

F.No.2/18/2024-PIU
Government of India
Ministry of Finance
Department of Economic Affairs
Infrastructure Finance Secretariat
ISD Division
(PIU)

STCs Building, Janpath, New Delhi
Dated: 11th February 2025

Record of Discussion

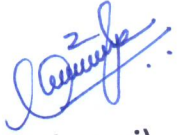
Subject: Record of Discussion of the 120th meeting of the PPPAC for considering the four project proposals of the Ministry of Road, Transport & Highways (MoRTH) on PPP mode.

Reference: 120th Meeting of the PPPAC meeting held on 4th February 2025.

Sir/Madam,

The undersigned is directed to forward the Record of Discussion of the 120th meeting of the PPPAC held on 4th February 2025, under the Chairmanship of Secretary (EA) for information and necessary action.

2. This issues with the approval of the Competent Authority.


(Arya Balan Kumari)
Joint Director (PIU)
011-2370 1219

To,

1. **Secretary, Department of Expenditure, North block, New Delhi-01**
2. **CEO, NITI Aayog, Yojana Bhawan, New Delhi-01**
3. **Secretary, Ministry of Road, Transport & Highways, Transport Bhawan, New Delhi-01**
4. **Secretary, Department of Legal Affairs, Shastri Bhawan, New Delhi.**

Copy to:

1. **Sr. PPS to Secretary (EA)**
2. **Sr. PPS to JS (ISD)**

Subject: Record of Discussion of the 120th meeting of the PPPAC for considering the following project proposals: -

- (i) Four-lane, Badvel to Nellore section of NH – 67 in the state of Andhra Pradesh on HAM
- (ii) Two-lane with Paved shoulder from Basnaghat (Morigaon) to Bhuragaon to Burigaon (Kharupetia) including new 2 lane Major Bridge over river Brahmaputra in the State of Assam on HAM
- (iii) Six-lane Access Control Greenfield Capital Region Ring Road (Bhubaneswar Bypass) from Rameshwar to Tangi in the State of Odisha on HAM
- (iv) Four-lane, Parmakudi to Ramanathapuram Section of NH-87 in the state of Tamil Nadu on HAM

1. The 120th meeting of the PPPAC was held on 4th February 2025 at 12:00 Hours under the Chairmanship of Secretary (EA) to consider four road projects of MoRTH.
 2. List of attendees is placed at **Annexure-I**.
 3. Joint Secretary (ISD) welcomed the attendees to the meeting. NHAI made a detailed presentation of all the four road projects.
 4. The projects at serial number ii, iii and iv were deferred for consideration after receiving response of the MoRTH on comments at **Annexure II**.
- I. **Four-lane, Badvel to Nellore section of NH – 67 in the state of Andhra Pradesh on Hybrid Annuity Mode.**

1. The basic details of the project are given in the table below:

Table 1: Details of the project

Project Description	<p>Construction of 4 laning Badvel to Nellore section of NH – 67 (connecting Krishnapatnam Port) of 108.134 km in the state of Andhra Pradesh on Hybrid Annuity Mode (HAM)</p> <ul style="list-style-type: none"> • Package 1: starting from Badvel Gopavaram Village (Design Ch 630.960) and ending near Bedusupalli Village (Desing Ch. 680.500) with design length of 49.540 kms. • Package 2: Starting near Bedusupalli village (Design Ch. 680.500) and ending near Guruvindapudi Village (Desing Ch. 739.094) with design length of 58.594 kms
PPP Model	HAM
Sponsoring Authority	Ministry of Road Transport and Highways (MoRTH)
Implementing Agency	National Highways Authority of India (NHAI)
Location	<p>State – Andhra Pradesh and Karnataka</p> <p>District – Kadapa /Anantapur, Nellore</p>
Length	108.134 Km
Type of pavement	Flexible
Lane configuration	Four Lane (4-Lane)
Proposed RoW	30 - 45 m
Structures	<p>Major Bridges: 09 Nos.</p> <p>Minor Bridges: 59 Nos.</p> <p>LVUP: 14 Nos.</p> <p>SVUP: 13 Nos.</p> <p>VUP: 07 Nos.</p> <p>AUP: 08 Nos.</p> <p>PUP: 11 Nos.</p> <p>ROB: 03 Nos.</p> <p>Culvert: 244 Nos.</p> <p>Service Road: 2.060 Km</p> <p>Slip Road: 25.142 Km</p>

