F. No. NH-15017/25/2021-P&M Government of India Ministry of Road Transport & Highways (Planning Zone)

Transport Bhawan, 1, Parliament Street, New Delhi - 110001

Dated: 11.08.2021

То

- 1. The Principal Secretaries/ Secretaries of all States/UTs Public Works Department dealing with National Highways, other centrally sponsored schemes.
- 2. The Managing Director, NHIDCL, PTI Building, New Delhi-110001
- 3. All Engineers-in-Chief and Chief Engineers of Public Works Departments of States/ UTs dealing with National Highways and other centrally sponsored schemes.
- 4. The Director General (Border Roads), Seema Sadak Bhawan, Ring Road, New Delhi-110010.
- Sub: Approval and Expenditure on Projects under Bharatmala Pariyojana reg.
- Ref: Ministry's OM No. NH-14012/27/2014-P&M dt 21.12.2017 (SOP for Bharatmala Pariyojana)

Sir/Madam,

From the year 2020-21 onwards, the Ministry has opened two new Heads under Bharatmala Pariyojana, which are as under: -

(i) 5054 Capital Outlay on Roads & Bridges (Major Head)
01 National Highways (Sub Major Head)
01.190 Investment in Public Sector & other Undertakings (Minor Head)
01 National Highways Authority of India
01.06 Bharatmala Priyojana - financed from Central Road and Infrastructure Fund - works under Road Wing/State PWDs/ NHIDCL/BRO
01.06.54 Investment
(ii) 5054 Capital Outlay on Roads & Bridges (Major Head)
01 National Highways (Sub Major Head)
01 National Highways (Sub Major Head)
01.796 Tribal Area Sub Plan (Minor Head)
03 Bharatmala Priyojana - Tribal Sub Plan - works under Road Wing/State PWDs/ NHIDCL/BRO financed from Central Road and Infrastructure Fund
03.00.53 Major Works

2. The above two Heads were opened mainly to account for the allocation and expenditure being/to be incurred by State PWD/NHIDCL/BRO for NH projects taken up under Bharatmala Pariyojana.



3. In the original SOP circulated for Bharatmala Pariyojana dated 21.12.2017 (copy enclosed), some projects have been assigned to be taken up by State PWD/NHIDCL/BRO. Further, the following National Highways have been included under Bharatmala Pariyojana during 2020-21 and 2021-22, which are assigned to State PWD/NHIDCL/BRO: -

SI . No.	N.H. No.	Description of NH	State	Tentative Length (in Km)	Entrusted to Agency
		The highway starting from its junction with NH-167 near Kalwakurthy connecting Nagarkurnool, Kollapur, Rampur	Telangana	88.3	PWD
4	167K	in the state of Telengana, Mandugula, Sivapuram, Karivena and terminating at its junction with NH-40 near Nandyal in the state of Andhra Pradesh.	Andhra Pradesh	82	PWD
5	715K	The highway starting from its junction with NH-715 near Jorhat and terminating at Kamalabari Ghat (Majuli) in the State of Assam	Assam	27.4	PWD
6	342	The highway starting from its Junction with NH-42 near Mudigubba connecting Puttaparthi and terminating at its junction with NH-44 near Koduru in the state of Andhra Pradesh.	Andhra Pradesh	80.75	PWD
7	440	The highway starting from its junction with NH-40 near Rayachoty, connecting Vempalli, Proddatur, and terminating at its Junction with NH -40 near Chagalamarri in the State of Andhra Pradesh.	Andhra Pradesh	130.60	PWD
		The highway starting from its junction with NH-37 near Rengpang connecting Khongsang, Tamenglong	Assam	70.00	NHIDCL
8	137	(Tenglong), Namtiram, Azuram in the State of Manipur, Hangrum, Lisang and terminating at its Junction with NH -27 near Hewangberam (Mahur) in the State of Assam.	Manipur	90.00	NHIDCL
9	516B	The highway starting from its junction with NH-16 near Pendurthi connecting Kothavasala, S. Kota and terminating at its Junction with NH -516E near Bowdara in the State of Andhra Pradesh.	Andhra Pradesh	44.20	PWD
10	340B	The highway starting from its junction with NH-40 near Somayajulapalli connecting, Bethamcherla, RS Rangapuram, and terminating at its Junction with NH -44 near Dhone in the State of Andhra Pradesh.	Andhra Pradesh	60.10	PWD
11	167AD	The highway starting from its junction with NH-167A near Dachepalli connecting Gurazala, Rentachintala, Paluvai Junction and terminating at its junction with NH -565 near Macherla in the state of Andhra Pradesh.	Andhra Pradesh	43.00	PWD
12	167AG	The highway starting from its junction with NH-167A near Kondamodu connecting Rajupalem, Reddigudem, Sattenapalli, Medikonduru and terminating at its junction with NH -544D near Perecherla in the state of Andhra Pradesh.	Andhra Pradesh	52.00	PWD

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SI . No.	N.H. No.	Description of NH	State	Tentative Length (in Km)	Entrusted to Agency
13	765DG	The highway starting from its junction with NH-765D near Medak and connecting Ramayampet, Siddipet, Husnabad and terminating at its junction with NH-563 near Elkathurthy in the state of Telangana.	Telangana	137.60	PWD
		The Highway starting from its junction with NH-753B Taloda connecting Shahada, Shirpur, Chopda, Yawal,	Maharasht ra	240.00	PWD
14	753BE	Raver in the state of Maharashtra and terminating at its junction with NH-753L near Burhanpur in the state of Madhya Pradesh.	Madhya Pradesh	10.00	PWD
15	548DG	The Highway starting from its junction with NH-548D near Nhavare and terminating at junction of NH-65 near Chouphula in the State of Maharashtra.	Maharasht ra	25.00	PWD
16	765D	The highway starting from Hyderabad (Junction at outer ring road) connecting Narsapur, Rampur, Medak, Yellareddy, Bhanswada and terminating at its junction with at NH-161BB near Rudrur in the state of Telangana	Telangana (Only extended portion)	97.20	PWD
17	161BB	The highway statring from its junction with NH-161 near Madnoor and connecting Sonala, Thadi Hipperga, Limboor, Sirpur, Pothangal, Kotagiri, Rudrur, Bodhan, Basar and terminating at its junction with NH-61 near Bhainsa in the state of Telangana.	Telangana (Only extended portion)	56.40	PWD
		The highway starting from its junction with NH-167 near Mahabubnagar connecting Kodangal, Tandur in the state	Telangana	100.29	PWD
18	167N	of Telangana, Chincholi and terminating at its Junction with NH-65 near Bapur in the state of Karnataka.	Karnataka	49.09	PWD
19	930P	The highway starting from its junction with NH-30 near Kothagudem connecting Yellandu, Mahabubabad, Nellikuduru, Thorrur, Valigonda and terminating at its Junction with Hyderabad outer ring road near Gowrelly in the State of Telangana.	Telangana	226.39	PWD
20	139W	The highway starting from its junction with NH-139 near Patna (AIIMS) connecting Bakarpur, Manikpur, Sahebganj, Areraj and terminating at its junction with NH- 727 near Bettiah in the State of Bihar.	Bihar	168.99	Part (PWD)
21	227B	The highway starting from its junction with NH 27 near Chhawani connecting Amora – Katariya - Shringi- Rishi Ashram – Mahboobganj –Gosainganj – Tarun - Rampur Bhagan (Suryakund) – Drabganj (Sitakund) – Bikapur - Bhagwati Nagar – Rewatiganj – Ashana – Adhayoana Choraha - Sirsir (Janme Jaykund) - Amarganj - Amaniganj - Rudali - Rojagaon - Miyan ka Purab - Mera maon- Patranga - Aliyabad - Niyamalganj - Barenbag - Kamiyar - Charasari –Bhoriganj – Rajapur - Baba Subhiran Dass Kutti - Narhardass ki kutti (Paska) - Umri - Begamganj – Diksir - Pakri Baar- Gohani - Jarhi	Uttar Pradesh	275.00	PWD

Quantile

SI . No.	N.H. No.	Description of NH	State	Tentative Length (in Km)	Entrusted to Agency
		Choraha - Ram Nagar Chauraha (Tulsapur)- Nababganj – Nabwa - Kalyanpur Hedrabad – Berka - Nadula- Ramgarh and terminating at its Junction with with NH 27 near Chhawani in the State of Uttar Pradesh.			

4. Accordingly, it has been decided that that all new sanctions on the NHs under Bharatmala Pariyojana, including the stretches as above and under original Bharatmala Pariyojana SOP dated 21.12.2017, are to be issued under the Head mentioned at S. No. (i) of Para 1 above. Further, if any NH stretch is lying exclusively within the tribal district, then sanctions are to be issued under Head at S.No. (ii) of Para 1.

5. If some projects are already sanctioned under any Head other than the Head mentioned in Para 1, then the accounting head may be got changed with the concurrence of Finance Wing and approval of Competent Authority and expenditure may kindly be incurred from the newly created head for Bharatmala Pariyojana.

6. This issues with the concurrence of Finance Wing vide Note #61 dated 09.08.2021 and approval of Competent Authority.

Enclosure: As above

(A. Maulik)

(A. Maulik) Executive Engineer (Planning) Email: <u>planningmorth@gmail.com</u>

Copy for kind information and necessary action to: -

- 1. All Zonal CEs, MoRT&H
- 2. All ROs , MoRT&H
- 3. AFA
- 4. NIC for uploading on Ministry's website under "What's New"

Copy for information to: -

- 1. Sr. PPS to Secretary (RT&H)
- 2. Sr. PPS to DG (RD) & SS
- 3. Sr. PPS to AS&FA
- 4. Sr. PPS to Pr. CCA, MoRT&H
- 5. Sr. PPS / PPS / PS to all ADG-1/11/111/IV
- 6. Sr. PPS / PPS / PS to JS (H)/ JS (NHIDCL)

No. NH-14012/27/204-P&M Government of India Ministry of Road Transport & Highways Transport Bhawan, 1 Parliament Street, New Delhi -110001

Dated, the 21st December, 2017

Office Memorandum

Subject: Investment Approval for Phase-I of 'Bharatmala Pariyojana' – reg.

The Ministry had issued Guidelines and SOP for implementation of Bharatmala Pariyojana vide OM No. NH-14012/27/204-P&M. Subsequently, based on the inputs received from various implementation agencies, and rationalisation of inconsistencies therein, a revised set of Guidelines and SOP has been prepared. The Revised Guidelines and SOP now attached substitutes the Guidelines and SOP issued on 3rd November 2017.

(Debjani Chakrabarti) Director (Highways) Telephone No.: 2371 8575

Encl: Revised Guidelines and Standard Operating Procedures (SOP) for implementation of Bharatmala Pariyojana Program

То

1. Chairman, National Highways Authority of India (NHAI)

2. Managing Director, National Highways Infrastructure Development Corporation Ltd (NHIDCL)

3. Director General (Roads) & Special Secretary, MoRTH

Copy for kind information to the following:

- 1. Prime Minister's Office (Sh. A.K. Sharma, Addl. Secretary);
- 2. Office of Minister, RT&H
- 3. Office of Minister of State, RT&H
- 4. Cabinet Secretariat
- 5. Office of Secretary, RT&H
- 6. All Joint Secretaries of MoRT&H
- 7. All Chief Engineers (HQ), CE-ROs, SE-ROs of MoRTH (through email only)

<u>Revised Guidelines and Standard Operating Procedure (SOP) for</u> <u>implementation of Bharatmala Pariyojana Program</u>

Dated, the List December 2017

The Cabinet Committee on Economic Affairs has approved the implementation of an umbrella programme for the National Highway Road Sector – "Bharatmala Pariyojana Phase-1", spanning over a period of 5 years (2017-2022) at an estimated outlay of Rs. 5,35,000 crore, as communicated by the Cabinet Secretariat vide its No. CCEA/26/2017(i) dated 26th October 2017. Ministry vide OM No. NH-14012/27/204-P&M had issued a SOP for implementation of Bharatmala Pariyojana. This Revised Guidelines and SOP substitutes the SOP issued on 3rd November 2017.

I - OVERVIEW OF THE PROGRAM

1 About the Program:

- 1.1 The objective of the program is to optimize the efficiency of freight and passenger movement across the country by bridging critical infrastructure gaps through development of Economic Corridors, Inter Corridors and Feeder Routes, National Corridor Efficiency Improvement, Border and International connectivity roads, Coastal and Port connectivity roads and Green-field expressways.
- 1.2 Identification of the project stretches under the components of the proposed program is based on detailed Origin-Destination (O-D) study, freight flow projections and verification of the identified infrastructure gaps through geomapping.
- 1.3 Construction of a total length of about 24,800 kms is being taken up under Phase-I of Bharatmala Pariyojana. In addition, Phase-I would also include about 10,000 kms of residual works of National Highway Development Project (NHDP).

2 Components of the program and fund allocation:

2.1 As per the CCEA approval, Phase-I of Bharatmala Pariyojana program is to be implemented over a period of five years i.e. FY 2017-18 to FY -2021-22. The summary of components identified under Phase-I and the approved outlay for the same are as follows:

Sr. No.	Components	Length (in km)	Outlay – (Rs crore)
Α.	Bharatmala		
1	Economic corridors development	9,000	1,20,000
2	Inter-corridor & feeder roads	6,000	80,000

Sr. No.	Components	Length	Outlay – (Rs
3	National Corridors Efficiency improvements:	(in km)	crore)
4	Border & Interneticational	5,000	100,000
5	Border & International connectivity roads	2,000	25,000
6	Coastal & port connectivity roads	2,000	20,000
0	Expressways	800	40,000
	Sub-Total	24,800	
В.	Balance road works under NHDP		385,000
	Total		1,50,000
			5,35,000

Details on the various components and the criteria for selection are given in **Annexure I(a) and Annexure I(b)**.

2.2 Minister (RT&H) has been authorized to substitute/ replace up to 15% length of 24,800 kms for Phase-I of the program by other suitable projects, if development of certain identified stretches under the program cannot be taken up on account of issues pertaining to alignment finalization, problems associated with land availability and other unforeseen factors.

3 Project allocation across Implementation Agencies:

- 3.1 Different components of the Bharatmala Pariyojana will be implemented by Ministry of Road Transport and Highways through various implementation agencies viz. the National Highways Authority of India (NHAI), National Highways and Infrastructure Development Corporation Limited (NHIDCL) and State Public Works Departments (PWDs)/ State Road Development Corporations (RDCs) through the Roads Wing of the Ministry.
- 3.2 NHAI shall be responsible for development/ upgradation and maintenance of Economic Corridors, Inter corridor and Feeder Routes, National Corridors (GQ, NS-EW) (including addressing choke points and congestion points), Border and International connectivity roads, Coastal and port connectivity roads and Greenfield expressways in the country except for projects implemented through the Roads Wing and the EAP Cell of Ministry [Refer Annexure II(a) II(j)].
- 3.3 NHAI shall be responsible for development of logistics parks as in Annexure **II(k)**, for improving efficiency of the corridors, in line with the policy issued by the Department of Commerce, Ministry of Commerce and Industry. The NHAI Board (Authority) shall be competent to approve the concession agreement for the Logistics Parks. In the like manner, the NHAI shall be responsible for development of wayside amenities in the corridors.
- 3.4 NHAI shall complete the residual works of NHDP as in Annexure III(a).
- 3.5 NHAI shall also develop other roads, entrusted to it [Annexure III(d)] which

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are not part of Bharatmala Pariyojana or NHDP through NH(O) and follow the extant appraisal and approval process for these roads.

- 3.6 NHIDCL shall be responsible for development/ upgradation and maintenance of the projects in the North-Eastern States of the country i.e. economic corridors, feeder routes, international connectivity routes, border roads, by passes for choke points and interventions to be planned in congestion points as per Annexure III(b).
- 3.7 EAP Cell in the Ministry shall be responsible for development/ upgradation and maintenance of projects funded through any externally aided scheme including. NHIIP scheme. The residual works to be undertaken, apart from those indicated under the Bharatmala corridors, are as per Annexure III(c).
- 3.8 The Roads Wing of MoRTH shall be entrusted with the responsibility of development/ upgradation of other roads not entrusted to NHAI or NHIDCL or EAP Cell.
- 3.9 The Roads Wing of MoRTH and NHAI shall also be responsible for development of roads connecting Backward districts and Religious & Tourist centres (Annexure III(e)) through NH(O) and follow the extant appraisal and approval process for these roads.
- 3.10 NHAI is also authorised to develop roads entrusted to it through the State PWDs/ State RDCs for effective implementation. In such cases, an agency fee of a maximum of 1% of the Total Project Cost (which the NHAI gets) shall be paid by NHAI to the executing State PWD/ State RDC.

4 Grand Challenge mechanism

- 4.1 Within the Bharatmala Pariyojana, 10% funds will be kept earmarked to take up projects under the 'Grand Challenge' mechanism on reducing balance basis visà-vis annual fund allocation for the Bharatmala Pariyojana to take up projects on fast track basis where sufficient and timely land is made available by the State Governments as per norms of MoRTH.
- 4.2 The detailed process for the Grand Challenge mechanism is given in **Annexure IV.**
- 4.3 In case certain projects are proposed by the States or are otherwise considered necessary and expedient to build, including Ring Roads or Bypasses, which are not part of Bharatmala Pariyojana Phase-I, then such new project(s) shall be taken up for consideration only if the State/ Agency is ready to bear at least 50% cost of the land acquisition.

II - ONLINE SYSTEMS FOR MONITORING AND PROCESS AUTOMATION

5 Use of Online Systems for Monitoring and Process Automation

- 5.1 The Implementation Agencies shall ensure the use of online systems for monitoring and process automation of various activities involved in preparation and execution of the projects under Bharatmala Pariyojana:
 - (i) **Project Monitoring Information System (PMIS)** shall be used for tracking of the status of all projects, preparation of reports and online upload of important project documents like DPRs and contract documents, etc.
 - (ii) **Bhoomi Raashi** system shall be used for preparation and submission of Land Acquisition related notifications.
 - (iii) **Bidder Information Management System (BIMS)** shall be used by all implementation agencies for maintenance of technical information of civil works of contractors/ concessionaires, and for online technical evaluation of civil works bids.
 - (iv) **Performance Management System "Lakshya**" shall be used by NHAI for setting construction and award targets for all technical officers.
 - (v) A **comprehensive ERP system** is being set up across MoRTH, NHAI and NHIDCL, to integrate all the individual systems/tools, to create a consolidated database of information, to digitize documents and records, and to enable electronic workflows. Once it is in place, the workflow shall entirely happen through that system.

