

**Government of India  
Ministry of Finance  
Department of Economic Affairs**

**Public Private Partnership Appraisal Committee**

**50<sup>th</sup> Meeting on February 17, 2012**

**Record Note of Discussion**

The 50<sup>th</sup> meeting of the Public Private Partnership Appraisal Committee (PPPAC), chaired by Secretary, Economic Affairs, was held on February 17, 2012. The list of participants is at **Annexure-I**.

2. The Chair welcomed the participants and noted that the PPPAC would consider nine proposals from Ministry of Road Transport & Highways (MoRTH) for grant of final approval.

3. At the outset, Advisor, Planning Commission requested that the PPPAC may consider the generic comments of Planning Commission in their appraisal notes for all the projects under consideration. It was indicated that:

3.1 **Modifications in DCAs:** Planning Commission in their appraisal notes have suggested improvement in four clauses of the Draft Concession Agreements(DCAs), viz., Termination on account of Congestion (Clause 29.2.3), Change in Ownership (Clause 7.1k), Disbursement of VGF during construction (Clause 25.2.2) and Charge on Escrow Account (Clause 40.2).

3.2 **Project Design and Structures:** The second set of generic issues in the appraisal notes of Planning Commission relate to provisions of vehicular under/over passes and pedestrian/ cattle underpasses. Para 2.13.2 of the Manual of Specifications and Standards (MSS) provides that *"the vehicular under/overpass structures shall be provided at the intersections of the Project Highway with all the National Highways and State Highways. The structure may be either an underpass or an overpass depending upon the nature of terrain, vertical profile of road, availability of adequate Right of Way, etc. The Project Highway shall be carried at the existing level in the rural areas and the cross road would be either an underpass or overpass and entire cost involved in lowering or raising the existing cross road would be included as a part of the cost of the Project Highway. However, in urban areas the cross roads shall be carried at the existing level. Decision whether the cross road or Project Highway will be carried at the existing level will be taken at the time of preparing the feasibility report and would be based on consideration of drainage, land acquisition, provision of ramps for the grade separated facility, height of embankment and project economy, etc."* Adviser, Planning Commission indicated that while the MSS permits exceptions, currently all structures at the cross roads are being proposed by

NHAI at grade and construction of the National Highways as flyovers/above grade. This may be reviewed. Planning Commission is of the view that to improve safety and reduces capital and operational cost, the National Highway stretches may be constructed at grade and the underpasses/overpasses may be constructed above or below grade.

- 3.3 **Construction of By-passes:** The provision of bypasses on the project stretches may be reviewed. Further, the construction of the bypasses requires land acquisition which is a time consuming process and can delay the award of the projects. Hence, the delinking of the construction of bypasses from the project scope of work may be considered; and, the bypasses could be constructed later, if required, as separate projects.

#### **Modifications in Draft Concession Agreements (DCAs)**

4. Joint Secretary, Highways, MoRTH informed that the issues raised by Planning Commission for improvement of the clauses of the DCA were issues with respect to the Model Concession Agreement (MCA) for National Highways. A meeting of the Inter-Ministerial Group (IMG) for MCA for National Highways, chaired by Secretary, RTH had been held two weeks back and these issues had been deliberated upon during the discussion. The Ministry was considering making changes in the MCA based on the deliberations of the IMG on MCA for National Highways.

5. Advisor, Planning Commission suggested that while amending the MCA was the mandate of the MoRTH and could take time, for the instant projects, PPPAC could consider making changes in the project DCAs based on the appraisal notes of Planning Commission as project specific changes.

6. Deputy Secretary, Department of Expenditure ( DoE) indicated that the Department has reservations with respect to some of the changes being suggested. DoE would communicate its views in writing after the receipt of the minutes of the meeting of the IMG. Further, representative of DEA had not participated in the deliberations. Hence, it would be appropriate to convene another meeting of the IMG to arrive at a consensus on the issues. Joint Secretary, DEA endorsed the suggestion and requested that the record of discussion of the deliberations of the IMG may be shared with the members of IMG for further consideration.

7. Secretary, RTH observed that a consensus had not been arrived at during the meeting of the IMG with respect to effecting amendments in the MCA for National Highways. Further, the changes being suggested by Planning Commission constituted setting aside the recommendations of the B.K. Chaturvedi Committee which have the approval of the Cabinet. Hence, he was not in support of changing the provisions of the MCA as project specific departures in the DCAs for the projects under consideration. The Chair concurred with the view of Secretary, RTH. He advised MoRTH to take a lead and expedite the resolution of the issues.

***(Action: MoRTH)***

### **Project Design and Structures**

8. Secretary, RTH observed that the issue of constructing the National Highways at-grade and cross roads below the grade level has been discussed in several meetings of the PPPAC in the recent past. Further, Planning Commission, in the appraisal notes in respect of three projects under consideration in the current meeting, have indicated cost for such constructions and termed it as an “unjustified expenditure”. This position of Planning Commission is unsubstantiated. The expenditure should not be viewed in isolation as the alternative entails cost of land acquisition (LA) and of provisioning of ramps for grade separated facility. Further, the consent of the State Authorities would be required for each of the underpass proposed to be developed below/above grade levels which could delay the execution of the projects. If the cost of additional land acquisition on the State roads, as well as the costs associated with such structures is taken into account, there is likelihood that the alternative being suggested by Planning Commission may emerge as a costlier proposition. Further, developing the cross roads at the location of Vehicular Under Passes(VUP)/Pedestrian Under Passes (PUP) at grade is also required for slow moving vehicles and animal driven vehicles. Furthermore, constructing the project highway above grade improves the safety at the cross roads since the setting up of shops/ way side stalls and other amenities remain at grade on the State roads leaving the fast moving vehicles on the National Highways secure from slow/cross traffic at these locations.

9. Member (Technical), NHAI emphasised that the issue was not whether the VUPs/PUPs were warranted on the stretch but whether they should be built at grade or below /above grade. A committee had been formed with IRC, NHAI and Planning Commission as members which had supported the position of NHAI with respect to building VUPs/PUPs at-grade to satisfy the local conditions. He referred to IRC 103 and emphasised that at grade PUPs are favoured to address the requirement of physically challenged pedestrians. Hence, the proposal of NHAI with respect to these structures was in accordance with the MSS and may be considered for approval.

10. Member (Technical), NHAI stated that Planning Commission has not shared the basis of arriving at the ‘unjustified expenditure’ on account of the proposals of NHAI and requested Planning Commission to share the same. NHAI has undertaken a preliminary examination of the indicated expenditure; NHAI’s view is that even if the VUP/PUPs are deleted from the scope of work, NHAI would not save the quantum indicated as ‘expenditure’. In a typical project, the cost associated with constructing VUP/PUP at-grade and making the project highways above grade entails an additional cost of around 5 percent. This incremental cost is necessary to satisfy the requirements of the local conditions. Development of underpasses had related problems such as water logging. While pumping out water to ensure free carriageway could be stipulated in the project documents as concessionaire’s scope of work, it would be difficult to administer its implementation on ground. Hence, there may be greater safety concerns, restrictions to free movement of cross traffic and resistance from the local residents, in case the suggestion of Planning Commission is implemented on ground.

11. Deputy Secretary, DoE requested Planning Commission to provide the basis for the quantum of expenditure indicated by them in the appraisal notes.

