

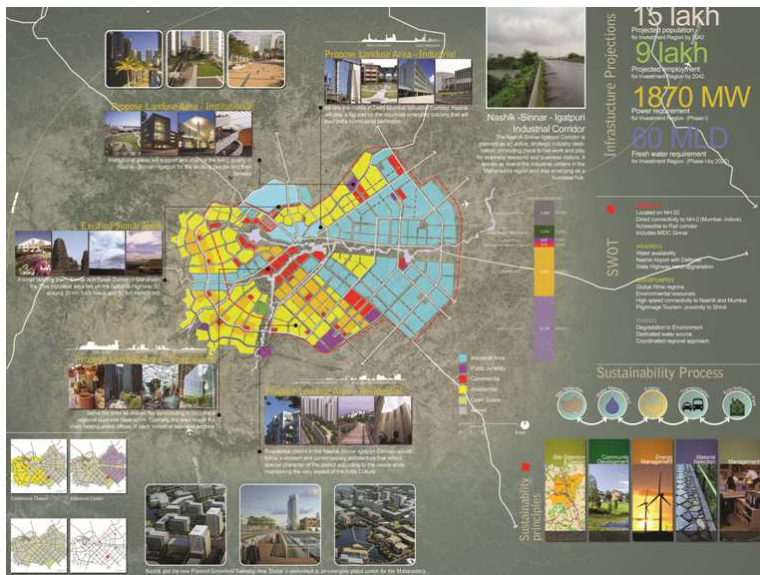
Emerging Opportunities in India

By Mark Blackwell

The land development and infrastructure boom is dominating the Indian economy and the fervor is being further ignited by the sheer opportunity to be part of the action in a country which is multi-faceted, colorful and frenetic. India's cities are experiencing a dynamic evolution as a result of economic growth which is significantly changing the shape of the built environment and some experts are predicting that within 20 years, India will become one of the world's leading economies.

The recorded growth rates in certain states of India are comparable with some of China's leading economic zones in terms of industrial and economic growth, population and land area. However, behind the impressive numbers of economic output and aggressive public investment, AECOM are looking at the connections between wealth and education, infrastructure and ecology, global and local to create successful integrated and sustainable placemaking.

AECOM has just been commissioned for the role of programme managing the development of Dholera in Gujarat, a brand new city in India which will be home to a million people, and will include land use planning and infrastructure design as well as putting in place the management and governance structures to develop it. Mark Blackwell, AECOM Regional Director explains, 'Dholera is the largest part of India's planned Delhi to Mumbai Industrial Corridor (DMIC), a 1,500km link of developments and infrastructure between India's two largest cities. Dholera will cover hundreds of square kilometres and is one of seven cities planned along the DMIC route. This will be the first of many such roles for AECOM on cities built from scratch in the developing world and we will draw on our global experience of city making and inspire innovative ideas for urban planning and new ways of thinking about urban life to address these complex urban challenges.



DMIC strategic planning that incorporates a sustainable development framework



Lepakshi Knowledge Hub – the 4,000ha site to become an integrated knowledge industry corridor.

Significant infrastructure budgets for high impact projects like DMIC are expected to escalate domestic and foreign direct investment even further in the creation of places that are not only functional, but authentic, inspiring, timeless, and are underpinned by environmental systems and economic opportunities.

These macro developments will have a substantial impact on India's urban population transformation which bears many comparisons with China's development experience. In both cases, city formation and expansion beyond tier-one into tier-two cities are apparent. What is also being observed is a shifting trend for real estate investment towards second-tier cities. In light of this, cities like Bangalore and Pune may soon become mega-cities – agglomerations of more than 10 million people – along with lesser known cities that have quietly been growing at a massive rate.

India Needs By 2030

- **\$1.2 trillion capital investment** required to meet the projected demand in Indian cities
- **Need for 20-25 new satellite cities** adjoining to existing metropolitan area to accommodate increasing urban population
- **700- 900 million Sq.m.** of residential and commercial space need to be built, or a new Chicago every year
- **7,400 km** of new metro and Subways

India Urbanization – The Great Indian Story (By 2030)

- **377 million** current urban population (census of India 2011)
- **600 million** projected urban population (nearly twice the population of the USA)
- **68 cities will have population of +1 million** against 42 today (Europe today has 42)
- **5 times by which the GDP will multiply**

Mark explains 'When people talk to us about our strategic planning and design roles, they usually assume it is essentially a process of physical change, but it also includes a significant socio-economic component. Our masterplanning role is an integrator – planning, design, technical, socio-economic and physical layers – understanding the issues and prioritizing. We have to respect, enhance and facilitate complex issues to ensure the solution is not only about creating a beautiful place, but revolving around the wider socio-economic issues.'

