

**F.No.1/32/2024-PIU Part (1)**  
**Government of India**  
**Ministry of Finance**  
**Department of Economic Affairs**  
**Infrastructure Finance Secretariat**  
**ISD Division**  
**(PIU)**  
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STC Building, Janpath, New Delhi

Dated: 24<sup>th</sup> December 2024

**Record of Discussion**

**Subject: Record of Discussion of the 118<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: 118<sup>th</sup> Meeting of the PPPAC held on 3<sup>rd</sup> December 2024.**

**Sir/Madam,**

The undersigned is directed to forward the Record of Discussion of the 118<sup>th</sup> Meeting of the PPPAC held on 3<sup>rd</sup> December 2024, 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
2. CEO, NITI Aayog, Yojana Bhawan, New Delhi.
3. Secretary, Ministry of Road Transport & Highways, Transport Bhawan, New Delhi.
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 118<sup>th</sup> meeting of the PPPAC for considering the following project proposals**

- (i) Six-Lane Greenfield Highway from Pagote to Chowk of NH 348B in Maharashtra on Built Operate Transfer (BOT) mode.**
- (ii) Four-Lane Patna – Arrah - Sasaram Access Controlled Greenfield Corridor’ as a new National Highway NH-119A on Hybrid Annuity Model (HAM).**
- (iii) Ropeway Project between Sonprayag and Kedarnath on Design, Build, Finance, Operate and Transfer (DBFOT) model.**

- 1) The 118<sup>th</sup> meeting of the PPPAC was held on 3<sup>rd</sup> December 2024 to consider two road projects and one ropeway proposal of MoRTH:
- 2) List of the participants is placed at **Annexure-I**.
- 3) Joint Secretary (ISD) welcomed the attendees to the meeting. NHAI made detailed presentations for the two road projects and NHLML made a detailed presentation for the ropeway project.

**I. Six-Lane Greenfield Highway from Pagote to Chowk of NH 348B in Maharashtra on Built Operate Transfer (BOT) mode**

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

**Table I: Details of the project**

<b>Project Description</b>	Construction of 6 lane Greenfield Highway starting from Pagote (Design km. 0.000) (its Junction with NH-4B (New NH-348) near) to Chowk (Design km. 29.219) in the State of Maharashtra on BOT (Toll) mode under NH (O)
<b>PPP Model</b>	BOT (Toll)
<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: Maharashtra District: Raigad Town: Uran-Khalapur-Panvel

<b>Length</b>	29.219 Km (Greenfield Corridor)		
<b>Type of pavement</b>	Rigid		
<b>Lane configuration</b>	6 lanes with PS		
<b>Proposed RoW</b>	60 m		
<b>Structures</b>	<b>Major Bridges:</b> 6 Nos. <b>Minor Bridges:</b> 5 Nos. <b>VUP:</b> 08 Nos. <b>LVUP:</b> 04 Nos. <b>Viaduct:</b> 04 Nos. <b>ROB:</b> 2 Nos. <b>Box Culvert:</b> 10 Nos. <b>Tunnels:</b> 2 Nos. (Tunnel -1 of 1.9 km & Tunnel -2 of 1.57 km, Total length – 3.47 km)		
<b>Concession Period</b>	20 years (including 30 months of construction)		
<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	2649.40
	(B)	Utility Shifting cost	50.40
	(C)	<b>Total Civil Construction Cost (excluding GST)</b>	<b>2699.80</b>
	(D)	Escalation during construction @4%	154.42
	(E)	IC & pre-operative expenses @ 1% of A	27.00
	(F)	Financing charges 0.75% of debt	19.18
	(G)	Interest During construction (IDC) @ 10.97%	230.62
	(H)	GST on civil cost @ 18% of (C+D)	513.76
	(I)	GST on services @ 18% of (E+F)	8.31
	(J)	<b>Total Project Cost</b>	<b>3653.09</b>
	(K)	Forest, wildlife and other costs	6.09
	(L)	Land Acquisition and R&R cost	840.18
	(M)	Supervision Charges on utility	1.26
	(N)	<b>Total Capital Cost (H+I+J+K)</b>	<b>4500.62</b>
<b>Land Acquisition Status</b>	<b>S. N.</b>	<b>Particulars</b>	<b>Details</b>

