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# Smart City: Solution for Pollution

As India's population continues to grow at an alarming rate, it brings with it related problems of pollution and unchecked migration to cities. Last year, a study by the World Health Organization showed Delhi to be the world's most polluted city. The capital's air has the highest concentration of PM2.5 — particulate matters less than 2.5 microns. Such high levels of air pollution can cause respiratory disorders, also with other health problems and in some cases, even fatalities. That our capital city holds this dubious distinction is a matter of great shame.

Delhi had one of its worst air-pollution days of the season on day four of the odd-even traffic scheme, indicating that the government will have to do much more to clean up the air of the world's most polluted city. The additional measures—promised by the Delhi government but not yet implemented—including a curb on two-wheelers, ensuring fuel for vehicles is five times cleaner than it is now, re-routing trucks, controlling construction dust and shutting or cleaning up power plants.

Over the past month, there have been repeated calls from environmentalists and activists for drastic measures on part of the administration to clean the toxic air in Delhi, considered the world's most polluted city. Studies have shown that vehicular emissions and dust from construction sites account for rising air pollution levels and smog in the city. This year, the outcry has seen a slew of measures proposed by the state government as well as the Supreme Court of India so as to ensure that future generations are not harmed by the air. The Delhi government has proposed the odd/even rule wherein cars with odd-numbered registration plates would ply on odd dates and those with even numbered registration plates would do so on even dates. The idea is to reduce congestion as well as to reduce pollution resulting from vehicular emissions.

In the quest for new and innovative thoughts, Smart City - Smart Living is trying to explore various factors leading to pollution and urban mobility with reference a Smart City and possible solutions. Hope, government and People come together to achieve the targeted result of a sustainable and Smart solution for the same.

Cheers!  
Abhishek Katiyar



Letter from the Editor

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## Rajbir Goyat, CMD, The Antriksh Group

A veteran in the Real Estate and Infrastructure industry; He is the acting Chairman & Managing director of one of leading real estate companies of North India i.e The Antriksh Group. Under his able leadership, the company has successfully delivered more than 55 projects in northern India. A civil engineer by academics, Mr. Goyat started his career as a college lecturer in Pilani and remains a mentor and teacher for most even today and has been driving the Company in a growth path for continuous 3 decades. Mr. Goyat is an associate member of the Institute of Engineers Calcutta (AMIE-Civil) and specializes in structural engineering.

## Vinit Goenka, Member, IT Task Force, Ministry of Shipping, Road Transport & Highways

Vineet is a fervent nationalist, technocrat, educationist, social activist, people's man, and visionary with a tenacious drive to inspire and bring about change within society. After spending over a decade in the private sector, he quit his growing and lucrative career to join politics and serve his nation.

He is currently appointed as a Member of IT Task Force under the Chairmanship of Hon'ble Minister for Shipping, Road Transport & Highways to facilitate simplification of procedures by leveraging the use of Information Technology (IT). This is in the context of Minimum Government Maximum Governance envisaged by Hon'ble Prime Minister.



## Dr. Udit Raj, Ex.IRS Officer, BJP MP N-W Delhi



Udit Raj is the Member of Parliament (Lok Sabha), from North-west Delhi constituency and National Chairman, All India Confederation of SC/ST Organizations. He is one of the most influential leaders of the BJP and a strong dalit leader. He is also an Indian Social Activist and member of National Executive (Special invitee) of Bharatiya Janata Party. He is an Alumnus of Allahabad University and JNU. He has served as as the Dy, Commissioner, Joint Commissioner and Addl. Commissioner of Income Tax at New Delhi. He is a prominent activist working on behalf of India's Dalits.

Dr. Udit Raj is not merely a national figure but is also known internationally. Besides the M.A and LL.B degrees he holds, he has been awarded a Doctorate Degree Honoris Causa by an International University. His intellectual acumen is recognized in U.S.A and Europe. He frequently holds dialogue with Congressmen of U.S.A and members of the European Parliament. He is also a prolific writer and till now, 355 by him articles have been published in various national newspapers. There was no organization for the Alumni of the Jawahar Lal Nehru University until he founded one.



## Rajasthan submits Smart City plan

**R**ajasthan has become the first State to submit Smart City plan to the Urban Development Ministry.

Manjit Singh, Principal Secretary (urban development) of Rajasthan submitted Smart City proposals of three cities – Udaipur, Kota and Ajmer to UD Additional Secretary Samir Sharma at Nirman Bhawan here today.

UD Secretary Madhusudhan Prasad complimented Rajasthan government for being the first state to submit Smart City proposals.

Investment outlays proposed for developing these three cities as smart cities are Kota – Rs. 1,493 crore, Ajmer – Rs. 1,300 crore and Udaipur – Rs. 1,221 crore.



Investment proposed for Jaipur is Rs. 2,403 crore.

In all, Rajasthan has proposed a total investment of Rs. 6,457 crore over five years for developing four cities as Smart Cities.

Barring Tamil Nadu, which has faced the worst flood situation in the recent years, all States and UTs are expected to submit their Smart Cities plan to UD Ministry by December 15. Tamil Nadu accounts for 12 Smart Cities.

According to a senior UD Ministry official, 98 cities were nominated for developing as Smart Cities after the first round of intra-state competition under 'City Challenge' and Smart

City plans for 86 have been approved by respective states and UTs which has been received by the Ministry for evaluation in the second round of 'City Challenge' competition to pick up first batch of 20 cities for financing.

## CIVIC BODY APPROVES MUMBAI'S SMART CITY PROPOSAL

**T**he Smart City Proposal (SCP) for the metropolis was approved by the Brihanmumbai Municipal Corporation (BMC) with four amendments suggested by the ruling Shiv Sena amid opposition by certain parties.

The proposal was tabled in the general body meeting of BMC for discussion. Congress, NCP and Samajwadi Party opposed the proposal, which was backed by Sena's ruling ally BJP and the Raj Thackeray-led MNS. The plan has been sent to the Centre for approval.

According to SCP mandated by Centre, each potential city has to formulate its own concept, vision, mission and plan

(proposal) for a smart city that is appropriate to its local context, resources and levels of ambitions.

"We thank the parties and their group leaders who supported the proposal. They want Mumbai to develop and act as a smart city, which is the need of the hour," said Manoj Kotak, BJP group leader in the House.

Four corrections/suggestions were made in the plan and they were incorporated, he said.

"Shiv Sena wanted four suggestions, including forming a Special Purpose Vehicle (to implement the plan) and holding Chairmanship of it. They were accepted," added Kotak.

The go-ahead for the proposal assumes significance as a few days back almost all prominent political parties, including Shiv Sena, had raised objections over it.

Sena mouthpiece 'Saamana', in an editorial on Monday, alleged the Special Purpose Vehicle (SPV) to be created for the scheme would be like a corporate entity which would encroach on BMC's powers.

Last week, MNC chief Raj Thackeray had termed the Modi Government's pet urban development project as a "farce" and "a political tool to deceive people".

Group leader of NCP in BMC Dhanajay Pisal was not present during the meeting. However, Corporator and party's senior leader Saeeda Khan termed the idea of Smart City as an "eyewash".

L&T's business unit to make Jaipur India's first smart city

Larsen & Toubro's business unit Smart World & Communication is leading the way to make Jaipur India's first smart city by creating a host of smart solutions like Wi-Fi hotspots, citizen interactive information kiosks and surveillance cameras at select locations in the city.

"L&T has received the mandate from Jaipur Development Authority (JDA), which is leading



the initiative to equip Jaipur with world-class digital facilities targeted primarily at the heavy tourist traffic that the city attracts," the company said in a statement.

All kind of information about the city, its rich heritage and history, locations, directions, distances, etc will all now be available at the click of a button to tourists and citizens, it added.

# Smart cities, housing for all, flavor of 2015 in urban sector

A slew of mega projects worth over Rs 4 lakh crore for developing smart cities and towns and providing housing for all in the next seven years besides proposed amendments in real estate rules, marked 2015 for the urban development sector.

The government approved various amendments to the contentious Real Estate (Regulation and Development) Bill, 2015, introducing provisions for depositing 70 per cent of the project cost by builders into an escrow account and punishment for violations of the proposed law.

The amendments are aimed at protecting the interest of the buyers and promoting investments in the sector while ensuring transparency.

Another major reform introduced was allocation of central assistance to states and Union Territories based on total urban population and number of statutory urban local bodies besides number of urban poor and slum dwellers in each state.

Allotment of the bungalow of late President A P J Abdul Kalam at 10 Rajaji Marg to Tourism and Culture Minister Mahesh Sharma, however, created a controversy with the Aam Aadmi Party severely criticizing the move. The party had demanded that the bungalow, where Kalam was staying after his term as President ended in 2007, be converted into a knowledge center.

Urban Development and Housing & Urban Poverty Alleviation Minister

M Venkaiah Naidu defended the move saying the allocation was made as per "rules and procedures" and the government had already decided to set up a memorial in memory of Kalam in his native place of Rameswaram in Tamil Nadu.

Prime Minister Narendra Modi launched Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Smart City Mission and Prime Minister's AwasYojana (PMAY) on June 25 with a call to promote 'bottom up' planning in the country, setting off a new beginning in urban areas, which are being looked at key drivers of high rate economic growth.

While 500 cities will be developed under AMRUT scheme, there will be 100 smart cities over five years and housing-for-all scheme under PMAY aims at construction of two crore houses in urban areas in the next seven years.

"The year 2015 is very significant in the sense that we have set urban planning in the country on a new course. Consequent to the provisions under AMRUT, Smart City Mission and Housing Mission, there is a new churning resulting in a new conscience on the part of urban local bodies, which are the Achilles tendon for effective planning and execution," Naidu told PTI while summing up the new initiatives.

Introduction of competition for selection of cities under Smart Cities Mission is a first of its kind in the country for allocation of resources.

## ISRAEL WANTS TO PARTNER WITH GOA ON SMART CITY, OTHER FRONTS

Israel today expressed desire to collaborate with Goa on the Smart City project and in several other sectors, and also take part in the 'Defexpo' to be held in the coastal state next year.

"The Israeli Government plans to work together with Goa in various areas like agriculture, Smart City, eco-tourism and business," said Daniel Carmon, Ambassador of Israel.

Carmon, on his first visit to Goa, was talking to media persons at Porvorim near here. He was accompanied by Israel's Consul General David Akov.

"As part of an initiative with Ministry of Agriculture, Government of India, we have developed centres of excellence with our Indian counterparts. Twenty-six such centres in agriculture have come up in ten states.

"As of now, Goa is not in the list of states which have such a centre. But, we are talking with Goa Government to create a centre for excellence here as well," he said.

The Israeli envoy also met Chief Minister Laxmikant Parsekar and some of his Cabinet colleagues.

"We have expertise in solar energy, water recycling for urban and rural areas in Israel which we are willing to share with Goa," said Akov.

Israel will have a strong presence at the defence exhibition, 'Defexpo India 2016', where it will showcase its capabilities, the Israeli Ambassador said.

The exhibition will be held from March 28 to 31 in Quepem taluka of South Goa.

"It would be a mistake to characterise defence relationship between India and Israel as just buying and selling of defence equipment. Both countries have long experience of co-operation and friendship," Carmon, said.

Both sides are also collaborating on Barak 8 project.

## DEHRADUN SMART CITY TO BE BUILT OVER TEA ESTATE LAND

A tea estate land on the outskirts of the city will be bought to develop a smart city in Dehradun spread over an area of 1,200-1,900 acres.