III - PRE-PROJECT PREPARATION ACTIVITIES

6 DPR Preparation

- 6.1 Quality of a DPR has an important role in the execution time, cost and quality of the final project highway. Implementation agencies shall ensure that good quality DPRs are prepared for all projects under the Bharatmala Pariyojana program through the following interventions:
 - (i) DPRs shall be prepared in two parts first part relating to determination of alignment, land acquisition details and other pre-construction activities (utility shifting, forest & environment clearance etc.), while the second part shall deal with the designs, cost estimates etc., so as to ensure that work on the pre-construction activities is taken upfront without waiting for the second part.
 - (ii) While finalising the alignment, the DPR consultant shall duly assess the Page 4 of 66

justification for widening of an existing road asset with straight alignment and geometry from its start-point to end-point to the extent possible vis-àvis a Greenfield Road keeping in view the comparable costs and time involved in land acquisition, utility shifting and forest related compliances in both alternatives. Wherever a Greenfield alignment is found to be preferable, the same shall be adopted.

- (iii) In terms of grade separation through structures, structures shall preferably be proposed on crossroads (lower lane configuration) than on main-carriageway so as to reduce the project civil cost and economic cost due increased acceleration and deceleration in the main highway.
- (iv) Technology shall be used wherever possible in DPR preparation, to enable increased accuracy of surveying and project design, as detailed in Annexure V(a).
- (v) Project preparation shall be monitored at the various sub-stages as per Annexure V(b), using detailed quality checklists that have been prescribed in the RFP document.
- (vi) NHAI shall develop a detailed guidance document for DPR consultants to ensure quality design and quality preparation, including topics on use of technology in DPR, standard designs for structures, guidelines for access control.
- (vii) DPR consultants shall update the status of DPR preparation on the Project Monitoring Information System (PMIS) every 15 days. Further, copies of final reports corresponding to various sub-stages shall be uploaded on PMIS. PMIS certificate shall be presented by the DPR consultant when submitting invoices for payment.

7 Land Acquisition

- 7.1 Land Acquisition for National Highways will be governed by The National Highways Act, 1997 (Amended) in conjunction with The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013, and the process shall be followed as per the guidelines issued by the Ministry and other implementation agencies.
- 7.2 Land Acquisition shall be closely managed and monitored to ensure that there are no resultant delays on the project implementation schedule, through the interventions listed in Annexure V(c).
- 7.3 Bhoomi Raashi system shall be used by all field offices and HQ for preparation, review and approval of land notifications.

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8 Clearances

- 8.1 Various projects under the Program will require certain clearances, depending on the alignment of the highway, including, Railways, Utilities, Environment, Forest and Wildlife Clearances.
- 8.2 Each clearance shall be obtained by the respective implementing agencies as per the extant guidelines.
- 8.3 Timely approval of Utility estimates by the implementation agencies shall be ensured by suitable delegation of powers.
- 8.4 To ensure accelerated approval of Railway clearances, the DPR consultant shall be mandated to use standard GADs prescribed by RDSO. The DPR consultant shall recommend non-standard design only in case of exception, and shall provide a detailed justification for the same.

IV - PROJECT APPRAISAL, APPROVAL AND CONTRACTING

- 9 Appraisal and approval of projects under the Program
- 9.1 NHAI and other implementation agencies shall decide the modal mix of the projects under Bharatmala Phase-I in line with the investment plan approved by CCEA as in **Annexure VI(a)**.

9.2 **Project Appraisal and Approval by NHAI**

- (i) The NHAI Board (Authority) shall approve the mechanism for mode selection of projects under its purview.
- (ii) NHAI's Board (Authority) shall have the discretion to modify the project implementation mode for projects under its purview subject to availability of funds and other required conditions.
- (iii) All EPC projects implemented by NHAI under this program are to be approved by NHAI Board (Authority) after proper appraisal within the budgeted financial resources approved under this program.
- (iv) All PPP BOT (Toll) projects, irrespective of the size and cost, where no grant (or VGF) is given to the concessionaire and the construction and maintenance is financed by toll revenues, shall be appraised and approved by the Board of NHAI (Authority).
- (v) All PPP projects, which entail VGF grants from Government, are to be appraised and approved as per extant guidelines of DEA applicable for

VGF support.

- (vi) All PPP {BOT (Annuity) or BOT (HAM)} projects costing up to Rs. 2000 crore (TPC excluding land cost) are to be appraised by the SFC chaired by Secretary, MoRTH and approved by Minister (MoRTH).
- (vii) All PPP [BOT (Annuity) or BOT (HAM)] projects costing more than Rs. 2000 crore (TPC excluding land cost) are to be appraised by PPPAC chaired by Secretary, DEA and approved by the CCEA.
- (viii) The NHAI Board (Authority) is authorized to delegate its powers on appraisal and approval of projects within NHAI, as deemed appropriate, for categories of projects where NHAI Board (Authority) is empowered to appraise and approve projects.

9.3 Project Appraisal and Approval by NHIDCL and State PWDs, and for non-Bharatmala projects under NHAI

- (i) For EPC projects to be implemented by MoRTH through State PWDs or other agencies (including non-Bharatmala projects under NHAI), the extant guidelines will be followed i.e. all projects having civil cost (TPC excluding land cost) between Rs 100 crore to Rs 1,000 crore will be appraised by the SFC/EFC, chaired by Secretary (RT&H), and approved by the Minister (RT&H). Projects having civil costs beyond Rs 1000 crore (TPC excluding land cost) shall be appraised by the PIB chaired by Secretary, Expenditure (MoF) and approved by CCEA.
- (ii) For PPP projects to be implemented by MoRTH through State PWDs or other agencies (including non-Bharatmala projects under NHAI), the extant guidelines will be followed i.e. all projects having civil cost (TPC excluding land cost) between Rs 100 crore to Rs 1,000 crore will be appraised by the SFC/EFC, chaired by Secretary (RT&H), and approved by the Minister (RT&H). Projects having civil costs beyond Rs 1000 crore (TPC excluding land cost) shall be appraised by the PPPAC chaired by Secretary, DEA and approved by CCEA.
- (iii) For projects to be implemented in the North-East, the appraisal and approval mechanism will be the same as that applicable for projects under on-going SARDP-NE programs i.e. through the High Powered Committee (HPC) under the chairmanship of Secretary (RT&H).
- 9.4 All decisions regarding mode of execution will be taken by the Board of NHAI (Authority) or MoRTH, for their respective road projects subject to availability of funds and other required conditions.
- 9.5 Individual Projects under the program that involve Revised Cost Estimates shall

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be considered and approved by the concerned Authority which has accorded approval to the project as per above guidelines, subject to the cumulative financial commitments of all such projects remaining within the allocation approved for this program.

- 9.6 All projects implemented, either by NHAI,NHIDCL or MoRTH, shall be technically, financially and economically appraised by an empowered and well-equipped Project Appraisal & Technical Scrutiny Committee to be setup in NHAI, NHIDCL and MoRTH. The Project Appraisal & Technical Scrutiny Committee for appraisal would comprise experts from NITI Aayog, Project and Finance Division and would be a dedicated unit, which would place its recommendations on appraisal of projects to NHAI Board or Secretary, MoRTH, as the case may be, for approval.
 - (i) Composition of the Project Appraisal & Technical Scrutiny mechanism shall be decided and approved by the NHAI Board (Authority).
 - (ii) Composition of the Project Appraisal &Technical Scrutiny Committee at MoRTH - existing PPP Cell under Highways Wing shall continue with reinforcement through addition of Financial Consultant and such other experts as may be required. As per extant mechanism, the PPP Cell solicits views/ comments of NITI Aayog on project proposals.
- 9.7 Guidelines for scrutiny of individual projects which may be followed by all implementing agencies are at **Annexure VI(b)**.
- 9.8 The final approval to any project under Bharatmala shall be subject to full DPR being provided to the bidders while floating the Project RFP in accordance with the extant guidelines.

10 Project award, contracting and appointment

- 10.1 No project should be awarded without confirming availability of 80% of the Right of Way for PPP projects and 90% for EPC projects.
- 10.2 All implementation agencies shall be required to ensure that the conditions precedent regarding Right of Way are met prior to issuing the 'Appointed Date' for any project under their purview.
- 10.3 In order to ensure an efficient and transparent Bidding Process, the online Bidder Information Management System (BIMS) shall be used for management of bidder information and technical evaluation by all implementation agencies.

V - PROJECT IMPLEMENTATION

11 Monitoring of Projects

- 11.1 Project progress for all projects shall be monitored electronically through the Project Monitoring Information System (PMIS). Reports on project progress shall be prepared on a monthly basis through the system and submitted to the Ministry of Road Transport & Highways.
- 11.2 To ensure that latest project information is available in PMIS, all officers are directed to ensure the following latest by **<u>5th of every month</u>** -
 - (i) Completion of updation of all PMIS projects associated with the field office, and certification of the same.
 - (ii) Upload of associated monthly IE/ AE/ SC reports for the projects, as per standard format including the detailed strip plans.
 - (iii) Updation of the stage of the project, when a project is appraised and approved/awarded/appointed/completed.
 - (iv) Addition of any new project, where DPR has been initiated, which was not previously in the PMIS.
- 11.3 Between the 5th and 10th of each month, all **ROs and CGMs shall validate and verify all data** fed into the PMIS by the respective PIUs.
- 11.4 **<u>Reviews using PMIS</u>**: Progress reviews shall be at regular pre-defined intervals using PMIS by the respective implementation agencies.

12 Supervision of projects

Naryer 40 8105749540

- 12.1 Bids for selection of the IE/ AE for Under Construction projects shall be floated along with the bids for civil works. The IE/ AE shall be appointed within 3 months of issue of Letter of Award (LOA) to the successful bidder for civil works.
- 12.2 IE/ AE shall use latest technology for carrying out completion tests, since completion certificate is issued on the basis of results of these tests. IE/ SC shall similarly use latest technology for carrying out half-yearly inspections. Technology shall include but not limited to using Network Survey Vehicle (NSV) including laser profilometer for roughness, Falling Weight Deflectometer (FWD) for pavement strength, and Retro reflectometer to test effectiveness of signages.
- 12.3 The IE/ SC shall upload half-yearly reports on the Road Asset Management System (RAMS) and Indian Bridge Management System (IBMS).
- 12.4 The IE/ AE/ SC shall upload monthly progress reports as per the standard format specified in the RFP. PMIS certificate shall be presented by the IE/ AE/ SC when submitting invoices for payment.

100

13 Financial management at NHAI and NHIDCL

- 13.1 Given the scale of investment and consequent asset base creation, prudence in accounting and financial planning/ management is essential to meet fund requirements of current and future projects to be undertaken by NHAI & NHIDCL.
- 13.2 The system of **project-based accounting** shall be put in place to ensure that all costs incurred at all times during the life-cycle of the project are accurately captured:
 - The costs include but are not limited to (a) Civil construction cost including expenses such as mobilization advance, delays and damages, retention money, (b) Land acquisition cost, (c) Utility shifting costs, (d) Operation and Maintenance costs, (e) Debt costs and other interest expenses.
 - (ii) Sources of revenue include but are not limited to (a) Toll fee collection monthly, (b) Premium or negative grant, (c) Damages or penalty collected from the concessionaire.
- 13.3 The field offices shall ensure that all costs incurred and revenues received from any project are maintained as part of the Project based accounting system so as to assess the financials of any such project stretch. Profit-centres shall be defined and monitored at a project / stretch level, sub-corridor level, corridor level and network level.
- 13.4 A detailed twenty-year financial model shall be maintained by NHAI based on project-level accounting. The model shall calculate and project the funds generated from projects and fund requirements for projects over twenty years.
- 13.5 The model shall be updated every six months with the updated list of projects and revised assumptions for projecting future revenues and costs.

VI - ORGANIZATION

14 Staffing of field offices of NHAI

- 14.1 Since a majority of the program is to be implemented by NHAI, guidelines are being provided to ensure adequate staffing of field offices for proper project execution and management.
- 14.2 Standard Organization Structure and Manpower Requirements at Project Implementation Unit (PIU):

- (i) A PIU shall be headed by a Project Director (PD) of General Manager (GM) or Deputy General Manager (DGM) level officer;
- (ii) The number of Technical officers (apart from the PD) required at the PIU shall be assessed based on the total work-load handled by the PIU in terms of 'number of packages' and 'length of packages'.

14.3 Standard Organization Structure and Manpower Requirements at Project Implementation Unit (PIU):

- (i) Every State with 3 or more PIUs should have at least one Regional Office. Exceptions may be considered for reasons to be recorded. To maintain optimum span of control, a Regional Office may have no more than 9 PIUs under it and additional Regional Office may be setup in case there are more than 9 PIUs.
- (ii) Each Regional Office shall be headed by a Regional Officer of the level of Chief General Manager (CGM) or General Manager (GM).
- (iii) Apart from the Regional Officer, the number of Technical officers (GM/ DGM/ Manager/ Deputy Manager) at the Regional Office shall be determined by the number of PIUs handled.

15 Monitoring of annual targets for award and construction

15.1 NHAI, NHIDCL and various State PWDs involved in the implementation of Bharatmala Pariyojana program, shall be required to further divide the agencywide annual award and construction targets into field office targets, so that each field officer at his respective field office shall have clarity about his annual and monthly award and construction targets. This exercise shall be completed within a period of 60 days of issue of these guidelines.

VII - EXTERNAL MONITORING AND AUDIT

16 Monitoring & Audit Mechanism

- 16.1 PIB will review the progress of this program once in six (6) months with a view to avoid cost and time overruns.
- 16.2 MoRTH, in consultation with NHAI and NHIDCL, will bring out a consolidated Progress Report for all sub-projects contained in the approved Bharatmala Phase-I before the PIB (every December and June).
- 16.3 The Progress Report will include details of the variation in the parameters of the sub-projects, which increase the overall cost of the sub-projects or their financing patterns.

- 16.4 The Progress Report along with the Review Report of the PIB shall be placed before the CCEA for its information and guidance.
- 16.5 NHAI shall lay down outcome parameters like reduction in time of travel, fuel efficiency, accident reduction, riding comfort and user satisfaction, and periodically monitor the same for every corridor.
- 16.6 Audit of physical and technical parameters will be ensured for all such projects by MoRTH through appropriate independent agencies.
- **17** This issues with the approval of the Competent Authority.

ours faithfully, (Debjani Chakrabarti) Director (Highways)

Annexure I (a)

Components of Bharatmala Pariyojana Program

- (i) Economic Corridors: These are identified Highways Corridors of Economic importance, and are expected to carry 25% of freight in the coming years. Around 26,200 km of Economic corridors have been identified to be developed as Economic corridors, out of which 9,000 kms are being taken up in Phase-I of the program.
- (ii) Inter-corridor and feeder roads to National and Economic Corridors: Around 8,000 km of inter-corridor and around 7,500 km of feeder routes have been identified, out of which 6,000 kms are being taken up in Phase-I of the program.
- (iii) National Corridors Efficiency Improvement: The Golden-Quadrilateral and NS-EW, corridors carry 35% of India's freight and would be declared as National corridors. Lane expansion, and de-congestion of existing National Corridors through Ring Roads and bypasses/ elevated corridors will be undertaken. Around 5,000 kms are being taken up under this category in Phase-I of the program.
- (iv) Border and International connectivity roads: Around 3,300 km of border roads have been identified to be built along the international border for their strategic importance. Around 2,000 km of roads are required for connecting India's major highway corridor to International trade points so as to facilitate Export-Import (EXIM) trade with neighbouring countries. Around 2,000 kms are being taken up under this category in Phase-I of the program.
- (v) Coastal and Port connectivity roads: Around 2,100 km of coastal roads have been identified to be built along the coast of India, to boost both tourism and industrial development of the coastal region. Around 2,000 km of port connectivity roads have been identified to facilitate EXIM trade with an emphasis to improve connectivity to non-major ports. Around 2,000 kms are being taken up under this category in Phase-I of the program.
- (vi) Green-field Expressways: Certain sections of National and economic corridors with traffic exceeding 50,000 PCUs have developed several choke points. Around 1,900 km of these stretches have been identified for development of green-field expressways. Around 800 kms are being taken up under this category in Phase-I of the program.

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Annexure I (b)

Criteria for Selection of Stretches for Bharatmala Pariyojana Program

Sr.	Components	Inter-se priority determination criteria for selection of stretches
No.	of Bharatmala	i ja secondador siteria for selection of stretches
	Pariyojana	
1	Economic Corridor Development	 Economic corridor development program focuses on developing new corridors, in addition to existing Golden Quadrilateral (GQ) and North South-East West corridors (NS-EW). Criteria: Stretches with higher freight flow; Stretches with overall higher traffic; Stretches with ease of Land Acquisition and pre-construction activities and DPR preparation;
		 DPR preparation; Capacity augmentation from 4 to 6 lane would be taken in 2nd phase.
2	Inter Corridor	Stretches of roads connecting more than 2 corridors are classified as inter-
	and feeder roads	corridors routes, while other routes connecting to 1 or 2 corridors are termed as feeder routes.
	development	Criteria:
		 Stretches with less than 4 lane infrastructure leading to infrastructure asymmetry on the corridor; Higher traffic in terms of PCU; Stretches with ease of Land Acquisition and pre-construction activities and DPR preparation.
3	National	National Corridor Efficiency Improvement program will focus on improving the
	Corridors Efficiency Improvement	efficiency of the existing corridors (GQ and NS-EW), by removing the congestion points through access control, uniform corridor tolling, bypasses, ring roads, etc. Criteria :
		 Congestion records;
		 Road safety consideration
		 Higher traffic would be prioritized.
		 Focus on Ring roads; mobilization/acquisition of land by State Governments Connectivity of Logistics Parks
		 Connectivity of Logistics Parks
	Border and	Criteria:
	International	 Synergy with development of Integrated check post,
	connectivity	 Government priority, IMT/BIN/BIMSTEC MVAs
	roads	 Stretches of ease of Land Acquisition and pre-construction activities and DPP
	0	preparation
	Coastal and	Criteria:
1	Port	 Development status of Ports;
	connectivity roads	 Equity participation by Stake holders;
	luaus	 Synchronization with other port development under Sagarmala;
		 Ease of Land Acquisition and pre-construction activities and DPR preparation
E	Expressways	chtena.
		 Constraint in capacity augmentation of important NHs where PCU > 50,000;
		• righer traffic would be prioritized:
		 Synchronization with rapidly growing Industrial activities:
		 Stretches with ease of Land Acquisition and pre-construction activities and DPP propagation
1		DPR preparation.

