

# HAM paves ahead, but cracks appear, too

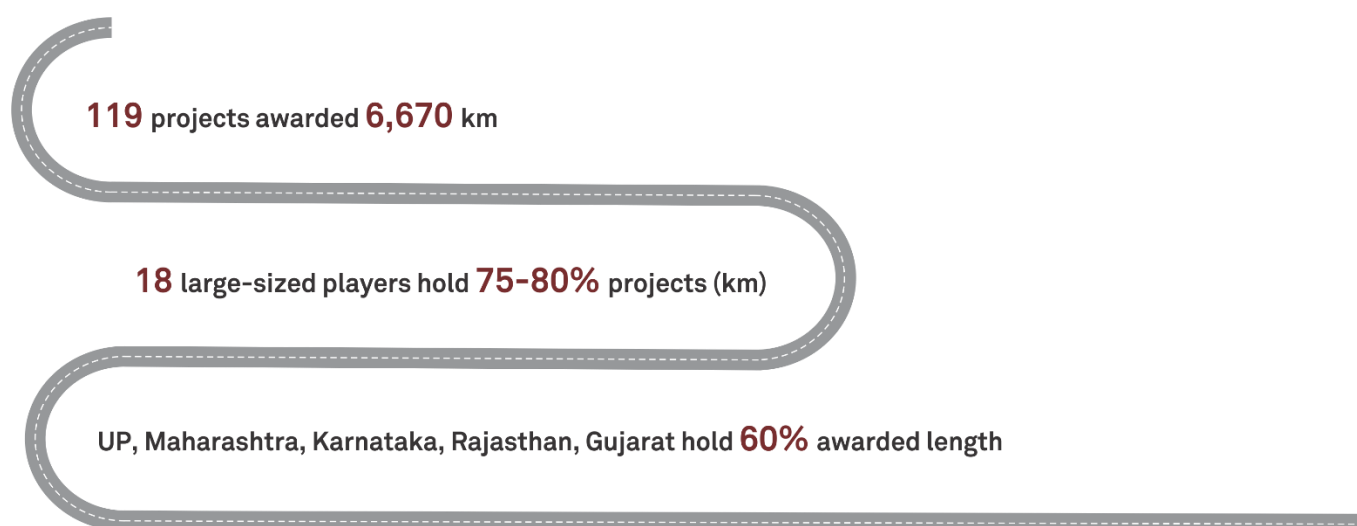
November 2019



*In the past three-and-a-half years, the hybrid annuity model (HAM) of road construction has grown substantially, but some warts are now showing up: smaller developers are finding financial closure elusive, and over-aged projects awaiting appointed dates are facing termination risk.*

CRISIL Research's analysis of road projects under the National Highways Authority of India (NHAI) reveals HAM has expanded its network since its launch in February 2016. Over fiscals 2017 to 2019, HAM projects accounted for a quarter of the executed road projects and 45-50% of the projects awarded.

### HAM has made substantial progress in the past three-and-a-half years



*Note: excludes terminated projects*

*Source: NHAI, CRISIL Research*

First the good news: A deep-dive project-by-project analysis by CRISIL Research reveals that of the 6,670 km HAM projects awarded by the NHAI during fiscals 2016 to 2019, a good 70-75% have achieved financial closure, most of them by large developers with a turnover of over Rs 1,500 crore.

