

ROADS AND HIGHWAYS



SECTOR OVERVIEW

India's road network of 3.34 million kms is the second-largest in the world. Ministry of Road Transport and Highways ("MoRTH") aims to expand the National Highway network to 0.2 million kilometers ("kms") over the next 4-5 years. MoRTH has so far approved in-principle about 38,750 kms of State roads as new NHs subject to outcome of their detailed project reports (DPRs). Further, about 14,000 kms of additional State road stretches are proposed to be upgraded under the "Bharatmala Pariyojana".

USD 8.21 billion outlay planned for highways during 2016-17. In addition, NHAI has been authorized to generate Internal and

Extra Budgetary Resource (IEBR) of USD 8.85 Billion during 2016-17. NHAI shall raise its resources under IEBR through 54 C Bonds, Tax Free Bonds and others as approved by the Ministry of Finance. USD 22.6 billion budgetary support for central road sector development during 2012-17:

- 5.23 million Kms of roads and highways in the country.
- 1.01 million Kms of National Highways.

The type of Public Private Partnership (“PPP”) project implementation models used in the highways sector are Build Operate Transfer (“BOT”) Toll, BOT (Annuity) and the Hybrid Annuity Model (HAM). Private sector participation is increasing with the rising trend of awarding projects on toll and annuity basis.

BOT PROJECTS

1. In the financial year 2015- 2016, Projects awarded were **7 Projects** all over India worth **Rs.11, 923.03 crore** on Build, Operate and Transfer (BOT) basis (Toll based projects).
2. In the financial year 2016-2017, Project awarded are **4 Projects** all over India worth **Rs. 4616.06 crore**.

HYBRID ANNUITY PROJECTS

1. The cabinet committee on economic affairs (CCEA) in 2016 approved a hybrid annuity model for national highways, clearing the way for stranded road projects worth Rs.25, 000 crore. The hybrid annuity model is a mix of BOT toll and EPC models.
2. While engineering, procurement and construction, or EPC, was the preferred mode for highway project development in 2013-14 and 2014-15, it suffered from an inherent limitation—the financial resources available with the government. This is what led the ministry of road transport and highways to introduce an alternative mode of project delivery to sustain the pace of implementation of highway projects through optimum utilization of available financial resources. The hybrid model will be the fourth to be introduced in India for the execution of road projects and is intended to kickstart stalled projects and accelerate highway construction. The three formats for road projects in India followed so far are:
 - (i) Build-operate-transfer (BOT) annuity, in which a developer builds a highway, operates it for a specified duration and transfers it back to the government, which then pays the developer annuity over the period of concession.
 - (ii) BOT toll, under which a concessionaire generates revenue from the toll levied on vehicles using a road.
 - (iii) EPC, wherein the developer executes the project on behalf of the government.
3. In the financial year 2015-2016, Projects awarded were 9 Projects worth Rs. 8333.89 crore.
4. In the financial year 2016-2017, Projects awarded are 18 Projects worth Rs. 16011.03 crore.

MAJOR PLAYERS

Several foreign investors have entered this Sector. The major domestic private sector companies working in the Indian road sector are DS Construction Ltd., GMR Infrastructure Ltd., Hindustan Construction Company, Larsen and Toubro Ltd., Ideal Road Builders Infrastructure Developers, Gammon Infrastructure Projects Ltd. and Soma Enterprises Ltd.

REASONS TO INVEST:

The transport sector contributes 6% of the country's GDP with road transport having around 70% share. More than 60% of freight and 90% of the passenger traffic in the country is handled by roads. Highway traffic in the country is on a growth trajectory Overall annual freight traffic in the country is estimated to reach around 13,000 billion tonne km (btkm) by 2030 from about 2,000 btkm in 2011-12. Overall annual passenger traffic is estimated to reach around 168,000 billion passenger km (bpkm) by 2030 from about 10,000 bpkm in 2011-12. For both of the above, road transport is likely to cater to around 50% of traffic.



The Government of India has launched major initiatives to upgrade and strengthen highways and expressways in the country including enabling policy measures.

MoRTH awarded the highest ever kilometers of new highways in 2015. In addition to highway development, focus is also on efficient operations and network management for improving logistics efficiency. This shall give rise to new investment opportunities.

MoRTH is implementing enabling measures like setting up of model driving training institutes for drivers of Heavy Vehicles. These schools will further help in streamlining the process of obtaining licenses. In addition, MoRTH envisages training of 20,000 construction workers such as pavement technicians, masons, carpenters, reinforcement technicians each year.

