The year 2015-16 saw the strengthening of the resolve of the Ministry of Road Transport and Highways to create and maintain a countrywide network of road infrastructure that is mechanically strong, designed to ensure safety for commuters and is compatible with the requirements of efficient and sustainable development. The period has seen a lot of intense and focussed activity in the sector with the Ministry having taken several initiatives towards fulfilment of its larger objectives.

EXPANSION OF NATIONAL HIGHWAYS NETWORK

Highways in the country at a glance

<table>
<thead>
<tr>
<th></th>
<th>2013-14</th>
<th>2014-15</th>
<th>2015-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Highways/Expressways</td>
<td>92851 km</td>
<td>96214 km</td>
<td>1,00,475 Km</td>
</tr>
<tr>
<td>State Highways</td>
<td></td>
<td></td>
<td>1,48,256 KM</td>
</tr>
<tr>
<td>Other Roads</td>
<td></td>
<td></td>
<td>49,83,579 Km</td>
</tr>
</tbody>
</table>

Major highway programmes currently underway are:

1. National Highways Development Programme – 54,748 Km of National Highways
2. SARDP-NE (Special programme for NE) – 10,141 Km
3. LWE (Left Wing and Extremist affected areas)- 5477 Km
Progress at a glance

Projects Awarded / Completed during 2014-15 and 2105-16

<table>
<thead>
<tr>
<th></th>
<th>2014-15</th>
<th>2015-16</th>
<th>2016-17 upto Sept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Length of roads awarded</td>
<td>7566 km</td>
<td>10,000 km</td>
<td>3969 km</td>
</tr>
<tr>
<td>Total Length of roads constructed</td>
<td>4410 km</td>
<td>6029 km</td>
<td>2979 km</td>
</tr>
</tbody>
</table>

Length of Highway Awarded in Km

Highway Length Constructed in Km
Northeast development

Look East policy adopted by MoRTH:

- This Ministry has assigned special emphasis on the development of Highways in the North East Region as under:

<table>
<thead>
<tr>
<th>Year</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-13</td>
<td>68 km</td>
</tr>
<tr>
<td>2013-14</td>
<td>78 km</td>
</tr>
<tr>
<td>2014-15</td>
<td>623 km</td>
</tr>
<tr>
<td>2015-16</td>
<td>286 km</td>
</tr>
<tr>
<td>2016-17 to date</td>
<td>70 km</td>
</tr>
</tbody>
</table>

- To give a further boost to the region & allied activities, the Ministry incorporated a company called National Highways & Infrastructure Development Corporation (NHIDCL) in 2014 to address the concerns of sluggish pace of implementation of infrastructure projects in the North Eastern Region and Strategic Areas of the country which share international boundaries. NHIDCL has set time limits for performing various tasks & in order to enhance confidence among the contractors, all payments are being released within 72 hours of receipt of complete certified bills. As of 18th Oct. 2016, the company is handling 134 National Highway and other Infrastructure Development projects covering an approx length of 8,007 km. to be executed at a cost of approximately Rs. 100,000 cr. These include important projects such as Chandkhera to Kurti Bridge, Alternative Highway, Rhenok – Pekyong (26 Km.), Four laning of Dimapur – Kohima section of NH-39, Imphal – Moreh section of NH 39 alternative alignment, etc.

- Further, a highway of about 100 Km from near about Lawngtlai on NH-54 to R. Zocha on Indo-Myanmar border in Mizoram was included under SARDP-NE Phase ‘A’ to support the Kaladan Multi Model Transit Transport Project in Myanmar. The road will provide connectivity to Sittwe in Myanmar, where a port facility is being built under a bilateral agreement with Myanmar. The port facility will be used for transportation of goods to/ from North East.

New Projects

Bharatmala

This is a project that aims to build National Highways to connect coastal/ border areas including small ports, backward areas, religious places, tourist places, improve connectivity to Char-Dham and connect all district headquarters to National Highways.

Setu Bharatam
This is a programme to make road travel safe by constructing Railway Over Bridges or Under Passes at all 208 level crossings in the country. The aim is to make national highways free of railway level crossings by 2019. This is being done to prevent the frequent accidents and loss of lives at level crossings. 208 Railway Over Bridges (ROB)/Railway Under Bridges (RUB) will be built at the level crossings at a cost of Rs. 20,800 crore as part of the programme. Detailed Project Reports have already been received for 73 ROBs and of these 64 ROBs are likely to be sanctioned with an estimated cost of Rs. 5600 crore by this financial year i.e. 2015-16. In addition to this, about 1500 old and worn down bridges will also be improved by replacement/widening/strengthening in a phased manner at a cost of about Rs. 30,000 crore. The Ministry has already invited bids for appointing consultancy for preparing Detailed Project Report for this.

**National Highways Interconnectivity Improvement Project**

This is a project to ensure safe, fast and all weather movement of traffic on National Highways mostly located in backward regions. The Cabinet Committee on Economic Affairs approved development of 1120 kms of National Highways in the States of Karnataka, Odisha, Bihar, Rajasthan and West Bengal. The work for development to two lane standards are under Phase-I of the National Highways Interconnectivity Improvement Project (NHIIP) with World Bank assistance. The estimated cost is Rs. 6,461 crore including cost of land acquisition, resettlement and rehabilitation and other pre-construction activities. The projects are already taken up for implementation and 429 kms has been completed. The civil works are expected to be completed by July, 2019 and maintenance works are expected to be completed by July, 2024.

