



Institution of Civil Engineers

Smarter growth and India's urban future

Dr Nicholas Falk, Founder of URBED, argues that the solutions to our global urbanisation challenges might be found in the rise of 'Metro Cities' rather than the expansion of megacities. Dr Falk explores the opportunities for shared smart city learning between the UK and India in addressing these issues.



The Mumbai skyline at night

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As the UK thinks about new markets, prompted by the BREXIT debate, India is being rediscovered. It is, after all, one of the largest and fastest growing economies in the world. The second language is English, and many of the systems, including its bureaucracy, were invented by the British. Huge markets are opening up in its urban areas. Premier Modi's Smart Cities programme has already ranked a hundred cities for their performance, and proposals are being assessed for how the front runners can do even better.

Challenges for Smart Cities

Smart Cities are about much more than using IT to control traffic signals or generate statistics. There are already forty cities with populations over

a million, ten more than in Europe, but 70% of the population still live in rural areas. So there are huge challenges in coping with urban expansion as people migrate. Water, energy, transport and waste are all crying out for smarter thinking.

Most attention goes to the teeming slums in mega cities like Mumbai and Chennai, or the fishing communities along the coast hit by rising sea levels and tsunamis. But, I believe, the greatest challenges and opportunities lie in what the OECD call Metro Cities. With populations between 500, 000 and a million (which equate in UK terms to cities like Oxford, Gloucester or Swindon), but growing at 2% pa they could relieve some of the pressures on the hotspots, or become polarised and unmanageable.



A section of the Kochi elevated Metro line in southern India. There are Indian success stories, like Kochi in the Southern state of Kerala, which will soon open its first elevated Metro line. Its international airport, powered by solar panels, was built without corruption. Its huge Lulu shopping mall contains branches of Marks and Spencer and Costa Coffee. But knowhow in sustainable development is lacking, politicians are not trusted, and British involvement is rare. Yet an editorial in a February edition of The Hindu called for cities to learn from Transport for London on how to regulate the chaos of private buses.

Opportunities for the UK

Whereas once Britain's overseas trade was bound up with India, today we sell less to the Indian market than Belgium does. When I first visited India to take part in a EuroCities conference, it was sponsored by the main French cement company; British cities were unrepresented. A prominent Indian architect in the UK told me recently it was too unprofitable to work there, while a leading engineering consultancy told me that the government would not pay enough even though they had prequalified as Smart Cities consultants. So how could the UK benefit?

First we need the kind of reciprocal trade deals that Ford Motor Company used to open up export markets. Why should China or like Singapore or Korea be the only countries to assemble products for us? Why should so much of our textiles come from Bangladesh and not India?

Second we could follow Mott McDonald's example of establishing a successful business and talent pool of engineers in India to support the company's global infrastructure projects. India is building far more metro systems than we are, so surely we should be using expertise gained in the Docklands Light Railway or Hong Kong to open up new markets.

Third we can export our knowledge of how to make cities more sustainable, as Atkins have done in partnership with UCL, through their report Future Proofing Indian Cities, based on case studies in Bangalore and Madurai.

Fourth we could help build management capacity. Many British universities are already targeting Indian students and the NHS relies on Indian staff to keep services running. But given the reputation British planning once had, surely we could do more to ensure that Indian cities do not repeat all the mistakes we have made?

India and the UK face common problems in upgrading their infrastructure. This means tackling urban sprawl, congested streets, polluted air, over-stretched utilities and worn-out buildings. Both our countries also urgently need to find better ways of doubling housing output without adding to carbon emissions. This depends on joining up infrastructure with development. It also involves establishing delivery mechanisms, such as public private partnerships or new town development corporations, to build management capacity and tap private resources.

New garden cities

Having won the 2014 Wolfson Economics Prize for proposals for doubling the size of Oxford as a 'new garden city', URBED is starting to share our expertise. But India needs to produce its own. I am working with a group of colleges in Tamil Nadu called Social Change and Development (SCAD) to build a demonstration 'eco village' that uses natural materials. Construction methods have to change and, for example, Hempcrete could enable new urban settlers to build affordable homes, and cut carbon emissions. I am also developing a management training course for cities that want to change direction.

Many opportunities exist for collaboration and knowledge sharing between the UK and India in the creation of 'smart cities', and engineers will play a key role.

Join the debate on urbanisation

Do you think Dr Falk's suggestions could work?

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About the author

Dr Nicholas Falk, an economist and urbanist, founded the research and consultancy group URBED in 1976. He is the co-author of Sustainable Urban Neighbourhood: building the 21st century home, and Good Cities Better Lives: how Europe discovered the lost art of urbanism.