12. The Chair observed that the justification indicated by MoRTH merits consideration in view of the local conditions, safety considerations and their estimation that the incremental cost is not of the magnitude indicated by Planning Commission. Hence, he suggested that the proposal of MoRTH with respect to the alignment of the National Highways with regards to VUPs and PUPs could be accepted. Advisor, Planning Commission indicated acceptability with these suggestions. Other members of the PPPAC also agreed with this view.

#### **Construction of By-passes**

13. Member (Technical), NHAI indicated that usually Planning Commission suggests NHAI to bid out longer stretches of more than 100 km to attract developer interest. Structuring projects in a manner that bypasses are built separately would compromise the cohesiveness of the project stretch. Further, the bypasses have been proposed in the areas where the local traffic is resulting in congestion on the National Highway or where Right of Way is not available for widening the carriageway. Further, building the bypasses separately would be administratively difficult and, if built on EPC mode, would constitute a drain on the resources of NHAI and pose related issues of its maintenance.

#### **Inconsistency between provisions of the NH Toll Fee Rules and the MCA**

14. Joint Secretary, DEA queried whether MoRTH had obtained the opinion of the Department of Legal Affairs on the concern of the PPPAC that Article 27.1 in the MCA needs to be aligned with the NH Fee Rules, 2008, as decided by the PPPAC in its 49<sup>th</sup> meeting held on January 23, 2012.

15. Joint Secretary, MoRTH stated that Rule 7 of the Toll Fee Rules provides that “..... *in case of private investment projects, the fee collected under the provision of these rules shall be appropriated by the Concessionaire in accordance with the provisions of and for the performance of its obligations under the agreement entered into by such concessionaire*”. Hence, this can be interpreted to suggest that the Toll Rules allow flexibility as per the executed Concession Agreement to charge lower rates than those notified under the Toll Rules. MoRTH had referred the two clauses to Department of Legal Affairs (DoLA). The advice of the Department had been received by MoRTH which confirms that the Toll Rules provide adequate flexibility to allow the private sector entity to charge lower toll fee. Hence, the provisions of the MCA and the Toll Rules are in consonance and there is no requirement to amend the provisions of the MCA with respect to the Toll Fee.

16. The advice of DoLA was examined by the representative of DoLA present in the meeting and it was confirmed that the two provisions are consistent.

**Agenda Item I: Proposals from Ministry of Road, Transport and Highways (MoRTH) for grant of final approval: Six-laning of Gundugolanu - Rajahmundry section of NH-5 from km 1022.494 to km 901.753 in the State of Andhra Pradesh under NHDP Phase V on BOT (Toll) basis.**

**Total length: 120.741 km; Total Project Cost: Rs. 1617 crore; Cost of pre-construction activities to be financed by NHAI: Rs. 149.25 crore; Concession Period: 20 years including 2.5 years of construction period.**

**Major development works/ structures:** Major Bridge: 5; Minor bridges: 43 (of these 11 are on service roads); Flyover: 4; ROBs: 4 plus 2 RoB's as 2-lane; 4-lane elevated sections: 2; Major road junctions: 68; Service roads: 145.712 km; Toll plazas: 2 (km 977.7 & km 946.3); FOB: 5; Vehicular underpasses: 29; Pedestrian/cattle underpasses: 15; Culverts: 275; Truck laybys: 2; Bus-bays: 38

17. Director, Department of Economic Affairs (DEA) informed that the instant proposal was deferred in the 49<sup>th</sup> meeting of the PPPAC on account of non-receipt of the appraisal note of the Planning Commission. The appraisal note has since been received and MoRTH has responded to the observations of DEA and Planning Commission.

18. Advisor, Planning Commission, indicated that the Guidelines for Formulation, Appraisal and Approval of PPP projects prescribe a six-week period for appraisal, followed by a response to the observations by the Sponsoring Ministry as well as adequate time period to the appraising entities to re-examine to the proposal based on the response before the consideration of the proposals by the PPPAC. Joint Secretary, DEA indicated that the period of appraisal for projects based on model concession agreements is four weeks. The Guidelines approved by CCEA in October 2005 have been amended in 2007 and prescribe that the meeting of the PPPAC shall consider a proposal after four weeks of its circulation. This position has been thereafter, reiterated by the Cabinet Secretariat with the approval of the Prime Minister.

19. The PPPAC noted that Planning Commission in their appraisal note have stated that the project involves an "unjustified expenditure" in violation of the MSS by not constructing the project stretch at grade at cross roads and construction of service lanes. Member (Technical), NHAI reiterated that the basis of arriving at the cost have not been shared by Planning Commission. The Chair advised NHAI to examine the observation and send a response thereon, to be circulated with the Record of Discussion of the meeting so that the process of due diligence and the integrity of the process of appraisal and approval by the PPPAC is not compromised. This was agreed to<sup>1</sup>.

20. Director, DEA indicated that NHAI has proposed a concession period of 20 years for the project. However, diversion of traffic from the National Highway is expected once the traffic of the State Highway is restored after the commissioning of the new Godavari Bridge at the State Highway, which would shorten the travel distance by around 40 km. Hence, the concession period may be increased to 24 years. This was agreed to by Secretary, RTH.

---

<sup>1</sup> NHAI, vide letter dated NHAI/Tech/AP/Gund-Raj/2011 dated February 18, 2011 responded to the observations. The justification of the project structures communicated by NHAI is at **Annexure II** of the RoD.

21. Advisor, Planning Commission indicated that they have no other concerns except the generic issues already discussed.
22. All the other members of the PPPAC supported grant of approval to the project.
23. The PPPAC granted final approval to the project under NHDP -V for TPC of Rs. 1617 crore with maximum VGF as Rs.161.70 crore (10 percent of TPC), subject to fulfilment of the following conditions:
- a. NHAI shall revise the concession period to 24 years.
  - b. NHAI shall ensure land acquisition in respect of the project to provide ROW in accordance with the provisions of the Model Concession Agreement (MCA) for National Highways.
  - c. MoRTH shall obtain clearances such as environment and forest clearance, before commencing work on the project site.
  - d. MoRTH shall obtain prior approval of the PPPAC on any change in TPC, scope of work or project configuration as noted above.
  - e. MoRTH shall circulate the final documents to the members of the PPPAC for record.
- (Action: MoRTH/NHAI)*

**Agenda Item II : Proposal from MoRTH for grant of final approval: Four laning of Goa/Karnataka Boarder to Kundapur section of NH - 17 from km 93.700 to km 283.300 in the state of Karnataka under NHDP - IV on DBFOT (Toll) basis.**

**Total length: 187.282 km; Total Project Cost: Rs. 1655.01 crore; Cost of pre-construction activities to be financed by NHAI: Rs. 373.32 crore; Concession Period: 28 years including 2.5 years of construction period.**

**Major development works/ structures:** Major Bridge: 14; Minor bridges: 39; Elevated Highway: 350 m, Flyover: 4; Bypass: Nil, ROB: 2; RUB: 1, Tunnel: 4 of 1144 mt., Major road junctions: 15 ; Minor road junctions: 91; Service roads: 60.742 km; Realignment: 37 of 55.35 km, Toll plazas: 3 (km 119.90, km 179.80 & km 239.64); Vehicular underpasses: 3; Pedestrian/Cattle underpasses: 14/3; Culverts: 575; Truck laybys: 4; Bus-bays: 53, Rest area:3

24. Director, DEA informed that around 462 hectares (ha) including 205 hectares of forest land is yet to be acquired, which constitutes around 40 percent of total land required of the project. This could result in delays in implementation of the project after its award.
25. Member (Technical), NHAI responded that land acquisition is not expected to be a problem for the project. Government of Karnataka (GoK) is supportive of the efforts of NHAI in land acquisition and NHAI expects that the project would be able to reach the Appointed Date in the timely manner. Further, acquisition of forest land is already under process and the clearance is expected without delay.