'Being able to learn from the landscape, respect traditions, cultures and heritage are fundamental, as well as working collaboratively towards the common goal to ensure future generations are able to enjoy and celebrate the uniqueness of India.'

Mark continues, 'Communities thrive by celebrating what makes a place unique and building upon its organic strengths such as dynamism, diversity, cultural exchange creativity and human interconnectivity. Placemaking in the Indian cityscape requires an increasingly multi-disciplinary response; we need to

continue to improve our ability to anticipate change, build in flexibility and adaptability in our designs, mitigate against climate change and create healthy places for people to live and celebrate life.

Whilst we should not underestimate the sheer size of India with its current population of 1.2bn, we have consciously focused on key clients rather than specific geographies and whilst our portfolio extends to planning of significant townships near to the Himalayas to integrated mixed use resorts in Kerala to the south, but the model of forming close relationships with clients to closely support their ambitions remains key in the evolution of the practice.'

Since AECOM India's inception just over three years ago, the Delhi design studio office now includes over 40 designers comprising landscape architects, architects, urban designers, landscape urbanists and economists 'which is an important mix in the diversity of any studio,' Mark explains. 'This creates the platform for understanding the broad range of issues and opportunities especially where our approach is rooted in a deep philosophy that is contextually sensitive and appreciative of the India where our creative work is delivered.



The 150 acre mixed use development at Noida City Centre, Delhi, incorporating a smart and connected cities programme with IBM

Mark adds, 'We have an extraordinary portfolio of projects including the smart city approach to mixed-use and integrated developments, addressing pioneering green technologies working alongside engineers and architects, challenging some of the conventional approaches by integrating landscape architecture, building engineering, water supply and architecture. And these are large scale projects which are being built over the coming years, typical in pace of the Asian environment.

As we look to position our practice for the future, India creates great opportunities for our talented teams to develop and advance within AECOM by combining the creative, strategic and innovative thinking of the broader business.

Collaborative academic networking forms an integral part of our strategic approach in India; our focus is to recruit intellectual talent with local knowledge engaging in key career-development opportunities, and ultimately, shaping future stars into the leaders-of-tomorrow who will have a profound impact on our success.'

Mark added 'Our ability to recruit talent in India has enabled us to create diverse multi-cultural teams which are sensitive to local cultures as part of our global vision,' says Mark. 'We have recruited graduates from key academic institutions, in country and globally including the School of Planning and Architecture (SPA) in New Delhi, the Centre for Environmental Planning and Technology University in Ahmedabad, the Graduate School of Design at Harvard University, the Architectural Association in London, the Pennsylvania State University, and Toronto University.

One of the most rewarding aspects of the process has been the evolution of graduates comprehension of design and their ability to deliver a world-class outputs in a relatively short period of time – this not only takes a lot of energy, but focused support from some of our more established offices with key individuals directing design on short and medium term secondments. And when these individuals begin to work with fresh graduates and lead small teams we know that momentum is gaining in a sustainable studio environment.



Illustrative approach for sustainable rain catchers that will store water underground to be recycled for green wall irrigation at The Plaza, Worli, Mumbai

To further enhance AECOM's understanding of the Indian panorama, Mark initiated a small build project to support underprivileged tribal children at a school in Gangangaon – a rural village 200 kilometers north of Mumbai, India. The AECOM team created a simple outdoor kitchen to support more than 1,200 local children in a community which has, for generations, been infested with illiteracy, poverty, malnutrition and health hazards. AECOM created an innovative, yet cost efficient open-kitchen equipped with custom-made energy-efficient brick stoves and new walls made from recycled plastic bottles collected in Mumbai, thereby allowing the children to enjoy a safer and more hygienic environment.



Gangangaon School Project, near Mumbai

Mark explains, ‘This was a wonderful opportunity to engage with the local community whilst creating tangible and sustainable benefits to promote better health conditions for underprivileged children in this locality. We hope the children will have a healthier and safer environment allowing them to focus on improving their literacy, learning opportunities, and more diverse prospects for social integration and employment.’ He adds, “each and every one of these families are living in extreme poverty; the majority lives in slum homes, and many of the children have to walk between five and ten kilometer to-and-from school daily in bare feet. The school has expressed their gratitude for the fantastic and selfless service provided by the AECOM team.

The result of the project is lasting – not only can the children and faculty enjoy a much safer environment, they also benefit from a reduced risk of illness and diseases, leading to a healthier and stronger next generation in India, for India.’

These initiatives are just as important for AECOM as well as the larger scale world-changing projects that will shape the future of developing countries; Mark believes that if the economic outlook remains positive, then there is no limit to how far India might go as part of this dynamic evolution.

END.