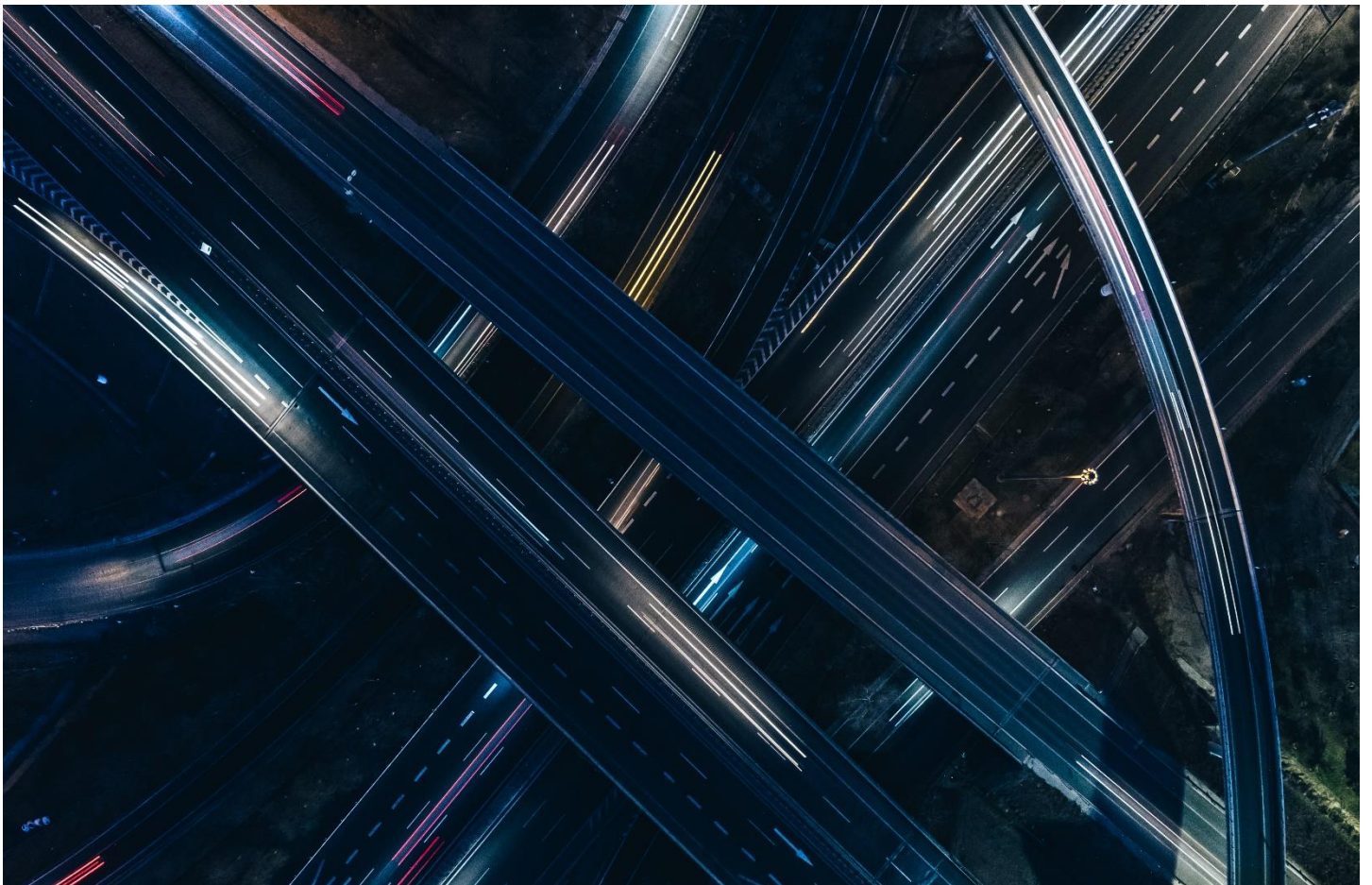


Resilient roads

Pandemic's second wave pulls momentum, but is unlikely to materially change the trend

