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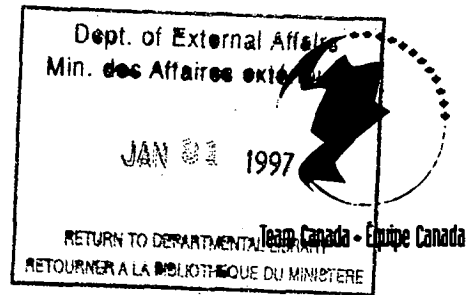
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# MARKET REPORT

## Urban Transit Sector

### India



#### Market Opportunities Assessment

Since 1991, the Government of India (GOI) has given high priority to the development of infrastructure with private sector participation, including direct foreign investment. Projects at the national and state level, including the construction of rapid transit systems, are increasingly attracting foreign interest.

With the phenomenal growth of traffic in India, the Mass Rapid Transport System (MRTS) and the Light Rail Transit (LRT) system are being introduced in a phased manner to overcome a high degree of traffic congestion. India's last population census, taken in 1991, revealed that 217 million people, about a quarter of the population, lived in urban areas. India already has 23 cities with a population exceeding 1 million. The four "mega" cities (Bombay, Delhi, Calcutta and Madras) have populations exceeding 5 million. The cities of Hyderabad, Bangalore and Ahmadabad have more than 3 million inhabitants each.

Given the costs and time involved in constructing technically advanced MRTS, the central, and some state governments, have opted for more intermediate and cheaper forms of mass transit such as elevated trams or light rail systems. Bangalore has chosen a light rail transit system with two-four car trains running on elevated viaducts at about 20 feet above ground.

Another approach has been to seek private investment on a build-operate-transfer (BOT) basis. The Ministry of Railways has decided that it will only provide technical expertise for intra-urban transport projects and will not get involved in funding or operating them due to resource constraints. Private companies have already shown enthusiasm in bidding for mass transit projects in Delhi, Bangalore and Andhra Pradesh.

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### *Opportunities for Joint Ventures*

The resurgence in urban rapid transit projects across India has seen global tenders issued for several projects. Canadian companies bidding for the transit projects will face competition from Japan, Korea, the US, Sweden and Germany. The most promising sub-sectors for Canadian involvement in Urban Transit in India are in 1) supply of equipment and 2) design and consultancy. The unofficial estimated 1996 market size for these sub-sectors is US\$ 50 million and US\$ 25 million respectively.

The following is a summary of urban transit projects either planned or underway.

#### 1) Light Rail Transit, Ahmadabad

The State Government of Gujarat has signed a Memorandum of Understanding (MOU) with a consortium led by M/S Mukand Ltd. for the implementation of LRT in BOT mode.

#### 2) Light Rail Transit, Bangalore

Proposals have been received from 14 consortia for the first phase of the US\$ 1.4 billion four-phase LRT project for Bangalore city in the southern Indian state of Karnataka. The project will be implemented in BOT mode by the Karnataka Government jointly with a consortium of Indian and foreign firms.

#### 3) Suburban Railway and Highways, Bombay

The Bombay Metropolitan Region Development Authority (BMRDA) is reviewing proposals for the Bombay Urban Transport Project II (BUTP-II). The City and Industrial Development Corporation of Maharashtra Ltd. (CIDCO) is identifying and developing projects in New Bombay and other urban nodes in Maharashtra.

#### 4) Underground High Capacity Rapid Transit (Metro) and Suburban Railway, Calcutta

The feasibility of extensions to the Metro and suburban railway already in operation is being examined.



#### 5) Mass Rapid Transport System and High Speed Tram (HST), New Delhi

The Government of the National Capital Region of Delhi is considering the introduction of MRTS with the assistance of private participation. The Government of India has approved, in principle, the implementation of the multi-nodal MRTS for New Delhi. The 1995 estimate of the project's cost is US\$ 3 billion. A joint venture of the Union Government of Delhi and the Overseas Economic Cooperation Fund (OECF) of Japan named 'Delhi Metro Rail Corporation' was registered in May, 1995. The BOT implementor of the HST has been selected by the State Government of Delhi.