26. Director, DEA indicated that NHAI has proposed a concession period of 29 years for the project. However, based on the projected traffic and the design capacity of the project highway, the concession period may be revised to 28 years. This was agreed to.

27. The PPPAC noted that Planning Commission in their appraisal note have stated that the project involves an “unjustified expenditure” in violation of the MSS by not constructing the project stretch at grade at cross roads and construction of service lanes. Member (Technical), NHAI reiterated that the basis of arriving at the cost have not been shared by Planning Commission. Representative of NHAI provided a detailed justification for the proposed structures.<sup>2</sup>

28. Advisor, Planning Commission indicated that they have no other concerns except the generic issues already discussed.

29. All the other members of the PPPAC supported grant of approval to the project.

30. The PPPAC granted final approval to the project under NHDP-IV for TPC of Rs. 1655.01 crore with maximum VGF as Rs. 662 crore (40 percent of TPC), subject to fulfilment of the following conditions:

- a. NHAI shall revise the concession period to 28 years.
- b. NHAI shall ensure land acquisition in respect of the project to provide ROW in accordance with the provisions of the Model Concession Agreement (MCA) for National Highways.
- c. MoRTH shall obtain clearances such as environment and forest clearance, before commencing work on the project site.
- d. MoRTH shall obtain prior approval of the PPPAC on any change in TPC, scope of work or project configuration as noted above.
- e. MoRTH shall circulate the final documents to the members of the PPPAC for record.

*(Action: MoRTH/NHAI)*

**Agenda Item III : Proposal from Ministry of Road, Transport and Highways (MoRTH) for grant of final approval: Four laning of Sultanpur-Varanasi Section of NH-56 from km 134.700 to km 279.700 in the State of Uttar Pradesh under NHDP - IV on DBFOT (Toll) basis.**

**Total length: 154.95 km; Total Project Cost: Rs. 1366.90 crore; Cost of pre-construction activities to be financed by NHAI: Rs. 197.83 crore; Concession Period: 20 years including 2.5 years of construction period.**

**Major development works/ structures:** Major Bridge: 1; Minor bridges: 12; Flyover: Nil; Bypass: 12 of 82.13 km, ROB: 5; Major road junctions: 31; Service roads: 51.376 km; Realignment: 2.165 km, Toll plazas: 2 (km 173.45, & km 232.10); Vehicular underpasses: 4; Pedestrian&Cattle underpasses: 20; Culverts: 265; Truck laybys: 3; Bus-bays: 50

<sup>2</sup> The justification of the project structures communicated by NHAI is at **Annexure III** of the RoD.

31. The Chair noted that out of 780 ha of land, 605 ha is yet to be acquired, which constitutes around 78 percent of total land required of the project. This could result in delays in implementation of the project after its award.

32. Member (Technical), NHAI responded that notification under 3 (A) is under process and it is expected that total land acquisition is expected to be completed within the next nine months, i.e. before the Appointed Date. Advisor, Planning Commission has indicated that 12 bypasses of 82.13 km have been proposed which may be delinked with the project to avoid delay in land acquisition. Member, Technical, NHAI indicated that bypasses needs to be provided based on the project requirements and cannot be linked. The project has been approved by the Standing Cost Committee and the cost per km is Rs. 8.82 crore per km, which is lesser than the norm of Rs. 9.5 crore per km.

33. Joint Secretary, DEA indicated that project may be considered for approval subject to the condition that TPC of the project will not be increased in the event of delays in land acquisition. This was agreed to.

34. The PPPAC noted that Planning Commission in their appraisal note have stated that the project involves an “unjustified expenditure” in violation of the MSS by not constructing the project stretch at grade at cross roads and construction of service lanes. Representative of NHAI provided a detailed justification for the proposed structures.<sup>3</sup>

35. Advisor, Planning Commission suggested that concession period for the project may be increased to 25 years from the proposed 21 years. Director, DEA indicated that based on the projected traffic and the design capacity of the project highway, the concession period may be revised to 20 years. Secretary, RTH indicated that they were in favour of shorter concession period as traffic projected under MCA provisions assumes growth by 5 percent, whereas in actual this may be around 7-8 percent. Thus, a shorter concession period was desirable and 20 years was agreed to.

36. All the other members of the PPPAC supported grant of approval to the project.

37. The PPPAC granted final approval to the project under NHDP IV for TPC of Rs. 1366.90 crore with maximum VGF as Rs. 546.768 crore (40 percent of TPC), subject to fulfilment of the following conditions:

- a. NHAI shall revise the Concession period to 20 years.
- b. NHAI shall ensure land acquisition in respect of the project to provide ROW in accordance with the provisions of the Model Concession Agreement (MCA) for National Highways.

---

<sup>3</sup> NHAI, vide letter dated NHAI/Phase-IVB/NH-56(Sultanpur)/2011/PPPAC dated February 18, 2011 responded to the observations. The justification of the project structures communicated by NHAI is at **Annexure IV** of the RoD.

- c. MoRTH shall obtain clearances such as environment and forest clearance, before commencing work on the project site.
- d. MoRTH shall obtain prior approval of the PPPAC on any change in TPC, scope of work or project configuration as noted above.
- e. MoRTH shall circulate the final documents to the members of the PPPAC for record.

*(Action: MoRTH/NHAI)*

**Agenda Item IV: Proposal from Ministry of Road, Transport and Highways (MoRTH) for grant of final approval: Four laning of Hoskote-Dabespeta Section on NH-207 in the State of Karnataka under NHDP Phase IV on DBFOT (Toll) basis.**

**Total length: 80.02 km; Total Project Cost: Rs. 720.69 crore; Concession Period: 30 years including 2 years of construction period.**

**Major development works/ structures:** Minor bridges: 10, Flyover: 1; Bypass: 2 of 21.10 km, ROB: 3; At grade junctions: 100, Service roads: 27.53 km; Realignment: 7, Toll plazas: 2 (km 73.50, & km 125.50); Vehicular underpasses: 7; Pedestrian/Cattle underpasses: 2/2; Culverts: 189; Truck laybys: 4; Bus-bays: 62, Rest Area:1, FOB: 1,

38. Director, DEA informed that the instant proposal was considered and deferred in the 47<sup>th</sup> meeting of the PPPAC. MoRTH had been advised in the 47<sup>th</sup> meeting to MoRTH to re-submit the two proposals for consideration by the PPPAC after reviewing the project cost and design, re-estimating the requirement of the RoW for the project and the cost thereof and making corrections in the project documents, including the schedules, to align them with the Toll Policy and the proposed scope of work.

