

ADB Transport Forum

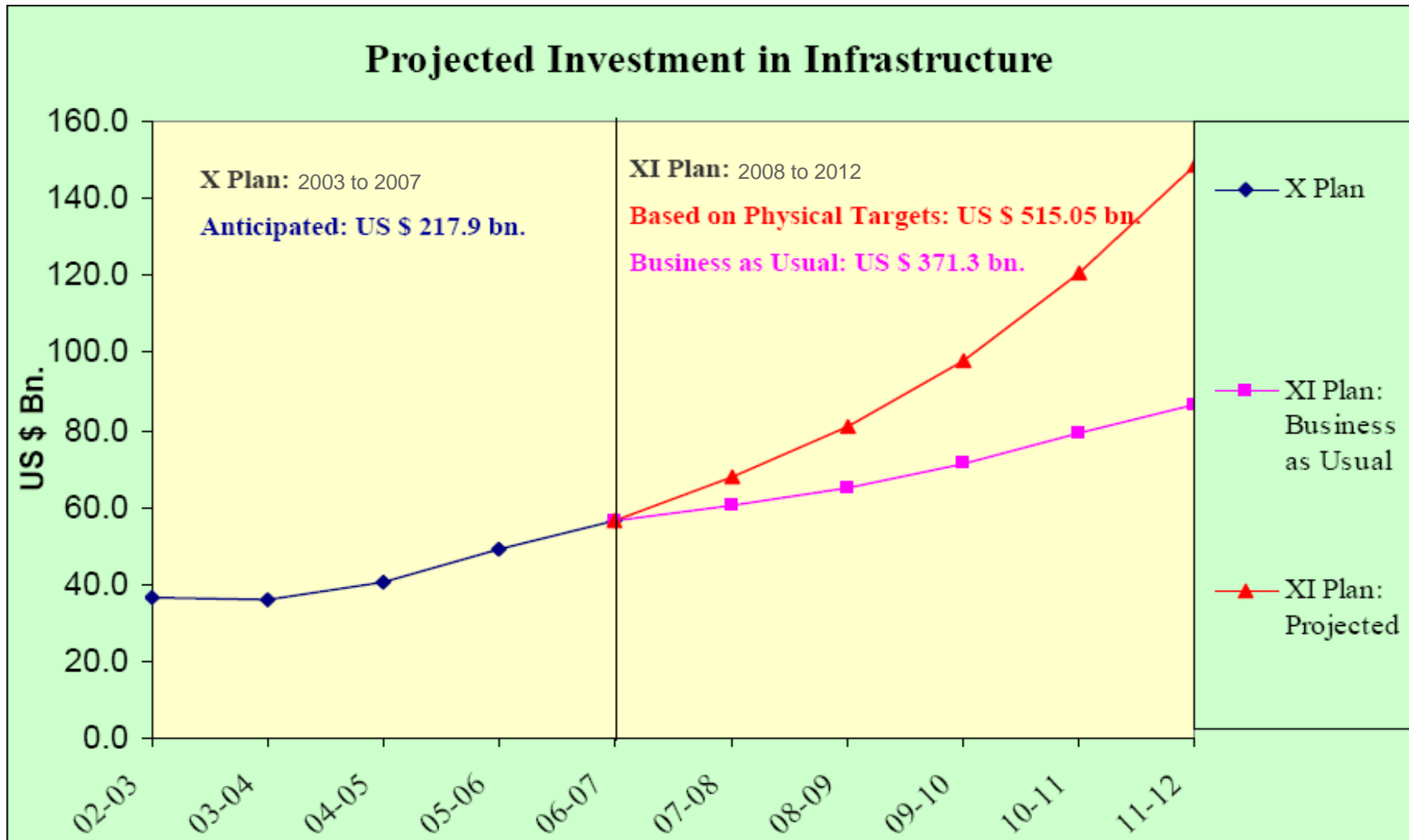


Indian Government Experience with PPP in the Road Sector

“Asia on the Move: Energy Efficient and Inclusive Transport”

Presented by
S.K. Gupta
12 September 2008

Investment in Infrastructure in India: Eleventh Plan Projections



Investment in Roads: Eleventh Plan Projections (US\$ Billion)

