

**SECTOR:
INFRASTRUCTURE**

**SECTOR OVERVIEW
OCTOBER 2012**

Welcome to UKIBC's October 2012 Infrastructure sector report. We have had an exciting summer, with the visit of Kamal Nath, Minister of Urban Development at the forefront. On 19 September, Minister Nath and Dr Vince Cable signed a memorandum of understanding to encourage greater cooperation between the UK and India in the area of urban regeneration and development. Following the signing, Minister Nath set out his ministry's key priorities at a business roundtable organised by UKIBC and UKTI.

Another high-level visit to London, Dr Mitra, Finance Minister of West Bengal, took place in July. UKIBC organised a meeting where the Minister discussed some of the challenges facing his state, the priorities of his government, and the opportunities for UK, particularly in the areas of social infrastructure, roads and tourism development.

Under Market Update, we examine some exciting opportunities emerging in India's urban transportation, in particular metros and monorail. We hope that you will find this section as attention-grabbing as we did, as it presents significant opportunities for UK contractors, engineering consultants and service companies.

97 million jobs will be created in the next ten years in different sectors meaning that around 8.7 billion square feet of real estate space will be needed across India every year. This, according to a report by Jones Lang LaSalle for the Royal Institution of Chartered Surveyors (RICS) titled 'Real Estate and Construction Professionals in India by 2020'. This is a clear indicator of the vast opportunities India offers to UK developers and architects. Benoy, a UK company already successfully working in India, will speak at a UKIBC infrastructure roundtable on 12th November.

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FOCUS ON: VISIT OF KAMAL NATH, MOU SIGNING AND BUSINESS ROUNDTABLE

Memorandum of Understanding on Urban Regeneration and Development

The MoU signed by Dr Vince Cable, Secretary of State for Business Innovation and Skills and Kamal Nath, Minister of Urban Development was welcomed by both ministers. Kamal Nath remarked that it is a step forward, will deepen engagement and add momentum to the long history of partnership between the two countries.

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The MoU covers sustainable master planning, transport planning, public private partnerships, land economics, heritage and governance - areas where both sides felt there were great opportunities to collaborate for mutual benefit. Many UK companies are already active in India and the Indian Government is keen to attract even greater participation from UK experts, given the huge investment in urban infrastructure planned in the next 5 years.

Vince Cable welcomed the MoU. Noting UK expertise in urban regeneration and low carbon construction, he felt that lessons learned from the regeneration of our UK cities (most recently in East London for the Olympics), could be usefully shared with India's expanding towns and cities. Referring to David Cameron's meeting with Prime Minister Singh in July 2010, the Britain India Infrastructure Group and the work of UKIBC and UKTI, through the Urban Infrastructure Group, he emphasised his strong desire for UK infrastructure development industry to engage further with India in this area.

Referring to the economy, Minister Nath said there is pessimism despite circa 6% growth rates. He said India's growth was driven by domestic demand and therefore it was protected to a certain extent from the global / eurozone crisis. He felt that the recent FDI reforms in civil aviation and multi brand retail will restore investor confidence.

Business roundtable

Following the signing of the MoU, Minister Nath, H.E. DR Bhagwati, The High Commissioner of India to the United Kingdom and officials from Ministry of Urban Development and Delhi Development Authority participated in a business roundtable arranged by UKIBC and UKTI. The roundtable was attended by 20 companies including Aecom, Balfour Beatty India, Benoy, HOK, JCB, Mott MacDonald, Rider Levett Bucknall and Mace.

The Minister highlighted the immense challenges such as the infrastructure deficit, as well as opportunities facing the urban sector and the measures his ministry has taken through the reform based JNNURM Phase I and the soon to be launched JNNURM Phase II. In addition, the roundtable saw an engaging discussion on London's experience of developing and commercialising an Olympic park, and the unique opportunity there exists for India to learn lessons from it.

JNNURM

JNNURM was launched in 2005 to encourage reform and fast track planned development of 65 cities. Reforms (some as basic as double entry book keeping) were encouraged in exchange for central government funding for urban infrastructure projects in water, sewerage, and urban transport.

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Under Phase II, the focus will be on encouraging innovative means to raise resources such as monetization of land, Public Private Partnerships and viability gap funding. Water and sanitation will play a large part of the next phase, which will result in opportunities for the private sector to deliver services to consumers.