**High Density Corridors**

The Government has approved a plan for constructing 1000 km of Expressways along High Density Corridors like the Vadodara-Mumbai Corridor and Delhi-Meerut Corridor. The approved expressways on High Density Corridors are

i. **Delhi-Meerut (66km)**– The first phase of this project consists of improving 50 Kms of NH 24 from Delhi to Hapur in three packages – Nizamuddin Bridge to Delhi-UP border as 6 Lane Expressway +8 Lane National Highways ; Delhi-UP border to Dasna as 6 Lane Expressway +8 Lane National Highways and Dasna to Hapur as 6 Lane with Service Road on either side. Work for the project has already been awarded.

ii. **Eastern Peripheral Expressway** - 135 km long Greenfield Expressway from Palwal in Haryana to Kundali via Dasna has already been awarded on EPC Mode under Six Packages with Total Aggregate Awarded cost of Rs. 4417.89 crore. The work is on.

iii. **Western Peripheral Expressway** - The 135 km long Western Peripheral Expressway is being executed by Government of Haryana. This comprises two sections. The work of Manesar-Palwal section having length of 52 km with Aggregate Awarded Cost of Rs. 401.49 crore on EPC Mode has already been completed and become operational w.e.f 01.04.2016. The work on 83 km long Kundali- Manesar Section has already been awarded by State Government of Haryana on BOT Mode. The TPC of this Section is 1863.00 crore. The work has already been started at site and scheduled for completion by 31.08.2018.
iv. Vadodara-Mumbai Corridor (400 km);
v. Bangalore-Chennai (334 km) on NH-4
vi. Delhi-Jaipur (261 km) on NH-8
vii. Delhi-Chandigarh (249 km) on NH-1 and NH-22
viii. Kolkata-Dhanbad (277 km) on NH-2 and
ix. Delhi-Agra (200 km) on NH-2.

The Government has prioritized the following Expressways:

Eastern Peripheral Expressway
Delhi-Meerut Expressway
Vadodara-Mumbai Expressway

**Targets for 2016-17**

The Ministry has fixed a 2.5 times increase in the target for award and construction of National Highways for the year 2016-17. The Ministry has set a target of 25,000 km of National Highways to be awarded in 2016-17 as against the 10,000 km awarded in 2015-16. The construction target has been set at 15,000 km as against the 6000 km constructed last year. Of the total length of National Highways targeted for award, 15,000 km would fall under the target of National Highways Authority of India (NHAI) and 10,000 km under the target of the Ministry and National Highways and Infrastructure Development Corporation (NHIDCL). NHAI’s target for construction has been fixed at 8000 km while for the Ministry and NHIDCL, the target is 7000 km.

**Policy Interventions**

The speeding up of road projects has been made possible due to several policy interventions which include:

i. **Mode of delivery** - MoRTH was empowered through a Cabinet decision to decide on mode of delivery of projects –PPP/EPC.

ii. **Increased threshold for project approval** -. MoRTH was authorized to appraise projects up to Rs 1000 crores – both for PPP and EPC mode in place of earlier Rs 500 crores.

iii. **Enhanced Inter-Ministerial coordination** - an Infrastructure Group has been created under Chairmanship of Hon’ble Minister (RTH & S) to resolve approval/clearance issues related to Environment & Forests, Railways and Defence. Processes have been streamlined like online approval of General Arrangement Drawings (GADs) for ROBs/RUBs. Forest and Environmental Clearances have been de-linked. Stage I Forest Clearance is now considered as deemed approval for cutting of trees etc.

iv. **Exit Policy** – the CCEA has allowed private developers to take out their entire equity and exit all operational BOT projects two years from start of operations irrespective of the date of award of the project. This would facilitate infusion of liquidity in the sector by enabling existing developers to release their locked-in equity in completed projects.
v. **One-time fund infusion by NHAI** – the CCEA has allowed revival of BOT projects which are languishing in the construction stage through **one-time fund infusion by NHAI**, subject to adequate due diligence of such projects on case to case basis through an institutional mechanism. This policy would help physical completion of languishing projects bringing relief thereby, to the citizens/highway users in the area.

vi. **Promoting innovative project implementation models** – the CCEA has approved the **Hybrid Annuity Model** for implementation of highway projects in its meeting held on 27.01.2016. As per this model, 40% of the Project Cost is to be provided by the Government as ‘Construction Support’ to the private developer during the construction period and the balance 60% as annuity payments over the concession period along with interest at market linked rates on outstanding amount to the concessionaire. There is separate provision for O&M payments by the Government to the concessionaire. Three projects have already been awarded under the model.

vii. **Amendments to the Model Concession Agreement (MCA) for BOT projects** – certain changes in the MCA have been approved by an empowered Committee of Secretaries (CoS) headed by the Cabinet Secretary in a meeting held in August, 2015 based on stakeholders feedback. This would facilitate streamlined development and operation of highway projects.

viii. **Segregation of Civil Cost from Capital Cost for NH projects for appraisal & approval** – the CCEA recently approved the same which would lead to faster appraisal and approval process leading to faster project award.

ix. **Rationalized compensation to concessionaires for languishing NH projects in BOT mode for delays not attributable to concessionaires** – the CCEA recently approved the same which would add to the comfort level of prospective project concessionaires. The policy enables extension of concession period for all languishing BOT (Toll) projects to the extent of delay not attributable to the concessionaire provided, the originally envisaged operation period remains unchanged. Similarly, for languishing BOT (Annuity) projects, payment of missed annuities corresponding to the actual period of delay not attributable to the concessionaire shall be restored.

x. **National Highways Authority of India authorized to monetize public funded national highway projects** – the CCEA has authorized National Highways Authority of India (NHAI) to monetize public funded National Highway (NH) projects which are operational and are generating toll revenues for at least two years after the Commercial Operations Date (COD) through the Toll Operate Transfer (TOT) Model. Around 75 operational NH projects completed under public funding have been preliminarily identified for potential monetization using the TOT Model. This Model would provide an efficient Operation and Maintenance (O&M) framework requiring reduced involvement of NHAI in projects post construction completion. Further, the corpus generated from proceeds of such project monetization could be utilized by the Government to meet its fund requirements regarding future development and O&M of highways in the country. This could address development/strengthening of highways in unviable geographies. The Model would facilitate efficient toll realization through private sector. It would also create new business opportunities for a new vertical of developers who specialize in O&M of highways and a category of investors (Institutional Investors including Pension & Insurance Funds,
Sovereign Funds, etc.) which is averse to taking construction risks but is adequately equipped for making long term investments in road infrastructure.