39. Joint Secretary, DEA indicated that MoRTH has revised the land requirement from 1194.42 ha to 483.38 ha. However, the total land available has been reduced from 217.06 ha to 87.84 ha. Member (Technical), NHAI responded that land available is reduced due to Government land that was earlier indicated as available when the required RoW was 60 m. Further, notification under 3 (A) is under process and it is expected that LA will be completed within the next nine months, i.e. before the Appointed Date.

40. The Chair queried whether NHAI had reviewed the requirement for four laning of the first section of around 30 km that did not, on the basis of the projected traffic, require immediate expansion of the carriageway. Member, NHAI informed that four laning of entire project stretch is required in view of the under mentioned circumstances:

- i. The project highway links Hoskote (on Bangalore-Chennai road-NH-4) to Dobbaspeta (on Bangalore-Mumbai road-NH-4). This highway will be key link for the traffic coming from Mumbai and going towards Chennai and vice-versa.
- ii. The present geomatrix of this highway is poor. Once the stretch is four-laned, the traffic from north of Bangalore to south of Bangalore is expected to utilise this route. All the traffic coming from Mumbai and going towards Chennai will follow the proposed highway as it is a shorter route and bypassing congestion of Bangalore city.

- iii. Hoskote is the starting point of the Bangalore-Chennai Expressway for which the alignment has already been fixed. After its construction the traffic on proposed road will further increase.
- iv. NH-4 starting from Mumbai-Bangalore-Chennai has been four-laned/six-laned except few stretches where upgradation from 2-lane to 4-lane has already been approved.
- v. The adjoining stretches of Hoskote-Dobbaspeth road are already four-laned. The proposed road in a length of about 50 km is even presently justified for 4-laning with the present traffic data. So, to leave the balance stretch of about 30 kms. as a 2-lane road is not recommended as an overall corridor approach of development.

41. In view of the justification by NHAI, the members of the PPPAC supported four laning of the entire stretch.

42. The PPPAC granted final approval to the project under NHDP -IV for TPC of Rs. 720.69 crore with maximum VGF as Rs. 288.28 crore (40 percent of TPC), subject to fulfilment of the following conditions:

- a. NHAI shall ensure land acquisition in respect of the project to provide ROW in accordance with the provisions of the Model Concession Agreement (MCA) for National Highways.
- b. MoRTH shall obtain clearances such as environment and forest clearance, before commencing work on the project site.
- c. MoRTH shall obtain prior approval of the PPPAC on any change in TPC, scope of work or project configuration as noted above.
- d. MoRTH shall circulate the final documents to the members of the PPPAC for record.

*(Action: MoRTH/NHAI)*

**Agenda Item V: Proposal from Ministry of Road, Transport and Highways (MoRTH) for grant of final approval: Four-laning of Ghaghar Bridge (Indo Nepal Border) to Varanasi section from Km 121.800 to Km 298.450 of NH 233 in the State of Uttar Pradesh under NHDP – IV on BOT (Toll) basis.**

**Total length: 177.555 km; Total Project Cost: Rs. 1530.70 crore; Cost of pre-construction activities to be financed by NHAI: Rs. 388.12 crore; Concession Period: 24 years including 2.5 years of construction period.**

**Major development works/ structures:** 2 Major Bridge (new); 1 Major Bridges (repair); 27 Minor bridge (new); 17 Minor bridges (for repair); 3 ROBs; 13 Bypass (71.39 km); 18 Major road junctions; 36 Minor road junctions;; 3 Toll plazas (km 164.80, km 227.20 & km 277.00); Vehicular/pedestrian underpass: 13/23; culverts: 293; busbays/shelters: 22, truck lay byes: 6; Truck terminal: 2 at km 125.1 & km 245.14

43. Director, DEA indicated that the PPPAC had earlier considered the project in its 47<sup>th</sup> meeting held on November 11, 2011. The PPPAC had noted that the project had not been

approved by the Competent Authority for development under NHDP-IV. Thereafter, the CCI, in its meeting held on February 2, 2012 has approved four laning of additional 2000 Km of roads on BOT (Toll) mode under NHDP-IV. However, the list of projects approved by the CCI for inclusion under NHDP-IV on February 2, 2012 does not include the instant project.

44. Secretary, RTH informed that the CCI in its approval has empowered the Minister of Road Transport & Highways to make substitutions in the list of stretches, to identify remaining stretches and to take up the additional 2000 Km of roads for 4-laning from the above, on BoT (Toll) mode. Accordingly, MoRTH has certified that all the projects under consideration by the PPPAC in the instant meeting have the approval of the competent authority for four laning under NHDP-IV.

45. The Chair advised MoRTH to provide confirmation about the specific stretches and their chainage that have been granted approval for inclusion under NHDP-IV including the details of the substituted stretches for record of the members of the PPPAC. This was agreed to.

46. Director, DEA indicated that NHAI has revised the project cost from Rs. 1688.86 crore to Rs. 1530.70 crore by deleting service lanes and correcting the pavement design. NHAI has proposed a concession period of 30 years for the project. However, based on the projected traffic and the design capacity of the project highway, the concession period may be revised to 24 years. This was agreed to.

47. The Chair queried about the status of the Ghaghar Bridge which is being constructed by U.P. Bridge Corporation Ltd. Member, NHAI informed that the Bridge is expected to be completed by March, 2012.

48. Advisor, Planning Commission indicated that the project financials suggest that the project would require VGF support of around 48 percent of TPC to be viable. Hence, NHAI may consider restructuring the project. It was suggested that the project may be divided into two parts, i.e., Varansi to Azamgarh for four laning and Azamgarh to Ambedkarnagar for two lanes with paved shoulders. Member (Technical), NHAI responded that once the Ghaghar Bridge is constructed, the travelling distance would be reduce by 100 km and the diversion of traffic from Baskari Chowk to Ambedkarnagar via Faizabad would stop, resulting in both sections having similar level of high traffic. Hence, the project stretch may be approved for four laning. Further, NHAI had re-calculated the financial viability of the project in pursuance with the guidelines issued by the Committee chaired by AS&FA, MoRTH. The calculations indicate that the project is viable with VGF of around 32 percent of TPC.

49. All the other members of the PPPAC supported grant of approval to the project.

50. The PPPAC granted final approval to the project under NHDP -IV for TPC of Rs. 1530.70 crore with maximum VGF as Rs. 612.28 crore (40 percent of TPC), subject to fulfilment of the following conditions:

a. NHAI shall revise the concession period to 24 years.

- b. MoRTH shall provide confirmation about the specific stretch and their chainage that have been granted approval for inclusion under NHDP-IV including the details of the substituted stretch for record of the member of the PPPAC before posing the proposal to CCI for grant of final approval.
- c. NHAI shall ensure land acquisition in respect of the project to provide ROW in accordance with the provisions of the Model Concession Agreement (MCA) for National Highways.
- d. MoRTH shall obtain clearances such as environment and forest clearance, before commencing work on the project site.
- e. MoRTH shall obtain prior approval of the PPPAC on any change in TPC, scope of work or project configuration as noted above.
- f. MoRTH shall circulate the final documents to the members of the PPPAC for record.