Phase II will have a larger capacity building fund, in recognition of the need to develop expertise within municipal authorities, so that the government's efforts to improve urban infrastructure are sustainable. Developing ecosystems for skills training in India across construction and all vocational skills is a key focus area of the UKIBC's skills sector and a key area of ongoing bilateral engagement. UK skills providers are engaged in a number of initiatives both with private sector providers and with Indian Industrial Training Institutes.

Urbanisation and the Infrastructure Deficit

Kamal Nath remarked that to a certain extent the problem is that growth preceded infrastructure which has resulted in an infrastructure deficit. He pointed to India's young mobile population and urbanisation: 5,161 towns and 55 cities with a population of over 1 million now, which is expected to increase to 8,000 towns and 70 cities with 1 million before long. He said that Tier II and Tier III cities are growing fastest in % terms and therefore are facing the biggest challenges.

At the roundtable there were presentations on the Olympic Park Legacy (see below), and on the emerging findings of a Kolkata/wider West Bengal scoping study, a UK-India collaboration which will identify a number of opportunities in the region, as well as challenges. We will discuss this study in further detail in our next Infrastructure sector view.

PPP, Land Economics, and Heritage: Lessons learned from London's Olympic legacy

Paul Brickell, Executive Director of Regeneration, London Legacy Development Corporation, talked about the scale of the Olympic Park and its legacy. He highlighted the overarching "Olympic Development Authority" (ODA) established to simplify the complexity of dealing with multiple stakeholders and 6 neighbouring boroughs and the land assembly which involved approx 360 parties, issues which resonated with the Minister given bottlenecks around land acquisition are often cited as a key barrier facing the implementation of infrastructure projects.

Kamal Nath was particularly interested in the Olympic park social legacy and the asset use mix. There was a lengthy discussion on PPP models and how best to share both risk and the upside with the private sector. For the Olympics, the public sector bore the costs of new transport links, trunk infrastructure, and importantly the preparation of the land for redevelopment, making the area attractive to private sector investors.

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Recognising the difficulty of making some projects attractive and commercially viable even with viability gap funding of up to 40% e.g. metro projects, which require massive investment, Nath welcomed UK participation in PPP. Remarking that India is “naive” in land economics, there was a wide discussion around how to benefit from the upside in land value and the merits of a “larger area approach” and establishing special purpose vehicles which have a life beyond the initial project. Developing commercial hubs around stations, thereby increasing asset values is a good way of attracting private sector investment. Kings Cross station and other examples were cited.

Consultancy services around the generation of revenue from real estate, is an opportunity area for UK, as rail operators propose to develop commercial property to help pay for metro costs. A rail operator in Southern India has recently invited bids for consultancy services in relation to revenue generation and managing the bid process.

In addition, heritage management is also an area that Kamal Nath is keen for UK experts to participate in given our expertise in conservation and change of use and the increasing focus on developing tourism across the country.

Future engagement will focus on sharing best practice in these areas.

Urban Transportation

Remarking that urban transportation is fundamental to sustain economic growth and pointing out that it accounts for approximately 35% of his Ministry's budget, Kamal Nath highlighted the big focus on metros across the country. He said that Phase 3 of Delhi metro is being built now and by the time phase 4 is complete it will be 440 kms, longer than the London Underground.

MARKET UPDATE

Dr Mitra, Roundtable - Opportunities in PPP, Hospitals, Roads.

Dr Mitra, Finance Minister of West Bengal was in London in July. At a roundtable organised by UKIBC for a small group of businesses, Dr Mitra set out his government's plans and priorities.

A priority facing the state is to address the gap in the provision of social infrastructure. With only 4 public hospitals serving over 90 million people, major investment in hospitals is planned. 32 multi speciality hospitals will be built across the state and some will be accompanied by medical colleges. West Bengal is keen to learn from UK experience on PPP models for social infrastructure so this will be followed up through ongoing engagement.

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The Finance Ministry has recently submitted a PPP policy to the cabinet and Dr Mitra urged the UK's financial sector to participate.

Dr Mitra emphasised his government's focus on improving transparency, mentioning that all tenders are now e-tendered. In addition, they are putting in place a panel of transaction advisors, comprising global consultants, to assist with the business case planning of major infrastructure projects.

The West Bengal Highway Development Corporation has been incorporated and surveys have begun on the construction of 1,000 kms of state highways some of which will be procured on a PPP mode whilst others (non viable routes) will be procured on an Engineering, Procurement and Construction basis. The State governments target is to build over 4000 kms of state highways.

Another focus area is developing tourism across the state. Eight priority projects have been identified from the Foot Hills of the Himalayas (Dooars) to the beaches of the Bay of Bengal and the The Sundarbans. Recognising UK expertise across these areas Dr Mitra invited more UK participation.