Type of Road	Tenth Plan	Eleventh Plan (Projected)		
		Public	Private	Total
National Highways	17.88	16.50	19.96	36.46
State Roads	11.43	25.00	6.74	31.74
Rural Roads	5.16	9.15	-	9.15
Total	34.47	50.65	26.70	77.35

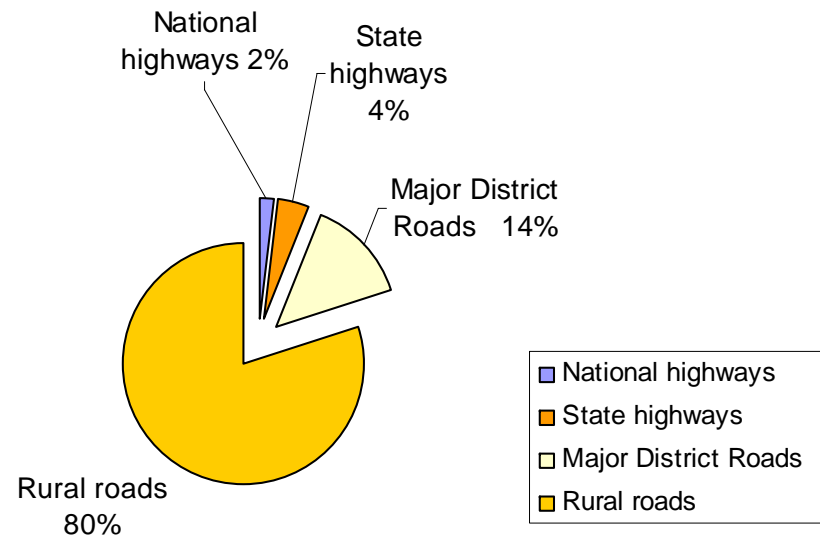
Road sector constitutes about 37% of the total planned investment

Indian Road Network

Total Length – 3.3 million km

Second Largest Road Network in the World

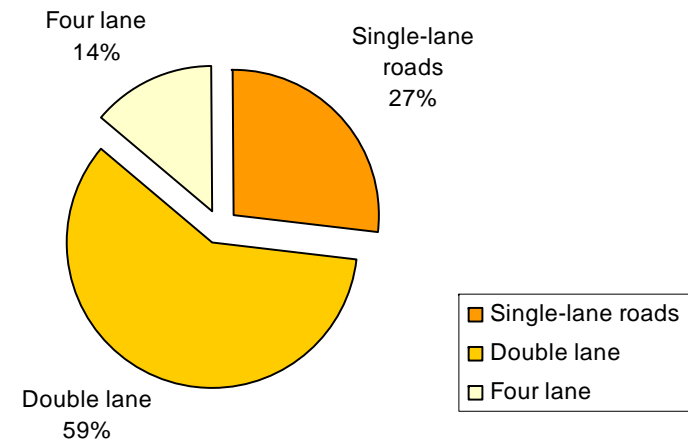
	Length (km)
National Highways (including Expressways)	68,354
State Highways	131,899
Major District Roads	467,763
Rural Roads	2,650,000



Current Status of National Highways in India

Total Length – 68,354 km

	% of Total Length
Four Laned and more with divided carriage way	14
Two Laned	59
Single Laned and intermediate	27



NATIONAL HIGHWAYS DEVELOPMENT PROJECT (NHDP)

Government of India has taken up NHDP Programme for upgradation of two lane National Highways to 4/6 Lane Divided Carriage way in following 7 phases:

- ✦ **Phase-I: Mainly the Golden Quadrilateral (GQ) connecting major cities of the country namely Delhi, Mumbai, Chennai and Kolkata (5846 km)**
- ✦ **Phase-II: North–South and East–West Corridors (7716 KM)**
- ✦ **Phase-III: Connection of State Capitals and important places to GQ and Corridors (12,109 km)**
- ✦ **Phase-IV: Improvement of National Highways to 2-lane with paved shoulders (20,000 km)**
- ✦ **Phase-V: Six laning of existing 4 lane highways (6500 km)**
- ✦ **Phase-VI: Expressways (1000 km)**
- ✦ **Phase-VII: Bypasses, Ring Roads, Flyovers**

