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## EXECUTIVE SUMMARY

**One of the largest road networks in the world**
- India has second largest road networks in the world, spanning over a total of 5.8 million kms. Over 64.5 per cent of all goods in the country are transported through roads, while, 90 per cent of the total passenger traffic uses road network to commute.

**Rising budget allocation of road sector**
- Under the Union Budget 2020-21, the Government of India has allocated Rs 91,823 crore (US$ 13.14 billion) under the Ministry of Road Transport and Highways.
- For 2019-20, the Ministry of Road Transport and Highways is estimated the total expenditure of Rs 83,016 crore (US$ 118.4 billion).

**Growing private sector involvement**
- As on December 2019, 824 projects were recommended for development by the Public Private Partnership Appraisal Committee (PPPAC).
- Investment of US$ 31 billion for national highways is expected in PPP by 2020.

**Rapid growth in national highways**
- During 2019-23, National Highway Authority of India (NHAI) will able to generate Rs 1 lakh crore (US$ 14.30 billion) annually from toll and other sources.
- National Highway Authority of India (NHAI) is planning to raise Rs 40,000 crore (US$ 5.72 billion) to monetise its highway assets through Infrastructure Investment Trust (InvIT).
- The Government of India aims to complete 200,000 km national highways by 2022.
- NHs under the Bharatmala Pariyojana programme which aims to optimize the productivity of freight and passenger movement by filling the critical infrastructure gaps also sight to increase the number of districts with national highway linkages from 300 to 550.

**Overseas Investment for infrastructure development**
- The Government has received public sector undertakings from countries like Malaysia and Japan for funding the upcoming highway projects in India – annuity model 60 per cent of the investment is borne by the private investors 40 per cent by NHAI in 5 equal instalments.
- The Union Government and Asian Development Bank signed US$ 500 million loan agreement to build the longest bridge across river Ganga, in Bihar. The bridge is expected to be ready by 2020.

*Source: MoRTH Annual Report 2015–16, NHAI, Make in India, CARE Ratings*
ADVANTAGE INDIA
Growth in production of commercial vehicles to 1.11 million in 2018-19 from 0.57 million in 2009-10 at a CAGR of 7.77 per cent commands stronger road network in India.

Rise in the number of 2 and 4 wheelers, increasing traffic supports the growth.

The Government of India has set a target to complete one road projects every two days as a part of 100-day plan.

India has joined league of 15 of global alliance which will work towards the ethical use of smart city technologies.

The Government of India aims to construct 65,000 km of national highways at the cost of Rs 5.35 lakh crore (US$ 741.51 billion) by 2022.

12,000 km of national highways to be built by end of FY20.

Road building in India is second least expensive in Asia.\(^\text{1}\)

Growing participation of the private sector through Public-Private Partnership (PPP).

Under the Union Budget 2020-21, the Government of India has allocated Rs 91,823 crore (US$ 13.14 billion) under the Ministry of Road Transport and Highways.

As on September 2019, the total amount of investments* are estimated to reach Rs 81,000 crore (US$ 11.59 billion).

Transfer to National Investment Fund (NIF) is estimated at Rs 6,070 crore (US$ 868.51 million) for 2019-20.

Growing participation of the private sector through Public-Private Partnership (PPP).

100 per cent FDI is allowed under automatic route subject to applicable laws and regulations.

Financial institutions received government approval to raise money through tax-free bonds.

The finance bill 2019, done certain changes in the Central Roads and Infrastructure Fund Act, that central government will now be responsible for formulating criteria for any state road project.

Note: * - investments include Budgetary support, IEBR refers to Internal and Extra Budgetary Resources and constitutes the resources raised by the public sector units through profits, loans and equity and Private sector investments, \(^\text{1}\)Asian Infrastructure Investment Bank
Source: NHAI, Make in India, MoRTH, Business Monitor International, Ministry of Road Transport and Highways, Asian Infrastructure Investment Bank (AIIB)
### Road Network in India is Sub-Divided into Three Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Length</th>
<th>Share</th>
</tr>
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<tbody>
<tr>
<td>State Highways</td>
<td>156,694 kms.</td>
<td>3 per cent</td>
</tr>
<tr>
<td>National Highways</td>
<td>132,500 kms.</td>
<td>2 per cent</td>
</tr>
<tr>
<td>Other Roads</td>
<td>5,608,477 kms.</td>
<td>95 per cent</td>
</tr>
</tbody>
</table>