Dr Joshi now Minister of Railways in addition to being Minister of Roads Transport & Highways

Minister Joshi has taken over the railways ministry due to the resignation of Mukul Roy and other Trinamool Congress ministers, following Mamata Bannerjee's withdrawal of support for UPA II.

Recognising the performance of the road sector in the first quarter was not up to standard, in July, Minister Joshi met developers, concessionaires, financial institutes and engineering firms to discuss and to understand the issues.

Recently, the Government took steps to increase the rate of completion of highway projects by setting up Regional Offices of the National Highways Authority of India to help alleviate land acquisition problems and other bottlenecks. The Government has reported that with the monitoring through regional offices they have already seen a reduction of delays in National Highways projects.

Road safety is a growing concern as the Ministry of Roads Transport & Highways has recently identified pothole areas on roads which account for more than 90% of accidents in the country. To address this issue, road safety needs to be part of the design and planning stage including enforcement of safety laws, setting up road safety councils, road markings, signage, etc.

<http://pib.nic.in/newsite/erelease.aspx>

<http://www.indianexpress.com/news/roads-minister-cp-joshi-gets-extra-charge-of-railways/1006546/>

C.P. Joshi has recently given a nod to a proposal that would see, if approved by the cabinet, the creation of a corporation

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whose mandate would be to administer and construct expressways in the country. It would function as a Public Sector Undertaking. The purpose of such a body is to ultimately make the development of expressways a more streamlined and efficient process.

<http://www.livemint.com/Politics/B7ERk02WpJ3haLWjEob7ZM/New-PSU-proposed-to-ensure-faster-implementation-of-road-pro.html>

Business Opportunities: Metro and Monorail

Metro and other urban transportation projects in India such as monorail and Bus Rapid Transport Systems (BRTS) present a large opportunity as the government recognizes that more efficient and sustainable modes of transport are critical for the orderly growth and sustainable development of cities. Currently 31% of the population live in urban areas and this is expected to increase to 40% by 2030. Cities account for 60% of GDP which is expected to rise to 70% by 2030.

The government of India is committed to major investment in public transport and associated infrastructure. In the 12th 5 year plan, 2012 – 2017, the Planning Commission estimates approximately Rupees 2,21,090 crores (£26 billion) will be spent with Rupees 1,30,726 crores (£15 billion) on metro projects alone.

Recommendations of the Working Group on Urban Transport for the 12th plan

| Investment in Public Transport and Other Associated Features | | |
|---|--|-----------------|
| PUBLIC TRANSPORT | Investment (Rupees Crore) | GBP (bn) |
| Buses | 13,759 | 1.6 |
| BRTS | 29,603 | 3.4 |
| Metro Rail | 1,30,726 | 15.3 |
| Commuter / Regional Rail | 19,780 | 2.3 |
| Bus Infrastructure | | |
| Depots | 5,220 | 0.6 |
| Terminals | 1,280 | 0.2 |
| Workshops | 2,260 | 0.3 |
| ITS and ATC | 8,520 | 1.0 |
| Parking | 1,943 | 0.2 |
| Public bicycle scheme | 2,000 | 0.2 |

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| Innovation development such low cost technologies in guided rail transit | 1,000 | 0.1 |
| Institutions and capacity building | 5,000 | 0.6 |
| TOTAL | 2,21,090 | 25.7 Bn |

In September, the Government announced that it will support Detailed Project Reports for metro projects in all 19 cities with a population over 2 million.

Metro projects are already being built across the country - in Delhi, Bangalore, Kolkata, Mumbai, Chennai, Hyderabad and Jaipur. Kochi is next in line where a 25 km elevated metro at an estimated costs of Rupees 5,181 crore (£ 602 million) will commence soon. The Kochi metro project will be implemented through a jointly owned special purpose vehicle between the Government of India and Government of Kerala and is scheduled to be completed in 4 yrs. The central government will contribute Rupees 1,000 crore (£ 166 million).

Opportunities: Metro

Metro opportunities in India are estimated to be worth a £319 million opportunity to UK plc. 100% FDI in the construction and development of related infrastructure for mass rapid transport systems such as metros and related facilities is allowed.

