

Demand for Grants 2022-23 Analysis

Road Transport and Highways

The Ministry of Road Transport and Highways formulates and administers policies for road transport, and transport research. It is also involved with the construction and maintenance of the National Highways (NHs) through the National Highways Authority of India (NHAI), and the National Highways and Infrastructure Development Corporation Limited (NHIDCL). It also deals with matters relating to road transport, safety, and vehicle standards, through the implementation of the Motor Vehicles Act, 1988.

In 2022-23, the Ministry of Road Transport and Highways has been allocated nearly Rs 68,000 crore more than the revised expenditure in 2021-22. In absolute terms, this is the highest increase (from revised estimates of 2021-22) among all ministries in 2022-23. Nearly all of this additional allocation has been earmarked for investment in NHAI. After many years, NHAI will not have any borrowings, and rely entirely on budgetary resources. As of November 2021, NHAI's total debt stood at Rs 3.38 lakh crore. This is nearly 150% more than the allocation to NHAI in 2022-23.

This note looks at the proposed expenditure of the Ministry for the year 2022-23, its finances over the last few years, and issues with the same.

Announcements in the 2022-23 Budget Speech²

In the budget speech, the Finance Minister made the following announcements regarding the roads sector:

- PM GatiShakti Master Plan for Expressways will be formulated in 2022-23 to facilitate faster movement of people and goods.
- The National Highways network will be expanded by 25,000 km in 2022-23.
- Rs 20,000 crore will be mobilised through innovative ways of financing to complement public resources.

Allocations in Union Budget 2021-22

Fund allocation³

The total expenditure on the Ministry of Road Transport and Highways for 2022-23 is estimated at Rs 1,99,108 crore. This is 52% higher than the revised estimates for 2021-22.

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

	2020-21 Actual	2021-22 RE	2022-23 BE	% Change (2022 BE over 2021 RE)
Revenue	9,964	9,898	11,364	15%
Capital	89,195	1,21,251	1,87,744	55%
Total	99,159	1,31,149	1,99,108	52%

Note: BE – Budget Estimate; RE – Revised Estimate. Sources: Demands for Grants 2022-23, Ministry of Road Transport and Highways; PRS.

In 2022-23, capital expenditure is estimated at Rs 1,87,744 crore while revenue expenditure is estimated at Rs 11,364 crore. Since 2015-16, the share of capital expenditure of the Ministry has increased significantly, while revenue expenditure has gradually declined. In 2022-23, 94% of the Ministry's spending is estimated to be on capital expenditure.

Overview of Finances

Utilisation of funds

In the past few years, the expenditure of the Ministry has seen a significant increase. Between 2011-12 to 2016-17, the compounded annual growth rate (CAGR) of the actual expenditure was 15%. For the period of 2016-17 to 2021-22, the CAGR stands at 20%.

Figure 1: Actual expenditure by the Ministry (in Rs crore) and year-on-year change (in%)



Note: Figures for 2021-22 are revised estimates. Sources: Ministry of Road Transport and Highways budget documents 2010-22; PRS.

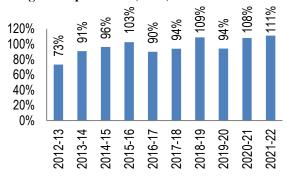
Between 2012-13 and 2017-18, the actual expenditure by the Ministry has been lower than the budget estimates (see Figure 2). As per the revised estimates of 2021-22, the Ministry is expected to exceed its budgeted expenditure by 11%. Before this, the Ministry had exceeded its budgeted expenditure by 8% in 2020-21 and 9% in

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2018-19. This was largely due to additional expenditure incurred on capital outlay towards roads and bridges.

Figure 2: Actual expenditure as a percentage of Budgeted expenditure (in %)



Note: Figures for 2021-22 use revised estimates. Sources: Ministry of Road Transport and Highways budget documents 2012-22; PRS.

Expenditure of the central government

In 2022-23, of the total allocation to the Ministry, the highest is towards NHAI at Rs 1,34,015 crore (67%).³ This is followed by allocation towards roads and bridges at Rs 64,573 crore (32%).³

Table 2: Expenditure heads for the Ministry of Road Transport and Highways (in Rs crore)

Major head	Actual 2020- 21	RE 2021- 22	BE 2022- 23	% Change
NHAI	46,062	65,060	1,34,015	106%
Roads and bridges	53,112	65,707	64,573	-2%
Road transport and safety	231	229	356	56%
Secretariat	131	154	163	6%
Recoveries	-376	0	0	0
Total	99,159	1,31,149	1,99,108	52%

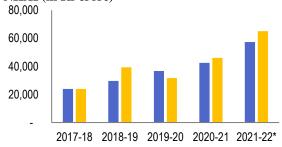
Note: BE – Budget Estimate; RE – Revised Estimate. Percentage change is from RE 2021-22 to BE 2022-23. Sources: Demands for Grants 2022-23, Ministry of Road Transport and Highways; PRS.