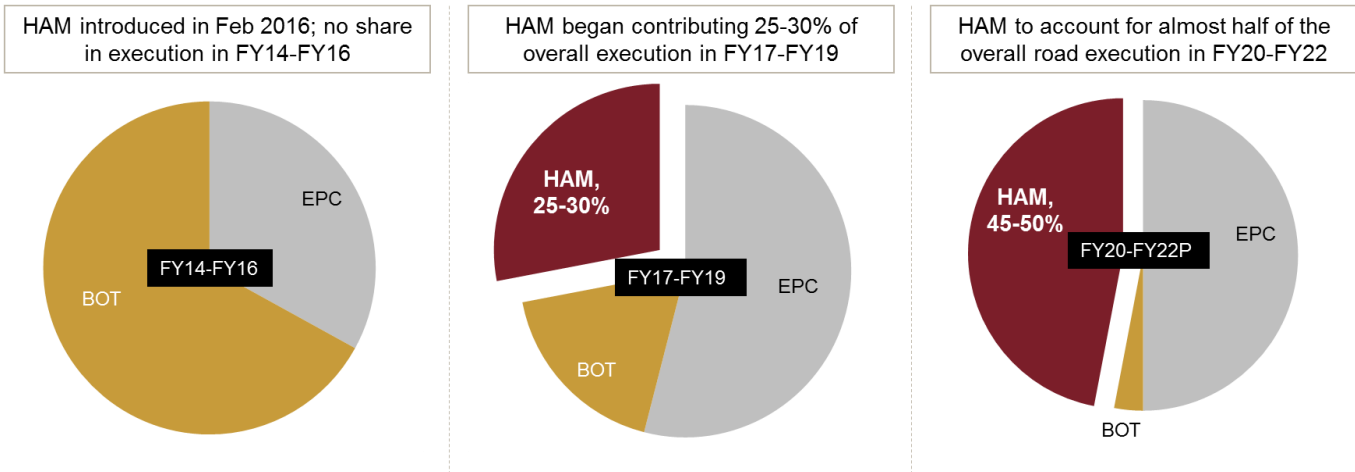
Now the concern: Though the foundation has been laid, some cracks have surfaced on the HAM highway. The smaller developers, many of which have changed lanes from engineering, procurement and execution (EPC) projects to HAM for the first time, are struggling to secure funding after bidding aggressively, and banks tightening capital requirements. The upshot has been a deceleration in the pace of financial closures.

Besides, delays in receiving the appointed date – or the *de facto* starting date of a project when the NHAI hands over a contract letter to the developer or concessionaire – have worsened. About 4,130 km of the 6,670 km (60-65%) of HAM projects awarded so far have received appointed dates.

The average delay in receipt of appointed date is 5-6 months. Around 2,540 km of the 6,670 km of awarded HAM projects are awaiting the appointed date. And over 60-65% of the 2,540 km runs the risk of termination since the wait has exceeded 18 months.

Yet, we expect HAM to account for almost half of the NHAI projects awarded between fiscals 2020 and 2022.