*(Action: MoRTH/NHAI)*

**Agenda Item VI: Proposal from MoRTH for grant of final approval: Four laning of Patiala-Sangrur-Barnala-Bathinda section of NH-64 from Km. 50.000 to Km. 209.500 in the state of Punjab (DBFOT) basis under NHDP-IV.**

**Total length: 166.445 km; Total Project Cost: Rs. 1586.35 crore; Cost of pre-construction activities to be financed by NHAI: Rs.420.58 crore; Concession Period: 24 years including 2.5 years of construction period.**

**Major development works/ structures:** Major Bridge: 1; Minor bridges: 29; Flyover: 12; Bypass: 3 of 34.636 km, ROB: 2; Major road junctions: 2; Minor junctions: 38; Service roads: 105.114 km; Realignment: 2, Toll plazas: 3 (km 85.95, km 139.72 & km 197.470); Vehicular underpasses: 10; Pedestrian&Cattle underpasses: 20; Culverts: 279; Truck laybys: 2; Bus-bays: 60

51. Joint Secretary, DEA indicated that the project is not included in the list of projects approved by the CCI for inclusion under NHDP-IV on February 2, 2012 and requested MoRTH to provide written confirmation that the instant stretch has been granted approval for inclusion under NHDP-IV, as well as the details of the substituted stretch for record of the member of the PPPAC. This was agreed to.

52. Advisor, Planning Commission sought the status of Patiala Bypass which is being constructed by Border Roads Organisation (BRO). Representative of Government of Punjab, the implementing agency for the project informed that 91 percent of work had been completed on the two-lane Patiala Bypass and the bypass is expected to be completed shortly. The scope of work of the instant project entails four laning of the bypass. Land acquisition for four laning the bypass has been completed.

53. Advisor, Planning Commission indicated that 5 VUPs and 18 Pedestrian/ Cattle Underpasses are proposed to be constructed on the 18.256 km stretch of the Patiala bypass as scope of work of the instant project which requires review. It would result in frequent changes in the elevation of the highway. He queried whether some of the 18 Pedestrian/ Cattle Underpasses could be clubbed together.

54. Secretary, RTH informed that the instant proposal requires that the same profile be observed as has been constructed by BRO. No new VUPs/PUPs/CUPs are proposed while widening the Patiala Bypass. Member, NHAI added that the alignment of the stretch would try to reduce the frequent changes in the elevation of the highway.

55. Joint Secretary, DEA indicated that since the Patiala Bypass traverses densely populated rural areas with high density of cattle population, it may not be feasible in view of the local conditions to club together the Pedestrian and Cattle Underpasses. Reducing their number, could also result in resistance toward the project by the villagers in the region. This was corroborated by the representatives of Government of Punjab.

56. All the members of the PPPAC supported grant of approval to the project.

57. The PPPAC granted final approval to the project under NHDP -IV for TPC of Rs. 1586.35 crore with maximum VGF as Rs. 634.54 crore (40 percent of TPC), subject to fulfilment of the following conditions:

- a. MoRTH shall provide confirmation about the specific stretch and their chainage that have been granted approval for inclusion under NHDP-IV including the details of the substituted stretch for record of the member of the PPPAC before posing the proposal to CCI for grant of final approval.
- b. MoRTH shall ensure land acquisition in respect of the project to provide ROW in accordance with the provisions of the Model Concession Agreement (MCA) for National Highways.
- c. MoRTH shall obtain clearances such as environment and forest clearance, before commencing work on the project site.
- d. MoRTH shall obtain prior approval of the PPPAC on any change in TPC, scope of work or project configuration as noted above.
- e. MoRTH shall circulate the final documents to the members of the PPPAC for record.

*(Action: MoRTH/NHAI)*

**Agenda Item VII: Proposal from Ministry of Road, Transport and Highways (MoRTH) for grant of final approval: Two laning with paved shoulders of Aligarh-Moradabad Section NH-93 in Uttar Pradesh under NHDP - IV on DBFOT (Toll) basis.**

**Total length: 146.120 km; Total Project Cost: Rs. 513.94 crore; Cost of pre-construction activities to be financed by NHAI: Rs. 51.37 crore; Concession Period: 30 years including 2.5 years of construction period.**

**Major development works/ structures:** Major Bridge: 9; Minor bridges: 25; Flyover: Nil; Bypass: 4 of 13.178 km, ROB: 4; Major road junctions: 1; Minor Junctions: 122; Service roads: Nil; Toll plazas: 2 (km 102.80 & km 207.300; Vehicular underpasses: 3; Pedestrian & Cattle underpasses: 3; Culverts: 175; Truck laybys: 4; Bus-bays: 12; Bus-shelters: 16

58. The PPPAC noted that the appraisal note of Planning Commission has not been received. Advisor, Planning Commission informed that they had received the project later than other members of PPPAC on January 27, 2012. However, since the project had been included in the agenda for the meeting of the PPPAC, the Planning Commission has completed the appraisal of documents; however, the appraisal note is under consideration for approval and would be sent shortly. Secretary, RTH requested that the project may be considered for approval.

59. The Chair observed that during the review of the implementation of the National Highways by the Principle Secretary to PM on February 13, 2012 it was decided that the PPPAC may consider projects where period of appraisal has been completed, even if the appraisals from the all the appraising entities have not been received. Hence, in view of this decision and the urgency to support MoRTH in meeting their target for Work Programme 2011-12, the proposal may be considered by the PPPAC.

60. Director, DEA indicated that the first section of the project stretch has traffic that justifies immediate four laning. However, MoRTH has proposed the project for two laning with paved shoulders for a concession period of 30 years. In 30 years, the projected traffic is likely to require a six laned highway.

61. Member, Technical, NHAI responded that the tollable traffic on the stretch is less and the project may not be viable if developed as a four lane highway. Further, changing the project structure at this would result in change in TPC and the requirement to invite the RfQ afresh.

62. The Chair observed that MoRTH should not restrict itself to developing the project as two laning with PSS with a long concession period since the project is an important stretch linking many export towns such as Moradabad and Aligarh.

63. All members were in agreement that the first section of the project from Aligarh to SH-65 Junction (km 120.700) may be structured as a four lane section and from SH-65 Junction to Moradabad may be developed as two lanes with paved shoulders.

64. The PPPAC *returned the proposal to MoRTH* and advised that the project may be restructured and **resubmitted for consideration of PPPAC**.

*(Action: MoRTH/NHAI)*

**Agenda Item VIII: Proposal from MoRTH for grant of final approval: Two laning with paved shoulders of Raibareilly-Jaunpur Section of NH-231 from Km 0.000 to Km 166.4 in the state of Uttar Pradesh under NHDP - IV on BoT (Annuity) basis.**

**Total length: 165.490 km; Total Project Cost: Rs. 572.91 crore; Cost of pre-construction activities to be financed by NHAI: Rs. 78.62 crore; Concession Period: 17 years including 2 years of construction period; Threshold semi-annual annuity of Rs. 62.60 crore.**

**Major development works/ structures:** Major Bridge: 2; Minor bridges: 16; Flyover: 1; Bypass: 3, ROB: 1; Major road junctions: 8; Minor Junctions: 12; Service roads: 2.0 km; Realignment: 7.8 km; Toll plazas: 2 at km 40.30 & km 135.30; Vehicular underpasses: 3; Pedestrian & Cattle underpasses: NIL; Culverts: 258; Truck laybys: 2; Bus-bays: 62;

65. Director, DEA queried whether the project has been approved by the Inter Ministerial Group (IMG) on change in modality of NH, chaired by Secretary, RTH. Joint Secretary, MoRTH, confirmed that the IMG had approved implementation of the project on BOT (Annuity) mode in its ninth meeting held on March 28, 2011.