	<b>1</b>	Total Area of Land Required	175.94 Ha
	<b>2</b>	Existing Land available	0 Ha
	<b>3</b>	Additional land to be required	175.94 Ha
	<b>a</b>	Private Land	124.335 Ha
	<b>b</b>	Government Land	31.865 Ha
	<b>c</b>	Forest Land	19.74 Ha
	<b>4</b>	3A	100% published
	<b>5</b>	3D	3D has been prepared and shall be published after approval of project by Competent Authority by Feb 2025
<b>Financial Viability</b>	Equity IRR: 15% Project IRR: 13.78%		
<b>Concession Agreement</b>	Based on MCA for BOT (Toll) dated 24.08.2020 and subsequent amendments.		
<b>Bidding parameter</b>	The Premium quoted and payable after 2nd Anniversary of COD will increase by 1% per annum in subsequent years during the rest of the concession period.		
<b>Bidding process</b>	Single Stage with two envelopes		

2. The primary purpose of the proposed project is to ease up congestion on the roads connecting JNPT and nearby national highways, especially for the port related traffic. The current proposal aims to reduce the travel time and burden on various interchanges of Mumbai-Goa Highway (NH-66), Mumbai-Pune Expressway, and intercity roads of Mumbai and Navi Mumbai.
3. There is no direct road from JNPT / Pagote to Chowk, a major interchange on the NH-48. The project will lead to a reduction in travel time by about 20 minutes, and the distance between JNPT to NH-48 crossing, NH-66, and Mumbai-Pune Expressway will be reduced by about 8 to 10 km. This decrease in distance and travel time will not only

facilitate efficient transport of goods to and from the port but will also reduce traffic congestion, fuel consumption, and air pollution.

4. After the presentation, the Chair asked the PPPAC members for their observations. DoLA supported the proposal and stated that no further comments to offer.
5. PD, NITI Aayog made the following observations:
  - a) The stretch between NH 348 A and the proposed road (New NH-348 B) has a very large traffic of 1.1 lakh PCU per day. Will that continue to be a bottleneck?
  - b) Utility shifting need should be assessed by the Project Sponsoring Authority (PSA) in advance and NoCs from relevant agencies should be facilitated by the PSA. The PSA may take up with the government agencies to assess the cost of such utility shifting.
6. Director, DoE made the following observations:
  - a) What is the rationale for proposing concession period of 20 years or 25 years?
  - b) Financing charges for BOT projects should be reconsidered. In particular, financing charges for BOT (toll) projects are typically 0.75% of debt which is higher than the usual financing cost such as 0.5%.
  - c) Land acquisition and pre-construction activities should be completed on time.
7. JS(ISD), DEA observed that NHAI had proposed premium or grant both as the bidding parameter. If grant is considered as the bidding parameter, it should not be left open-ended. The quantum and source of the grant may be firmed up.
8. The Chair made the following observations:
  - a) As this project involves tunnels, it may be prudent to take up adequate geotechnical investigations for incorporating the required stabilization measures in the project scope and cost.
  - b) Land acquisition for shifting of the high-voltage transmission lines should be done along with the acquisition for the road section to avoid delays in the project implementation.



- c) The current practice of keeping the utility shifting, especially the high-voltage transmission line, within the scope of the concessionaire may be reviewed. It may be possible to take up those activities as a part of the pre-bid activities to expedite the project implementation and reduce risks for the concessionaire.
- d) Various clearances related to forest land and CRZ, etc., should be obtained before calling the bids.
- e) Similarly, the land acquisition process should be completed substantially before the bids.