	Major junctions: 01 Nos. Minor Junctions: 07 Nos. Bus Bay: 37 Nos. Bus Shelter: 37 Nos. Truck lay bye: 04 Nos. Wayside amenities: 2 Nos. (Area: 02 Ha) Toll Plaza: 01 No. at Ch. 659.600 (08 lane) & 01 no. at Ch. 720.500 (08 lane)		
Concession Period	17 years (2 years construction period + 15 years Operation Period)		
Estimated Capital Cost with Break-up under major heads of expenditure	S. No.	Description	Combined Amount (of both the packages) (Rs in Cr.)
	(a)	Cost of Civil Works	2517.97
	(b)	Utility Shifting Cost	158.56
	(c)	Total Civil Construction Cost (including cost of Utility Shifting & excluding GST)	2667.53
	(d)	I/C & Pre-Operative Expenses	26.68
	(e)	Financing Cost	10.85
	(f)	Interest during construction	100.13
	(g)	Estimated Project Cost	2805.19
	(h)	GST @ 18 % on Total Civil Cost (Excluding Utility Shifting)	480.16
	(i)	Supervision Charges on Utility Cost	3.96
	(j)	Land Acquisition Costs	225.64
	(k)	FC Costs	16.55
	(l)	Environmental Mitigation Plan Costs	56.75
	(m)	Utility Shifting (Already added in Civil Cost)	-158.56
	(n)	Escalation @5% per Year for 3 Year (on civil cost i/c utilities)	420.39

	(o)	O&M Cost for 15 years as per Ministry OM dated 23.05.2022		368.75																		
	(p)	Total Capital Cost (g+h+i+j+k+l+m+n+o)		4377.38																		
Land Acquisition Status	S. N.	Particulars	Details																			
	1	Total Land to be Acquired	398.215 Ha																			
	2	Government Land to be Acquired	80.328 Ha																			
	3	Private Land to be Acquired	317.887 Ha																			
	4	Status of 3A	100% Completed																			
	5	Status of 3D	100% Completed																			
	6	Status of 3G	100% Completed																			
Financial Viability	<table><tr><th>Particulars</th><th>Package-1</th><th>Package-2</th></tr><tr><td>Project IRR</td><td>12.89%</td><td>12.94%</td></tr><tr><td>Equity IRR</td><td>15.00%</td><td>15.00%</td></tr><tr><td>Project NPV @12% discounting (Rs. in Crore)</td><td>25.93</td><td>35.13</td></tr><tr><td>Project NPV @WACC (10.31%) (Rs. in Crore)</td><td>83.17</td><td>108.69</td></tr><tr><td>Min. DSCR</td><td>1.05</td><td>1.23</td></tr></table>				Particulars	Package-1	Package-2	Project IRR	12.89%	12.94%	Equity IRR	15.00%	15.00%	Project NPV @12% discounting (Rs. in Crore)	25.93	35.13	Project NPV @WACC (10.31%) (Rs. in Crore)	83.17	108.69	Min. DSCR	1.05	1.23
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Concession Agreement		Based on MCA for Hybrid Annuity Model.																				
Bidding parameter		The bidder who will quote lowest bid project cost shall be declared as "Selected Bidder".																				
Bidding process		Single Stage with two envelope bidding system																				

