

**F.No.2/19/2024-PIU**  
**Government of India**  
**Ministry of Finance**  
**Department of Economic Affairs**  
**Infrastructure Finance Secretariat**  
**ISD Division**  
**(PIU)**  
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**STCs Building, Janpath New Delhi**  
**Dated: 15th January 2025**

**Record of Discussion**

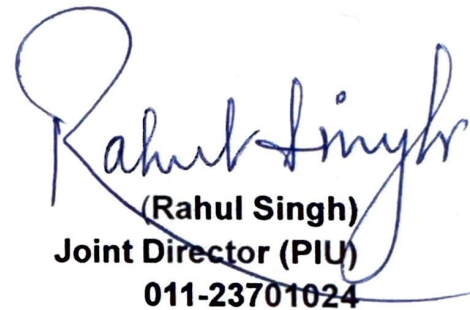
**Subject: Record of Discussion of the 119<sup>th</sup> meeting of the PPPAC for considering the three project proposals of the Ministry of Road, Transport & Highways (MoRTH) on PPP mode.**

**Reference: 119<sup>th</sup> Meeting of the PPPAC meeting held on 1<sup>st</sup> January, 2025.**

**Sir/Madam,**

The undersigned is directed to forward the Record of Discussion of the 119<sup>th</sup> meeting of the PPPAC held on 1<sup>st</sup> January 2025, under the Chairmanship of Secretary (EA) for information and necessary action.

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

  
(Rahul Singh)  
Joint Director (PIU)  
011-23701024

**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 119<sup>th</sup> meeting of the PPPAC for considering the following project proposals: -**

- (i) Ropeway project between Govindghat and Hemkund Sahib in the State of Uttarakhand on DBFOT model.**
- (ii) Six-lane Zirakpur Bypass in the state of Punjab & Haryana on Hybrid Annuity Mode.**
- (iii) Four-lane STRR, NH948A - Obalapura to S.Mudugadapalli in Karnataka & Tamil Nadu on HAM.**

1. The 119<sup>th</sup> meeting of the PPPAC was held on 1<sup>st</sup> January 2025 at 11:30 hrs under the Chairmanship of Secretary (EA) to consider one Ropeway project and two Road projects of MoRTH.
2. List of attendees is placed at **Annexure-I**.
3. Joint Secretary (ISD) welcomed the attendees to the meeting. NHLML made a detailed presentation for the ropeway project and NHAI made detailed presentation for the two road projects.

**I. Ropeway project between Govindghat and Hemkund Sahib in the State of Uttarakhand on DBFOT model.**

1. The proposed ropeway project between Govindghat to Hemkund Sahib aims to enhance accessibility and convenience for pilgrims visiting the Hemkund Sahib Ji, situated at an altitude of ~15,000 ft. in the District of Chamoli, Uttarakhand.
2. The basic details of the project are given in the table below:

**Table 1: Details of the project**

<b>Project Description</b>	Development of Ropeways from Govindghat to Hemkund Sahib in the State of Uttarakhand on DBFOT model under PPP mode
<b>PPP Model</b>	Design, Build, Finance, Operate and Transfer (DBFOT)

<b>Sponsoring Authority</b>	Ministry of Road Transport and Highways (MoRTH)		
<b>Implementing Agency</b>	National Highways Logistics Management Limited (NHLML)		
<b>Location</b>	State: Uttarakhand District: Chamoli		
<b>Length</b>	<b>12.40 Km</b> MDG Length – 10.55 Km 3S Length – 1.85 km		
<b>Concession Period</b>	35 years (including 06 years of construction period)		
<b>Estimated Capital Cost with Break-up under major heads of expenditure</b>	<b>S. No.</b>	<b>Summary of Cost</b>	<b>Amount (Rs. in Cr.)</b>
	1	Civil Cost for Stations and Towers	702.62
	2	Electromechanical Cost (E&M)	727.26
	3	<b>Total Construction Cost (Civil cost + E&amp;M cost)</b>	<b>1,429.88</b>
	4	Inflation on Construction Cost (Civil cost + E&M cost)	442.78
	5	GST@18% on (3,4)	337.08
	6	IC/ Pre-Operative Expenses @ 1.5% of Total Cost	33.15
	7	Financing Expenses (1%) on Debt	17.26
	8	Interest during construction (IDC) @ 11.60%	328.89
	9	<b>Total Project Cost (TPC)</b>	<b>2,589.04</b>
	10	Detailed Feasibility Study charges	3.10
	11	Agency Charges @ 3% of Construction Cost	50.62
	12	Independent Engineer Cost @3% of Construction Cost	50.62
	13	Forest Clearance Cost (LA cost shall be borne by State)	36.75
	14	<b>Total Capital Cost</b>	<b>2,730.13</b>
	<b>Additional Cost to the Project</b>		
	15	Land Cost (to be borne by the State Govt)	13.06
	16	Utility Shifting	1.13
	17	Utility Provisioning	16.31
	18	Rehabilitation & Resettlement cost	To be borne by the State Govt.