#### 6) Light Rail Transit, Ports and Highways, State of Andhra Pradesh

Proposals for the implementation of LRT in BOT mode in four cities have been invited. Similar proposals have also been invited for ports. External aid for highway projects has been requested and aided feasibility studies are in progress.

#### 7) Light Rail Transit, Jaipur

Reports leading to the implementation of LRT are being prepared.

#### 8) Light Rail Transit and Inland Water Transport (IWT), Lucknow and Light Rail Transit, Kanpur

The feasibility of LRT for Lucknow and Kanpur and river transport in Lucknow is being studied.

#### 9) Suburban Railway and Road, Madras

A comprehensive World Bank funded study has been completed which identifies priority and long term land use and transport measures in Madras.

#### 10) Light Rail Transit, Pune and Pimpri-Chinchwad

Private sector investors have proposed to the Government to implement LRT in these two cities.

#### 11) Tram System, Shimla

A feasibility study for providing a tram system in the Hill resort city of Shimla is being conducted for the Government of Himachal Pradesh.



## **Market Access**

India is pressing ahead with liberalization and a critical part of this is making sure infrastructure development takes place. There is increasing interest from all over the world, including international financial institutions. Although Indian projects in urban transit often lack the usual feasibility study data which is essential for evaluation by potential bidders, there has been extensive interest in the projects by international firms. There is a tendency towards indigenous sourcing in the transit and rail sector. Canadian companies interested in the sector may have to explore technical collaboration and local joint ventures.

### *Doing Business in India*

Indian agents are a vital link in the chain of complex selling processes in India. The Indian market place is large and varied and most Canadian companies find the use of an agent of critical importance in guiding them through the maze of regulations and "red tape".

With the liberalization of the Indian economy, the tendency is towards the joint venture relationship. In this type of arrangement, a separate operating joint venture entity is usually created. Quite often, the Indian partner will request buy-back provisions in the joint venture to ensure an initial flow of business. Caution should be observed when unwritten understandings are being contemplated as they often create future problems.

### *EDC Financing*

EDC is open to selective financing support of projects in India. EDC's focus is increasingly on transactions involving infrastructure improvements. A priority is given to projects which offer strong benefits to Canada, are at an advanced commercial stage and do not require concessional funding.

### *Trade and Investment Risk*

According to International Business Communications of New York, in July 1995, India's risk rated as follows on a scale from A (low) to D (high):

Global Export Market Risk:

18 month: B-

5 year: B-



**Global Direct Investment Risk:**

18 month: B

5 year: B

*Promotional Activities*

**Third International Railway Equipment Exhibition**

February 9 - 15, 1997

New Delhi, India

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**Urban Development Authority**

Contact: Vice Chairman

**Government of National Capital  
Territory of Delhi**

Transport Department, Secretariat  
Underhill Road, Delhi

Contact: Commissioner Transport

**Bangalore Metropolitan Region**

**Development Authority**

LRDE Building, Infantry Road,

Bangalore

Contact: Commissioner

**Government of Andhra Pradesh**

Department of Transport, Roads &

Buildings Secretariat, Hyderabad

Contact: Principal Secretary, TR&B

**Bombay Metropolitan Region**

**Development Authority**

Bandra Kurla Complex, Bandra East,

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Contact: Metropolitan Commissioner

**Jaipur Development Authority**

Near Lakshmi Narayan Temple, Jaipur

Contact: Vice Chairman

**Government of West Bengal**

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Contact: Secretary, Transport

**Government of Uttar Pradesh**

Transport Department, Tedi Kothi,

Lucknow

Contact: Additional Transport  
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Madras Metropolitan Development  
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MMDA Towers, Egmore, Madras  
Contact: Chief Planner

Pimpri-Chinchwad Municipal  
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Bombay-Pune Road, Pimpri  
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