NHAI: The central government develops and maintains NHs through the NHAI. In 2022-23, NHAI has been allocated Rs 1,34,015 crore, which is 106% more than the revised estimate of 2020-21. Of the budgeted amount, 75% (Rs 1,00,100 crore) will be provided from the Central Road and Infrastructure Fund, 15% (Rs 20,000 crore) will come from the monetisation of the National Highways, and the remaining 10% (Rs 13,915 crore) will be provided from the Permanent Bridge Fees Fund.³

Note that the allocation towards NHAI has more than tripled from 2019-20 (budget estimates) to 2022-23 (revised estimates). In 2020-21, the actual expenditure exceeded the budget estimates by 8%. In 2021-22, the revised estimates are again expected to exceed the budget estimates by 8%.

Note that in 2019-20, the actual expenditure fell short of the budgeted estimate by 14%,

Figure 3: Budget vs actual allocation towards NHAI (in Rs crore)



Note: Figures for 2021-22 are revised estimates. Sources: Ministry of Road Transport and Highways budget documents 2010-22: PRS.

Expenditure on the NHAI includes funding towards the umbrella highway scheme, Bharatmala Pariyojana. This scheme seeks to optimise the efficiency of freight and passenger movement by bridging critical infrastructure gaps. It also aims to increase the number of districts with NH linkages from 300 to 550.⁴ Under Phase I of Bharatmala Pariyojana, 34,800 km of roads will be developed over a period of five years (2017-18 to 2021-22). Phase I will also subsume 10,000 km of balance roadworks under the National Highway Development Programme. The estimated cost of Phase I is Rs 5,35,000 crore, spread over five years.

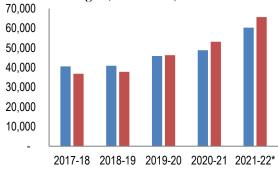
As of December 2021, road projects with an aggregate length of 19,926 km, and costing Rs 5.98 lakh crore have been approved under Bharatmala Pariyojana Phase-I.⁵ Of this, road length of 6,976 km has already been completed.⁵ This corresponds to 35% of the approved project length.

Roads and bridges: Expenditure under roads and bridges includes development of NHs, projects related to expressways, increasing the number of lanes under various projects, and development of road connectivity in left-wing extremism affected areas. In 2022-23, the allocation towards roads and bridges is Rs 64,573 crore. This is a decrease of 2% over the revised estimates of 2021-22.

In 2019-20 and 2020-21, the actual expenditure for roads and bridges exceeded the budget estimates by 1% and 9% respectively. As per the revised estimates of 2021-22, the revised allocation towards roads and bridges is estimated to again exceed the budget estimate by 9%. In 2017-18 and 2018-19, the actual allocation was less than budget estimates by 9% and 8% respectively.

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Figure 4: Budget vs actual allocation towards roads and bridges (in Rs crore)



Note: Figures for 2021-22 are revised estimates. Sources: Ministry of Road Transport and Highways budget documents 2010-22; PRS.

Funds managed by the Ministry

The Ministry manages its expenditure through various funds. Their details are provided below.

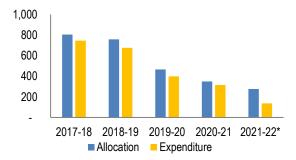
Central Road and Infrastructure Fund (CRIF):

A majority of the Ministry's expenditure is managed through transfers from the CRIF. 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 CRIF. This amount is eventually released to the NHAI, and to the state/UT governments for the development of road infrastructure, and other projects (such as ports, railway track, airports) in the country.³

For 2022-23, the transfer from CRIF towards the Ministry is estimated at Rs 1,59,616 crore.¹ This is 61% more than the revised transfer in 2021-22 (Rs 99,239 crore).

The Ministry also allocates funds for state roads using the CRIF (Figure 5).⁶ The allocation for state roads from the CRIF in 2022-23 is estimated to be Rs 250 crore. Between 2017-18 and 2020-21, the total utilisation by states for these funds was above 86%.

Figure 5: Allocation vs Expenditure for state roads under CRIF



Note: For 2021-22, the data is upto September 2021. Source: 312th Standing Committee Report (2021); PRS.