UKTI has identified the following projects which form part of its High Value Opportunity (HVO)[\[1\]](#) programme:

- **Mumbai Metro:** Phase 1 Line 2 from Charkop-Bandra-Mankhurd
- **Hyderabad Metro:** 72 Km covering three high density traffic corridors with 66 stations.
- **Delhi Metro Phase 3 :** 104 kms with 104 stations of which 40 kms and 31 stations will be underground

Opportunities will include design and construction of civil works, signalling and communication systems, rolling stock, automatic fare collection systems, electric traction, intelligent transport systems. In addition, consultancy services e.g. in relation to revenue generation from real estate is another big opportunity as metro rail operators are keen to generate increased revenue to finance projects.

Opportunities: Operation and Maintenance

As the shift moves from building to operating and maintaining of metro assets there is an increasing opportunity for UK services companies and providers of intelligent transport solutions. Various operation and maintenance contractual models are being tested and the model is evolving. Going forward, it is expected that more operation and maintenance contracts will be bid on a PPP basis as recommended by the Planning Commission's working group.

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It is felt that that while the focus is not yet on operational efficiency as a differentiator, this will change in the next few years, given the shift of focus from build to services. In addition, where commuters are able to pay, increasing focus and importance will be given to speed of journey, reliability, safety and comfort.

Opportunities: Contract structures and Financing

Metros are capital intensive projects and the challenge is financing them. Key funding sources, in addition to gross budgetary support from the Government and fares can be dedicated levies, land monetization and private investment – all of which the government is keen to encourage.

The majority of early metro projects have been implemented through joint special purpose vehicles between the Government of India and respective State governments and financed by contributions from the centre (under JNNURM), state government and user charges.

This is the case in Delhi (Delhi Metro Rail Corporation, is a 50:50 joint venture between central and state government), Chennai, Bangalore, Kolkata, and Kochi. However, the government is now testing Public Private Partnerships and the metro projects in Mumbai and Hyderabad are being developed on a PPP basis.

The Hyderabad metro covers three high density traffic corridors over 72 kms with 66 stations. The project is being procured on design, build, finance, operate and transfer basis. The project has been awarded to [Larsen & Toubro](#), and the concession period is 35 years with an option to extend for another 25 year period.

Mumbai Metro Rail Project Line 2 of Phase 1 from Charkop-Bandra-Mankhurd (CBM) will be 32kms and have 7 stations. The project was awarded by the Mumbai Regional Development Authority to a consortium led by [Reliance Infrastructure](#). The project is on a build, operate, transfer (BOT) model with a concession period of 35 years initially with an extension clause of another 10 years. Project planning and tender preparations for the major contracts are in progress. Tenders are expected in the next 6 months.

According to the Planning Commission, the intention is to finance 30% of urban transport projects through private sector participation which means potentially more metros will be procured on a PPP basis.

Whereas the government is prepared to provide viability gap funding of up to 40% (20% of this from States), in view of the huge demand on budget, the central government is encouraging state governments to follow the Karnataka and Delhi examples. In both cases, finance was raised by levying tax on residential and commercial developments around stations and along routes, thereby generating its own funding sources. In Delhi, the state government is establishing a fund through a dedicated levy and leveraging increased land value and property value from sale of properties along the corridor.

Opportunities: Monorail

Kamal Nath highlighted the increasing focus on monorails for inner city and densely populated areas as they are cheaper

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and swifter to implement (less demolition, land acquisition etc).

Mott MacDonald has been appointed by LTSE - a consortium comprising Larsen & Toubro and Scmi Engineering - as independent assessor for the testing and commissioning on Phase 1 of Mumbai monorail (Read more below).

A number of Monorail projects are currently being considered. One in New Delhi where a route has been identified and work is expected to be entrusted to DMRC. Monorails are also being considered in the cities of Calicut and Thiruvananthapuram in Kerala.

There is some concern that where a parallel system works, such as in Delhi with the metro, then if a monorail is introduced consumer choice will be driven by cost, which means existing urban transport modes may suffer. However monorail can be an ideal feeder system to larger metro networks as well as for stand-alone shorter networks in the densely populated pockets of cities.

[1] The HVO high value opportunities programme identifies large scale overseas projects offering the most value to UK Plc and aims to provide an intensive level of support to help UK businesses win contracts in and around these opportunities.