Steps taken to streamline land acquisition - The Ministry has set up a Land Acquisition Cell comprising retired revenue functionaries from the states. The concept envisaged is a 3 tier system with retired revenue officials being stationed in the PIUs as well as the Regional Offices and finally in the Ministry for detailed monitoring and follow up. At the Policy level, Land Acquisition has been expedited by bringing the Awards and their disbursal in consonance with the principles of the RFCT LARR Act 2013. In the last financial year Rs.19020 crore was disbursed by NHAI for land acquisition, and between January to March 2016 alone, an expenditure of Rs.7331 crores was incurred on the same, as against a total of Rs.9097 crore spent on land acquisition in 2014-2015. Ministry officials have been monitoring the project-wise status with the representatives of States/Union Territories and implementing agencies. Apart from ironing out issues related to land acquisition during these meetings, all the States/Union Territories have been requested to take immediate necessary steps to ensure speedy and faster disbursement of the amount of compensation for land acquisition. In addition to this, detailed directions have been issued about hiring retired Revenue officials as LA consultants, close monitoring of issues relating to delays, common format for reporting and use of technology in preparation of DPRs, etc.

Delegation of Powers - In order to cut down avoidable delays and facilitate smooth implementation of projects the Ministry has delegated a lot of administrative and financial powers to its field level functionaries. The task of road expansion and upgradation necessitates shifting of utilities. Directions have been issued that the cost of utilities should be incorporated in the Total Project Cost (Total Capital Cost for PPP projects). The ROs and ELOs have been empowered to release funds for power and transmission line shifting.

Powers to accord Administrative approvals and issue Financial Sanctions for Periodic Renewal and Improvement of Riding Quality have also been delegated, which will greatly improve maintenance of roads. Further, in order to expedite works on the National Highways, State PWDs have been delegated powers to invite tenders for works which are more than 5 cores and upto Rs.300 crores; the processes for evaluation and screening of bids as also powers to accord approvals have all been streamlined.

The Ministry has issued guidelines on standardization of reporting responsibility of Independent Engineers (IEs)/ Authority Engineers (AEs) for National Highway Projects. IEs/AEs are responsible for monitoring and supervision of construction, operation and maintenance of PPP and EPC Projects respectively and play a pivotal role in supervising, tracking, and reporting project’s progress. Standardization of reports ensures consistency and comparability across various projects. The new, standardized IE/AE reporting form became effective from August 1, 2016.

The Ministry has issued revised guidelines for procurement, preparation, review & approval of DPR/Feasibility Report required before taking up any National Highway Project for capacity augmentation and removing various deficiencies/improving road safety aspects etc. This will streamline the process of preparation of DPRs in time bound manner. The Ministry has issued revised delegated powers to the Regional
Officers (ROs) to accept variations/extra items/escalation/price adjustments, etc., such that overall excesses inclusive of tender premium is within the 5% over the amounts for work plus the amount for contingencies provided in the sanctioned estimates. This will facilitate faster decision making and execution there-to.

xii. **Incentive to Contractors** - In order to give incentives to contractors for early completion of project, a policy has been issued wherein 2.5% bonus is given where the contractor submits the draft clearance proposals within one month of alignment finalization & submits the draft 3A for land acquisition within one month of alignment finalization.

**Highways Sector In Revival Mode : Revival of Languishing Projects**

As an outcome of adopting the above policy measures and other suitable interventions of MoRTH, currently, the highways sector is on a revival mode.

- **Accelerated award** – 10,000 Km in FY 2015-16 as against 7,980 kms for the whole of 2014-15.
- **Accelerated construction** – 6029 kms have been constructed in FY 2015-16 as against 4,340 kms for the whole of 2014-15.

- **NH projects languishing after award are being effectively revived through MoRTH/NHAI intervention**

So as to de-bottleneck road construction and give a boost to languishing projects several steps have been taken towards institutional strengthening. Over the last two years, an extensive introspection exercise was undertaken & reasons identified as hurdles holding up implementation. Mainly, these related to Land Acquisition, Environmental clearances and Concessionaire related issues such as financing, slow work at the ground level and delays in commencing the works. Corrective measures were undertaken which included effective delegation of powers, sound DPRs and pre-project preparation, procurement reforms, effective supervision through third party Authority/Independent Engineers and a comprehensive IT-enabled Project Monitoring System (PMIS). Realizing that highway sector in India has not kept pace with the new and innovative construction technologies and materials used across the globe; a national panel of experts has been constituted to encourage value engineering and innovation.

For the benefit of the contractors, deferment of premium payment has been introduced in such situations where they do not collect enough toll revenue in a year to pay for it after servicing debt and operations and maintenance costs albeit at a rate of interest on the premium deferred. One time fund infusion has been approved to revive and physically complete languishing BOT projects.