9. MoRTH/ NHAI submitted the following to the queries raised by the PPPAC Members:

- a) With regard to the bottleneck in the small stretch, 55,000 containers equivalent to 1,10,000 PCU are currently passing through the small stretch and there will be no increase in the overall traffic for this stretch. Hence, there will not be any bottleneck in the stretch.
- b) With respect to different concession periods, a 20-year concession may require a marginal grant to be given, whereas a 25-year concession may get a premium.
- c) As per the financial analysis, a grant of Rs. 68 crores may be required for 20 years concession, which is equivalent to 1.86% of the total project cost (TPC). However, the private concessionaire may optimize the costs, and the project may attract a premium.
- d) Relevant approvals for utility shifting are currently under process. As per the model concession agreement (MCA), the utility shifting is kept within the scope of the Concessionaire and the Authority would facilitate utility shifting.
- e) The shifting of electrical lines above 220 KV poses a significant challenge. Therefore, the liability of shifting these lines lies with the authority. It will be get done by respective transmission agencies, and the NHAI will pay for it.
- f) For BOT (toll) projects, based on market studies, a financing cost of 0.75% is deemed appropriate. On the other hand, for HAM projects, a financing cost of 0.5% may be appropriate. For example, in the Nasik-Phata BOT (toll) project, the financing costs was considered at 0.75%.

- g) With respect to land acquisition, 100% of the stage 3A of the project will be completed as a part of the pre-project activities. The notifications for the 3D stage are kept ready to be published after approval of the competent authority.
- h) Approximately 3,600 trees are to be cut for the project. The project also requires CRZ clearance. These two permissions will be obtained in time.
- i) With respect to tunnels, a thorough analysis has been conducted and based on geotechnical report, tunnel support system has been designed. An algorithm has been specified in the contract agreement to cater for the price variation in case of different soil condition. Further, the tunnel shall be designed and constructed in accordance with the IRC guidelines.

### **Recommendations:**

10. After detailed deliberations, the PPPAC recommended the proposal for 'Construction of six lane Greenfield Highway starting from the Junction at NH-4B (New NH-348) near Pagote (Design km. 0.000) till the Junction on NH-48 at Chowk (Design km. 29.219) in Maharashtra state for consideration of the competent authority for giving administrative approval.
11. Following specific recommendations were made by the PPPAC.
  - a) The appraised Total Capital Cost including the cost of land acquisition is Rs. 4500.62 Cr.
  - b) The project should be taken up on BOT (Toll) mode under the NH(O) scheme.
  - c) The concession period may be kept as 20 years, which may attract a premium in view of the expected private sector efficiencies and competition, or a marginal grant to be given by the NHAI, if those expectation do not materialize.
  - d) NHAI should identify the land required for the utility shifting, especially the high-voltage transmission lines, and take up the land acquisition along with the main acquisition for the road portion.
  - e) Possession of at least 90 per cent of the required non-forest land should be ensured before the bid submission date.

- f) All approvals such as diversion of forest land, tree removal, permission under the CRZ regulations should be obtained by NHAI well before the bid submission date.
- g) In future proposals, the details of the forest land diversion, number of trees to be removed and status of the statutory approvals should be brought out.
- h) Considering the large length of the tunnels (almost 3.5 km), the required geotechnical investigations should be carried out to minimize technical challenges and additional stabilization measures during implementation.
- i) MoRTH may review the appropriateness or otherwise of the current practice of utility shifting, including high-voltage transmission lines, being in the scope of the concessionaire.

12. 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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**II. Four-Lane Patna – Arrah - Sasaram Access Controlled Greenfield Corridor’ as a new National Highway NH-119A on Hybrid Annuity Model (HAM)**

1. The proposal is to construct a 4-lane greenfield access-controlled highway corridor from Sasaram to Arrah with a total length of 120.832 km on HAM mode. The corridor starts in Saura (near Sasaram) and passes through districts of Sasaram (Rohtas), Bhojpur and Patna connecting to Arrah and terminating at Patna Ring Road in Sadisopur. Current connectivity through SH-12 (2 Lane).
2. The basic details of the project are given in the table below:

**Table II: Details of the project**

<b>Project Description</b>	<b>4-laning of Patna – Arrah – Sasaram Access Controlled Greenfield Corridor-NH-119A</b>
<b>PPP Model</b>	Hybrid Annuity Mode
<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: Bihar District: Ara
<b>Length</b>	120.10 KM  Package I: 74.43 Km Package II: 45.67 km
<b>Alignment</b>	Greenfield: 100 km  Brownfield: 10 km with service road
<b>Concession Period</b>	15 yr + 2 yr Construction (package 1)  15 yr + 2.5 yr Construction (package 2)

	Description		Package-1	Package-2
			(Rs in Cr.)	(Rs in Cr.)
Estimated Capital Cost with Break-up under major heads of expenditure	<b>Civil Construction Cost</b> (including shifting of utilities, Labour Cess and Seigniorage Charges)		<b>1090.02</b>	<b>1322.92</b>
	IC/Pre-Operative Expenses		10.90	13.23
	Financing Expenses		3.97	4.83
	Interest During Construction (IDC)		38.34	56.43
	Estimated project cost as on bid date (2+3)		<b>1144.96</b>	<b>1397.42</b>
	GST @18%		190.74	231.83
	Contingencies @1% on Civil Cost (As per Ministry's circular dated 09.05.2018)		10.90	13.22
	Cost of Land Acquisition, Re-settlement and Rehabilitation		<b>365.00</b>	<b>353.97</b>
	Cost of Diversion of Forest Area and Tree Cutting, Utility supervision Charges & EMP		4.35	-
	<b>Total Capital Cost with GST</b> (Estimated Project Cost + Cost of Pre-construction Activities + GST)		<b>1715.95</b>	<b>1996.45</b>
	<b>Estimated Bid Project Cost</b>		<b>1440.72</b>	<b>1767.87</b>
Land Acquisition Status	<b>S. N.</b>	<b>Particulars</b>	<b>Details</b>	
	<b>1</b>	Total Area of Land Required	Total Required: 510 Ha 3A: 90% 3D: 86% 3G: 57%	
	<b>a</b>	Private Land	316.5 Ha for package-1 & 206 HA for Package-2	
	<b>b</b>	Government Land	17.51 Ha for Package-1	

			15.5 Ha. for Package-1
	<b>c</b>	Forest Land	31 Ha (Likely approval by 30.12.2024)
<b>Financial Viability</b>	Project IRR: 12.71% (Package I); 12.95 % (Package II)		
<b>Structures</b>	<b>Structures</b>	<b>Package I (Nos)</b>	<b>Package II (Nos)</b>
	Major Bridges	02	02
	Minor Bridges	07	06
	Minor bridges with 4 m clearance	18	03
	Flyover	05	05
	ROB	01	01
	VUP	05	06
	LVUP	16	11
	SVUP	18	05
	Culverts	116	40
<b>Concession Agreement</b>	Based on MCA for Hybrid Annuity Model dated 09.12.2016 and subsequent amendments.		
<b>Bidding parameter</b>	Lowest Bid Project Cost quoted by the bidders		
<b>Bidding process</b>	Single Stage with two envelopes		

3. This proposal was discussed earlier in the 117<sup>th</sup> meeting of the PPPAC held on 05.09.2024. It was noted in that meeting that the justification for a greenfield corridor between Sasaram and Patna seems to be weak in view of the network of existing highways. In the 118<sup>th</sup> meeting, Chairman, NHAI made a presentation, which included a laboured attempt to justify the project.
4. After the presentation, the Chair requested PPPAC members to make their observations. The DoLA, NITI Aayog and DoE supported the proposal and said that there had no additional comments to offer.
5. The Chair requested clarifications on the following observations: -