**Source:** Ministry of Roads Transport & Highways Annual Report 2018-19
STRONG MOMENTUM IN EXPANSION OF ROADWAYS

- Highway construction in India increased at 20.57 per cent CAGR between FY14-19. In FY19, 10,855 km of highways were constructed. The Government of India aims to construct 65,000 km of national highways at the cost of Rs 5.35 lakh crore (US$ 741.51 billion) by 2022.
- The government will use the waste of plastic for the construction of roads. One of the road has been recently constructed with plastic waste near Dhaula Kuan also planning for the construction of Delhi-Meerut Expressway and Gurugram-Sohna road.
- The Government of India has set a target for construction of 12,000 km national highway in FY20. During April-September 2019 a total of length of 4,622 km of national highways were constructed.
- Highway construction revenues is forecasted to grow at a CAGR of 20 per cent by 2020.
- In March 2020, NHAI has accomplished highest ever highway construction of 3,979 km of national highways in 2019-20.
- On May 2018, Delhi-Meerut Expressway was inaugurated as the first national highway in the country with 14 lanes, dedicated cycle tracks and pedestrian paths with several eco-friendly features.

Note: E – Estimate, Figures are as per latest data available, CAGR till FY19
With infrastructure investment set to go up, demand for construction equipment will rise further.

By FY20, construction equipment industry’s revenue is estimated to reach to US$ 7 billion.

By 2022F, construction equipment sales are forecasted to reach 110,815 units.

The government’s move to cut GST rates on construction equipment from 28 per cent to 18 per cent is supposed to give boost to the industry.

Key players:
• Universal Construction Machinery & Equipment.
• Volvo Construction Equipment India.
• ACE Construction Equipment.
• L&T Construction Equipment.
• Triton Valves.

**Note:** F – Forecast,
**Source:** NBM & CW, Mahindra Website, Indian Construction Manufacturers’ Association, Off-Highway Research
The Special Accelerated Road Development Programme for the North Eastern region (SARDP-NE) is aimed at developing road connectivity between remote areas in the North East with state capitals and district headquarters.

Implementation of the road development programme would facilitate connectivity of 88 district headquarters in North Eastern states to the nearest National Highways.

The Government of India plans to invest Rs 1.45 lakh crore (US$ 22.40 billion) towards road infrastructure in North-East region between 2018-2020.

Under Phase-I of Bharatmala Pariyojana, the Ministry has approved implementation of 34,800 km of national highways in 5 years with an outlay of Rs 5,35,000 crore (US$ 76.55 billion).

In December 2017, Mr Narendra Modi, Prime Minister of India, announced investment of Rs 60,000 crore (US$ 9.33 billion) under SARDP between 2018-2020.

The details of various development and maintenance works undertaken in the North-East region are mentioned below:

<table>
<thead>
<tr>
<th>Project description</th>
<th>Total length (Kms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length under NHDP Phase - III</td>
<td>12,125</td>
</tr>
<tr>
<td>Length of National Highways, State Roads under SARDP-NE are divided in 2 phases:</td>
<td></td>
</tr>
<tr>
<td>(i) Phase A</td>
<td>4,099</td>
</tr>
<tr>
<td>(ii) Phase B (approved for DPR preparation only)</td>
<td>3,723</td>
</tr>
<tr>
<td>Arunachal Pradesh Package of Roads and Highways</td>
<td>2,319</td>
</tr>
</tbody>
</table>

Note: data is expected to be updated by June 2019 from Ministry of Road Transport and Highways Annual Report FY19
Source: NHAI, MoRTH Annual Report 2017-18, PPP in India
As of December 2019, there were 9,242 PPP projects in India, of which 2,872 were related to roads and bridges.

Projects awarded under BOT is 37.48 per cent of the total awarded projects as of February 15, 2019.

Note: PPP - Public-private partnership, BOT - Build–operate–transfer
Source: MoRTH, Department of Economic Affairs
PRIVATE PLAYERS GAINING TRACTION IN THE ROADS SECTOR

- Until 2005, the road construction market was dominated by public sector companies.
- With the emergence of private players over the last decade, the road construction market has become fragmented and competitive; players bidding for projects also vary in terms of size.