	19	<b>Total Additional Cost</b>	<b>30.5</b>
<b>Land Acquisition Status</b>	1	Total Land Required	<b>27.02 Ha</b>
	2	Private Land	<b>1.36 Ha</b> (Under acquisition by State Govt., This is part of the mandatory station)
	3	Forest Land	<b>25.66 Ha</b> (Forest Clearance to be initiated post alignment finalization by Bidder)
<b>Financial Viability</b>	PIRR		12.77%
	EIRR		15%
<b>VGF Sought</b>	Rs. 499.68 Cr (19.3% of the TPC)		
<b>Concession Agreement</b>	<ul style="list-style-type: none"> <li>The DCA is developed considering BOT MCA for National Highways as the base document.</li> <li>In addition, the learnings from HAM MCA and NITI Aayog MCA were incorporated in the draft DCA document.</li> </ul>		
<b>Bidding parameter</b>	<p>The bid parameter is lowest Viability Gap Funding (VGF) sought.</p> <p>In case of negative VGF, concessionaire will pay authority the quoted premium from annual realizable Fee.</p>		
<b>Bidding process</b>	Single Stage Two-part system of bidding.		

- MD, NHLML made a presentation to the PPPAC. The Gurudwara at Hemkund Sahib Ji opened for 4-5 months annually and approximately 1.8 lakh pilgrims visited the Gurudwara in the year 2023. The proposed project involves constructions of a 12.4 km ropeway from Govindghat to Hemkund Sahib with a total capital cost of Rs. 2,730.13 crore. The ropeway is expected to significantly reduce travel time from 3 days to ~3 hours with minimum capacity of 1,100 PPHPD (passengers per hour per direction). This is expected to boost tourism and provide a safer and sustainable mode of transport.
- The need for the ropeway arises from the challenging and congested 21 km trekking route, which includes a combination of pony, dandi, kandi, foot travel and part helicopter service. The entire journey typically takes around three days because of the high altitude and climate conditions, making it challenging for pilgrims, specially, children, differently-abled, and

elderly people. Therefore, the development of ropeway is proposed from Govindghat to Hemkund Sahib to address these concerns.

5. The ropeway will feature three mandatory stations (Govindghat, Ghangaria & Hemkund Sahib Ji) and 65 towers, with a construction duration of six (06) years. From Govindghat to Ghangaria, the project would use Monocable Detachable Gondola (10.55 km) and from Ghangaria to Hemkund Sahib, Tricable Detachable Gondola (1.85 KM) will be used. The project is designed to handle an estimated 13.9 lakh pilgrims annually. The ropeway would help in 97% reduction in travel time, increase in tourism, extend darshan days, and would help generate significant employment opportunities during both the construction and operation phases. The pre-construction activities and clearances are underway, with various approvals already received or in process. The financial assessment indicates a positive EBITDA from second year, with an expected equity IRR of 15% with some VGF and Project IRR of 12.77.
6. MD, NHLML has also informed that all suggestions of the PPPAC given in the Kedarnath Ropeway project shall be duly incorporated in this project also, and the bidding documents shall accordingly be revised.
7. After the presentation, PPPAC members made their observations. The representative of DoLA stated that they support the proposal and has no further comments to offer.
8. PD, NITI Aayog made the following observations:
  - a) The tariff notification should be part of the Concession Agreement and the same to be followed throughout the concession period.
9. Director, DoE made the following observations:
  - a) The agency charges considered by NHLML i.e., 3% of TPC is on the higher side and needs to be reconsidered.
10. The Chair made the following observations:
  - a) Whether the traffic projections are realistically assessed? It is assessed that the traffic projections are underestimated in the project. Given the project's potential to boost pilgrimage/tourism not for the Hemkund Sahib only but for a larger area including Badrinath and Valley of flowers, etc., the actual traffic may substantially exceed projections.