2. The primary purpose of the proposed project is to ease up congestion in the existing NH-67 between Badvel to Krishnapatnam port. This stretch of NH 67 is a 2 Lane Paved Shoulders with sub-standard geometrics and thick habitation at regular intervals. The port bound/ major traffic on the existing NH-67 passes through the congested Nellore town creating congestion. The stretch between Guruvindapudi to Krishnapatnam port is already under construction by the NHAI. The proposed road will connect Badvel to Guruvindapudi and aims to reduce the travel distance and ensure hassle free movement of port bound traffic.
3. The proposed greenfield alignment with designed speed of 100km/h, is saving 33.9 kms distance and approx. 1 hour travel time. It will attain substantial gain in terms of reduced Vehicle Operating Cost (VOC). The freight traffic destined for the port is expected to utilize this route, while private vehicles heading towards Gudur and Chennai will also benefit due to reduced trip lengths and travel times. Post-construction of the proposed road, the current truck volume on NH 67 will be diverted towards the proposed road, and approximately 90% of the truck traffic are anticipated to shift to the proposed road. The proposed project is a 4-lane stretch to be executed on HAM mode with total design length of 108.134 km (45 m ROW) for total capital cost of Rs. 4377.38 Cr. The project will be implemented in two packages and is part of NH(O) Scheme. The financial assessment indicates a Project IRR of both the packages are higher than 12% and equity IRR of 15%. With respect to land acquisition, the 3G of 100% has been achieved in the project.
4. After the presentation, the Chair asked the PPPAC members for their observations. DoLA supported the proposal and said that they have no further comments to offer.
5. Director, DoE made the following observations:
 - a) For calculation of the present cost of the project, both SOR 2024-25 and escalation of 5% has been used, while either of the two should have been used. The rationale for using both SOR and escalation may be provided.
 - b) The utility shifting cost of both the packages need to be justified with its various components.

6. PD, NITI Aayog made the following observations:

- a) What would be the status of the existing highway after the proposed project is operational? If the existing highway will remain as an NH, NHAI may indicate the tolling mechanism for existing and proposed highway.

7. JS(ISO) made the following observations:

- a) Given that the Krishnapatnam port is a state sector port and there is already NH 67 providing connectivity to this port, is it not the responsibility of the state government to construct alternative road, if required?
- b) Why is the Authority not going for augmentation of the NH-67 instead opting for the proposed project?
- c) The BOT analysis of the project may be provided.

8. The Chair made the following observations:

- a) PIB approval was for the upgradation of NH-67 which was going through Nellore. The proposed project is mainly a greenfield project and not going through Nellore. Why is the instant proposal still named as Badvel-Nellore corridor? The name of the proposed corridor may be revised.
- b) What is the throughput traffic of the Krishnapatnam port? Which economic hinterland the port is serving? How will the proposed project enhance local trade and commerce and benefit local economic centres?
- c) There are other alternative State Highways along the proposed project which shall be impacted after the development of the proposed project? Does the State Government have any objections to this development?

- d) Is the proposed corridor Access-Controlled? If it is not access-controlled, adjacent landowners may seek direct access to the proposed highway. MoRTH/NHAI should coordinate with the State Government to address and resolve such issues.
 - e) The instant proposal is a new alignment and varies from PIB appraised project which was to expand the existing NH-67. There is also a significant difference in the TPC as compared to the PIB appraised cost.
 - f) Rationale for incorporating 08 nos. of animal underpasses (AUPs) along the entire stretch may be provided.
 - g) MoRTH should check the clearance criteria of the power lines? Is there a nationwide policy regarding this? Why different clearance height is required for new projects and existing projects?
9. MoRTH submitted the following to the queries raised by the PPPAC Members: -
- a) The Schedule of Rates (SOR) 2024-25 served as the basis for estimating the base civil construction cost for 2024-25 and escalation factor of 5% was applied to account for the cost increases from the bidding stage to the end of the construction period.
 - b) The utility shifting cost of various components were incorporated based on the assessment given by respective Departments and the costs have been ascertained properly.
 - c) Existing NH 67 has been developed by MoRTH and is under tolling at 2 locations by NHAI and the same will be continued. The proposed greenfield alignment shall be considered as a bypass of NH 67 and after construction of proposed greenfield alignment, existing portion of NH 6 shall be continued as an NH as it is connecting to the Major Town of Nellore City (which has a population of approx. 7.3 lakh). Further, open tolling will be followed for the proposed project.