Annexure II (a)

Implementation Sr. Economic Length Alignment (km) Agency No. Corridor Mumbai (Thane) - Nashik - Aurangabad - Jalna 1 - Karanja - Amravati - Nagpur - Raipur -1,854 NHAL Mumbai-Kolkata Sambalpur - Deogarh - Kharagpur - Kolkata Mumbai (Panvel) - Mahad - Chiplun - Panjim -Mumbai-Karwar - Bhatkal - Udupi - Mangalore - Kannur 2 NHAL 1,619 - Kozhikode - Cochin - Alappazuha-Kollam-Kanyakumari Thiruvananthapuram-Nagercoil-Kanyakumari Amritsar - Faridkot - Bhatinda - Abohar - Sri Amritsar-NHAI 3 Ganganagar - Bikaner - Nagaur - Jodhpur -1,316 Jamnagar Radhanpur - Samkhiyali - Jamnagar Kandla - Dhrangadhra - Ahmedabad - Godhra -4 1.038 NHAI Kandla-Sagar Dahod - Indore - Dewas - Bhopal - Sagar Agra - Gwalior - Shivpuri - Guna - Biaora -5 Dewas - Indore - Sendhwa - Dhule - Malegaon 964 NHAI Agra-Mumbai - Nashik - Mumbai (Thane) Pune-6 Pune - Solapur - Hyderabad - Vijaywada 906 NHAI Vijayawada Raipur - Bilaspur - Gumla - Ranchi - Bokaro -7 Raipur-Dhanbad 707 NHAI Dhanbad Ludhiana --8 NHAI Ludhiana-Sangrur-Hisar-Sadulpur-Ajmer 618 Aimer Surat - Bardoli - Dhule - Jalgaon - Khamgaon -9 593 NHAI Surat-Nagpur Akola - Amravati - Nagpur Hyderabad - Mahbubnagar - Deosugur -Hyderabad-10 593 NHAL Panaji Lingsugur - Bagalkot - Belagavi - Panjim Jaipur - Tonk - Bundi - Kota - Jhalawar - Ujjain 11 Jaipur-Indore 574 NHAI Indore Solapur -Solapur-Latur-Nanded-Yavatmal-Wardha-12 563 NHAI Nagpur Nagpur 13 Sagar-Varanasi Sagar - Damoh - Katni - Rewa - Varanasi 524 NHAI Kharagpur - Ghatal - Arambagh - Burdwar -NHAI. Kharagpur -Nabadwib - Plassey - Behrampore - Farakka -14 516 EAP Wing, Siliguri Malda - Raiganj - Kishanganj - Islampur -MoRTH¹ Bagdogra Raipur -Raipur-Kurud-Umerkote-Sunabeda-Salur-15 506 NHAI Vishakapatnam Vishakhapatnam Delhi-Moradabad-Bareily-Shahjahanpur-16 Delhi - Lucknow 494 NHAI Hardoi-Lucknow Chennai -Chennai - Puttur - Kadappa - Nandyal -17 482 · NHAL Kurnool Kurnool

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List of Economic Corridors with designated Implementation Agency

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Sr. No.	Corridor	Alignment	Length (km)	Implementatio Agency
18	Indore-Nagpur	Indore - Harda - Betul – Nagpur	464	
19 Chennai – Madurai		Chennai – Tindivanam – Trichy – Madurai	464	NHAI
20	Mangalore- Raichur	Mangalore – Chitradurga – Beilari – Raichur	461	NHAI
21	Tuticorin – Cochin	Tuticorin - Aruppukottai - Madurai - Usilampatti - Theni - Bodi - Muvattupuzha - Cochin	443	NHAI
22	Solapur - Bellary - Gooty	Solapur - Bijapur - Kushtagi - Hospet - Bellary - Gooty	434	NHAI
23	Hyderabad - Aurangabad	Aurangabad-Jalna-Nanded-Degloor- Sangareddy-Hyderabad	427	NHAI
24	Delhi - Kanpur	Delhi - Ghaziabad - Aligarh - Kannauj - Kanpur	424	NHAI
25	Tharad-Phalodi	Phalodi - Balotra - Tharad	394 -	NHAI
26	Nagaur - Mandi Dabawli	Nagaur - Sujangarh - Ratangarh - Pallu - Rawatsar - Hanumangarh - Mandi Dabwali	387	NHAI
27 .	Sagar-Lucknow	Sagar - Banda - Chhatarpur - Mahoba - Kabrai - Hamirpur - Kanpur – Lucknow	361	NHAI
28	Sambalpur- Paradeep	Sambalpur – Angal – Dhenekal – Cuttack – Paradeep	360	NHAL
29	Amreli – Vadodra	Amreli - Bhavnagar - Tarapur - Borsad Vadodara	341	NHAI
30	Godhra - Khargone	Godhra - Halol - Chote Udepur - Khargone	337	NHAI
31	Sambalpur- Ranchi	Sambalpur - Jharsuguda - Sundargarh - Rourkela - Simdega - Kolebira - Khunti Ranchi	329	NHAI
32	Bangalore - Mallapuram	Bangalore - Mandya - Mysore - Nilgiri – Mallapuram	323	NHAI
33	Raisen - Pathariya	Raisen - Raisen - Udaipura - Shahpura - Jabalpur - Lakhnadaon – Pathariya	320	NHAI
	Bangalore- Mangalore	Bangalore - Kunnigal - Hasan – Mangalore	319	NHAI
	Chittaurgarh – Indore	Chittaurgarh-Pratapgarh-Ratlam-Indore	303	NHAI
0	Bilaspur - New Delhi	Bilaspur - Jagadhri - Yamunanagar - Saharanpur - Roorkhe - Muzzafarnagar - Meerut - Ghaziabad – Delhi	302	NHAI
	Solapur - Mahabubnagar	Solapur-Akkalkot-Kalaburagi-Mahabubnagar	290	NHAI
1	Bangalore – Nellore	Bangalore-Kolar-Chittoor-Tirupati-Naidupeta- Nellore	286	NHAI
	Ajmer – Udaipur	Ajmer - Beawar - Rajsamand Udaipur	286	NHAI
	Sirsa - Delhi	Sirsa - Hissar - Rohtak – Delhi	278	NHAI
1 5	Sirohi – Beawar	Sirohi - Sumerpur - Pali – Beawar	255	NHAI

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Sr. No.	Economic Corridor	Alignment	Length (km)	Implementation Agency
42	Jaipur – Agra	Jaipur - Dausa - Bharatpur - Agra	240	NHAI
43	Pune - Aurangabad	Pune - Shirur - Ahmednagar - Shani Shignapur – Aurangabad	222	NHAI
44	North East Corridor	Bongaigaon – Guwahati – Nagaon – Tezpur – Dibrugarh – Margherita; Dudhnoi – William Nagar; Gohpur – Itanagar; Nagaon –Dimapur; Numaligarh – Dimapur – Kohima– Imphal; Kohima – Jessami – Ukhrul – Imphal; Jorabat — Jowai – Silchar – Karimganj — Agartala; Manu – Simlung – Aizawl – Imphal; Silchar – Aizawl; Silchar – Jiribam – Imphal	3,246	NHIDCL
	TOTAL		26,163	

Notes:

1. Memar to Krishnanagar will be implemented under NHIIP, and the rest of the corridor will be under Bharatmala.

2. 9000 km of Economic Corridors (project length) would be implemented in Phase -1 of Bharatamala.

Annexure II (b)

Sr. No.	Inter Corridor Route	Length (km)	Implementation Agency
	Sohela (on NH 53) - Khurda	334	NHAI
2	Mangalore – Huligundi	271	NHAI
3	Aurangabad-Darbhanga	271	NHA!, EAP Wing, MoRTH
4	Solapur – Aurangabad	266	NHAI
5	Chandigarh - Rajpura - Patiala - Sangrur - Bhatinda	240	NHAI
6	Coimbatore - Trichy - Tanjore	235	NHAI
7	Hyderabad-Ongole	231	NHAI
8	Madurai – Kollam	227	NHAI
9	Ranchi-Kharagpur	218	NHAI
10	Jalgaon (Mukthiarpur on NH 53) - Indore	217	NHAI
11	Nagpur – Narsinghpur	212	NHAI
12	Gurgaon – Sikar	210	NHAI
13	Nashik-Pune	210	NHAI
14	Kadappa – Nellore	178	NHAI NHAI
15	Daund - Ahmednagar - Shirdi	170	NHAI NHAI
16	Lucknow - Rae Bareily - Allahabad	168	
17	Betul Bhopal	166	NHAI
18	Sasaram (on NH 19) - Patna: Parallel to Aurangabad – Dharbhanga	143	NHAI NHAI
19	Vidisha – Mallthone	140	
20	Melur – Tanjore	142	NHAI
21	Rajkot – Viramgam	142	NHAI
22	Ahmedabad - Mehsana - Palanpur	140	NHAI
23	Keonjar – Chandikhol	138	NHAI
24	Hubli – Hospet	136	NHAI
25	Dhule – Aurangabad	134	NHAI
26	Hubli – Ankola	134	NHAI
27	Salem – Ulundurpet	132	NHAI
28	Nashik Vaisad	130	NHAI
.9	Wardha – Karanja	128	NHA!
10	Nanded - Nirmal (on NH 44)	122	NHAI
1	Limkheda - Amarholi - Ratlam	120	NHAI
2	Hingoli – Mehkar	120	NHAI
3	Kozhikode - Mallapuram - Palakkad	119	NHAI
4	Agra - Mumbai to Surat - Nagpur	114	NHAI
5	Jaipur – Sikar	113	NHAI
6	Amritsar - Gurdaspur - Pathankhot	110	NHAI
7	Banda (on NH 66) - Sankeshwar (on NH 48)	106	NHAI
8	Ajmer - Nasirabad – Deoli	104	NHAI
9	Dewas - Ujjain – Ratlam	103	NHAI
	Dewas - Ojjali - Raliam	99	NHAI

List of Inter-corridor routes and designated Implementation Agency

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Sr. No.	Inter Corridor Route	Length (km)	Implementation Agency
40	Kedgaon – Satara	96	NHAI
41	Junapani (on NH 47 Near Jhabua) - Ratlam	90	NHAI
42	Jaipur - Agra Branch (Bharatpur - Alwar)	86	NHAI
43	Malegaon – Shirdi	86	NHAI
44	Jharsuguda – Tileibaini	85	NHAI
45	Jharphokaria – Balasore	81	NHAI
46	Rohtak – Rewari	78	NHAI
47	Jhalawar - Mandola (on NH 27)	77	NHAI
48	Amritsar – Jalandar	73	NHAI
49	Vellakoil - Muthur - Erode – Sankakiri	71	NHAI
50	Vadodara - Halol – Godhra	66	NHAI
51	Rohtak – Panipat	56	NHAI
52	Rajkot – Dhrol	49	NHAI
53	Patna - Hajipur – Muzzafarpur	48	NHAI
54	Chitoor – Ranipet	47	NHAI
55	Kannod (NH 47) – Ashta	45	NHAI
56	Tiruchi – Namakkal	44	NHAI
57	Branch to Vadodara - Halol - Godhra	43	NHAI
58	Tirunelveli – Tuticorin	41	NHAI
59	Sohela (on NH 53) - Khurda Branch to Phulbani	36	NHAI
60	Hubli - Hospet Branch to Koppala (on NH 50)	25	NHAI
61	Kathlal – Nadiad	20	NHAI
62	Melur - Tanjore (Branch to Karaikudi)	20	NHAI
63	Jaipur - Agra Branch (Kiraoli - Kagarol)	15	NHAI
64	Ajmer - Udaipur Branch - Gudliya - Desuri - Branch 2	15	NHAI
65	Ajmer - Udaipur Branch - Gudliya - Desuri - Branch 1	11	NHAI
	TOTAL	7,964	······

Note:

(1) Hajipur-Mushrigharari will be implemented under NHIP and the rest of the corridor will be under Bharatmala.

Annexure II (c)

Sr. No	Feeder Route	Length (km)	Implementation Agency
1	Ludhiana – Bhuntar	256	NHAI
2	Umaria - Beohari – Rewa	176	NHAI
3	Betul – Kandwa	168	NHAI
4	Sikandra - Rewari - Branch 1	163	NHAI
5	Solapur – Ahmednagar	162	NHAI
6	Armoor (on NH 44) – Ramagundam	149	NHAI
7	Chennai – Pondicherry	137	NHAI
8	Nagpur – Chandrapur	134	NHAI
9	Kashipur - Rudrapur - Philibit	134	NHAI
10	Karimnagar – Hyderabad		NHAI
11	Bhiwani – Narnaul	130	NHAI
12	Katni – Shahdol	124	NHAI
13	Angul – Kurda	121	NHAI
14	Godhra - Samalji – Ratanpur	121	NHAI
15	Raipura - Kalwari - Branch 1	120	NHAI
16	Jagtial – Warrangal	120	NHAI
17	Jodhpur – Lambiya	118	NHAI
18	Muzzafarpur – Begusarai	117	NHAI
19	Hyderabad – Warangal	116	NHAI
20	Tiruppur – Dindigul	116	NHAI
21	Gandhidham – Bhuj	113	NHAI
22	Karnal – Meerut	101	NHAI
23	Ludhiana - Moga - Jaito	99	NHAI
24	Ahmednagar – Nashik	97	NHAI
25	Bhajanpur - Araira (on NH 27)	95	NHAI
26	Rajahmundry link road	95	NHAI
27	Saraipali – Raigarh	94	NHAI
28	Dugiphar (on NH 53) – Balaghat	89	NHAI
29	Degloor – Bidar	88	NHAI
30	Ranchi – Hazaribhag	87	NHAI
31	Patehra (on NH 30) - Satna - Majhgawa	87	NHAI
32	Kheda – Vadodra	86	NHAI
33	Varanasi – Ghazipur	84	NHAI
34	Firozepur - Malout - Branch 1	84	NHAI
35	Jabalpur – Katni	83	NHAI
36	Parallel to Sangrur – Bhatinda	82	NHAI NHAI
37	Bhilwara – Rajsamad	80	NHAI NHAI
38	Jalandhar – Moga	78	NHAI
39	Sagar – Allahabad	78	NHAI
40	Sikandra - Rewari - Branch 2	76	NHAI NHAI
41	Ambala - Zirakpur – Baddi	76	NHAI

List of Feeder routes and designated Implementation Agency

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Sr. No	Feeder Route	Length (km)	Implementation Agency
42	Agra – Aligarh	76	NHAI
43	Ambala – Kaithal	76	NHAI
44	Ludhiana – Barnala	72	NHAI
45	Bongaigaon-Dhubri	71	NHIDCL
46	Sriganganagar – Hanumangarh	71	NHAI
47	Dimow Chairali-Sengajan	69	NHIDCL
48	Hatsinghimari-Dhubri	66	NHIDCL
49	Nagaur - Mandi Dabawli - Branch 3	65	NHAI
50	Patna – Sahebganj	65	NHAI
51	Bilaspur - New Delhi : Branch to Rishikesh and Dehradun	60	NHAI
52	Patran - Kaithal + Branch 1	60	NHAI
53	Panchkula - Shazadpur – Saha	59	NHAI
54	Gandhidham – Mundra	59	NHAI
55	Dharwad – Londa	58	NHAI
56	Rohtak – Jind	58	NHAI
57	Suryapet – Khammam	56	NHAI
58	Varanasi – Roberstganj	55	NHAI
59	Chapra – Patna	55	NHAI
60	Gurgaon - Pataudi – Rewari	55	NHAI
61	Firozepur - Malout - Branch 2	54	NHAI
62	Amreli - Vadodra - Branch 5	50	NHAI
63	Kolaghat – Haldia	49	NHAI
64	Ambala – Jagadhri	49	NHAI
65	Dibrugarh Ghat-Sengajan	48	NHIDCL
66	Vishakapatnam link road	47	NHAI
67	Raipura - Kalwari - Branch 4	45	NHAI
68	Jambusar – Bharuch	45	NHAI
69	Tumkur – Kunnigal	45	NHAI
70	Patran - Kaithal + Branch 2	42	NHAI
71	Karnal - Meerut : Branch to Muzzafarnagar	40	NHAI
72	Nagaur - Mandi Dabawli - Branch 4	40	NHAI
73	Ambala – Chandigarh	40	NHAI
74	Bhatinda - Mandi Dabwali	40	NHAI
75	Purilia - Chas (Bokoro)	39	NHAI
76	Bilaspur - New Delhi - Branch 3	39	NHAI
77	Firozepur - Malout - Branch 4	39	NHAI
78	Tharad-Phalodi	38	NHAI
79	Madurai – Natham	38	NHAI
80	Patran - Kaithal + Branch 3	38	NHAI
81	Nagaur - Mandi Dabawli - Branch 1	38	NHAI
82	Delhi - Sirsa (Branch to Bhiwani)	38	NHAI
83	Firozepur - Malout - Branch 3	38	NHAI
84	Gurgaon – Jhaijar	38	NHAI
85	Bareily – Philibit	35	NHAI
86	Nagaur - Mandi Dabawli - Branch 2	31	NHAI

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Sr. No	Feeder Route	Length (km)	Implementation Agency	
87	Hoshiarpur – Pagwara	30	NHAI	
88	Fulbari – Khoribari	30	NHAI	
89	Dharuhera – Sohna	28	NHAI	
90	Bilaspur - New Delhi - Branch 1	26	NHAI	
91	Surur – Panchgani	26	NHAI	
92	Muzzafarpur –Sahebganj	25	NHAI	
93	Jetpur – Junagadh	25	NHAI	
94	Bhajanpur - Araira (on NH 27)- Branch to Kishanganj	24	NHAI	
95	Raipura - Kalwari - Branch 2	24	NHAI	
96	Delhi - Sirsa (Branch to Jhajjar)	23	NHAI	
97	Vadkal (on NH 66) – Alibag	22	NHAI	
98	Barapada - Padeghar (JNPT)	20	NHAI	
99	Amreli - Vadodra - Branch 1	19	NHAI	
100	Biswanath Chairali-Biswanath Ghat	19	NHIDCL	
101	Raipura - Kalwari - Branch 3	18	NHAI	
102	Kamargaon-Dibrugarh Ghat	15	NHIDCL	
103	Bilaspur - New Delhi - Branch 4	15	NHAI	
104	Amreli - Vadodra - Branch 4	14	NHAI	
105	Batera – Pathariya	13	NHAI	
106	Angul - Kurda – Branch	13	NHAI	
107	Amreli - Vadodra - Branch 2	11	NHAI	
108	Amreli - Vadodra - Branch 3	11	NHAI	
109	Jorhat-Neamati	10	NHIDCL	
110	Amreli - Vadodra - Branch 6	10	NHAI	
111	Bilaspur - New Delhi - Branch 2	10	NHAI	
115	Naltoli-Silghat	4	NHAI	
	TOTAL	7,439		

Note: 6,000 km of Inter Corridor and Feeder Routes will be implemented in Phase I of Bharatmala Pariyojana.

Annexure II (d)

Sr. No.	National Corridor	Alignment	Length (km)	Implementation Agency
1	Delhi-Mumbai	Delhi – Gurgaon – Jaipur – Udaipur – Ahmedabad – Vadodara – Surat – Mumbai	1,421	NHAI
2	Delhi-Kolkata	Delhi – Agra – Kanpur – Allahabad – Varanasi – Aurangabad (Bihar) – Raniganj – Dhankuni – Kolkata	1,453	NHAI
3	Mumbai- Chennai	Mumbai – Pune – Belgaum – Hubli Dharwad – Tumkur – Bangalore – Chennai	1,290	NHAI
4	Chennai- Kolkata	Chennai Nellore Guntur Vijayawada Vishakhapatnam Bhubaneshwar Cuttack Kharagpur Kolkata	1,684	NHAI
5	Srinagar- Kanyakumari	Srinagar – Jalandhar – Ludhiana – Ambala – Delhi – Gwalior – Jhansi – Nagpur – Hyderabad – Bangalore – Salem – Namakkal – Madurai – Kankyakumari; Salem – Coimbatore – Trishur – Angamali - Kochi	3,810	NHAI
6	Porbandar- Silchar	Porbandar – Rajkot – Samkhiali — Udaipur – Chittorgarh – Kota – Jhansi – Kanpur – Lucknow – Gorakhpur — Purnea – Dalkola – Siliguri – Silchar	3,391	NHAI

List of National Corridors

Annexure II (e)

List of Ring Roads, Choke Points and Congestion Points where interventions are required (ring roads, bypasses, etc.)