Fiscal incentives for the Sector- With the government permitting 100% FDI in the roads sector, most foreign investors in the Indian roads sector have formed consortiums with Indian companies to participate in the development of road projects in the country. As a result, construction companies are now being rewarded with large order books and portfolios of BOT projects. NHAI/GOI to provide capital grant (Viability Gap Funding/Cash Support) up to 40% of project cost to enhance viability on a case to case basis. Right of way (ROW) for project land made available to concessionaires free from all encumbrances. 100% tax exemption for 5 years and 30% relief for next 5 years, which may be availed of in 20 years. Duty free import of modern high capacity construction equipment.

GROWTH IN THIS SECTOR

1. During 2016-17, around 10,000 kms of National Highways are targeted to be completed.
2. During 2016-17, around 25,000 kms of National Highways are targeted to be awarded. Out of this, NHAI aims to award 15,000 kms and MoRTH another 10,000 kms.
3. The Government of India aims to develop a total of 63,591 kms of National Highways under various programmes such as:
 - National Highways Development Project (NHDP)
 - Special Accelerated Road Development Program for the North-East region (SARDP-NE)
 - Development of roads in Left Wing Extremism (LWE) affected areas
 - National Highways Interconnectivity Improvement Project (NHIIP)
4. Special Accelerated Road Development Programme for North-Eastern region (SARDP-NE)
The scheme has been envisaged to be taken up under three parts as under:
 - Phase 'A' of SARDP-NE approved by the Government envisages improvement of about 4,099 km length of roads (2,933 km of NH and 1,166 km of State roads). Till March 2016, about 3,115 km of length has been sanctioned at a cost of USD 3.71 billion and 1,639 km of road has been completed. The SARDP-NE Phase 'A' is expected to be completed by March, 2017.
 - Phase 'B' of SARDP-NE, covers 3,723 km (1,285 km NHs and 2,438 km of State roads) of road. Phase 'B' SARDP-NE shall be taken up after completion of Phase 'A', which is

targeted for completion by March 2017. The estimated cost of the programme is USD 5.52 billion.

- **Arunachal Pradesh Package:** The Arunachal Pradesh Package for Road and Highways involving development of about 2,319 km length of road (2,205 km of NHs and 114 km of State I General Staff I Strategic Roads) has also been approved by the Government. Projects on 776 km are to be taken up on BOT (Annuity) mode and the remaining are to be developed on item rate contract basis. Till March 2016, about 1,737 km of length has been sanctioned at a cost of USD 2.40 billion and 348 km of road has been completed. The entire Arunachal Pradesh package is targeted for completion by March, 2018.

5. National Highways Development Project (NHDP)

The Government launched NHDP to upgrade and strengthen National Highways through various phases of the project. The phase-wise details of NHDP are as follows:

	NHDP COMPONENT	TOTAL LENGTH (KM)	COMPLETED LENGTH (KM) AS ON 31.03.2016	UNDER IMPLEMENTATION (KM)	BALANCE FOR AWARD OF CIVIL WORKS (KM)
1.	GQ under NHDP Phase I	5,846	5,846	0	0
2.	NS-EW Corridors under NHDP Phase I & II	7,142	6,455	430	257
3.	Port Connectivity under NHA	435	379	56	0
4.	Others NHs with NHA	1845	1635	210	0
5.	NHDP Phase III	12,109	6,883	3,522	1,704
6.	NHDP Phase IV	20,000	3,643	11,064	5,293
7.	NHDP Phase V	6,500	2,375	745	3,380
8.	NHDP Phase VI	1,000	0	165	835
9.	NHDP Phase VII	700	22	81	597
	TOTAL	55,577*	27238	16273	12066

(* included 48,153 km of total NHs, 24km length of Chennai-Ennore port connectivity road, 700 kms NH length under NHDP-VII, other than overlapping length of NHs (5700 kms NH length is common under NHDP-I and NHDP-V, 1000 km proposed Expressway under NHDP-VI).

6. National Highway Interconnectivity Improvement Programme (NHIIP) under World Bank Loan Assistance:

- About 1,120 km length of NHs are proposed to be improved to 2-lane NH standards following corridor development approach under the World Bank Loan Assistance in Phase-1. DPR preparation for all 11 stretches in Phase- I has been completed and all 15 Contracts have been already awarded. It is envisaged Loan Agreement for Phase- I (1, 120 km under first tranches of Loan Assistance of US\$ 500 million) was signed with World Bank on 1 July, 2014.
- For projects under the program, the cost of Land Acquisition and utility shifting are to be borne by the Government of India. It is expected to spend about USD 192 million under AP 2016-17. Till the end of December, 2015, all the 15 projects awarded, at award cost of USD 680 million. Till March 2016, 331 km of length has been completed.

