

Demand for Grants 2017-18 Analysis

Road Transport and Highways

The Ministry of Road Transport and Highways formulates and administers policies for road transport, national highways, and transport research. It seeks to increase mobility and efficiency of the road transport system in the country. The Ministry has two wings: Roads and Transport. The Roads wing deals with the planning, implementation and maintenance of National Highways. It also evolves standard specifications for roads and bridges in the country. The Transport wing deals with matters relating to road transport such as implementation of the primary central legislation, the Motor Vehicles Act, 1988. It also looks at the taxation and insurance of motor vehicles.

This note looks at the proposed expenditure of the Ministry for the year 2017-18, its finances over the last few years, and issues with the same.

Allocations in Union Budget 2017-18

Expenditure: The total expenditure on the Ministry of Road Transport and Highways for 2017-18 is estimated at Rs 64,900 crore.¹ This is 24% higher than the revised estimates for 2016-17.

In 2017-18, of the total expenditure, the highest allocation is towards roads and bridges at 63%. This is followed by allocation towards the National Highways Authority of India at 37%.¹

In 2017-18, while revenue expenditure of the Ministry is expected at Rs 10,723 crore, capital expenditure is expected at Rs 54,177 crore.¹ The ratio between revenue and capital expenditure for 2017-18 is expected at 17:83. In comparison, the ratio between revenue and capital expenditure for the years 2015-16 and 2016-17 was at 41:59, and 22:78 respectively (see Table 1). This suggests an increasing focus on capital expenditure by the Ministry in the last few years.

Table 1: Budget allocations for the Ministry of Road Transport and Highways (in Rs crore)

	Actual 2015-16	Revised 2016-17	Budget 2017-18	BE 2017-18/RE 2016-17
Revenue	19,380	11,344	10,723	-5%
Capital	27,533	41,103	54,177	32%
Total	46,913	52,447	64,900	24%

Notes: BE – Budget Estimate; RE – Revised Estimate.
Sources: Ministry of Road Transport and Highways budget documents; PRS.

Policy proposals: In his budget speech, the Finance Minister made the following announcements regarding the road transport sector:

- 2,000 km of coastal connectivity roads have been identified for construction and development. This will facilitate better connectivity with ports and remote villages.
- A specific programme for development of multi-modal logistics parks, together with multi modal transport facilities, will be prepared and implemented.

Overview of Finances

India has one of the largest road networks in the world with about 47 lakh km of roads.² This road length includes National Highways (NHs), Expressways, State Highways (SHs), district roads, PWD roads, project roads, etc. In India, road infrastructure is used to transport over 60% of total goods and 85% of total passenger traffic.²

Central Road Fund (CRF): Transfers to the CRF form the biggest component of the expenditure by the Ministry. A portion of the cess collected on motor spirit and high speed diesel is earmarked for the development of NHs and SHs, and the amount is transferred to the non-lapsable CRF. This amount is eventually released to National Highways Authority of India, and to the state/UT governments for development of road infrastructure in the country.³

For 2017-18, the transfer to CRF is estimated at Rs 46,907 crore.¹ This is a 23% increase from the revised estimates of 2016-17 (Rs 38,209 crore). Most of these grants are expected to be used for the creation of capital assets.

National Highways Authority of India (NHAI): The central government is primarily responsible for the development and maintenance of NHs, and it carries out these functions through the NHAI. The NHs comprise about 2% of the road network but carry about 40% of the total road traffic.⁴

One of the primary projects implemented by the NHAI is the National Highways Development Project (NHDP). The Ministry started the NHDP in 1998 for the construction and improvement of the NH network to international standards. Key projects under the NHDP include: (i) the Golden Quadrilateral (GQ-5,846 kms of 4 lane highways), (ii) the North-South and East-West Corridors (NSEW-7,142 kms of 4 lane highways), and (iii) four-laning of 12,109 kms under NHDP III.²

NHDP projects are financed primarily from the following sources: (i) cess levied on petrol and high speed diesel (inflow from the Central Road Fund),

(ii) funds received for externally aided projects, (iii) additional budgetary support, (iv) market borrowings, and (v) plough back of revenue.⁵