May 2021



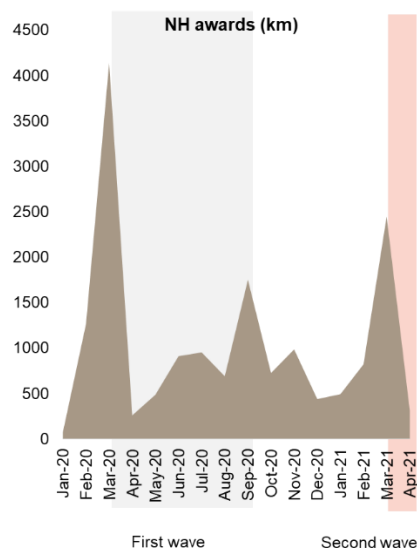
Paving past the pandemic, regardless of brief aberrations

Last fiscal, the national highways sector thumbed nose at Covid-19 and delivered a stellar performance, riding on **higher project awards, record construction, and traffic that surpassed pre-pandemic levels** once the lockdowns were lifted in the second half. Though the second wave of infections has dampened this momentum, it may not have a material bearing on growth for the current fiscal.

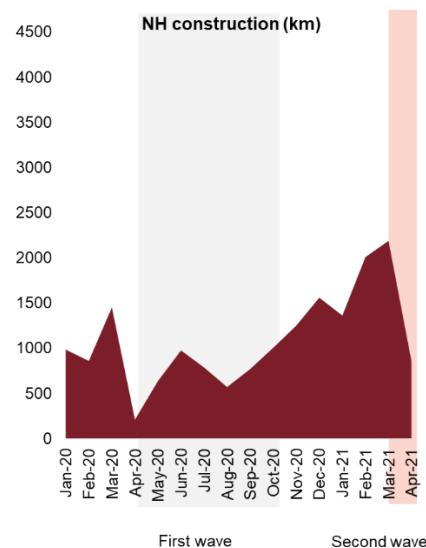
Lower National Highway (NH) awards of only 311 km in April 2021 is **unlikely to deter the government** from awarding more projects for the full fiscal as ramp-up typically occurs in the fourth quarter. A decline in national highway construction to 853 km in April from the peak of 2,189 km in March may seem like a 61% nosedive. But this translates into a **decent pace of 28 km per day, or 4x times faster than the April 2020 levels**, despite endemic labour shortage. Road engineering, procurement and construction (EPC) contractors also have learnings from the first wave so **scaling up can happen** once the economy opens up again, just the way it did last fiscal.

The less-stringent, localised lockdowns this time around have had a softer impact on national highway traffic, which saw **only a 15% decline in April**, on-month. This was supported by the implementation of FASTag, which eliminated toll leakages.

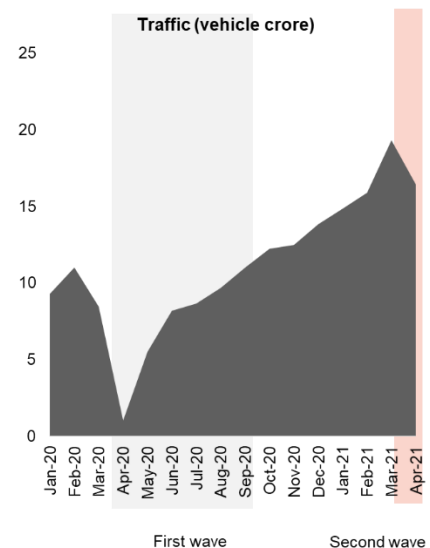
Lower monthly awarding may not deter the government from the year's target



Construction that peaked in H2FY21, declined 61% in April, but still 4x of last year



After surpassing pre-pandemic levels, traffic declined by 15% on-month



Note: NH awards and construction pertains to Ministry of Road Transport and Highways (MoRTH), including the NHAI and the National Highways and Infrastructure Development Corporation Ltd (NHIDCL). Traffic data pertains to electronic toll collection across 600+ national highway toll plazas

