

HIGHWAY ENGINEERING

INTRODUCTION :-

HISTORY :-

- 1) Roman Road
- 2) Tresagnet
- 3) Metcalf
- 4) Telford (ICE-UK)
- 5) Macadam
- 6) WBM (Water Bound Macadam)
- 7) Bituminous Macadam.

Major Recommendation of JAYKAR COMMITTEE :-

- (1) Road development should be considered as national Interest.
- (2) An extra tax should be levied on petrol to create Road development fund i.e. central Road Fund (CRF) developed in 1929.
- (3) A semi official technical body should be established i.e. Indian Road Congress (IRC) in 1934.
- (4) In research & development organization should be established i.e. central Road Research Institute (CRRRI) in 1950.

other measures are —

(1) Motor vehical Act — 1939

Revised in 1988, for violation of Traffic Laws.

(2) Highway Research Board (HRB) in 1973.

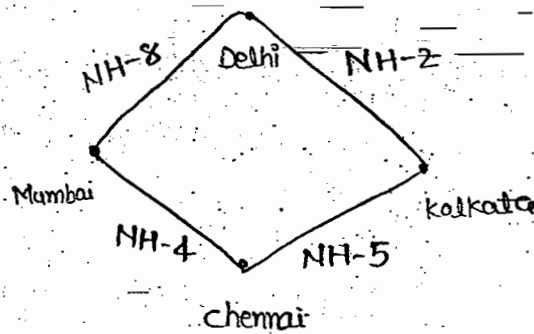
NATIONAL HIGHWAY ACT — 1956 :-

(1) Central govt. is responsible for the construction of National Highway.

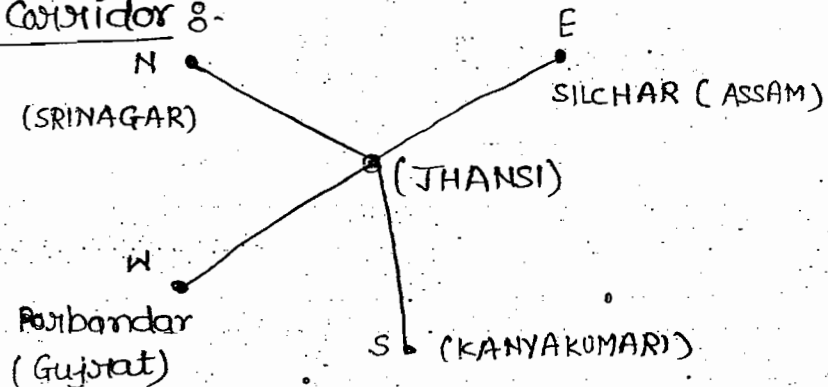
(2) Central govt. is impowcred to omit any N.H from the list of N.H as it can declare any S.H as N.H

NATIONAL HIGHWAY DEVELOPMENT PLAN PROGRAM 1988 (NHDP) :-

(1) Golden Quadrilateral :-



(2) E-W & N-S Corridor :-



NH-1 :-

Delhi to Amritsar Via Ambala.

NH-58

NH-24

NH-3 :-

Agra to Mumbai.

NH-7 :-

Varanasi to Kanyakumari (longest N.H.)

NH-15 :-

It is covering more than 50% area of Rajasthan.

NH-223

Andaman Nicobar (only Highway).

Note :-

Lord Dalhousie established PWD in 1865.

Classification of Roads :-

Rural Highways

- 1) National Highway (NH)
- 2) State Highway (SH)
- 3) MDR (Major District Road)
- 4) ODR (Other District Road)
- 5) VR (Village Road)

Rural Road

Urban Roads

- (1) Arterial
- (2) Subarterial
- (3) Collector street
- (4) Local street.

Comparison of 20 Year Road Plan :-

Features	1st 20 yr. Road. Plan	2nd 20 yr. Road Plan	3rd 20 yr. Road Plan
(1) Duration	1943 - 63	1961 - 81	1981 - 2001
(2) other Name	Nagpur	Mumbai (Bombay)	Lucknow
(3) Target density	16 km / 100 km ²	32 km / 100 km ²	82 km / 100 km ²
(4) Road Pattern	STAR & GRID	—	SAVARE GRID
(5) Development Allowance	15%	5%	NIL
(6) Expressway	NO	1600 km	2000 km
(7) Road classification	NH, SH, MDR, ODR, & VR		Primary Road - NH & Expressway. Sec. Road - SH & MDR Ter. Road - ODR & VR