

**Ministry of Road Transport  
&  
Highways  
(Govt. of India)**

# Road Network in India

- Total length of road network - 58.98 lakh km
  - National Highways - 1,32,500 km (2.3%)

## **NHs carry more than 40 % traffic**

- State Highways - 1,56,694 km
- Other Roads - 56,08,477 km

# Development of NHs

S. No.	Program / Scheme	Total Cost (Rs. Crore)	Length (in Km)
1	NHDP (National Highway Development Projects)	2,47,635 (\$34,245M)	56,323
2	SARDP-NE (Special Accelerated Road Development Program for North Eastern Region )	33,752 (\$4,672M)	6,418
3	World Bank Funded Projects	64,61 (\$894M)	1,120
4	JICA (Japan international Corporation Agency) funded projects	8,130 (\$1,125M)	496
5	ADB (Asian Development Bank)	3,448 (\$477M)	196
6	LWE (Left Wing Extremism) affected areas	9,854 (\$1.364M)	6,045
	Projects under NH (O) [National Highway, Original]	1,06,047 (\$14,678M)	15,500
	<b>Total</b>	<b>4,15,327 (\$57,485M)</b>	<b>86,098</b>

# **Development of NHs contd.**

Recently approved Bharatmala Pariyojana – Phase-I  
(which has also fully subsumed 10000 km National  
Highways Development Project (NHDP))

Length – 34,800 km

Cost – Rs. 5,35,000 Crore (\$75 Billion)

# Development of NHs contd.

- Government is giving huge emphasis on construction of National Highways.
- Length of National Highways constructed during last 3 years:

2016-17	-	8231 km
2017-18	-	9829 km
2018-19	-	10855km

# Laying of Utilities in Urban Areas

- It is an undisputed position that there is need for laying almost all the utility services (such as Underground Electricity Cables, Overhead Electric Lines, Telecom Cables, Water Supply Lines, Drainage Lines, Sewer Lines, Gas Carrier & Distribution Lines, Oil Pipelines etc.) in urban areas.
- Utilities are laid within the available and restricted space in urban areas

# **Laying of Utilities in Urban Areas contd.**

- However, in cases where there is no space, load bearing utility ducts are to be provided below the Carriageway
- Due to the lack of space and RoW constraints in thickly inhabited urban areas, laying of utilities is a challenge especially when we are not able to even provide / earmark space for the Cycle tracks and the pedestrians.

## **Laying of utility services in open rural reaches**

- The utilities laid in the open rural reaches, mainly comprise of :
  - (i) Overhead Electricity lines,
  - (ii) Rural Water Supply lines,
  - (iii) Gas pipelines, and
  - (iv) Telecom/Optic Fiber Cables.
- Subject to availability of RoW, these utilities are laid in the area earmarked as Utility Corridor along the NH Right of way.



# Present guidelines

- Ministry has issued circular vide F.No. RW/NH-33044/29/2015/S&R(R) Dated 22.11.2016 regarding policy guidelines for accommodation of Public and Industrial utility services along and across NHs.
- Provision for utility duct / corridors for appropriate categories/combination of utilities in the construction / development of new projects of NHs.
- While granting permission requirement of upgradation also needs to be kept in view.

## **Present guidelines contd.**

- In Exceptional cases utility services can be allowed beneath carriageway of service roads subject to condition that utility services are laid in concrete ducts.
- While the Electricity lines are laid overhead, the remaining facilities are laid underground, without any mutual conflict as the earth acts as a natural neutralizing agent. As a matter of fact, an open Utility Corridor has been found to be an efficient system in this behalf.

# Present guidelines Contd.

- Utility services shall be permitted to cross the NH either through structure or conduits especially built for that purpose.
- Laying of OFC has been classified as public utility, license fee for which is  $1/3^{\text{rd}}$  of Industrial Utility.

## **Present guidelines Contd.**

- Two meter wide strip of land at the extreme edge of RoW shall be kept for accommodating utilities, both over as well as underground.
- Utility ducts in the form of 600 mm diameter Pipe across the Project Highways along with inspection box/chamber at a spacing of 1 km shall be provided for crossing of underground utilities in built up areas.

## **Cost of land and availability of RoW**

- Land acquisition has gone up by 3 to 4 times with the implementation of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCTLARR Act,2013).
- The average cost of LA now is above Rs.3.8 cr. per hectare as against Rs.90.00 Lakh per hectare prior to 2014.

# Cost Implication

- Non-load bearing 2-mtr wide Utility Duct is estimated to cost around Rs. 2.5 crore per running km
- One with a load-bearing depth/ height of 2.5 mtrs and width of 4 mtrs is estimated to cost around Rs. 10.00 crore per running km.
- The financial viability of this arrangement in terms of total initial capital cost, and its recovery by levying charges on the utilities/ their capacity to pay such lease rentals are issues that need in-depth upfront examination.

- Moreover, in some of the stretches of National Highways, 2 mt wide utility duct has also been provided.
- Under Phase-I and II of Delhi Meerut Expressway, 2mt wide utility duct has been provided / proposed to be provided.
- In Dasna Meerut Greenfield alignment of Delhi Meerut Expressway 6 X 50 mm pipes, has been provided on either side
- These are in addition to the arrangement for ATMS cables being laid in Central Median.

- Notwithstanding the above, the Ministry is keeping provision for 2 mtr wide Utility Corridor while planning land acquisition for its new Expressways/ Economic Corridors.



**Thank You**