



Delhi Airport Metro Express

A Case of Public Private Partnership Project

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Delhi- Vital Stats 2016

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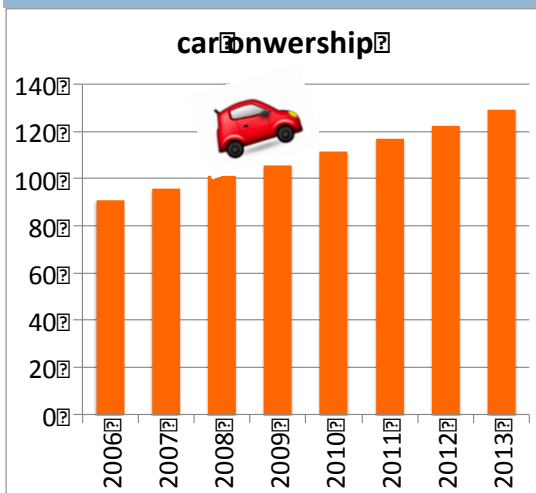
Official name: National Capital Territory of Delhi (NCTD).
 Total Area: 1483 Sq Km
 Population: 17.1 million
 GRDP/capita: IRs 305,091 (US\$ 4,554)



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Delhi- Car Ownership Trend

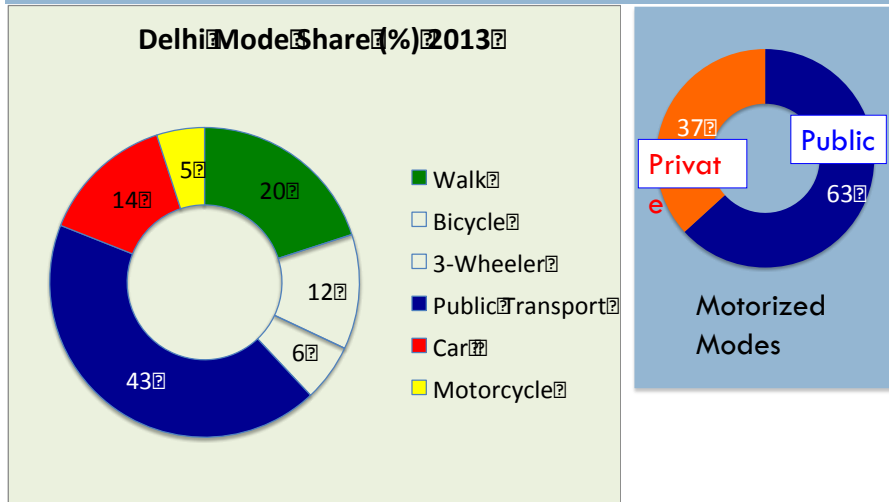
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Modal Share in Delhi, 2013

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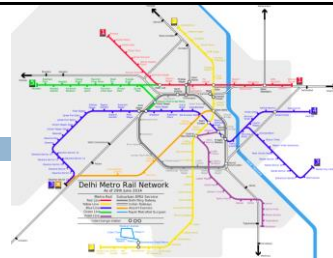
Data Source: Ministry of Urban Dev, Gol, Handbook of Urban Statistics 2016

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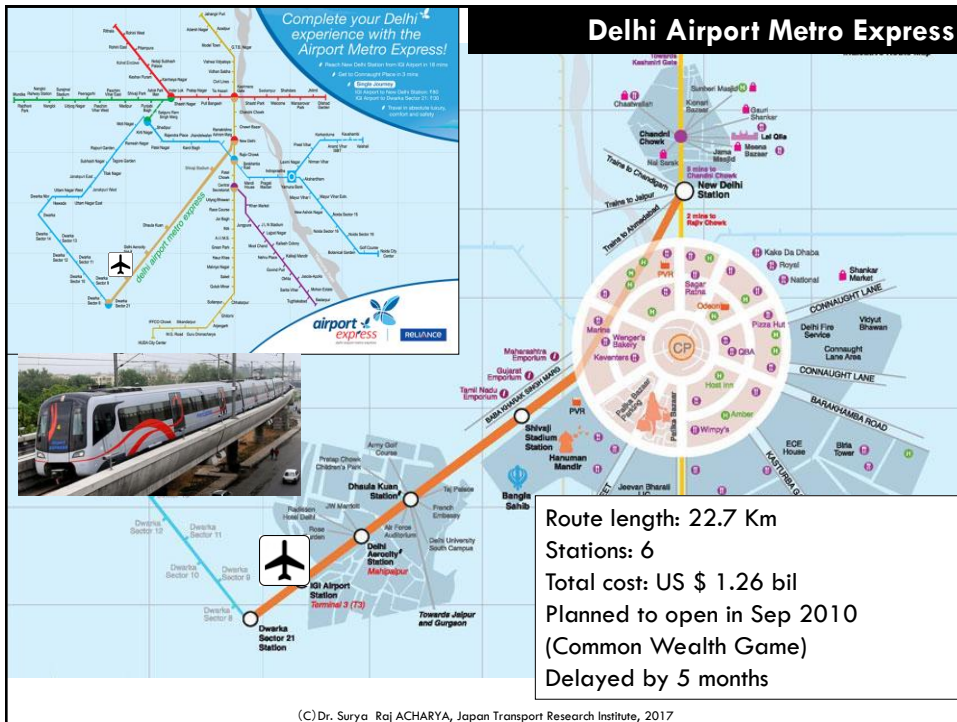
Delhi Metro- 2015-16