- d) The proposed project was identified for development by MoRTH, following the recommendations of the Ministry of Ports, Shipping and Waterways (MoPSW). Further, the section from Mydukur to Nellore is a part of Inter Corridor Route under Bharatmala, interlinking two major corridors viz., (i) Hyderabad- Bangalore section of NH-44 and (ii) Chennai to Kolkata section of NH-16. Therefore, MoRTH has taken up the development of the instant project.
- e) The existing 142 km, 2-lane road was deemed unsuitable for 4-lane augmentation due to various constraints. The road's poor geometry, coupled with an insufficient Right of Way (ROW) of 20m, poses significant challenges. Additionally, the road passes through the congested Nellore town, characterized by sharp curves, necessitating the construction of service roads. Further, the existing ribbon development along the corridor adds to the complexity, making 4-lane augmentation unfeasible.
- f) The BOT analysis has been conducted for the proposed project. As per the analysis, the BOT mode is not viable, even after considering 100% tollable traffic of the existing alignment (7221 PCU). However, once the highway achieves sustainable traffic levels, it can be monetized through alternative models, such as Toll-Operate-Transfer (TOT) or Infrastructure Investment Trusts (InvITs).
- g) The proposed corridor currently terminates at a point which is approximately 22-28 km away from Nellore city. Therefore, the name of the proposed corridor will be revised to "Development of 4-lane from Badvel to Nellore (Guruvindapudi Village on NH-16) in the State of Andhra Pradesh on HAM mode."
- h) The Krishnapatnam port's traffic volume reached 59.6 million tonnes per annum (MTPA) in FY 2023-24 and is anticipated to increase to 85.3 MTPA by FY 2047-48. The proposed project alignment will enhance connectivity among three key industrial nodes in Andhra Pradesh: Koppaerthy Industrial Area in Kadapa (part of the Vizag-Chennai Industrial Corridor), Orvakal Industrial Area in Kurnool (part of the Hyderabad-Bengaluru Industrial Corridor), and Krishnapatnam Industrial Area in Nellore (a priority node under the Chennai-Bengaluru Industrial Corridor). Additionally, the proposed alignment connects eight Economic Nodes and one

Industry Park in Andhra Pradesh. Further, based on the O-D survey findings, the proposed road will benefit major transportation corridors, handling approximately 9.0 million tonnes of goods per year.

- i) The State Government has no objections to the development of the proposed project. In fact, they are highly interested in its development, recognizing the significant benefits it will bring to the region's infrastructure and economic growth.
- j) The proposed corridor is not access-controlled, but measures are in place to prevent unauthorized access. A boundary wall will be constructed along the corridor, with 14 designated access points, and the embankment height of 3 meters will also help prevent unauthorized entry. Further, this matter will be addressed in collaboration with the State Government to ensure that permissions for direct access are not granted.
- k) The proposed corridor aims to provide connectivity to Krishnapatnam Port. Initially, the PIB appraisal was for upgrading 67 km of the existing NH-67, but this alignment was not providing direct access to the port and, therefore deemed, unfeasible. Accordingly, this new alignment of 108.13 km was proposed. The increased road length along with the incorporation of 08 Animal Underpasses, changes in GST rate, and changed SoR (the PIB cost was arrived based on SOR 2021-22 and the present cost is based on SOR 2024-25), etc., has contributed to the increase in cost.
- l) The project corridor has provisions for eight animal underpasses (AUPs) to facilitate safe wildlife crossings, as it passes through forest areas. While there are no designated wildlife areas along the route, there is a tiger reserve that (although not yet notified) necessitates these underpasses to ensure safe wildlife crossings. Further, the AUPs shall be aligned with Expert Appraisal Committee recommendations.
- m) According to the latest power grid code, the required clearance for the construction of a new road project is 11.5 meters. For upgradation of any existing

road, the required clearance is 6-7 meters. MoRTH will further take it up with the concerned authority to explore the possibility of evolving uniform standards.