The following table indicates the status of action taken on various projects languishing & addressed over the past few months:

<table>
<thead>
<tr>
<th>Projects where issues resolved</th>
<th>Projects terminated</th>
<th>Balance projects to be resolved in fy 2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total of languishing Projects as on 31.3.2016 : 73 (NHAI)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>39</td>
<td>19</td>
</tr>
<tr>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Post termination, the above projects were re-awarded (19) or transferred to State Governments (3) or process initiated for re-award(17)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The process of taking corrective measures so that apart from taking up new projects, the existing basket of projects is re-shaped and moved towards a vibrant construction stage has been successfully done. This will lay the seeds of faster, speedier and targeted construction. Further, a significant measure to revive the construction industry by releasing 75% of the disputed amount under arbitration against Bank Guarantee through an escrow account specifically designed to repay lenders and clear suppliers dues will also assist.

**ROAD SAFETY**

The target is to reduce fatality due to road accidents by 50 percent by 2020. Several initiatives have been taken for this:

- A *National Road Safety Policy* has been approved, which outlines various policy measures like promoting awareness, establishing road safety information data base, encouraging safer road infrastructure, enforcement of safety laws etc.
- The *Government has constituted the National Road Safety Council* as the apex body to take policy decisions in the matter of road safety. States / UTs have been requested to set up State Road Safety Councils.
- The Ministry has evolved a multi pronged strategy to tackle the problem based on the 4 Es viz Education, Engineering (both of roads and vehicles) Enforcement and Emergency Care.
- The *Ministry constituted Group of Ministers* from eight states to deliberate and propose strategies for reducing road fatalities. On the basis of recommendations of the GoM and other pressing requirements, MoRTH introduced the *Motor Vehicle (Amendment) Bill 2016*. The important provisions include increase in compensation for Hit & Run cases from Rs. 25000 to Rs. 2 lakhs. It also has provision for payment of compensation upto Rs 10 lakh in road accidents fatalities.

The Bill also proposes insertion of 28 new sections. The amendments mainly focus on issues relating to improving road safety, citizens’ facilitation while dealing with the Transport Department. Strengthening rural transport, last mile connectivity and public transport, automation and computerization and enabling online services.

The Bill propose to improve the transport scenario in the country by permitting the States to grant exemptions in Stage carriage and contract carriage permits for promoting rural transport, public transport, last mile connectivity and for passenger convenience and road safety.

The Bill proposes that the State Government can specify a multiplier, not less than one and not greater than ten, to be applied to each fine under this Act and such modified fine.
The bill proposes that the State Government can regulate the activities in a public place of pedestrians and such means of transport.

Improving delivery of services to the stakeholders using e-Governance is one of the major focuses of this Bill. This include enabling online learning licenses, increasing validity period for driving licenses, doing away with the requirements of educational qualifications for transport licenses are some of the features.

The Bill proposes that in offences committed by Juveniles the Guardian / owner shall be deemed to be guilty in cases of offences by the Juveniles and Juvenile to be tried under JJ Act. Registration of Motor Vehicle to be cancelled

To improve the registration process for new vehicles, registration at the end of the dealer is being enabled and restrictions have been imposed on temporary registration.

In the area of road safety, bill proposes to increase penalties to act as deterrent against traffic violations. Stricter provisions are being proposed in respect of offences like juvenile driving, drunken driving, driving without licence, dangerous driving, over-speeding, overloading etc. Stricter provisions for helmets have been introduced along with provisions for electronic detection of violations. To help the road accident victims, Good Samaritan guidelines have been incorporated in the Bill. The Bill also proposes to mandate the automated fitness testing for the transport vehicles with effect from 1st October 2018. This would reduce corruption in the Transport Department while improving the road worthiness of the vehicle. The penalties are also proposed for deliberate violation of safety/environmental regulations as well as body builders and spare part suppliers.

To bring harmony of the registration and licensing process, it is proposed to create National Register for Driving Licence and National Register for Vehicle registration through “Vahan” & “Sarathi” platforms. This will facilitate uniformity of the process across the country.

The process for testing and certification for automobiles is proposed to be regulated more effectively. The testing agencies issuing automobile approvals have been brought under the ambit of the Act.

The driving training process has been strengthened enabling faster issuance of transport licenses. This will help in reducing the shortage of commercial drivers in the country.

- The Ministry has launched a media campaign to promote road safety.
- NGOs have been sensitised to work on Road Safety
- Road safety has been made an integral part of road designing, safety audits are being taken up for selected stretches of National Highways
- As Short-term measures rumble strips, reflective stickers at junctions, fixing signboard/ cautionary board, providing signage and speed restrictions are being used
- As long-term measures construction of vehicular under-pass, By-pass, flyover and 4-laning are being taken up
- **723 black spots** have been identified which are accident prone and steps are being taken to rectify engineering defects at such spots at a cost of Rs 11,000 crore.
- The threshold for four laning of National Highways has been reduced from 15000 Passenger Car Units (PCUs) to 10,000 and about 52,000 km of state highways are set to be converted into National Highways.
- **Vehicular Safety Standards** are being set for all classes of vehicles. Trucks are being prohibited from carrying protruding rods; **Anti-locking Brake System (ABS)** made mandatory on Heavy Vehicles; Cars to have provision for fitment of at-least one child seat. **Car Crash Standards to be made mandatory** w.e.f. 1.4.2018; **ABS/CBS for Two Wheelers mandated** w.e.f. 1st April 2018; **AHO (Automatic Headlight On)** made mandatory for Two Wheelers to improve their conspicuity; **Bus Body Code** for safer and comfortable buses; **Truck Body Code** for safe cabins to drivers and other road users; **Mandatory Fitment of Speed Governors on Transport Vehicles** to avoid over speeding; **BNVSAP being notified** to provide for safety ratings for Cars to enable buyers to take an informed decision.
- The government, under the National Automotive Testing and R&D Infrastructure Project (NATRiP) initiative has taken up project to setup state of art testing centres at Pune (Automotive Research Association of India), Manesar (International Centre for Automotive Technology), and Chennai (Global Automotive Research Centre). Of these centres, Crash Test Centre at ARAI is already operational and facility at ICAT is in advance stage of completion. The centre at Chennai (GARC) is expected to be ready by next year.
- Government is running **publicity campaigns in print and electronic media**.
- **Highway Advisory System (HAS)**
  
