

INDIAN ROAD SECTOR

~Rs. 1.4 trillion of highway PPP
projects delayed amid execution
bottlenecks

MARCH 2026

List of abbreviations and definition of select terms

AD	Appointed date	MoRTH	Ministry of road, transport and highways
Adjusted equity	On or before COD, the adjusted equity shall be a sum equal to the equity funded and expended on the project, revised to the extent of one half of the variation in WPI occurring between the first day of the month of the appointed date and the reference date	NHAI	National Highways Authority of India
BOT	Build, operate, transfer	NHDP	National Highway Development Programme
BPC	Bid project cost	NHIDCL	National Highways & Infrastructure Development Corporation Limited
CA	Concession agreement	O&M	Operations and maintenance
COD	Commercial operation date	OMT	Operate–maintain–transfer
CoS	Change of scope	PCOD	Provisional commercial operation date
CPI (IW)	Consumer price index – Industrial workers	PPP	Public-private partnership - A long-term agreement between a government and a private company to complete a project. PPPs are often used for large-scale infrastructure projects like roads, among others
EOT	Extension of time	ROB	Road over bridge
EPC	Engineering, procurement and construction	RoW	Right of way
HAM	Hybrid annuity model - It is a public-private partnership (PPP) model that combines the EPC and build, operate and transfer (BOT) models. The Government of India uses HAM to build infrastructure such as highways	RUB	Road under bridge
IDC	Interest during construction	SCOD	Scheduled commercial operation date
IRR	Internal rate of return	TOT	Toll-operate-transfer
LOA	Letter of award	WPI	Wholesale price index – All commodities



Click to see full report

Persistent RoW delays have driven execution slippages under PPP projects, pushing construction activity to a multi-year low in FY2026e.

MoRTH's recent measures to enhance pre-bid readiness are expected to structurally ease work-front constraints and support smoother project execution.



Road PPP models in India have transitioned from BOT (Toll) to BOT (Annuity) and subsequently to HAM, reflecting a calibrated reallocation of risks. Under HAM, concessionaire exposure to traffic and toll risks has been significantly curtailed, with risks largely confined to execution and interim funding. This has positioned HAM as MoRTH's preferred PPP mode, particularly for large and complex projects.



The execution of national highways has gained momentum, with the average construction pace improving to ~27 km/day in FY2018 from 11-17 km/day during FY2013-FY2016. This improvement was supported by sustained project awarding and enhanced budgetary support. The uptrend broadly coincided with the introduction and scaling up of HAM from FY2016 onwards and sustained till FY2023. However, project execution is lately witnessing a down-trend.



Despite higher awards, PPP projects have witnessed delays in achieving the appointed date (AD), with a median lag of 0.8-1.1 years from the date of award. Delay in satisfying the precedent conditions, primarily RoW availability, has been a key reason. Around 15% (by BPC) of the projects awarded during FY2022-FY2025 (ICRA's sample of 254 HAM projects) are yet to achieve AD.



Key constraints affecting AD declaration and project execution include delays in land acquisition, utility shifting and statutory approvals – particularly forest and environmental clearances. These bottlenecks have had differentiated implications across stakeholders, impacting project timelines for the authority, cash flow visibility for lenders and execution efficiency for concessionaires.



HAM projects aggregating ~Rs. 1.4 trillion (BPC), awarded during FY2022-FY2025, have faced delays beyond the originally envisaged SCOD or reported execution slippages due to the above-mentioned bottlenecks. In response, MoRTH/NHAI has introduced stricter bidding eligibility norms and milestone-linked pre-AD requirements to streamline PPP execution.

1 Evolution of PPP models in Indian road segment



2 Execution performance since FY2022



3 Key bottlenecks and implications for stakeholders



4 Mitigation measures



5 ICRA's view – near and medium term



6 ICRA's rating actions





ICRA Analytical Contact Details

Name	Designation	Email	Contact Number
Ashish Modani	Senior Vice President & Group Head	ashish.modani@icraindia.com	022 – 6169 3300
Suprio Banerjee	Vice President & Co-Group Head	supriob@icraindia.com	022 – 6114 3443
Ritu Goswami	Vice President & Sector Head	ritu.goswami@icraindia.com	0124 – 4545 826
Mrinal Jain	Assistant Vice President	mrinal.j@icraindia.com	0124 – 4545 863





ICRA

Business Development/Media Contact Details

Name	Designation	Email	Contact Number
L Shivakumar	Chief Business Officer	shivakumar@icraindia.com	022-61693304
Sai Krishna	Head - Research Sales and Investor Connect	sai.krishna1@icraindia.com	9840774883
Rohit Gupta	Head Business Development – Infrastructure Sector	rohigt@icraindia.com	0124-4545340
Vivek Bhalla	Head Business Development – Financial Sector	vivek.bhalla@icraindia.com	022-61693372
Vinita Baid	Head Business Development – East	vinita.baid@icraindia.com	033-65216801
Shivam Bhatia	Head Business Development – Corporate Sector – North & South	shivam.bhatia@icraindia.com	0124-4545803
Sanket Kulkarni	Head Business Development – Corporate Sector – West	sanket.kulkarni@icraindia.com	022-6169 3365
Naznin Prodhani	Head - Group Corporate Communications & Media Relations	communications@icraindia.com	0124-4545860





© Copyright, 2026 ICRA Limited. All Rights Reserved.

All information contained herein has been obtained by ICRA from sources believed by it to be accurate and reliable. Although reasonable care has been taken to ensure that the information herein is true, such information is provided 'as is' without any warranty of any kind, and ICRA in particular, makes no representation or warranty, express or implied, as to the accuracy, timeliness or completeness of any such information. Also, ICRA or any of its group companies, while publishing or otherwise disseminating other reports may have presented data, analyses and/or opinions that may be inconsistent with the data, analyses and/or opinions in this publication. All information contained herein must be construed solely as statements of opinion, and ICRA shall not be liable for any losses incurred by users from any use of this publication or its contents.

#35YearsofUnwaveringCredibility



ICRA

35
Years of
Unwavering
Credibility

Thank You!

#35YearsofUnwaveringCredibility

Sensitivity Label : Public