Permanent Bridge Fees Fund (PBFF): Funds transferred to the PBFF relate to the revenue collected by the government through: (i) fees levied

for the use of certain permanent bridges on NHs by motor vehicles, (ii) toll on NHs, and (iii) revenue share received on some PPP projects. These funds are then released to the NHAI for the development of NHs entrusted to it.³

For 2022-23, the transfer from PBFF is estimated at Rs 13,921 crore.¹ This is a 10% increase from the transfer in 2021-22 at the revised estimates stage (Rs 12,670 crore).

National Investment Fund (NIF): The NIF was created in 2005, and is credited with proceeds from disinvestments of public sector enterprises. The Ministry finances the Special Accelerated Road Development Programme in North East (SARDPNE) with funds from the NIF.

For 2022-23, the transfer from NIF is estimated at Rs 10,565 crore.¹ This is an 25% increase from the transfer in 2021-22 (Rs 8,430 crore) at the revised estimates stage.

National Highways Fund (NHF): In August 2016, the Union Cabinet had authorised NHAI to monetise certain public funded NH projects. ⁷ Such monetisation includes transferring operations and maintenance of stretches of NHs to private contractors on a long-term basis. In 2022-23, Rs 20,000 crore is estimated to be generated through such monetisation. This is a 54% annual increase from the monetisation amount in 2021-22 (Rs 13,000 crore) at the revised stage.

Table 3: Summary of transfers from funds (in Rs crore)

Funds	2020-21 Actual	2021-22 RE	2022-23 BE	% Change
CRIF	79,286	99,239	1,59,616	61%
PBFF	11,519	12,670	13,921	10%
NHF	7,262	13,000	20,000	54%
NIF	2,963	8,430	10,565	25%

Note: BE – Budget Estimate; RE – Revised Estimate. Percentage change is from RE 2021-22 to BE 2022-23. Sources: Demands for Grants 2021-22, Ministry of Road Transport and Highways; PRS.

Issues to consider

As of March 2019, India had about 64 lakh km of roads, second only to the United States which has about 66 lakh km of road length. This road length includes National Highways (NHs), Expressways, State Highways (SHs), district roads, PWD roads, and project roads. As of March 2019, there were 1.3 lakh km of National Highways, and nearly 1.8 lakh km of State Highways.

In India, road infrastructure is used to transport over 60% of total goods and 85% of total passenger traffic. NHs comprise about 2% of the road network but carry about 40% of the total road traffic. The Economic Survey (2020) also noted that road transport is the dominant mode of

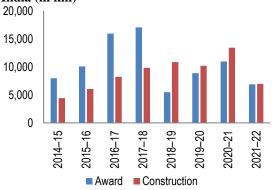
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transportation in the country. The entire transport sector contributed to about 4.6% of the Gross Value Added in 2018-19, of which road transport contributed about 67%. The entire transport sector contributed about 67%.

In April 2018, the Ministry of Road Transport and Highways switched from the linear system to the lane-kilometres for calculating the amount of work completed.¹² The linear system doesn't distinguish between roads of equal length, but different width. The 'lane-mile' system is used in the USA, while 'lane-kilometre system' is used in Canada.^{13,14}

The figure below shows the trend of award and construction of road projects in India (Figure 6).

Figure 6: Award and construction of roads in India (in km)



Note: Data for 2021-22 is as on February 10, 2022. Sources: Economic Survey 2020-21; Ministry of Roads Dashboard: PRS.

In the Budget Speech in 2020-21, the Union Finance Minister made several announcements for the roads sector. This included awarding 8,500 km and constructing another 11,000 km of NH corridors. In 2021-22 (as of February 2022), 6,895 km of road projects have been awarded, and 6,968 km of NHs have been constructed. This accounts for 81% of the award target and 63% of the construction target, respectively.⁵ In the Budget Speech 2022-23, the Finance Minister announced that by March 2023, the NH network will be expanded by 25,000 km.²

Other announcements in the 2020-21 Budget included: (i) development of National Highways in Tamil Nadu (3,500 km), Kerala (1,100 km), West Bengal (675 km), and Assam (1,300 km), and (ii) further progress on some key economic corridors (such as the Delhi-Mumbai Expressway, Bengaluru-Chennai Expressway). For details on the status of implementation of these announcements, refer to Table 4 in the Annexure (on page 10).

The daily road construction increased from 28 km/day in 2019-20 to 36.5 km/day in 2020-21. As per the Economic Survey (2021-22), this is due to the nearly 30% increase in public expenditure by the central government.¹⁵ To achieve the target of expanding the NH network by 25,000 km,

construction pace will have to be about 68 km/day.² This is 87% higher than the pace in 2020-21 (of 36.5 km/day).