National Highways Development Project (NHDP)- Geographical Mapping



Source: www.nhai.org

Status as on July 31, 2008

National Highways

- 46,000 km to be developed by 2012: US\$ 77 bn
- PPP programmes approved so far: 26,500 km
 - 6-laning of 6,500 km of GQ & Other NH
 - EW & NS Corridors: 4-laning of 2,000 km
 - 4-laning of 12,000 km in selected sections
 - 2-laning of 5,000 km in selected sections
 - 1,000 km of new expressways
- EPC: 5,000 km

Break-up of Funding by Private Sector & Government Sector

NHDP Phase	Private Sector		Government Sector	
	Rs. Billion	US \$ (Billion)	Rs. Billion	US \$ (Billion)
I	9.26	0.232	92.72	2.318
II	213.77	5.344	387.01	9.675
III	602.51	15.063	385.77	9.644
IV	297.50	7.438	56.50	1.413
V	452.18	11.305	63.17	1.579
VI	102.00	2.550	93.00	2.325
VII	103.78	2.595	63.02	1.576
Total	1781.00	44.527	1141.19	28.53

Ongoing National Highway Development Projects in India

NHDP Ongoing projects India	India		
	Km	US\$ billion	% of total
Total	4,430	56.71	100%
BOT- Toll	287	6.26	11%
BOT-Annuity	476	5.74	10%
SPV (Special Purpose Vehicle)	264	3.48	6%
World Bank Funded	923	14.02	25%
ADB Funded	339	2.78	5%
NHAI Funded	2,141	24.42	43%

- World Bank funded projects are 25% of total investments in India
- PPP- BOT and Annuity - is picking up and is substantial compared to other countries
- However the next phase is possibly the largest PPP Road program in the world

Stages of PPPs

I. Public sector provision of Infrastructure: Command & Control

- PPP is an exception

II. Introduction of PPPs: The Transition

- Largely negotiated, often opaque
- Often driven by private beneficiaries

III. PPPs gain acceptability: Enhancing welfare & efficiency

- Transparent, competitive and fair
- Driven by government; good governance becomes the key issue
- Objective is to attract private capital in public projects

Recent Indian PPP projects are in Stage III

Models of PPP in Road Sector

BOT – Toll

- Construction and O&M of the project is responsibility of the concessionaire
- Entire toll revenue during the concession period goes to concessionaire. Hence the risk/ profit is born by him.

BOT – Annuity

- Construction and O&M of the project is responsibility of the concessionaire
- The entire toll revenue goes to the client. Hence concessionaire is shielded from the financial risk
- Fixed assured annuity payments over period of time to the concessionaire by the client

Government Of India initially prefers to operate on the BOT-Toll model. If the project becomes unviable then the government shifts to the BOT-Annuity model.

Public Private Partnerships (PPP) : INCENTIVES

- Amendments in the National Highways Act
- Setting up of National Highways Authority of India (NHAI) as an autonomous body for development and maintenance of National Highways
- Declaration of the road sector as an Industry
- Provision of Capital Subsidy upto 40% of project costs to make projects viable
- Duty free import of high capacity and modern construction equipment
- Easier External Commercial Borrowings (ECB) norms
- Higher concession period upto 30 years in specific cases
- Right to collect and retain User Fee (Toll)
- Foreign Direct Investment up to 100% in road sector
- Concession period up to 30 year
- Concessionaire to have the right to collect and retain user fee (toll)

Public Private Partnerships (PPP) : INCENTIVES

- Viability Gap Funding up to 40% of project cost to make project viable
- Duty free import of high capacity and modern construction equipments
- 100% tax exemption in any 10 consecutive years within a period of twenty years after completion of the project
- Agreements to avoid double taxation with a large number of countries
- Provision of encumbrance-free land for construction of roads
- Procurement procedure
 - Well defined and transparent with standard tender documents
 - Investor friendly Concession Agreement
 - International Competitive Bidding
- Award of PPP projects based on new Model Concession Agreement (MCA)
 - Simplified procedure for Land Acquisition – 50% land on or prior to the Appointed Date and balance 50% at mutually agreed date

PPP FOR NHDP : PROGRESS SO FAR

	No. of Concessions	Total Length (Km)	Cost in		No. of Indian Firms	No. Of Foreign Firms
			Rs (Crore)	US \$ Billion		
Awarded	86	5607	37582	9.40	68	16
Completed	19	980	6386	1.60	-	-

PPP FOR NHDP : PROGRESS SO FAR (contd.)