Recommendations:

10. After detailed deliberations, the PPPAC recommended the proposal for "Development of 4-lane from Badvel to Nellore (Guruvindapudi Village on NH-16) in the State of Andhra Pradesh on HAM mode" for consideration of the competent authority for giving administrative approval. The overall recommendation is subject to following specific recommendations:

- a) The appraised Total Capital Cost is Rs. 4,377.38 Cr.
- b) The project should be taken up on HAM mode under the NH(O) scheme.
- c) The name of the proposed corridor to be revised as "Development of 4-lane from Badvel to Nellore (Guruvindapudi Village on NH-16) in the State of Andhra Pradesh on HAM mode."
- d) MoRTH to conduct a technical scrutiny of the proposed project, particularly focusing on the cost estimate and to be compared with similar projects. This analysis should focus on completing the construction of the project corridor at a lower cost.
- e) All approvals, such as forest clearance, tree cutting, permissions etc., shall be obtained by the NHAI well before the bid submission date.
- f) For future projects, there should not be substantial variations in project scope and costs as compared to PIB approval.

11. Revalidation of its recommendation by the PPPAC is not required for the following post recommendation changes in the project costs/bid documents: -

- a) Any change in the date/time period for any time-bound actions like appointed date, financial close, construction period etc.
- b) Non-substantial change in risk-allocation.
- c) Any other changes/modification in the project proposal with the overall objective of making project successful.
- d) Further, MoRTH/ NHAI may decide whether the changes proposed post recommendations of the project proposal by the PPPAC fall within the threshold criteria as stated above. All such changes falling within the threshold criteria shall be appraised at the level of Secretary (RTH)/ BoD of NHAI as the case may be, without any further need of revalidation by the PPPAC and shall proceed with the approval process accordingly.

List of the participants of the 120th meeting of the PPPAC

- a) **Department of Economic Affairs, Ministry of Finance**
 - 1. Shri Ajay Seth, Secretary, EA- In Chair
 - 2. Shri Baldeo Purushartha, JS (ISD)
 - 3. Ms. Arya Balan Kumari, Joint Director
 - 4. Shri Manjeet Yadav, ASO
- b) **Department of Expenditure**
 - 1. Shri L. K. Trivedi, Director
- c) **NITI Aayog**
 - 1. Shri. Partha Reddy, Programme Director
- d) **Department of Legal Affairs**
 - 1. Shri Arpit Mishra, Deputy Legal Adviser
- e) **Ministry of Road Transport and Highways**
 - 1. Shri V Umashankar, Secretary
 - 2. Shri Manoj Kumar, CE (BPSP)
 - 3. Shri Vinay Kumar, AS (H)
 - 4. Shri Aditya Prakash, CE
 - 5. Shri Vivekanand Sharma, EE
 - 6. Shri Shashi Bhushan, SE (BPSP)
 - 7. Shri Ganesh Shelar, EE (BPSP)
- f) **National Highway Authority of India (NHAI)**
 - 1. Shri Santosh Kumar Yadav, Chairman
 - 2. Shri Alok Deepankar, Member (T)
 - 3. Shri K Venkatramana, Member (PPP)
 - 4. Shri Anil Choudhary, Member (Projects)
 - 5. Shri Prashant Khodaskar, CGM(T)

6. Shri M K Wathore, CGM (T)
7. Shri T. K. Vaidya, CGM(T)
8. Shri Harish Sharma, CGM



Comments on MoRTH proposals**1. Widening and strengthening of existing NH715 to 2-lane from Basanaghat (In Morigaon) to Bhuragaon (in Darrang district), including a new bridge across Brahmaputra River**

a. Project rationale: The economic rationale for the project is extremely weak.

- The project seeks to connect 2 districts of Assam, namely Morigaon and Darrang. Both districts have almost 90% of their population in rural areas dependent on agriculture. The information available in the public domain does not suggest either of the districts generating any significant economic surplus for transportation across Brahmaputra River.
- The proposal also does not carry any details about importance of this road / bridge for strategic purposes or international trade.
- MoRTH may revisit its assumptions in the March 2014 notification of this NH, and the current rationale.
- The traffic estimation seems to be based on subjective assumptions, and not on any robust O-D survey.

b. Project design: The project is overdesigned.

- The project is posed as a 2-lane road & bridge, but proposes 12-meter-wide carriageway with 30-to-45-meter RoW.
- Select road stretches are proposed with service roads on both sides, even though the expected traffic is low (of the order of 5500 PCU per day).
- Even a 2-lane bridge is proposed with 17-meter-wide spans. Other 2-lane bridges across Brahmaputra River seem to have smaller width (12.5-meter-wide bridge at Majuli and 14.84-meter-wide bridge at Jogighopa both awarded in 2021)

- 67 spans of the bridge are proposed with 115-meter length to facilitate inland water transport. That would require almost 7 km length to have such large spans.