NHAI has been allocated Rs 23,892 crore in 2017-18, of which Rs 15,429 crore (65%) will be provided from CRF, and Rs 8,462 crore (35%) will be provided from Permanent Bridge Fees Fund.¹

Permanent Bridge Fees Fund (PBFF): Funds transferred to the PBFF relate to the revenue collected by the government by way of (i) fees levied for the use of certain permanent bridges on NHs by motor vehicles, (ii) toll on NHs, and (iii) revenue share and negative grants received on some PPP projects. The fund is utilised for development of NHs being undertaken by the government and those entrusted to NHAI.¹

For 2017-18, the transfer to PBFF is estimated at Rs 8,600 crore.¹ This is a 13% increase from the revised estimates of 2016-17 (Rs 7,644 crore).

Table 2: Summary of budget allocation to various funds and authorities (in Rs crore)

	Actual 2015-16	Revised 2016-17	Budget 2017-18	BE 2017- 18/RE 2016-17
CRF	33,014	38,209	46,907	23%
NHAI	23,018	14,976	23,892	60%
PBFF	6,549	7,644	8,600	13%

Notes: BE – Budget Estimate; RE – Revised Estimate.
Sources: Ministry of Road Transport and Highways budget documents; PRS.

Issues to consider

Allocation and utilisation of funds: The Standing Committee on Transport, Tourism and Culture had been observed that in the past few years, the actual expenditure by the Ministry has consistently been lower than the budget estimates. Allocations for the Ministry were reduced at the RE stage.¹⁰ However, the utilisation of the funds by the Ministry has been high. The Committee had recommended that the reduction of allocation at the RE stage should be avoided, since the utilisation of the Ministry is high.

Table 3: Budget estimates vs Actual expenditure from 2010 to 2017 (in Rs crore)

Year	Budget	Actual	Actual/ Budget (in %)
2010-11	24,079	24,385	1%
2011-12	26,438	26,073	-1%
2012-13	30,798	22,537	-27%
2013-14	31,302	28,400	-9%
2014-15	34,345	33,049	-4%
2015-16	45,752	46,913	3%
2016-17	57,976	52,447*	-10%**
2017-18	64,900		

* Revised estimates for 2016-17;

** Budget Estimate/ Revised Estimate

Sources: Ministry of Road Transport and Highways budget documents; PRS.

Delays in projects: One of the issues with road and highway construction projects is the long time taken for environmental, forest and wildlife clearances. These delays further add to the cost of the projects. Table 4 shows the time taken to obtain various types of clearances.

Table 4: Normal time taken in obtaining clearances

Clearance required	Statutory Authority	Time taken
Environmental	Ministry of Environment and Forest	12-15 months
Forest	Ministry of Environment and Forest	1-2 years
Wildlife	National Board of Wildlife and Supreme Court of India	More than 3 years

Sources: Outcome Budget 2015-16, Ministry of Road Transport and Highways; PRS.

Delays in land acquisition is one of the key factors resulting in delays in the implementation of road projects. With regard to land acquisition, the major constraints faced by NHAI include (i) inadequate manpower with the land acquisition units at field level, (ii) time lost in arbitration, and (iii) erroneous or old revenue records.⁴

The Standing Committee on Transport had recommended that a coordination mechanism at the central level with the Ministries of Finance, Environment and Forest and Defence will help speed up the process of clearances.¹⁰ State Support Agreements signed between the central government and state governments may ensure support from the respective state governments in resolving any issues with implementation of projects, which are within their purview.

In some cases, the concessionaires may get a provisional completion certificate (PCC), on the condition that they complete a list of outstanding tasks. The Comptroller and Auditor General of India (CAG) had observed that several concessionaires do not complete the outstanding tasks after getting the PCC, which leads to delays in the completion of projects. However, in such cases, the NHAI does not penalize the concessionaires. It had recommended that the NHAI should review the existing monitoring mechanism of implementation of projects and consider levy of penalty on delinquent and defaulting concessionaires.