A) List of Ring Roads

Sr. No.	Corridor
1	Pune
2	Bangalore
3	Sambalpur
4	Madurai
5	Indore
6	Dhule
7	Raipur
8	Shivpuri
9	Delhi
10	Bhubaneshwar
11	Gurugram
12	Surat ·
13	Patna
14	Lucknow
15	Varanasi
16	Vijayawada
17	Chitradurga
18	Amravati (AP)
19	Sagar
20	Solapur
21	Jaipur
22	Belgaum
23	Nagpur
24	Agra
25	Kota
26	Dhanbad
27	Udaipur
28	Ranchi

B)

List of choke points and Interventions planned:

Sr. No.	Corridor	Town	Intervention	
1	N-S	Ludhiana	Bypass	
2	Kolkata - Delhi	Agra	Bypass	
3	Kolkata - Delhi	Varanasi	Bypass	

Sr. No.	Corridor	Town	Intervention
4	Mumbai-Kolkata	Aurangabad	Bypass
5	Amritsar-Jamnagar	Amritsar	Bypass
6	Agra-Mumbai	Gwalior	Bypass
7	Pune-Vijayawada	Solapur	Bypass
8	Solapur - Nagpur	Solapur	Bypass
9	Solapur - Bellary	Solapur	Bypass
10	Solapur - Mahabubnagar	Solapur	Bypass
11	Solapur - Nagpur	Nanded	Bypass
12	Hyderabad - Aurangabad	Nanded	Bypass
13	N – S	Jalandhar	Bypass
14	Kolkata - Delhi	Firozabad	Bypass
15	E-W	Siliguri	Bypass
16	Surat-Nagpur	Jalgaon	Bypass
17	Mumbai-Cochin	Kozhikode	Bypass
18	Chennai - Kurnool	Kurnool	Bypass
19	Raipur-Dhanbad	Bokaro	Bypass
20	Solapur - Bellary	Bellary	Bypass
21	Surat-Nagpur	Dhule	Bypass
22	Raipur-Dhanbad	Bilaspur	Bypass
23	Kandla-Sagar	Dewas	Bypass
24	Agra-Mumbai	Dewas	Bypass
25	Mumbai-Kolkata	Jalna	Bypass
26	Kandla-Sagar	Sagar	Bypass
27	Sagar-Varanasi	Mirzapur	Bypass
28	Mangalore-Raichur	Raichur	Bypass
29	Amritsar-Jamnagar	Ganganagar	Bypass
30	Mangalore-Raichur	Hospet	Bypass
31	Chennai - Kolkata	Ongole	Bypass
32	E W	Morvi	Bypass
33	Kolkata-Siliguri	Raiganj	Bypass
34	Mumbai - Chennai	Panvel	Bypass
35	Kandla-Sagar	Vidisha	Bypass
36	Kolkata - Delhi	Sasaram	Bypass
37	Sagar-Lucknow	Chhatarpur	Bypass
38	Hyderabad-Panaji	Bagalkot	Bypass
39	Kandla-Sagar	Sehore	Bypass
40	Aurangabad-Darbhanga	Jahanabad	Bypass
41	Amritsar-Jamnagar	Nagaur	Bypass
42	Chennai - Kolkata	Chilakaluripet	Bypass
43	Bangalore - Nellore	Renigunta	Bypass
44	Hyderabad - Aurangabad	Sangareddy	Bypass
45	NER	Imphal	Bypass
46	NER	Silchar	Bypass
47	NER	Shillong	Bypass
48	NER	Dibrugarh	Bypass

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Sr. No.	Corridor	Town	Intervention
49	NER	Dimapur	Bypass
50	Delhi - Mumbai	Udaipur	Bypass / Ring Road
51	N-S	Hinganghat	Bypass + ROB
52	Mumbai - Chennai	Chitradurga	Bypass/ Ring Road
53	E-W	Guwahati	Flyover
54	N-S	Morena	Flyover
55	Mumbai - Chennai	Kancheepuram	Flyover
56	Kolkata - Delhi	Mughalsarai	Flyover + VUP
57	Mumbai - Chennai	Ambur	Flyover + VUP + PUP
58	Mumbai - Chennai	Pune	Flyovers
59	E-W	Porbandar	Flyovers
60	Kandla-Sagar	Bhopal	Lane Expansion
61	Nashik-Pune	Nasik	Lane Expansion
62	Jaipur-Indore	Ujjain	Lane Expansion
63	N-S	Thrissur	Lane Expansion
64	Aurangabad-Darbhanga	Hazipur	Lane Expansion
65	Sagar-Varanasi	Damoh	Lane Expansion
66	Chennai - Kolkata	Visakhapatnam	Lane Expansion + Flyover
67	Mumbai-Cochin	Kochi	Lane Expansion + Flyover
68	Tuticorin - Kochi	Kochi	Lane Expansion + Flyover
69	Kolkata - Delhi	Fatehpur	Lane Expansion + Flyover
70	Kolkata - Delhi	Shikohabad	Lane Expansion + Flyover
71	Delhi - Mumbai	Bharuch	Lane Expansion + Flyover
72	Kolkata - Delhi	Mathura	Lane Expansion + Flyover + VUP
73	Kolkata - Delhi	Kulti	Lane Expansion + Flyover + VUP
74	Kolkata - Delhi	Raniganj	Lane Expansion + Flyover + VUP
75	Delhi - Mumbai	Mumbai	Lane Expansion + Flyovers
76	Mumbai-Kolkata	Mumbai	Lane Expansion + Flyovers
77	Mumbai-Cochin	Mumbai	Lane Expansion + Flyovers
78	Agra-Mumbai	Mumbai	Lane Expansion + Flyovers
79	Agra-Mumbai	Thane	Lane Expansion + flyovers
80	Mumbai-Kolkata	Thane	Lane Expansion + flyovers
81	Agra-Mumbai	Bhiwandi	Lane Expansion + flyovers
82	Mumbai-Kolkata	Bhiwandi	Lane Expansion + fiyovers
83	Sambalpur-Paradeep	Cuttack	Lane Expansion + flyovers
	Sambalpur-Ranchi	Rourkela	Lane Expansion + flyovers
	Sambalpur-Paradeep	Sambalpur	Lane Expansion + flyovers
	Mumbai-Kolkata	Sambalpur	Lane Expansion + flyovers
	Sambalpur-Ranchi	Sambalpur	Lane Expansion + flyovers
	Delhi - Mumbai	Mira Bhayander	Lane Expansion + Trumpet
	Kolkata - Delhi	Durgapur	Lane Expansion + VUP
	Kolkata - Delhi	Asansol	Lane Expansion + VUP
	Mumbai - Chennai	Tumkur	Lane Expansion + VUP
	Chennai - Kolkata	Kharagpur	Lane Expansion + VUP + ROB
93	Ranchi-Kharagpur	Jamshedpur	Lane Expansion

Sr. No.	Corridor	Town	Intervention
94	N – S	Delhi	Ring Road
95	Delhi - Mumbai	Delhi	Ring Road
96	Delhi - Mumbai	Surat	Ring Road
97	Sagar-Lucknow	Lucknow	Ring Road
98	N-S	Nagpur	Ring Road
99	Indore-Nagpur	Nagpur	Ring Road
100	Surat-Nagpur	Nagpur	Ring Road
101	Kandla-Sagar	Indore	Ring Road
102	Aurangabad-Darbhanga	Patna	Ring Road
103	N – S	Agra	Ring Road
104	N – S	Srinagar	Ring Road
105	Raipur-Dhanbad	Dhanbad	Ring Road
106	Raipur-Dhanbad	Ranchi	Ring Road
107	Pune-Vijayawada	Vijayawada	Ring Road
108	N - S	Madurai	Ring Road
109	Chennai - Madurai	Madurai	Ring Road
110	Tuticorin - Kochi	Madurai	Ring Road
111	E - W	Kota	Ring Road
112	Jaipur-Indore	Kota	Ring Road
113	Delhi - Mumbai	Gurgaon	Ring Road
114	Chennai - Kolkata	Bhubaneshwar	Ring Road
115	N - S	Noida	Ring Road
116	Chennai - Kolkata	Baleshwar	ROB
117	E - W	Shivpuri	Service Road + Access Control
118	Mumbai - Chennai	Hosur	Shifting of Inter State Border Checkpost
119	Nashik-Pune	Pimpri-Chinchwad	Study being done
120	Mumbai-Kolkata	Raipur	Study being done
121	Raipur-Dhanbad	Raipur	Study being done
122	Mumbai-Kolkata	Bhilai	Study being done
123	Mumbai-Kolkata	Durg	Study being done
124	Chennai - Kolkata	Uluberia	Vehicular Under Pass
125	Amritsar-Jamnagar	Deesa	Vehicular Under Pass

C)

List of congestion points where interventions are to be planned

Sr. No.	Corridor	Town
1	N – S	Bangalore
2	Mumbai – Chennai	Bangalore
3	Bangalore-Mangalore	Bangalore
4	Kandla-Sagar	Ahmedabad
5	Mumbai – Chennai	Chennai
6	Chennai – Madurai	Chennai
7 Mumbai-Kolkata		Kolkata

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Sr. No.	Corridor	Town	
8	Kolkata-Siliguri	Kolkata	
9	Pune-Vijayawada	Pune	
10	Nashik-Pune	Pune	
11	Delhi – Mumbai	Jaipur	
12	Jaipur-Indore		
13	Sagar-Lucknow	Jaipur	
14	Jaipur-Indore	Kanpur Indore	
15	Indore-Nagpur		
16	Agra-Mumbai	Indore	
17	E – W	Nasik	
18	N-S	Rajkot	
19	Coimbatore-Dindigul	Coimbatore	
20	Amritsar-Jamnagar	Coimbatore	
20	Mumbai – Chennai	Jodhpur	
22		Hubli and Dharwad	
22	Coimbatore - Trichy - Tanjore	Tiruchirapalli	
	N – S	Salem	
24	Amritsar-Jamnagar	Bikaner	
25	Mumbai – Chennai	Kolapur	
26	Ludhiana – Ajmer	Ajmer	
27	Mangalore-Raichur	Mangalore	
28	Bangalore-Mangalore	Mangalore	
29	Mumbai-Cochin	Mangalore	
30	Hyderabad-Panaji	Belgaum	
31	Agra-Mumbai	Dhule	
32	Kolkata – Delhi	Barddhaman	
33	Kolkata-Siliguri	Barddhaman	
34	N – S	Panipat	
35	NER	Aizawl	
36	Amritsar-Jamnagar	Bhatinda	
37	N-S	Sonipat	
38	Delhi – Mumbai	Kotputli	
39	Kandla-Sagar	Gandhidham	
40	Coimbatore - Trichy - Tanjore	Karur	
	Amritsar-Jamnagar	Pali	
	E – W	Jorabat	
43	Mumbai-Kolkata	Kharagpur	
	Coimbatore-Dindigul	Dindigul	
	Kolkata-Siliguri	English Bazar	
	Mumbai – Chennai		
	E – W	Navi Mumbai Panvel Raigad Orai	
	Agra-Mumbai		
	Agra-Mumbai	Guna	
_	Chripten		
	N – S	Navsari	
- 1		Kamptee-Kanhan	
	Hyderabad-Panaji	Mahabubnagar	

Sr. No.	Corridor	Town	
54	Amritsar-Jamnagar	Abohar	
55	Bangalore-Mangalore	Hassan	
56	N-S	Palakkad	
57	N-S	Khanna	
58	N – S	Dhaulpur	
59	Mumbai-Cochin	Udupi	
60	Amritsar-Jamnagar	Palanpur	
61	Mumbai – Chennai	Satara	
62	Delhi – Mumbai	Chittaurgarh	
63	Delhi – Mumbai	Valsad	
64	Chennai – Kolkata	Bhadrak	
65	Hyderabad-Ongole	Miryalaguda	
66	66 N – S Datia		

Note: 5000 km of National Corridor Efficency Improvement (Project length) is to be implemented in Phase I of Bharatmala Pariyojana including 6 laning of national corridors, Congestion removal through Flyovers, Bypasses, Ringroads and Connectivity to Logistics Parks. NHIDCL shall be responsible for development / upgradation and maintenance of the projects stated under S.No. 45, 46, 47, 48, 49 in Part B and S.No 35 in Part C of Annex II (e). All other projects shall be implemented by NHAI under National Corridor Efficency Improvement.

Annexure II (f)

List of Border roads and designated Implementation Agency

Sr. No.	State	Project	Length (km)	Implementation Agency
1	Rajasthan	Munnabao - Sundra - Lunar - Dhanna - Bhuvana - Nawatala - Shahgarh - Asutar - Ghotan – Tanot	323	EAP Wing, MoRTH ¹
2	Rajasthan	Jaisalmer - Bhadasor - Ramgarh – Tanot	125	EAP Wing, MoRTH 1
3	Rajasthan	Kishangarh - Bhutewala - Sarjam Tala - Dadoorewala – Bharewala	128	NHAI
4	Rajasthan	Gagaria - Baonkalam - Serwa - Satta - Gandhav	190	NHAI
5	Rajasthan	Jaisalmer – Myalijar	99	NHAI
6	Rajasthan	Jhaighat - Nedai Phata	49	Roads Wing, MoRTH
7	Rajasthan	Poogal - Dantor - Jaggasar - Tawarwala - Gokul - Godu - Rajatpura - Charanwala - Naukh – Bap	185	NHAI
8	Punjab	Khema Kara (Indo - Pak Border) - Bhikhiwind - Chabal Kalan - Amritsar - Ajnala - Ramdas - Dera Baba Nanak - Gurudaspur	162	NHAI
9	Punjab	Fazilka - Jalalabad - Mamdot Firozpur	85	NILLA I
10	Uttarakhand	Askot - Dharchula - Tawaghat - Sirkha - Malpa - Garbyang - Lipu Lekh Pass	80	NHAI
11	Uttarakhand	Simli - Narayanbagar - Kulsari Talwari - Gwaldan - Dangoli - Baijnath - Bageshwar - Balighat - Kapjot - Sama - Quiti - Birthi - Girgaon - Ratapani - Munsiyari - Darkot - Madkot - Sheraghat - Mawani – Jolljivi	306	NHIDCL
2	Uttarakhand	Bhaironghati - Nelang - Naga - Angar - PDA – Medikay	70	NHIDCL
3	Uttarakhand	Mana - Mussapani - Gastoli - Rattakana – Manapass	63	NHIDCL
	Uttarakhand	Joshimath – Malari	62	NHIDCL
5	Uttar Pradesh	Nangpara - Motipar - Sujauli – Katarnighat	68	NHAI
6	Uttar Pradesh	Naugarh - Geinsari - Tulsipur – Jarwa	72	Roads Wing, MoRTH
7	Bihar	Chakia – Bairgania	50	EAP Wing, MoRTH 1
3	West Bengal	Jangipur - Katiamari - Sagarpara - Jalangi - Karimpur - Tehata - Krishnanagar - Bagula - Ganrapata - Bangaon - Swarup Nagar - Bashirhat	275	NHAI

Ministry of Road Transport and Highways

Sr. No.	State	Project	Length (km)	Implementation Agency
19	West Bengal	Cooch Behar - Dinhata - Getaldah - Bangladesh Border	40	Roads Wing, MoRTH
20	West Bengal	Km 82.4 to km 99.5 and km 104.2 to km 106.6 on NH-512 to improve connectivity to Hili (Bangladesh Border)	19	Roads Wing, MoRTH
21	West Bengal	Km. 574 to Km 582 and Km. 569 to Km 574 of NH-31 to improve connectivity to Nepal and Bhutan Border	13	Roads Wing, MoRTH
22	Sikkim	Mangan - Kodyong - Chungtang - Lachung - Yumthang - Yume - Samdang – Border	90	NHIDCL
23	Sikkim	Chumtang - Lachen Monastry - Log Bridge - Pashi - Naku - Nakpolatok – Nakula	75	NHIDCL
24	Assam	Kochigain - Raimana - Jaigaon - Lamkapura - Birpara	123	NHIDCL
25	Meghalaya	Baghmara - Rongra - Mahadeo - Ranikor	206	NHIDCL
26	Manipur	Sangshak – Nampisha	90	NHIDCL
27	Tripura	Teliamar - Amarpur Sabroom	216	NHIDCL
28	Tripura	Khowai – Agartala	55	NHIDCL
		TOTAL	3,319	

Note: (1) Border Roads No. 1, 2 and 17 shall be implemented under NHIP (EAP Cell), but DPR is being prepared by NHAI.