As Dehradun is one of the 98 cities in India identified in the first phase for the Centre's ambitious smart city project, negotiations are in the final stages for buying land for the project

from two tea companies whose estates are located in the Shimla bypass area of the city, Uttarakhand Urban Development Minister Pritam Singh Panwar told reporters.

The state government has already given its nod for buying land from the two tea companies and talks are on.

A project will be forwarded to the

Centre before December 15 which is the deadline set by the Centre for the purpose, he said.

A total of Rs 500 crore will be given by the Centre for the project at the rate of Rs 100 crore per annum and the rest of the funds will have to be raised by the state government out of its own resources, the Minister said.

## JAPAN INKS PACT TO BUILD INDIA'S FIRST BULLET TRAIN; INDIA GIVES 'VISA ON ARRIVAL' TO JAPANESE CITIZENS

Taking their robust bilateral ties to a new level, India and Japan inked a number of pacts in key areas of defence and nuclear energy as well as building of first bullet train network between Mumbai- Ahmedabad at a cost of about Rs 98,000 crore.

The strategic pacts were inked after the summit between Prime Minister Narendra Modi and his Japanese counterpart Shinzo Abe during which they also discussed international and regional issues of mutual importance including UN security reforms.

Addressing a joint press meet with Abe, Modi said, "No friend will matter more in realising India's economic dreams than Japan" while describing Abe as "a personal friend and a great champion of India-Japan partnership".

Referring to the pacts signed, Modi said, "No less historic is the decision to introduce High Speed Rail on Mumbai-Ahmedabad sector through Shinkansen known for speed, reliability, safety", noting that Abe's extraordinary package of approximately USD 12 billion and technical assistance, on very easy terms, for this project was greatly appreciated.

"The memorandum we signed on civil nuclear energy cooperation is more than just an agreement for commerce and clean energy. It is a shining symbol of a new level of mutual confidence and strategic partnership in the cause of a peaceful and secure world," Modi added.

The bullet train network will link the India's financial hub Mumbai with Ahmedabad, the capital of Modi's home state, Gujarat. Bullet train between the two cities will cut travel time on the 505 kilometre route from eight hours to around three. The approx. cost of the project is estimated to be around Rs 98,000 crore.

The two sides also inked agreements - one concerning the Transfer of Defence Equipment and Technology and another related to Security Measures for Protection of Classified Military Information.

Terming defence pacts as "decisive steps in our security cooperation", Modi said



they will deepen the defence relations and promote defence manufacturing in India.

"This builds on our decision to expand staff talks to all three wings of the Armed Forces and make Japan a partner in Malabar Naval Exercises," he added.

The two leaders also issued a joint statement on 'India and Japan Vision 2025: Special Strategic and Global Partnership Working Together for Peace and Prosperity of the Indo-Pacific Region and the World'.

The statement said the two Prime Ministers welcomed the agreement reached between the two governments for cooperation in peaceful uses of nuclear energy and confirmed that this agreement will be signed after the technical details are finalised including those relating to necessary internal procedures.

After the talks, Modi also announced that "Recognising our special relationship, India will extend 'visa on arrival' to all Japanese citizens from 1st March 2016."

On his part, Abe said, "We have taken relationship to new level and buds have turned into blossoms".

Modi said, India and Japan will work together in East Asia Summit to promote an inclusive, balanced and open regional architecture and maritime security in the region.

"We stand strongly for ensuring freedom of navigation and over-flight, and unimpeded maritime commerce. We believe

that disputes must be resolved peacefully and that all countries must abide by international law and norms on maritime issues."

Thanking Abe for his support for India's membership of the APEC, Modi said India will also strive for "our rightful place in a reformed UN Security Council".

Modi, who along with Abe visited Varanasi, said culture and people breathe life into a relationship. "Our remarkable relationship also has a wonderful human touch. The Kyoto-Varanasi partnership is one of its strong symbols," he said.

Last year, Prime Minister Abe hosted Modi in Kyoto.

According to the joint statement, the two Prime Ministers underlined the need for closer coordination and effective communication, bilaterally and with partners, to address existing and emerging challenges in spheres of security, stability and sustainable development.

"India and Japan will work to strengthen regional economic and security forums and coordinate their actions to tackle global challenges including the reform of the United Nations, climate change as well as terrorism," it said.

The two also reaffirmed their intention to work together for the early realisation of UN reforms, particularly the Security Council reform, to better reflect the realities of the international community in the 21st century.



### Haryana may consider restructuring infra charges on realtors

**H**aryana government will consider restructuring of infrastructure development charges payable by real estate developers on a case to case basis in view of slowdown in the property market.

Addressing the realtor's apex body CREDAI's conclave, Haryana Chief Minister Manohar Lal Khattar said the deferment of development charges called EDC/IDC for all the developers would not be "beneficial" as government also needs funds for the development of infrastructure and to run welfare schemes.

"I know that property market is down. But the financial conditions of all the developers are not the same," he said while responding to the industry's demand of restructuring the payment of EDC (External Development Charges) and IDC (Infrastructure Development Charges).

The Chief Minister asked builders with good financial health to complete the ongoing projects instead of expansion.

"We will have to find an amicable solution," Khattar said on the sidelines of the event.

CREDAI President Getamber Anand demanded that the Haryana government should restructure the EDC/IDC amount payable by the builders with penalties, similar to the lines of the Uttar Pradesh Government. He said the developers are not able to pay EDC/IDC charges due to slowdown in the real estate market, particularly housing segment.

### NOTTINGHAM TO HELP CHANDIGARH DEVELOP AS SMART CITY

Nottingham City council will help in transforming Chandigarh into a 'Smart City' for which a MoU was today signed here between the council and the Union Territory administration respectively.

The MoU was signed by Chandigarh Home Secretary Anurag Agarwal and Cabinet Member of Nottingham City Council, Nick McDonald in the presence of Adviser to the UT Administrator, Vijay Dev, an official release said.

Nottingham City Council will share its experiences and provide support to Chandigarh in its ambition of becoming a "Smart City", it said.

Both the cities agreed to promote investment, trade, and collaboration between businesses through delegations and information exchange and also to support cultural and academic cooperations, the release said.

Meanwhile, Panjab University (PU), Chandigarh and the Nottingham Trent University (NTU), United Kingdom also signed a MoU with the initial focus on research collaborations.

PU Vice Chancellor Arun Kumar Grover and NTU VC Professor Edward Peck, who was leading his university's delegation, today signed the MoU, according to a Panjab University release.

British Deputy High Commissioner David Lelliott was also present on the occasion, the release said.

The MoU has been signed following number of visits and discussions from each side to the other partner University.

As per the MoU, the initial focus and discussion of the two universities would be for mutual research collaborations, exchange visits by faculty and students, organising conferences, workshops together and development of a joint academic and research programme, it said.

The NTU School of Art & Design & PU University Institute of Fashion Technology (UIFT) and Centre for Conflict, Rights and Justice, Nottingham Law School & Centre for Human Rights and Duties would collaborate as per the agreement, the release said.

### CHINESE COMPANIES KEEN TO INVEST IN INFRA PROJECTS IN INDIA'

Chinese firms are looking to invest in India's infrastructure projects, a senior government official said here.

"More Chinese firms are looking to invest in India's infrastructure projects. Our target for bilateral trade between India and China is USD 100 billion in near future as compared to the present USD 70 billion," China's Deputy Counsel General in Mumbai, Yan Huang, told reporters after inaugurating the twin China trade show here.

Addressing the CEOs of leading companies and Indian trade delegations at the

three-day 'China Home Life India 2015 and China Machinex India 2015' trade show, Yan Huang said, both India and China should increase the bilateral trade as India is poised for a big leap in the global economy.

In spite of the recent depreciation of Yuan and fluctuation in Indian currency, both the nations are confident of keeping up the upward pattern in the bilateral exchange during 2016, he said.

The Modi-led government's 'Make in India' initiative and Smart City projects will provide big opportunity to Chinese compa-



# Goa govt's green signal to Panaji Smart City proposal

**T**he Goa government has approved the Rs 981.11 crore proposal for Panaji Smart City which would be submitted to the Union Urban Development Ministry today, a senior official said here.

"The proposal has major thrust on eco-mobility, public transport system and improvement of conservation zones," Goa State Infrastructure Development Corporation's Managing Director Sanjith Rodrigues told reporters.

Rodrigues said the government is confident to get Panaji in the list of first 19 cities which will receive funds this year.

The High Powered Coordination Committee (HPCC) on Smart City headed by Chief Secretary R K Srivastava yesterday granted its final approval to proposal, which will be submitted to the Centre today.

Rodrigues said the proposal looks at Rs 304.22 crores share by Central and State government respectively over next five years.

Another Rs 299.98 crore is expected to be funded through public private partnership (PPP).

The Smart City Mission consultant, ICLEI South Asia, had drafted Rs 1313.74 crore pro-

posal for the city, which as per final proposal was reduced to Rs 981.11 crore, following revised guidelines from the Union Ministry.

"Of the total 304.22 crore state share, the entire amount would be contributed by the Goa government, as the financial position of the CCP (Corporation of the City of Panaji) does not allow it to take up such huge proposal," Rodrigues said.

He stated, while government is spending around Rs 304.22 crores over next five years, a revenue of only Rs 14 crores is envisaged during this span.

## CIDCO announces Rs 34,000-cr smart city project

**N**avi Mumbai town planning authority CIDCO today announced its first smart city project in the satellite town envisaging an investment of over Rs 34,000 crore.

City and Industrial Development Corporation (CIDCO) has prepared a plan to develop a smart city in Navi Mumbai and has envisaged an investment of Rs 34,777.40 crore which will be completely funded by the authority.

Maharashtra Chief Minister Devendra Fadnis made the announcement for

smart city Navi Mumbai South on December 4 during a two-day exhibition organised by CIDCO.

"Navi Mumbai is now working meticulously to make the developing nodes of South Navi Mumbai a smart and eco-friendly habitat. Indeed, the development plan of the South Navi Mumbai is poised to make it a future destination for smart and sustainable living," CIDCO Vice Chairman and Managing Director Sanjay Bhatia told reporters here.

He said the smart city project will be

self-financed and CIDCO will not take funds from the government.

"Our South Navi Mumbai development plan is based on 10 major building blocks and 88 sub-projects with a total investment of Rs 34,777.40 crore. CIDCO will be funding the entire project without any financial aid from the government," Bhatia said.

He further said, the development project reports (DPR) of the proposed projects are also ready and most of the smart city projects are expected to be completed by 2019.



panies, who are strong in infrastructure development, Huang said.

China-based construction equipment manufacturer, Sany Group, has recently announced plans to invest USD 3 billion in developing renewable energy assets in India. Several Chinese companies already have a huge presence in the Indian infrastructure, construction, electronics and solar power market.

Huang also called for more direct flights between China and India and easing of rules for obtaining visa to increase the business activities.

The recent reduction in the interest rate cut announced by the Chinese government and slowdown seen in the global economy will definitely help Indian importers, Meorient

Exhibition Ltd, Shanghai CEO Binu Pillai said.

"I expect a total business of Rs 16,000 crore through these displays against Rs 8,000 crore seen in 2014," Pillai said.

These manufacturers and traders have come from Ningbo, Shanghai and Wenzhou provinces of China. It has been ably supported by Chinese government.

The trade show is witnessing around 750 big Chinese companies showcasing high-end plant and machineries used in packaging, 50 companies are displaying machine tools, 150 companies food processing equipments and 200 companies have displayed textiles and garments products, furniture and kitchen appliances.