Slow pace of road construction: In 2014-15, the target for award of road construction projects was 8,500 km, of which 7,980 km was awarded (94%).¹⁰ The road construction target for the same year was 6,300 km, of which 4,340 km was constructed (69%).¹⁰ This implies an average road construction rate of 12 km/day during 2014-15. The CAG had observed that NHAI's achievement during 2009-10 to 2012-13 ranged between 3.06 km/day and 17.81 km/day.⁵ For 2016-17, the road

construction target was set at 15,000 km.⁶ Of this, the NHAI was to construct 8,000 km (approximately 22 km/day) and the remaining 7,000 km was to be constructed by the National Highways and Infrastructure Development Corporation Limited.

Private financing and contracts: The road sector in India has seen investment from the private sector in the form of public private partnerships (PPPs). PPP projects in this sector are implemented through various concessionaire models. Key models include: (i) engineering procurement construction (EPC), (ii) build-operate-transfer (BOT) (toll), (iii) BOT (annuity), and (iv) hybrid annuity.⁷ In 2015-16, about 58% of the projects under NHDP were awarded through EPC, 33% through BOT, and the rest 9% were through hybrid annuity.⁸

Under EPC contracts, the private entity is expected to construct and implement a project within a specified time, and at a specific cost, and then hand over the project to the government on completion. In such contracts, the risks have been assigned to the private entity, with the expectation that this will improve innovation and efficiency.⁹

BOT contracts are ones where the private entity is responsible for the design, financing, construction and maintenance of an infrastructure project.⁷ Government retains the ownership of the project. Under BOT (toll), compensation is earned through user charges. It is the most common form of BOT concession in the road sector in India. Examples of such contracts are the Delhi Gurgaon expressway, the Hyderabad metro system, etc. Under BOT (annuity), the private entity earns compensation through annuity payments from the government. Risks for the private entity are lower in case of BOT (annuity) projects, as compared to BOT (toll) projects.⁷

It has been noted that the roads sector is struggling with regard to private financing.^{4,10} PPP projects through the BOT (toll) mode have not been able to attract bids.¹⁰ The major highway developers in the country are also facing financial capacity constraints. Further, the lack of debt products that are aligned with the revenue stream profile of highway projects, makes financing of such projects difficult. These reasons have resulted in some projects getting stalled at the construction stage, and this is also discouraging prospective bidders.¹⁰

The Committee on Revisiting & Revitalizing the PPP model of Infrastructure Development (Chair: Dr. Vijay Kelkar) had looked at issues with PPP projects in India, in November 2015.¹¹ It had recommended setting up an independent regulator for the roads sector. It had also noted that service delivery to citizens is the government's responsibility and PPPs should not be used to evade such responsibilities.

The Kelkar Committee had noted that inefficient and inequitable allocation of risk can be a major factor leading to failure of PPPs.¹¹ PPP contracts should ensure optimal risk allocation across all stakeholders. The basic principle for risk allocation should be to ensure that the entity that is best suited to manage a risk should be allocated that risk.

The Committee had also observed that since infrastructure projects span over 20-30 years, a private developer may lose bargaining power because of abrupt changes in the economic or policy environment.¹¹ It recommended that the private sector must be protected against such loss of bargaining power. This could be ensured by amending the terms of the concession agreement to allow for renegotiations.

In January 2016, the Cabinet Committee on Economic Affairs approved the hybrid annuity model for implementing highway projects in partnership with the private sector.¹² Under this model, government and the private entity will share the project cost in the ratio of 40:60. This model is expected to lower the initial capital outflow for the government, as bulk of the payment will be done through annuity payments. Further, the private entity will be insulated from traffic and inflation risks, as these will be looked after by the government.

In May 2015, the Cabinet Committee on Economic Affairs approved 100% equity divestment after two years of construction completion for all BOT projects.¹³ Further, it also approved a one-time fund infusion to revive and physically complete languishing BOT projects. It remains to be seen whether these policies help in bringing more private investment into the sector and resolve the issues with financing and slow construction.