  HAS launched on 10th March 2016 as a pilot project on Delhi-Jaipur highway is a free-to-air information distribution system that uses radio to make the travelling experience on National Highways safer, faster and hassle-free. Under the project real time highway information will be gathered from concessionaires, patrol vehicles, toll plazas and traffic marshals. This information will be transmitted to HAS control centre using mobile applications, telephones and sensors. HAS control centre will collect data, process and analyze it, generate alerts and send it to be broadcast by All India Radio. Information and alerts will be broadcast over AIR’S Delhi, Alwar and Jaipur FM stations. 22 bulletins will be issued every day including safety awareness content along with live traffic updates on NH8.
- **Buses with IT enabled safety measures under NIRBHAYA SCHEME.**
  
  In an attempt to provide safe and secure transport to women, the Minister of Road Transport & Highways and Shipping, Shri Nitin Gadkari dedicated 20 buses of the Rajasthan State Road Transport Corporation, with IT enabled safety measures to the public. As an initiative of the Ministry of Road Transport & Highways under the NIRBHAYA Scheme, 10 luxury buses, 10 general buses have been provided with Vehicle Tracking System (VTS), CCTV cameras and Panic Buttons on every seat to provide immediate help to women passengers in distress.
- **Indian Bridge Management System (IBMS)** launched - IBMS is being developed to create an inventory of all bridges in the country and rate their
structural condition so that timely repair and rehabilitation work can be carried out based on the criticality of the structure.

**Automated Camera Based Driving Test System**

This test system developed by CIRT Pune provides an unbiased and transparent driving test mechanism with lesser human intervention. It is being used for testing license aspirants in Pune and Pimpri Chinchwad regions where daily about 150 licence applicants are being tested under this system. Only those candidates who pass the computer based test are issued driving licences. Automation in testing for issue of driving license has helped in grant of license to only deserving candidates. The stringent mechanism of driving licensing has helped in building awareness among drivers on safe driving. Increase in skilled drivers on road. Road crashes cases is expected to reduce significantly. The system is also being set up at Chandigarh.

- Ministry has sanctioned **25 Institutes of Driver Training and Research and 15 Inspection and Certification Centres** for vehicle fitness. These centres would promote strong culture of improved quality in driving training and use automation for testing vehicle fitness.

**Vehicle Inspection Center at Nashik** (Maharashtra) started operation from Oct 15 and more than 15000 vehicles have been tested so far. Vehicle Inspection center at Chhindwara (Madhya Pradesh) and Railmagara (Rajasthan) have also been commissioned. Vehicle testing centres at Bengaluru (Karnataka), Jhuljhuili (NCT of Delhi) and Rohtak (Haryana) are at advance stage of commissioning.

**Effective Trauma Care** - NHAI provides ambulances at a distance of 50 km on its completed stretches of National Highways. Cranes and ambulances are provided to various State Governments under the National Highway Accident Relief Service Scheme for development on National Highways.

**Pilot Projects for Cashless Treatment of Road Accident Victims** has been started on Gurgaon-Jaipur, Vadodara – Mumbai stretch of NH 8 and Ranchi-Rargaon-Mahulia stretch of NH 33. Till Jan’2016, about 14000 road accident victims have been provided benefit of the scheme at an average expenditure of Rs 12000 on treatment per victim. Now it is proposed to implement this scheme along the Golden Quadrilateral, North South and East West Corridors (about 13500 km) at an estimated cost of about Rs. 250 Crore.

**Good Samaritans Guidelines** - Guidelines, dated 12th May 2015, have been issued by the Ministry to prevent the harassment of “Good Samaritans” who help road accident victims. Hon’ble Supreme Court has accepted these guidelines and has asked states for implementation.

**MAKING ROAD TRAVEL ENVIRONMENT FRIENDLY**

- A clear cut and focused emphasis has been given to ecological issues in road transportation. Principal amongst these is the issuance of **Bharat Stage VI** emission control to keep a check on air pollution. These will overrule the current norms in India which are BS IV in 33 cities and BS III in the remaining country. Implementation of the BS V standard that was earlier scheduled for 2019 has now been skipped. BS VI, originally proposed to come in by 2024 has been now advanced to 2020, instead. The Ministry has issued a notification dated 16.09.2016 mandating implementation of Bharat Standards-VI (BS-VI) emission norms from 1st April 2020 for four wheelers,
three wheelers and two wheelers. This is a significant step to combat vehicular pollution in the country.

- **Logistic Parks** will be developed via Joint Ventures formed by the NHAI along with Development Authorities and Corporations and central authorities from concerned Ministries (*Concor AAI/IWAIR*). NHAI will partner with State Governments to form a Joint Venture where State Government would be responsible for ear-marking and providing the land for developing logistic parks and the NHAI would invest in providing the trunk infrastructure in the logistic park for which SPV with private players (PPP) may also be exercised.

- **Ethanol – Fuelled Bus** Notification was issued for mass emission standards for flexi-fuel ethanol E85 and ED95. This Notification will enable vehicle manufacturers to manufacture vehicles running on bioethanol E85 and ED95. A bio-ethanol fuel bus is already under trial in Nagpur.

- **Bio- CNG and Bio- Diesel** Notification has been issued for norms for the use of Bio-CNG for testing and exhaust emission for vehicles running on Bio-CNG. With this notification, the vehicle manufacturers can manufacture, sell and get vehicles fuelled by Bio-CNG in the country. Draft Notification was also formulated for Mass Emission Standards for Bio-diesel (B 100) fuelled vehicles.