## UK joins hand with government to develop 3 smart cities in India



The British Government has selected two cities of Maharashtra and one from Madhya Pradesh for developing them as 'Smart City', British Deputy High Commissioner, Mumbai, Kumar Iyer said.

The cities in Maharashtra include Pune and Amravati and Indore in Madhya Pradesh.

"It would be our endeavour to develop these cities as smart cities for improved traffic, better education, and infrastructure after preparing a master plan in near future," Iyer told a press conference.

Each city has a different characteristic and therefore it will focus on projects specifically, he said.

Iyer, who is also the Director General of UK Trade and Investment, said the visit of Prime Minister Narendra Modi to UK and signing of nine billion GBP (British Pound) in commercial deals will give a major boost to the Indo-UK trade.

UK is the largest investor in G20 in India, Iyer said, adding India is the third largest investment partner in UK.

India invests more in UK than rest of European Union combined and in fiscal 2014-15, India emerged as Britain's third biggest job creator, creating approximately 7,730 new jobs, he said.

The High Commission will also be looking for venturing into the education field and a mega show is being organised here to showcase educational opportunities in UK for the Indian students, he added.

## Punjab Government finalises consultants for three Smart cities

Punjab Government today decided upon the consultants who would give final shape to the proposals for developing Amritsar, Ludhiana and Jalandhar as Smart cities.

Punjab Government had appointed M/s Jones Lang LaSalle/ Tata Consulting Engineer/ Townland (Hong Kong) for Amritsar, M/s AECOM India/IBM for Ludhiana and M/s IIDC/UMTC/BDP(UK) for Jalandhar to finalise the proposals for Smart cities which is to be submitted to the Central Government, an official spokesperson said.

A High Powered Steering Committee (HPSC) has accorded approval of the Smart City proposals of Amritsar, Ludhiana and Jalandhar prepared by the consultants, he said.

These would be forwarded to the Centre for inclusion in the Stage II competition at National level, the spokesperson said.

At an initial stage, 20 cities are expected to be selected for the financial year 2015-16 and thereafter 40 cities shall be selected in each of the next two stages, he added.

## DHARAMSALA TO BE DEVELOPED AS SMART CITY

The state government was mulling to develop Dharamsala into a Smart City as it is an international tourist destination of the country.

Himachal Urban Development, Town and Country Planning Minister Sudhir Sharma said that the district will not only be developed as a Smart City, but also as a progressive and inclusive city of the country.

"Efforts would be made to project this city as cultural, spiritual and adventure hub for tourists," he said while presiding over the high-level project appraisal meeting on Smart City, Dharamsala held in New Delhi.

A team of The Energy and Resource Institute (TERI) experts and State Urban Development officers participated in the meeting.

Sharma stressed on giving priority on components essential for an integrated and inclusive planning, sustainable mobility, water management and energy systems while finalizing the project proposal.



He also stressed for maintaining the environment and participation of local population in planning and implementation of the project and said that there was a need to develop new areas such as Indru Nag Hill near Dharamsala as International Conventional Centre to decongest the city and also to generate new economic activities.

The minister also pointed out that trekking route to Triund should also be included in the proposal and suggested that there was a need to develop separate material

transport system and precaution must be taken on disaster management aspect as the area falls under earthquake-prone zone.

He informed that meeting of a high-level Steering Committee to finalise the project proposal will be held soon so that the application could be filled well in time for further competition.

A detail presentation was given by the team of experts of TERI, which has been assigned the task to prepare the proposal for Dharamsala Smart City.

The proposal has to be submitted to the Ministry of Urban Development by December 15 this year for further qualification of selection for Smart City in the Country.

Raina Singh, Project Investigator, TERI said that the team of experts will take care of all the suggestions and a proposal would be prepared after the final consultation with the members of high powered Steering Committee constituted for the purpose.



# Evaluation criteria for Smart City plans firmed up



**B**ased on credibility, feasibility and citizen engagement, Smart City plans will be evaluated by the Urban Development Ministry for selection of first batch of 20 cities after detailed consultation with states and urban local bodies (ULB).

Smart City plans are to be submitted by December 15 to the Ministry by the 98 identified mission cities for evaluation in the second stage of City Challenge Competition which will be assessed for their credibility and doability.

The mission cities are currently engaged in preparation of Smart City plans for evaluation so as to be selected for the first batch of 20 mission cities for financing this year, said a senior UD Ministry official.

98 cities were earlier selected based on intra-state competition in the first stage of

City Challenge Competition based on a set of criteria.

The evaluation criteria for second stage of competition accords a weightage of 30 out of 100 marks for implementation framework including feasibility and cost effectiveness, 20 for result orientation, 16 for citizen consultation for identifying goals, 10 for smartness of solutions, 10 for adoption of SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis for preparation of strategic plan and 5 each for city vision and quality of city profiling including identification of key performance indicators (KPIs), potential for improvement of city and 4 per cent for processes followed.

Smart City plans will be assessed based on city-level criteria (30 per cent weightage), area based development fea-

tures (50 per cent) and pan-city solutions (15 per cent).

Based on the suggestions from states and ULBs, weightage for pan-city solutions has been increased from 10 per cent to 15 per cent.

Citizen engagement has been made mandatory for identifying smart city objectives and evolving strategic plan under city-level criteria, deciding on area development features and identification of Pan-city Solutions with a total weightage of 16 per cent.

City-level criteria includes measures taken during the last three years to enhance livability and administrative efficiency of cities, quality of city vision and strategic plan, identification of gaps and KPIs and potential for improvement.

# Most Smart Cities aim for richer economy, environment, heritage

**M**ajority of the Smart City plans for 95 cities submitted to the Urban Development Ministry have thrown up vision statements listing economic development, cleaner environment and richer cultural heritage as main goals.

According to the action plans submitted by 50 of the proposed Smart Cities, 11 aimed at emerging as clean, green and sustainable cities followed by nine cities seeking to leverage rich cultural heritage legacy for stimulating development.

Eight cities stated economic growth and development as the core of their vision and the rest seek to emerge as tourism hubs, port cities, education and health hubs, in-

dustrial and institutional centers with the help of unique features and strengths of respective cities.

Promoting economic development, improving quality of life and enabling inclusive urbanization is mentioned as part of the vision by most of the cities.

As required under the Mission guidelines, each of the Mission Cities has formulated City Vision statement based on citizen consultations, according to Urban Development Ministry statement.

Plans were submitted last month and the first batch of 20 Smart Cities will be selected this month.

One of the key proposed Smart Cities, New Delhi Municipal Council (NDMC) in its

vision statement aimed at emerging as the global benchmark for a capital city.

Bihar Sharif envisages to emerge as a tourism gateway while Chandigarh seeks to be an ideal city which is innovative, distinct and dynamic, economically vibrant, accessible and livable.

Gandhinagar aims to be an institutional hub with a diversified economic base that provides equitable setting for all to live and work with better quality of life and infrastructure.

Also, Panaji aims to be transformed into a world-class, environmentally sustainable and inclusive city while preserving its heritage, cultural diversity and ecosystem through innovation and smart solutions.





# SMART CITY: IN RESPONSE TO THE CURRENT INDIAN URBAN CHALLENGES

*Smart City Development is about transforming the lives of people, not just transforming economies. Create with the heart; build with the mind.*

By - Dr. Ajay Kumar  
Chairman & Managing Director, Fox Petroleum Group



Our Honorable Prime Minister's vision for smart city means, "You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete in due course of time". With this, I feel, Honorable PM wants to say, that without changing too much in the existing developed city, turn it

into a fresh city with added infrastructure like – road, sewage, water, waste, greenery, jobs creation in the vicinity, IT & ITES services for the city and put to use self-energy reliance and more for the public. Development is about transforming the lives of people, not just transforming economies. Create with the heart; build with the mind.

Our Government wants a smart city that responds to challenges as on one with a simple 'transactional' relationship with its citizens. In other terms that have been used for similar concepts include 'cyber-Ville', 'digital city', 'electronic communities', 'flexi-city', 'information city', 'intelligent city', 'knowledge-based city', 'MESH city', 'tele-city', 'teletopia', 'Ubiquitous city', 'wired city'. It means SMART CITY is the collection and Organized form of all city development done by private players in the past in this country. Major technological, economic and environmental changes have generated interest in smart cities, including climate change, economic restructuring, the move to online retail and entertainment, ageing populations, and pressures on public finances as well as community living at ease.

"What is the need of SMART CITY in India?" Unorganized colonization by developers as per demand in the market and sometimes developed by Government agencies need has created a mesh of disordered developed infrastructure, which has lack of civic-socio-economic-security based living; Hence the making of SMART CITY is the need of the time to recognize India as a developed country. I agree to the Government's stand and to make – "SMART CITY". SMART CITY - Through others we become ourselves; Prime Minister's SMART CITY idea is not to develop a CITY—actually, He(PM) wants to empower a CITY, because it's more practiced approach.

Government is of the opinion a SMART CITY should have its unique image; hence, two SMART CITIES can't be of same criterion. The Government is not prescribing any particular model to be adopted by the Smart Cities. The approach is not 'one-size-fits-all'; A smart city would thus be a city that not only possesses innovative technology in particular areas, but has also implemented this technology in a manner that impacts the local community in rising ease of living. The strategic components of Area-based development in the Smart Cities Mission are city improvement (retrofitting can be done in Banaras, Patna, Jaipur etc), city renewal (redevelopment like Tangla, Nagpur etc) and city extension (Greenfield development may be seen in NE states and some south city) plus a Pan-city initiative in which Smart Solutions are applied



DR. AJAY KUMAR

CHAIRMAN & MANAGING DIRECTOR, FOX PETROLEUM GROUP

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covering larger parts of the city. The Government's plan to give a house to everyone until 2020 can be fulfilled only by SMART CITY.

Some of the features which may attract an individual living in SMART CITY are: Promoting mixed land use in area-based developments — planning for 'unplanned areas' containing a range of compatible activities and land uses close to one another in order to make land use more efficient. The States will enable some flexibility in land use and building bye-laws to adapt to change; Like one can operate from home also as a Business Entity which is not permissible in some cases in metros. For Example, a Consultant/Advocate/Doctors/A Software Programmer and many more such operations need not have a big office; he/she can operate his office address from home also.

Other best features are -Housing and inclusiveness — expand housing opportunities for all; SMART CITY housing aims to provide a safe, welcoming home for Families/students/veterans of all backgrounds and identities. We can also say that it may have structure with GENDER-INCLUSIVE HOUSING OPTIONS for security reasons; I mean - Residence may have different categories -Single or double rooms with a private bath, Single or double rooms with a gender-inclusive bathroom in close proximity, Single or double rooms with an attached bathroom (shared with another single or double room) Creating walkable localities — reduce congestion of traffic and parking, air pollution and resource depletion, boost local economy with market connectivity via e-Governance, promote interactions and ensure security. The road network is created or refurbished not only for vehicles and public transport, but also for pedestrians and cyclists, and necessary administrative services are offered within walking or cycling distance; It will ease traffic congestion i.e. Promoting a variety of transport options —public transport and last mile Para-transport connectivity; From home by cycle to Buss stand/metro –cycle to office;

The real smartness will come when SMART CITY will be- Preserving and developing open spaces — parks, playgrounds, and recreational spaces in order to enhance the quality of life of citizens, reduce the urban heat effects in areas and generally promote eco-balance; Private developers have sold so many projects making each recreational activity as a USP of The Project Developed.