Annexure II (g)

Sr. No.	State	Project	Length (km)	Implementation Agency
1	Bihar	Raxaul-Mehsi	65	NHAI
2	Bihar	Jogbani – Forbesganj	15	NHAI
3	Uttar Pradesh	Rupaidiha-Lucknow	145	NHAI
4	Uttar Pradesh	Sonauli-Gorakhpur	94	NHAI
5	West Bengal	Petrapole – Kolkata	81	NHAI
6	West Bengal	Mahadipur-Susthani More	13	NHAI
7	West Bengal	Hili-Gazole	98	NHAI
8	West Bengal	Changrabandha - Siliguri	78	NHAI
9	West Bengal	Jaigaon – Dhupguri	66	NHAI
10	West Bengal	Panitanki – Siliguri	17	NHAI
11	West Bengal	Hili-Purnea	135	NHAI
12	Nagaland	Avakhung-Jessami	149	NHIDCL
13	Assam	Darranga-Guwahati	49	Roads Wing, MoRTH
14	Meghalaya	Dawki-Shillong	95	NHIDCL
15	Manipur	Imphal-Moreh	106	NHIDCL
16	Mizoram	Zorinpui-Lunglei	172	NHIDCL
17	Mizoram	Kawarpuchiah-Seling	294	NHIDCL
18	Tripura	Sabroom-Agartala	133	NHIDCL
19	Assam	Sutarkandi-Karimganj	14	NHIDCL
20	Mizoram	Zowkhathar-Kawlkulh	92	NHIDCL
		TOTAL	1,911	

List of International Connectivity roads and designated Implementation Agency

Note: 2000km of Border and International Connectivity will be implemented in Phase I of Bharatmala Pariyojana

Annexure II (h)

Sr. No.	State	Project	Length (km)	Implementation Agency
1	Gujarat	Somnath Dwarka	237	NHAI
2	Gujarat	Dwarka – Jamnagar	132	NHAI
3	Maharashtra	Dighi port - Dabhol - Guhaghar - Jaigad port - Deogad - Malwan -Vengurla and Arunda	445	NHAI
4	Tamil Nadu	Karungulam - Tiruchendur - Kayalpattinam - Tuticorin - Tondi - Mimisal - Manalmelkudi - Tagattur - Vedaranniyam - Nagappatinam	427	NHAI
5	Andhra Pradesh	Digamarru to Ongole	270	NHAI
6	Orissa	Chhatarpur Satapada	70	NHAI
7	Orissa	Konark - Astarand - Naugong - Paradeep Port - Ratanpur - Dharma - Basudevpur - Chandaneshwar – Digha	430	NHAI
		TOTAL	2,011	

List of Coastal roads and designated Implementation Agency

Annexure II (i)

List of Port Connectivity roads and designated Implementation Agency

Sr. No.		Project	Length (km)	Implementation Agency
1	Gujarat	Providing alternative Road from Bhavnagar to Sosiya - Alang Ship Recycling Yard	35	NHAI
2	Gujarat	RoB on Kandla-Kutch Road	5	NHAI
3	Maharashtra	Karad-Chiplun-Jaigad port road enhancement SH-78: Karad- Chipun, SH-78:Chiplun-Modka Agar, SH – 4 Modka Agar to Jaigad Port	150	NHAI
4	Maharashtra	Connectivity to NH – 17 – Upgrading of SH 92, 96, 97 to connect NH17 to North and South banks of Dighi Port	96 ·	NHAI
5	Maharashtra	JNPT - 6 to 8 laning of NH-4B, SH-54 and Amra Marg	44	NHAI
6	Maharashtra	Up gradation of SH 164 (Nivli to Jaigad) to connect Jaigad Port to NH 17 at Nivali	42	NHAI
7	Maharashtra	Sonurli (on NH 66) - Redi Port	29	NHAI
8	Maharashtra	Connectivity of Wadhavan to NH 8 through Tarapur-Boisar or Chinchani-Vangaon or Dahanu (25 km)	25	NHAI
9	Maharashtra	Linking of NH-4 & NH-8 by-passing Mumbra	20	NHAI
10	Maharashtra	6 laning for NH-4 from Kalamvoli to Mumbra	20	NHAI
11	Maharashtra	Expansion of NH 4 from Chinchwad to JNPT	10	NHAI
12	Maharashtra	Evacuation road for proposed standalone Container Terminal (330m extension to DPW terminal) at JNPT	5	NHAI
13	Maharashtra	Flyover for GTI Entry/Exit Over the Rail Tracks at JNPT	5	NHAI
4	Maharashtra	Flyover at Y Junction for Decongestion of Traffic Flow at JNPT	2	NHAI
5	Goa	Road circulation plan for ease of movement of break bulk cargo at Mormugao	3	NHAI
6	Karnataka	SH-2:Haveri-Yekambi(54km),SH-69:Yekambi- Kumta/Belekere	135	NHAI
7	Kerala	Azhikkal Port - Proposed NH – Bypass and widening of 2 km.	13	NHAI
8	Kerala	Widening of road connecting from Kollam port to NH	3	NHAI
9	Kerala	Development of river side port road to Beypore port	2	NHAI

Sr. No.	State	Project	Length (km)	Implementation Agency
20	Tamil Nadu	Four lane road from Northern gate of port to Thachur, outer ring corridor - 6 laning with service roads	30	NHAI
21	Tamil Nadu	Connectivity to Katupalli through Ponnani	20	NHAI
22	Tamil Nadu	Development of Coastal road to the East of container Terminal II at Chennai Port	10	NHAI
23	Tamil Nadu	Development of roads connectivity to Cuddalore Port	10	NHAI
24	Tamil Nadu	Connectivity to Enayam through Nagarcoil	10	NHAI
25	Tamil Nadu	Development of Container Corridor through Highway for quick evacuation in Chennai	8	NHAI
26	Tamil Nadu	Southern port Access road for connectivity to Ennore port	7	NHAI
27	Tamil Nadu	Road Connectivity to Hare island (Tuticorin Port)	5	NHAI
28	Andhra Pradesh	Upgrading of NH 65 from Vijayawada to the Machilipatnam Port	65	NHAI
29	Andhra Pradesh	Four lane road connectivity from the existing two lane road from Kakinada port to NH 16 at Rajanagaram in Godavri District in AP	55	NHAI
30	Andhra Pradesh	Four laning of Kakinada Anchorage Port Uppada beach road connection upto NH-16 in East Godavari District of Andhra Pradesh state	43	NHAI
31	Andhra Pradesh	Four Lane green field road to Krishnapatnam Port from Naidupeta in the State of Andhra Pradesh	37	NHAI
32	Andhra Pradesh	Four lane road connectivity from the existing two lane road from Achampeta Junction to joining NH 16 at Kathipudi in East Godavri District in AP	30	NHAI
33	Andhra Pradesh	Four lane Beach Road of 30.00 Km connecting Gangavaram Port to the SEZ proposed at Atchuthapuram in Visakhapatnam District in the State of Andhra Pradesh	30	NHAI
34	Andhra Pradesh	Up grading of existing R&B road from Chilakaru cross (NH-16) to Power Plants	26	NHAI
35	Andhra Pradesh	Upgrading of existing dedicated port connectivity from Krishnapatnam Port to NH 5 in SPSR Nellore District of Andhra Pradesh State	24	NHAI

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Sr. No.	Cénta	Project	Length (km)	Implementation Agency
36	Andhra Pradesh	Up grading of 24 km road to a 4 lane, that connects Nellore city to the Krishnapatnam port to NH 5 in SPSR Nellore District of AP	24	NHAI
37	37 Andhra Pradesh Development of Four lane green field road from Machilipatnam South Port to NH-9 in the State of Andhra Pradesh		20	NHAI
38	Andhra Pradesh	Development of adequate road connectivity from Vizag Port-connectivity from Sheela Nagar junction to Anakapalli- Sabbavaram/Pendurti - Anandapuram road i.e. NH-16 (Former NH-5)	14	NHAI
39	Andhra Pradesh	Development of Four Lane green field road from Machilipatnam North Port to NH-SH-46 in the State of Andhra Pradesh	10	NHAI
40	Andhra Pradesh	Upgrading of Manginapudi Beach Road to a 4 lane road to connect to cater to Machilipatnam	10	NHAI
41	Andhra Pradesh	Development of greenfield bypass road for better connectivity of Gangavaram port in Visakhapatnam District (Lanes to be specified)	8	NHAI
42	Andhra Pradesh	Development of 7.2Km green field road connecting NH 65 to Machilipatnam Port in the State of Andhra Pradesh.	7	NHAI
43	Andhra Pradesh	Formation of a New by pass parallel road west of NFCL and CFL in Kakinada Port (Kakinada), AP	7	NHAI
44	Andhra Pradesh	Upgrading of the existing four lane road connecting to NH16 at Gajuwaka to Gangavaram Port in to six lane road in the State of Andhra Pradesh	5	NHAI
45	Andhra Pradesh	Development of 5 km Greenfield road connecting north and south industrial cluster of Khandaleru Creek near Krishnapatnam port	5	NHAI
46	Andhra Pradesh	Road Connectivity From Outer Harbour To Port Connectivity Junction (B) at Vizag port	5 .	NHAI
47	Andhra Pradesh	Connectivity of Vizag port to NH-16 (Phase II)	4	NHAI
18		Upgrading existing B.T Road in to C.C. pavement from Burmah Shell area to security gate near Sakthi Gas Plant at Kakinada Anchorage port, AP	3	NHAI

Sr. No.	State	Project	Length (km)	Implementation Agency
49	Andhra Pradesh	Flyover/RoB over ADB road (Kakinada Deep water port from Kumbhabhishek Temple to fishing Harbour) at Kakinada to avoid 6-7 level crossing in a span on 1 km which causes huge congestion	3	NHAI
50	Andhra Pradesh	Formation of new road from L-Arm road Junction to Dummulapeta Beach Road at NCS storage system including construction of bridge on Dummulapeta Creek at Kakinada Anchorage Port	3	NHAI
51	Andhra Pradesh	Development of Fly over bridge from Sea- horses junction area to dock area at Vizag Port	3	NHAI
52	Andhra Pradesh	RoB at Dummalapeta and Old Port Area (Kakinada)	2	NHAI
53	Andhra Pradesh	Construction of grade separator from H-7 area to Port connectivity Road by passing Convent Junction - Vizag Port	1	NHAI
54	Odisha	Road Connectivity to Dhamra Port (Four laning of Jamujhadi-Dhamra road)	58	NHAI
55	Odisha	Road Connectivity from Gopalpur Port to NH-5 from Chhatrapur	6	NHAI
56	West Bengal	Road connectivity between proposed Port at Sagar Island and Muriganga bridge ≬ Muriganga bridge and proposed Rail yard at Kashinagar.	24	NHAI
57	West Bengal	Improvement of existing road connecting Kolkata Port Trust to NH6 and Kolkata Port Trust to nearby Industrial Clusters	6	NHAI
58	West Bengal	Construction of RoB cum Flyover at Ranichak level crossing at Kolkata Port	5	NHAI
59	West Bengal	Kona elevated Expressway from 0.557 km to 7.163 km of NH-117	7	NHAI
		TOTAL	1,294	

Note: 2000 km of Coastal and Port Connectivity roads will be implemented in Phase I of Bharatmala Pariyojana

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Annexure II (j)

List of Expressways and designated Implementation Agency

Sr. No.	Project	Length (km)	
1	Ahmedabad – Dholera	110	Agency
2	Vadodara – Mumbai	420	NHAI NHAI
3	Delhi-Meerut Expressway (to be executed as part of NHDP-VI)	96	NHAI
4	Kanpur – Lucknow	75	NILIAI
5	Chennai – Bangalore	262	NHAI NHAI
6	Delhi - Amritsar - Katra	600	
7	Delhi – Jaipur	274	NHAI NHAI
	TOTAL	1,837	

Note: 800 Km of Expressways will be implemented in Phase I of Bharatmala Pariyojana

Annexure II (k)

List of Logistics Parks

Sr. No.	Location
1	Delhi – NCR (Delhi, Gurgaon, Ghaziabad, Faridabad, Noida)
2	Mumbai (Mumbai, Mumbai Suburbs, JNPT, Mumbai Port, Raigad District)
3	North Gujarat (Ahmedabad and Vadodara)
4	Hyderabad
5	South Gujarat (Surat and Bharuch)
6	South Punjab (Ludhiana, Sangrur, Patiala)
7	North Punjab (Amritsar, Jalandhar, Gurudaspur)
8	Jaipur
9	Bangalore
10	Pune
11	Vijayawada
12	Chennai
13	Nagpur
14	Indore
15	Patna
16	Kolkata
17	Ambala
18	Valsad
19	Coimbatore
20	Jagatsinghpur
21	Nasik
22	Guwahati
23	Kota
24	Panaji
25	Hisar
26	Visakhapatnam
27	Bhopal
28	Sundargarh
29	Bhatinda
30	Solan
31	Rajkot
32	Raipur
33	Jammu
34	Kandla
35	Cochin

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Annexure III (a)

Si No	D . 1 1	State	NHDP Phase	Implementation Agency
1		Madhya Pradesh		, gonoy
2	Gwalior-Jhansi	Uttar Pradesh	NHDP-I	NHAI
3	Assam/ WB Border - Bijni	Assam	NHDP-II	NHAI
	Brahmaputra River Bridge	Assam	NHDP-II	
4	Sonapur - Jagiroad	Assam	NHDP-II	
5	Dharamtul to Raha	Assam	NHDP-II	
6	Jagiroad - Dharamtul	Assam	NHDP-II	
7	Maibong-Lumding	Assam	NHDP-II	NHAI
8	Maibong-Nrimbanglo	Assam	NHDP-II	NHAI
9	Nalbari - Bijni	Assam	NHDP-II	NHAI
10	Nrimbanglo-Jatinga	Assam	NHDP-II	
11	Sonapur - Guwahati	Assam	NHDP-II	NHAI
12	Udali-Manderdisa	Assam	NHDP-II	NHAI
13	UP Border/Bathanakuti- Gopalganj	Bihar		NHAI
	Balance work of Muzaffarour -	Dina	NHDP-II	NHAI
14	Ayodhya stretch near Gandhak bridge	Bihar	NHDP-II	NHAI
15		Jammu and		
10	Chenani-Nashri	Kashmir	NHDP-II	NHAI
16	Jammu - Udhampur	Jammu and		· · ·
	Canan Cananpar	Kashmir	NHDP-II	NHAI
17	Quazigund - Banihal	Jammu and Kashmir	NHDP-II	hl h
4.0		Jammu and		NHAI
18	Ramban - Banihal	Kashmir	NHDP-II	NHAI
19	Stipper Devibel	Jammu and		
10	Srinagar - Banihal section	Kashmir	NHDP-II	. NHAI
20	Udhampur - Chenani	Jammu and		
		Kashmir	NHDP-II	NHAI
21	Nashri - Ramban	Jammu and Kashmir	NHDP-11	N 111A (
22	Vadakkanchery - Thrissur	Kerala	NHDP-II	NHAI
23	Lakhnadon-Seoni	Madhya Pradesh		NHAI
24	Hinghanghat ROB	Maharashtra	NHDP-II	NHAI
25	Kelapur - Pimpalkhatti	Maharashtra	NHDP-II	NHAI
26	MP/ MH Border - Nagpur	Maharashtra	NHDP-II	NHAI
27	Nagpur - Kamptee		NHDP-II	NHAI
8	Wadner- Devdhari	Maharashtra	NHDP-II	NHAI
9	Jorabat-Barapani	Maharashtra	NHDP-II	NHAI
0	Bidhipur - Dhilwan	Meghalaya	NHDP-II	NHAI
	Chmbal Bridge on Kota Bypass	Punjab	NHDP-II	NHAI
	Chengapalli - Tamilnadu / Kerala	Rajasthan	NHDP-II	NHAI
2	border	Tamil Nadu		
3	Ghoshpukur – Salsalabari	West Bengal	NHDP-II	NHAL
		west benyal	NHDP-II	NHAI

List of residual works to be implemented under NHDP

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Sr. No	Project	State	NHDP Phase	Implementation Agency
34	Islampur Bypass	West Bengal	NHDP-II	NHAI
35	Kadapa – Kurnool	Andhra Pradesh	NHDP-III	NHAI
36	Vijayawada – Machilipatnam	Andhra Pradesh	NHDP-III	NHAI
37	Aunta - Simaria	Bihar	NHDP-III	NHAI
38	Bakhtiyarpur - Mokama	Bihar	NHDP-III	NHAI
39	Bhojpur-Buxar	Bihar	NHDP-III	NHAI
40	Chhapra-Gopalganj	Bihar	NHDP-III	NHAI
41	Chhapra-Hajipur	Bihar	NHDP-III	NHAI
42	Forbesganj-Jogbani	Bihar	NHDP-III	NHAI
43	Hajipur-Muzaffarpur	Bihar	NHDP-III	NHAI
44	Khagaria-Purnea	Bihar	NHDP-III	NHAI
45	Koilwar-Bhojpur	Bihar	NHDP-III	NHAI
46	Mokama-Munger	Bihar	NHDP-III	NHAI
47	Muzaffarpur-Sonbarsa	Bihar	NHDP-III	NHAI
48	Narenpur - Purnea	Bihar	NHDP-III	NHAI
49	Patna-Bakhtiyarpur	Bihar	NHDP-III	NHAI
50	Patna-Gaya-Dobhi	Bihar	NHDP-III	NHAI
51	Patna-Koilwar	Bihar	NHDP-III	NHAI
52	Piprakothi-Raxaul	Bihar	NHDP-III	NHAI
53	Simaria – Khagaria	Bihar	NHDP-III	NHAI
54	Ahmedabad- Godhra	Gujarat	NHDP-III	NHAI
55	Gandhidham (Kandla) - Mundra	Gujarat	NHDP-III	NHAI
	Gujarat/Maharashtra Border - Surat-			
56	Hazira Port	Gujarat	NHDP-III	NHAI
57	Ambala - Kaithal	Haryana	NHDP-III	NHAI
58	Yamunanagar - Panchkula	Haryana	NHDP-III	NHAI
59	Kiratpur-Ner Chowk Section	Himachal Pradesh	NHDP-III	NHAI
60	Parwanoo Solan	Himachal Pradesh	NHDP-III	NHAI
61	Shimla Bypass	Himachal Pradesh	NHDP-III	NHAI
62	Solan - Kaithlighat	Himachal Pradesh	NHDP-III	NHAI
63	Barhi-Hazaribag	Jharkhand	NHDP-III	NHAI
64	Mahulia-Baharagora	Jharkhand	NHDP-III	NHAI
65	Baharagora-JH/WB Border	Jharkhand	NHDP-III	NHAI
66	Ranchi-Mahulia	Jharkhand	NHDP-III	NHAI
67	Hospet-Chitradurga	Karnataka	NHDP-III	NHAI
68	Kundapur - Surathkal - Mangalore to Kerala Border Section	Karnataka	NHDP-III	NHAI
69	Belgaum-Khanapur - KN/Goa Border	Karnataka	NHDP-III	NHAI
70	Kazhakuttom – Mukkola Junction	Kerala	NHDP-III	NHAI
71	Mukkola - Kerala/Tamilnadu Border	Kerala	NHDP-III	NHAI
72	Bhopal - Sanchi	Madhya Pradesh	NHDP-III	NHAI
73	Churhat bypass	Madhya Pradesh	NHDP-III	NHAI
74	Hiran River - Sindoor River	Madhya Pradesh	NHDP-III	NHAI
75	Indore - MP/Guj. Border	Madhya Pradesh	NHDP-III	NHAI

