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### EXECUTIVE SUMMARY

<table>
<thead>
<tr>
<th>One of the largest road networks in the world</th>
<th>- India has the second largest road network in the world, spanning over 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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rising budget allocation of road sector</td>
<td>- Under Union Budget 2020-21, the Government of India has allocated Rs 91,823 crore (US$ 13.14 billion) for the Ministry of Road Transport and Highways.</td>
</tr>
</tbody>
</table>
| Growing private sector involvement          | - As on December 2019, 824 projects were recommended for development by Public Private Partnership (PPP) Appraisal Committee.  
- 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.  
- NHAI is planning to raise Rs 40,000 crore (US$ 5.72 billion) to monetise its highway assets through Infrastructure Investment Trust (InvIT).  
- National highways under the Bharatmala Pariyojana programme aims to optimize the productivity of freight and passenger movement by filling the critical infrastructure gaps. It will also work to increase the number of districts with national highway linkages from 300 to 550. |
| Overseas investment for infrastructure development | - Indian 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.  
- In May 2020, Asian Development Bank (ADB) and Government of India signed a US$ 177 million loan to upgrade 450 kilometre (km) of state highways and major district roads in the state of Maharashtra. |

**Source:** MoRTH Annual Report 2015–16, NHAI, Make in India, CARE Ratings
ADVANTAGE INDIA
- Production of commercial vehicles increased to 752,022 in FY20 from FY16 at a CAGR of 2.42 per cent commands stronger road network in India.
- Rise in number of two and four wheelers and increasing traffic supports the growth.
- Growing participation 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.
- Transfer to National Investment Fund (NIF) is estimated at Rs 6,070 crore (US$ 868.51 million) for 2019-20.

ADVANTAGE INDIA

• India has joined the league of 15 of global alliance which will work towards the ethical use of smart city technologies
• The Government aims to construct 65,000 km of national highways at a cost of Rs 5.35 lakh crore (US$ 741.51 billion) by 2022.
• Road building in India is second least expensive in Asia.^

Financial institutions received Government approval to raise money through tax-free bonds.
100 per cent FDI is allowed under automatic route subject to applicable laws and regulations.
- The Finance Bill 2019 made certain changes in the Central Roads and Infrastructure Fund Act. The 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, Asian Infrastructure Investment Bank (AIIB)
Source: NHAI, Make in India, MoRTH, Business Monitor International, Ministry of Road Transport and Highways, Asian Infrastructure Investment Bank (AIIB)
MARKET OVERVIEW
ROAD NETWORK IN INDIA IS SUB-DIVIDED INTO THREE CATEGORIES

- **State highways**
  - Total length: 156,694 kms
  - Share: 3 per cent of the total roads in India

- **National highways**
  - Total length: 132,500 kms
  - Share: 2 per cent of the total roads in India

- **Other roads**
  - Total length: 5,608,477 kms
  - Share: 95 per cent of the total roads in India

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

- Highway construction in India increased at 21.44 per cent CAGR between FY16-FY19. In FY19, 10,855 km of highways were constructed. The Government aims to construct 65,000 km of national highways at a cost of Rs 5.35 lakh crore (US$ 741.51 billion) by 2022.

- The Government will use plastic waste for construction of roads. One of the roads has recently been constructed with plastic waste near Dhaula Kuan (New Delhi) with plans to construct 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 was constructed.

- Revenue from highway construction is forecast to grow at a CAGR of 20 per cent by 2020.

- In March 2020, NHAI accomplished the highest ever highway construction of 3,979 km of national highways in FY20.

- In April 2020, the Government has set a target of constructing roads worth Rs 15 lakh crore (US$ 212.80 billion) over the next two years.

- In May 2020, Border Roads Organisation (BRO) achieved major milestone by digging up a 440-metre long tunnel below the busy Chamba town on Rishikesh-Dharasu highway (NH 94).

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 US$ 7 billion.

