply from recycling of waste water.” Municipal waste should not be wasted. There are many waste-to-energy plants running successfully in a few Indian cities.

Building up on the vision of recycle

and reuse, Naveen Mahajan, project director, Rajasthan urban infrastructure development project, said that water usage should be proportionate to the amount of water recharged through rain water harvesting and recycled waste water.

Giving a dismal picture of the declining tree cover across the country, RK Sharma, principal secretary, environment and forest, Odisha government said that planners lose sight of urban tree cover when they design cities. According to forest survey of India 2013, the urban tree cover in the entire country was 16.04 percent. In Odisha, it was only 13.6 percent.

Improving public transport

A strong transportation system is necessary to make cities more energy efficient and well connected. Keeping this in mind, the experts commented that there is a need to invest more in public transport facilities across the country. Krishna Kumar, vice chairman, Bhubaneswar development authority and commissioner, Bhubaneswar municipal corporation, said that public transport should be robust enough to cater to city’s requirements. The transit hubs should be close to residential areas, including economically weaker section

(EWS) housing.

Besides, there is also a need to have a single governing body for land transport. Cities like Singapore, Seoul and London, have a unified authority for roads, bus transport, railways, metro, para-transport facility and taxis. It all comes under one authority. This makes the whole transportation system transparent and well connected.

Housing for all

The government of India aims to provide housing for all by 2022, under its smart city vision. But how far have we progressed in this direction? Giving a reality check, Siva Ram, all India convener of slum dwellers association, said that around 50 percent of Bhubaneswar’s population lives in slums. Several rehabilitation and lower income group housing schemes of central and state governments are restricted to just paper and very little has been done on ground. Also, as per the official data, 95 percent of people in Bhubaneswar earn less than ₹40,000-Rs 45,000 a month. “Therefore, there is a need to build houses which cost less than ₹5,00,000 per unit,” suggested Krishna Kumar.

Moreover, there are virtually no housing facilities for the poor in cities.



(L-R) Sivaram, RK Sharma, Sudhir Krishna, Vishal Kumar Dev and Krishna Kumar at NextGen Cities conclave, Bhubaneswar



VB Pyarelal, Sudhir Krishna, Subrata Das and Debashish Biswas at NextGen Cities conclave, Guwahati



SS Bajaj, N Bajendra Kumar, Sudhir Krishna and Amit Kataria at NextGen Cities conclave, Raipur



Subrata Das, RP Khandelwal, Jajit Bhattacharya, Tarush Chandra, Onkar Singh Lakhawat, Naveen Mahajan and Bhagwan Lal Soni at NextGen Cities conclave, Jaipur

“Coming from countryside, construction workers tend to stay in cities even after their work contract is finished. Do our cities have housing facility for these workers? Is there a means to provide education and health care facilities to the children of these workers?” asked Jajit Bhattacharya, consultant, KPMG.

Constituents of smart city

The speakers agreed in unison that a city doesn't become smart if it is only Wi-Fi-enabled. “The smartness should reflect in governance and people. You can't create an automated and a mechanised city in a silo. City has to convert humans into human resources,” said Rajpal Shekhawat, minister for housing and urban development department, Rajasthan.

Moreover, due to lack of technical expertise in urban local bodies (ULBs) vendors should follow a simplified approach said Subrata Das of SAP. Citing an example, Das said that in Boston the mayor publishes all key performance indicators of the city in public domain. City administrators use social media analytics, cull-out all information published by citizens through government communication channels. The feedback helps in evaluation of local

government. This transparency enables a smart city.

Amit Kataria, CEO, Naya Raipur Development Authority talked about how Chhattisgarh government is using software, sensors and high speed networks for monitoring utilities, traffic and service delivery in the new capital city.

“All equipments deployed at utilities are SCADA (software for managing large industrial set up) compliant. We have embedded sensors in pipelines, electricity and other city infrastructure. All these are being connected to command and control centre setup at north block of capital complex at Naya Raipur,” he said.

If there is a leakage in a pipeline or some street light is non-functional, the command and control centre will be able to monitor it in real time and the administration will be able to take corrective action accordingly.

Disaster preparedness

There is a strong connection between development of cities and disaster preparedness. “There is no point in building fancy, smart cities without giving enough attention to disaster resilience. The planners need to know the hazard profile of the area when they plan its

development,” said Nandita Hazarika, state project coordinator, Assam disaster management authority.

In a similar vein, DK Shami, fire advisor, ministry of home affairs, said that authorities should do fire risk analysis of every city. Fire safety should be part of city planning. It should be an inbuilt feature during construction of residential, institutional, commercial and industrial buildings. The fire safety service should be robust enough to provide help within a span of five minutes.

