

TOWARDS TACKLING OVERLOADING ON ROADS

Road transport is vital to economic development, trade and social integration, which include the conveyance of both people and goods. Easy accessibility, flexibility of operations, door-to-door service and reliability have earned road transport an increasingly higher share of both passenger and freight traffic vis-à-vis other transport modes. Roads carry 61% of freight traffic and 87% of passenger traffic. National Highways, which are the major arteries of the road network, carry 40% of road traffic. The unanticipated growth in volume of goods vehicles coupled with heavy loads is, however, responsible for premature deterioration of the roads in the country.

Studies in developed countries have established that for every increase in axle load beyond the permissible limit, the extent of damage caused to the condition of pavement increases exponentially by power four, which is a significant impact. It has been assessed that overloaded freight vehicles are responsible for approximately 60% more damage to the road surface, as opposed to legally loaded vehicles. As per the current practice, flexible pavement is designed for a service life of 10 to 15 years, rigid pavement for 25 to 30 years and bridges for a life of 50 years. Research carried out in South Africa has shown that 10 per cent overloading of goods in excess of prescribed loads reduces the life of pavement by about 35 percent. Overloading, therefore, reduces the service life of pavement causing signs of early distress. Unbalanced loading in trucks is also considered to be harmful to the pavement. As per

truck manufacturer's technical specifications, loads in trucks should be distributed in the ratio of 1 to 2 on front and rear axles respectively.

Overloaded vehicles threaten road safety and contribute to many fatal accidents on our roads. Literature survey has revealed that overloading of vehicles poses the following risks:

- The overloaded vehicle becomes less stable, difficult to steer and will take longer to stop.
- Overloaded vehicles cause the tyres to overheat and wear rapidly which increases the chance of premature failure or blow-outs.
- The driver's control on the overloaded vehicle is diminished, enhancing the chances for an accident.
- The overloaded vehicle cannot accelerate as normal, making it difficult to manoeuvre.
- Brakes have to work harder because the vehicle becomes heavier. Brakes overheat and lose their effectiveness to stop the vehicle.
- The whole suspension system comes under stress and with time, the weakest and most stressed point can give way.

In short, the overloaded vehicle is a serious concern for safety and the life of the vehicle is also reduced considerably.

Since the percentage of goods transported by roads is increasing, it is expected that heavy vehicles would remain a common sight on our roads, in future. However, in the interest of the roads as well

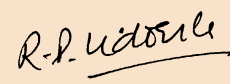
as the vehicles, overloading should not be allowed to continue unchecked, for long. Law enforcement agencies need to take stringent action against the operators of overloaded vehicles. Compliance could be achieved through a combination of enforcement and prevention. Instead of the current focus on enforcement alone, there should be a focus on use of technology in solving the underlying problem of overloading. There is a need for enforcement of loading at source itself or setting up of Weigh-in-Motion stations along the highways. The data so gathered could be used to generate statistical overviews on the loading situation on a specific road. Such overviews could be used by road administration authorities for road design and road maintenance. Enforcement agencies could use this overview in the planning of enforcement activities, when and where control stations are to be deployed. If we are able to enforce legal limits on axle loads, we may hope to ride on better and safer roads. Simultaneously, modernization of vehicle fleet is also to be carried out, to transport higher loads without exceeding the permissible axle loads. This would help in improving the management of roads within the available resources.

Damage to roads, as a result of overloading, leads to higher maintenance and repair costs and shortens the life of a road. Deformation of the road pavement, with the resultant increase in roughness, lead to increased vehicle operating costs, discomfort, decreased riding quality and reduced safety conditions. This, in turn, puts additional burden on the governments as well as the road users, who ultimately have to bear the costs of careless and inconsiderate overloading. As per available reports, efforts have been made in China to curb overloading through a nationwide

campaign by strict enforcement of traffic laws, conducting education programmes, standardizing vehicle manufacturing and refitting, labelling vehicle tonnage, reducing toll fees etc.

Overloading of vehicles has been engaging the attention of highway engineers and administrators for quite some time. In a significant judgement delivered by the Supreme Court, the practice of issuing gold cards/tokens by some State Governments, which allowed the card holders to overload their trucks after payment of fixed charges, has been banned. In this judgement, the Supreme Court has desired State Governments to offload the overloaded cargo and charge the transporter the cost of the operations. In addition, the State Governments have also been ordered to levy a penalty on the extra tonnage. As per the available newspaper reports, while the benefits of the SC ruling seem to be manifold, there have been practical hurdles in its uniform implementation by all the States. All said and done, the long-term benefits of ending the system of government-approved overloading could materialize only if the SC order is implemented strictly.

While damage to the roads by heavy overloaded vehicles cannot be eliminated, it is imperative in the interest of road users and the road transport agencies that all reasonable steps should be taken to minimize the deterioration of our roads. For this, it is essential that government agencies and the transport industry work together since overloading is unwanted.


(R.P. Indoria)
 Secretary General