**HAM will account for almost half of NHAI's execution over the next three fiscals**

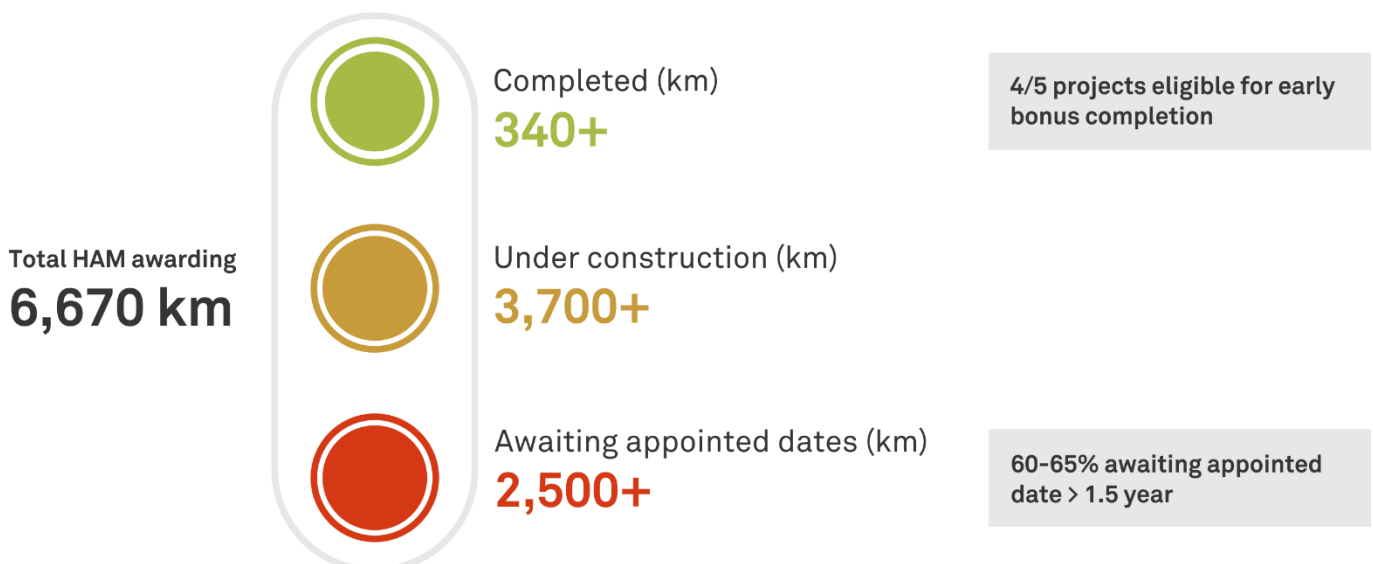


Source: NHAI, CRISIL Research

**Biggies achieve financial closure, small ones hit a bump**

The NHAI has awarded 6,670 km under 119 HAM projects between fiscal 2016, when this model was first introduced, and fiscal 2019. This accounts for 35-40% of the 18,000-18,500 km of road projects awarded by the NHAI during this period, underscoring the growing role of public-private-participation projects in the country's road development programme.

**The green, amber and red lights**



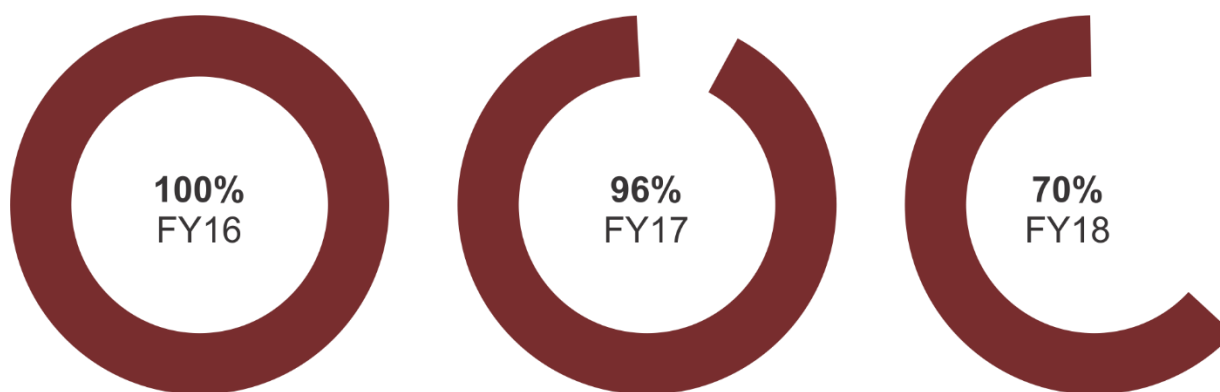
Source: NHAI, CRISIL Research

CRISIL Research’s analysis, however, shows that while almost all the HAM projects awarded in fiscals 2016 and 2017 achieved financial closure, the numbers have hit a speed bump since then. Only 70-75% of the length awarded during fiscals 2016-2019 has achieved financial closure to date.

The slippage occurred largely in fiscal 2018, while the projects awarded in fiscal 2019 – typically awarded in the last quarter of the year – are due for financial closure now.

As per the model concession agreement, HAM projects must achieve financial closure within 150 days of signing the concession agreement.