66. The Chair queried whether the Value for Money (VfM) analysis for the project has been carried out to establish primacy of the BOT (Annuity) model for implementation of the project.

67. Advisor, Planning Commission indicated that their analysis suggest that the project would require an annual annuity of Rs. 126 crore over a 15 year period. This was an additional outgo of Rs 885 crore for maintenance component of the project, if the project is implemented on EPC mode. Further, MoRTH is also considering construction of two projects in the region on EPC mode. Hence, this project could also be considered for being implemented on EPC mode.

68. Joint Secretary, MoRTH stated that Planning Commission's analysis and recommendation was with respect to the new concept of "Turnkey EPC" which is yet to be examined by the all members of the PPPAC and has not been granted approval by the CCI. It was stated that the framework or guidelines for VfM analysis have not been formalised by NHAI and DEA may share guidance, if any, on the subject. This was agreed to.

69. Secretary, RTH informed that the project is proposed for implementation on BoT (Annuity) mode in accordance with the procedure for implementation of National Highways approved by the Cabinet. He emphasised that the experience of MoRTH in bidding and award of Annuity projects has been good, with receipt of very competitive responses from the bidders which are well below the threshold annuities estimated by the NHAI for award of the projects. Further, the waterfall arrangement approved by the Cabinet directs that the projects on BOT (Annuity) mode before being considered on EPC mode. Hence, BOT (Annuity) model should not be discarded on the basis of an ideological debate.

70. Secretary, RTH observed that Planning Commission's comparison of the cost of EPC construction with likely threshold annuity on nominal terms, without taking into account the expenditure on operations and routine and major maintenance of the 165 km stretch for 15 years does not constitute a correct assessment or VfM analysis. He suggested that NHAI

could carry out VfM analysis. The threshold annuity for accepting the bid could be established at the level recommended by the VfM analysis for the BOT (Annuity) mode. This was agreed to.

71. The Chair advised MoRTH and NHAI to expeditiously undertake a VfM analysis for the project and share the same with members of the PPPAC. The project may be implemented on the BoT (Annuity) mode only if the analysis establishes the merits of the BoT (Annuity) over EPC modality.

72. The PPPAC granted final approval to the project under NHDP -IV for TPC of Rs. 569.36 crore with threshold semi-annual annuity determined through VfM analysis subject to fulfilment of the following conditions:

- a. MoRTH/ NHAI shall undertake a VfM analysis for the project and share the same with members of the PPPAC. The threshold annuity for accepting the bid shall be at the level recommended by the VfM analysis for the BoT (Annuity) mode.
- b. NHAI shall ensure land acquisition in respect of the project to provide ROW in accordance with the provisions of the Model Concession Agreement (MCA) for National Highways.
- c. MoRTH shall obtain clearances such as environment and forest clearance, before commencing work on the project site.
- d. MoRTH shall obtain prior approval of the PPPAC on any change in TPC, scope of work or project configuration as noted above.
- e. MoRTH shall circulate the final documents to the members of the PPPAC for record.

*(Action: MoRTH/NHAI)*

**Agenda Item IX: Proposal from MoRTH for grant of final approval: Two laning with paved shoulders of Nagaur-Bikaner section of NH-89 from km 171/00 to km 267/325 of NH 89 (including bypass at Nagaur from km 180/500 of NH-65 to km 171/00 of NH-89) in the state of Rajasthan under NH (Others) with implementation of the project by Government of Rajasthan.**

**Total length: 108.26 km; Total Project Cost: Rs. 378.07 crore; Cost of pre-construction activities to be financed by NHAI: Rs. 91.21 crore; Concession Period: 15 years including 1.50 years of construction period.**

**Major development works/ structures:** Bypass: 2 of 26.78 km, ROB: 4; Major road junctions: 5; Minor Junctions: 63; Realignment: 3.105 km; Toll plazas: 2 at km 176.2 & km 236.3; Vehicular underpasses: 4; Culverts: 82; Truck laybys: 2; Bus-bays/ shelters: 42;

73. The PPPAC noted that the project has been considered in the 37<sup>th</sup> meeting of the Empowered Institution (EI) for the Scheme for Support to PPPs in Infrastructure and granted in-principle approval for VGF support of Rs. 75.61 crore subject to following conditions:

- i. MoRTH would confirm in writing about availability of funds to provide VGF up to 20 per cent of TPC for the project, if required, under NH others.
- ii. MoRTH would circulate of written response to the appraisal notes of DEA and Planning Commission.
- iii. MoRTH would circulate revised projects documents to the members of EI.
- iv. MoRTH would ensure that the environmental, forest and other approvals and clearances are obtained before the award of the Project.
- v. MoRTH would ensure that 80 per cent of the land is provided to the Concessionaire as per the Model Concession Agreement (MCA) by Appointed Date.
- vi. Approval from the Public Private Partnership Appraisal Committee (PPPAC) would be obtained before inviting the financial bids.

74. Deputy Secretary, DoE observed that DEA in their appraisal note in respect of the project had recommended that the project may be considered for four laning . She suggested that MoRTH may review the project structure. Superintendent Engineer (SE), MoRTH, informed that the State Government does not expect the traffic in the region to grow at high rates and hence are not supportive of a proposal for four laning of the stretch. Hence, the project is proposed to be developed as two lanes with PSS with a shorter concession period, determined at the breach capacity of the carriageway at Level of Service (LOS)-C.

75. The PPPAC granted final approval to the project under NH- Others for TPC of Rs. 378.07crore with maximum VGF as Rs. 151.228 crore (40 percent of TPC) and subject to fulfilment of the conditions established by the EI and reproduced above in para 73.

*(Action: MoRTH)*

#### **Agenda Item X: Review of NH projects granted final approval by PPPAC**

76. The Chair observed that Member Secretary, Planning Commission had not been able to attend the meeting due to other exigencies. Hence, the review of the NH projects granted approval by the PPPAC would be undertaken in the next meeting of the PPPAC.

77. Director, DEA summarised the trends of the preliminary examination of the status of projects provided by MoRTH and suggested that NHAI/ MoRTH may indicate the reasons and possible corrective measures thereon during the next meeting of the PPPAC to enable a comprehensive review of the projects. The preliminary trends indicated that:

- i. Out of 178 projects implemented by NHAI, 82 projects have reached the Appointed Date.
- ii. There is a period of three months to one year between events of Financial Closure and Appointed Date, in respect of 29out of 82 projects which suggest delays in meeting of Condition Precedents by the Authority (NHAI).
- iii. The Concession Agreement prescribed a period of 45 days for execution of the Concession Agreement after the date of Letter of Award (LOA). The actual period is

between 3 months to one year. MoRTH/ NHAI may identify the reasons behind this delay and present them in the next meeting of PPPAC.

- iv. The NH stretches in Kerala (7 projects) and Goa (2 projects) experience difficulty in reaching the Appointed Date. The LOA has been withdrawn after award in four projects. MoRTH/ NHAI may present the reasons behind this delay in the next meeting of PPPAC.
- v. Twenty five projects already cleared by PPPAC in its earlier meetings have not been awarded. Some of these include projects which did not get a response in 2008 during the period of financial downturn. Bidding of these projects should be expedited to take advantage of the positive bid response to NH projects in the current situation.