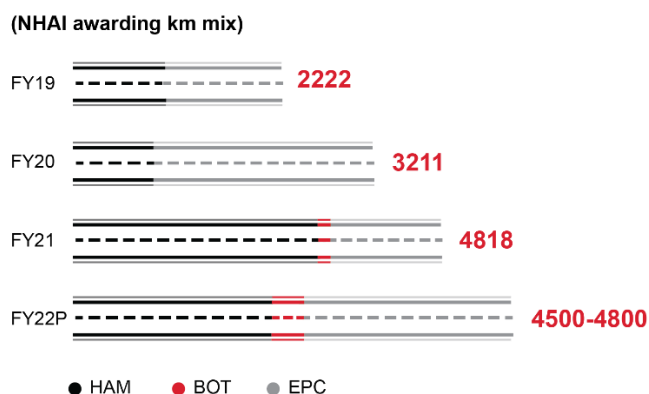
Source: NHAI, CRISIL Research

National highways buck the trend

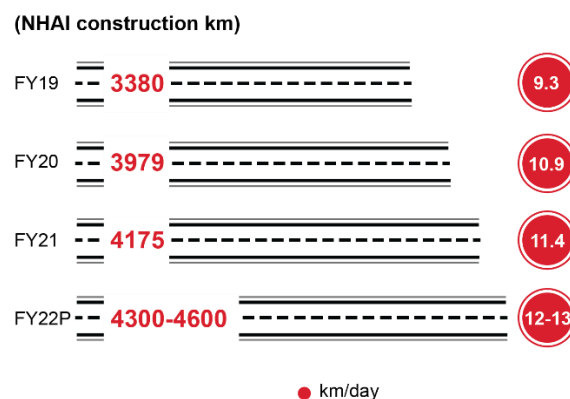
Despite the pandemic, the National Highways Authority of India (NHAI) awarded projects totaling 4,818 km last fiscal – a three-fiscal high – underscoring the government's sharp focus on the infrastructure sector. **Favourable changes** in the build-operate-transfer (BOT) and hybrid annuity model (HAM) **agreements**, and **relaxation of bidder eligibility criteria** indicated a clear policy shift last fiscal to improve private-sector participation. The trend is expected to continue this fiscal as developers will be able to **free up capital through stake sales**.

Developers made up for lost time and **construction at NHAI projects rose 5% on-year** last fiscal. Given the acceleration in project awards, sharper focus on resolving land acquisition issues, and the 'Atmanirbhar Bharat' initiatives to ease liquidity for road EPC players, the pace of construction should continue to increase steadily.

More project awards: HAM gaining share, and BOT making a comeback after MCA amendments



NHAI's pace of construction increasing steadily



Note: Awards and construction forecasts are for NHAI only; NHAI projects account for 70-75% of total national highway investments in the country; HAM: Hybrid Annuity Model, BOT: Build-Operate-Toll, EPC: Engineering, Procurement & Construction; P: Projected
Source: NHAI, CRISIL Research

HAM edges ahead, but not without hiccups

Last fiscal, NHAI's HAM project auctions saw increased competition following relaxation of bidder eligibility criteria. **Smaller regional players cornered 33% of the HAM projects awarded.** Though their bids are not aggressive, financial closures and project execution would remain the key monitorables in the road ahead. The median rating for large players is A-, while that for small ones is BBB-.