The length of the National Highway network has increased from 91,300 km in March 2014, to 1,40,000 km in December 2021.^{8,16} Note that since 2014-15, nearly 49,100 km of State Roads have been notified as National Highways.¹⁷

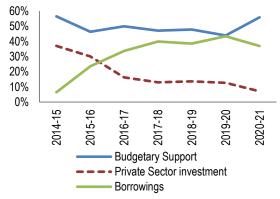
As per the Ministry of Statistics and Programme Implementation (2021), 888 projects worth Rs 5.45 lakh crore are underway in the roads sector. This accounts for more than 50% of all infrastructure projects in India by volume (1,673 projects), and more than 21% by value (Rs 25 lakh crore). ¹⁸ Of these 888 projects, 97 projects have witnessed time delays, while 144 projects have a cost overrun. ¹⁸ This may be due to several constraints, such as: (i) lack of equity with developers, (ii) higher cost of financing, (iii) shortfall in funds for maintenance, (iv) unavailability of land for the expansion of NHs, (v) significant increase in land acquisition cost, and (vi) bottlenecks and checkpoints on NHs which could adversely impact benefits of GST. ¹⁹

The Standing Committee on Transport (2020) had also highlighted NHAI's increasing debt which could lead to severe financial issues in the future.²⁰ We discuss some of these issues below.

Issues with financing

The figure below highlights the share of total investment in the roads sector in India.⁶ The total investment in road sector has grown at a CAGR of 22% from 2014-15 to 2020-21. The share of borrowings in this investment has grown from 6% in 2014-15 to 37% in 2020-21. In 2019-20, 43% of the investment in roads sector was sourced from borrowings. Further, the share of budgetary support declined from 57% in 2014-15 to 44% in 2019-20. In 2020-21, the budgetary support to the roads sector has again increased to 56%. ^{15,6} The share of private investment has also declined from 37% in 2014-15, to only 7% in 2020-21.

Figure 7: Investment in road sector



Sources: 312th Standing Committee Report (2022); PRS.

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The Standing Committee on Transport (2020) noted that increasing the gross budgetary support to the Ministry while the private sector investment is declining may not be a sustainable growth plan. ²⁰ The Committee had made similar observations in 2016 and 2018 and had suggested that the government should devise ways to mobilise funds from other sources and establish appropriate financial institutions and models to encourage the return of private investment to the road sector. ^{21,22}

The Kelkar Committee (2015) 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.³³ It recommended that the private sector must be protected against such loss of bargaining power. To revive private sector participation, a new mode of contract called the Hybrid Annuity Mode (HAM) was introduced.²⁰ Under this model, 40% of the project cost is paid by the government/ executing agency as grant to the private developer. Further, the traffic risk is taken by the project executing agency. The concessionaire is responsible for the Operation & Maintenance during the concession period, while tolling rights remain with the employer.²³ Between 2017-18 and 2019-20, HAM projects worth Rs 1.15 lakh crore were approved for NHAI. This was 44% of all projects by value.24

The Ministry expects to raise Rs 86,182 crore up to 2024-25 to fund projects under the National Infrastructure Pipeline, by monetising its assets under the Toll-Operate-Transfer (TOT) model.²⁰ The Standing Committee (2020) had observed that in 2019-20, the Ministry could only raise Rs 5,000 crore by monetising assets in TOT mode, against a target of Rs 10,000 crore.²⁰ In 2020-21, against a monetisation revenue of Rs, 10,250 crore, only Rs 7,262 crore could be raised (70%). In 2022-23, the Ministry plans to raise Rs 20,000 crore through such monetisation.

In August 2021, the central government unveiled the National Asset Monetisation Pipeline (NMP). The NMP aims to monetise core brownfield infrastructure assets (such as roads, rail, ports, power transmission lines) to mobilise Rs 5.97 lakh crore from 2021-25.²⁵ The central government targets monetising 26,700 km of roads, with a potential revenue of Rs 1.60 lakh crore (27% of the total potential monetisation value).²⁶ Only NHs with four lanes and above have been considered for asset monetisation.