**Major projects:**
- **IRB Infrastructure Developers Ltd:** Mumbai–Pune BOT Project, Pune–Nashik BOT Project, Bharuch–Surat BOT Project, Thane–Bhiwandi by-pass 4 Lane Project, Thane Ghodbunder BOT Project, Ahmedabad–Baroda NH-8, 6 laning of Agra - Etawah bypass.
- **IL&FS Infrastructure Limited:** North Karnataka Expressway, West Gujarat Expressway, Noida Toll Bridge, Ahmedabad - Mehsana Toll Road, East Coast Road, Kotakatta Kurnool Road Project, East Coast Road, Hazaribagh Ranchi Expressway Ltd, Karnataka Toll Bridges.
- **Ashoka Builders Limited:** NH6 Dhankuni to Kharagpur, Sambalpur Baragarh, NH4 Belgaum Dharwad, NH-3 Pimpalgaon – Nashik – Gonde Road (JV with L&T), Jaora – Nayagaon Road, Chennai Outer Ring Road, Modhul – Nippani Road, Indore Edalabad Road, Wainganga Bridge, Ahmednagar Aurangabad Road.
- **HCC Limited:** Bandra–Worli Sea Link, Badarpur Elevated Highway Project, Delhi Faridabad Elevated Expressway, Breakwater construction for new port at Ennore, Chennai, New Railway Line Project from Jiribam – Tupul.
- **GMR Infra Limited:** Tuni–Ankapalli Highway, Tambaram–Tindivanam Highway, Ambala–Chandigarh Highway.

**Notes:** NH – National Highway
**Source:** TechSci Research
GROWTH DRIVERS
STRONG DEMAND AND POLICY SUPPORT DRIVING INVESTMENTS

Growing demand
- Rise in 2 and 4 wheeler vehicles.
- Increasing freight traffic.
- Strong trade and tourist flows between states.

Policy support
- Greater government focus on infrastructure.
- Standardised processes for bidding and tolling; clear policy framework.
- Tax sops, FDI, FII encouragement.

Increasing investments
- In 2019-20, National Highways Authority of India (NHAI) has been allocated Rs 36,691 crore (US$ 5.24 billion).
- For FY20, Transfer from (Central Road and Infrastructure Fund (CRIF)) is estimated at Rs 54,539 crore (US$ 7.80) from the revised estimates of Rs 51,679 (US$ 7.39 billion) in 2018-19.
- The Ministry has allocated Rs 3,150 crore (US$ 0.45 billion) for maintenance of roads and highways in FY20, also allocated Rs 280 crore (US$ 40 million) towards road transport and safety.

Source: Make in India
Growing domestic trade flows have led to a rise in commercial vehicles and freight movement; supported by rise in production of commercial vehicles to 1.11 million in 2018-19 from 0.57 million in 2009-10 at a CAGR of 7.77 per cent.

Road's traffic share of the total traffic in India has grown from 13.8 per cent to 65 per cent in freight traffic and from 32 per cent to 90 per cent in passenger traffic over 1951–2017.

Higher individual discretionary spending has led to increased spending on cars, motorbikes and scooters;

- Domestic sales of passenger vehicles increased at a CAGR of 6.17 per cent during FY14-19 and reached 3.38 million during FY19 from 2.50 million in FY14.
- Domestic sales of commercial vehicles in the country increased at a CAGR of 9.74 per cent in FY14-19, with the number reaching 1.01 million during FY19 from 0.63 million in FY14.

Note: ^- Only Oct-March 2016 data is available for 2015-16.
Source: SIAM
### Rural Development
- The Prime Minister’s Gram Sadak Yojana (PMGSY) is a scheme for development of rural roads in India. The Government of India has succeeded in providing road connectivity to 85 per cent of the 178,184 eligible rural habitations and all villages are expected to be connected through a road network by 2019. Total length of roads constructed were 47,447 km in 2017-18.
- To widen and revamp 1.25-lakh km of roads government of India has approved the launch of Phase-III of its rural road programme Pradhan Mantri Gram Sadak Yojana (PMGSY).
- Under the Union Budget 2020-21, the Government of India allocated Rs 19,500 crore (US$ 2.79 billion) for the Pradhan Mantri Gram Sadak Yojana (PMGSY).
- As per Union Budget 2019-20, 30,000 kms of PMGSY roads have been built using Green Technology, Waste Plastic and Cold Mix Technology, thereby reducing carbon footprint.
- PMGSY-III is envisaged to upgrade 1,25,000 kms of road length over the next five years, with an estimated cost of Rs 80,250 crore (US$11.48 billion).