- a) What is the justification for constructing Patna-Arrah-Sasaram Greenfield alignment in view of the existing two state highways passing parallel to the proposed alignment as well existing NH network of NH-319 (Mohania-Ara) and NH-139 (Aurangabad-Patna)?
  - b) Can the existing State highways be upgraded with 4 lanes and elevated roads in urban areas instead of constructing a greenfield highway?
  - c) What is the status of land acquisition in the project?
6. MoRTH submitted the following to the queries raised by the Chair: -
- a) Sasaram is about 45 km from Mohania (starting of NH-319) and the current traffic on Mohania - Arrah 4 Lane NH is about 13,000 PCU. Similarly, Aurangabad (start of NH 139) is located about 48 km from Sasaram with NH-139 currently catering traffic of about 21,000 PCU and passes through highly built-up areas. Further, keeping in view the distance between Sasaram – Aurangabad – Patna is 188 km, as compared to the proposed 120 km for the Sasaram – Arrah – Patna Corridor, the Sasaram – Aurangabad – Patna route via NH-19 would not be the preferred choice for travel from Varanasi to Patna.
  - b) The traffic travelling from Lucknow to Patna is currently using Purvanchal expressway enters Bihar at Buxar travelling via NH-922 to Patna. The current traffic at NH-922 is 20589 and likely increase in traffic upon commissioning of Buxar spur connectivity to Purvanchal Expressway, the traffic load on NH-922 which will soon breach Level of service “B” thus necessitating a high-speed connectivity between Ara and Patna terminating at Patna ring road.
  - c) With respect of construction of elevated corridor, it was explained that in order to improve the geometrics considering the design speed as per NH standards, bypasses/re-alignment in certain length shall be required, even if elevated corridor is planned. Further, the cost of elevated corridor is found to be higher than the greenfield alignment.
  - d) With respect to land acquisition, the land acquisition activities taken up simultaneously as part of DPR. As on date, about 86% of land has been notified under section 3D of the NH Act out of which compensation under 3G has been approved for about 58% of the requisite land.

7. The PPPAC noted that the economic rationale for this project is weak in view of the following aspects.
- a) There are already two parallel state highways (SH 12 and SH 15 which are barely 20 km apart) connecting Sasaram with Patna. The proposed project is being constructed in the middle of those state highways.
  - b) The project has no relevance for the traffic between larger economic centers in the region, e.g., between Varanasi and Patna, or Lucknow and Patna, or Patna and Ranch, or Patna and Kolkata, or Varanasi and Kolkata.
  - c) The responsibility of improving the state highways and providing connectivity between district headquarters is responsibility of the state government.

**Recommendations:**

8. The PPPAC recommended the proposal for consideration of the competent authority for according administrative for construction of a “Four-Lane Patna – Arrah - Sasaram Access Controlled Greenfield Corridor” as a new National Highway NH-119A on Hybrid Annuity Model (HAM). This overall recommendation is subject to following specific recommendations.
- a) The appraised Total Capital Cost of the 120.1 km long project is Rs 3712.40 Cr.
  - b) This project is being recommended primarily in view of a large extent of land already acquired (section 3D notification issued for 437 ha of land vesting with the government) and compensation of about Rs. 350 Cr paid even before obtaining approval of the competent authority for the project.
  - c) MoRTH committed that post-April 2024, land acquisition process beyond the preliminary notification under section 3A of the NH Act is being taken up only after obtaining approval or at least an in-principle approval of the competent authority for the entire project.
  - d) MoRTH may also explore the possibility of finding ways to de-notify the lands which are no longer required or the lands acquired for the projects which have weak economic rationale.

- e) In future projects, MoRTH should present complete justification for opting for greenfield development instead of brownfield development of existing national highways from providing a more cost-effective and time-efficient option analysis.
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.

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### III. Ropeway Project between Sonprayag and Kedarnath on Design, Build, Finance, Operate and Transfer (DBFOT) model

1. The proposed ropeway project between Sonprayag and Kedarnath aims to enhance accessibility and convenience for pilgrims visiting the Kedarnath temple, situated at an altitude of 3,583 meters in Rudraprayag district of Uttarakhand.
2. The basic details of the project are given in the table below:

**Table III: Details of the project**

<b>Project Description</b>	Development of the ropeway system from Sonprayag to Kedarnath in the State of Uttarakhand (12.9 km) on DBFOT 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: Rudraprayag Town: Kedarnath Town		
<b>Length</b>	12.9 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	916.37
	2	Electromechanical Cost (E&M)	1,051.03
	3	<b>Total Construction Cost (Civil cost + E&amp;M cost)</b>	<b>1,967.40</b>
	4	Inflation on Construction Cost (Civil cost + E&M cost)	619.35
	5	GST@18% on (3,4)	465.62
	6	IC/ Pre-Operative Expenses @ 2% of Total Cost	45.78
	7	Financing Expenses (1%) on Debt	32.02



	8	Interest during construction (IDC) @ 11.6%	746.36
	9	<b>Total Project Cost (TPC)</b>	<b>3,876.53</b>
	10	Detailed Feasibility Study charges	3.00
	11	Agency charges @ 3% of Construction Cost	69.65
	12	Independent Engineer Cost @3% of Construction Cost	69.65
	13	Forest Clearance Cost (LA cost shall be borne by State)	62.46
	14	<b>Total Capital Cost (TCC)</b>	<b>4,081.28</b>
	<b>Additional Cost to the Project</b>		
	15	Land Cost (To be borne by State Govt.)	0.06
	16	Utility Shifting	0.46
	17	Utility Provisioning	11.17
	18	Rehabilitation & Resettlement cost (@20 lacs per person)	200
	19	Additional Cost	<b>211.69</b>
<b>Land Acquisition Status</b>			
	1	Total Land Required	<b>19.73 Ha</b>
	2	Government Land	<b>0.1 Ha</b> <ul style="list-style-type: none"> <li>Land required for station is 0.1</li> <li><b>Status Update:</b> Initiated by State Govt.</li> </ul>
	3	Forest Land	<b>19.63 Ha</b> <ul style="list-style-type: none"> <li>Land required for station is 4.55 Ha</li> <li>Land required for Towers &amp; ROW 12.42 Ha</li> <li>Land required for access road and avalanche protection is 2.66 Ha</li> <li><b>Status Update:</b> Forest Clearance to be initiated post</li> </ul>

		alignment finalization by Bidder
<b>Financial Viability</b>	<ul style="list-style-type: none"> <li>Total Project Cost (Rs. in cr.): <b>Rs.3,876.53 Cr.</b></li> <li>EBITDA &gt; 0: <b>1<sup>st</sup> year onwards</b></li> <li>Expected Premium: <b>20.77%</b></li> <li>Equity IRR: <b>15%</b></li> <li>Project IRR: <b>14.06%</b></li> </ul>	
<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>	Bidder whose Grant is the lowest or Premium offered to the Authority is highest (as the case may be) shall be declared as the selected Bidder.	
<b>Bidding process</b>	Single Stage Two-part system of bidding.	

- MD, NHLML made a presentation to the PPPAC. The temple at Kedarnath, which is open for about six months annually, attracted approximately 19 lakh pilgrims in the year 2023. The proposed project involves construction of a 12.9 km ropeway from Sonprayag to Kedarnath with a Total 4081.28 Cr. The ropeway is expected to significantly reduce travel time from the current 7-8 hours to just 36 minutes with minimum capacity of 1800 PPHPD (passengers per hour per direction) and potential maximum capacity of 6000 to 8000 PPHPD. It 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 19 km tracking route, which includes a combination of taxi services, ponies, dani, foot travel, and helicopter services. It takes 7-8 hours to travel from Sonprayag to Kedarnath through the congested route. Additionally, the pilgrims are not allowed to pass through Wildlife sanctuary after 6 PM to ensure safety. Therefore, the development of ropeway is proposed from Sonprayag to Kedarnath to address these concerns.
- The ropeway will feature three mandatory stations (Sonprayag, Gaurikund, Kedarnath) and 20 towers, with a construction duration of six (06) years. The project is designed to handle an estimated 22.7 lakh pilgrims annually. The ropeway would help in 93% reduction in travel time, increase in tourism, extended darshan days, and would generate significant employment opportunities during both 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 the first year, with an expected equity IRR of 15% and project IRR of 14.06%.