As of February 2022, 20 stretches (1,407 km) have already been monetised through TOT mode in four Bundles.⁵ A sum of Rs 15,703 crore has already been realised and remitted to the Consolidated Fund of India.⁵

Borrowings

After many years, no borrowing have been estimated for NHAI in 2022-23. Between 2017-18 and 2021-22, NHAI has been borrowing an average of Rs 63,300 crore per year. NHAI's total debt grew from Rs 1.22 lakh crore in March 2018 to Rs 3.38 lakh crore in November 2021.^{27,1}

The Standing Committee on Transport (2020) had noted that NHAI's debt has been increasing and as of March 2020, the amount of debt NHAI had to repay was more than twice the annual budgetary allocation of the Ministry for 2020-21.²⁰

To reduce debt servicing costs of NHAI, the Committee (2021) recommended: (i) exploring funding from insurance companies and pensions funds, both Indian and foreign, and (ii) requesting the RBI to make the road infrastructure sector eligible for priority sector lending. ²⁸ Taking note of the stressed assets of banks in the road sector, the Committee also recommended mandating the National Infrastructure Investment Fund and the upcoming Development Finance Institution (announced in 2021-22 Budget session) to facilitate offloading long term infrastructure loans from banks.

In its Annual Report (2018), NHAI had noted that with the debt obligations increasing due to deferment of debt repayment, exposure of financial institutions that lend to the roads sector has increased significantly, reaching defined exposure norms for the sector. ¹⁰

The Comptroller and Auditor General of India (2016) had also noted several procedural inefficiencies with NHAI.²⁹ For example, NHAI could not realise toll on certain projects due to delays in approvals, toll operations, and other procedural lapses. NHAI did not adhere to the Ministry's guidelines on maintenance of project wise balance sheet and cash flow.²⁹ Inefficient bidding processes for engaging toll collection agencies also led to the loss of revenue.²⁹ The Committee on Public Undertakings (2017) had also noted several issues in the financial performance of NHAI such as: (i) insufficiency of funds, (ii) gap between the funds allocated to the Ministry, and released to NHAI, and (iii) under-utilisation of funds.30

The Standing Committee on Transport (2020) had recommended that the Ministry should constitute an Advisory Committee to look into the increasing debt of NHAI, and the efficacy of the measures undertaken by the Ministry and NHAI to monetise their assets.²⁰ Further, the Ministry may increase toll charges across the country and postpone certain projects, as the present financial health of NHAI is not sustainable in the long run and may create bigger issues in the roads sector in the future.

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Committees have also suggested more due diligence on the part of NHAI. The Standing Committee on Transport (2019) recommended that NHAI should compare its project cost estimates with the actual costs incurred on road projects. ³¹ If there is a substantial difference between the bid price offered by the concessionaire and the project cost estimates made by the government, NHAI should review its cost estimation methodologies. The Committee (2019) also suggested that the NHAI or central government should appoint a credit rating agency to assess the financial strength of private players and their ability to meet debt repayment obligations. ³¹

Private financing and contracts

In its Annual Report (2018), NHAI had noted that the recent economic slowdown has led to lower revenue realisation than expected. Several developers had significantly leveraged their balance sheets in anticipation of high revenue, and with lower revenue realisation they face issues with debt servicing. ¹⁰ This also adds stress on the existing road infrastructure loan portfolios of financial institutions.

It has been noted that private financing for the roads sector is a challenge. 10,32 Several PPP road projects have not been able to attract bids. 32 The major highway developers in the country are also facing financial capacity constraints. Further, there is a lack of debt products that are aligned with the revenue stream profile of highway projects (long-term projects where toll collection can begin only after the entire project is completed). This makes financing of such projects difficult, and has resulted in some projects getting stalled at the construction stage. This also discourages prospective bidders. 32

The Committee on Revisiting and Revitalising the PPP model of Infrastructure Development (Chair: Dr. Vijay Kelkar) had looked at issues with PPP projects in India, in November 2015.³³ It had recommended setting up an independent regulator for the roads sector to help bring in and regulate private players in the sector. It had also noted that service delivery (such as constructing roads) to citizens is the government's responsibility and should not be evaded through PPPs.

Non-performing assets: The Standing Committee on Transport (2016) had observed that several long term loans disbursed for the road sector are turning into non-performing assets (NPAs).²¹ Project bids are often made without proper study, and projects are awarded in a hurry. This results in stalling of projects, and concessionaires leave mid-way.

Banks and other infrastructure lending institutions have also been reluctant to finance the highways sector. This has led to difficulties in debt servicing, putting additional stress on the road infrastructure portfolios. Besides increasing the cost of the project, delays also make it difficult to obtain additional debt.²¹

The Standing Committee on Transport (2016) recommended that banks should take due diligence while disbursing loans to concessionaires. It also suggested that the bank NPAs (related to the roads sector) may be supported by government allocation. Banks could be empowered to recover the bad debts. Further, in light of huge NPAs lying with a single bank, the Standing Committee (2019) recommended that guidelines prescribing a limit up to which a bank can lend to a single borrower be framed to minimise the risk involved in lending.³¹

The Standing Committee on Transport (2019) also suggested that NHAI should revisit the financial requirements for bidders to ensure their eligibility for the bidding process.³¹ While the onus of the feasibility of the bids made by the concessionaire lies mainly with the banks, NHAI should exercise due diligence while awarding projects to concessionaire with poor performance history.