### Taxes and other sops
- Companies enjoy 100 per cent tax exemption in road projects for 5 years and 30 per cent relief over the next 5 years.
- Companies have been granted a capital of up to 40 per cent of the total project cost to enhance viability.

### Encouragement of Infrastructure Debt Funds (IDFs)
- Government of India has set up the India Infrastructure Finance Company (IIFCL) to provide long-term funding for infrastructure projects.
- Interest payments on External Commercial Borrowings for infrastructure are now subject to a lower withholding tax of 5 per cent vis-à-vis 20 per cent earlier.
- IDF income is exempt from income tax.
- As per the Union Budget 2019-20, government proposed to permit investments made by FIIs/FPIs in debt securities issued by Infrastructure Debt Fund – Non-Bank Finance Companies (IDF-NBFCs) to be transferred/sold to any domestic investor within the specified lock-in period.

Source: News Articles, Union Budget 2018-19
### Bhoomi Rashi
- The portal accelerates the process of publication of notifications for land acquisition.
- It has been useful in reducing the time taken for providing notification regarding approval and publication of land acquisition.

### Bidder Information Management System (BIMS)
- BIMS is a database that provides information about bidders’ basic details, civil works experience, cash accruals and network, annual turnover, etc.
- This portal will enable objective and transparent evaluation which will accelerate project implementation.

### Central Road Fund (CRF)
- In 2019-20, the transfer from CRIF is estimated at Rs 54,539 crore (US$ 7.80 billion) which is a six per cent increment from the revised estimates of Rs 51,679 crore (US$ 7.39 billion) in 2018-19.

### Goods and Services Tax (GST)
- The GST on construction equipment has been reduced to 18 per cent from 28 per cent, which is expected to give a boost to infrastructure development in the country.

### Investment in roads and other infrastructure
- Under the Union Budget 2020-21, the government has allocated Rs 91,823 crore (US$ 13.14 billion) under the Ministry of Road Transport and Highways. The total amount of investments* are estimated to reach Rs 1.58 trillion (US$ 2.25 billion) in FY19.
- Government plans to invest Rs 15 lakh crore (US$ 214.62 billion) during 2019-23.

### Bharatmala Pariyojana Project
- By 2024, Bharatmala Pariyojana is expected to see 55 per cent of cost overrun and awarding activities to be completed.
- A total length of 34,800 km road projects have been proposed to be constructed with an estimated outlay of Rs 5.35 trillion (US$ 74.15 billion), under Bharatmala Pariyojana Phase-I.
- The National Highway Authority (NHAI) will consider only those projects that require minimal land acquisition of worth about Rs 3 trillion (US$ 42.92 billion) under the Bharatmala Pariyojana scheme.
- A total of 65,000 km of roads and highways are to be constructed under Bharatmala Pariyojana.

**Note:** * - investments include Budgetary support, IEBR refers to Internal and Extra Budgetary Resources and constitutes the resources raised by the public sector units through profits, loans and equity and Private sector investments

**Source:** News Articles, Press releases, Ministry of Road Transport and Highways

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**For updated information, please visit www.ibef.org**
Roadways has been the key focus area for budget allocations over the years.

Under the Union Budget 2020-21, the Government of India has allocated Rs 91,823 crore (US$ 13.14 billion) under the Ministry of Road Transport and Highways.

Between FY09 and FY20, budget outlay for road transport and highways increased at a robust CAGR of 16.82 per cent.

Huge investments have been made in the sector with total investment increasing more than three times from Rs 51,914 crore (US$ 7.43 billion) in 2014-15 to Rs 158,839 crore (US$ 22.73 billion) in 2018-19.

Source: Respective Union Budgets
National Highway Development Project (NHDP) is a 7 phase project amounting to US$ 60 billion. The projects aims to widening, up-gradation and rehabilitation of 47,054 kilometres of national highways.