- b) As the traffic is expected to ramp up rapidly than the projected traffic post Commercial Operation Date (COD), it is essential to plan for the timely augmentation of holding facilities, particularly at entry and exit points, in collaboration with the State Government and Gurudwara committees (Hemkund Sahib Ji). Additionally, the State Government should focus on developing a comprehensive tourism ecosystem to support the anticipated growth in tourism in the State.
- c) All this will make the project more viable, which may attract a premium in view of the expected private sector efficiencies and competition, or a marginal grant to be given by the NHLML.
- d) It is noted that there is limited interaction between the NHLML and the State Government. As the State Government is the legal anchor for this project, the Authority (NHLML) should engage in detailed deliberations and maintain close coordination with the State Government for successful implementation of the project. The Authority should immediately schedule a joint meeting with the key stakeholders like Finance Department, Tourism Department and Forest Department of the State Government and Gurudwara committees (Hemkund Sahib Ji) to ensure proper coordination and resolve issues such as tariff notification, land acquisition, developing a tourism ecosystem, etc.
- e) As per the proposal, the concessionaire is required to pay to the Authority 5% of the annual realizable revenue as concession fee commencing from the beginning of the operation period. Instead of imposing 5% revenue share from the beginning, such revenue share can be commenced after the traffic reaching to a certain threshold level.

11. MoRTH submitted the following to the queries raised by the PPPAC Members: -

- a) The tariff notification to be issued by the State Government which will be part of the bidding document. A commitment from the State Government will also be obtained before the bidding process and this tariff notification would be followed throughout the concession period. In addition, the DCN will only be moved after the tariff notification.
- b) The agency charges shall be revised to 1.5% of the Civil cost.

- c) The traffic projections are done on a base case scenario. The bidders will carry out their own traffic assessment before bidding.
- d) A joint meeting with the key stakeholders of the State Government will be held immediately to resolve all concerns and issues. In addition, such meetings shall regularly be convened as per requirement.
- e) The provision of revenue share will be amended and revenue share will commence only after the annual traffic volume exceeds 8 lakhs.
- f) The State Government is preparing an integrated development masterplan for the region connecting Badrinath, Valley of flowers, etc., for creating an enabling ecosystem for the development of tourism as footfall is expected to increase in upcoming years.

### **Recommendations:**

12. The PPPAC recommended the proposal for “Development of the ropeway system from Govindghat to Hemkund Sahib Ji in Uttarakhand state (12.4 km) for obtaining administrative approval of the competent authority. This overall recommendation is subject to following specific recommendations.

- a) The appraised Total Capital Cost of the proposal is Rs. 2,730.13 Cr, of which civil construction cost is Rs.1,429.88 Cr. MoRTH while seeking approval of the competent authority should justify the quantum of provisions for the cost inflation (Rs. 442.78 Cr.) and interest during construction (Rs. 328.89 Cr.).
- b) The project is proposed to be implemented on DBFOT mode.
- c) The PPPAC assess that the traffic to the projects is underestimated. The traffic is expected to ramp up rapidly than the projected traffic post Commercial Operation Date (COD). The project may attract a premium in view of the expected private sector efficiencies and competition, or a marginal grant to be given by the NHLML. Based on the revised traffic projection, MoRTH may decide which model (premium or grant) will go to the market.

- d) As the ropeways come in the State List of the Constitution and there is a specific state act, namely, “The Uttarakhand Ropeways Act, 2014”, MoRTH should consult the Government of Uttarakhand regarding modalities for licensing and concession in favour of the selected promoter (concessionaire). The possibility of the concession for this ‘public private partnership’ through a tripartite agreement among the Government of Uttarakhand, National Highways Logistics Management Limited (NHLML), and the selected promoter may be explored.
- e) The Authority (NHLML) should engage in detailed deliberations and maintain close coordination with the State Government for successful implementation of the project. The Authority should immediately schedule a joint meeting with the key stakeholders like Finance Department, Tourism Department and Forest Department of the State Government and Gurudwara committees (Hemkund Sahib Ji) to ensure proper coordination and resolve issues such as tariff notification, land acquisition, developing a tourism ecosystem, etc.
- f) The concession agreement should detail the roles and responsibilities of all parties in unambiguous terms.
- g) The revenue share in the form of concession fee from the concessionaire to the Authority shall begin only when the overall traffic reaches a threshold of 8 lakhs per annum.
- h) The fee notification with initial fare, matrix for escalation over the concession period, and regulation for surge pricing should be notified by the State Government. That should be a part of the bidding documents.
- i) MoRTH should ensure that safety regulations and standards are in place, and safety audits are carried out at prescribed periodicity.
- j) The state government should come up with a proper rehabilitation and resettlement plan for the pony operators who are likely to be affected adversely by the project. The cost of Rehabilitation & Resettlement should be borne entirely by the state government.
- k) The responsibility for providing right of way, acquisition of land, forest clearance, permission for removal of trees, management & disposal of debris, and quarry for construction material should be on the State Government. These should be completed before inviting the bids.