7. Improvement of road connectivity in Left Wing Extremism (LWE) affected areas:

- The Government has approved a scheme for development of about 1,177 km of NHs and 4,276 km of State Roads in Left Wing Extremism (LWE) affected areas as a Special Project with an estimated cost of about USD 1.09 billion. As on 31st May, 2016, the detailed estimates for 5,469 km length have been sanctioned at an estimated cost of USD 1.28 billion, out of which, works on 5,275 km length costing USD 1.173 billion have been awarded. Development in 3,972 km length has been completed up to March, 2016 and cumulative expenditure incurred so far is USD 0.85 billion.
- Development of Vijayawada Ranchi route - Out of 1,622 km long LWE affected Vijayawada - Ranchi route, development of 600 km of State Roads in Odisha (549 km Newly declared NH and 45 km SH), not covered in any Central or State Scheme has been approved by the Government at a cost of USD 179 million on 4th November, 2010. So far, the detailed estimates for all the 9 packages in an aggregate length of 594 km have been sanctioned at an estimated cost of USD 201million and works were awarded. The development on 302 km has been completed at the cumulative expenditure of USD 88 million till March, 2016.

SECTOR POLICY

1. Development and maintenance of road infrastructure is a key Government priority the sector has received strong budgetary support over the years.
2. Standardized processes for PPP and public funded projects and a clear policy framework relating to bidding and tolling have been developed over the years.
3. Major policy initiatives undertaken by MoRTH during last two years include:
 - Mode of delivery - MoRTH is now empowered to decide on mode of delivery of projects- EPC/PPP.

- Enhanced Inter-Ministerial coordination - An Infrastructure Group has been created under Chairmanship of Hon'ble Minister (Road, Transport and Highways) to resolve approval/clearance issues related to Environment and Forests, Railways and Defence, and most of the issues have been resolved.
- Exit Policy -Private developers can now exit all operational BOT projects two years from start of operations irrespective of the date of award of the project.
- Revival of Languishing projects - Now revival of BOT projects which are languishing in the construction stage is possible through one-time fund infusion by NHAI, subject to adequate due diligence of such projects on case to case basis through an institutional mechanism.
- Promoting innovative project implementation models- The Hybrid Annuity Model (HAM) has been developed and adopted for implementation of highway projects. The model takes into consideration appropriate risk allocation.
- Amendments to the Model Concession Agreement (MCA) for BOT projects - Certain changes in the MCA have been approved by an empowered Committee headed by the Cabinet Secretary based on stakeholders feedback. This would facilitate streamlined development and operation of highway projects.

FINANCIAL SUPPORT

- The Union Budget of 2016-17 mentions that the total investment in the central road sector would be USD 8.21 billion [including USD 30 million for Road Transport] during 2016-17.
- NHAI has been authorized to generate Internal and Extra Budgetary Resource (IEBR) of USD 8.85 billion during 2016-17.

AUTHORITIES RESPONSIBLE FOR DIFFERENT CATEGORIES OF ROADS ARE:

Category of Roads	Authorities responsible
National Highways	Central Government (through Ministry of Road Transport and Highways)
State Highways and Major Highways	State Governments (PWD's)
Rural Roads and Urban Roads	Rural Engineering Organizations, Local Authorities like Panchayats and Municipalities.

CURRENT INVESTMENT OPPORTUNITIES IN THE SECTOR INCLUDE THE FOLLOWING:

1. Project Highways- Construction and Operation and Maintenance
2. Expressway projects including the following:
 - Vadodara Mumbai Expressway - 650 km
 - Bangalore - Chennai Expressway (Green field) - 262 km
 - Delhi-Jaipur Expressway (Greenfield)- 196 km
 - Delhi-Ludhiana-Amritsar-Katra with connectivity to Chandigarh Expressway- 600 km
 - Hyderabad- Vijayawada- Amravathi (HVA) Expressway- 300 km
 - Nagpur- Hyderabad- Bangalore (NBH) Expressway-1,100 km
 - Kanpur Lucknow (KL) Expressway- 75 km
 - Ringroad/ Expressway at Amravathi -186 km
3. Asset recycling ToT (Toll-operate-Transfer) model – proposed
4. Innovative technologies, material, equipment etc.
5. Tunnel projects- many are at bid stage
6. Projects related to efficient operations and network management for improving logistics including development of Transport Nagars and Logistic Hubs, enabling seamless inter-state traffic movement, improved public transportation etc.
7. Intelligent Transport Systems (ITS)
8. Other opportunities- Road Safety, Driver Training Institutes etc.
9. 'Bharatmala Project' (yet to be formally launched) is a new highways development programme that has been recently identified as a premier, long-term, initiative.