Project delays and increase in project costs

The Committee on Public Undertakings (2017) had noted that from 1995, till June 2016, out of the total 388 projects completed, only 55 projects were completed on or before time. ³⁰ Delays in the completion of the projects were mainly attributed to: (i) the long time taken in land acquisition, and obtaining environment and forest clearances, (ii) poor performance of concessionaires due to economic slowdown, (iii) cash flow problems, and (iv) law and order issues. ³⁰ The Ministry has also noted that recently projects have also been halted due to NCLT proceedings against the developer. ³⁴

Such delays increase project costs, eventually making certain projects unviable. As of December 2021, the cumulative cost overrun of projects in the road sector is estimated to be greater than Rs 8,120 crore.¹⁸

In order to resolve languishing projects the Ministry has taken some steps which include: (i) implementing an exit policy which allows private developers to take out their entire equity and exit operational Build-Operate-Transfer (BOT) projects two years from the start of operations irrespective of date of award; (ii) providing rationalised compensation to concessionaires for languishing NH projects in BOT mode for delays not attributable to concessionaires; and (iii) a one-time fund infusion by NHAI which enables revival and physical completion of languishing BOT projects that have achieved at least 50% physical progress, on a case to case basis, among others.³¹

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Increase in land acquisition costs

From January 1, 2015, the compensation for land acquired by NHAI is determined as per the Right to Fair Compensation and Transparency in Land Acquisition Rehabilitation and Resettlement Act, 2013. The Committee on Public Undertakings (2017) had noted that due to higher compensation under the 2013 Act, the expenditure by the Ministry of Road Transport on land acquisition increased from Rs 9,097 crore in 2014-15 to Rs 21,933 crore in 2015-16.30 In 2017-18, NHAI spent more funds on land acquisition (41% of the expenses) as compared to project expenditure (39%). The Standing Committee on Transport (2020) noted that the average rate of land acquisition has increased significantly from about Rs 0.92 crore per hectare in 2013-14 to Rs 3.13 crore per hectare (ha) in 2019- 20 (an increase of 240%).

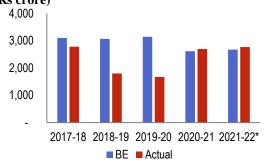
The Committee on Public Undertakings (2017) also observed that farmers who were entitled to lesser compensation under the older law, have been approaching courts for increased compensation.³⁰ This has further delayed the land acquisition process and added to the cost of projects.

In October 2021, the central government issued new guidelines for public procurement and project management. Most government procurement for public works (such as construction of highways and buildings) uses the L1 system (least cost). The Economic Survey (2021) notes that the L1 system may not be appropriate for complex projects needing innovation, quality, speed, and functionality. The revised guidelines allow the use of quality-cum-cost based system for selecting bidders. The new guidelines also stipulate timely release of 75% or more of bills, raised within 10 working days of the submission of the bill. This will help reduce delays in project execution, cost overruns, and disputes.

Investment in maintenance of roads

In 2022-23, the Ministry has allocated Rs 2,586 crore towards the maintenance of roads and highways (including toll bridges). This is 7% lesser than revised expenditure on maintenance in 2021-22. In both 2018-19 and 2019-20, the actual expenditure on maintenance was less than 60% of the budget estimates (Figure 8).

Figure 8: Budget vs actual on maintenance (in Rs crore)



Note: Figures for 2021-22 are revised estimates. Sources: Ministry of Road Transport and Highways budget documents 2010-22; PRS.

The amount allocated towards maintenance, Rs 2,586 crore, is about 1.3% of the ministry's budget. This is for a total NH length of 1.4 lakh km (as of December 2021).³⁵ In comparison, in 2020-21, the US government seeks to allocate \$23.74 billion (about Rs 1.7 lakh crore, which is 51% of its total budget on highways) towards its National Highway Performance Program, to improve the condition and performance of their National Highway System (roughly 3.5 lakh km of length).³⁶

The National Transport Development Policy Committee (2014) had noted that the amount spent on maintenance of roads is low.³⁷ This results in roads with potholes, weak bridges, and poor pavements, and has safety consequences. Further, maintenance is carried out only when required, as opposed to being a part of preventive measures.³⁷