The SMART CITY dwellers will have good governance by the help of e-Governance, by making governance citizen-friendly and cost effective — increasingly relying on online services to bring about

accountability and transparency, especially using mobiles to reduce cost of services and providing services without having to go to municipal offices; form e-groups to listen to people and obtain feedback and use online monitoring of programs and activities with the aid of cyber tour of worksites; It will also have smart Solutions to infrastructure and services in area-based development in order to make them better. For example, making Areas less vulnerable to disasters,

THE REAL SMARTNESS WILL COME WHEN SMART CITY WILL BE- PRESERVING AND DEVELOPING OPEN SPACES — PARKS, PLAYGROUNDS, AND RECREATIONAL SPACES IN ORDER TO ENHANCE THE QUALITY OF LIFE OF CITIZENS, REDUCE THE URBAN HEAT EFFECTS IN AREAS AND GENERALLY PROMOTE ECO-BALANCE; PRIVATE DEVELOPERS HAS SOLD SO MANY PROJECTS MAKING EACH RECREATIONAL ACTIVITY AS USP OF THE PROJECT DEVELOPED.

using fewer resources, and providing cheaper services. Like using boats/ferry rather than having bridges at too many points in some cases. Example is NEW YORK; New York has the best free ferry system connecting one part to another part of City.

SMART CITY will never have name based on foreign city names, which is very common amongst the developers trying to sale in the name resemblance only, not having anything like that foreign location. SMART CITY will be named giving an identity to the city — based on its main economic activity, such as local cuisine, health, education, arts and craft, culture, sports goods, furniture, hosiery, textile, dairy, etc ;

Globally SMART CITY is a trend, not a new thing; Examples of Smart City technologies and programs have been implemented in Dubai, Milton Keynes, Southampton, Amsterdam, Barcelona and Stockholm. We have seen Billion Dollars Townships developments but Development of Smart City nearly estimates that the global market for smart urban services will be \$400 billion per annum by 2020. ■

POLLUTION, CONGESTION OR SAFETY

# **ADOPTING ICT IS THE ONLY SOLUTION TO ALL WOES**

*It is high time for the governments in power to take drastic steps at respective levels to bring the situation under control*



According to the World Health Organization (WHO) pollution is the world's biggest environmental crisis and New Delhi has the highest level of all cities around the globe. As per the said WHO report, India has the four most polluted cities in the world including 13 of the 25 most-polluted cities in the world (with New Delhi taking the top spot). Centre for Knowledge Sovereignty (CKS), a New Delhi based think tank did further research on the same and found that – People find it difficult to stand five minutes at a traffic signal can feel itchiness in eyes if they open the window of the car. For every 100,000 people, 155 die in India of chronic respiratory disease, the highest rate in the world. A separate study concluded that air pollution has reduced India's life expectancy by 3.2 years. For analyzing the facts, CKS criticized the Indian government's environmental pollution efforts, saying while there are policies in place, implementation and enforcement remain problematic. It also blamed ordinary citizens for ignoring the problem. Everybody is responsible. People are not using public transport as much as they should and everybody just talks, but nobody is taking responsibility. CKS opines that every citizen should take this responsibility seriously. People should opt for new ideas like car-pooling and avoiding diesel vehicles can help.

It is important to find out the problems that caused air pollution and its achievable solutions for the same. If anyone goes by the available data and established parameters, it will not be very difficult to detect that many Indian cities, most of them are being metros; feature among the most polluted urban clusters of the world. Be it New Delhi, Mumbai, Kolkata or Chennai, people residing in all these major cities have to spend their days in dangerously polluted environments.

No doubt, it is high time for the governments in power to take drastic steps at respective levels to bring the situation under control. At the same juncture, the cooperative federalism should also be brought into practise; both central and state administrations must lend assistance or extend a helping hand forward to the one lagging behind in the race to curb the menace of pollution.

Rank	City and Country	PM 2.5 pollution level
1	Delhi, India	153
2	Patna, India	149
3	Gwalior, India	144
4	Raipur, India	134
5	Karachi, Pakistan	117
6	Peshawar, Pakistan	111
7	Rawalpindi, Pakistan	107
8	Khormabad, Iran	102
9	Ahmedabad, India	100
10	Lucknow, India	96
11	Firozabad, India	96
12	Doha, Qatar	93
13	Kanpur, India	93
14	Amritsar, India	92
15	Ludhiana, India	91
16	Idgir, Turkey	90
17	Narayongani, Bangladesh	89
18	Allahbad, India	88
19	Agra, India	88
20	Khanna, India	88

(This comparison chart is based on data released by WHO report on South Asian cities: 2014)

Few studies conducted over the period of time have shown that vehicular emissions and dust from construction sites account for rising air pollution levels and smog in the urban clusters. This year, the outcry has seen a slew of measures proposed by the state government as well as the Supreme Court so as to ensure that future generations are not harmed by the air.

## ABOUT CKS

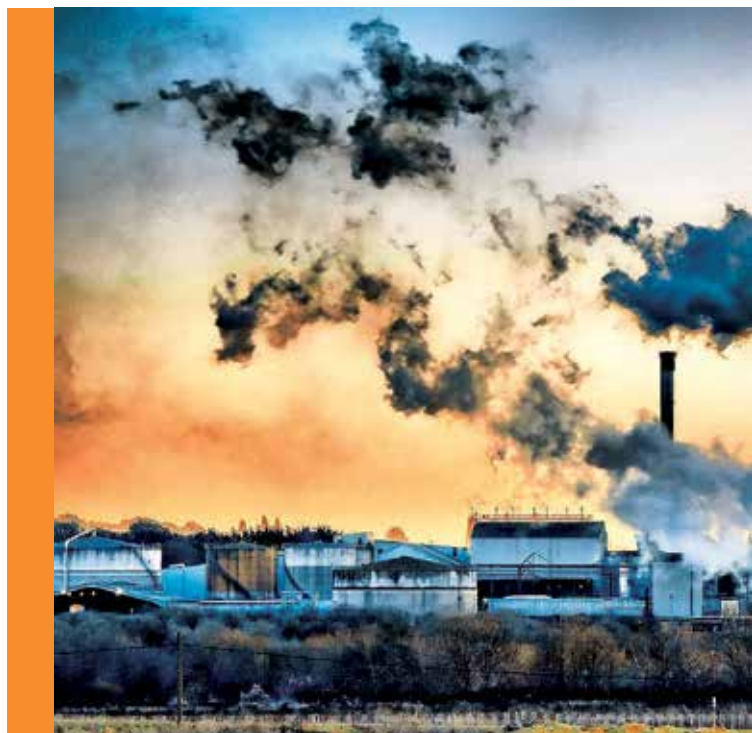
Centre for Knowledge Sovereignty (CKS), is an independent Think Tank that works on policy research dedicated to preserving the sovereignty of India in all aspects. It primarily deals with policy issues related to research & innovation in fields of Information Technology, Surface Transportation, Shipping, Agriculture and Education.

No doubt, Delhi government's proposal of plying odd/even cars is the talk of the town, but this seems to be more of a knee jerk reaction than a permanent solution. The circular issued by Government of National Capital Territory insists residents of the capital city to use cars with odd numbered registration plates on odd dates and those with even numbered registration plates on even dates. They suggest that their idea is to reduce congestion from roads as well as to reduce pollution resulting from vehicular emissions. But this move will put in a lot of pressure on already crumbling public transport which is in no position to share any extra burden. The alternate mode of rapid transport like Metro rail service is yet to connect some highly populated localities with city's crucial junctures.

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Beijing's current system is, in fact, less harsh than that of Delhi. Instead of proposing odd even number system, which will prevent car owners from taking out their vehicles every other day, in Beijing cars are limited only one day every week, during which commuters rely on either car pools or take the subways. Under the current limits, which rotates numbers every 13 weeks, tail plate numbers ending 4 and 9 are banned on Mondays, 5 and 0 on Tuesdays, 1 and 6 on Wednesdays, 2 and 7 on Thursdays, and 3 and 8 on Fridays. There are no limits on the weekend.

In fact, in the smart age of technology, the ruling regimes ought to concentrate on providing everlasting solutions. The BJP led NDA government's pet project of linking Delhi with peripheral expressway is one of the



New issue of India Today's a recent report says, a similar system that Beijing, China's capital has had in place since 2008 has been cited as one reason why the system may work. However, Beijing did it differently in at least two important ways. Much ahead of imposing vehicular restrictions, the China's capital built an extensive subway and public bus network in a three-year building spree. The Chinese authorities also installed a sophisticated automatic surveillance system in the city using cameras to strictly enforce the rules rather than leave the task to the traffic police. The subway in the metropolis will soon cross 600 km and double the length of Delhi's Metro network.

perpetual way outs of reducing traffic congestion and pollution. The union minister of Road Transport and Highways, Nitin Gadkari has already said that project would be completed in less than 400 days. Ideally this project must be replicated in other metropolitan cities as well where transit traffic must be routed out through well designed peripherals ways to avoid heavy vehicles' entry to cities. This will help in cleansing environment of the respective cities in a long way. Once such projects become operational, half of the trucks entering city headquarters would be able to bypass the densely populated areas. This will not only decongest but also significantly curb the rising vehicular pollution.

It is high time for the stake holders involved in various projects of providing smart cities to rise up to the occasion and provide reliable solution. The central government on its part has rolled in buses run on non-polluting ethanol or say alternate fuel as mode of public transport in various tier two cities to reign in pollution. The pro-active government departments are even hunting for space to install plants to generate alternate fuels.

A recent study released by National Air Quality Index (NAQI) has evidently shown that other than national capital as many as fifteen of the seventeen Indian cities showed levels of air pollution that far exceed the prescribed Indian standards. Just, scratch below the murky surface, and you will find concentrations of



PM2.5 in several other cities - Lucknow, Ahmedabad, Kanpur, Muzzafarpur and Faridabad, amongst others - that would justify the triggering of a 'Red Alert.'

Even the government's own data reveals that 23 of the 32 stations across India are showing more than 70 per cent exceedance of the national standards. The pollution levels in a few Indian cities have the embarrassing distinction of having exceeded the toxic levels of Beijing and other Chinese cities, demonstrating levels at least ten times higher than the WHO standards, making air pollution truly a national emergency.

To reign in the drastically rising pollution levels, government must come up with some out of the box

ideas. For an instance, in some eight years from now, a major part of Amaravati, Andhra Pradesh's new capital would take shape. Given its greenfield nature, there is every opportunity to develop it in a manner that avoids traffic congestion and the resultant bronchial woes now faced by Delhi. Already, tenders are being floated for metros, funds being released, giving hope that it would be as good as on the drawing board.

In case it happened, it could be a mass transit-driven city persuading residents to avoid personalised transports - cars and motorbikes. If the supply is kept ahead of the requirement, Amravati could be a city unlike any other in India. Not even Navi Mumbai, easily the largest city - area-wise, on par with Mumbai - being built in the world, developed like that.

People were to shift there, decongesting Mumbai, but the vital link in the shape of even buses from Mumbai to Vashi was missing. One had to disembark at Mankhurd on the Central local, and share taxis to Vashi, not a very welcoming prospect to potential newcomers. That's one reason it has grown ever so slowly. It has not yet been populated to the extent it was hoped in the first two decades.

Thus, Delhi, Navi Mumbai, and Amaravati provide three distinct approaches, the fourth being Mumbai which has been investing heavily in roads and flyovers to make road travel easier, but not enough has been done to move people in public road transport.

In case, we have to draw any lessons from the tale of three cities, there can be many. One of them is that only technology can make your life easier, simpler and inexpensive. So it is high time to let IT take the driving seat while proposing solutions for the smarter cities with smarter transport systems.