- l) The responsibility for augmenting the carrying and holding capacity of the starting and destination points should also be that of the State Government. In addition, a master plan of the entire region may be prepared for taking full advantage of this ropeway project.

13. 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/ NHLML 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 NHLML as the case may be, without any further need of revalidation by the PPPAC and shall proceed with the approval process accordingly.

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## II. Six-lane Zirakpur Bypass in the state of Punjab & Haryana on Hybrid Annuity Mode.

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

**Table 2: Details of the project**

<b>Project Description</b>	Construction of 6 lane Zirakpur Bypass (starting from junction with NH-7 (Zirakpur-Patiala) (Design Ch. 0+000) and ending at Junction with NH 5 (Zirakpur – Parwanoo) (Design Ch. 16+800) (Total Length 19.2Km) in state of Punjab & Haryana under NH (O) on Hybrid Annuity Mode		
<b>PPP Model</b>	HAM		
<b>Sponsoring Authority</b>	Ministry of Road Transport and Highways (MoRTH)		
<b>Implementing Agency</b>	National Highways Authority of India (NHAI)		
<b>Location</b>	<b>State:</b> Punjab and Haryana <b>District:</b> SAS Nagar (Mohali) and Panchkula <b>Town:</b> Zirakpur and Panchkula		
<b>Length</b>	19.2 Km		
<b>Type of pavement</b>	Flexible		
<b>Lane configuration</b>	Six Lane (6-Lane)		
<b>Proposed RoW</b>	60 m		
<b>Structures</b>	<b>Major Bridges:</b> 01 Nos. <b>Minor Bridges:</b> 01 Nos. <b>LVUP:</b> 09 Nos. <b>VUP:</b> 01 Nos. <b>Underpass with Rotary:</b> 02 Nos. <b>ROB:</b> 01 Nos. <b>Flyover:</b> 05 Nos. <b>Box Culvert:</b> 46 Nos. <b>Pipe Culvert:</b> 22 Nos. <b>Cross Road Culvert:</b> 29 +10 Nos. <b>Elevated Structure:</b> 01 Nos.		
<b>Concession Period</b>	17 years (02 years of construction + 15 years of O&M)		
<b>Estimated Capital Cost with Break-up under major heads of expenditure</b>	<b>S. No.</b>	<b>Description</b>	<b>Amount (Rs in Cr.)</b>
	(A)	Civil Construction Cost including utility shifting (without GST)	1261.37

	(B)	I/C and Pre-operative Expenses	12.61												
	(C)	Financing Charges	5.67												
	(D)	Interest during construction (IDC)	50												
	(E)	<b>Estimated Project Cost (A to D)</b>	<b>1329.65</b>												
	(F)	Civil Construction Cost per KM	65.70												
	(G)	Land Acquisition Cost including R&R and compensation for structures	297												
	(H)	Other Cost (like Forest clearance, environmental mitigation measures etc.)	12												
	(I)	Contingencies @1% of (A)	12.61												
	(J)	GST 18% of (A)	227.05												
	(K)	<b>Total Capital Cost</b>	<b>1878.31</b>												
	(L)	<b>Estimated Bid Project Cost</b>	<b>1588.89</b>												
Land Acquisition Status	S. N.	Particulars	Details												
	1	Total Area of Land Required	94.69 Ha												
	a	Land provided by Punjab Govt.	52.39 Ha												
	b	Land provided by Haryana Govt.	15.13 Ha												
	c	Land to be acquired	27.17 Ha												
	2	3 (D) Gazette notification	99%												
	3	Status of 3 (G)	Awards announced by CALA for 99% land												
Financial Viability	<table><tr><td>Particulars</td><td>Details</td></tr><tr><td>Project IRR</td><td>12.21%</td></tr><tr><td>Equity IRR</td><td>15.00%</td></tr><tr><td>Project NPV @12% discounting (Rs. in Crore)</td><td>43.34</td></tr><tr><td>Project NPV @WACC of 10.31% (Rs. in Crore)</td><td>65.81</td></tr><tr><td>Min. DSCR</td><td>1.12</td></tr></table>			Particulars	Details	Project IRR	12.21%	Equity IRR	15.00%	Project NPV @12% discounting (Rs. in Crore)	43.34	Project NPV @WACC of 10.31% (Rs. in Crore)	65.81	Min. DSCR	1.12
	Particulars	Details													
	Project IRR	12.21%													
	Equity IRR	15.00%													
	Project NPV @12% discounting (Rs. in Crore)	43.34													
	Project NPV @WACC of 10.31% (Rs. in Crore)	65.81													
	Min. DSCR	1.12													