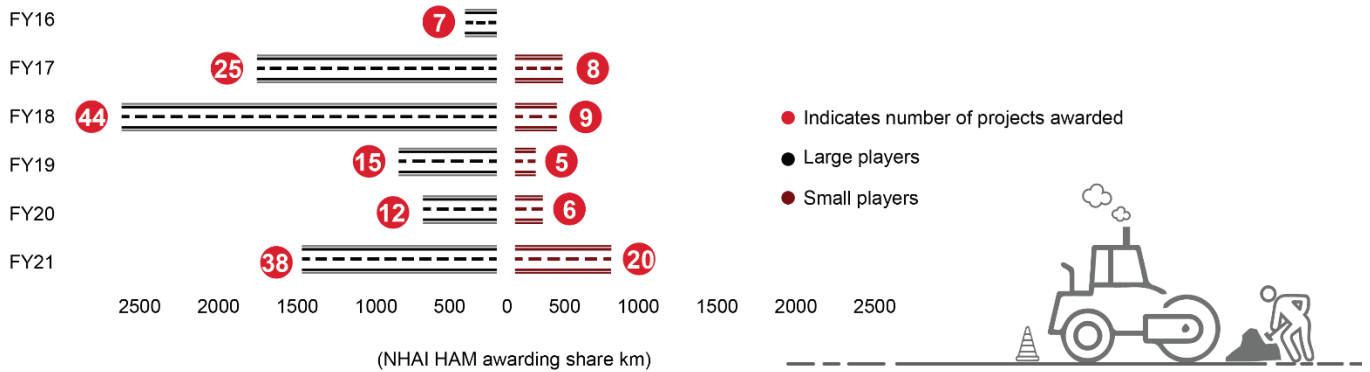
HAM project developers saw an **average delay of 3-4 months in achieving financial closure** compared with the stipulated time. But the 37% completed projects – awarded over fiscals 2016-18 – have been largely executed on time. About 55-60% of these were executed six months ahead of schedule on average, while the rest lagged by the same amount of time.

Land acquisition issues have persisted even before the pandemic. As many as **35-40% of the projects** were granted the appointed date **~16 months** after the project award and a few were terminated before it because of land-related glitches.

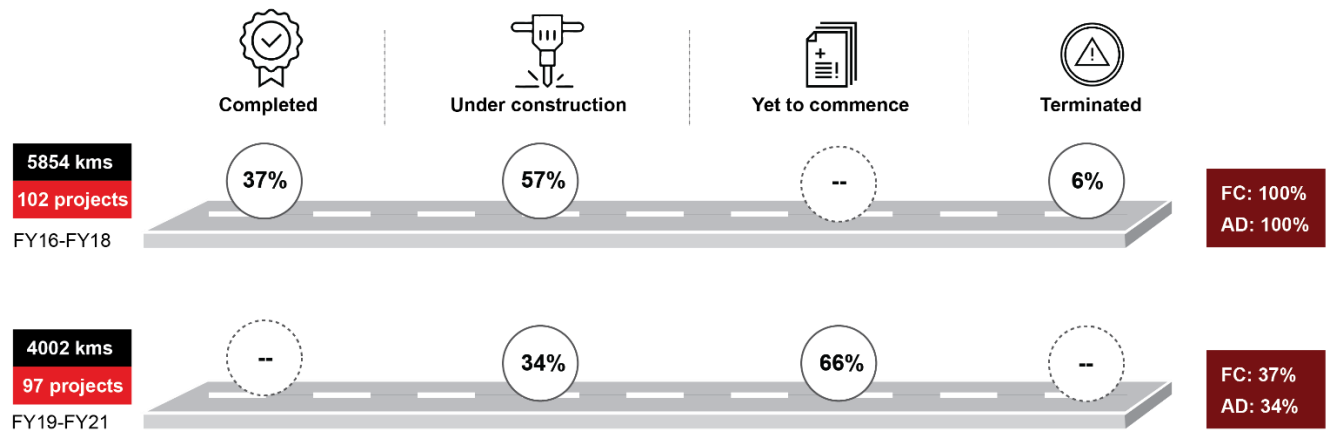
As many as **45-50% of under-construction projects** that were awarded between fiscals 2016 and 2018 are **delayed by 8-9 months on average, beyond their scheduled completion date (SCOD)**, largely because of de-scoping/delinking, and financing issues pertaining to a few developers.

A large chunk – **66% of the projects** awarded over fiscals 2019-2021 – **are yet to commence construction** awaiting financial closures and appointed dates. The under-construction projects face labour issues following the pandemic. The government's steps to **extend milestones and SCODs** ranging from 3-6 months provides them with the needed cushion.