**Projects achieving financial closure: hard-braking in FY18**



Source: NHAI, CRISIL Research

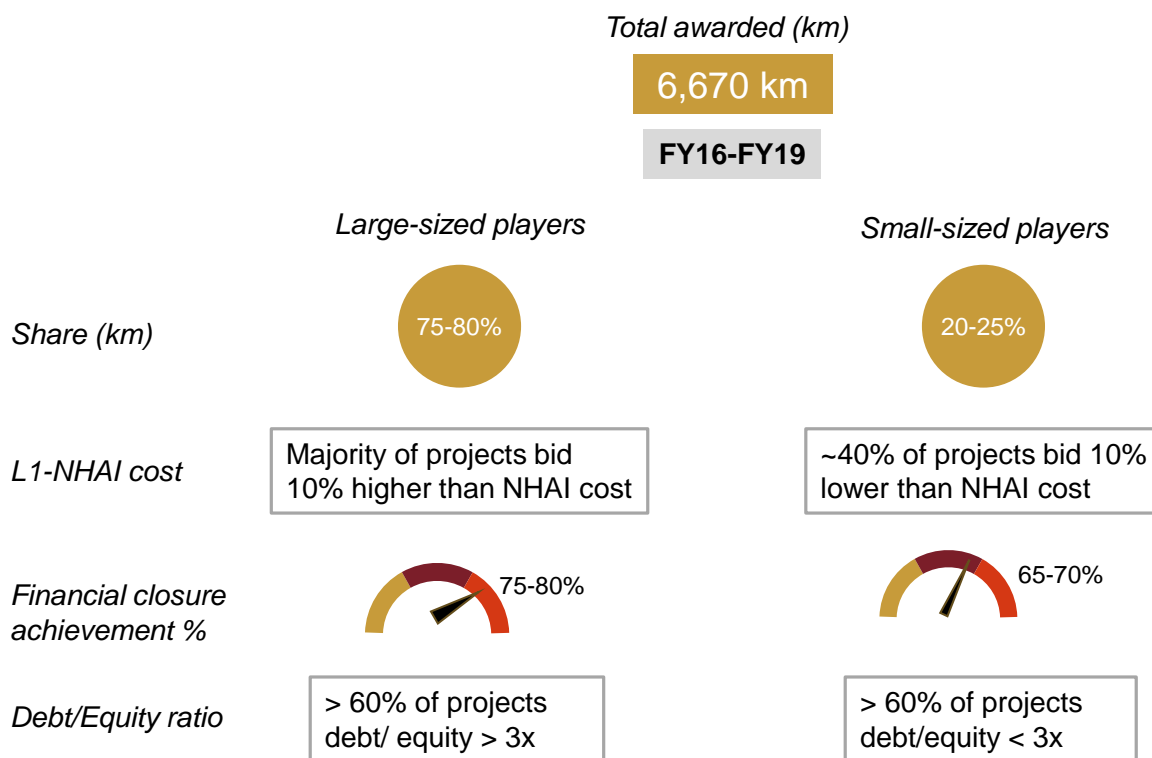
A deeper dive into the numbers reveals the slippage is on account of the gap between large and small players. About 18 large players accounted for 75-80% of the 6,670 km awarded between fiscals 2016 and 2019, while 15-17 small players accounted for the rest. And while 75-80% of the projects awarded to large players during this period achieved financial closure, for small players it was lower at 65-70%.

## Small developers aggressive bidders, face stricter lending norms

There has been a notable increase in the number of small developers entering the HAM segment. Interestingly, all the new players in fiscal 2019 were small.

Since many small players are entering the HAM segment for the first time, they are bidding aggressively to get on the carriageway. CRISIL Research’s analysis shows that around 40% of the projects bid by them were priced 10% below the lowest tender or L1-NHAI cost. In contrast, the price of majority of the projects bid by large players was 10% higher than the NHAI cost.

### Where is the risk in HAM?



Source: NHAI, CRISIL Research

Moreover, over 60% of the small players achieved financial closure at a debt-equity ratio of less than three times, while over 60% of the large players’ projects did so with a debt-equity ratio of more than three times. This indicates that banks want small players to bring in a higher amount of equity capital to ensure project viability. Incidentally, a majority of the new players operated in the EPC space earlier.

## Termination risk rises with delays in appointed date

Meanwhile, the risk to HAM projects on account of delays in the appointed date is also rising. According to CRISIL Research, only 60-65% of the awarded HAM projects during fiscals 2016 to 2019 have received appointed dates so far.

In other words, over 2,540 km of the 6,670 km of awarded HAM projects is awaiting appointed dates. Moreover, a huge 60-65% of this 2,540 km faces the risk of termination since the appointed date or starting date for the project from the NHAI is pending for over 18 months now.