The Standing Committee on Transport (2018, 2020) had also raised concerns that the entire amount allocated towards maintenance does not get fully utilised as well.^{20,22} Over the years, the Standing Committee has repeatedly noted that the entire length of NHs in the country cannot be maintained with this amount. NITI Aayog (2018) had noted that the amount allocated for maintenance is about 40% of the amount required.³⁸

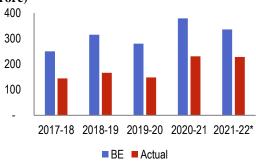
Maintenance of roads should be given top priority as it increases the life span of roads. The Standing Committee (2020) has recommended that the budget for maintenance of NHs should be increased. NITI Aayog has suggested that 10% of the Ministry's annual budget should be earmarked for maintenance. The Standing Committee (2015) had suggested that an effective monitoring mechanism for repair and maintenance of roads should be put in place. Further, there should be penalties for contractors and engineers in case of poor quality repair, maintenance, and construction.

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Investment in road safety

In 2022-23, the Ministry has allocated Rs 356 crore towards road transport and safety. This is a 56% increase over the revised expenditure on maintenance in 2021-22. Note that between 2017-18 and 2020-21, the actual expenditure on safety has not exceeded 61% of the budget estimates (Figure 9).

Figure 9: Budget vs actual on safety (in Rs crore)



Note: Figures for 2021-22 are revised estimates. Sources: Ministry of Road Transport and Highways budget documents 2010-22; PRS.

The allocation towards safety provides for various things such as road safety programmes, setting up of facilities on NHs, extending relief to accident victims, strengthening of public transport, research and development, and training.

The amount allocated towards road safety in 2022-23 is less than 0.2% of the Ministry's total budget. In comparison, in 2019 the US federal government spent about \$2.7 billion on its Highway Safety Improvement Programme (6% of its total expenditure on highways). The Standing Committee on Transport (2020) suggested that the Ministry may seek higher fund allocation towards road safety, and driver training programmes.

In 2019, there were about 4.5 lakh road accidents in India, which killed about 1.5 lakh people and injured about 4.5 lakh people.³⁹ In 2020, the number of accidents reduced to 1.3 lakh, killing 1.3 lakh people.⁴⁰ In 2020, the major causes of road accident deaths were over-speeding (57%) and careless driving (26%).⁴⁰

This reduction in accidents and fatalities could be due to the Covid-19 lockdown, which restricted movement of people. As per the World Road Statistics, 2018, India ranks first in the number of road accident deaths (among 199 countries reported), followed by China and the US. As per the WHO Global Report on Road Safety 2018, about 11% of the accident related deaths in the world occur in India.³⁹

The Standing Committee (2021) observed that a large number of black spots still remain unidentified, given the extremely high number of road accidents that take place in India each year.²⁸ During the last five years, the Ministry has

identified 5,803 blackspots.⁴¹ Out of these, 3,996 blackspots have been identified on NHs currently entrusted to NHAI.⁴¹ As of August 2021, 60% of the blackspots identified during 2015-18 have been rectified.⁴¹

Further, as of August 2021, only 70% of the blackspots identified during 2011-14 have been rectified. The Standing Committee (2022) recommended the Ministry to speed up the rectification of black spots to avoid potential road accidents. The Standing Committee (2021) also recommended detailed examination of all projects, especially to eliminate geometrical design errors that may compromise the safety of the road users. Especially 10 design errors that may compromise the safety of the road users.

Further, the Standing Committee (2021) observed that the number of ambulances (111), patrol vehicles (509), tow away cranes (443) available with the Ministry are not commensurate with the size of the NH network in India.²⁸ The Committee (2022) recommended finalising the tender for Computer Aided Dispatch System for on-road units at the earliest, to provide timely emergency care to accident victims during the golden hour. ⁴¹

In 2019, Parliament passed the Motor Vehicles (Amendment) Bill, 2019 which seeks to address various issues around road safety. It increases the penalties for various offences under the Act, and provides for a Motor Vehicle Accident Fund which would be used for the treatment of persons injured in road accidents. In August 2021, the central government constituted the National Road Safety Board, which will advise the central and state governments on all aspects of road safety and traffic management.⁴², The Ministry has notified several Rules to implement provisions of the Act, such as: (i) protection of Good Samaritans, (ii) conditions for states to levy higher penalties than those in the Act, and (iii) amendments to obtaining driving licenses, among others.35

In August 2021, the Ministry notified Rules for electronic monitoring of roads. ⁴³ As per these Rules, state governments must place electronic enforcement devices (like speed camera, CCTVs, speed gun, body wearable cameras) at: (i) high-risk and high density corridors on national and state highways, and (ii) critical junctions in major cities with more than one million population. ⁴³

Connectivity in remote areas

The Ministry also allocates funds towards the development of highways in areas with poor connectivity. Some of these projects include the Special Accelerated Road Development Programme in North East (SARDP-NE), Externally Aided Projects and Roads Projects in Left-Wing Extremism Affected Areas.