6. 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.
7. PD, NITI Aayog made the following observations:
  - a) The construction period of the proposed ropeway is six (6) years. The Authority may consider reducing the construction period by optimizing and grouping parallel activities.
  - b) The tariff notification should be part of the Concession Agreement and the same to be followed throughout the concession period.
  - c) There is no existing Manual for Specification of Standards for the 3S detachable cable system. Authority may consider to get such Manual for Specification of Standards for the 3S detachable cable system at the earliest.
  - d) The relevant NoCs and approvals like dumping site, etc., shall be pre-identified and approval of the Competent Authority may be facilitated by the PSA.
  - e) The fare-box revenue will be collected by the Concessionaire. Considering that there will be cash transactions, there should be transparent system for accounting of gross revenue.
8. Director, DoE made the following observations:
  - a) As per Budget Announcement for FY 2022-23, 8 Ropeway Projects with a length of 60 Km were to be awarded. However, as per the PPPAC Memo, 15 ropeway projects of ~60 Km was planned including the ropeway project from Sonprayag to Kedarnath. It may be clarified whether 8 Ropeway projects have been converted into 15 Ropeway projects? If so, then whether it has been done with the approval of the Competent Authority?
  - b) What is the basis of estimation of Electromechanical (E&M) Cost? The cost of mechanical equipment should be assessed with OEMs to minimize the variation in bids.

- c) The scheme of MoRTH under which the instant project is proposed to be funded is not given in the PPPAC Proposal. MoRTH should incorporate the name of Scheme in the PPPAC Memorandum.

9. JS(ISD), DEA highlighted the following points

- a) Several soft costs such as Independent Engineer charges / Pre-Operative Expenses, financing cost etc., are charged on Total Project Cost instead on Civil Construction Cost. The same may be charged on Civil Construction Cost.
- b) In addition to the premium, the concessionaire has to pay to the Authority 5% of the gross realizable revenue as concession fee. There should not be multiple payouts from the Concessionaire.
- c) There would be a Rehabilitation and Resettlement (R&R) issue in the project but the project is not mentioning who is going to take this responsibility?

10. The Chair made the following observations:

- a) Whether NHLML is authorized to undertake ropeway projects in States and award the concession, as ropeway is a state subject. What is the legal framework of undertaking the proposed project?
- b) Given the absence of local expertise and capacity to undertake the proposed ropeway project, what strategies does the Authority intent to adopt to create a globally competitive environment for the prospect international bidders?
- c) Safety regulations and standards are not available at present for the proposed project. Post-COD, the ropeway is anticipated to experience significant traffic. Therefore, the Authority may ensure that safety regulations and standards are in place through a periodic third-party safety audit.
- d) What is the meaning of finalization of the alignment by the concessionaire? Will it impact the cost of the project?
- e) In the proposed project, who shall be responsible to make the termination payment, if required?

- f) Appropriate expansion of the holding facilities especially at the entry point should be planned. The State Government should take necessary measures to accommodate the anticipated footfall of visitors.

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

- a) Due to extreme weather conditions in the region, the available time period for construction is limited to approximately 6 to 7 months annually. During the stakeholder consultation, potential bidders also requested for the same. However, there is an inbuilt incentive to complete the construction work at the earliest in terms of getting early commercial operations Date (COD) and start revenue earning.
- b) The tariff notification to be issued by the State of Uttarakhand will be part of the bidding document and the same would be followed throughout the concession period and a commitment to that effect from the State of Uttarakhand will also be obtained before the bidding process.
- c) Regarding the Manual for specification and standards for 3S detachable system, at present there are only two companies in the world who manufacture the 3S system with European standards. Initially, the European standards shall be adopted. After gaining experience with more projects, manuals and standards will be developed specifically for India. For testing and commissioning, a similar approach adopted in Metro Rail shall be adopted for the Ropeway system.
- d) All approvals, clearance including the dumping of debris and the utility shifting shall be kept within the scope of the Authority (NHLML). NHLML will get it done through the State Government. The State Government is responsible for land acquisition.
- e) The accounting of fare box revenue will be transparent and will be based on the industry norms. A provision of providing real time visibility of ticketing information to the Authority has been included in the Concession Agreement.
- f) Regarding the announcement of 8 Ropeway Projects with a length of 60 Km, MoRTH stated that earlier it was 08 Ropeway projects which was revised in 2023 with 15 Ropeway projects with a combined length of 60 km with the approval of the Competent Authority.