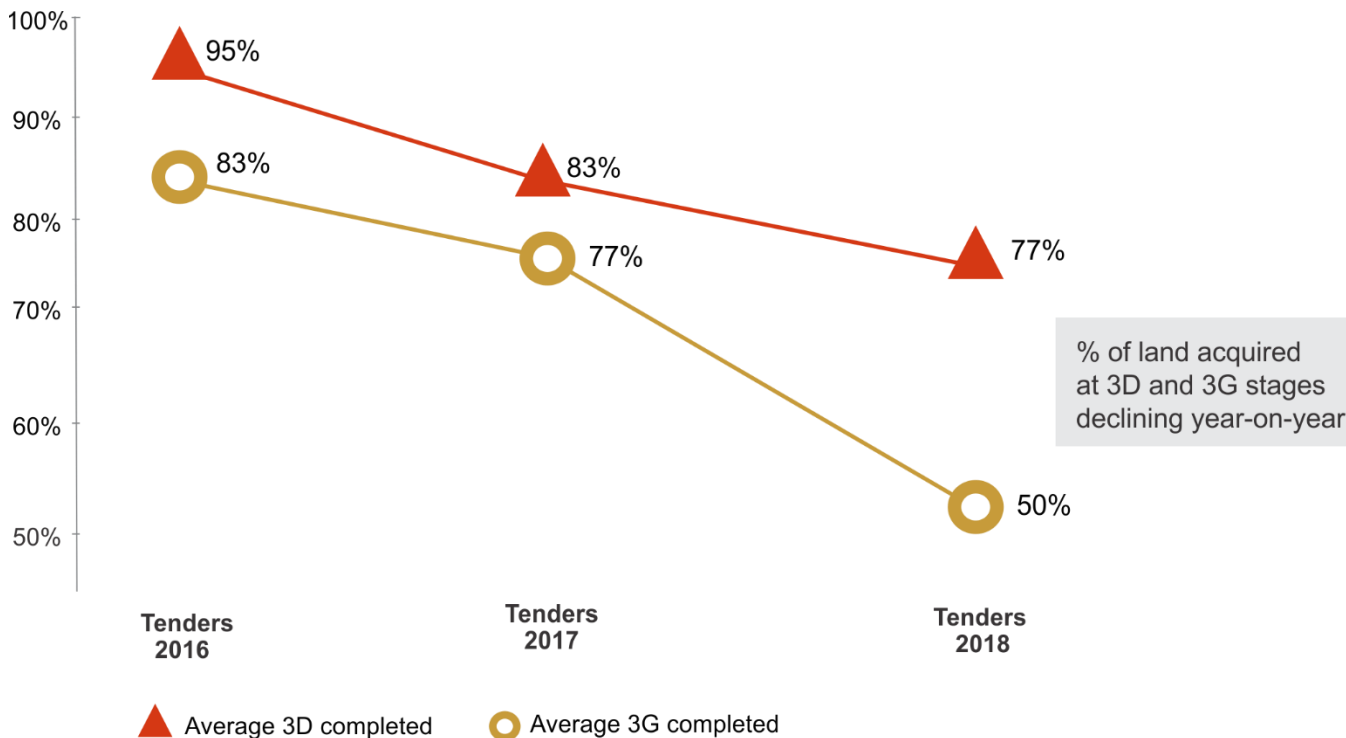
### HAM projects terminated

Project	Concessionaire	Year of termination (Calendar year)
Puducherry-Poondiyankuppam Highway	IRB Infrastructure	November 2019
Poondiyankuppam-Sattanathapuram project	IRB Infrastructure	November 2019
Vizag Port road	Sadbhav Infrastructure	July 2019
Udaipur bypass road	MBL Infrastructure	February 2017
Samrala Chowk-Ludhiana	Gawar Infrastructure	November 2016
Kishangarh-Udaipur-Ahmedabad (Package VI)	Overseas Infrastructure	November 2016

Source: NHAI, CRISIL Research

The delay in appointed date highlights the issues with land acquisition faced by the NHAI. For instance, of all the tenders across EPC, HAM, and build-operate-transfer (BOT) projects floated by the NHAI in 2018, only 50% reached the 3G stage of land acquisition when compensation is paid, compared with 83% in 2016. Besides, with land acquisition costs soaring and with cess funds no longer sufficient to cover this, the NHAI's debt burden has soared eight times from fiscal 2014 to fiscal 2019.