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- Operation start: Dec 2002
- No of Lines: 6
- Network Length: 212.6 km
- Daily avg pass: 2.59 mil
- Fare (IRs): Min 8- Max 30
- Traffic operation (in billion Indian Rs)
 - Revenue: 20.4
 - Expenditure: 14.1(excl depreciation & amortization)
 - Operating profit: 6.3



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Public Private Partnership (PPP) Scheme (1/2)

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- Express metro (higher speed, 135 km/hr) connection between city center and the Airport
- Intended to open for 2010 Common Wealth Game (but delayed)
- Private sector was expected to be more efficient for new technology (ballast-less track etc)
- Provision of land-development right to private company for 'value capture' through real estate business

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Public Private Partnership (PPP) Scheme (2/2)

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- Delhi Airport Metro Express Private Limited (DAMEPL)- SPV, a consortium comprising
 - Reliance Infrastructure Ltd. of India (95%)
 - Construcciones Auxiliar de Ferrocarriles (CAF), Spain (5%)
- Contract signed in January 2008 (period 35 year)
- Total project cost US\$ bil 1.26 (DAMPEL investment \$420 mil)
- Design/construction of basic civil structure by Delhi Metro Rail Corporation (DMRC)
- Financing, Rolling stock, installations, operation and maintenance by DAMEPL
- DAMEPL agreed to pay DMRC concession fees of \$10.53 mil per year (+ share 1 to 5 % of gross rev for 15 years)

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Ridership forecast

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- Forecast of daily ridership
 - 46,000 in 2010 [Total airport passenger: 70,000]
 - 86,000 in 2020 [Total airport passenger: 270,000]

*international experience: public transport takes 28 to 62 % of airport passenger.

At the opening, the average daily readership was below 10,000 !

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Problem: Sequence of events (1/3)

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- Because of economic downturn, the real estate business did not do well- Project company DAMEPL scaled down the expectation
- In July 2012, defects identified in civil structure (constructed by DMRC)- operation suspended
- There are also defects in the tract (DAMEPL's job)
- DAMEPL suspended the service from 8th July 2012
- DAMEPL insisted that because of defects and service suspension, huge financial loss incurred- compensation from DMRC demanded

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Problem: Sequence of events (2/3)

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- Ministry of Urban Development decided to repair in consultation with DMRC/DAMEPL.
- DMRC carried out the repair and ratified the defects pointed out by DAMEPL. DMRC also repaired the bearings (notified DAMEPL on 5 Oct 2012).
- On 8 October 2012, DAMEPL served a termination notice, which was rejected by DMRC. The issue was referred to arbitration
- DAMEPL resumed train service from 22 Jan 2013
- DAMEPL issued notice on 27 June to stop operation and handover the project asset to DMRC from 1 July 2013. DMRC rejected the proposal, ref to ongoing arbitration

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Problem: Sequence of events (3/3)

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- On refusal of DAMEPL to operate the system, DMRC took over operation and maintenance from 1 July 2013 in the larger public interest. Performance bond of DAMEPL was encased (IRs 550 mil)
- PPP scheme is heavily criticized by Comptroller Accounting General (CAG) of govt of India
- On 27 June 2014, arbitral tribunal awarded DMRC a liquidated damage to be levied on DAMEPL (IRs 371 mil). DAMEPL filed a petition in Delhi High Court claiming IRs 2306 mil.

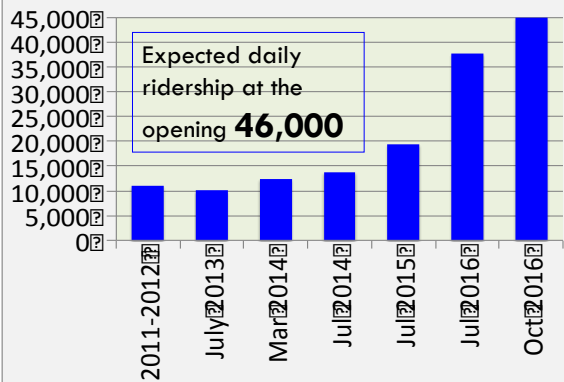
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Trends of average daily passengers

Reduction of fare and other changes

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Average Daily Passengers



Measures taken

- Speed restored to 80 km/h
- Higher frequency
- Smart card in May 2015
- City center check-in for Indian Airlines
- Better connectivity with intercity trains

Fare, IRs
Min-Max

IRs 30-180

20-100

10 - 60

Jul 2014

Sep 2015

1 IRs = 1.7 Yen

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Sum-up and Lessons

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- Asymmetric information/expectation between public sector and private sector
- Optimistic demand forecasting, but not attractive service for airport access (connectivity etc)
- Even if risk allocation is fair at the time of signing, private finds ways to transfer the risk to public sector when business encounters some unexpected things
- Urban railway projects (operate in network) should carefully assessed for PPP schemes

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Thank you !

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