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

The Government’s move to cut GST rate 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
- Mahindra Construction Equipment (MCE)
- 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
The Special Accelerated Road Development Programme for the Northeast region (SARDP-NE) is aimed at developing road connectivity between remote areas in the northeast with state capitals and district headquarters.

Implementation of the road development programme would facilitate connectivity of 88 district headquarters across states in the Northeast to their nearest national highway.

The Government of India plans to invest Rs 1.45 lakh crore (US$ 22.40 billion) towards road infrastructure in Northeast 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, the Prime Minister of India announced investment worth Rs 60,000 crore (US$ 9.33 billion) under SARDP between 2018-2020.

The details of various development and maintenance works undertaken in Northeast region is 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 Build–operate–transfer (BOT) was 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 private sector players**


- **IL&FS**: Major projects: 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 Ashoka Builders Limited**: Major projects: 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 – Nipponi Road, Indore Edalabad Road, Wainganga Bridge, Ahmednagar Aurangabad Road.


- **GMAR**: Major projects: Tuni–Ankapalli Highway, Tamaram–Tindivanam Highway, Ambala–Chandigarh Highway.

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

Growing demand
- Rise in two and four wheelers
- Increasing freight traffic
- Strong trade and tourist flows between states

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

Increasing investment
- In 2019-20, Rs 36,691 crore (US$ 5.24 billion) was allocated to NHAI
- 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 FY19
- The Ministry allocated Rs 3,150 crore (US$ 0.45 billion) for maintenance of roads and highways in FY20 and Rs 280 crore (US$ 40 million) for road transport and safety

Source: Make in India
RISING TRADE, VEHICULAR PRODUCTION

- Growing domestic trade flows have led to a rise in commercial vehicles and freight movement, supported by a rise in production of commercial vehicles to 752,022 in FY20.

- 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 1951–2019.

- Higher individual discretionary spending has led to increased spending on cars, motorbikes, and scooters.
  - Domestic sale of passenger vehicles increased to 2.77 million during FY20.
  - Domestic sale of commercial vehicles in the country increased to 717,688 during FY20.

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.  
▪ To widen and revamp 1.25 lakh km of roads, Government has approved the launch of phase-III of its rural road programme, Pradhan Mantri Gram Sadak Yojana (PMGSY).  
▪ Under Union Budget 2020-21, the Government of India has allocated Rs 19,500 crore (US$ 2.79 billion) for Pradhan Mantri Gram Sadak Yojana (PMGSY).  
▪ As per Union Budget 2019-20, 30,000 km of PMGSY roads were built using green technology, waste plastic and cold mix technology, thereby reducing carbon footprint.  
▪ PMGSY-III is envisaged to upgrade 1,25,000 km 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 payment on external commercial borrowings for infrastructure are now subject to a lower withholding tax of 5 per cent vis-a-vis 20 per cent earlier.  
▪ IDF income is exempt from income tax.  
▪ As per Union Budget 2019-20, the Government proposed to permit transfer/sale of investments made by FIIs/FPIs in debt securities issued by Infrastructure Debt Fund – Non-Banking Finance Companies (IDF-NBFCs) to any domestic investor within the specified lock-in period. |

**Source:** News Articles, Union Budget 2018-19
## POLICY INITIATIVES IN THE RIGHT DIRECTION … (2/2)

| **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 was estimated at Rs 54,539 crore (US$ 7.80 billion), which was 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 Union Budget 2020-21, the Government has allocated Rs 91,823 crore (US$ 13.14 billion) under the Ministry of Road Transport and Highways. |
| **Bharatmala Pariyojana Project** | • A total length of 34,800 km in 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.  
• NHAI will consider only those projects that require minimal land acquisition worth Rs 3 trillion (US$ 42.92 billion) under 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

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

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

Between FY16 and FY21, budget outlay for road transport and highways increased at a robust CAGR of 13.10 per cent.

Huge investment 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 at widening, up-gradation and rehabilitation of 47,054 km of national highways.

The Ministry of Road Transport and Highways had 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 were expected to be completed during the same period.