Stressing upon the need to develop a core infrastructure to build smart cities, N Bajendra Kumar, additional chief secretary, housing and environment department, Chhattisgarh said, “To manage resources smartly you first need to ensure their supply. There will be no smart governance if there are no proper roads, continuous water and power supply.”

Also, there is a need to rope in private investors to build a smart city. “We need to take the private-public-partnership route in a bigger way if we are to transform places into smart cities,” underlined VB Pyarelal, Assam's additional chief secretary (power). ■

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also cost-cutting. Similarly, cell phones and personal digital assistants (PDAs) could be used by the ULBs for getting feedback, emergency response and service monitoring,” Aggarwal said.

P Raghvendra Rao, principal secretary, urban local bodies, Haryana government, said that there were a few areas that could be seen as opportunities and challenges while creating efficient and smart urban spaces. These include infrastructure, housing, livelihood and service delivery.

He elaborated on how some projects with a good concept didn't succeed because of the “flaws in the way project were designed and in the absence of a more realistic understanding of project deliverables”.

Ground reality

He recalled a project on solid waste management which didn't succeed in Haryana. “A mega waste management plant was set up in Bandhwari for recycling solid waste for the two cities—Faridabad and Gurgaon. The plant which was set up in PPP at a cost of ₹60 crore had a capacity of treating 600 tonnes waste per day,” he said.

The plant was expected to handle garbage and produce refuse-derived fuel (RDF) as a byproduct, which was supposed to be sold to other factories and plants as an alternate fuel. It was set up on the PPP model and the private sector contractor had the lease of the facility for 30 years.

However, things slowly started falling apart. In three years, the capacity of the plant came down to 100 tonnes. Besides, the company (executing the project) also started complaining that they were not getting the right market price for RDF.

This has led to near closure of the facility as the garbage is not being processed and the landfill site is 80 percent occupied leaving no room for more garbage.

Rao alleged that the management of the plant was so poor that even the workers have not been getting their salaries. “The equipment has been pilfered away. There have been two incidents of fire at the facility,” he said, adding that the private sector partner shows no sign of accountability to

ensure prevention of damage of the plant which was built from tax payers money.

Eventually the ULB department canceled the contract and is planning to reallot the work to another firm.

“We had set up another plant in Karnal, which also came to a grinding halt. The plant was set up just a year back. The company involved in execution has now expressed its inability to sell the RDF. It says it cannot find any outlet for the compost,” he said.

Rao also said that the ULB department has recently revamped property tax collection using information tech-

With the CCTNS project, investigation and nabbing a criminal, especially a repeated offender, would be done in a timely fashion. The project execution will be completed in 2014 in Haryana. All data at police station level is being digitised.

nology. “We came up with one page self-assessment forms and offered rebate for payment before the due date. The response was overwhelming. In just two months, we collected ₹250 crore,” he said.

The collection amount helped department to meet the incurred expenditure to some extent. “We had changed the model of calculation and made payment process easy and that had a positive impact.” Rao also stressed upon the need for multilevel parking, reliable public transport and e-rickshaw facility in cities.

Security

Simardeep Singh, superintendent of police, telecommunications, Haryana Police, said that in the past, nabbing criminals was relatively easy as local police station had an idea about the active local gangs. With that information, cops could solve cases. Today, there

is hardly any information available about people living in a locality.

However, with the CCTNS project, investigation and nabbing a criminal, especially a repeated offender, would be done in a timely fashion. The project execution will be completed in 2014 in Haryana. All data at the police station level is being digitised.

The project will provide for biometric identification of suspects and criminals, through which the history of the criminal would be known. The PCR vans would be given access to the system with the help of PDAs. Similarly the system could also be used for emergency response, he said.

Once implemented, cops would also know the geo-location of callers on 100 (the police helpline), and the response could be executed accordingly. “I hope CCTNS will increase people's faith in the new system and will make police people-friendly,” he said.

“The biggest hurdle in adoption of the new system is change management,” he said, adding that to overcome the challenge Haryana Police is putting a lot of emphasis on training of cops and their skill development.

The state police will also launch a citizen portal under CCTNS, which would be a single window for delivery of services including tenant verification, passport and character verifications. A citizen could access these services through the internet and will not need to visit a police station for the same, he said.

CSR Reddy, additional director general of police, telecom and IT, Punjab Police, said that his force was using ICT in three areas—for better service delivery, improving internal efficiency and to handle cases of cyber crime. The service delivery would happen through the citizen facilitation centers and citizen portal, he said.

Reddy further stated that the state police has written to NCRB giving a few suggestions for expanding CCTNS. The suggestions include integrating different citizen databases, use of existing radio bandwidth for data and video services and setting up a cyber cell at district level. ■

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