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Sr. No	Project	State	NHDP Phase	Implementation Agency
76	Jhansi-Khajuraho	Madhya Pradesh	NHDP-III	NHAI
77	Bareli - Goharganj	Madhya Pradesh	NHDP-III	MoRTH
78	Sindoor River - Bareli	Madhya Pradesh	NHDP-III	MoRTH
79	Solapur-Maharashtra / Karnataka Border	Mohamaktas		
80	Panvel – Indapur	Maharashtra Maharashtra	NHDP-III	NHAI
81	Jowai-Ratacherra		NHDP-III	NHAI
82	Bhubaneshwar-Puri	Meghalaya	NHDP-III	NHAI
83	Paniloili-Rimuli	Orissa	NHDP-III	NHAI
84	Rimoli - Roxy - Rajamunda	Orissa	NHDP-III	NHAI
85	Talcha - Duburi - Chandikhal	Orissa	NHDP-III	NHAI
86	Puri bypass	Orissa	NHDP-III	NHAI
87	Ludhiana - Talwandi	Orissa	NHDP-III	NHAI
88	Deoli - Kota	Punjab	NHDP-III	NHAI
89	Dindigul - Theni - Kumuli	Rajasthan	NHDP-III	NHAI
	Madurai - Paramakudi & Paramakudi	Tamil Nadu	NHDP-III	NHAI
90	- Ramanathapuram	Tamil Nadu	NHDP-III	NHAI
91	Nagapattinam - Thanjavur	Tamil Nadu	NHDP-III	NHAI
92	Tindivanam - Krishnagiri	Tamil Nadu	NHDP-III	NHAI
93	Tirupathi - Chennai	Tamil Nadu	NHDP-III	NHAI
94	Trichy - Karaikudi	Tamil Nadu	NHDP-III	
95	Trichy - Karur	Tamil Nadu	NHDP-III	NHAI
96	Villukkuri - Kanyakumari	Tamil Nadu	NHDP-III	NHAI
97	Kerala / Tamil Nadu border - Villukkuri			NHAI
98		Tamil Nadu	NHDP-III	NHAI
99	Kangayampalayam-Mettupalayam	Tamil Nadu	NHDP-III	NHAI
00	Bareilly-Sitapur	Uttar Pradesh	NHDP-III	NHAI
00	Moradabad - Bareilly	Uttar Pradesh	NHDP-III	NHAI
	Muzaffarnagar-Haridwar	Uttar Pradesh/ Uttarakhand	NHDP-III	NHAI
02	Haridwar-Dehradun	Uttarakhand	NHDP-III	NHAI
03	Rampur-Rudrapur	Uttarakhand	NHDP-III	NHAI
	Rudrapur-Kathgodam	Uttarakhand	NHDP-III	NHAI
	Berhampore – Farakka	West Bengal	NHDP-III	NHAI
	Chichira-Kharagpur	West Bengal	NHDP-III	NHA!
	Farakka – Raiganj	West Bengal	NHDP-III	NHAI
	Krishnanagar-Baharampur	West Bengal	NHDP-III	NHAI
	Barasat-Krishnagar	West Bengal	NHDP-III	NHAI
10	Nalagampalli - AP/Karnataka Border	Andhra Pradesh	NHDP-IV	NHAI
1	Atmakur - Nellore	Andhra Pradesh	NHDP-IV	MoRTH
	Dhindi - Digamaru	Andhra Pradesh	NHDP-IV	MoRTH
	Eeppurupalem - Ongole	Andhra Pradesh	NHDP-IV	MORTH
	Gurajanapalli - Polekeru	Andhra Pradesh	NHDP-IV	MORTH
	Karnataka/ AP Border - Gooty	Andhra Pradesh	NHDP-IV	MORTH
6	Kathipudi - Kakinada bypass	Andhra Pradesh	NHDP-IV	MoRTH

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Sr. No	Project	State	NHDP Phase	Implementation Agency
117	Losari - Machavaram	Andhra Pradesh	NHDP-IV	MoRTH
118	Macchilipatnam - Avanigadda	Andhra Pradesh	NHDP-IV	MoRTH
119	Nagarjunasagar Dam - Davulapally	Andhra Pradesh	NHDP-IV	MoRTH
120	Pasarlapudi - Dindi	Andhra Pradesh	NHDP-IV	MoRTH
121	Repalle - Eepurupalem	Andhra Pradesh	NHDP-IV	MoRTH
122	Timmapuram - Granapalli	Andhra Pradesh	NHDP-IV	MoRTH
123	Dornala T junction - Penchalakona	Andhra Pradesh	NHDP-IV	MoRTH
124	Devalapalle Reserve Forest	Andhra Pradesh	NHDP-IV	MoRTH
125	Biharsharif-Barbigha-Mokama	Bihar	NHDP-IV	NHAI
126	Chhapra-Rewaghat-Muzaffarpur	Bihar	NHDP-IV	NHAI
127	Maheshkhunt- Saharsa- Purnea (remaining packages)	Bihar	NHDP-IV	NHAI
128	Majhauli - Charout	Bihar	NHDP-IV	NHAI
129	Singhara-Binjabahal	Bihar	NHDP-IV	NHAI
130	Dhamtari - Kanker	Chhattisgarh	NHDP-IV	MoRTH
131	Kodebod - Dhamtari	Chhattisgarh	NHDP-IV	NHAI
132	Orissa/Chattisgarh Boarder - Aurang	Chhattisgarh	NHDP-IV	NHAI
133	Raipur - Kodebod	Chhattisgarh	NHDP-IV	NHAI
134	Raipur - Simga	Chhattisgarh	NHDP-IV	NHAI
135	Sargain - Bilaspur	Chhattisgarh	NHDP-IV	NHAI
136	Simga - Sargaon	Chhattisgarh	NHDP-IV	NHAI
137	Ambikapur - Pathalgaon	Chhattisgarh	NHDP-IV	MoRTH
138	Banari - Masaniakala	Chhattisgarh	NHDP-IV	MoRTH
139	Bedma - Dahikonda	Chhattisgarh	NHDP-IV	MoRTH
140	Bedma - Jagdalpur	Chhattisgarh	NHDP-IV	MoRTH
141	Chilpi - Kawardha	Chhattisgarh	NHDP-IV	MoRTH
142	Darrighat - Banari	Chhattisgarh	NHDP-IV	MoRTH
143	Kanker - Bedma	Chhattisgarh	NHDP-IV	MoRTH
144	Katghora - Shivnagar	Chhattisgarh	NHDP-IV	MoRTH
145	Kunkuri - CG/ JH Border	Chhattisgarh	NHDP-IV	MoRTH
146	Masaniakala - Rengapalli	Chhattisgarh	NHDP-IV	MoRTH
147	Pathalgaon - Kunkuri	Chhattisgarh	NHDP-IV	MoRTH
148	Raigarh - Saraipalli	Chhattisgarh	NHDP-IV	MoRTH
149	Shivnagar - Ambikapur	Chhattisgarh	NHDP-IV	MoRTH
150	Bilaspur-Katghora (Bilaspur- Ambikapur)	Chhattisgarh	NHDP-IV	MoRTH
151	Goa/ Karnataka Border - Kundapur Section	Goa / Karnataka	NHDP-IV	NHAI
152	Bhavanagar-Talaja	Gujarat	NHDP-IV	NHAI
153	Gadu-Porbandar	Gujarat	NHDP-IV	NHAI
154	Kagvadar - Una	Gujarat	NHDP-IV	NHAI
155	Kodinar - Veraval	Gujarat	NHDP-IV	NHAI
156	Mahuva - Kagavadar	Gujarat	NHDP-IV	NHAI
157	Talaja - Mahuva	Gujarat	NHDP-IV	NHAI

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Sr. No	Project	State	NHDP Phase	Implementation Agency
158	Una - Kodinar	Gujarat	NHDP-IV	NHAI
159	Hisar - Dabwali	Haryana	NHDP-IV	NHAI
160	Kaithal - Haryana/Raj. Border section	Haryana	NHDP-IV	NHAI
161	Punjab / Haryana Border-Jind	Haryana	NHDP-IV	NHAI
162	Kullu Manali	Himachal Pradesh	NHDP-IV	NHAI
163	Ner Chowk - Pandoh	Himachal Pradesh	NHDP-IV	NHAI
164	Pandoh Takoli	Himachal Pradesh	NHDP-IV	NHAI
165	Takoli Kullu	Himachal Pradesh	NHDP-IV	NHAI
166	Barhi - Rajauli	Jharkhand	NHDP-IV	NHAI
167	Basukinath	Jharkhand	NHDP-IV	NHAI
168	Chas - Ramgarh	Jharkhand	NHDP-IV	NHAI
169	Ganga Bridge - Sahibganj	Jharkhand	NHDP-IV	NHAI
170	Kutchery Chowk Ranchi - Piska More- Biju Para	Jharkhand	NHDP-IV	NHAI
171	Rajganj-Maheshpur-Bhurangia-Chas to West Bengal Border	Jharkhand	NHDP-IV	NHAI
172	Addahole to Bantwal Cross	Karnataka	NHDP-IV	NHAI
173	Attagulipura - KA/TN border	Karnataka	NHDP-IV	NHAI
174	Bijapur - Gulbarga - Humnabd	Karnataka	NHDP-IV	NHAI
175	Hassan - Maranahally	Karnataka	NHDP-IV	NHAI
176	Hoskote – Dobbaspet	Karnataka	NHDP-IV	NHAI
177	Hospet - Bellary- Karnatka/ AP Border	Karnataka	NHDP-IV	NHAI
178	Hubli - Hospet	Karnataka	NHDP-IV	NHAI
179	Sannur - Bikarnakatte	Karnataka	NHDP-IV	NHAI
180	Shimoga - Mangalore	Karnataka	NHDP-IV	NHAI
181	Tamilnadu/Karnataka border - Bengaluru	Karnataka	NHDP-IV	NHAI
182	Tumkur - Shimoga	Karnataka	NHDP-IV	NHAI
183	Chitradurga - Shimoga	Karnataka	NHDP-IV	MoRTH
184	Biaora -Dewas	Madhya Pradesh	NHDP-IV	NHAI
185	Guna - Biaora	Madhya Pradesh	NHDP-IV	NHAI
186	Gwalior-Shivpuri	Madhya Pradesh	NHDP-IV	NHAI
187	Jabalpur-Lakhnadon	Madhya Pradesh	NHDP-IV	NHAI
188	Rewa-Katni-Jabalpur	Madhya Pradesh	NHDP-IV	NHAI
189	Shivpuri-Guna	Madhya Pradesh	NHDP-IV	NHAI
190	Barela - Mandla	Madhya Pradesh	NHDP-IV	MoRTH
191	Jabalpur - Barela	Madhya Pradesh	NHDP-IV	MoRTH
192	Katni - Umria	Madhya Pradesh	NHDP-IV	MoRTH
193	Madla - Chipli	Madhya Pradesh	NHDP-IV	MoRTH
194	Shahdol - Anuppur - MP/ CG Border	Madhya Pradesh	NHDP-IV	MoRTH
195	Umaria - Shahdol	Madhya Pradesh	NHDP-IV	MoRTH
196	Goharganj - bhopal including Obedullaganj bypass	Madhya Pradesh	NHDP-IV	MoRTH
197	Amravati - Chikali	Maharashtra	NHDP-IV	NHAI

Sr. No	Project	State	NHDP Phase	Implementation Agency
198	Aurangabad - Yedshi	Maharashtra	NHDP-IV	NHAI
199	Bodhre - Dhule	Maharashtra	NHDP-IV	NHAI
200	Chikli - Tarsod	Maharashtra	NHDP-IV	NHAI
201	Fagne – Maharashtra / Gujarat Borde	Maharashtra	NHDP-IV	NHAI
202	Khed-Sinnar	Maharashtra	NHDP-IV	NHAI
203	Mahagaon-Yavatmal	Maharashtra	NHDP-IV	NHAI
204	Solapur-Yedshi	Maharashtra	NHDP-IV	NHAI
205	Tarso - Fagne	Maharashtra	NHDP-IV	NHAI
206	Tuljapur - Ausa	Maharashtra	NHDP-IV	NHAI
207	Waranga Phata-Mahagaon	Maharashtra	NHDP-IV	NHAI
208	Wardha-Butibori	Maharashtra	NHDP-IV	NHAI
209	Yavatmal-Wardha	Maharashtra	NHDP-IV	NHAI
210	Ahmednagar - Kharwandi	Maharashtra	NHDP-IV	MoRTH
211	Arawali - Kante	Maharashtra	NHDP-IV	MoRTH
212	Barasgaon - Rahate	Maharashtra	NHDP-IV	MoRTH
213	Bhogaon - Khurd	Maharashtra	NHDP-IV	MoRTH
	Golavali - Rajapur (Construction of			
214	Major/ Minor Bridges)	Maharashtra	NHDP-IV	MoRTH
215	Indapur - Wadpale	Maharashtra	NHDP-IV	MoRTH
216	Kalmath - Zarap	Maharashtra	NHDP-IV	MoRTH
217	Kante - Wakad	Maharashtra	NHDP-IV	MoRTH
218	Kashedi - Parshuram Ghat	Maharashtra	NHDP-IV	MoRTH
219	Kashedi - Tural (Construction of Major/ Minor Bridges)	Maharashtra	NHDP-IV	MoRTH
220	Nasratpur - Barasgaon	Maharashtra	NHDP-IV	MoRTH
221	Parshuram Ghat - Arawali	Maharashtra	NHDP-IV	MoRTH
<u>222</u> 223	Section of NH-222 from junction with NH - 211 to Manwath(Tadborgaon) from km 342/00 to 444/00 Talgaon - Kamath	Maharashtra Maharashtra	NHDP-IV NHDP-IV	MoRTH MoRTH
	Unhale - Zarap (Construction of			
224	Major/ Minor Bridges)	Maharashtra	NHDP-IV	MoRTH
225	Watul - Talgaon	Maharashtra	NHDP-IV	MoRTH
226	Kolha - Nasratpur	Maharashtra	NHDP-IV	MoRTH
227	Parbhani bypass	Maharashtra	NHDP-IV	MoRTH
228	Kalyan - Malshej ghat	Maharashtra	NHDP-IV	NHAI
229	Nagpur-Saoner-Betul	Maharashtra / Madhya Pradesh	NHDP-IV	NHAI
230	Baharagora-Singhara	Orissa	NHDP-IV	NHAI
231	Angul-Sambalpur	Orissa	NHDP-IV	NHAI
232	Baleshwar-Baripada-Jharpokharia	Orissa	NHDP-IV	NHAI
233	Binjabahal-Teleibani	Orissa	NHDP-IV	NHAI
234	End of Brahmani Bypass - Rajamunda	Orissa	NHDP-IV	NHAI
235	Birmitrapur - Brahmani Bypass including bridge over River Brahmani	Orissa	NHDP-IV	NHAI

Sr. No	Project	State	NHDP Phase	Implementation Agency
236	Rajamunda - Barkote	Orissa	NHDP-IV	NHAI
237	Teleibani-Sambalpur	Orissa	NHDP-IV	NHAI
238	Kanaktora - Jharsuguda	Orissa	NHDP-IV	MoRTH
239	Pallahara - Pitiri	Orissa	NHDP-IV	MoRTH
240	Elevated Highway from Samrala Chowk	Punjab	NHDP-IV	NHAI
241	Amritsar - Tarn Taran	Punjab	NHDP-IV	MoRTH
242	Dogal Kalan - PB/ HR Border	Punjab	NHDP-IV	MoRTH
243	Faridkot - Kotkapura - Bathinda	Punjab	NHDP-IV	MoRTH
244	Harike - Zira - Faridkot	Punjab	NHDP-IV	MoRTH
245	Harike Bypass	Punjab	NHDP-IV	MoRTH
246	Jalandhar - Hoshiarpur	Punjab	NHDP-IV	MoRTH
247	Lambra - Shahkot	Punjab	NHDP-IV	MoRTH
248	Moga - Tallewal	Punjab	NHDP-IV	MoRTH
249	Shahkot - Moga	Punjab	NHDP-IV	MoRTH
250	Tallewal - Barnala	Punjab	NHDP-IV	MoRTH
251	Tapa - Bhatindi	Punjab	NHDP-IV	
252	Zirakpur - Patiala	Punjab	NHDP-IV	MoRTH
253	Bar-Bilara-Jodhpur	Rajasthan		MoRTH
254	Barmer-Sanchore-Gujrat Border	Rajasthan	NHDP-IV	NHAI
255	Bhilwara - Ladpura	Rajasthan	NHDP-IV	NHAI
256	Bikaner - Phalodi		NHDP-IV	NHA!
257	Dausa-Lalsot-Kothoon	Rajasthan	NHDP-IV	NHAI
258	Gulabpura - Uniara	Rajasthan	NHDP-IV	NHAI
259	Jaisalmer-Barmer	Rajasthan	NHDP-IV	NHAI
260	Karauli - Dholpur	Rajasthan	NHDP-IV	NHAI
261	Manoharpur - Dausa	Rajasthan	NHDP-IV	NHAI
262	Padhi - Dahod	Rajasthan	NHDP-IV	NHAI
263	Phalodi -Jaisalmer	Rajasthan	NHDP-IV	NHAI
264		Rajasthan	NHDP-IV	NHAI
265	Raj./Har border - Fatepur - Salasar	Rajasthan	NHDP-IV	NHAI
266	Salasar - Nagaur	Rajasthan	NHDP-IV	NHAI
267	Tonk - Sawai Madhopur	Rajasthan	NHDP-IV	NHAI
	Uncha Nagla - Dholpur	Rajasthan	NHDP-IV	NHAI
268	Udaipur - Nalwa Daiya - Idar	Rajasthan	NHDP-IV	NHAI
269	Dindigul - Coimbatore - Tamilnadu / Karnataka Border	Tamil Nadu	NHDP-IV	NHAI
270	Pollachi - Coimbatore	Tamil Nadu	NHDP-IV	NHAI
71	Trichy - Chidambaram	Tamil Nadu	NHDP-IV	NHAI
72	Villupuram - Nagapatinam	Tamil Nadu	NHDP-IV	NHAI
73	Oddanchatram Bypass	Tamil Nadu	NHDP-IV	NHAI
74	Yadagiri-Warangal	Telangana	NHDP-IV	NHAI
75	Haggari - Jadcherla	Telangana	NHDP-IV	MoRTH
76	Nakrekai - Nagarjusagar Dam	Telangana	NHDP-IV	MoRTH
77	Nakrekal - Tanamcherla	Telangana	NHDP-IV	MoRTH

Sr. No	Project	State	NHDP Phase	Implementation Agency
278	Vijayawada - Jagdalpur - Rudrampur	Telangana	NHDP-IV	MoRTH
279	Jamandapaile - Mangalwarpet	Telangana	NHDP-IV	MoRTH
280	Aligarh - Moradabad	Uttar Pradesh	NHDP-IV	NHAI
281	Gagalheri-Saharanpur-Yamunanagar (UP/Haryana border)	Uttar Pradesh	NHDP-IV	NHAI
282	Ghaghara Bridge - Varanasi	Uttar Pradesh	NHDP-IV	NHAI
283	Gorakhpur Bypass	Uttar Pradesh	NHDP-IV	NHAI
284	Lucknow - Sutanpur	Uttar Pradesh	NHDP-IV	NHAI
285	Meerut - Bulandshahar	Uttar Pradesh	NHDP-IV	NHAI
286	Raebareilly-Allahabad	Uttar Pradesh	NHDP-IV	NHAI
287	Sitarganj-Bareilly	Uttar Pradesh	NHDP-IV	NHAI
288	Unnao - Lalganj	Uttar Pradesh	NHDP-IV	NHAI
289	Varanasi - Gorakhpur	Uttar Pradesh	NHDP-IV	NHAI
290	Varanasi - Sultanpur	Uttar Pradesh	NHDP-IV	NHAI
291	Varanasi Bypass	Uttar Pradesh	NHDP-IV	NHAI
292	Varranuram - Hagapttion	Uttar Pradesh	NHDP-IV	NHAI
293	Barabanki - Jarwal	Uttar Pradesh	NHDP-IV	MoRTH
294	Indo - Nepal Border/ Rudhauli	Uttar Pradesh	NHDP-IV	MoRTH
295	Rudhauli - Basti	Uttar Pradesh	NHDP-IV	MoRTH
296	Sonauli - Gorakhpur	Uttar Pradesh	NHDP-IV	MoRTH
	UP/MP. Border Section of NH-27			
297	From km 4.285 to 45.627	Uttar Pradesh	NHDP-IV	MoRTH
298	Tanda-Raebareilly	Uttar Pradesh	NHDP-IV	NHAI
299	Raebareilly-Banda	Uttar Pradesh	NHDP-IV	NHAI
300	Bharatpur-Mathura-Hathras	Uttar Pradesh	NHDP-IV	NHAI
301	Meerut-Najibabad	Uttar Pradesh	NHDP-IV	NHAI
302	Haridwar-Nagina	Uttar Pradesh/ Uttarakhand	NHDP-IV	NHAI
303	Roorkee-Chutmalpur-Ganeshpur- Gagalheri	Uttar Pradesh/ Uttarakhand	NHDP-IV	NHAI
304	Kashipur-Sitarganj	Uttarakhand	NHDP-IV	NHAI
305	Sitarganj-Tanakpur	Uttarakhand	NHDP-IV	NHAI
306	Nagina-Kashipur	Uttarakhand	NHDP-IV	NHAI
307	JHR/WB Border -Purulia - Balarampur	West Bengal	NHDP-IV	NHAI
308	Pundibari – Baxirhat	West Bengal	NHDP-IV	MoRTH
309	Handia - Rajatalab	Uttar Pradesh	NHDP-IV/V	NHAI
310	Chilakaluripet - Nellore	Andhra Pradesh	NHDP-V	NHAI
311	Ranasthalam-Anandapuram	Andhra Pradesh	NHDP-V	NHAI
312	Vijayawada – Gundugolanu	Andhra Pradesh	NHDP-V	NHAI
313	Ahmedabad-Vadodara	Gujarat	NHDP-V	NHAI
314	Kamrej - Chalthan	Gujarat	NHDP-V	NHAI
315	Kishangadh - Udaipur - Ahmedabad	Gujarat	NHDP-V	NHAI
316	Rajasthan /Gujarat Borer to Ahmedabad	Gujarat	NHDP-V	NHAI