	No. of Concessions	Total Length (Km)	Cost in		No. of Indian Firms	No. Of Foreign Firms
			Rs (Crore)	US \$ Billion		
1) BOT Toll						
Awarded	61	4231	28170	7043	40	12
Completed	11	504	4032	1008	-	-
2) BOT Annuity						
Awarded	25	1376	9412	2353	28	4
Completed	8	476	2354	589	-	-

Public Private Participation: Success Stories in India

- Cable Stayed bridge in Kolkata at a cost of US\$ 0.15 billion – a US, Philippines, India Joint Venture
- 6/8 lane 28 km Expressway connecting Delhi with Gurgaon at an estimated cost of US\$ 0.162 billion by UK- India Joint Venture
- Tada-Nellore in the state of Andhra Pradesh at a cost of US\$ 0.143 billion – CIDBI, Malaysia
- Panagarh-Dankuni section (130 km) of US\$ 0.178 billion
- Jaipur-Kishangarh section (90 km of 6 lane highway) cost US\$ 0.15 billion
- Satara-Kargal section (133 km) of US\$ 0.131 billion
- Mumbai–Pune Expressway cost US\$ 4.08 billion
- Ahmedabad – Vadodara Expressway cost US\$ 1.2 billion

Response of Private Sector for NHDP

- NHDP Phase-III: around 45-50 firms/consortiums have applied for qualification for total 44 projects for 4565 km
- NHDP Phase-IV: around 20 firms/consortiums have applied for qualification for total 2 projects for 195 km
- NHDP Phase-V: around 35-40 firms/consortiums have applied for qualification for total 9 projects for 1420 km

Conducive Investment Environment for PPP

- Viable projects with road length of 100 km – 300 km involving investment of US\$ 200 million to US\$ 600 million
- Strong independent legal system
- Equitable dispute resolution mechanism
- Large pool of trained and skilled workforce
- Advanced R&D facilities available at reputed institutes of international standards

Opportunities

- With such a large number of new projects on offer under Public Private Partnership in the road sector, there are immense investment opportunities for :
 - Investors
 - Companies with diverse business lines wanting to diversify to road sector
 - Contractors
 - Consultants
 - Operations and Maintenance Contractors
 - Equipment Manufacturers / suppliers
 - Toll Operators
 - Intelligent Transport System (ITS) companies

BOT Toll Contract under Revenue Sharing System

BOT Toll	No. of concessions	Total Length (km)	Cost		No. of Indian Firms	No. of Foreign Firms
			Rs. (Crore)	US \$ (Million)		
Awarded	7	1030	7445	1861	8	4

BOT Toll Contracts under Negative Grant

BOT Toll	No. of concessions	Total Length (km)	Cost	
			Rs. Crore	US \$ Million
Awarded	19	937	7,383	1,847

Foreign Participation (Gaining Momentum) in NHDP

Construction Firms	No. of Foreign Firms	No. of Projects	Length (km)
BOT- Toll	12	12	1352
BOT (Annuity)	4	5	361
EPC Contracts	34	71	3540

Indian Firms Working on BOT based Projects

Sr. No.	Firms	Sr. No.	Firms
1	CES India Ltd.	12	IVRCL Infrastructure Projects
2	BSCPL	13	KMC
3	MSK Projects (I) Ltd.	14	West Gujrat Expressway Ltd.
4	MSRDC Ltd. Mumbai	15	Jaiprakash Industries Ltd.
5	Jas Toll Road Co. Ltd.	16	DS Construction Ltd.
6	L&T Ltd	17	Shakti Kumar M. Sancheti Ltd.
7	GMR	18	Sapoorji Pallonji
8	MVR & MRK	19	Navayuga Engineering Co. Ltd.
9	Reliance Energy Ltd	20	Indu
10	Madhucon Projects Ltd.	21	Abhishek
11	SREI	22	Ashoka

Indian Firms Working on BOT based Projects (Contd..)