Bharatmala (5 years) -proposed components

1. **Component:** Coastal and Border roads
Details: Development of Roads along border and coastal areas along with improving port connectivity in synergy with Sagarmala
Length (Km): 7404
Estimated Cost: USD 11.20 billion
2. **Component:** Expressways in conjunction with Sagarmala
Details: NHDP VI and Sagarmala recommendations largely overlap and have been merged. The expressways will be built on priority of EXIM trade requirements
Length (Km): 3114
Estimated Cost: USD 22.40 billion

3. **Component:** National Corridors efficiency enhancement program (NCEEP).
Details: Golden Quadrilateral (GQ), NS-EW shall be declared as National Corridors. Their throughput can be increased by building
 - 1) Bypasses/elevated roads,
 - 2) Logistics parks,
 - 3) 6 laning of Golden Quadrilateral (GQ)
 - 4) 4 laning of NS-EW
 - 5) De-congestion of Delhi, 6) De- congestion of Bangalore
 This phase will subsume NHDP V, VII
Length (Km): 3600
Estimated Cost: USD 18.80 billion
 4. **Component:** Economic Corridors efficiency enhancement program (ECEEP).
Details: 25 economic corridors similar to national corridors (GQ, NS-EW) identified for development under corridor approach. This phase will subsume portions of NHDP III, IV
Length (Km): 15680
Estimated Cost: USD 13.00 billion
 5. **Component:** Up-gradation of single lane NH and other high traffic NH
Details: 2L12L-PS/4L, This phase will subsume portions of NHDP IV
Length (Km): 9000
Estimated Cost: USD 14.20 billion
 6. **Component:** BRT (Bus Rapid Transport)
Details: Backward Areas, Religious, Tourist Places, Connectivity Program
Length (Km): 6572
Estimated Cost: USD 10.00 billion
 7. **Component:** SetuBharatam Pariyojana
Details: 208 ROB (Rail Over Bridge) + 1500 bridges
Length (Km): -
Estimated Cost: USD 7.60 billion
- Total: Length (Km):** 44000
Estimated Cost: USD 97.20 billion

In order to give a boost to the economic development of the country, the Government had embarked upon a massive National Highways Development Project (NHDP) in the country. Under the first two phases of the project i.e. NHDP Phase-I and NHDP Phase-II, about **14,279 km** length of National Highways are proposed to be upgraded to 4 or 6 lane at a total estimated cost of Rs. 64,639 crore. National Highways Authority of India (NHAI) is implementing this.

1. The programme, being implemented by the National Highways Authority of India (NHAI) envisages **four-laning of about 10,000 km** of existing National Highways (other than NHDP Phase –I and II) and is proposed to be undertaken **on BOT basis**.

2. NHDP phase-III will provide connectivity to important places not covered under NHDP Phase-I and II. This includes connectivity of numbers of State Capitals with NHDP Phase-I and II, high-density corridors, places of tourist and economic importance etc.

DEVELOPMENT OF NATIONAL HIGHWAYS OTHER THAN NHDP (PHASE I AND II)

1. Apart from National Highways Development Projects (NHDP) there are about **41290 km** of National Highways whose development and maintenance is being carried out from the funds available from Budget.
2. Development works like Improvement of Riding Quality, widening to 2/4 lane, strengthening, construction of bypasses and rehabilitation/construction of bridges etc. have been undertaken for these National Highways.
3. These sections of National Highways are being executed by the respective State PWDs and Border Road Organization (BRO) on agency basis.
4. Projects on road development have also been taken up in various parts of the country with the assistance of World Bank, Asian Development Bank (ADB) and Japan Bank for International Cooperation (JBIC).

SPECIAL PURPOSE VEHICLES (SPV)

1. The NHAI has also formed Special Purpose Vehicles (SPV) for funding road projects. SPV's are separate legal entities formed under the Companies Act 1956.
2. **12 numbers** of projects valued about **Rs. 2266 crore** have been identified under SPV funding.
3. **5 numbers** of projects amounting to **Rs. 923 crore** have been completed so far under SPV.
4. **7 numbers** of projects valued about **Rs.1343 crore** are in progress on SPV funding basis.

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SOURCES:

- <http://www.investindia.gov.in/roads-and-highways-sector/>
- <http://www.ibef.org/industry/roads-india.aspx>
- <http://www.nhai.org/doc/28Oct09/NHAI-Final.pdf>
- <http://www.performance.gov.in/sites/default/files/departments/road-transport/2013-14.pdf>
- <http://www.makeinindia.com/sector/roads-highways/>
- <http://www.cfr.org/india/governance-india-infrastructure/p32638>
- <http://www.oifc.in/infrastructure>
- <http://www.makeinindia.com/sector/roads-and-highways>.