Just to take an example, Intelligent Speed Adaptation (ISA) can be developed for various vehicles by using GPS technology. The owner may get to know about exact location of his vehicle and what is the prescribed speed limit on the stretch of road it is moving, thus he may install a device (through a software or app.) of cutting the fuel flow the moment driver tries to exceed a speed limit making it physically impossible for him to over speed. These systems can be used to improve road safety, traffic efficiency and passenger comfort. A cooperative connected car, would receive not just information about a hazard detected by its own sensors (through a sound or vibration, which is more likely to catch the driver's attention than a road sign), but also through alerts from a vehicle further along the road.

Technology has improved lives across the board and will continue to offer opportunities to develop better public transport systems. Traditional models of the inter-relationships between service planning,





Beijing did it differently in at least two important ways. Much ahead of imposing vehicular restrictions, the China's capital built an extensive subway and public bus network in a three-year building spree. The Chinese authorities also installed a sophisticated automatic surveillance system in the city using cameras to strictly enforce the rules rather than leave the task to the traffic police. The subway in the metropolis will soon cross 600 km and double the length of Delhi's Metro network.

operations control and passenger information, have been based largely on the independence of these functions from one another.

Getting drivers to adjust their speed to desired levels to accommodate other road users' needs is an ongoing problem. Dynamic Speed Adaptation (DSA) technology offers remote speed advice to drivers about appropriate speeds in particular stretches of roadway and trials of it have already been conducted in Sweden and the Netherlands.

Cameras of every kind are already proliferating at an incredible rate to measure speeds over long distances. CCTV cameras may be installed on all traffic signals where they may read number plates of the ve-

hicles and instantly compare them to a National Database so illegal vehicles can be intercepted to bring criminals to a speedy justice.

The global status report on road safety published earlier this year by the World Health Organization (WHO) stated that approximately 12 Lakh people die every year on the world's roads and that 27 percent of all road traffic deaths are of pedestrians and cyclists.

However, the same report also suggests the countries who have implemented the first grade technologies have controlled the road rage deaths. Global experience shows that building safer motor vehicles and re-engineered road geometry does not translate into a better road safety record.

There are success stories, like Sweden, where a "vision zero" approach to road safety was able to bring down fatalities to five or six annually. The US, on the other hand, managed to bring down the risk of road fatalities per kilometre travelled. However, the total kilometres travelled has grown exponentially in the past decades, hence total road traffic fatalities continue to be high. Rather than focusing on improving the safety of fast-moving vehicles, the international road safety discourse now focuses on two objectives: reducing the average speed of vehicles and, importantly, reducing the total volume of vehicle kilometres travelled.

Together, this is known as a "sustainable transport approach" to road safety. It includes the redesign of urban streets and transport systems so that greater em-



the number of vehicle kilometres travelled. There is a critical list of best practices under each approach. Reducing the risk of fatality means strict enforcement of traffic rules - drunk driving, helmet use, seat belts and child restraint, as well as air bags.

It means improving the behaviour of all road users: lane driving, keeping to speed limits, using and respecting pedestrian crossings etc. It also means improving road geometry — identifying accident-prone spots and re-engineering them.

Finally, it means ensuring that the vehicles manufactured are safer. Governments and planners should require many of these standards by law, and by building a strong system for its enforcement. Reducing the number of vehicle kilometres travelled means increasing safe access to presently vulnerable road users — bicyclists and pedestrians.

Planners should make access to urban streets safer through better design and adequate space for pedestrians and other non-motorised transport users. It also means encouraging alternate, preferably non-motorised, forms of transport, such as cycle rickshaws, for shorter or local commutes. The use of



THE UNION MINISTER OF ROAD TRANSPORT AND HIGHWAYS, NITIN GADKARI HAS SAID THAT THE PROJECT WOULD BE COMPLETED IN LESS THAN 400 DAYS. IDEALLY THIS PROJECT MUST BE REPLICATED IN OTHER METROPOLITAN CITIES AS WELL WHERE TRANSIT TRAFFIC MUST BE ROUTED OUT THROUGH WELL DESIGNED PERIPHERAL WAYS TO AVOID HEAVY VEHICLES' ENTRY INTO CITIES. THIS WILL HELP IN CLEANSING THE ENVIRONMENT OF RESPECTIVE CITIES IN THE LONG RUN. ONCE SUCH PROJECTS BECOME OPERATIONAL, HALF OF THE TRUCKS ENTERING CITY HEADQUARTERS WOULD BE ABLE TO BYPASS THE DENSELY POPULATED AREAS. THIS WILL NOT ONLY DECONGEST BUT ALSO SIGNIFICANTLY CURB THE RISING VEHICULAR POLLUTION

phasis is put on public transport, non-motorized transport and transit-oriented development.

The sustainable transport approach can also be categorized by the Avoid-Shift-Improve (ASI) framework, where the objective is: avoid growth in vehicle kilometres travelled; shift trips to safer and more sustainable modes, like public transport and non-motorized transport, and improve the general condition of transport in terms of safety, time, cost, comfort.

This means India needs a two-pronged approach to road safety, with an equal emphasis on reducing the risk of fatality per kilometre travelled and reducing

mass-transit systems such as buses and trains to assist long-distance commutes is strongly recommended.

Planners should rationalize new road infrastructure investments by asking if it is a priority if only a small percentage of commuters own or drive cars. In Mumbai, for instance, just fourteen per cent use private cars or two-wheelers, whereas the majority spend a large part of their commute as pedestrians or users of public transport. As is often repeated within the transport sector, a rich nation is not one in which the poor have cars but one in which the rich use public transport. ■





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# SMART WAY TO FIGHT CLIMATE CHANGE

*As India shifts towards low-carbon growth trajectory, it will have to focus on maximising gains from energy efficiency*



Noor Mohammed

**T**he Paris climate agreement will lead to gradual but lasting changes in India's energy policies. The country, which meets about 60 per cent of its electricity requirement from coal-fired power plants, will have to shift towards a low-carbon energy path. In this context, the decision that smart cities should meet 10 per cent of their electricity from solar resources makes ample sense. However, this would go only so far in lowering emissions of Urban India which accounts for a big chunk of country's electricity consumption. Smart cities must embrace smart grid technology in electricity distribution besides smart transport solutions if they want to contribute in a meaningful way to India's goals of emission reductions.

"Electricity and related framework is the spine of any economy and availability of reliable and affordable power is a key impetus that puts the economy on higher growth trajectory. India primarily consumes thermal power with 70 per cent of electricity demands being met by that source. Smart electricity

is a concept that integrates power and IT to inter-connect all users (producers, operators, marketers, consumers, etc) with an end goal to efficiently balance demand and supply over an increasingly complex network," said Prakash Chandraker, Managing Director and Vice President, Schneider Electric Infrastructure Ltd.

"As the Indian government looks to bring to reality its vision of 100 smart cities, it is imperative that to boost productivity in different segments and enhance manufacturing, smart electricity framework be put into place as it will be ideal to ensure that there is an uninterrupted power supply and its efficient use to drive all such objectives," he added.

Rapid urbanisation in the country is going to be one of the most dominant trends in the coming years. It is expected that about 40 per cent of the population in 2030 would be urban as against 30 per cent today. As population expands and incomes grow, this shift will likely happen along with demographic changes that will exponentially increase the demand for urban amenities like energy, transport, housing, water and waste disposal.





India's urbanisation challenges are daunting. According to official estimates, more than half of India of 2030 is yet to be built. In a way, India's development process is doubly challenging. It has not only to keep growing at a fast pace but also to deal with challenges that would be posed by the economic growth.

According to global consultancy firm McKinsey, India's economy will grow five times by 2030 and 59 crore people will live in cities, of which middle class will constitute 9.1 crore. As much as 70 per cent of net employment will be generated in cities.

McKinsey estimates that India will have to build 700-900 square meters of commercial and residential space to meet infrastructure requirement of its urbanising population. Investment requirement is estimated at 1.2 trillion dollar.

By building 100 smart cities, India hopes to meet its urbanisation challenges. But growth in urbanisation and rising incomes of people would lead to a commensurate increase in India's energy consumption, which would in turn throw emission challenges. But India can still keep its emission under

check even as it ramps up electricity generation to meet the growing demand of urban population as well as of the overall economy.

What can assure us that India has successfully met its emission challenges through voluntary efforts? In recognition of the growing problem of climate change, India declared a voluntary goal of reducing the emissions intensity of its GDP by 20-25 per cent by 2020, despite having no binding mitigation obligations.

A slew of policy measures were launched to achieve this goal. As a result, the emission intensity of our GDP has declined by 12 per cent between 2005 and 2010. Even the United Nations Environment Programme in its Emission Gap Report 2014 has appreciated India's efforts, recognising it as one of the countries on course to achieving its voluntary goal.

As India shifts towards low-carbon growth trajectory, it will have to focus on maximising gains from energy efficiency. That is where smart grid technology comes into the picture. Use of smart grid technologies is critical to ensuring most efficient use of electricity generated in India.

It is heartening to know that the Urban Development Ministry has urged states to be pro-active in ensuring compliance with green construction norms in view of the commitment of the Central Government to mitigate emission of green house gases responsible for climate change.

As per official estimates, India accounts for 2.4 per cent of the world surface area, but supports around 17.5 per cent of the world population. It houses the largest proportion of global poor at 30 per cent, around 24 per cent of the global population is without access to electricity, 30.4 crore people, about 30 per cent of the global population is relying on solid biomass for cooking and 9.2 crore people lack access to safe drinking water.

The average annual energy consumption in India in 2011 was only 0.6 tonnes of oil equivalent (toe) per capita as compared to global average of 1.88 toe per capita. Significantly, no country in the world has been able to achieve a Human Development Index



of 0.9 or more without an annual energy availability of at least 4 toe per capita. With a HDI of 0.586 and global rank of 135, India has a lot to do to provide a dignified life to its population and meet their rightful aspirations.

As part of its Intended Nationally Determined Contribution (INDC) commitment made to the UN-FCCC, India has accepted that economic growth and development have to be guided by the key sustainability concerns. That it believes that development and environment are not adversaries but can go hand in hand, if environmental sensibilities can be imbibed.

Equitable, inclusive and sustainable development would be the key to a new model of growth that India is committed to pursue, which can be fostered and facilitated by a collaborative approach among the developing and the developed countries, it has added.

India has a definite plan of action for clean energy, energy efficiency in various sectors of industries, steps to achieve lower emission intensity in the automobile and transport sector, a major thrust on clean electricity generation and a building sector based on energy conservation.

Smart cities will need smart grid technologies to enable informed participation by customers; accommodate solar generation and storage options; enable new products, services, and markets; provide the power quality; optimise asset utilisation and operation efficiently; address disturbances through automated prevention, containment and restoration; and operate resiliently against all hazards.

Smart meters are microprocessor based devices that provide a two-way communication capability. They help consumers and utilities to manage the respective electricity usage and supply in a more effi-

## SMART CITIES MUST EMBRACE SMART GRID TECHNOLOGY IN ELECTRICITY DISTRIBUTION BESIDES SMART TRANSPORT SOLUTIONS IF THEY WANT TO CONTRIBUTE IN A MEANINGFUL WAY TO INDIA'S GOALS OF EMISSION REDUCTIONS

India is already contributing to the global fight against climate change. Its National Action Plan on Climate Change (NAPCC) provides a sharper focus on required interventions. Currently, NAPCC is implemented through eight National Missions, outlining priorities for mitigation and adaptation to combat climate change.

The broad policy initiatives of the government are supplemented by actions of the state Governments, Non-governmental organisations, initiatives of the private sector and other stakeholders. States and Union Territories have put in place the State Action Plan on Climate Change attempting to mainstream climate change concerns in their planning process.