The Ministry of Road Transport and Highways has fixed an overall target to award 15,000 km projects and construction of 10,000 km national highways in FY19. A total of about 295 major projects including bridges and roads are expected to be completed during the same period.

In the coming years, NHAI’s increased delegation autonomy along with Bharatmala Pariyojana initiative is expected to enable growth in awarding momentum.

The consumption on the NHAI incorporates funding provide towards projects under the National Highways Development Project (NHDP) which are the Golden Quadrilateral, the North-South and East-West Corridors, and four-laning of 12,109 kms under phase III.

The Ministry of Road Transport & Highways is expected to award road projects with a total length of around 4,500 km worth Rs 50,000 crore (US$ 7.15 billion) in 2020.

Source: NHAI, MoRTH Annual Report 2017-18, Crisil Research
PRIVATE FUNDING BEING ENCOURAGED TO REDUCE FINANCE CONSTRAINTS

- Cumulative FDI in construction development^ since April 2000 stood at US$ 25.37 billion as of December 2019.
- Maif 2 Investments India Pvt Ltd became the first largest foreign investment in Indian roads sector under toll-operate-transfer (TOT) mode worth Rs 9,681.5 crore (US$ 1.50 billion).

FDI^ Inflows (US$ billion) (up to December 2019)

Note: ^ - FDI in construction development Includes: Townships, housing, built-up infrastructure and construction-development projects
Source: DPIIT
KEY INDUSTRY ASSOCIATIONS
## INDUSTRY ASSOCIATIONS

<table>
<thead>
<tr>
<th>Ministry of Roads Transport and Highways</th>
<th>National Highway Authority of India</th>
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<tr>
<td>Transport Bhavan</td>
<td></td>
</tr>
<tr>
<td>1, Parliament Street</td>
<td>G 5 and 6, Sector 10, Dwarka</td>
</tr>
<tr>
<td>New Delhi –110001</td>
<td>New Delhi – 110 075</td>
</tr>
<tr>
<td>Phone: 91-11-23719097, 23719955</td>
<td>Phone: 91-11-25074100, 25074200</td>
</tr>
<tr>
<td>E-mail: <a href="mailto:ifcmost@nic.in">ifcmost@nic.in</a></td>
<td>Fax: 91-11-25093507, 25093514</td>
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<th>Indian Roads Congress</th>
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<tbody>
<tr>
<td>Sector 6, (Near RBI Quarters), RK Puram, New Delhi – 110022</td>
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<td>Phone: 91-11-26185303</td>
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<td>Secretariat: 91-11-26716778, 26183669, 26185273, 26185315, 26185319</td>
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<tr>
<td>E-mail: <a href="mailto:secretarygen@irc.org.in">secretarygen@irc.org.in</a></td>
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USEFUL INFORMATION
GLOSSARY

- BOT: Build Operate Transfer
- CAGR: Compound Annual Growth Rate
- EPC: Engineering, Procurement and Construction
- FDI: Foreign Direct Investment
- FY: Indian Financial Year (April to March) – So FY10 implies April 2009 to March 2010
- GOI: Government of India
- INR: Indian Rupee
- LCV: Light Commercial Vehicles
- MoRTH: Ministry of Roads Transport and Highways
- NH: National Highway
- NHAI: National Highway Authority of India
- NHDP: National Highway Development Project
- US$: US Dollar – Conversion rate used: US$ 1= INR54.43
## Exchange Rates

### Exchange Rates (Fiscal Year)

<table>
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<tr>
<th>Year</th>
<th>INR Equivalent of one US$</th>
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<tbody>
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<td>2004–05</td>
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<td>2006–07</td>
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<td>2007–08</td>
<td>40.24</td>
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<td>2008–09</td>
<td>45.91</td>
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<td>2009–10</td>
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<td>2010–11</td>
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<td>64.45</td>
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<tr>
<td>2018–19</td>
<td>69.89</td>
</tr>
<tr>
<td>2019–20</td>
<td>70.49</td>
</tr>
</tbody>
</table>

### Exchange Rates (Calendar Year)

<table>
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<tr>
<th>Year</th>
<th>INR Equivalent of one US$</th>
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<tbody>
<tr>
<td>2005</td>
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<td>2018</td>
<td>68.36</td>
</tr>
<tr>
<td>2019</td>
<td>69.89</td>
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*Source: Reserve Bank of India, Average for the year*
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