

# A New Dimension in Highway Development

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**T**he proposal for Phase-I of Bharatmala Pariyojana has been approved by the Cabinet Committee on Economic Affairs in its meeting held in October, 2017. Bharatmala is a comprehensive highway development programme for the country. The highways sector continues to remain a critical infrastructure sector in India due to existing gaps and enhanced transportation requirements. Bharatmala marks the beginning of a new era for highways infrastructure.

National Highways Development Project (NHDP) was the first flagship highway development programme in the country launched by the Government in 1998. Using the experience from implementation of (NHDP), Bharatmala envisages a quantum leap forward to redefine road development in terms of development, operation and maintenance of National Highways (NH) across the country based on corridor approach of planning and execution. The objective of Bharatmala is to optimize logistics efficiency for both freight and passenger movement on NHs across the country through suitable interventions.

## Approach in Designing Bharatmala

A detailed study of the goods movement between the high-density Origin-Destination (O-D) pairs was

conducted in a scientific manner. Thereafter, a considered strategy was formulated to identify and develop new economic corridors so that the logistics efficiency of the economic region is maximized, which, in turn, is expected to have a force multiplier effect on the economy. This O-D study took into account the integration of economic corridors with the ongoing projects under NHDP.

This study also brought out that most of the economic corridors in the country have infrastructure asymmetry. For example, in the Mumbai-Kolkata corridor, a significant stretch in the state of Odisha is two-laned and also there are frequent lane changes. If this entire stretch is not upgraded to at-least uniform 4-lane facility, the traffic movement will continue to be hampered leading to freight cost escalation that will have a cascading effect on the end product e.g. steel and power. There was, thus, an urgent need to address such asymmetry on corridors across the country.

In addition to development of new corridors and feeder routes, there is a need to improve the throughput of the road stretches already developed under the National Highways Development Project (NHDP), by de-congesting stretches through development of bypasses, ring roads etc. and development of Multimodal Logistics Parks to enable freight

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aggregation and disaggregation and effective modal shifts.

Development of infrastructure along the borders and coastal areas is critical to boost India's Export-Import (EXIM) trade. Border roads have been identified based on strategic importance along with the objective of improving connectivity to trading points with India's neighbours - Nepal, Bangladesh and Bhutan. The coastal road development and port-connectivity roads enhancement have been synergized with the Sagarmala Programme of the Ministry of Shipping.

Recognizing the importance of shifting the focus from project-based road development to a corridor-based approach, and thereby bridging the critical gaps, Ministry of Road Transport and Highways (MoRTH) has designed the 'Bharatmala Pariyojana'.

#### Bharatmala – Six Components

**Economic Corridors** - Identified Highway Corridors of Economic importance are expected to carry 25 per cent of freight in the coming years. Once built, the National and Economic corridors, along with their inter-corridors and feeder routes, is expected to carry 80 per cent of our freight traffic. A total of about 26,200 kms of corridors have been identified to be developed as Economic Corridors, of which 9,000 kms are being taken up in Phase-I.

**Inter-Corridors and Feeder Roads** – Around 8,000 kms of inter-corridor and around 7,500 kms of feeder routes have been identified, of which 6,000 kms are being taken up in Phase-I.

**National Corridors Efficiency Improvement** – The Golden-Quadrilateral and North-South and East-West corridors carry 35 per cent of India's freight and are proposed to be declared as National Corridors. The average traffic in the 6 national corridors is 30,000 PCUs. The 6/8 laning of these corridors would be



taken up as per need. The National Corridors have developed choke points every time, impacting logistics efficiency. There is a requirement to construct Ring Roads and bypasses/elevated corridors in addition to lane expansion to decongest these National Corridors. Further, Logistics Parks are also planned to be developed at strategic locations to enable efficient modal transfers and freight aggregation and disaggregation. Around 5,000 kms are being taken up under this category in Phase-I.

**Border and International Connectivity Roads** – Around 3,300 km of border roads have been identified to be developed along the international borders 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 our neighbors, namely, Nepal, Bhutan, Bangladesh and Myanmar. Around 2,000 kms roads are being taken up under this category in Phase-I.