<b>Concession Agreement</b>	The project is proposed to be implemented as per Model Concession Agreement for HAM dated 0.11.2020 uploaded on MoRTH web site and amendment thereof.
<b>Bidding parameter</b>	The bidder who will quote lowest bid project cost shall be declared as "Selected Bidder".
<b>Bidding process</b>	Single Stage two-part system of bidding

2. The primary purpose of the proposed project is to ease up congestion in Zirakpur, Panchkula, and surrounding areas by bypassing traffic from Patiala, Delhi, Aerocity, and providing direct connectivity to Himachal Pradesh. The current proposal aims to reduce the travel time and ensure hassle-free movement in the congested urban section of NH7, NH5 and NH152.
3. The project starts at NH-7 (Chandigarh-Bathinda) in Zirakpur and follows the Punjab Government Master Plan till 13.1 km in Punjab. The termination of the Zirakpur bypass at 13.1 km would leave the exit point in a highly urbanized area of Panchkula, rendering it ineffective. Therefore, it was decided to bypass Panchkula town as well, with the endpoint at Chandimandir. The project will lead to a reduction in travel time by 35 minutes to 17 minutes and provide most efficient connectivity and will attain substantial gain in terms of reduced Vehicle Operating Cost (VOC). The proposed project is 6-lane bypass to be executed on HAM mode with total length of 19.200 km (60 m ROW) for total capital cost of Rs. 1878.31 Cr. The project will be implemented as part of NH(O) Scheme. The financial assessment indicates a Project IRR of 12.21% and equity IRR of 15%.
4. After the presentation, the Chair asked the PPPAC members for their observations. DoLA and DoE supported the proposal and stated that no further comments to offer.
5. PD, NITI Aayog made the following observations:
  - a) As per the proposal, the project is designed for a speed of 100 kmph, however, the speed at location 16+160 km has been restricted to 40 kmph which would be a bottleneck and impact the speed of the traffic on the highway.
6. JS(ISD) highlighted that there is no toll system in-built in the project stretch. The toll of the right-bound traffic is proposed to be collected at Chandimandir Toll Plaza which is already under a BOT Contract till 2028. MoRTH may clarify the mechanism for toll collection.
7. The Chair made the following observations:

- a) What is the status of the Land acquisition? Whether the State Government has given any land for the proposed project?
- b) What is the rationale for proposing the project on HAM mode instead on BOT (Toll)?
- c) Does the proposed project is access control throughout its entire stretch? Whether the development along the Ghaggar River stretch is on single pier? Whether any service road proposed along the project?
- d) The design speed at location 16+160 km is restricted to 40 KM/hr. It may create a bottleneck for traffic towards Chandimandir. Hence, the alignment of the project towards Chandimandir to be reassessed. Connecting the endpoint near Chandimandir through a smooth curve instead of a sharp one may be explored. Additionally, connecting NH-5 and the proposed bypass directly by adding an arm allowing traffic heading to Himachal Pradesh to flow smoothly circumventing the traffic at this busy junction may also be considered.
- e) Easy design should not be the criteria for designing road alignment. The road alignment should be designed in such a manner that it provides convenience to the public. If realignment requires extra rehabilitation, then it may be examined and decision may be taken accordingly.
- f) There would be a Rehabilitation and Resettlement (R&R) associated with the proposed project. Who shall be responsible for R&R?

8. MoRTH submitted the following to the queries raised by the PPPAC Members: -

- a) There is an army cantonment area at the end point near Chandimandir due to which the horizontal radius of the curve is restricted to 250 m and transition length is 60 m. Hence, speed restriction of 40 Kmph has been proposed. Extra-widening shall be provided at the location with radius of horizontal curve less than 300m.
- b) There are already 4 Toll Plazas [Azizpur (NH-7), Chandimandir (NH-5), Dappar (NH-152) & Jaloli (NH-7)] and the tolling for the proposed stretch can be collected with the adoption of Multi Lane Free Flow (MLFF) system for tolling which allows vehicles to pass through toll points at high speeds without stopping. The gantries with provision of Automatic Number Plate Recognition (ANPR) cameras & RFID readers can be installed

at all the entry and exit points. The user fee can accordingly be collected electronically through this system. The cost of this system is not the part of instant proposal and will be provisioned separately as a specialized assignment.

- c) Overall land required is 94.69 Ha (Punjab – 72.69 Ha and Haryana – 22 Ha), out of which 52.39 Ha is provided by Punjab and 15.13 Ha by Haryana. Therefore, 71.30 % of total land is being provided by State Governments of Punjab and Haryana and balance land of 27.17 Ha is private land to be acquired by the Authority.
- d) Considering the presence of multiple toll plazas in close proximity, it is not viable to bid such a small stretch under BOT and hence the project is proposed on HAM.
- e) The proposed project features an access-controlled design, with a 6195-meter elevated main carriageway with service road along the Ghaggar River. The elevated section will be supported by single pier with well foundations.
- f) For removing the bottleneck at the end point near Chandimandir, various redesigning options of the alignment shall be explored.
- g) The respective State Government shall be responsible to carry out the Rehabilitation and Resettlement (R&R) at their cost for the proposed project.

