



INFRASTRUCTURE  
Building for Growth

# Presentation

on

## Building Infrastructure : Challenges & Opportunities

By

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# INDIAN ROAD NETWORK

**Total Length – 33 lakh km**

	<u>Length (km)</u>
National Highways	66,590
Expressways	200
State Highways	1,31,899
Major District Roads	4,67,763
Rural Roads	26,50,000

- **Roads carry 85 % of passenger & 70 % of freight traffic**
- **National Highways constitute only 2% of length, but carry 40% of the traffic on Indian Roads.**



# NATIONAL HIGHWAYS STATUS

**Total Length 66,590 km**

	<b>% of Total length</b>
<b>Four laned and more with divided carriageway</b>	<b>10</b>
<b>Two laned</b>	<b>55</b>
<b>Single laned and intermediate</b>	<b>35</b>

- **Normal distance traveled by trucks in India is 250-300 km per day where as the international norm is 600-800 km per day**
- **Require immediate capacity augmentation and upgradation with enhanced safety features**
- **State Govt. are being persuaded to have integrated check posts on Highways.**
- **NHAI is modernizing the Toll Collection System to cut down waiting time at Toll Plazas.**

# NHDP PHASE – I: PROGRESS SO FAR

(STATUS AS ON SEPTEMBER 30, 2006)

	Length in km		
	Total	Completed	Balance for Completion
<b>Golden Quadrilateral</b> (Delhi-Mumbai-Chennai-Kolkata-Delhi)	5846	5431 (93%)	415
<b>NS &amp; EW Corridors</b> North South : Srinagar to Kanniakumari East West : Silchar to Porbandar	981	840 (86%)	141
<b>Port Connectivity &amp; Other NHs</b>	671	398 (59%)	273
<b>Total</b>	<b>7498</b>	<b>6669 *</b> <b>(89%)</b>	<b>829</b>

\* Presently 4006 km of Highways are under Tolling. Average collection per km per annum is Rs. 35 Lacs

# NHDP PHASE – II : PROGRESS SO FAR

(STATUS AS ON SEPTEMBER 30, 2006)

	Length in km (No of Projects)		
	Total	Civil works Awarded	Balance for Award
<b>NS &amp; EW Corridors</b> (North South : Srinagar to Kanniakumari East West : Silchar to Porbandar)	<b>6219</b> <b>(151)</b>	<b>4913</b> <b>(127)</b>	<b>1306</b> <b>(24)</b>
<b>Other NHs</b>	<b>486</b> <b>(11)</b>	<b>466</b> <b>(10)</b>	<b>20</b> <b>(1)</b>
<b>Total</b>	<b>6705</b> <b>(162)</b>	<b>5379</b> <b>(137)</b>	<b>1326</b> <b>(25)</b>

# NHDP PROGRAMS

NHDP PHASES	Estimated Cost In	
	Rs. Crore	US\$ Billion
Phase I : Balance Work	8,811	1.92
Phase II : Balance Work	43,623	9.48
Phase III : 4-laning of 10,000 km on BOT- Toll	65,197	14.17
Phase IV : 2-laning of 20,000 km on BOT- Toll/Annuity	27800	6.04
Phase V : 6-laning of 6,500 km on DBFO basis	41,210	8.96
Phase VI : 1,000 km Expressways on DBFO basis	16,680	3.62
Phase VII : Ring Roads, Bypasses etc. on BOT - Toll/Annuity	16,680	3.62
<b>Total</b>	<b>2,20,000</b>	<b>47.81</b>



# ASSURED FUNDING : CENTRAL ROAD FUND

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- The Government of India, under the Central Road Fund Act, 2000 created a non-lapsable dedicated fund for NHDP by levying cess on High-Speed Diesel and Petrol at the rate of Rs. 2.00 per liter out of which allocation for Rs. 1.50 per liter as under :
- 50% of the Cess collected from Diesel is for rural roads.
- Balance 50% Cess from Diesel and the entire Cess on Petrol, the allocation of funds for different categories of roads are as under :
  - ↳ 57.5% for National Highways
  - ↳ 12.5% for Road Over Bridges / Rail Over Bridges (to be constructed by Railways)
  - ↳ 30% for Roads other than National Highways
- The balance Cess at the rate of Rs. 0.50 per liter (levied in 2005-06) is allocated exclusively for National Highways making the total Cess at the rate of Rs. 2.00 per liter.
- **From CRF, the NHDP has been allocated Rs. 6400 crores in the year 2006-07.**

A handshaking image with a world map background. The hands are clasped in a firm grip, symbolizing partnership. The background is a light blue world map. The text is overlaid in the center.

# **PUBLIC PRIVATE PARTNERSHIP (PPP)**



# CONDUCTIVE INVESTMENT ENVIRONMENT

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- **Robust economy. Targeted to grow at 9 percent.**
- **Assured funding for Highway projects.**
- **Agreements to avoid double taxation with a large number of countries.**
- **Strong independent legal system**
- **Equitable dispute resolution mechanism**
- **Large pool of trained and skilled work force.**
- **Advanced R&D facilities available at reputed institutes of international standards.**



# **PUBLIC PRIVATE PARTNERSHIP : APPROACH (PPP)**

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**Common form of Public Private Partnership in the road sector are :**

- ▶ Design-Build-Finance-Operate (DBFO)**
- ▶ Build-Operate-Transfer (Toll)**
- ▶ Build-Operate-Transfer (Annuity)**



# **PUBLIC PRIVATE PARTNERSHIP : INCENTIVES (PPP)**

**INFRASTRUCTURE**  
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**For Facilitating Public Private Partnership in National Highways the Government has taken following steps –**

- Simplified policies with transparent procurement procedures.**
- Model Concession Agreement (MCA) standardized.**
- Foreign Direct Investment (FDI) up to 100% in the road sector**
- Provision of encumbrance free site for construction**
- Viability Gap Funding up to 40% of project cost based on competitive bidding for each project.**



# **PUBLIC PRIVATE PARTNERSHIP : INCENTIVES (PPP)**

contd..