**Coastal and Port Connectivity Roads** – Around 2,100 km of coastal roads have been identified to be developed along the coast of India. These roads are expected to boost tourism and industrial development of the coastal regions. 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. The roads identified have been synergized with the Sagarmala programme of the Ministry of Shipping. Around 2,000 kms are being taken up under this category in Phase-I.

#### Greenfield Expressways –

Certain sections of National and economic corridors have traffic exceeding 50,000 PCUs and have also developed several choke points. About 1,900 km of these stretches have been identified for development of greenfield expressways, of which around 800 kms are being taken up under this category in Phase-I.

#### Bharatmala Phase-I

A total of around 24,800 km of roads are planned to be developed in Bharatmala Phase-I. In addition,

Summary of approved Phase-I components and approved outlay for the same are as follows:

Sr. No.	Components	Length -km	Outlay -Rs crore
(i)	Economic corridors development	9,000	1,20,000
(ii)	Inter-corridor & feeder roads	6,000	80,000
(iii)	National Corridors Efficiency improvements:	5,000	100,000
(iv)	Border & International connectivity roads	2,000	25,000
(v)	Coastal & port connectivity roads	2,000	20,000
(vi)	Expressways	800	40,000
	<b>Total:</b>	<b>24,800</b>	<b>385,000</b>
	Balance road works under NHDP	<b>10,000</b>	<b>1,50,000</b>
	<b>Total</b>		<b>5,35,000</b>

Phase-I also includes about 10,000 kms of the residual road works under NHDP. Estimated outlay for Phase-I is Rs 5,35,000 crores spread over 5 years.

There is adequate flexibility in terms of identification of above 24,800 kms as Minister-RT and H is authorized to substitute up to 15 per cent of this length with other suitable projects, in case development of certain identified stretches cannot be taken up due to land acquisition issues or other unforeseen factors.

### Appraisal and Approval of Projects

Effective delegation in appraisal/ approval of individual NH project stretches is a distinguishing feature of this programme. This will enable streamlined and time-bound award of identified projects leading to faster implementation. The National Highways Authority of India (NHAI) has been empowered to appraise and approve projects. At the same time, due care has been taken to ensure that there is no dilution in the quality of assessment involved in the appraisal/ approval mechanism. All projects shall be technically, financially and economically appraised by well-equipped Project Appraisal and Technical Scrutiny Committees to be setup in the NHAI and MoRTH comprising experts from NITI Aayog. Project preparation activities have already been initiated by the implementing agencies to expedite award of contracts. CEO, NITI Aayog has been included as a part-time member on the NHAI Board (Authority).

### Grand Challenge Mechanism

Encouraging State Governments

to participate in the development process through Grand Challenge mechanism is another distinguishing feature of this programme. Under this mechanism, projects wherein concerned State Governments play a proactive role, particularly in terms of providing project land at a fast pace, shall get priority in terms of being identified for implementation.

### Institutional Capacity Enhancement

In order to effectively implement the programme, conscious efforts are being made for enhancing the internal capacities of MoRTH and its executing agencies. A study on "Organization and Process Transformation of MoRTH and its implementation agencies" has been taken up and some of the recommendations of the study have already been implemented e.g. reforms related to land acquisition, reforms to enhance quality of project DPRs, development and implementation of an online Project Monitoring Information System (PMIS) and others.

### Impact of Bharatmala

- i) Optimized efficiency of traffic movement on roads across the country through adoption of a coherent corridor approach. The network identified is expected to cater to about 80 per cent of the inter-district freight movement in the country. It will enable improvement in average speed of vehicles in the country by about 20–25 per cent.
- ii) The development of economic corridors and the associated inter-corridor and feeder routes will result in improved road infrastructure, removal of congestion points on the network
- iii) Connecting 550 Districts in the country through NH linkages. Currently, around 300 Districts have NH linkages.
- iv) Creation of major opportunities for investment and construction activities in the highways and associated infrastructure development, operation and maintenance.
- v) Upgradation of 24,800 km of corridor network in Phase-I of Bharatmala is expected to generate about 34 crore man-days of employment during the construction phase and approximately 22 million permanent jobs driven by increased level of economic activities. □

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# YOJANA

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