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In 2022-23, Rs 10,565 crore has been allocated towards the SARDP-NE project. This is a 25% annual increase from the revised expenditure in 2021-22. Between 2017-18 and 2019-20, the fund utilisation of the project has been consistently greater than 90%. In 2020-21, the actual expenditure exceeded the budgeted expenditure by 17%.

The Standing Committee on Transport has repeatedly (2018, 2020) noted under-achievement of targets in SARDP-NE.^{20,22} The Standing Committee (2020) noted that projects in the north eastern region face delays of almost a decade in completion. This causes inconvenience to the commuters, and also adds to the project cost. 20 To ensure timely completion of projects, the Committee (2021) recommended the Ministry to: (i) ensure that contractors with poor track record are not awarded road projects, and (ii) work in close coordination with Environment and Forest Departments to avoid issues related to obtaining environment/forest/wildlife clearances.44 The Committee (2021) also recommended investing in research for the best construction techniques in the hilly and flood prone regions of the north east.⁴⁴

In 2020-21, Rs 425 crore was allocated for development of road connectivity in areas affected by Left Wing Extremism.⁴⁵ This is similar to the allocations in 2019-20 (Rs 415 crore) and 2018-19 (Rs 490 crore). 45 The Ministry aims to develop 1,177 km of NHs, and 4,276 km of state roads in Left Wing Extremism affected areas. The Standing Committee on Transport (2021) asked the Ministry to evaluate the reasons for the slow pace of progress in this scheme.⁴⁵ Some of these reasons are: (i) poor availability of law and order situation, (ii) limited availability of dedicated security forces, and (iii) delays in land acquisition. 45,46 The Ministry has taken some steps to improve the participation of private contractors. These include: (i) authorising the government to accept bids up to 10% above the schedule of rates, and (ii) clubbing and splitting of works to reduce risk.45

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Annexure

Budget Announcements	Status of implementation		
Developing Nation	al Highways (NHs) in various states		
Developing 3,500 km of NHs in Tamil Nadu	Project length of 125 km is completed, and 2,214 km is ongoing.		
Developing 1,100 km of NHs in Kerala	Project length of 632 km is ongoing.		
Developing 675 km of NHs in West Bengal	Project length of 21 km is completed, and 1,194 km is ongoing.		
Developing 1,300 km of NHs in Assam	Project length of 20 km is completed, and 743 km is ongoing.		
Delhi-Mumbai Expressway: 260 km will be awarded before 31.3.2021.	Out of the total length of 1,380 km, 1,337 km length has been awarded for construction. Of this, 450 km has been completed, and 887 km is under construction.		
Developing flag	ship corridors in various states		
Bengaluru – Chennai Expressway: 278 km will be initiated in the current financial year. Construction will begin in 2021-22.	The complete corridor of 262 km has been awarded in the month of September 2021.		
Delhi – Dehradun economic corridor: 210 km corridor will be initiated in the current financial year. Construction will begin in 2021-22	As on date, out of the 329 km complete length of the corridor, 220 km has been awarded for construction.		
Kanpur – Lucknow Expressway: 63 km expressway will be initiated in 2021-22.	Bids for the Kanpur –Lucknow Expressway have been invited and in advanced stage of land acquisition.		
Chennai – Salem corridor: 277 km expressway will be awarded, and construction would start in 2021-22.	The flagship 277 km Chennai Salem corridor is in pre-construction stage with studies undertaken like Social Impact Assessment (SIA) to analyse and create proper alternatives as per guidelines of the Supreme Court.		
Raipur – Vishakhapatnam: 464 km will be awarded in the current year. Construction will start in 2021-22.	Out of the total corridor length of 464 km, projects have already been awarded for 356 km.		
Amritsar – Jamnagar: Construction will commence in 2021-22.	As on date, over 260 km of the corridor has already been constructed. The complete greenfield section of 762 km from Sangriya to Santalpur and 63 km brownfield section from Bhatinda to Sangriya have been awarded.		
Delhi – Katra: Construction will commence in 2021-22.	Out of a total corridor length of 670 km, 580 km has been awarded. The remaining stretches to be awarded in FY 2021-22.		

Sources: Implementation of Budget Announcements (2020-21); PRS.

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