**Slippery slope: Projects where right of way was not in advanced stage of acquisition at bidding**



Note: Based on tenders awarded pre-awarding

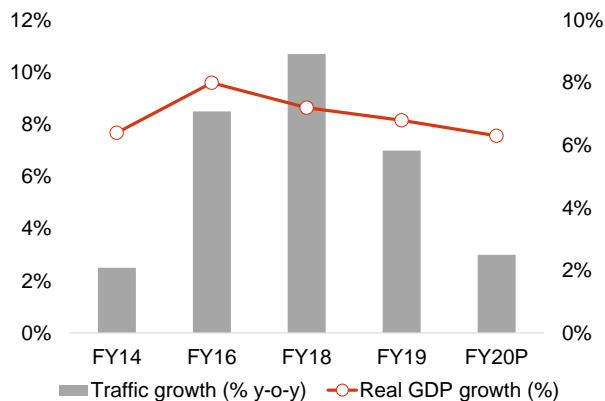
3D: Land title is transferred to the government; 3G: Determination of compensation

Source: NHAI, Ministry of Road Transport and Highways, CRISIL Research

**BOT likely to have few takers**



**Traffic growth under pressure due to economic slowdown**



**Key risks in BOT prevail**

**Traffic risk**

**Termination clause**



**Draft National Logistics Policy may impact road freight share that remains high at ~68%**



**Lenders cautious; higher equity requirement in BOT**

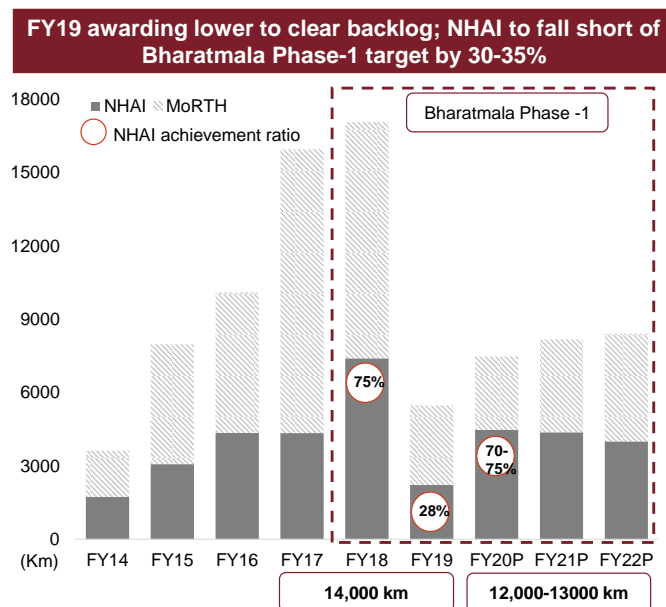
Source: NHAI, CRISIL Research

## Going forward, NHAI to focus on execution

CRISIL Research expects the NHAI to shift its focus to execution instead of awarding new road projects going forward, given the burden of soaring land acquisition costs and rising debt on its books.

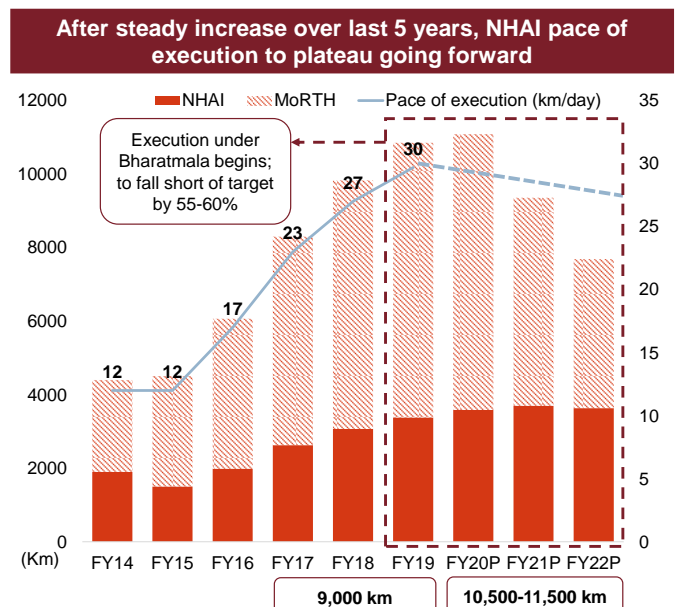
Accordingly, CRISIL Research expects the awarding of all HAM, EPC and BOT road projects to moderate to 12,000-13,000 km over fiscals 2020 to 2022 compared with 14,000 km over fiscals 2017 to 2019.