HAM saw more competition in fiscal 2021, smaller players gained share in awarding



Financial closure and grant of appointed date delayed HAM projects even before the pandemic; current execution concerns are limited to a few developers



Note: Status as on April 30, 2021, based on award date; Large players: Revenue > Rs 1,500 crore; Small players: Revenue < Rs 1,500 crore; FC: Financial closure; AD: Appointed Date; SCOD: Scheduled completion date
Source: NHAI, CRISIL Research's Roads and Highways projects database

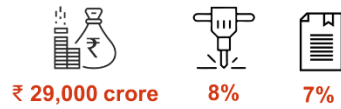
Top four states account for more than 45% of NHAI projects under construction, high-value expressways driving investments

Uttar Pradesh, Maharashtra, Karnataka and Rajasthan account for a significantly high share of more than 420 projects that are under construction and yet to commence construction under the EPC and HAM models of the NHAI. High-value expressways awarded, such as the Delhi-Vadodara-Mumbai, Amritsar-Jamnagar, and the Bengaluru-Chennai expressways, will drive investments.

Uttar Pradesh accounts for 15% of the country's under-construction projects and 5% of the yet-to-commence-construction projects with a cumulative value of ~Rs 45,000 crore.

Maharashtra has a higher share of **yet-to-commence-construction projects at 17%**, and 12% of under-construction projects with a cumulative value of **Rs 49,000 crore**. Karnataka and Rajasthan, too, have Rs 30,000 crore and Rs 29,000 crore worth of projects under construction, respectively.

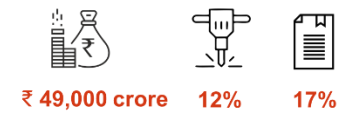
Rajasthan



Key projects:

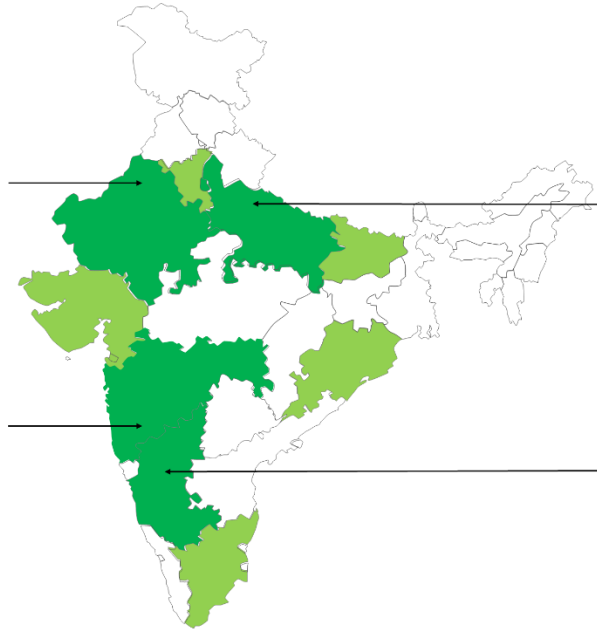
- Delhi-Vadodara Expressway (11 packages)
- Amritsar-Jamnagar Expressway (Sangariya-Rasisar-Deogarh-RJ/GJ Border: 24 packages)

Maharashtra



Key projects:

- Sangli-Solapur (4 packages)
- Amravati Chikli (4 packages)
- Vadodara-Mumbai Expressway (3 packages)



Uttar Pradesh



Key projects:

- Aligarh-Kanpur (5 packages)
- Lucknow-Sultanpur-Varanasi
- Lucknow Ring road

Karnataka



Key projects:

- Tumkuru-Shivamogga (4 packages)
- Bengaluru Ring road
- Bengaluru-Chennai Expressway

Gujarat, Bihar and Tamil Nadu each have 9-11% share in new NHAI projects; Odisha and Haryana each have 8-10% share in under-construction projects

Note:

- Cumulative cost of on-going NHAI projects in the state
- Share in all-India under-construction projects in km terms
- Share in all-India recently awarded, but yet to commence construction projects in km terms

Data as of April 30, 2021 for NHAI, >420 projects across 16,000 km of NHAI EPC and HAM projects
Source: NHAI, CRISIL Research's Roads and Highways projects database

CRISIL Research's Roads and Highways projects database

CRISIL Research's database on roads and highways is a comprehensive tool with project-level operational and financial parameters across 700+ national highway projects, 200+ NHIDCL projects and 7000+ rural road records.

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