Road safety: Within the Ministry, the Road Transport Division is responsible for framing policies regarding road safety. The National Road Safety Policy looks at overall road safety, and outlines various policy measures such as promoting awareness, establishing road safety information data base, enforcement of safety laws, etc.

Between 2005 and 2015, the road network in India grew by 44%.¹⁴ During the same period, the number of road accidents increased by 14%, and road accident fatalities increased by 54%.¹⁵ In 2015, there were about five lakh road accidents in India, which killed about 1.5 lakh people and injured about five lakh people.^{Error! Bookmark not defined.} As a signatory to the Brasilia Convention, the government intends to reduce traffic fatalities by 50% by 2020.¹⁶

The NTDPC report had noted that an increase in the number of vehicles on roads, along with the absence of a coordinated policy to control the problem had led an increase in the number of road

accidents. ¹⁷ In India, about 77% of the accidents are reported to have been caused due to the driver's fault. ¹⁷ However, the Standing Committee on Transport had observed that majority of accidents being caused due to driver's fault may be erroneous. This could be due to wrong reporting of such accidents. ¹⁸ Other factors responsible for road accidents include fault of drivers of other vehicles, defect in condition of motor vehicle, fault of pedestrian, weather conditions, faulty road engineering, etc. ¹⁹

The NTDPC report had noted that badly designed roads should be held responsible for road accidents instead of bad drivers. ²² Roads in India are designed primarily for motor vehicles exposing vulnerable road users (such as pedestrians, and non-motorised users) to greater accident risks. It recommended that road design should correct driver behaviour towards safer alternatives. Other countries, such as Sweden, and Australia, recognise that humans will make errors, and instead focus on designing road transport system which minimise the opportunity for human error. ²²

The Sundar Committee on Road Safety (2007) had observed that the existing institutions in India do not have the required capacity, the adequate statutory backing, or resources to look into road safety. ²⁰ The responsibility for road safety is diffused across various bodies, and there is no effective coordination mechanism between these bodies. It had recommended Road Safety and Traffic Management Boards at the national and state levels. ²¹ These authorities would: (i) set standards and conducting audits with regard to roads, (ii) prescribe safety features with regard to vehicles, (iii) conduct road safety research, and (iv) recommend guidelines to states with regard to driver licensing and vehicle registration.

The Motor Vehicles (Amendment) Bill, 2016 was introduced in Lok Sabha on August 9, 2016. The Bill seeks to amend the Motor Vehicles Act, 1988 to address various issues such as road safety, third party insurance, regulation of taxi aggregators, recall of unsafe vehicles, and compensation for victims in case of road accidents. The Bill increases penalties for several offences under the Act. However, it does not provide for any road safety agencies.

In 2017-18, the Ministry has allocated Rs 250 crore (0.4% of the total budget) towards road transport and safety. This would provide for various things such as road safety programmes, setting up of facilities on National Highways for extending relief to accident victims, creation of National Road Safety Board, strengthening of public transport, research and development, and training. In comparison, the US federal government spends about 20% of its total expenditure on roads and highways (around \$7.8 billion) towards safety. ²³

Maintenance of roads: The NTDPC has observed that as compared to the amount spent on construction and upgradation of roads, the amount spent on maintenance of roads is less. ²² This results in roads with potholes, weak bridges, poor pavements, etc. Further, maintenance is carried out when required, as opposed to being a part of preventive measures. ²²

Lack of monitoring tools is another reason for poor maintenance of roads. ²² As compared to construction projects, the current system does not provide enough incentives to encourage maintenance of roads and bridges. Further, poorly maintained roads do not conform to standard safety regulations and are the cause of accidents.

The Standing Committee had recommended that an effective monitoring mechanism for repair and maintenance of roads should be put in place. ¹⁰ Further, there should be penalties for contractors and engineers in case of poor quality repair, maintenance, and construction.

In 2017-18 the Ministry has allocated Rs 3,108 crore towards maintenance of roads and highways. ⁴ This includes the amount met from CRF, and PBFF, and is about 5% of the total expenditure of the Ministry. In comparison, in 2014-15 the US government allocated about 48% of its total budget (\$19.2 billion) on roads and highways towards the maintenance of existing facilities. ²³

¹ Notes on Demands for Grants 2016-17, Demand no 74, Ministry of Road Transport and Highways, <http://indiabudget.nic.in/ub2016-17/cb/sbe74.pdf>.