Many other national strategies and policies supplement these efforts. The Energy Conservation Act has been enacted to encourage efficient use of energy and its conservation. The National Policy for Farmers focuses on sustainable development of agriculture. The National Electricity Policy underscores the focus on universalising access to electricity and promoting renewable sources of energy, as does the Integrated Energy Policy.

cient and cost effective manner. With the help of the information provided by such smart meters, power companies will have the capability to set up real-time pricing systems for electricity.

Power theft is rampant in India. A quarter of electricity generated does not generate any revenue for utilities. Application of smart grid will help utilities in checking power theft.

As India moves to build 100 smart cities, it must learn lessons from Delhi which is reeling under pollution, impacting life-span of its residents. How can India expect to draw investors when it cannot provide them clean air to breathe?


Delhi's air pollution is the consequence of bad planning. Without any credible public transport system, residents heavily rely on personal vehicles for commuting.

While metro rail has created the possibility for residents to shift to public transport, the last mile connectivity still remains a problematic area and makes people hesitant about abandoning personal cars.

As India moves to develop smart cities, it must focus on energy management and public transport. ■

INTERVIEW – VINIT GOENKA, MEMBER OF IT TASK FORCE, MINISTRIES OF SHIPPING, ROAD  
TRANSPORT & HIGHWAYS, GOVERNMENT OF INDIA

# “I Envision IT Driven Solutions to Make Solve Our Traffic Woes”

A portrait of Vineet Goenka, a man with dark hair, wearing a red vest over a light blue shirt. He is smiling slightly and looking towards the camera. The background is a blurred indoor setting.

*Vineet Goenka,  
Member of IT Task  
Force, Ministry of  
Shipping, Road  
Transport & Highways,  
Government of India  
shares his insights on  
the benefit of smart  
Transport for smart  
cities*



**VINEET GOENKA**

MEMBER OF IT TASK FORCE,  
MINISTRIES OF SHIPPING, ROAD  
TRANSPORT & HIGHWAYS,  
GOVERNMENT OF INDIA



### How do you visualize Indian Smart Cities?

Smarts cities are the future. Urban reform is one area asking for such vigorous attention. The intriguing phrase 'smart cities' conjures a vision of a technological and sustainable future for an aspiring India. I believe a smart city is also about doing 'smart things in a city' and IT plays a major role in establishing these smartly developed futuristic enclaves. 'Clean India Mission' is just a beginning, cleansing the filthy and dirty localities; this government will do much more in providing our people with honorable and dignified lives. This generation who aspires to make India a super power does not deserve to live in filthy, un-organized localities. India had been a 'Jagat-Guru' teaching the world about cleanliness and our ancient civilizations were majorly urban with model cities. We just need to revive our golden era by making best use of the available technologies designing these enclaves around the needs of 'aam aadmi' and providing them all with modern amenities.

### Most of Indian cities have more population than some western countries. Transportation systems of these cities are facing numerous problems. On this context, how urban mobility policy should shape? What Smart approach should India have?

Clearly, our available infrastructure is not sufficient to take the weight of throttling urbanization. Pressure of this rapid expansion is resulting creation of unauthorized colonies and slum. Let us take an example from Mumbai. Dharavi teaches how a city grows organically when people move from villages and learn to live and work in the same place. To service their needs, kirana shops, barbers, cycle repair and mobile phone recharging vendors' pop up haphazardly. I firmly believe people residing in such unorganized and unplanned colonies also have rights to basic facilities supporting a decent living. We believe in passing the benefit of growth to the last person among the people



languishing at the bottom of the pyramid. We have taken cue from many neatly designed cities around the world and they will be implemented in keeping our peoples' needs and space constraints in mind.

### How do you see that Indian smart cities will benefit from Smart Transport System?

Road network in India, in all its vastness provides last mile connectivity to the masses and also proves to be a lifeline for the country, but the crammed highways have jabbed the Indian economy for long. Inconsequential planning and scruffy implementations from successive regimes in the past have gifted the country this messy drive plexus. We are working on driving our country out of this mess. Automated transportation is the key. I envision IT driven solu-

due to over speeding, 6968 Indians died because rash driving post of alcohol consumption in 2014. We need to work really hard to make our highways safer and to travel. Just to take an example, Intelligent Speed Adaptation (ISA) can be developed for various vehicles by using GPS technology. The owner may get to know about exact location of his vehicle and what is the prescribed speed limit on the stretch of road it is moving, thus he may install a device (through a software or app.) of cutting the fuel flow the moment driver tries to exceed a speed limit making it physically impossible for him to over speed. These systems can be used to improve road safety, traffic efficiency and passenger comfort. Our government is committed to over-haul the entire transportation system, thus we are putting in lot of money into research and innovation to overcome these challenges.

**AUTOMATED TRANSPORTATION IS THE KEY. I ENVISION IT DRIVEN SOLUTIONS TO MAKE SOLVE OUR TRAFFIC WOES. WE ARE WORKING ON TECHNOLOGIES WHICH ARE A COMBINATION OF RFID, GPRS AND SMART CARD READERS; 3-AXIS ACCELEROMETER CAN HELP ADDRESS MANY CHALLENGES. THIS WILL ELIMINATE THE NEED OF PHYSICAL TOLLS OR EVEN POLICING. THIS WILL HELP IN TAKING CARE OF OVER SPEEDING AND REDUCE ACCIDENTS AND DEATHS, GENERATE GENUINE REVENUE FOR THE GOVERNMENT 24X7 AND CURB MAL PRACTICES.**

tions to make solve our traffic woes. We are working on technologies which are a combination of RFID, GPRS and smart card readers, 3-axis accelerometer can help address many challenges. This will eliminate the need of physical tolls or even policing. This will help in taking care of over speeding and reduce accidents and deaths, generate genuine revenue for the government 24X7 and curb mal practices.

### What are the challenges of that Smart Transport System as of now?

Indian highways are also counted among world's most unsafe road networks. According to figures available with the Ministry of Road Transport and Highways, India's daily death toll due to road accidents is more than four times the annual death toll from terrorism. As many as 139,671 people lost their lives on India's roads during 2014 – 382 deaths every day. For comparison, if 57,844 people lost their lives

### As you are working with- IT Task force – Ministry of Shipping & Transportation Govt of India, kindly throw some light on your thoughts on how your initiative can help promote Smart Cities?

In order to provide our country with the best transportation in the world, my team launched a campaign IT for Parivahan that eventually became the biggest citizen driven movement in recent times. We engaged with over 1.5 crore people to know their views and daily problems they face while commuting. In a result we were flooded with 40,000 responses some of which were queries, complaints and simple replies. Few share their ideas and gave innovative solutions to these problems. We discussed them with a team of experts and some industry leaders and vowed to implement the best from them. Our team has also made a report compiling most of these ideas which will be presented to the union ministries of Shipping, Road Transport & Highways. ■



# CATCHING UP WITH THE SMART HOME TRENDS IN INDIA

By Suniti Kumar Bhattachariya

**W**e feel most comfortable in the world while at Home. And when away from Home, we always feel stressful regarding the safety and security of our families and valuables. We might also be speculating if the front door is locked or the security alarm is working well, even worry that the lights may still be on! If nothing else, may just want to know what the children are doing at home - whether they are doing their homework or watching TV.

Now, we have the specific answers for all these. A smart home can help us put all of these doubts to

rest. It can also make your life easier and more convenient. After all, who wouldn't love it if the house door opens automatically on one's arrival and then the lights turn on? Who wouldn't love being able to control lighting, entertainment, temperature and security systems through a single touch screen panel or remote which is not only convenient but also enhances aesthetics of the home and its overall security? No doubt, ready with all these features and expertise, smart homes are plugged as a major innovation in real estate nowadays that will change the way we live.

Technology has not just changed the way we connect and communicate, but is also changing the way

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*Technology has not  
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we live too now*

we live now. Smart Homes can sense our mood and customize the lighting, fans and AC to our liking, will show on our touch pad or smart phone the person at the door and also buzz us in case of a gas leak in the kitchen.

The bathrooms will be lit up sensing arrival and the boom barrier at the apartment's entrance will open automatically sensing the presence of the car. Fridge will inform it missing a few ingredients from the recipe for tonight's dinner. Also, mothers busy in household chores or working in their office would be able to keep an eye on their kids playing in the garden on their smart phones, as these homes come with video surveillance cameras at all common areas.

Smart home equipment also promises incredible benefits for the aged people who live alone. Smart homes can notify a resident when it is time to take medicine and alert the hospital if the resident was to trip and fall. Also, the elderly folks just need to press a soft panic button in the house, in case of an emergency, to reach someone for help.

A smart home structure amalgamates electrical devices in a house with each other. Devices may be connected through a computer network to allow control by a personal computer, and may allow remote access through the internet. Through the amalgamation of information technologies with the home environment, systems and appliances are able to communicate in an integrated manner, which results in convenience, energy efficiency, and safety benefits."

Thus, there is hardly any limit to the possibilities and advantages that smart homes bestow on residents. The concept of smart homes, in fact, started gaining ground sometime in the 1980s in the United States. And since then it has undergone several changes around the world, helping occupants indulge in the little luxuries of life and in bigger issues like energy saving. As far as the Indian market is concerned, smart homes are still at a nascent stage. Thanks to rapid globalization, India is fast catching up with the smart home trends seen in more developed markets across the world.

However, while the automation in homes in western countries has reached far beyond basic security concerns, the demand in India is still limited to safety and monitoring. Still, as far as quality is concerned, Indian smart homes are in no way behind developed countries. The gap is only in terms of the list of features which will obviously grow as Indians get used to basic features and exhibit keenness for automating their lives entirely. The existing limitations are not because of lack of technological availability, but because of the continuing price consciousness among middle-class homebuyers. However, when it comes to high-end homes, the smart home features available in India today match those in the west. ■





“ The greater the percentage of organic ingredients in your skincare products, the better. Natural plant derivatives have been effectively used for thousands of years to heal, soothe and moisturize even the driest of skin.

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Vedic Collection combines the enchantment of the old world with an alluring selection of aromatherapy skincare, herbal clothing, hair and body treatments to calm the mind, soothe the soul and renew the spirit. Categorized into Tatha, Samaya and Vastram, we've got a sumptuous array of ready-to-use, natural and organic aromatherapy products with 100% pure essential oils -just about everything that a body needs to feel loved and pampered.

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The Vedic Collection is totally committed to provide pure, natural, safe and effective products, thereby, enhancing and enriching the lives of all those we touch. All our products are handmade under strict quality supervision, paraben, sulphate and chemical free and are not tested on animals. We only use recyclable glass bottles for storing our products to maintain its purity, as we are aware that plastic containers react with the essential ingredients used in aromatherapy and lose their potency. **Our products are 100% pure, authentic, unique and safe. They do not contain any chemicals.**

#### Personal Wellness and Skin care range by The Vedic Collection

**Face Care:** Tatha Face care range suggests you the best natural products according to your skin kind.

**Body Care:** Tatha works towards re-establishing harmony and balance. Tatha body care products help in detoxification, facilitate healthy living, maintain youthfulness and vitality.

**Hair Care:** Nourishes the scalp, keeps hair strong, maintains the shine, keeps hair thick, enhances circulation.

**Men's Care:** Tatha range for men is focused towards the much herald metro sexual generation

At Vedic Collection, it's all about co-creating value with our customers. There is a continuous innovation involved in making our products, developing new ideas and providing solutions which satisfy customer's needs. We believe in successful interaction and continuous dialogues through special platforms like social media to create an experience that WOW's our consumers. Memorable experiences have also developed our customer advocates who have supported our brand recommending it to their friends and families.