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

The funds are provided by NHAI for projects under the National Highways Development Project (NHDP) which include 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 and Highways is expected to award road projects with a total length of around 4,500 kms worth Rs 50,000 crore (US$ 7.15 billion) in 2020.

In April 2020, Government set a target of constructing roads worth Rs 15 lakh crore (US$ 212.80 billion) in the next two years.

In June 2020, NHAI became fully digital with the launch of unique cloud based and Artificial Intelligence powered Big Data Analytics platform – Data Lake and Project Management Software.

Source: NHAI, MoRTH Annual Report 2018-19, Crisil Research
PRIVATE FUNDING BEING ENCOURAGED TO REDUCE FINANCE CONSTRAINTS

- 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 March 2020)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Inflows (US$ billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY01-11</td>
<td>2.25</td>
</tr>
<tr>
<td>FY12</td>
<td>9.18</td>
</tr>
<tr>
<td>FY13</td>
<td>10.05</td>
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<tr>
<td>FY14</td>
<td>1.23</td>
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<tr>
<td>FY15</td>
<td>0.76</td>
</tr>
<tr>
<td>FY16</td>
<td>0.12</td>
</tr>
<tr>
<td>FY17</td>
<td>0.10</td>
</tr>
<tr>
<td>FY18</td>
<td>0.54</td>
</tr>
<tr>
<td>FY19</td>
<td>0.22</td>
</tr>
<tr>
<td>FY20</td>
<td>0.07</td>
</tr>
<tr>
<td>FY20-20</td>
<td>25.66</td>
</tr>
</tbody>
</table>

**Note:**[^] - FDI in construction development Includes: Townships, housing, built-up infrastructure and construction-development projects

**Source:** DPIIT

[^]: Cumulative FDI in construction development includes Townships, housing, built-up infrastructure and construction-development projects.
KEY INDUSTRY ASSOCIATIONS
### INDUSTRY ASSOCIATIONS

**Ministry of Roads Transport and Highways**

Transport Bhavan  
1, Parliament Street  
New Delhi –110001  
Phone: 91-11-23719097, 23719955  
E-mail: ifcmost@nic.in

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**National Highway Authority of India**

G 5 and 6, Sector 10, Dwarka  
New Delhi – 110 075  
Phone: 91-11-25074100, 25074200  
Fax: 91-11-25093507, 25093514

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**Indian Roads Congress**

Sector 6, (Near RBI Quarters), RK Puram, New Delhi – 110022  
Phone: 91-11-26185303  
Secretariat: 91-11-26716778, 26183669, 26185273, 26185315, 26185319  
Fax: 91-11-26183669  
E-mail: secretarygen@irc.org.in
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>
<thead>
<tr>
<th>Year</th>
<th>INR Equivalent of one US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004–05</td>
<td>44.95</td>
</tr>
<tr>
<td>2005–06</td>
<td>44.28</td>
</tr>
<tr>
<td>2006–07</td>
<td>45.29</td>
</tr>
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<td>2007–08</td>
<td>40.24</td>
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<td>2009–10</td>
<td>47.42</td>
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<td>2013–14</td>
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<tr>
<td>2017–18</td>
<td>64.45</td>
</tr>
<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>
<thead>
<tr>
<th>Year</th>
<th>INR Equivalent of one US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>44.11</td>
</tr>
<tr>
<td>2006</td>
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<tr>
<td>2007</td>
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<tr>
<td>2008</td>
<td>43.42</td>
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<td>2009</td>
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<td>2010</td>
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<td>46.67</td>
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<td>2012</td>
<td>53.49</td>
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<td>2013</td>
<td>58.63</td>
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<td>2014</td>
<td>61.03</td>
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<tr>
<td>2015</td>
<td>64.15</td>
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<tr>
<td>2016</td>
<td>67.21</td>
</tr>
<tr>
<td>2017</td>
<td>65.12</td>
</tr>
<tr>
<td>2018</td>
<td>68.36</td>
</tr>
<tr>
<td>2019</td>
<td>69.89</td>
</tr>
</tbody>
</table>

*Source: Reserve Bank of India, Average for the year*
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