² Annual Report 2013-14, Ministry of Road Transport and Highways.

³ Notes on Demand for Grants 2014-15, Demand no 83, Ministry of Road Transport and Highways.

⁴ Outcome Budget 2015-16, Ministry of Road Transport and Highways.

⁵ Report of the Comptroller and Auditor General of India on Implementation of Public Private Partnership Projects in National Highways Authority of India, Report no 36 of 2014.

⁶ "Ministry of Road Transport & Highways sets steep targets for 2016-17: Aims at 2.5 times increase in award and construction of National Highways", Press Information Bureau, Ministry of Road Transport and Highways, April 20, 2016.

⁷ "Overview of PPP model variants", PPP TOOLKIT for Improving PPP Decision-Making Processes, Public Private Partnerships in India, Ministry of Finance, last accessed on March 8, 2016, <http://toolkit.pppinindia.com/ports/module1-oopmv-tmpmf.php?links=oopmv1b>.

⁸ Outcome Budget 2016-17, Ministry of Road Transport and Highways, <http://morth.nic.in/showfile.asp?lid=2055>.

⁹ "Model Agreement for EPC Civil Works", http://planningcommission.gov.in/sectors/ppp_report/1.Model%20Concession%20Agreement%20Overview/22-Model-Agreement-for-EPC-Civil-works.pdf.

¹⁰ "220th Report: Demands for Grants (2015-16) of Ministry of Road Transport and Highways", Standing Committee on Transport, Tourism and Culture, April 28, 2015.

¹¹ "Report of the Committee on Revisiting and Revitalising Public Private Partnership Model of Infrastructure", Department of Economic Affairs, Ministry of Finance, November 2015.

¹² “Hybrid annuity model for implementing highway projects”, Press Information Bureau, Ministry of Road Transport & Highways, January 27, 2016.

¹³ “Approval for Permitting 100 percent equity divestment after two years of construction completion for all BOT projects. One time fund infusion to revive and physically complete languishing BOT Projects”, Press Information Bureau, Ministry of Road Transport & Highways, May 13, 2015.

¹⁴ Basic Road Statistics 2014-15, Ministry of Road Transport and Highways <http://morth.nic.in/showfile.asp?lid=2445>.

¹⁵ Road Accidents in India 2015, Ministry of Road Transport and Highways, May 2015, <http://morth.nic.in/showfile.asp?lid=2143>.

¹⁶ “Consultative Committee of the Ministry of Road Transport & Highways discusses functioning of NHIDCL and Road Safety”, Press Information Bureau, Ministry of Road Transport and Highways, March 22, 2016.

¹⁷ Road accidents in India 2015, Transport Research Wing, Ministry of Road Transport and Highways, May 23, 2016, <http://morth.nic.in/showfile.asp?lid=2143>.

¹⁸ “220th Report: Demands for Grants (2015-16) of Ministry of Road Transport and Highways”, Standing Committee on Transport, Tourism and Culture, April 28, 2015.

¹⁹ Lok Sabha Questions, Starred Question no 22, February 25, 2016.

²⁰ Report of the Committee on Road Safety and Management, February 2007, <http://morth-roadsafety.nic.in/admnis/admin/showimg.aspx?ID=29>.

²¹ Report of the Committee on Road Safety and Management, February 2007, <http://morth-roadsafety.nic.in/admnis/admin/showimg.aspx?ID=29>.

²² “Volume 3, Chapter 2, Roads and Road Transport”, India Transport Report: Moving India to 2032, National Transport Development Policy Committee, June 17, 2014, http://planningcommission.nic.in/sectors/NTDPC/volume3_p1/roads_v3_p1.pdf.

²³ FHWA FY 2016 Budget, Federal Highway Administration, <https://cms.dot.gov/sites/dot.gov/files/docs/FY2016-BudgetEstimate-FHWA.pdf>.

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