Sr. No.	Firms	Sr. No.	Firms
23	IDFC	33	IRCON
24	KCT	34	GAMMON India Ltd.
25	ERA	35	SADBHAV
26	LANCO	36	Billimoria
27	C&C	37	Oriental Structural Engineers Pvt. Ltd.
28	SOMA	38	Atlanta
29	NCC	39	IDAA Infrastructure Pvt. Ltd.
30	MAYTAS	40	IRB Infrastructure Developers Ltd.
31	GUNA Infrastructure Ltd.		
32	Nagarjuna Constructions Ltd.		

Indian Firms Working on Annuity based Projects

Sr. No.	Firms	Sr. No.	Firms
1	GMR	15	SADBHAV
2	Andhra Expressway Ltd.	16	SREI
3	GAMMON India Ltd.	17	Nava Bharat
4	SOMA Enterprises	18	Ferro Alloys Ltd.
5	Navayuga Engg. Co. Ltd.	19	Patel
6	Punj Lloyd	20	KNR
7	CTNL	21	Avinash
8	IL&FS	22	HCC Ltd.
9	DS Construction Ltd.	23	ATSL
10	Ramky	24	NCC
11	ERA	25	KMC
12	ShriRam	26	L&T
13	Gayatri	27	Rohan Builders Pvt. Ltd.
14	IDFC.	28	Rajdeep Buildcon Pvt. Ltd.

FOREIGN FIRMS WORKING ON BOT BASED PROJECTS

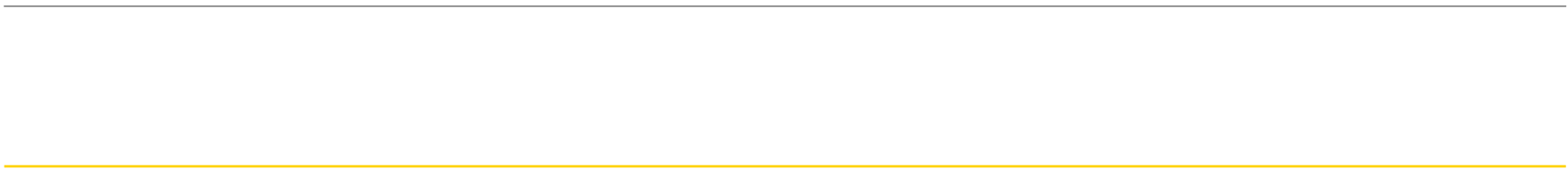
Sr. No.	Firms	Nationality
1	PBIDC	US
2	STRADEC	PHILLIPINES
3	CIDBI MALAYSIAN	MALAYSIAN
4	PACIFIC ALLIANCE INC	US
5	JTEC	CHINA
6	IJM	MALAYSIAN
7	APOLLO	UK
8	JLI	UK
9	LOR	UK
10	EMIRATES TRADING AGENCY LLC	DUBAI
11	DEUTSCHE BANK AG	SINGAPORE
12	ISOLUX CORSAN CONCESIONNES Sa	SPAIN

FOREIGN FIRMS WORKING ON ANNUITY BASED PROJECTS

Sr. No.	Firms	Nationality
1	GAMUDA	MALAYSIAN
2	WCT ENGINEERING	MALAYSIAN
3	APOLLO	UK
4	UE	MALAYSIAN

Implementing PPP: Achievements

- Achieved large cost intensive projects through private financing
- Influx of Foreign Direct Investment (FDI)/Foreign Players and Technology
- Speedier and Quality construction
- Achieved efficiency through Project Implementation
- Hassle free movement for road users
- Efficient O&M resulting in better riding quality
- Achievement of Large Infrastructure Projects with limited government resources



Thank You