Sr. No	Project	State	NHDP Phase	Implementation Agency
317	Samakhiyali - Gandhidahm	Gujarat	NHDP-V	NHAI
318	Surat-Dahisar	Gujarat	NHDP-V	NHAI
	Vadodara - Surat section extra dosed			
319	bridge across Narmada	Gujarat	NHDP-V	NHAI
320	Bridge across Varsova Creek	Gujarat	NHDP-V	NHAI
321	Gurgaon - Jaipur	Haryana /		NU LA L
322	Chitradurga - Davanagere	Rajasthan	NHDP-V	NHAI
323	Dhavangere to Haveri	Karnataka	NHDP-V	NHAI
324	Haveri – Hubli	Karnataka	NHDP-V	NHAI
325		Karnataka	NHDP-V	NHAI
	Indore - Dewas	Madhya Pradesh	NHDP-V	NHAI
326	Pune - Satara	Maharashtra	NHDP-V	NHAI
327	Chandikhol-Jagatpur-Bhubaneshwar	Orissa	NHDP-V	NHAI
328	Chandigarh - Kharar	Punjab	NHDP-V	NHAI
329	Kharar-Ludhiana	Punjab	NHDP-V	NHAI
330	Panipat - Jalandhar	Punjab	NHDP-V	NHAI
331	Chittorgarh - Udaipur	Rajasthan	NHDP-V	NHAI
332	Gulabpura - Chittorgarh	Rajasthan	NHDP-V	NHAI
333	Kishangarh - Gulabpura	Rajasthan	NHDP-V	NHAI
334	Udaipur Bypass	Rajasthan	NHDP-V	NHAI
335	Udaipur-Dungarpur-Shamlaji	Rajasthan	NHDP-V	NHAI
336	Chennai - Tada	Tamil Nadu	NHDP-V	NHAI
337	Hosur - Krishnagiri	Tamil Nadu	NHDP-V	NHAI
338	Walajahpet - Ponnamalle	Tamil Nadu	NHDP-V	NHAI
339	Krishnagiri - Walajahpet	Tamil Nadu	NHDP-V	NHAI
340	Agra Etawah Bypass	Uttar Pradesh	NHDP-V	NHAI
341	Delhi - Agra	Uttar Pradesh	NHDP-V	NHAI
342	Varanasi-Aurangabad	Uttar Pradesh/ Bihar	NHDP-V	NHAI
343	Barwa-Adda-Panagarh	West Bengal	NHDP-V	NHAI
3,44	Dankuni - Kharagpur	West Bengal	NHDP-V	NHAI
345	Delhi - Meerut Expressway	Uttar Pradesh	NHDP-VI	NHAI
346	Eastern Peripheral Expressway	Uttar Pradesh	NHDP-VI	NHAI
347	Flyover and Underpass at Gurgaon Chowks	Haryana	NHDP-VII	NHAI
348	Ring Road in Jammu City	Jammu and Kashmir	NHDP-VII	NHAI
349	Nagpur Ring Road	Maharashtra	NHDP-VII	NHAI
350	Laddowal Bypass	Punjab	NHDP-VII	NHAI
351	Maduravoyal - Chennai Port	Tamil Nadu	NHDP-VIL	NHAI
352	Lucknow Ring Road	Uttar Pradesh	NHDP-VII	NHAI
353	Rohtak - Jind	Haryana	NHDP-III	NHAI

Annexure III (b)

List of corridors where NHIDCL shall be responsible for development /	
upgradation	

Sr. No.	Corridor Type	Corridor / Road	Length (km)	Implementation Agency
1	Economic Corridor	Bongaigaon – Guwahati – Nagaon – Tezpur – Dibrugarh – Margherita; Dudhnoi – William Nagar; Gohpur – Itanagar; Nagaon –Dimapur; Numaligarh – Dimapur – Kohima– Imphal; Kohima – Jessami – Ukhrul – Imphal; Jorabat — Jowai – Silchar – Karimganj – – Agartala; Manu – Simlung – Aizawl – Imphal; Silchar – Aizawl; Silchar – Jiribam – Imphal	3,246	NHIDCL
2	Feeder Road	Bongaigaon-Dhubri	71	NHIDCL
3	Feeder Road	Dimow Chairali-Sengajan	69	NHIDCL
4	Feeder Road	Hatsinghimari-Dhubri	66	NHIDCL
5	Feeder Road	Dibrugarh Ghat-Sengajan	48	NHIDCL
6	Feeder Road	Biswanath Chairali-Biswanath Ghat	19	NHIDCL
7	Feeder Road	Kamargaon-Dibrugarh Ghat	15	NHIDCL
8	Feeder Road	Jorhat-Neamati	10	NHIDCL
9	Feeder Road	Naltoli-Silghat	4	NHIDCL
10	Border Road	Mangan - Kodyong - Chungtang - Lachung - Yumthang - Yume - Samdang – Border	90	NHIDCL
11	Border Road	Chumtang - Lachen Monastry - Log Bridge - Pashi - Naku - Nakpolatok - Nakula	75	NHIDCL
12	Border Road	Kochigain - Raimana - Jaigaon - Lamkapura - Birpara	123	NHIDCL
13	Border Road	Baghmara - Rongra - Mahadeo – Ranikor	206	NHIDCL
14	Border Road	Sangshak – Nampisha	90	NHIDCL
. 15	Border Road	Teliamar - Amarpur - Sabroom	216	NHIDCL
16	Border Road	Khowai – Agartala	55	NHIDCL
17	Border Road	Askot - Dharchula - Tawaghat - Sirkha - Malpa - Garbyang - Lipu Lekh Pass	80	NHIDCL
18	Border Road	Bhaironghati - Nelang - Naga - Angar - PDA – Medikay	70	NHIDCL
19	Border Road	Mana - Mussapani - Gastoli - Rattakana – Manapass	63	NHIDCL
20	Border Road	Joshimath – Malari	62	NHIDCL
21	Border Road	Simli - Narayanbagar - Kulsari Talwari - Gwaldan - Dangoli - Baijnath - Bageshwar - Balighat - Kapjot - Sama - Quiti - Birthi - Girgaon - Ratapani - Munsiyari - Darkot - Madkot - Sheraghat - Mawani – Jolljivi	306	NHIDCL
22	International Connectivity	Avakhung-Jessami	149	NHIDCL
23	International	Dawki-Shillong	95	NHIDCL

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Sr. No.	Corridor Type	Corridor / Road	Length (km)	Implementation Agency
	Connectivity			
24	International Connectivity	Imphal-Moreh	106	NHIDCL
25	International Connectivity	Zorinpui-Lunglei	172	NHIDCL
26	International Connectivity	Kawarpuchiah-Seling	294	NHIDCL
27	International Connectivity	Sabroom-Agartala	133	NHIDCL
28	International Connectivity	Sutarkandi-Karimganj	14	NHIDCL
29	International Connectivity	Zowkhathar-Kawlkulh	92	NHIDCL
30	Choke points	Imphal bypass		NHIDCL
31	Choke points	Silchar bypass		NHIDCL
32	Choke points	Shillong bypass		NHIDCL
33	Choke points	Dibrugarh bypass		NHIDCL
34	Choke points	Dimapur bypass		NHIDCL
35	Congestion point	Aizwal		NHIDCL
		TOTAL	6039	NINDOL.

Annexure III (c)

Sr. No.	Corridor	State	NH No	Length	Implementation Agency
1	Barmer-Ramsar-Munabab	Rajasthan	25E	117	EAP Wing, MORTH
2	Araria-Supaul (km 112 to km 194 except km 154 to km 166)	Bihar	327 E	70	EAP Wing, MORTH
3	Rohru-Kotkai	Himachal Pradesh	705	138	EAP Wing, MORTH
4	Hamirpur-Mandi(km 141- km 265)	Himachal Pradesh	. 70	124	EAP Wing, MORTH
5	Purulia to Kulti	West Bengal		76	EAP Wing, MORTH
	Total			525	

List of residual projects to be implemented under NHIIP

Note: These residual works are additional to the works mentioned in the Bharatmala Pariyojana corridors list, where the Implementation Agency is EAP Wing, MoRTH

Annexure III (d)

S. No.	Project	State	Length (km)	Implementation Agency
1	Palamaneru - Krishnagiri	Andhra Pradesh	90	NHAI
2	Anantpur – Guntur	Andhra Pradesh	300	NHAI
3	Kurnool – Dornala	Andhra Pradesh	90	NHAI
4	Madanpalli - Renigunta - Naidupeta of NH-71 and Pu (package 1&2)	Andhra Pradesh	107	NHAI
5	Kurnool-Dornala section	Andhra Pradesh	125	NHAI
6	Munger - Mirzachowki	Bihar	125	NHAI
7	Bakhtiarpur - Rajauli	Bihar	107	NHAI
8	Champa-Korba-chhuri-Katghora	Chhattisgarh	78	NHAI
9	Shevli - Nizampur, Chhadvel, Nandurbar, Taloda, Akkalkura in MH, Dediapada - Netrang in Gujarat	Gujarat	58	NHAI
10	Radhanpur Kamalpur Khakhal, Roda, Dunawada, Patan, Chanasama, Mahesana, Khèrva, Gojariya, Sama, Churada, Kuvadara, Prantij	Gujarat	55	NHAI
11	Mahuva, Saverkumdla, Amreli, Bagasara Jetput	Gujarat	20	NHAI
12	Doraji, Jamkandorna, Kalavad Jamnagar	Gujarat	41	NHAI
13	Sanchore - Dhanera - Deesa & Tharad – Dhanera – Panthvada	Gujarat	31	NHAI
14	Limda/ Dhasa – Libmdi	Gujarat	90	NHAI
15	Bhiwadi – Palwal	Haryana	52	NHAI
16	Gurgaon - Sohna	Haryana	23	NHAI
17	UP/ Haryana Border - Sonipat - Jhajjar	Haryana	80	NHAI
18	Ambala - Himachal Border	Haryana	46	NHA!
19	Jagadhri - Himachal Border	Haryana	46	NHAI
20	Bhiwani - Rajasthan Border section	Haryana	70	NHAI
21	Jhajjar – Loharu	Haryana	96	NHAI
22	Punjab Border – Sirsa	Haryana	19	NHAI
23	Bhiwani - Jind – Karnal	Haryana	150	NHAI
24	Hansi Barwala	Haryana	29	NHAI
25	Saha – Shahbad	Haryana	18	NHAI
26	Sohna - Rajasthan Border	Haryana	71	NHAI
27	Jind - Gohana - Sonepat	Haryana	86	NHAI
28	HP/PB border to Mandi (km 11-km 208)	Himachal Pradesh	197	NHAI
29	Shimla – Mataur	Himachal Pradesh	224	NHAI
30	Baddi – Nalagarh	Himachal Pradesh	12	NHAI

List of projects to be developed by NHAI under NH (O)

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S. No.	Project	State	Length (km)	Implementation Agency
31	Mirzachowki - Farakka	Jharkhand	93	NHAI
32	Kolebira/ Jamtola – Gumla	Jharkhand	48	NHAI
33	Kuru-Nagar Untari	Jharkhand	204	NHAI
34	Gundu - Jaintgarh	Jharkhand	195	NHAI
35	Rudwa – Hariharganj	Jharkhand	53	NHAI
36	Pirpainti - Hansdiha	Jharkhand	85	NHAI
37	4 laning of Chatra-bagodar section of NH-100	Jharkhand	120	NHAI
38	Piska More - Palma	Jharkhand	22.6	NHAI
39	Sarjapura - Hoskote	Karnataka	42	NHAI
40	Karnataka - Maharashtra border (Kamlanagar) to Naubad city	Karnataka	54	NHAI
41	Naubad city - Humnabad city	Karnataka	47	NHAI
42	Ravoor – Kenchargalli	Karnataka	37	NHAI
43	Kalaburgi - Ramasamudra	Karnataka	90	NHAI
44	Dhadasagur – Ballary	Karnataka	52	NHAI
45	Chunchinahalli - Hosamane Cross	Karnataka	8	NHAI
46	Kalaburgi - KNT/MH Border/ Balurgi	Karnataka	74	NHAI
47	Madikeri - Mysore	Karnataka	120	NHAI
48	Mysore - Kerala Border	Karnataka	70	NHAI
49	Punajaur state forest (KN/TN border) – Bevinathalapura	Karnataka	21	NHAI
50	Jevargi-Shahpur	Karnataka	50	NHAI
51	Hospet (NH-67) - Hampi - Gangawati - Sindhnu	Karnataka	97	NHAI
52	Kenchargalli - Kadechuhr	Karnataka	47	NHAI
53	Tinthani bridge - Tungabhadra bridge	Karnataka	108	NHAI
54	Bameetha - Khajurao	Madhya Pradesh	• 10	NHAI
55	Bhopal-Biaora	Madhya Pradesh	106	NHAI
56	Nagpur - Umred, Naghbir, Brahmapuri - Armori	Maharashtra	140	NHAI
57	Umred - Bhiai - Chimur - Varora - Vani and Gondhkari – Kalmeshwar – Dhapaweda - Saoner	Maharashtra	156	NHAI
58	Malegaon/ Jahangir - Akhola	Maharashtra	40	NHAI
59	Akkalkot - Gulbarga	Maharashtra	102	NHAI
60	Shavli - Nizampur - Chhadvel - Nandurbar - Taloda - Akkalkura - Dedipada - Netrang	Maharashtra	180	NHAI
61	Alandi - Pune - Phaltan - Pandarpur	Maharashtra	260	NHAI
62	Ratnagiri - Kohlapur - Solapur	Maharashtra	370	NHAI
63	Patas – Vasunde – Baramati – Indapur - Akluj- Malkhambi - Bondle	Maharashtra	134	NHAI
64	Vasunde-Baramati to Phaltan	Maharashtra	44	NHAI

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	Project	State	Length (km)	Implementation Agency
6	5 Talegaon-Chakan-Shikrapur-Navara-Choufulla	Maharashtra	106	NHAI
6	Telangana border	Maharashtra	33	NHAI
67	– Ashti	Maharashtra	57	NHAI
68	- inguen Centala	Maharashtra	25	NHAI
69		Maharashtra	242	NHAI
70	Ankleshwar-Netrang	Maharashtra	44	NHAI
71	Bargarh-Barpali (km0 to km20)	Orissa	20	NHAI
72	Barapal to Gondhibanda	Orissa	16	NHAI
73	Kalasandhapur - Berhampur	Orissa	40	NHAI
74	, Jiere Horapat	Orissa	24	NHAI
75	Talwandi-Ferozepur (Indo Pak Border)	Punjab	43	NHAI
76	Amritsar - Hosiyarpur - Una	Punjab	135	NHAI
77	Sriganganagar (NH-62 at Sadhuwali)– Gajsinghpur – Raisinghnagar – Sattasar – Pugal.	Rajasthan	275	NHAI
78	Thanjavur – Thiruvaiyaru - Naduvalur - Veepanthattai, terminating at Athoor bypass	Tamil Nadu	126	NHAI
79	Salem - Harur - Uthangarai - Vaniyambadi	Tamil Nadu	135	NHAI
80	Thoppur - Mettur- Ammapettai- Nerinchipettai - Chittar Bhavani, terminating at Erode road	Tamil Nadu	135	NHAI
81	Kottampatti – Tirupattur	Tamil Nadu	33	NHAI
82	Tambaram - Oragandam - Cheyyar - Tiruvanamalai - Harur	Tamil Nadu	256	NHAI
83	Kumbakonam - Mayiladuthurai - Sirkazhi	Tamil Nadu	60	NHAI
84	Jadcheralla - Kalwakurthy – Mallepalli	Telangana	100	NHAI
85	Kodad – Khammam	Telangana	40	NHAI
86	Mancherial (Junction of NH-63) to Chandrapur	Telangana	95	NHAI
87	Khammam – Ashwaraopet	Telangana	117	NHAI
88	Hyderabad-Maneguda	Telangana	46	NHAI
89	Warangal – Khammam	Telangana	124	NHAI
90	Ghazipur-Balia- UP Bihar border	Uttar Pradesh	128	NHAI
91	Allahabad bypass road junction to Allahabad city	Uttar Pradesh	17	NHAI
92	Jagdishpur – Faizabad	Uttar Pradesh	61	NHAI
93	Naini junction to Tikri	Uttar Pradesh	50	NHAI
94	Tikri road to Jangi road	Uttar Pradesh	37	NHAI
95	Paonta Saheb - Ballupur Chowk (Dehradun)	Uttarakhand	52	NHAI
96	Joka to Namkhana	West Bengal	90	NHAI

S. No.	Project	State	Length (km)	Implementation Agency	
97	Mirhati – Naopara (km 26 to km 31.5 in Barasad)	West Bengal	7	NHAI	
98	Kharagpur – Morgram	West Bengal	307	NHAI	
99	Ghospukur to Sevoke Army Cantonment in Darjeeling	West Bengal	25	NHAI	
	Total		8916.6		

Annexure III (e)