78. Member, Technical NHAI agreed to present a comprehensive status of projects and reasons for the above trends in the next meeting of the PPPAC.

*(Action: MoRTH/NHAI)*

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

---

**Ministry of Finance  
Department of Economic Affairs**

**Meeting of the Public Private Partnership Appraisal Committee (PPPAC)**

**49<sup>th</sup> Meeting on January 23, 2012**

**List of Participants**

- I. Department of Economic Affairs, , Ministry of Finance**
- i. Shri R. Gopalan, Secretary (In Chair)
  - ii. Shri Rajesh Khullar, Joint Secretary
  - iii. Smt. Aparna Bhatia, Director
  - iv. Shri Abhijit Phukon, Deputy Director
- II. Department of Expenditure, Ministry of Finance**
- v. Smt. Sigy Thomas Vaidhyan, Deputy Secretary (PF II)
- III. Planning Commission**
- vi. Shri Shri Ravi Mital, Advisor
  - vii. Shri Amitabha Ray, Deputy Advisor
- IV. Ministry of Law and Justice**
- viii. Shri Ashok C Parkash, (Additional Legal Advisor)
- V. Ministry of Road Transport & Highways (MoRTH)**
- ix. Shri A. K. Upadhyay, Secretary
  - x. Shri Raghav Chandra, Joint Secretary
  - xi. Shri K. C. Varkeyachan, Chief Engineer
  - xii. Shri Atul Kumar, Superintendent Engineer
  - xiii. Shri B. K. Sinha, Superintendent Engineer
- VI. National Highway Authority of India (NHAI)**
- xiv. Shri B.N. Singh, Member, NHAI
  - xv. Shri M.P Sharma, Chief General Manager
  - xvi. Shri R.P. Singh, Chief General Manager
  - xvii. Shri S. C. Jindal, Chief General Manager
  - xviii. Shri B. S. Singla, Chief General Manager
  - xix. Shri Shashank Kumar, General Manager
  - xx. Shri V. K. Rajawat, General Manager (T)
  - xxi. Shri Pawan Kumar, Deputy General Manager
- VII. Punjab (Public Works Department)**
- xxii. Shri R. P. Singh, Engineer-In-Chief
- VIII. Rajasthan (Public Works Department)**
- xxiii. Shri B. L. Bhati, Executive Engineer
-

Justification by NHAI

Six laning of Gundugolanu-Rajahmundry section of NH-5 from km 1022.494 to km 90 1.753 in Andhra Pradesh on DBFOT (Toll) basis under NHDP phase V

Detailed Reply to the Appraisal note of Planning Commission

	<p>As indicated below the project proposal involves an unjustified expenditure of Rs.583 crore in violation of the extant Manual of Standards and Specifications.</p>	<p>'Unjustified expenditure' is not correct as various provisions have been made as per Manual &amp; site requirements and unjustified cost has been calculated in the condition , when these provisions are deleted.</p>
1	<p>Vehicular underpasses may be constructed as underpasses by keeping the highway at grade to improve safety. There are 29 Vehicular underpasses which are being built as flyovers (and not underpasses) in violation of provisions of the Manual (Ref Para 2.13.2 of Manual). At an average cost of Rs.12 crore per underpass including slip road; this would lead to unjustified expenditure of about Rs.348 crore. So, it is suggested to construct flyovers on the cross-roads keeping the NH at grade.</p>	<p>The issue of cross road above or below NH was discussed in IRC in Oct 2011 with various stake holders wherein representative from Planning Commission was also present. After detailed deliberations IRC did not agreed to elevate cross road above NH due to following reasons.</p> <ul style="list-style-type: none"><li>• Require Consent of state authorities for improvement/ raising of existing cross road.</li><li>• Require more land area to be acquired</li><li>• Not suitable for slow moving cross traffic. The pedestrians, cyclists and cattle may still try to cross NH at ground level causing disruption to traffic on main highway and accidents.</li><li>• Require diversion of traffic of cross road during construction of vehicular overpass</li><li>• May not be feasible at all locations because of site constraints along cross road/side road.</li><li>• More costly</li></ul> <p>As per provision of Manual, VUPs are to be provided across roads carrying an average daily traffic of more than 5000 PCUs. In the instant case traffic at all the cross road locations is more than 5000 PCUs (Details enclosed). Further, population (leaving in adjoining area) is in the range of 7000 to maximum of 3,40,000 who are going to be benefited/ use it.</p> <p>In fact, the issue of providing underpass vis-à-vis overpass has been discussed in earlier PPPAC meeting where it was agreed by consensus that provision of NHAI may be agreed.</p>

		<p>There are no details of arriving cost of Rs.12 crore per VUP in the appraisal of Planning Commission. It may be as if this is not required which is contrary to the fact that these structures may be taken over or under the existing road. The approximate cost of VUP (1x12m) including Embankment, structure, RE wall, Slip road of length 1.2 Km, and carriageway of 600m length comes out to be Rs. 10.2 Cr as suggested by the DPR Consultant. Thus it is less than the estimate of Planning Commission.</p> <p>As regard to cost of at-grade NH, it is to submit that in case of elevating cross road the proper slip road/ service road/ Entry-Exit ramp is to be provided for merging of local traffic with NH, which will involve cost of additional Land Acquisition besides cost of ramp/ service road &amp; inconvenience to slow moving vehicles like bullock carts, cyclists etc and consent of state authorities. Further, there is going to be water logging problem &amp; maintenance thereof. Total cost of elevating cross road may come out to be higher than the cost of elevating NH. Therefore, observation of Planning Commission is not correct.</p>
2	<p>All the pedestrian underpasses are proposed to be built at a height of 4.5 m. Instead of taking the underpasses beneath the road, NHAI proposes to raise the road by about 15 feet through a length of about 500 meter by constructing flyovers. The Manual clearly stipulates underpasses which essentially imply that the NH will remain at grade. This is also the international practice. The Highways should move at-grade and underpasses be built below the grade level in accordance with the Manual. This will improve safety and reduce capital and operational cost. There are 15 such structures in the project. At an average cost of Rs.6 crore per</p>	<p>PUPs are provided instead of taking the underpasses beneath the road as per site requirement.</p> <p>There are no details of arriving cost of Rs.6 crore per PUP in the appraisal of Planning Commission. It may be as if this is not required. The cost of PUP (1x7m) includes cost of Embankment, structure, RE wall, Slip road of length 800m Km, and carriageway of 400 m length,</p> <p>As regard to cost of at-grade NH, it is to submit that in case of providing underpasses beneath the road proper slip road/ service road/ ramp is to be provided for merging of local traffic with NH, which will involve cost of ramp/ service road &amp; inconvenience to slow moving vehicles like bullock carts, cyclists etc. Further, there is going to be drainage problem, water logging problem, lighting &amp; maintenance thereof. The problem of</p>

