

EXPRESSWAYS, NEED OF THE HOUR

Need for a speedy, safe, comfortable and economic travel has led to the development of the concept of unidirectional multilane traffic carriageways separated by a central divider (median) with full access control. Such a facility is commonly known as 'Expressway'.

Considering the need for safe and speedy travel as well as faster movement of goods, the Lucknow 20 - year Plan (1981-2001) envisaged a length of 2,000 km of roads to be developed as Expressways. In terms of actual achievement the progress during the Lucknow Plan period was insignificant, as the Government gave preference to four-laning of National Highways in the corridors carrying high volume of traffic.

Expressway facilities need to be created to allow for rapid, unhindered and safe movement of fast-moving vehicles besides ensuring the safety of habitation abutting the road. Four laning of the high density National Highway corridors is at present engaging the attention of the Central Government. Many of such corridors are likely to get saturated in a period of five to ten years after widening work is completed. Moreover, there are several sections which are riddled with encroachments and ribbon development and simple solution of widening existing National Highways/roads may not be cost effective.

The Ministry of Road Transport & Highways, seized of these concerns, have undertaken a study of Expressway needs in the country. The main findings of the study are:

A total length of 15,766 km of Expressway network is needed by the year 2020. The network should be developed in various five-year plan periods by the year 2020.

A few states like Maharashtra, Gujarat and Karnataka are progressing with the construction of Expressways on their own for example Mumbai-Pune, Ahmedabad-Vadodra and Bangalore-Mysore, etc. It was recommended in the Road Development Plan Vision : 2021 that a detailed review of the study already carried out should be undertaken by the Ministry with the cooperation of State Governments so that there is one master network plan of Expressways irrespective of whether it is implemented by the Central Government or the State Government.

The targets for the Expressways network would need another look in the light of current emphasis on using available funds on widening of existing roads and long lead time involved in detailed engineering and investigations in fixing of alignment, acquisition of land, pre-construction activities, including environmental clearances and rehabilitation and resettlement of people affected. Considering the aforesaid problems, Road Development Plan Vision : 2021 recommended a pragmatic and realistic target of 10,000 km of Expressways by 2021 consisting of 3,000 km in first ten years and another 7,000 km in subsequent ten years.

It is well known that, several developed countries like USA, UK, Japan and developing countries like China, Thailand, Malaysia, etc have constructed

Expressways and are reaping the benefits of faster and safer travel. A properly designed and constructed network of Expressways also helps to meet national defense needs and faster movement of armed and other Para Military Forces in case of emergent situation. It has been reported that in USA as on 31 December 1989, over 72,000 km length of Interstate System was opened to traffic both in rural (54,000 km) and urban (18,000 km) areas. It is further reported that although the Interstate System comprised just 1.2 percent of total roads and streets, it carried 21.7 percent of the total vehicle km of travel in the USA. The Interstate System is among the safest highway systems in the world. The fatality rate on the Interstate System is about one-half the rate on all US highways.

The phenomenal growth in road transport in the country and heterogeneous traffic conditions on high density corridors have led to problems of traffic congestion, increased accident hazards and higher vehicle operating costs. Since conventional widening of carriageways would not be enough to tackle these problems, a better option would be to go in for superior type roads like expressways to provide better level of service, comfort and safety to traffic.

Traffic control comprises of various measures for smooth flow of traffic like establishing speed, vehicle weight and other controls and apprehending the errant vehicles violating the rules. For effective traffic control, important components like highway patrols, vehicle detectors, emergency telephones, weather observation equipment, ramp metering and enforcement of weights/dimensions need to be established.

The need for the highway department to collect information regarding road and traffic and for communicating the same to road users in an effective and consistent manner is stressed. This could be done through various means like traffic

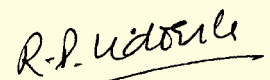
signs, variable message signs and road markings.

Also there is need for providing proper rest facilities on the expressways for the drivers to rest and refresh themselves and for the vehicles to be checked and refueled.

The reduction of traffic congestion in an existing urban environment through provision of high speed arterials is a challenge from social, environmental and technical view points. At the social level, disruption of existing infrastructure and problems of land purchase required careful planning and publicity, with their attendant effect on the community and economy or business. Environmental considerations are of growing consideration worldwide and the effects of noise from traffic as well as the generation of pollution and greenhouse gases at congested sites are of increasing concern to engineers and planners. Technical problems focus not only on the modelling of existing generated patterns for arterial as well as retained city network, but also on the unseen problem of relocating of utility services.

Almost half the period of Road Development Plan Vision : 2021 (2001-2021) is over, however not much length of Expressways plan has been completed so far.

With a view to provide faster and safer travel as well as faster movement of goods in the country, it is desirable that planning, design and construction of Expressways is taken up on war footing and in the right earnest.



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