

Public-Private Partnership for Critical Infrastructure Resilience

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Abstract : Road infrastructure is emphatically one of the top most critical infrastructure to the Indian economy. Road network in the country of around 3.3 million km is the second largest in the world. Nationwide statistics released by Ministry of Road, Transport and Highways reveal that every minute an accident happens and one death every 3.7 minutes. This reported scale in terms of safety is a matter of grave concern, and economically represents a national loss of 3% to the GDP. Union Budget 2016-17 has allocated USD 12 billion annually for development and strengthening of roads, an increase of 56% from last year. Thus, highlighting the importance of roads as critical infrastructure. National highway alone represent only 1.7% of the total road linkages, however, carry over 40% of traffic. Further, trends analysed from 2002 -2011 on national highways, indicate that in less than a decade, a 22 % increase in accidents have been reported, but, 68% increase in death fatalities. Paramount inference is that accident severity has increased with time. Over these years many measures to increase road safety, lessening damage to physical assets, reducing vulnerabilities leading to a build-up for resilient road infrastructure have been taken. In the context of national highway development program, policy makers proposed implementation of around 20 % of such road length on PPP mode. These roads were taken up on high-density traffic considerations and for qualitative implementation. In order to understand resilience impacts and safety parameters, enshrined in various PPP concession agreements executed with the private sector partners, such highway specific projects would be appraised. This research paper would attempt to assess such safety measures taken and the possible reasons behind an increase in accident severity through these PPP case study projects. Delving further on safety features to understand policy measures adopted in these cases and an introspection on reasons of severity, whether an outcome of increased speeds, faulty road design and geometrics, driver negligence, or due to lack of discipline in following lane traffic with increased speed. Assessment exercise would study these aspects hitherto to PPP and post PPP project structures, based on literature review and opinion surveys with sectoral experts. On the way forward, it is understood that the Ministry of Road, Transport and Highway's estimate for strengthening the national highway network is USD 77 billion within next five years. The outcome of this paper would provide an understanding of resilience measures adopted, possible options for accessible and safe road network and its expansion to policy makers for possible policy initiatives and funding allocation in securing critical infrastructure.

Keywords : national highways, policy, PPP, safety

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