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- **Tax concessions – complete tax holiday for any 10 consecutive years out of 20 years of the concession period.**
- **Retention of toll by concessionaire for BOT (Toll) Projects.**
- **Longer concession periods – up to 30 years. Presently, concession period of 12 to 20 years.**
- **Duty free import of high capacity and modern road construction equipments.**



# PUBLIC PRIVATE PARTNERSHIP (PPP) : PROGRESS SO FAR

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Public Private Partnership is proving to be a successful mechanism for developing and maintaining the National Highways.

	No. of Contracts	Length (km)	Cost in	
			Rs. Crores	US \$ Billion
<b>Awarded</b>	<b>64</b>	<b>3655</b>	<b>23413</b>	<b>5</b>
<b>Completed</b>	<b>15</b>	<b>896</b>	<b>4601</b>	<b>1</b>

# PUBLIC PRIVATE PARTNERSHIP (PPP) :

## PROGRESS SO FAR

contd..

	No. of Contracts	Length (km)	Cost in	
			Rs. Crores	US \$ Million
<b>BOT Toll</b>				
Awarded	42	2357	14566	3167
Completed	7	420	2247	488
<b>BOT DBFO</b>				
Awarded	2	148	1152	250
Completed	-	-	-	-
<b>BOT Annuity</b>				
Awarded	20	1150	7695	1673
Completed	8	476	2354	512



# INSTITUTIONAL STRENGTHENING: INITIATIVES

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- **The National Highways Authority of India was set up as an autonomous body for the development and maintenance of National Highways.**
- **It is being strengthened to make it multidisciplinary body**  
by -
  - a) establishing a dedicated setup for Public Private Partnership**
  - b) creating separate cells for :**
    - **Project Appraisal**
    - **Monitoring**
    - **Planning**
    - **Quality Assurance**
    - **Standardization and R&D**
    - **Contract Management**
    - **Legal and Arbitration and**
    - **Road Safety.**



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# 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**

# OPPORTUNITIES

contd..

- By March 2008, about 175 contracts covering a length of 15803 km having an estimated cost of Rs. 76,544 Crores (US\$ 16,640 Million) are targeted for award on BOT basis under different phases of NHDP are as under :

Phases of NHDP	Length in km	Cost in	
		Rs. Crores	US \$ Million
NHDP Phase II	714	4655	1012
NHDP Phase III	7177	46794	10173
NHDP Phase IV	5064	7039	1530
NHDP Phase V	2848	18056	3925
<b>Total</b>	<b>15803</b>	<b>76544</b>	<b>16640</b>

**PROJECTS ON IMMEDIATE OFFER UNDER NHDP III  
- BOT Toll SOME ATTRACTIVE PACKAGES**

<b>Stretch</b>	<b>Length (km)</b>	<b>Cost in</b>	
		<b>Rs. Crores</b>	<b>US\$ Million</b>
<b>Delhi-Rohtak-Hissar</b>	<b>100</b>	<b>652.0</b>	<b>141.74</b>
<b>Hazaribag-Ranchi</b>	<b>75</b>	<b>489</b>	<b>106.30</b>
<b>Khalghat-MP/Maharashtra Border</b>	<b>85</b>	<b>554.2</b>	<b>120.48</b>
<b>Amritsar-Wagha Border</b>	<b>35</b>	<b>228.2</b>	<b>49.61</b>
<b>Duburi-Talchar</b>	<b>98</b>	<b>638.96</b>	<b>138.90</b>
<b>Parwanoo-Shimla</b>	<b>110</b>	<b>717.2</b>	<b>155.91</b>

## PROJECTS IN OFFING IN NHDP V – DBFO SOME ATTRACTIVE PACKAGES

Stretch	Length (km)	Cost in	
		Rs. Crores	US\$ Million
Surat – Dahisar	245	1553.30	337.66
Gurgaon – Kotputli – Jaipur	230	1458.20	316.97
Chandikhol – Jagatpur – Bhubanewar	70	443.80	96.30
Chennai – Tada	50	317.0	68.90
Delhi – Hapur	60	380.40	82.66
Panipat – Jalandhar	300	1902.0	413.30
Delhi – Agra	180	1141.20	247.98
Chilikaluripet – Vijayawada – Elluru - Rajamundri	270	1711.80	371.97



# NHDP Phase VI : EXPRESSWAYS

- 1000 km of Expressways at an estimated cost US\$ 3.62 billion (at 2005 prices), are to be built on DBFO basis :

<b>Stretches</b>	<b>For Construction</b>	<b>Length in km</b>
<b>Vadodara - Mumbai</b>	<b>Identified</b>	<b>400</b>
<b>Bangalore- Chennai</b>	<b>Potential routes</b>	<b>600</b>
<b>Delhi-Agra</b>		
<b>Delhi-Chandigarh</b>		
<b>Delhi- Jaipur</b>		
<b>Delhi- Meerut</b>		
<b>Kolkata - Dhanbad</b>		



***THANK YOU***