2. 4-laning of Paramkundi to Ramanathapuram section of NH87

a. **Project rationale:** The proposal seeks to demolish the road section completed barely 6 years back.

- The upgradation of this section to 2-lanes with paved shoulders was completed in 2019. MoRTH may review whether the current traffic far exceeds the assumptions in that project to require 4-laning now by demolishing that work.
- MoRTH may examine if the existing road can handle the traffic for another 7 to 8 years with acceptable service quality. The current traffic on this section appears to suggest that.
- The land has been acquired (as per the proposal) and tenders have been called (as per newspaper reports), even before approval of the project by the competent authority. MoRTH may examine if that is the appropriate way of committing and using public funds.

b. Project design:

- As the land has been acquired, it may be too late to consider any alternate design. Nevertheless, MoRTH may verify if the option of building a new 2-lane road abutting the existing 2-lanes was considered, instead of designing for demolition of the road completed 6 years back.
- A much higher embankment of 2.5 meter throughout the project length has been planned instead of the normative 1 meter. MoRTH may examine if the project section passes through a flood-prone area requiring the higher embankment.
- The above aspect becomes even more prominent as the lead distance for the required earth is large at 45 km.

- A recently awarded (March 2024) package on Chennai-Tirupati NH had entailed civil construction cost of Rs. 22.71 crore per km. The civil cost of this proposal is almost 50% higher at Rs. 32.09 crore per km. MoRTH may examine if the proposal is over-designed requiring higher cost.

3. Six-lane Bhubaneswar Bypass

a. **Project Rationale:** There is a rationale to take up the project to keep NH16 (a part of the GQ) congestion free. Nevertheless, MoRTH may consider the following aspects.

- This section passes through 2 large cities, Bhubaneswar and Cuttack. The state government had planned another proposal almost 2 years back to decongest the city section at a much lower cost.

<https://timesofindia.indiatimes.com/city/bhubaneswar/works-department-plans-new-road-to-decongest-twin-cities-traffic/articleshow/99046605.cms>

- The availability of this alternate route, besides existing Khurda - Chandaka – Nanadakanan road may have implications on the likely traffic on the proposed bypass.
- The estimated traffic on the proposed bypass ranges from about 20,000 to 24,400 PCU. Therefore, it would solve only a part of the urban congestion problem. The rationale of a very high level of congestion (1 lakh PCU per day) in the city limits appears to be due to the local traffic, and most likely will remain partly addressed.
- The urban congestion is likely to be mostly during the day period, and that too during peak hours. During off-peak hours and during night time, the through traffic may still find it convenient (shorter distance) to pass through the 2 cities instead of using the bypass road. That may lead to lower than estimated traffic on the bypass road and lower toll earnings for NHAI.

b. Tolling Strategy: There is a lack of clarity regarding impact on the existing BOT concession for a section of the NH16. In view of the oral information given by NHAI officers in the meeting, the following aspects may be examined by MoRTH to see the possibility of the proposal resulting in undue benefit to the concessionaire.

- There seems to have a balance period of another 10 to 12 years.
- The non-compete period in the existing concession is perhaps over. However, the concessionaire will may have to be compensated for a few years (may be 5 to 7 years).
- NHAI proposes to share a part of the toll collected on the bypass road with the BOT concessionaire. Such sharing is not envisaged in the concession agreement (CA).
- Adopting a compensation method outside the CA will involve negotiation of the CA.
- The concession road will have lower traffic (as a part of the traffic will use the bypass road) resulting in lower wear & tear requiring lower maintenance cost. Yet, the concessionaire is proposed to be compensated as if the diverted traffic was also on the concession road.
- A clarity is also needed in respect of the appropriate forum and the competent authority for appraising and approving the negotiated concession.
- In view of the sharing of the toll revenue, the economic and financial viability of the project may also be lower. The viability should be reworked based on net toll to NHAI.