### **Recommendations:**

- 9. After detailed deliberations, the PPPAC recommended the proposal for 'Construction of 6 lane Zirakpur Bypass (starting from junction with NH-7 (Zirakpur-Patiala) (Design Ch. 0+000) and ending at Junction with NH 5 (Zirakpur – Parwanoo) (Design Ch. 16+800) (Total Length 19.2Km) in state of Punjab & Haryana under NH(O) on Hybrid Annuity Mode for consideration of the competent authority for giving administrative approval.
- 10. Following specific recommendations were made by the PPPAC.
  - a) The appraised Total Capital Cost including the cost of land acquisition is Rs. 1,878.31 Cr.
  - b) The project should be taken up on HAM mode under the NH(O) scheme.

- c) The Authority may ensure that the bypass remains a bypass and not become congested with subsequent urbanization on both sides. Urban planning authorities of respective States shall be made aware by the MoRTH for proper development planning of this area
  - d) The landing and exchange points of the proposed bypass shall be planned and designed properly to keep it free from congestion. In addition, the start and end point of the bypass should not become a new point of congestion.
  - e) Various realignment options may be explored to remove the bottleneck and to provide a smooth curve at the end point near Chandimandir. The authority shall be in touch with Western Command, Chandimandir for any speed control issue.
  - f) The integrated Multi Lane Free Flow (MLFF) system for tolling to be adopted with the provision of Automatic Number Plate Recognition (ANPR) cameras & RFID readers at all the entry and exit points.
  - g) All approvals, such as forest clearance, tree removal, permissions, etc. shall be obtained by the NHAI well before the bid submission date.
  - h) Possession of at least 90 per cent of the required non-forest land should be ensured before the bid submission date
  - i) The cost of Rehabilitation & Resettlement should be borne entirely by the state government.
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.

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### III. Four-lane STRR, NH948A- Obalapura to S.Mudugadapalli in Karnataka & Tamil Nadu on HAM.

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

**Table 3: Details of the project**

<b>Project Description</b>	Construction of 4-lane STRR, NH948A - Obalapura (Nelamangala Taluk)) to S.Mudugadapalli (Hosur Taluk) from km 0.00 to km 144.25/144.00 in Karnataka & Tamil Nadu on HAM						
<b>PPP Model</b>	HAM						
<b>Sponsoring Authority</b>	Ministry of Road Transport and Highways (MoRTH)						
<b>Implementing Agency</b>	National Highways Authority of India (NHAI)						
<b>Location</b>	State: Karnataka & Tamil Nadu District: Bangalore Rural, Magadi, Ramanagara, Bangalore Urban & Krishnagiri (TN)						
<b>Length</b>	144.25 km						
<b>Type of pavement</b>	Flexible						
<b>Lane configuration</b>	4 lanes Flush Median + Paved Shoulder with depressed/ Flush Median						
<b>Proposed RoW</b>	60 m						
<b>Structures</b>	<b>Major Bridges:</b> 01 Nos. <b>Minor Bridges:</b> 23 Nos. <b>Box Culvert:</b> 201 Nos. <b>Interchange:</b> 08 Nos. <b>Viaduct:</b> 12 Nos. <b>ROB/ RUB:</b> 03 Nos. <b>VUP:</b> 25 Nos. <b>Animal Underpass:</b> 05 Nos. <b>LVUP:</b> 31 Nos. <b>VOP:</b> 19 Nos.						
<b>Project Packages</b>	<b>Project Phase</b>	<b>Phase I</b>		<b>Phase II</b>			<b>Total</b>
	<b>Project Packages</b>	<b>Pkg-1</b>	<b>Pkg-2</b>	<b>Pkg-1</b>	<b>Pkg-2</b>	<b>Pkg-3</b>	<b>All Packages</b>
	<b>Length</b>	46.3	32.7	33.64	8.34	23.27	144.25