### NHAI awarding to moderate...



Source: NHAI, CRISIL Research

### ...pace of execution to plateau, too



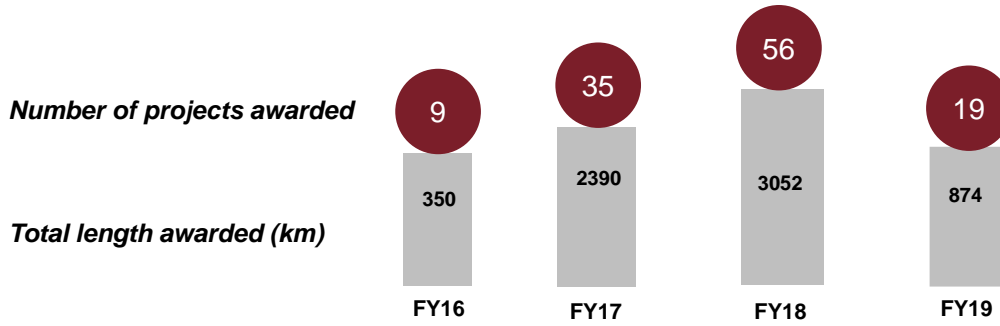
Source: NHAI, CRISIL Research

In addition, CRISIL Research expects the pace of execution to plateau, leading to construction of 10,500-11,500 km between fiscals 2020 and 2022, compared with an executed 9,000 km between fiscals 2017 and 2019.

However, CRISIL Research expects HAM projects to account for almost half of the NHAI's executed road projects over fiscals 2020 to 2022. If HAM projects that are awaiting appointed dates for over 1.5 years get terminated, the execution outlook for fiscals 2020 to 2022 faces a downside risk of 5-10%. Accordingly, the share of HAM projects would fall to 40-45% in the NHAI's execution pie for the period.

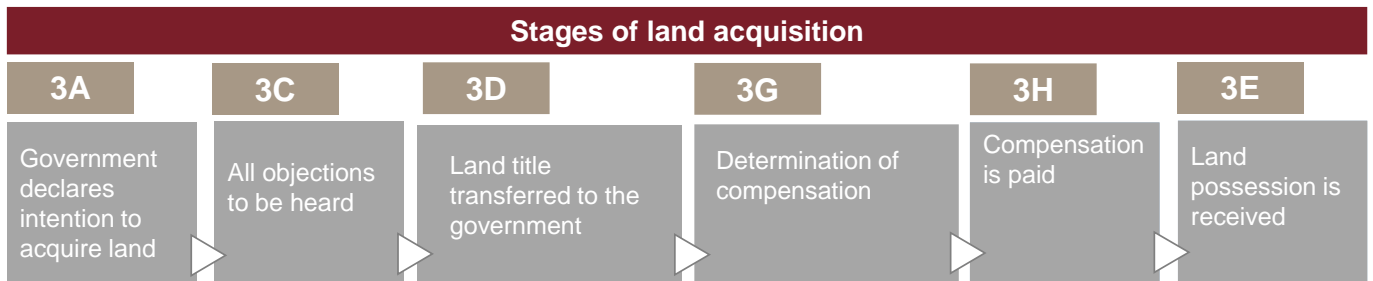


### Annexure 1: HAM timeline



Source: CRISIL Research

### Annexure 2: Stages of land acquisition



Source: NHAI, CRISIL Research

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