

# Building smarter cities

Standardisation of processes and citizen-centric approach are the key to improving existing urban infrastructure and for building modern Indian cities

GN Bureau

**E**stimates indicate that by 2020, almost 60 percent of India will be living in urban areas. While over 15 cities in India at present have a population of 10 million and above reports suggest that the number will rise to 40 in the next six years.

Besides, modern cities now need to look beyond a safe city with smooth logistic and infrastructure management. Instead, there is a need to build and upgrade cities that can also empower people in government, businesses, and the community through innovation to build a more sustainable city across economic, environmental, and social spheres.

This was the theme of the NextGen Cities conclave organised by Governance Now on December 30, 2013. The conclave was organised in association with Haryana State Electronics Development Corporation (Hartron), the state government's nodal agency for information technology and electronics, and Day & Night News.

Delivering the keynote address, Chandigarh mayor Subhash Chawla said that this union territory (UT) has been extensively using information technology tools to maintain the reputation of Chandigarh as 'the city beautiful'. He

stated that the network of Sampark Centres in the city has made the lives of citizens much easier.

"Paying house or property tax was once a big chore. Now a person can walk into a Sampark Centre and pay the tax minus the hustle," he said.

"While Chandigarh boasts of the highest per capita supply of water in the country, we intend to further strengthen the supply infrastructure and water management through use of modern technologies including ICT tools," he said, adding that the municipal corporation is working on a project to reduce the percentage of non-revenue water with the help of IT-based solution.

He cited the example of Israel which despite its geographical disadvantages is able to supply good quality water to the citizens all around the clock. The country has treatment plants, which convert sea water into potable water, and the Chandigarh municipal corporation wants to achieve the same, he said.

"We are trying to work out a way whereby all the treated water can be brought back to the city. We try our best to keep the tariff at minimum and also to ensure equitable distribution of water," he stated. The municipal corporation is also exploring options of

reducing the 25 percent demand-supply gap of water in the UT.

And while the corporation is working towards streamlining the water supply mechanism, it is also using information technology to improve information dissemination and in addressing basic queries. Today citizens can get to know the quantity of their water consumption and the status of their bill at a click of mouse, he said.

Vivek Atray, managing director, Hartron, said that since we are living in a well-connected world, gathering information has become a lot easier. He, however, said that what works best for one city may not be the best solution for another city. There-

fore Indian cities especially need to be understood in detail before any solution is thought of.

He pointed out that Chandigarh is a city where a lot of projects have been successfully implemented and replicated elsewhere. But Chandigarh is not a typical Indian city. In Chandigarh, standardisation and rolling out of new models is easier. "The real challenge lies in traditional cities with age old problems," Atray said.

Stressing that the service delivery model of today is multi-dimensional





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*Bhupeinder Nayyar,  
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Microsoft*

**“The need of the hour is to have a multi-functional single channel for citizen service delivery.”**

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**“One needs to break up big projects into smaller project modules. This would make the PPP model more inclusive and not limited only to bigger enterprises.”**

*Manmohan Singh Kohli,  
chairman, CII Chandigarh Council*

and needs multi-facilitation points, he said that citizens should be able to use any channel to get their work done. “The need of the hour is to have a multi-functional single channel for citizen service delivery,” he said.

However, he also pointed out that technology is not the only factor important for rolling out citizen services. Issues, mainly change management and capacity building are equally important. The real challenge is reforming the processes that exist and taking them to the frontline delivery channels.

Bhupeinder Nayyar, technology strategist, Microsoft, made a presentation on an application developed by the Delhi Police to inform citizens about the local police stations. He pointed out that while most Delhiites may be

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unaware of the station house officer (SHO) of their nearest police station, the information is just a click away on the Delhi Police website. “You just need

to click the ‘Know your police station’ tab to search for the list of police stations and the key officials,” he said. The website also has a mobile interface and is GPS enabled to suggest route of a particular police station to the user.

Once the user clicks on the name of the police station, the name and contact details of its SHO appears along with the crime figures of that area. The website also enables citizens to inform the SHO of any illegal activity going on in the area without making a visit to the police station. The moment a citizen files an online complaint, the system generates an automatic SMS alert that is sent to the SHO.

**PPP**

Talking about the role of public-private



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*Simardeep Singh, superintendent of police, telecommunications, Haryana Police*

**“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.”**

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**“The Punjab Police is using ICT in three areas— for better service delivery, improving internal efficiency and to handle cases of cyber crime.”**

*CSR Reddy, additional director general of police, Telecom and IT, Punjab Police*

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*Vikas Aggarwal, director, industry solutions and market development, government, Microsoft*

partnerships in creating better city infrastructure, Manmohan Singh Kohli, chairman, CII Chandigarh Council, said that mistrust between the government and the corporate partner was a big hindrance that impacts most of the PPP projects. He said that prior to discussing the technologies for creating next generation cities or capacity building to usher in citizen-centric urban infrastructure, it was important to initiate a major confidence building drive.

He pointed out that PPP mostly involves mega projects worth millions of rupees. “One needs to break up these projects into smaller project modules. This would make the PPP model more

inclusive and not limited only to bigger enterprises,” he argued.

Vikas Aggarwal, director, industry solutions and market development, government vertical, Microsoft, said that around one million people move from rural to urban areas on a daily basis. The urban administration has to manage this huge influx with limited infrastructure and human resources.

He advocated ‘people first’ approach, which provides an assessment of people’s requirement before deploying a technological solution.

He said the urban local bodies (ULB) need to prioritize the modules they want to implement. Modules could be

solid waste management, water supply management, energy efficiency, building plans and property tax, among others. “ULBs need to identify, prioritise and plan,” Aggarwal said.

Transformation of processes and practices should precede the deployment of technology, he said. “If administration is ready (in terms of changed processes), technology is already there. We just have to implement it.”

He urged the ULBs to capitalise the latest technological tools like mobility, cloud, social media and big data to bring in efficiency and serve citizens better. “Use of cloud will not only help in increasing collaboration but

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 reallocate 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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