- g) The electro-mechanical cost of Rs.1051.03 Cr has been arrived based on DPR and the same is in order. The E&M cost has been benchmarked with various projects implemented globally using 3S technology.
- h) The costs such as Independent Engineer Cost, Financing charges, etc., will be charged on Civil Construction Cost and necessary changes will be made in the cost calculations.
- i) With respect to the concession fee, the provision of concession fee of 5% of gross realizable revenue will be removed.
- j) With respect to tariff fixation, the Fee Notification will be issued by the Government of Uttarakhand for the ropeway project in accordance with Uttarakhand State Ropeways Act, 2014. The tariff would be as such which will not do undercutting in the existing pony rates, etc.
- k) With respect to the legal framework, though ropeways fall in the State List, under the 359<sup>th</sup> Amendment to the Government of India (Allocation of Business Rules) dated 30.01.2021, MoRTH was given the responsibility of “Coordination, research, standards and policy matters in respect of ropeways and other innovative/ alternative mobility solutions”. Further, MoRTH vide letter dated 05.08.2021 delegated the responsibility for execution of Ropeways projects to NHLML. Budget Announcement 2022-23 is about developing 60 km of Ropeway projects under “National Ropeways Development Programme- Parvatmala Pariyojana”.
- l) Since there are no players available in the country, MoRTH will take necessary steps to create global competitiveness.
- m) With respect to safety audit, 3S is the best ropeway technology available globally and is currently being developed as per CEN standards. Additionally, the testing (commissioning and bi-annual safety audit) shall be carried out by EN notified agencies as per the prevalent EN guidelines.
- n) With regard to the technical feasibility, a detailed analysis has been carried out for the entire ropeway proposal and based on which the TPC has been calculated. Further, the finalization of the alignment is in the scope of the concessionaire to provide the concessionaire with the flexibility to optimize the alignment within the approved RoW only. Such optimization may bring down the cost.

- o) The NHLML shall be responsible to make the termination payment.
- p) MoRTH further submitted that the State Govt. is currently developing the Masterplan at Kedarnath and Sonprayag to improve the capacity of the valley to cater to ~35,000 passengers every day as footfall is expected to increase in the upcoming years.

**Recommendations:**

12. The PPPAC recommended the proposal for “Development of the ropeway system (12.9 km length) from Sonprayag to Kedarnath in Uttarakhand state (12.9 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. 4081.28 Cr, of which civil construction cost is Rs.1967.40 Cr. MoRTH while seeking approval of the competent authority should justify the quantum of provisions for the cost inflation (Rs. 619.35 Cr.) and interest during construction (Rs. 746.36 Cr.).
- b) The project is proposed to be implemented on DBFOT mode.
- c) 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.
- d) The concession agreement should detail the roles and responsibilities of all parties in unambiguous terms.
- e) 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.
- f) MoRTH should ensure that safety regulations and standards are in place, and safety audits are carried out at prescribed periodicity.



- g) 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.
- h) 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.
- i) The responsibility for augmenting the carrying and holding capacity of the starting and destination points should also be that of the State Government.

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.

14. The meeting ended with a vote of Thanks to the Chair.

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## **Annexure-I**

### **List of the participants of the 118<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. Shri Rajender Singh, Section Officer
5. Shri Manjeet, Assistant Section Officer
6. Shri Gaurav Jumrani, Consultant

#### **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 Prateek Tiwari, Assistant Legal Adviser

#### **e) Ministry of Road Transport and Highways**

1. Shri V. Umashankar, Secretary
2. Shri Manoj Kumar, Chief Engineer
3. Shri Shashi Bhushan, Superintend Engineer

#### **f) National Highways Logistics Management Limited (NHLML)**

1. Shri Praksh Gaur, CEO, NHLML