<b>Concession Period</b>	17 years (02 years of construction + 15 years of O&M)		
<b>Estimated Capital Cost with Break-up under major heads of expenditure</b>	<b>S. No.</b>	<b>Description</b>	<b>Amount (Rs in Cr.)</b>
	(A)	Civil Construction Cost including utility shifting (without GST)	4511.53
	(B)	I/C and Pre-operative Expenses (1% Civil Construction Cost)	45.11
	(C)	Financing Charges (1% of Debt)	25.98
	(D)	Interest during construction (IDC)	167.13
	(E)	Estimated Project Cost excl. GST	4749.75
	(F)	GST 18%	824.87
	(G)	<b>Estimated Project Cost incl. GST</b>	<b>5574.62</b>
	(H)	<b>Bid Project Cost on Bid Due Date</b>	<b>5821.30</b>
	<b>Pre-construction Cost</b>		
	(I)	Total Land Acquisition Cost (without considering share of GoK as per MOM dated 08.09.2021)	3178.67
	(J)	EMP Cost	35.67
	(K)	Contingencies @1% of Civil Cost	45.12
	(L)	Total Pre-Construction Cost	3259.46
	(M)	<b>Total Capital Cost {G + L}</b>	<b>8834.08</b>
<b>Land Acquisition Status</b>	<b>S. N.</b>	<b>Particulars</b>	<b>Details</b>
	1	Total Area of Land Required	989.32 Ha
	a	Government Land	73.72 Ha
	b	Forest Land	11 Ha
	c	Private land	904.6 Ha
	2	Section 3A	951.92 Ha. (96.2%)
	3	Section 3D	951.92 Ha. (96.2%)
	4	Section 3G	773.31 Ha (78.17%)
	5	Possession taken	73.50 Ha (7.43%)
<b>Financial Viability</b>	<b>Project IRR</b> <ul style="list-style-type: none"> <li>Phase-I <ul style="list-style-type: none"> <li>12.53% for package 1</li> <li>12.86% for package 2</li> </ul> </li> <li>Phase-II</li> </ul>		

	<ul style="list-style-type: none"> <li>○ 12.61% for package 1</li> <li>○ 12.64% for package 2</li> <li>○ 12.58% for package 3</li> </ul>
	<b>Equity IRR</b> <ul style="list-style-type: none"> <li>• 15% (for all packages)</li> </ul>
<b>Concession Agreement</b>	The project is proposed to be implemented as per Model Concession Agreement November 2020 with subsequent amendments issued thereafter.
<b>Bidding parameter</b>	Bids will be evaluated on the basis of the lowest Bid Project Cost.
<b>Bidding process</b>	Single Stage two-part system of bidding

2. The primary purpose of the proposed road is to ease up congestion in the Bengaluru City, to connect the Bangalore-Chennai Corridor and to provide further connectivity to Pune. The current proposal aims to provide a safe, smooth, efficient, and high-speed transport corridor linking important roads (NH-648, NH-48, NH-275, NH-948, NH-209, NH-75, SH-3, SH-85, and SH-35) and towns such as Dobbaspet, Magadi, Ramanagara, Kanakapura, Anekal in Karnataka, and Hosur in Tamil Nadu.
3. The project will improve connectivity to two railway stations, two airports, one proposed MMLP, and three ports. The Government of Karnataka will share 30% of the land acquisition cost. The project is expected to increase the average speed by 25% (from 80 km/hr to 100 km/hr) and reduce travel time by 20%, bypassing Bengaluru City. The proposed project is 4-lane to be executed on HAM mode with total length of 144 .25 km for total capital cost of Rs. 8834.08 Cr. The project will be implemented as part of NH(O) Scheme. The financial assessment indicates a Project IRR of above 12% and an equity IRR of 15% for all the packages.
4. After the presentation, the Chair requested PPPAC members to make their observations. The DoLA and DoE supported the proposal and stated that no further comments to offer.
3. PD, NITI Aayog made the following observations:
  - a) The proposed project is divided into five packages. It is suggested to rationalize the number of packages of the project.
  - b) The proposed project may have an integrated traffic violation detection system, similar to the one implemented in Mysuru. This system should utilize various methods such as

Automatic Number Plate Recognition (ANPR) cameras, sensors etc., to monitor and enforce road safety regulations.

- c) Does the proposed project have provisions for merging and demerging lanes to ensure that traffic flow is not disrupted by incoming or outgoing traffic at junctions or interchanges?
  - d) As per the proposal, approx. 8000 trees are to be felled. The Authority may state the status of the required clearance for the same.
  - e) Why is the project envisaged as a four-lane project and not as a six-lane? In which year, the traffic for six-lane will be triggered? Whether the entire project stretch is access controlled?
4. JS(ISC), DEA highlighted that the project is proposed on HAM, however, as per the traffic projections the project could be successfully carried out on BOT. The Authority to state the rationale behind adopting HAM.
5. The Chair made the following observations:
- a) The number of packages to be rationalized and should not be more than three (03).
  - b) Since the proposed project has sufficient traffic, the reason for not taking up the project on BOT mode may be provided.
  - c) How does the Authority intend to provide accessibility to the rural habitants in case the the stretch is an access-controlled?
6. MoRTH/ NHAI submitted the following to the queries raised by the PPPAC Members:
- a) The number of packages shall be rationalized and limited to two instead of five packages. Additionally, the construction period shall be revised to 2.5 years.
  - b) The integrated traffic violation detection system shall be adopted for the proposed project; however, it shall be a separate proposal and not a part of the current proposal.