- **India ready for flex - fuel automobiles** - India has put in place all required regulations for the use of Flex-fuel like ethanol mixed with petrol.

- **Retro fitment of existing polluting vehicle into electric hybrid and electric vehicle permitted**. Pilot successfully completed. As part of a pilot project to convert diesel buses to battery operated electric buses, the first prototype of one such bus was demonstrated in Parliament in the presence of the Prime Minister. The bus will be used by Members of Parliament. 10 more diesel buses are proposed to be converted to electric for State Transport authorities. DTC recently got its first electric bus.

- **Vehicle manufacturers will have to give details about the emission and noise levels of each vehicle they produce** – From 1st of April 2017, manufacturers of all kinds of motor vehicles as also Erickshaws and E-carts will have to give detailed declaration about the emission levels of the vehicle they have manufactured. Through a recent notification, the Ministry of Road Transport & Highways has amended Form 22 under the Central Motor Vehicles Act, 1989, through which manufacturers provide the Initial Certificate of Compliance with Pollution Standards, Safety Standards of Components Quality and Road –Worthiness certificate for all vehicles. Earlier, Form 22 only certified that the vehicle in question complied with the provisions of the Motor Vehicles Act and rules there under, including the relevant emission norms – Bharat Stage I/II/III etc. From 1st April, 2017 however, the vehicle manufacturers will have to provide emission details for each vehicle in the revised Form 22. The Form will include the brand, chassis number, engine number (motor number, in case of battery operated vehicles) and emission norms – Bharat Stage - IV / VI /Bharat (Trem) Stage-III/III etc of the vehicle and specify the levels of each pollutant like carbon monoxide, hydrocarbon, non-methane HC, NOx, HC + NOx, PM etc for petrol and diesel vehicles and also sound level for horn and pass by noise values.

- **Work in full flow on Eastern Peripheral Expressway and Western Peripheral Expressway**. 53 KM of WPE between Manesar to Palwal has been opened to commuters. This will bring down vehicular pollution in Delhi

- **Delhi decongestion plan** finalized with 8 arterial roads

- **Concept note on scrapping policy** finalized.
- **E-tolling** - In order to remove traffic bottle neck at toll plazas and ensure seamless movement of vehicles and hassle-free collection of toll, the Government will implement a nation wide Electronic Toll Collection based on passive Radio Frequency Identification (RFID) conforming to EPC Gen-2, ISO 18000-6C standards. It provides for electronic collection of toll through FASTags. This will be a unique scheme to allow seamless movement through all National Highways. The first phase of this scheme has been rolled out and final rollout is to commence shortly. The issuance of FASTags has increased substantially from 6300 tags in the beginning of this year to over 77,750 tags till date.

- **E-rickshaw policy** of Government has helped in reducing pollution to a great extent.

- **E Carts and E Rickshaws freed from permit requirements**

- **Green Highways (Plantation, Transplantation, Beautification and Maintenance) Policy – 2015**

  The Government has launched the Green Highways (Plantation, Transplantation, Beautification and Maintenance) Policy – 2015. The vision of the Policy is to develop eco-friendly National Highways with the participation of community, farmers, NGOs and private sector. The policy will help to improve aesthetics of the project corridors, reduce the impact of air pollution and reduce accidents by cutting down glare from approaching vehicles.

  Under the **Green Highways Project** the government has made it mandatory to set aside 1 per cent of the total project cost of any NH contract to a Green Fund corpus that will be used for plantation purposes. The afforestation is expected to help in sequestering approximately 12 lakh mt carbon annually.

  Union Minister of Road Transport & Highways and Shipping Shri Nitin Gadkari launched the initial plantation drive on 1,500 km of National Highways at a cost of about Rs 300 crore under the National Green Highways Mission on 1st of July 2016.

  On the same occasion **National Green Highways Mission - YES BANK Knowledge Report on ‘Transplanting for Growth’** was released. It puts transplantation at the centre of discussion in the mission of greening our highways. The report presents a compelling case for taking up transplantation as the preferred technique for plantation along the highways.

  The following MoUs were also signed on the occasion:

<table>
<thead>
<tr>
<th>Partnering Organizations</th>
<th>Length awarded for Green Highways Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGHM-NHAI and Haryana Forest Department</td>
<td>418 Kms</td>
</tr>
<tr>
<td>NGHM-NHAI Andhra Pradesh Urban Greening and Beautification Corporation Ltd</td>
<td>360 Kms</td>
</tr>
</tbody>
</table>

  A charter has been signed between NGHM and YES BANK to create awareness on greening of highways and explore synergies between NGHM’s objectives and YES BANK’s CoP21 commitment of planting 20 lakh saplings by 2020. A testimony to this
charter was the awareness program that was launched across 400 locations through YES BANK’s YES COMMUNITY initiative.

‘Adopt a Green Highway’ Program, launched in July 2016, seeks to engage corporates, Public Sector units, Government organizations and other institutions for developing green corridor along National Highways through plantation and allied activity on avenue, median and other available nearby land patches. ‘Kisan Harit Rajmarg Yojana’ is a pilot scheme to extend green belt beyond the existing ‘Right of Way’ of highways by engaging farmers and providing alternative livelihood option to the nearby communities.

A National Green Highways Mission Mobile App has also been launched to enable the management to monitor all the projects with real time data from the fields. The technology will assist in identifying the bottlenecks quickly and ensure speedy and successful implementations of the projects.

MAKING ROAD TRAVEL HASSLE FREE

- **Over Dimensional (OD) and Over Weight Cargo (OWC)** - A web portal has been launched for online approval of movement of Over Dimensional (OD) and Over Weight Cargo (OWC). This is expected to ensure smoother movement of heavy transport and make system corruption free.