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# Habits for Smart Living

*Habits, the purpose of which is to help one stay motivated, get organized, increase efficiency, improve health, manage time & thereby turn aspirations into reality.*

By Suniti Kumar Bhattacharjya

**S**mart City is not just the perfect blend of Information, Communication and Technology with Infrastructure, while we explore Smart Living – we also need smart habits to get the taste of Smart Cities. Such habits, the purpose of which is to help one stay motivated, get organized, increase efficiency, improve health, manage time & thereby turn aspirations into reality. In a way, its focus is on personal & overall development but is much more than that because it is actually a convergence of different fields resulting in solutions which are crafted considering the Indian Youth in mind. It is neither just about working hard nor being strictly disciplined, but is actually about being smart in today's world to achieve more in less time and at the same time remain happy & healthy.

## Pollution Control

Pollution is a big problem in most of the cities and reached has a dangerous mark. An Indian Medical Association survey shows, we are already suffering from a lot of health problems owing to poor air quality. There is lot of noise pollution, which should be to the tune of maximum 60 decibel, and for that stricter laws need to be implemented. Proper garbage disposal also needs to be strictly followed.





### Promote exercise and use of bicycles

With playgrounds, gardens and open air spaces becoming a luxury, children need this infrastructure in place for a better tomorrow. Both Government and Citizens should promote and create more gardens, playgrounds and cycle tracks to encourage citizens to exercise, which will definitely prevent a lot of health problems. Diabetes, obesity and hypertension are a huge problem today and the ailments will be reduced by half if corrective measures are taken and proper strategies are implemented. Nutritious diet is extremely important in addition to exposure to the sun for a good dose of Vitamin D.

### Promote Government Health centers

Government should use the power of Information, Communication and Technology -( ICT) and create SMART hospital Factor that attracts people to Government run Health centers . It is found that only 15per cent take the benefit of Corporation

and Government health facilities while nearly 85per cent citizens take treatment in private hospitals or with private doctors. There is certainly a need for more smart hospitals, out-patient departments and healthcare facilities that should be provided by government so that at least 50 per cent of the citizens can avail these facilities and for this, adequate and long-term health budget should be allocated.

### Promoting Health cards

Every Citizen should receive health cards in which his/her blood group, body mass index, HB, any illness and emergency contact numbers along with pledge for organ donation should be mentioned. It is not an expensive proposition and this way every citizen, will try to keep his/her health within the parameters. Government should have a list of total numbers of doctors, hospitals based on specialization and all this should be available online to the respective cities. ■



# DELHI FROM SMART TO SMARTER

*With smart city projects underway Delhi set to become the most preferred destination for smart living*

By Bureau

Delhi will witness a major supply of international standard and world class living apartments by 2022. Meeting the Central Government vision to develop the National capital in the line of world class cities like Dubai, Barcelona; Ministry of Urban Development is being very aggressive on its front. It has announced the allocation of primary funds to the state and also in coordination with development authorities finalized the consulting firms to give it shape.

Delhi's recent housing schemes Smart City under the Land Pooling Policy that is framed successfully by Ministry of Urban development will soon revise the whole real estate scenario. Thus the national capital continues to fulfill the demand of thousands of prospective homebuyers who are waiting for an international standard living atmosphere for last 64 years.

After independence it is the first time when a major housing development has been planned and it will change the overall infrastructure of Delhi. It is a favorable option for people of Delhi to own a dream home in Delhi under projects which come under the



land pooling policy which has already been notified. With over a million square feet of unused land, emergence of new areas such as L zone, P zone and N zone in Delhi would provide much needed push to the supply of affordable housing. With over a lakh million sqft of unused land, emerging new areas such as L zone, P Zone and N Zone etc and it will continue to bring more supply for those who are looking to buy properties with amenities around.

Delhi's progressive policy of land pooling would help increasing the housing supply at affordable rates. It is expected that the upcoming supply in regions like

L Zone will help fulfilling the housing demand significantly. Patient home buyers with a long term horizon will benefit from the developments around smart cities and urbanisation in the city.

Land pooling policy has some remarkable benefits over the conventional methods of land acquisition. A number of states have started promoting pooling of land for the development of new residential zones. Land pooling is fast catching up with states.

The Delhi Development Authority has identified 200 villages for the purpose and these villages can free up 70,000 acres of

land that can be developed as residential destinations. Market is acting on its own and stakeholders such as developers are working in anticipation of a good future.

With this affordable housing policy a buyer can get a home in the same price in Capital city at which they are getting in NCR like Noida, Gurgaon, Ghaziabad and other sub areas. As it is a Government initiative, so all the action plan and monitoring would be done according to respective guidelines given by DDA and other monitoring bodies to meet the deadlines.

KPMG will prepare the action plan for New Delhi Municipal Corporation and it has also organized a publication consultation program to shape up the ideas for Delhi's smart city zones L, N, K & P.

A 28 year old marketing professional Anubhav Gupta who lives in Nabada near dwarka says, I am staying here for last 15 years and I am now planning to invest in real estate sector and looking for such options but I do not want to shift to Noida or

Delhi smart city development but it will take around 5-6 years to get developed but the best part is that the development is planned by government authorities so I am confident about the delivery part. If I invest in NCR and the development they will also take minimum 5-6 years but there is no security because there is no monitoring / governing body which can assure me about the timely delivery. So, the time frame is same and price is also equal but the most important USP is the assurance of delivery within the time frame which gives me a push to invest in Smart city project."

R C Gupta, a 52 years old government employee working in Supertech Engineers say, "I have 6-7 years left for retirement and the best investment option is obviously the real estate and I want to invest in a project which can give me the best return on my investment. Keeping in mind the current property market if I invest in NCR where the appraisal is very slow because there

25,000 houses for the affordable segment. This would reduce the burden of urban housing to some extent. L-zone being interspersed between Dwarka and Gurgaon promises to offer better connectivity with other parts of the region. The promised infrastructure will give boost to the overall economic activity in the region. There are other similar regions earmarked on the periphery of the state. This would add to the overall supply.

According to Land Pooling policy, it has two direct benefits for the market: First, land will remain with landowners and will thus reduce the instances of people filing cases against acquisition. The reduced number of litigations would ensure smooth and faster delivery of projects. Second, prices will rationalize in most of the upcoming regions where land pooling will be in place. Take the example of Delhi, where the DDA acquired the land, provided the infrastructure, and then auctioned it to developers at high



Gurgaon because my whole family and all my relatives live in nearby areas. I heard about the upcoming development which has been planned and I am very excited to own a smart home in Delhi which will fit my budget. I have also explored Gurgaon and Noida and I am getting options at approx 50 lakhs and that too in upcoming areas such as new Gurgaon or expressway. I do not want to shift there. So, if any option is offering the project in this budget in Delhi then I will definitely invest"

Another media professional Ritika Sharma who lives in a rented flat in Malviya Nagar says, "I am little aware about the

are very less buyers even for ready to move projects in NCR. If I invest in a property in Delhi then return would be too high and demand of housing in Delhi is very high because there is no such option of living. I am open for an investment and I can wait for 6-7 years also which gives me a good return once I retire from my job."

There are number of developers and group housing societies which have launched projects under the land pooling policy and are offering very lucrative offers to the customers.

The largest smart city Zone of national capital L Zone itself promises to bring over

rates. The subsequent development thus became costlier.

So if you have plans to invest in Delhi and can wait for 5-6 years, this is the right time for your investment but before making your investment you should check the credibility of the developer and verify all the documents carefully for safety of your hard earned money.

Overall, the end-user is the winner. He can thus buy apartments at affordable rates. An observation of the upcoming L Zone suggests that projects are reasonably priced and suit the pockets of many looking to buy in the affordable housing segment. ■



INTERVIEW – ANKIT GOYAT, COO, THE ANTRIKSH

# ONLY TECHNOLOGY CAN MAKE THE REAL ESTATE SECTOR MORE TRANSPARENT AND CUSTOMER ORIENTED

*IT makes the process smoother, cuts unwanted hurdles which all are and speeds up processes the hallmark of a successful business.*

**How was year 2015 for your company? Did you see growth in the industry in terms of sale or was it as stable as the year 2014 for the ANTRIKSH?**

It was comparatively a very good year for THE ANTRIKSH GROUP. Our sales figures were very promising. When other companies were suffering, we launched 2 new projects this year and both of them got great response from the market and are well appreciated by the customers.

**How did you achieve this growth when most of the real estate developers were suffering**

We have changed the complete outlook of the company and now we are more aggressive, energetic, organized and technologically strong as compared to last few years. We are using the latest technology to make property buying more easy and comfortable. We came out with a campaign like NO LOAN DAY which got extraordinary response. We have also created a virtual reality platform for booking the inventory so that customers can access our projects unit anytime anywhere, and can make the payment. Every transaction would be very clear. These are things which made us more profitable however when the market was not in positive mode. We believe in next gen realty business and the company which will change their working style as per the changing dynamics will survive in the market.

**You talked about virtual reality, what is it, please explain and how has it changed the scenario of your company?**

Virtual reality is a real estate e-commerce portal. You can now see the complete project details, layout of the projects, available units/floor, price list, walkthrough of the project, payment details, live construction status etc. so that you do not need to go to the project site, you have to login to website /app only. You can also make payment and book your property through this platform. We have to give a transparent and smooth solution to the customers so that we can retain their trust and bring back the lost confidence of the buyers from the market. All the real estate players should act as customer first company and this is the formula of success.

**The Antriksh group has a successful journey of 3 decades, how are you managing that glory and what all changes you are implementing within the company to make it more advanced and customer friendly?**

We have been winning the trust of our customers and stakeholders because of our sheer will and passion with which the Group had been moving ahead. Customers already have trust in our brand THE ANTRIKSH, which we have gained during the last 30 years. We always believe in transparent business. We always take decisions in favor of our customers as they are our real brand ambassadors.

A portrait of Ankit Goyat, a man with dark hair and a beard, wearing a dark suit jacket over a light-colored shirt. He is looking slightly to the side with a subtle smile. The background is a soft, out-of-focus indoor setting.

↙  
**ANKIT GOYAT**  
COO, THE ANTRIKSH

We have drafted a very clear policy that the customers who have invested in THE ANTRIKSH's projects can take their money back anytime if they have any issue with our working style, processess and have any doubt on documentation. We return the money within 1 week without asking any question. We are doing everything online so that we can serve our customers in a better

way, saving their time and unnecessary hurdles so that customers will never feel cheated.

### Please explain the term Next Gen Realty for our readers?

Next Gen Realty is basically the modernization and advancement of real estate business, the use of technology in every aspect starting from project showcase to project buying. As the lifestyle of young generation has changed, their thought process and buying behavior is also changing day by day so the real estate also has to work accordingly. Just like the way e-commerce industry has changed the shopping experience in the same way e-commerce will be the next phase of Real Estate which would be more organized as other businesses are.

### How important is technology for your business and how is it helping THE ANTRIKSH group in making the process faster and smoother?

Technology makes things smoother, brings innovations and transparency in business. IT makes the process smother, cuts unwanted hurdles which all are and speeds up processes the hallmark of a successful business. These all have to apply in real estate also, we have to make home buying as simple and enjoyable as buying an apparel or a gadget. It has developed more trust and faith of our customers on us and we are able to satisfy our customers and business partners and alliances. At THE ANTRIKSH we want to make everything crystal clear to everybody.