	structure this would lead to an unjustified expenditure of about Rs.90 crore.	providing approach to adjoining properties. Total cost of providing PUP beneath NH may come out to be higher than the cost of elevating NH. Thus observation of Planning Commission is not correct
3	Total length of the service road proposed to be built to cater to 44 villages is about 145.712 kms with an estimated cost of about Rs.145 crore. This implies that there will be an 8-lane road for every village on the highway. This is not contemplated by the Manual. Service roads are to be provided in municipal areas or in continuous built-up sections along the road. Besides, Service Roads are constructed when traffic volume crosses 60,000 PCUs. At present, it is around 40,000 PCUs. So it is suggested that Service Roads may be added to the instant project carriageway only after the traffic volume reaches 60,000 PCUs.	The total length of Service road of 145.712 Km includes slip roads of 55.580 Km length for VUPs and PUPs mentioned at para 1 & 2 above. As per Manual of Specification & Standards for 6-laning, the objective of planning a 6-lane highway shall be to ensure that the long distance through traffic is able to operate at a speed dictated only by the flow on the main highway and not by any other factors, such as interference from local traffic, access traffic or cross traffic. There shall be no direct access to the main highway and all access shall be from service roads which shall be provided on both sides of the main highway and interconnected through underpasses, overpasses or grade separators. Also the provision of service road is basically related to habitation along the NH, therefore, not directly related to traffic on NH. Moreover the present case is six laning of existing 4-lane and therefore, more Service road is required based on local demands also. Hence, expenditure of about Rs.145 crore towards service roads as unjustified is not correct

Justification by NHAI

**Four laning of Goa/Karnataka Boarder to Kundapur section of NH - 17 from km 93.700 to km 283.300 in the state of Karnataka under NHDP - IV on DBFOT (Toll) basis.**

Sub: Design, Engineering, Finance, Construction, Operation and Maintenance of Four/Six laning of Goa Karnataka Border – Kundapur section of NH-17 from existing km 93.700 to km 283.300 (Design length=187.200 kms) in the State of Karnataka under NHDP Phase IV on Design, Build, Finance, Operate Transfer (DBFOT) Toll basis

Detailed Reply to the Appraisal note of Planning Commission

1	As indicated below the project proposal involves an unjustified expenditure of Rs. 393 crore in violation of the extant Manual of Standards and Specifications.	'Unjustified expenditure' is not correct as various provisions have been made as per Manual & site requirements and unjustified cost has been calculated in the condition, when these provisions are deleted.
2	Paragraph 2.13.2 of the Manual of Specifications & Standards (MSS), provides for construction of vehicular underpasses when the average daily traffic on the cross roads is more than 5,000 PCUs on the date of inviting bids. None of the cross roads in the project are shown to have this traffic. The vehicular underpasses may, therefore, be deleted as they involve an unjustified expenditure of Rs. 36 crore.	The issue of cross road above or below NH was discussed in IRC in Oct 2011 with various stake holders wherein representative from Planning Commission was also present. After detailed deliberations IRC did not agreed to elevate cross road above NH due to following reasons. <ul style="list-style-type: none"> <li>• Require Consent of state authorities for improvement/ raising of existing cross road.</li> <li>• Require more land area to be acquired</li> <li>• Not suitable for slow moving cross traffic. The pedestrians, cyclists and cattle may still try to cross NH at ground level causing disruption to traffic on main highway and accidents.</li> <li>• Require diversion of traffic of cross road during construction of vehicular overpass</li> <li>• May not be feasible at all locations because of site constraints along cross road/side road.</li> <li>• More costly</li> </ul>
3	Moreover, Vehicular underpasses may be constructed as underpasses by keeping the highway at grade to improve safety. There are 3 vehicular underpasses which are being built as flyovers (and not underpasses) in violation of provisions of the Manual (Ref. Para 2.13.2 of Manual). At an average cost of Rs. 12 crore per underpass including slip road, this would lead to unjustified	As per provision of Manual, VUPs are to be provided at the intersection of project highway with NH and SH irrespective of average daily traffic more than 5,000 PCU or not. In the instant project there are three VUPs out of which one VUP

	<p>expenditure of about Rs. 36 crore.</p>	<p>is at intersection with state highway and other two VUPs are as per the requirement of defence for which cost is to be borne by defence.</p> <p>In fact, the issue of providing underpass vis-à-vis overpass has been discussed in earlier PPPAC meeting where it was agreed by consensus that provision of NHAI may be agreed.</p> <p>There are no details of arriving cost of Rs.36 crore for VUPs in the appraisal of Planning Commission. It may be as if this is not required which is contrary to the fact that these structures may be taken over or under the existing road.</p> <p>As regard to cost of at-grade NH, it is to submit that in case of elevating cross road the proper slip road/ service road/ Entry-Exit ramp is to be provided for merging of local traffic with NH, which will involve cost of additional Land Acquisition besides cost of ramp/ service road &amp; inconvenience to slow moving vehicles like bullock carts, cyclists etc and consent of state authorities. Further, there is going to be water logging problem &amp; maintenance thereof. Total cost of elevating cross road may come out to be higher than the cost of elevating NH. Therefore, observation of Planning Commission is not correct.</p>
4	<p>All the pedestrian underpasses are proposed to be built at a height of 4.5m. Instead of taking the underpasses beneath the road, NHAI proposes to raise the road by about 15 feet through a length of about 500 meter by constructing flyovers. The Manual clearly stipulates underpasses which essentially imply that the NH will remain at grade. This is also the international practice. Building flyovers in order to provide pedestrian crossing is clearly a national waste. The Highways should move at-grade and underpasses be built below the grade level in accordance with the Manual.</p>	<p>PUPs are provided instead of taking the underpasses beneath the road as per site requirement.</p> <p>There are no details of arriving cost of Rs.6 crore per PUP in the appraisal of Planning Commission. It may be as if this is not required.</p> <p>As regard to cost of at-grade NH, it is to submit that in case of providing underpasses beneath the road proper slip road/ service road/ ramp is to be provided for merging of local traffic with NH, which will involve cost of ramp/ service road &amp; inconvenience to slow moving vehicles like bullock carts, cyclists etc. Further, there is going to be drainage problem, water logging problem, lighting &amp; maintenance thereof. The problem of providing approach to adjoining properties. Total cost of providing PUP beneath NH may come out</p>

	<p>This underpasses be built below the grade level in accordance with the Manual. This will improve safety and reduce capital and operational cost. There are 19 such structures in the project. At an average cost of Rs. 6 crore per structure this would lead to an unjustified expenditure of about Rs. 114 crore.</p>	<p>to be higher than the cost of elevating NH. Thus observation of Planning Commission is not correct</p>
5	<p>Total length of the service road proposed to be built to cater to 16 villages is about 60.72 kms with an estimated cost of about Rs. 243 crore. Of these, there are five villages where the population is less than 5000. This indicate that the proposal has not been formulated properly.</p>	<p>There are no details of arriving cost of Rs.243 crore for service roads in the appraisal of Planning Commission. The total length of Service road of 60.742 Km. costing Rs. 70.75 crore, the details are provided in Annex-IV of the check list. The provision of service roads is made in built up areas, as per the requirement of Defence and at other locations to segregate the local traffic from the main traffic from the safety consideration. The provision of service road is basically related to habitation along the NH, therefore, not directly related to traffic on NH.</p>
6	<p>Service roads have been provide even for small villages having population between 1,000 to 2,000 populations. This implies that there will be an 8-lane road for every such small village on the highway. This is not contemplated by the Manual. Service roads are to be provided in municipal areas or in continuous built-up sections along the length of the service lanes. Revised proposals need to be provided for appraisal.</p>	

Justification by NHA