Sr. No.	Project	State	Length (km)	Implementation Agency Roads Wing, MoRTH	
1	Malkangiri on NH 326- Chintapalle-Naripattanam- Waddai-Chodavaram-Sabbavaram-Gandigudam- NH-16 near Tallavalasa	Andhra Pradesh	280		
2	(i) Siwam – Madhubani – Sitamarhi – Indo/Nepal border. (ii) Rampur Khajuriya (NH-28) – Kesaria – end on NH-722 (iii) Siwan – Masrakh (iv) Kesariya – Areraj	Bihar	335	NHAI	
3	Umagaon-Basopatti-Benipatti-Rahika-Madubani- Rampatti-Awam-Loufa-Bheja-Supaul-Saharsa	Bihar	160	Roads Wing, MoRTH	
4	 (i) Pathalgaon on NH-43-Dharmjaygarh-Sithra- Munund-Chhal on NH-49. (ii) Gondia on NH-753 Balaghat Lamta Nainpur-Mandla on NH-30 	Chttissgarrh	273	Roads Wing, MoRTH	
5	(i) Bodeli (NH-56) – Champaner Pavagadh Archeological Park - Halol. (ii) Abu Road (NH-27) – Mount Abu	Gujarat	90	Roads Wing, MoRTH	
6	Hospet (NH-67) – Hampi – Kamlapu – Gangavathi	Karnataka	95	Roads Wing, MoRTH	
7	(i) Satna – Kotar – Semaria – Sirmaur – Jawa – on NH 35 near Shankargarh. (ii) Chitrakoot (NH- 35) - Rajapur – Manjhanpur – Palhana (NH-19)	Madhya Pradesh/ Uttar Pradesh	205	Roads Wing, MoRTH	
8	(i) Poladpur (NH-66) – Mahabaleshwaram – Panchgam – Wai – on NH-48. (ii) Saralgaon Near NH-61 – Bhimashankar – Wafda-Khed	Maharashtra	145	Roads Wing, MoRTH	
9	Dharni-Khamla-Achalpur-Amravati-Yavatmal- Umri-Karnji on NH-44	Madhya Pradesh/ Maharashtra	268	Roads Wing, MoRTH	
10	 (i)Anandpur on NH-20-Satkosia-Thakumunda- Kaplipada-Udala-Baripada on NH-18. (ii)Khordha (NH-57) – Chandka – Cuttack. (iii)Baleshwar on NH-18 extend to Chandipur 	Odisha	189	Roads Wing, MoRTH	
11	Panposh on NH-143-Kumarkera-Bargaon- Sundargarh-Ujalpur-Sarapgarh-Tildega-Konpara- Bagbahar-Lundang on NH-43.	Odisha/ Chattisgarh	200	Roads Wing, MoRTH	
12	(i) Chengalpattu near NH-32 – Mamallapuram. (ii) Kodaighat (NH-183) – Kodaikanal – Palani	Tamil Nadu	120	Roads Wing, MoRTH	

List of roads for connectivity of Backward districts and Religious and Tourist Centres

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Sr. No.	Project	State	Length (km)	Implementation Agency	
13	Junction of Manakpur-Gonda Rd. with NH-30 via Manakpur-Gonda Rd. &Bhabhan- (Manakpur Rd Swaminarayan Chhaaiya& terminating at Bhabhana Rly. Stn. – Haraya (NH-27).	Uttar Pradesh	70	Roads Wing, MoRTH	
14	Kaanauj – Bilgram – Hardoi – Baghauli – Misrikh- Sitapur.	Uttar Pradesh	110	Roads Wing, MoRTH	
15	Barabanki – Dewa Sharif – Fatehpur – Mahmudabad – Biswan – Laharpur – Lakhimpur	Uttar Pradesh	139	Roads Wing, MoRTH	
16	(i) Varanasi – Sindhora – Jaunpur – Akbarpur – Ayodhya Road. (ii) Mirzapur (NH-35) – Aurai (NH-19)	Uttar Pradesh	240	Roads Wing, MoRTH	
17	Ayodhya – Chhawani – Ghanghata – Barhalganj – Barhaj – Siwan	Uttar Pradesh	255	Roads Wing, MoRTH	
18	 (i) Bagdora-Simana-Lamahata- Kalimpong- Damlin (ii) Gitaldah-Dinhata-Alipurduar-BuxaDuar (iii) Kashinagar-Kuchuberia-Gangasagar 	West Bengal	281	Roads Wing, MoRTH	
19	 (i) Nandgaon nearNH-66 to Devgarg. (ii) Kudal near NH-66 to Sindhudurg. (iii) Kudal near NH-66 to Malwan. (iv) Kankauli near NH-66 to Achara 	Maharashtra	Roads Wing, MoRTH		
20	Nashik – Jawahar – Kasakhurd (NH-48) – Dahanu – Bordi	Maharashtra	110	Roads Wing, MoRTH	
21	Route Starting from Nh-565-Gotlagattu-Podile- Uppalapadu-Chimakurti-Ongloe on NH-16.	Andhra Pradesh	75	Roads Wing, MoRTH	
22	Talaja (NH-8E) – Palitana – Sihor	Gujarat	64	Roads Wing, MoRTH	
23	Sonbersa-Raxual	Bihar	90	Roads Wing, MoRTH	
24	Ganganagar (NH-62)- Raisinghnagar- Rojhri - Awa – Poogal & Anupgarh – Surat Garh, Rajasthan	Rajasthan	275	NHAI	
25	Pugal Aladin K Bera- Berivanwala, Rajasthan	Rajasthan	75	NHAI	
26	Jaisalmer (NH-11) – Kanod- Ghantiali- Nachna- Chinnu-Naukh	Rajasthan	165	Roads Wing, MoRTH	
27	Bhadasar – Sarkaritala – upto Pakistan Border, Rajasthan	Rajasthan	80	NHAI	
28	Nachna-Balan (Babla) and Nachna- Bharewala, Rajasthan	Rajasthan	87	Roads Wing, MoRTH	
29	2(a) Bap-Kansar-Chinu	Rajasthan	102.7	NHAI	

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Sr. No.	Project	State	Length (km)	Implementation Agency	
	2(b) Bap-Shekhasar-Ramdevra				
30	3(a) Pokharan-Fassund-Undu/Kashmir-Nimbala on NH-15 3(b) Harsana-Phata to Uttarlai Aire base	Rajasthan	150.6	Roads Wing, MoRTH	
31	Firozpur – Khema Karan (Indo-Pak Border)	Punjab	23	Roads Wing, MoRTH	
32	1(a)Aau-Bhojasar-Bhiyansar-Padiyal-Jamba-Bap 1(b) NH 15 Kansingh ki sid-Jamba-Saitan Singh Nagar-Lohawat-Dechu (Phalodi-Ramji ki Gol Megha Highway	Rajasthan	166.7	NHAI	
	Total		5,067		

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Annexure IV

Grand Challenge Mechanism

- (i) Under the Grand Challenge Mechanism, a maximum of two stretches of roads not exceeding 100 kms will be allowed from any one State in a particular financial year.
- (ii) States will have to indicate their preference for a stretch from the final list of the roads included in the Bharatmala Pariyojana in the month of April every year.
- (iii) Once such an intention has been shown by a State, MoRTH will send a preliminary confirmation to the particular state and proceed to finalize the alignment and prepare the DPR.
- (iv) If a State has acquired 50% of the land by the time the DPR is ready, then such DPRs will be put on fast track mode and MoRTH will send secondary confirmation to State Government.
- (v) From amongst such DPRs/projects, those projects will be taken up for bidding where additional 30% of the land is acquired by the time of bidding of the projects.
- (vi) From such successful bids, those projects will be awarded where 90% land has already been acquired at the time of award of the project.
- (vii) If the above milestone is satisfied, the implementation of the said project in the said State will be taken on priority.
- (viii) If there are competing projects with the above credentials, then those projects which are connecting to Ports and/or Industrial or commercial hubs and other economically and strategically important locations will be given priority.
- (ix) In addition, if the concerned State Government provides at least 25% of the Land Acquisition cost for 'Ring Road or Bypass' projects, such projects will be taken up for construction by NHAI on priority basis.
- (X) After the award of the road project, if there is no progress in the said project for one year on account of RoW issues including availability of land, utility shifting/tree felling issues, encroachment issues etc, then the said allocation of funds for the said project will stand cancelled on the expiry of one year.

Annexure V (a)

Technology to be used in DPR Preparation

Technology shall be used wherever possible in DPR preparation, to enable increased accuracy of surveying and project design, including but not limited to:

- (i) Topographic survey using mobile/ aerial LiDAR or equivalent or better technology.
- (ii) Sub-surface utility mapping using Ground Penetrating Radar (GPR), Induction Locator or better technologies.
- (iii) Traffic count survey using Automated Traffic Count and Classification (ATCC) systems.
- (iv) Digitization of cadastral maps relevant to the project alignment.
- (v) Digital elevation models, remote sensing land use maps and 3D engineered models for visualizing and reviewing alignment options and making alignment choices.
- (vi) Pavement condition testing using Network Survey Vehicle and laser profilometer and pavement strength testing using Falling Weight Deflectometer.
- (vii) In addition to the technologies mentioned, the implementation agencies may identify, from time to time, the additional aspects of DPR preparation where technology may be introduced.

Annexure V (b)

Sr. No.	Stage	Key activities	Report/ deliverable submitted				
	Part-I						
1	Inception	Project planning and mobilization	Inception report and QAP				
2	Feasibility	Alignment finalization, preliminary surveys	Alignment options report and feasibility report				
3	LA and clearances I	LA, utilities identification; creation of draft notifications and proposals	Strip plan, LA report (3a, 3A), clearances and utility shifting proposals				
4	LA and clearances II	Land acquisition process, obtaining final utilities estimates and required clearances	JMS and 3D report, final project clearances and utilities report				
	Part-II	•					
5	LA III- award determination	Land acquisition award determination	3G report				
6	DPR	Detailed design of highway, preparation of detailed project report with drawings	Draft DPR report, Final DPR report, documents and drawings				
7	Technical schedules	Preparation of bid documents and technical schedules	Civil works contract agreement and schedules				
8	LA IV- possession	Obtaining possession of land	Land possession report				

Sub-stages in DPR Preparation

Annexure V (c)

Interventions to accelerate Land Acquisition

- 1. At least 1 Land Acquisition Support Officer shall be hired at an RO level on contract basis, per 10-15 CALA under the RO, to assist in coordination of Land Acquisition.
- 2. **Bhoomi Raashi** shall be used by all field offices and HQ for preparation, review and approval of land notifications.
- 3. The State Government shall be requested to propose appointment of an additional CALA in districts where the quantum of land acquisition exceeds 140 Ha, to ensure expeditious land acquisition.
- 4. Tight monitoring of the funds shall be ensured in the CALA accounts to ensure timely disbursement by the CALA. At NHAI, the centralized single CALA account shall be used to ensure optimal monitoring of disbursement and to prevent interest loss to money lying in savings and current accounts.
- 5. The services of DPR consultant shall be used by the implementation agency to assist in the Land Acquisition process till possession of land through preparation of draft LA notification, surveys and valuation, provision of manpower, resources required for land acquisition etc.
- 6. MoRTH shall appoint Arbitrators, serving officers or retired officers on full time basis, in consultation with the State Governments in districts with pendency of large number of references.

Annexure VI(a)

Sr.	Programmes	Financial Targets (Rs. Crore)					
No.	riogrammes	2017- 18	2018-19	2019-20	2020-21	2021-22	Grand Total
	Bharatmala Phase I						
la	Economic corridors development						
В	Inter corridor and feeder roads development					P	
С	National corridor efficiency improvements	1,06,148	84,979	91,101	1,18,575	1,34,197	
D	Border and International connectivity roads	1,00,140	01,010	01,101	1,10,070	1,01,101	
	Coastal and Port connectivity						
Е	roads					-	
F	Expressways						
G	Ongoing Projects of NHDP					s.	
	Sub Total Bharatmala Phase I						
	[l(a) to l(g)]	1,06,148	84,979	91,101	1,18,575	1,34,197	5,35,000
	Other Schemes						
ll (a)	NH(O)						
(b)	SARDP-NE						
(C)	LWE	24,390	31,113	36,576	31,600	33,645	
(d)	VRC						
(e)	EAP						
	Sub Total Existing Schemes						
	plan [ll(a) to ll(e)]	24,390	31,113	36,576	31,600	33,645	1,57,324
	Grand Total	1,30,538	1,16,092	1,27,677	1,50,175	1,67,842	6,92,324

	l	1	spund to act	nos	· · · · · · · · · · · · · · · · · · ·				
Total (Bharatma Pariyojan Ph I + Ph I + (gnitating)	Private Inemteevni ^(999)^	îarket Borrowings	नत्र89 -IIоТ) **(IАНИ	Expected monetisation of NHs through TOT (Toll- Deerate- Transfet	GBS (SARDP, EAP Counter Part etc.)#	скғ еагтағкеd for йН*	noitsoollA bnu-l	Financial Year	
7 l'90 'l	12'000	622'69	8'462	000'L		22,407	Bharatmala Pariyojana Ph I	01 2106	
56,35					£76,7	714,81	Other Schemes	81-7102	
1'30'23	12'000	622'69	8'462	000'L	£26'Z	38'854	Sub Total		
16'48	000'21	32'000	988,8	3'000		21'063	Bharatmaia Pariyojana Ph I	61-8102	
11,15					009'6	21,613	Other Schemes	<u> </u>	
60'91'1	000'21	32'000	688,8	3,000	009'6	45'206	Sub Total		
01'16	50,000	32'000	6'500	2 ⁰⁰⁰		106'12	Bharatmala Pariyojana Ph I	2019-20	
29'98		<u> </u>			009'11	920'97	Other Schemes		
19'12'1	50,000	32'000	6'500	2'000	009'11	226'97	IstoT du2		
118'22	52'000	40,000	009'6	000'01	-	34'022	Bharatmala Pariyojana Ph I	5020-21	
31,600					14'000	009'21	Other Schemes		
121'09'1	52'000	40,000	0'200	10,000	14,000	929'19	Sub Total		
(61'75'1	59,000	40'000	000'01	12'000		261,04	Bharatmala Pariyojana Ph I	2021-22	
33,64					000'21	16,645	Ofher Schemes	-	
1,67,78,1	59'000	000'07	000'01	12'000	000'21	26,842	Sub Total		
2'32'00	000'90'1	2'09'516	46,048	34'000		٤29'6٤'١	Bharatmala Pariyojana Ph I	letoT	
1'22'35					26'69	198'26	Other Schemes	-	
2£'25'35	000'90'1	5'09'52	46,048	34'000	£26'69	2,37,024	Grand Total	T	

Annexure VI(b)

Guidelines for scrutiny of Individual projects under Bharatmala Pariyojana

Following are the guidelines for scrutiny of individual projects under the programme Bharatmala Pariyojana posed before PIB on 16.6.2017:-

- 1. Status of Land Acquisition, Rehabilitation & Resettlement, shifting of Utilities and obtaining of Environmental Clearances, etc., should be stated upfront, together with the likely date of completion of these activities. No project is to be awarded without confirming availability of 80% of the land for PPP projects and 90% for EPC projects. Similarly, clear conditions precedent may be laid down for DPR preparation, inviting bids, award of project and declaring the appointed date. The officers/agencies responsible for these activities should be clearly identified and indicated in the proposal to the Competent Authority.
- 2. Nodal Officers responsible for the implementation of each project/package and names of officers and agencies responsible for site investigations, preparation of detailed designs for important activities (for example, construction of important bridges), preparation of BOQs, etc., need to be indicated, identified and trained before the start of the project/package.
- 3. Investment proposals should be based on the Detailed Project Reports and cost estimates should be based on the price level not beyond six months from the date of consideration of the proposal by the Concerned Authority.
- 4. Proposals should give separately details of the costs of 4/6 laning, ROBs and 'Major' bridges, along with the comparative costs of the latest approved/awarded projects on a like-to-like basis. In case of substantive variations/deviations in scope of work or rates, specific justification should be given in the DPR and approval by the Concerned Authority requires to be solicited.
- 5. The supervision consultancy, agency and other charges incurred by implementing agencies would be applicable as per extant guidelines and circulars of MoRTH and must not exceed the prescribed limits.
- Supervision consultancy contracts should be based on specific items of work or man months requirement assessed on objective criteria rather than being based on the cost of the project or civil works.
- 7. Provision for physical contingencies should normally not exceed 2.8% of the cost of civil works.
- 8. EIRR and FIRR should be worked out on the lines of PAMD methodology, using discounted cash flows and without assuming annual/periodical escalation in revenues/savings in VOC's or time. Based on the EIRR/FIRR and other findings, each DPR shall also recommend the model suitable for that particular sub-project as BOT (Toll) or BOT (Annuity projects) or HAM or EPC.
- 9. Proposals to be brought before the concerned authority should have clearly identified milestones, time schedule based on resource based PERT chart to meet those milestones, persons/agencies responsible for achieving the milestones, and firm details of component –wise cost details.

- 10. Mode of implementation and monitoring of the project by concerned authority needs to be indicated, clearly identifying the areas of responsibilities for concerned agencies/persons.
- 11. MoRTH and implementing agencies should evolve an internal mechanism for periodic review of the progress of projects/packages under Bharatmala, identification of the slippages, if any, suggesting under Bharatmala, identification of the slippages, if any, suggesting corrective interventions and for fixing responsibility. A comprehensive monitoring mechanism within NHAI shall be established for tracking and reviewing progress of projects under the programme, including problem solving, timely completion, quality of construction, O&M and timeliness in completion of the created /improved highway assets, safety aspects and commuters inconvenience. IT-enabled PMIS is already operational, for monitoring of NH projects on real time basis, shall be suitably used for projects under the programme. Further, for effective monitoring purposes independent agencies with adequate experience shall be engaged, wherever required.
- 12. BOT (Toil)/BOT (Annuity projects)/HAM projects should conform to the guidelines laid down by PPPAC/CCEA and the proposed concession agreements should be in accordance with the stipulated guidelines. For these projects, benchmarking of critical parameters should be done. If any deviations from the concession agreements /guidelines approved by the Competent Authority are needed, due institutional framework as approved by CCEA for amendments in MCA for Highway projects shall be followed.
- 13. Financing arrangements should be fully tied up. For every project MoRTH/NHAI should indicate commitments on existing ongoing projects, additional commitments already made and how additional commitments on the proposal under consideration and new projects in the pipeline are to be financed. Sources of funding including Internal Resources, Borrowings, etc. and cash flow statements for the next 5 years highlighting the debt servicing/cash flow problems faced by the implementing organizations shall be reviewed; and remedial action required to overcome the problems faced shall be taken promptly.
- 14. Each DPR should clearly indicate the details of expected revenue from toil and other sources including leases rentals, value capture, etc. cost of collection, arrangements for collection, etc. Variations, if any from the government approved toll norms, and the reasons for the same should be brought out.
- 15. During implementation of any project, if approval of revised cost estimates are necessitated due to time and cost overrun, proposal should be considered and approved by the concerned authority, and it would fix responsibility for time and cost overrun, wherever necessary.
- 16. Intelligent Transportation Systems (ITS) may be deployed in high density corridors to enable better revenues and road safety, subject to viability.