- **Online Bill Payment** - New Web Based System inaugurated to make payment process for National Highway works more transparent. The new monitoring system is also expected to facilitate easy communication between various offices and allow a user to track the status of a bill.

- **ePACE, INFRACON and INAMPRO** - Innovative IT initiatives of the Ministry of Road Transport & Highways, developed in house by NHIDCL, three ePACE (Projects Appraisal & Continuing Enhancements) is an online integrated Management Information System that brings projects from all wings of the Ministry under a common platform, ensuring their effective and real time tracking. More than 2000 projects being executed by multiple agencies are currently listed on the portal and it is possible to get any information about their real time status, fund utilization etc. The portal can be freely accessed by anybody, and information regarding projects in any particular state can be found at the click of a button. The portal also allows for validation checks to prevent wrongful entries, making it difficult to fudge figures. It has provision to obtain reports in multiple formats with graphical interface for round the clock monitoring. It has also been provided with GIS interface to enable easy geo-tracking of the projects. The application has a data export engine for feeding into other applications. The architecture of the application is scalable and customizable. ePACE as a platform is amenable to be used for monitoring projects pertaining to any ministry in the country and can improve governance of such projects.

INFRACON is the National Portal for Infrastructure Consultancy Firms and Key Personnel. This portal acts as a kind of bridge between consultancy firms working in the road engineering and construction sector and domain experts and key personnel who are deployed both for project preparation and supervision. The portal hosts the credentials of consultancy firms and key personnel and has linkages to Aadhar and Digi-locker for data validation and purity. 474 consultancy firms and 2387 key personnel under various categories are already registered with the portal. In addition to this, agencies within the Ministry of Road Transport & Highways, like the NHIDCL can receive technical proposals through INFRACON. This leads to a
significant reduction of paper work during bid submissions and also brings in a lot of transparency and speed since the evaluation of technical bids can be done at the click of a button.

**INAM PRO** has been developed as a web-based application ([www.inampro.nic.in](http://www.inampro.nic.in)) for Infrastructure and Material Providers. It is a kind of a web based market place that brings together the material providers and the prospective buyers on a common platform. The platform was launched in March 2015 to facilitate contractors and cement buyers engaged in executing central/state funded roads and highways and bridge construction projects to place cement orders online with the registered cement companies offering cement at competitive rates in the vicinity of project execution locations. Cement companies are facilitated to update their offered stocks and the prices on the portal. They in turn get instant intimation about the orders placed and are able to approve the delivery schedules as requested by the cement buyers without hassles and delays. This is helping cement companies plan their annual production in advance and schedule deliveries with better precision. Cement companies also have the facility to increase the cement stock offerings based on market demand and reduce prices to attract more buyers. In addition, using INAM Pro, companies are able to track orders, add more products, add cement offerings, view listed buyers, and submit their complaints or suggestions to Ministry. Similarly, buyers are able to view and track the orders placed with different companies and also submit their suggestions or complaints. With the help of INAM Pro, the Ministry of Road Transport and Highways is able to track and monitor the activities of buyers and suppliers, and remove impediments of both the parties.

Given the success of INAM-PRO, other materials like steel and steel slag have also been brought on this platform so as to make this as a comprehensive e-market place for infrastructure providers.

The above IT initiatives of the Ministry were recognized and awarded Gold Medal by SKOCH Group as Smart Governance Award 2016.

- **Driving License and Registration Certificates** have been linked with the [Digilocker](http://digilocker.gov.in) scheme as a part of the key initiative under Digital India.
- **Toll Management Systems**- Efficient Toll Management Systems are being developed through the use of Automatic Traffic Counter and Classifier, CCTV Surveillance, Automatic Vehicle Counter and Classifier, Weigh-in Motion, Static Weigh Bridge.
- **National Highways Toll Information System** – A web portal [www.nhtis.org](http://www.nhtis.org) has been launched to provide road users valuable information about the National Highways and Expressways, including applicable user fee rates at Toll plazas.
- **Wayside Amenities** - The policy is under preparation which will address the concerns of the travelling public, bus users and truckers in terms of toilets, eating places, hotel facilities. 39 locations have been finalized for setting up of wayside amenities on National Highways. The proposed amenities include parking, restaurants/ low cost dhabas, telephone booth, WiFi, ATM, fuel station, rest room, repair shops, chemist shops, handicraft shops etc. There will also be helipads at these spots for quick evacuation of accident victims to nearest hospitals. These spots will give jobs to the local population and provide them with a market to sell their produce.
- **Toilet facilities in labor camps** are being provided as per the Contract Labour Act in all the ongoing NHAI projects where number of labours at a location crosses 20.

Toilets and other such amenities are also provided at all the Toll Plazas and Way-
side-amenities. A drive is being taken up for compliance of provision of toilets / amenities at locations.

**SKILL DEVELOPMENT OF DRIVERS AND HIGHWAY CONSTRUCTION WORKERS**

The Ministry of Road Transport & Highways has launched a programme for training and skill upgradation of drivers and highway construction workers. In case of drivers, the skill training / skill upgradation will be provided at the existing driver training centres run by the State Road Transport Corporations (SRTCs). In addition to this, private promoters are also being invited to set up training facilities. The Ministry of Road Transport & Highways will give a grant of Rs 1 crore to each SRTC for augmenting its training infrastructure. Similarly, the Ministry will also give a grant of Rs 1 crore to each private promoter for setting up training centres, after their project report is duly appraised and sanctioned by NSDC or a recognized financial institution. The Ministry will also provide a stipend to each trainee, both at the government and privately run training centres, based on the daily minimum wage, to compensate for loss of income during the training period. This amount will be borne out of the Road Safety Funds of the Ministry. The cost of training will be met out of Prime Minister Kaushal Vikas Yojana of the Ministry of Skill Development both at the government and privately run training centres. The State Road Transport Corporations have been asked to open their training centres to the general public. All training centres will have to conform to National Skill Qualification Framework (NSQF) guidelines.