- c) The merging and demerging lane has already been considered and shall be part of the proposed interchange design.
- d) The clearances required for tree felling from the State Government and Forest Department is in process and shall be obtained at the earliest.
- e) As this is a greenfield project it shall take some time for stabilization of traffic which may lead to not getting the proper value of the project if taken up on BOT. Further, three radial highways leading to Bangalore are already on BOT (Toll). Therefore, additional BOT (Toll) may lead to contractual conflicts. Hence, the project is proposed on HAM and after the completion of the entire STRR project, monetisation on TOT shall be considered for getting the proper value of the project.
- f) The traffic for 6-lane will trigger in the year 2030, two-three years post COD of the instant proposal. The proposed corridor can be converted to six-lane, however, there will be an upward cost revision of around Rs. 800 Cr.
- g) The entire project stretch is access controlled. The internal connectivity to the project is ensured by providing interchanges along the corridor. However, providing internal connectivity along the proposed project is the responsibility of the State Government. No service road is proposed in the instant proposal.

### **Recommendations:**

- 7. After detailed deliberations, the PPPAC recommended the proposal for 'Construction of 4-lane STRR, NH948A - Obalapura (Nelamangala Taluk)) to S.Mudugadapalli (Hosur Taluk) from km 0.00 to km 144.25/144.00 in Karnataka & Tamil Nadu on HAM for consideration of the competent authority for giving administrative approval.
- 8. Following specific recommendations were made by the PPPAC.
  - a) The appraised Total Capital Cost of the 6-lane project including the cost of land acquisition is Rs. 9613<sup>1</sup> Cr.
  - b) The project should be taken up on HAM under NH(O) Scheme.

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<sup>1</sup> The Total Capital Cost for four lane STRR project was Rs. 8834 Cr. The Total Capital Cost for six-lane STRR project is Rs. 9613 Cr. The detailed cost estimates are given at Annexure II.

- c) The number of packages proposed shall be revised and reduced to two packages instead of five packages.
  - d) Since the traffic for 6-lane is triggered within two-three years of COD, it would be prudent to a six-lane project instead of four-lane. The cost assessment for six-lane submitted by MoRTH is placed at Annexure II. MoRTH should take a view on 4-lane or 6-lane scope of the project.
  - e) The State Government shall bear the cost of the service road including the cost of additional land acquisition, if it needs service road for ensuring internal connectivity.
  - f) The integrated Multi Lane Free Flow (MLFF) system for tolling shall be adopted with the provision of Automatic Number Plate Recognition (ANPR) cameras & RFID readers at all the entry and exit points.
  - g) All approvals, such as forest clearance, tree removal, permissions, etc. shall be obtained by the NHAI well before the bid submission date.
  - h) Possession of at least 90 per cent of the required non-forest land should be ensured before the bid submission date.
9. 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.

10. The meeting ended with a vote of thanks to the Chair.

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## **Annexure-I**

### **List of the participants of the 119<sup>th</sup> 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. Ms. Anmol Waraich, Assistant Director
  - 5. Shri Rajender Singh, Section Officer
- b) Department of Expenditure**
  - 1. Shri L. K. Trivedi, Director
- c) NITI Aayog**
  - 1. Shri. Partha Reddy, Programme Director
  - 2. Ms. Nidhi Arora, Consultant
- d) Department of Legal Affairs**
  - 1. Shri Kasibhatla, Deputy Legal Adviser
- e) Ministry of Road Transport and Highways**
  - 1. Shri V Umashankar, Secretary
  - 2. Shri Puneet Agarwal AS&FA
  - 3. Shri V K Joshi, SE (HA &BPSP)
  - 4. Shri Shashi Bhushan, SE (BPSP)
  - 5. Shri Ganesh Shelar, EE (BPSP &HA)
- f) National Highways Logistics Management Limited (NHLML)**
  - 1. Shri Praksh Gaur, CEO, NHLML
- g) 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 Prashant Khodaskar, CGM(T)
  - 5. Shri T. K. Vaidya, CGM(T)

**h) Department of Tourism, Government of Uttarakhand**

1. Shri Sachin Kurve, Secretary

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