For further information on the UKTI High Value Opportunity Programme please access the link:

<http://www.ukti.gov.uk/uktihome/item/219720.html>

INVESTMENT UPDATE

Industrial Corridors

A proposal for Chennai – Bangalore industrial corridor, a replica of the Delhi-Mumbai Industrial Corridor is being prepared. However, the exact whereabouts of the route is still in planning and could go as far out as Mangalore. Putting this project in the pipeline is important for the Indian Government as South India is the hub of industries such as IT and automotive. Japan is already involved in the planning stage and will be investing in this project as well.

http://articles.timesofindia.indiatimes.com/2012-07-22/chennai/32788273_1_delhi-mumbai-industrial-corridor-freight-corridor-new-routes

Serco

Serco, the international service company, has been awarded a £13 million contract to operate and maintain the new bus rapid transit service in Indore, India. Serco will operate and maintain a fleet of 50 low-floor and air conditioned buses and the operations centre, the total length of the transit system is 11.3Km. The Atal Indore City Transport Services Ltd AICTSL which is a joint venture between the Indore Development Authority and Indore Municipal Corporation has

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awarded Serco.

http://articles.economictimes.indiatimes.com/2012-09-10/news/33736986_1_bus-rapid-transit-serco-brt

Mott MacDonald

Mott MacDonald, a leader of light rail systems consulting, has been appointed by Larsen & Toubro and Scomi Engineering, Malaysia for the testing and commissioning of the Phase 1 of India's first monorail. This is part of the 8 lines proposed for the city of Mumbai, which when completed will be the world's second longest monorail after Japan's Osaka system. The monorail will connect to existing railways and the metro system which will ease congestion in the region.

<http://www.mottmac.in/news/?id=475230>

CASE STUDY - RIDER LEVETT BUCKNALL

Mark Weaver, Managing partner for RLB India

Tell us about your business – its origin, offering and coverage?

Rider Levett Bucknall employs more than 2,800 staff across 100 offices in Asia, Oceania, Europe, Middle East, Africa and the Americas.

We are a leading independent consultancy that provides clients with comprehensive and forward construction and property advice. Core services include cost management, project management, building surveying and advisory services.

The practice can trace its roots back to the 18th century and we pride ourselves on our dedication to customer care and leading edge service provision. We strive to optimise our clients return on investment and minimise their risks, leading to savings in both programme and cost.

We are focussed on creating long term value and long lasting relationships.

When and where did you make your first investment in India? In which cities do you currently have business relationships and/or business activity in India?

Rider Levett Bucknall had worked successfully within a number of cities within India for three years prior to establishing a business in country in 2011. We secured our initial work via existing relationships with multi-national firms that were already operating in India.

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We began by employing one Indian national as an in-country manager and his team is now steadily growing. Lance Taylor, chief executive and I I are both directors of the Indian firm. I travel to India at regular intervals to oversee the office growth and strengthen relationships in the country. Lance travels to India every few months to achieve the same.

We have already performed roles on a number of projects. They include Mega City, Mumbai, Space City, Bangalore, the Australian High Commission in New Delhi and we delivered early budgeting and facility reviews for the 2010 Commonwealth Games.

We are currently based in Mumbai and have a long term strategy to expand into other cities as our business grows.

What were the main drivers of your decision to foray into India?

Investing in India was a part of our growth strategy and expanded global reach; it was a growing and emerging market and operated with similar contract terms to the UK. We needed to seize the opportunities that were presented in such a rich market.

We also needed to ensure that we were operationally equipped to follow our clients into the territory and indeed have the ability to move with them as they further expand.

To not invest in India would simply have placed us in a very defensive position in a highly competitive global marketplace.

What have been your biggest practical challenges of entering and operating in India?

The key issues we have faced include discovering that the amount of time and paperwork needed during the set up and launch process is endless. This included finalising the legal contracts, the DIN registration, banking set-up, tax issues, identifying the right office location as well as the best employment lawyer for what we needed.

We also found that the scope of tender documentation varies greatly. In most instances we initially received piecemeal requests for information from our local workforce and clients rather than one full brief. We are currently training our staff to work by developing as fuller brief as possible with the client so the nature of the project is known from the start.

The need for training of local staff on added value services and the benefits these can bring to a client and project were identified. As a result our Indian staff spent time in the UK, undertaking both technical and RLB best employer training.

What is your candid view on future opportunities within India for your business?

Investing in India is a long term investment proposition; there is no quick return in a short space of time.

We believe that realistically our business will continue to grow by securing work through large multinational firms, national Indian clients and through the network of consortiums and individual contacts that we continue to develop and strengthen.

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What advice would you give to other businesses in the UK looking to do business in India?

As in any country in the world, local culture has to be respected and firms need to employ locally. The importance of regular contact in India is also immeasurable. Mumbai, the location of our first office, is a small world in a big city and success is very much about personal connections. For expats, it remains important to regularly visit as this shows respect and evident interest in the business and its operation. However you cannot fly in, meet people and return a couple of months later believing you have a relationship.

www.rlb.com