### What all challenges are you facing in the implementation of this in your overall business as it is said that real estate companies generally do not do everything fair because sometime it is not possible. Your comments?

It is a tough decision but we have to do it in the favor of the industry and customers. Our industry is considered as the most unorganized industry as there are few companies which do not do fair business and it creates a dent in entire industry and it creates a negative impact in the mind of the customer and he becomes apprehensive of the entire real estate Industry. Being a customer friendly company we are trying to change people mindset and are working towards giving maximum confidence to our customers, which are the most valuable aspect of any business.

### You are using technology enabled process, what other innovation are you bringing to the market on this line?

**VIRTUAL REALITY IS A REAL ESTATE E-COMMERCE PORTAL. YOU CAN NOW SEE THE COMPLETE PROJECT DETAILS, LAYOUT OF THE PROJECTS, AVAILABLE UNITS/FLOOR, PRICE LIST, WALKTHROUGH OF THE PROJECT, PAYMENT DETAILS, LIVE CONSTRUCTION STATUS ETC ONLINE. YOU DO NOT NEED TO GO TO THE PROJECT SITE, YOU HAVE TO LOGIN TO WEBSITE /APP ONLY.**





We are bringing every stakeholder in a single platform so that communication and process are smooth. We have developed an app which will connect with the brokers, dealers, investors and customers in a single click. They can access whatever information they require regarding the project. They can interact with the company's representative through a chat option. With many such never heard advancements it is going to bring a revolution in the industry.

**Online sales/rent of property business has changed the market trend a lot either we talk about magicbricks, 99acres, housing.com, Tata housing or Godrej Properties, everybody is focusing on online real estate business. What is your take on this?**

It is the future of every business. We have to be digitally very strong and accessible at every platform so that customers can buy/rent/sale as per their convenience as other verticals are doing, real estate

international standard and want our customers to experience a world class living/business atmosphere. We will keep on adding latest technology into our working style so that our processes don't get obsolete and are able to serve our customers in the most effective manner. 2016 is going to be the breakthrough year for implementation of technology in real estate. We are excited about bringing the change. We are determined to keep bringing innovation into our work

**You started your career as a commercial pilot and next switched to a Real Estate expert. You hold a significant role in the company. Can you enlighten us on how have you managed the transition?**

Yes, by qualification, I am a commercial pilot and I was doing that with great Passion & Integrity. However due to the need & responsibility towards my father's business, I switched my work sector to real estate from Aviation. Nevertheless, I am using

I AM ENTHUSIASTIC ABOUT NEW TECHNOLOGY, WORKING INNOVATION AND TRUST BUSINESS IS ALL ABOUT A MINDSET. MY EXPERIENCE IN AVIATION HAS GIVEN ME COURAGE OF FLYING HIGH AND BEING CONNECTED TO THE GROUND. THUS WE ARE TRYING TO BUILD A HOME OF HAPPINESS FOR EVERYBODY, LOWER MIDDLE CLASS, MIDDLE CLASS AND HIGH CLASS WELL. IF ANYBODY WANTS TO BUY A HOME THEY SHOULD LOOK FOR ANTRIKSH ONCE. MY FATHER AND I ELDER BROTHER HELPS ME TO EXPLORE AND UNDERSTAND THE SECTOR AND ITS OPPORTUNITIES.

industry should also work on same lines. There are number of NRIs who want to invest in Indian real estate market but there is lot of communication gap between the developer and investor. People have already started online purchasing of property and it is increasing day by day because of lack of time and busy lifestyle. Future is the e-commerce and we have to be ready for this.

**Please share your plans for the year 2016, what all THE ANTRIKSH Group is bringing for customers in the market?**

Our aim is to become the country's most innovative real estate company. We are launching more than 7 projects this year all on the lines of smart city. Land has already been purchased and we are completing other formalities and all the projects will be announced soon. We are developing all the projects on

the same passion of flying high and trying to take my business to new height. I am putting my best efforts to make THE ANTRIKSH a top real estate company in coming years in terms of timely delivery, customer satisfaction, and transparent policy and converting real estate business to a lifestyle business. I am enthusiastic about new technology, working Innovation and trust Business is all about a mindset. My experience in Aviation has given me courage of flying high and being connected to the ground. Thus we are trying to build a home of happiness for everybody, lower middle class, middle class and high class well. If anybody wants to buy a home they should look for ANTRIKSH once. My father and my elder brother helps me to explore and understand the sector and its opportunities. Together, we take care of the company and I am focusing on international market to achieve new milestones for the company. ■

# A Penchant for Grandiose at the V Kolkata

Limited edition homes built to your taste in the Smart City of Rajarhat.

Come home to a world where intelligent design meets unparalleled luxury, world class privileges meet sustainable living and opulence is but an understatement. Introducing the V, your iconic Abode of the future nestled amongst The Westin Complex.

Lavish homes, Service Residences, Suites and Offices that are as luxurious as your lifestyle. The Retail Renaissance with Ivy citywalk changing the urban shopping landscape. Endless list of state of the art amenities and a helipad with a 24\*7 on call service offering larger than life experience. All in all a seamless blend of grandiose and a stately abode reserved only for a few

While most will stare in awe, only some will call it home. That is because our apartments, like you, never settle for second best!

## The Wisdom –

A flawless example of sustainable eco-design, bionic architecture creates spaces that maximize the use of existing natural resources and minimizes energy consumption to make your home a superb balance of form and function. The first of its kind in India, and aspiring to have the highest level of LEED's certification. Dr. Javier Píoz, world renowned architect (of Cervera & Píoz, Spain) and an exceptional authority on bionic architecture has conceptualized and crafted this exquisite masterpiece.

## Balancing of Energies –

Through the science of Environics, a study that merges ancient wisdom with modern technology, our team of experts take special care that your private space is planned to accentuate the flow of positive energies. With the use of scientific instruments, Environics, analyses and corrects the bio-electro-magnetic radiations and neutralizes the negative energy affecting productivity and interpersonal relationships.

## Elite neighborhood : The Westin–

Discover a host of modern pleasures such as a luxury Westin hotel, a chic and exclusive entertainment and F&B experience. Surround yourself with magnificent landscape architecture and urban planning. With an amphitheater, kids play area and pool, pergola and much more, the V illustrates the perfect integration of international lifestyle and ecological sustainability. They all come together to translate your imagination Into a Lifestyle experience.

## The Location:Rajarhat –

One of India's most modern destination, Rajarhat, in Kolkata, is fast proving to be one of the country's latest and rapidly growing mega cities. Situated in the Greater Calcutta area of West Bengal, it is at a stone's throw distance from the Netaji Subhash Chandra Bose International Airport, Kolkata. With the government of Bengal, along with several public and private companies, working to provide Rajarhat with state-of-the-art infrastructure and amenities, it is the most sought after residential destination.

## USP's

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>• Tower - 1 - Luxury Hotel - 320 Keys</li><li>• Tower - 2 - The V - Luxury Apartments</li><li>• "AMURA" Fully Furnished Private Suites (1 Bedroom &amp; 3 Bedroom)</li><li>• The IVY - Retail Mall - 450000 sq. ft.</li><li>• Multiplex - CINEPOLIS</li><li>• Commercial Hub – 100,000 sq. ft. approx.</li><li>• Convention &amp; Banqueting Centre - 2000 People approx.</li><li>• LEED Certification</li><li>• Helipad on both Towers</li></ul> | <ul style="list-style-type: none"><li>• Bionic Architecture</li><li>• Emergency Rescue System from US</li><li>• 24X7 Concierge Services</li><li>• Fully Equipped Medical room Service</li><li>• Security &amp; Intruder alarm system</li><li>• Personalized access control system</li><li>• World class health and Wellness Spa</li><li>• Blast Mitigation</li><li>• Vastu Complaint</li></ul> |
|---|--|



“ Your dream is exclusively yours, and that is what we aspire to create! Little can be said about the necessity of a secure environment and the sanctity in the joy of freedom. The V is an extension of your individuality. ”

**Sujit Kanoria, MD,**  
Shristi Infrastructure Development Corporation



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# JOURNEY TO THE COUNTRY OF SMART CITIES

*The need for building of Smart Cities and further establishing a sustainable economy, as well as healthy communities is the challenge that the government has under taken*

By Suniti Kumar Bhattacharjya

India's rising need for employment, housing & commercial spaces and other vital challenges has advocated for an urban innovation to take place and result in derived as development of Smart Cities. The country has lately committed to the development of 98 Smart Cities to meet the demands of its rapidly growing and urbanizing population. This attempt will include building of new municipalities and reformation of existing cities.

The need for building of Smart Cities and further establishing a sustainable economy as well as healthy communities, is the challenge that the government has under taken. Information technology, telecommunications, urban planning, smart infrastructure and operations in an environment geared to maximize the quality of life for a city's population are the main elements of a Smart City. Such a synchronized progress with the setting up of an urban area is the key to sustainable development and progress which India requires going forward. In this process, India should examine the development of other world cities in a robust manner and get the feature expertise of the same. The said approach can give the direction on how increased effectiveness between these world cities and India can produce such

environments, address many looming concerns and open the pathway to a new era for the Indian economy.

It is estimated that almost 3.3 billion people are living in cities across the globe and the number will be double by 2050. Hence, the need for the sustainable economic growth and prosperity for the cities has been drastically evident.

Policymakers are pushed for new solutions for congestion, pollution, budget limitations, aging infrastructure, resource constraints and the need for continuing growth with the growing population shifting to urban areas. According to research from the Massachusetts Institute of Technology (MIT), cities will account for nearly 90 percent of global population growth, 80 percent of wealth creation, and 60 percent of total energy consumption.

The implementation of scalable solutions such as taking advantage of information and communications technology (ICT) to increase efficiencies, reduce costs, and enhance quality of life can tone down such concerns.

Infrastructure, operations and people; these three key elements put together in holistic approach are commonly referred





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GROUNDED IN DATA

to as “Smart Cities”, a concept highly discussed in urban planning and city policy circles worldwide. Organized with a comprehensive strategic set of goals driven by data, Smart Cities provide local administrators with the tools to make more effective decisions, proactively resolve any anticipated issues, and better coordinate public resources. This would entail utilizing energy and water more efficiently, preventing crime and natural disasters, reducing traffic congestion, and improving access to public services such as healthcare, infrastructure and education to residents.

With Smart Cities, city leaders from all around the world are moving beyond policy-based decisions to evidence -based decisions grounded in data. This allows breakthrough efficiency in coordinating resources, anticipating problems, integrating information and investing in the right services and infrastructure for its residents. Recognizing that India is currently experiencing a high pace of urbanization and movement of its citizens from smaller towns and villages to cities, Modi Government set aside 7600 Crore (\$1.24 billion USD) for the creation of 100 Smart Cit-

ies in the maiden budget that the new government presented to Parliament in July 2014. This plan envisions not only the building of new cities from the ground up but also modernizing older cities.

The concept note on Smart Cities by the Government of India has provided exact clarity about the policy-makers thought process. Public statements and commitments about the swift creation of 100 Smart Cities in India by ruling party during election has also played a strong ground for such initiatives.

The view set out in the concept paper covers a wide span of issues like public administration, economic, social and sustainability etc. The established body of knowledge on smart cities as a concept is broad and the set of projects and initiatives pursued by organizations active in this space that have been bestowed with the ‘smart city’ tag is heterogeneous. Ideas to reduce the emissions of greenhouse gases caused by lighting systems in commercial property, the use of the internet to empower citizens and to reform democracy and other such ideas are under way. A number of core principles have been identified in all the structure of smart city development. ■





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