For skill development of workmen in the highways construction sector the Ministry has resorted to convergence of resources. This training is proposed to be done by concessionaires / contractors at project sites, ITIs and Indian Academy of Highways Engineers. In addition to this, according to a circular issued this week, for projects with civil works of Rs 100 crore or more, the training will be taken up by the Project Head looking after the concerned project through the authorised training centres of Directorate General of Training. Preference is to be given to the institutes located near the project site. The Project Head/Executive Engineer will have to ensure that the training of workmen is as per the NSQF. The training cost will be met from the provision of the contingency fund at a rate of 0.05% of the total estimated cost of civil work. For this training also the Ministry will pay the trainees a stipend based on minimum wages to compensate for the loss of income during the training period. This expenditure will be met from the CRF allocation.

**GLOBAL PARTNERSHIPS**

- **Transport cooperation between India and Republic of Korea** - A Framework of Cooperation in the field of Road Transport and Highways between the Ministry of Road Transport and Highways of the Republic of India and the Ministry of Land, Infrastructure and Transport of the Republic of Korea was signed on 18.05.2015.

- **Indo –US Transportation Partnership** – A Memorandum of Cooperation between the Ministries of Railways, Road Transport and Highways and Shipping of the Government of India and the Department of Transportation of the United States of
America for a India-US Transportation partnership was signed on 08.04.2015 during the visit of Secretary of US Transportation Department to New Delhi.

- **BBIN Motor Vehicle Agreement** - India, Nepal, Bhutan and Bangladesh (BBIN) signed a landmark Motor Vehicles Agreement (MVA) for the Regulation of Passenger, Personnel and Cargo Vehicular Traffic among the four South Asian neighbours in Thimpu in June 2015. The MVA agreement between sub-grouping of four SAARC nations, Bangladesh, Bhutan, India and Nepal (BBIN) will pave the way for a seamless movement of people and goods across their borders for the benefit and integration of the region and its economic development. The protocols for the implementation of the MVA have been under negotiation. Various rounds of negotiations took place and a broad text of the protocol for passenger vehicles has been agreed upon barring a few issues to be resolved. The same can be signed, subject to the ratification of framework agreement by Bhutanese Parliament. The protocol for the movement of cargo vehicles is under negotiation separately.

Trial runs of passenger and freight vehicles have been carried out under BBIN MVA which includes trial runs on Dhaka-Delhi and Kolkata-Khulna routes. **History was written at the Inland Customs Depot in Patparganj in East Delhi in September when for the first time a cargo truck from Bangladesh drove in with a Delhi bound consignment, having come seamlessly through customs free borders.** In addition, trial runs from Bangladesh to Bhutan and Bangladesh to Nepal have also been proposed on Burimari-Chengrabanndha-Puentsholing route and Phulbari-Silliguri-Panitanki route. Trial run of cargo vehicles between India and Bangladesh: Paving the way for seamless movement of traffic under BBIN MVA

- **Passenger bus service between India and Bangladesh** - An Agreement between the Government of the Republic of India and the Government of the People’s Republic of Bangladesh for passenger bus services between the two countries was signed on 06.06.2015 at Dhaka and bus services on Guwahati-Shillong-Dhaka route and Kolkata-Agartala via Dhaka route were flagged off by Prime Ministers of both countries at Dhaka on 06.06.2015.

- **The first BBIN Friendship car rally** started from Bhubaneswar on 14th November, went through eastern and north eastern states of India, Bhutan and Bangladesh and ended at Kolkata on 3rd December. The rally, which covered about 4700 km, focused on “Safe Motoring” apart from Regional Connectivity

- **India, Myanmar and Thailand (IMT) Motor Vehicle Agreement** A parallel and significant initiative has been taken by MORTH for a trilateral MVA between India-Myanmar-Thailand (IMT), which is under negotiation. This will open the way for movement of cargo and passengers (including personal vehicles) from South to South East Asia up to Thailand. Once BBIN and IMT agreements are operationalised, the dream of seamless movement of all types of vehicles between South East Asia i.e SAARC countries and ASEAN countries will become a reality. Various rounds of negotiations were undertaken by India, Myanmar and Thailand on the text of MVA and protocols. After a meeting of focal points in Bangkok in September, 2015, the contracting parties of IMT MVA broadly agreed upon the text of framework agreement. Negotiations on the protocols to implement the MVA have been under way. The IMT trial run under the aegis of proposed IMT MVA was held during 9-14 December 2015 from Imphal in India to Mandalay in Myanmar. Thereafter, Thailand...
proposed the Mae sot- Phitsanulok route for plying of vehicles while Myanmar suggested extending the route up to Bangkok. The routes are being finalised.

- **India-Nepal Cross Border Transport Facilitation** - The First meeting of India-Nepal Cross Border Transport Facilitation Joint Working Group (CBTFJWG) under the Motor Vehicle Agreement between India and Nepal for regulation of vehicular traffic between the two countries was held at New Delhi on 16-17 July, 2015. The CBTFJWG took various decisions required under the Agreement for its smooth implementation. The following 4 new routes among the various routes proposed by both sides, was agreed upon for starting regular bus services between the countries after the operators of the services from either side are mutually identified:

(i) Kathmandu- Patna- Bodhgaya
(ii) Mahendranagar -Delhi
(iii) Siliguri- Kakarbhitta- Kathmandu
(iv) Jankapur- Patna