

## D37 Medico-Legal Aspects of Road Traffic Accident and Insurance in Nepal

Bishwanath Yadav, MD\*, B.P. Koirala Institute of Health Science, Department of Forensic Medicine, Dharan, Nepal

The goals of this paper are to present to the community and the government of Nepal a need to institute proper road safety measures and to promulgate appropriate law and insurance policies so that in the future the country and society may lessen human suffering and decrease the negative economic influence of road traffic accidents.

Nepal is a land-locked country nestled in the midst of the world's highest mountains, strategically situated between the vast plains of the Indian subcontinent to the south, east, west, and the high Tibetan Plateau of China to the north. The total land area is 147,181 square kilometers. The population is estimated at about 22 million; about 90% are Hindus, and more than 90% live in rural areas.

Topographically, the country can be divided into three well-defined physical/geographical belts running from east to west. The terrain (plane land) contains 23% of the land area and 45% of the population; it is 200-1,000 feet above sea level. The hills contain 42% of the land area and 47% of the population; this area is 1,000-16,000 feet above sea level. The Mountain covering 35% of the land area and the remaining 8% of the population lies above 16,000 feet.

Administratively, the country is divided into five development regions and 75 districts. The economy of Nepal depends heavily of agriculture, which provides employment of more than 91% of the economically active population and account for about 60% of export earnings. Tourism plays an active part in foreign exchange earnings. Approximately 25% of tourists come from India, 38% from Western Europe and 37% from the rest of the world. Many Nepalese also have relatives in adjacent states of India and both sides move freely across the border.

The total roads in Nepal are 13,223 km; the national high way is 2,905 km; major feeder roads, 1,656 km; minor feeder roads, 179 km; district roads, 6,615 km; and, urban roads, 1,868 km. Of the total roads, 4,073 km are blacktopped; 3476 km, graveled; and, 5,674 km are dirt roads. Most of the roads do not have proper traffic signals and poor speed breakers and humps further contribute to accidents. There are hardly any motor-able roads in many hilly and mountainous areas to the north and so people have to walk miles through the narrow passage for days where hardly two persons may encounter one another. Some head-quarters do not have roads and access is only possible by air.

Public insurance is not mandatory in Nepal and therefore hardly 2% of the population is insured. The reasons are poverty, illiteracy, and ignorance of the people and lack of proper planning and management by the government because of rivalry between the political parties, mid- term multiple election, and economic failure leading to instability of the government. Similarly, not all vehicles have been insured and only recently has insurance become mandatory for all four-wheel vehicles. Most of the two-wheel and four-wheel vehicles still remain to be insured.

Beside Ethiopia, Nigeria, and Ghana, Nepal has the dubious distinction of having one of the highest accident rates in the world. It is estimated that about 1,400-1,500 persons die and 4,000 are injured annually where approximately 4,000 vehicles are involved. Moreover, thousands of animals also die and many get injured because animals, like cows, buffaloes, horses, donkeys, bulls, oxen, goats, pigs, dogs, cats, and other domestic animals, also use the same roads and many times vehicles run out of control and injure or kill people while trying to save animals. Most of the motorcyclists encounter such a problem and meet an accident.

Disproportionately high percentages of these annual deaths, injuries, and permanent disabilities are borne by the citizens of developing nations. Statistics show that, while the people of developing countries own only 32% of the world's vehicles, they account for 75% of the annual accident fatalities.

Commencing from the 1970s, road safety improvements in North America, Europe, Japan, Australia, and New Zealand resulted in significant reductions in the rates of motor vehicle fatalities. Control of drunk driving, the mandatory use of child-restraint devices and seat belts, and improvements in passive protection, such as airbags, have further reduced the number of deaths and the severity of injury. The situation is quite different, though, in the developing world where a growing number of accidents on the roads have caused the problem to reach epidemic proportions. In the highly motorized countries, the occupants of cars are the primary victims of traffic accidents. In the developing newly motorizing countries, vulnerable road users such as pedestrians, bicyclists, motorcyclists, and scooter riders, and passengers on public transportation sustain the majority of deaths and injuries. They travel together on the same roads with buses, trucks, and cars, in a chaotic traffic stream. Mismatched collisions between the unprotected humans and the heavy vehicles are not uncommon because the traffic moves both ways on the same road in Nepal and many other countries in Asia. Moreover, a significant number of heavy and lightweight vehicles are 30 to 40 years old and are still cruising the road ignoring air pollution, sound pollution, as well as mechanical failure, all frequently leading to catastrophes.

Copyright 2003 by the AAFS. Unless stated otherwise, noncommercial *photocopying* of editorial published in this periodical is permitted by AAFS. Permission to reprint, publish, or otherwise reproduce such material in any form other than photocopying must be obtained by AAFS. \* *Presenting Author* 



Unlike the developed countries where cars are the predominant mode of private transportation, in the newly motorizing countries, more affordable motorcycles and scooters are being purchased and are joining the unregulated traffic stream in large numbers. The resulting explosive 16-18% vehicle growth rate in many Asian countries will lead to doubling of the fleet in five years and a trebling in eight years, causing even more severe problems. Not separating the various road users, sparse traffic safety laws, inadequate police enforcement, absence of pre-hospital emergency care, and limited resources for acute hospital and rehabilitative care are added factors explaining the frequency of accidents and their devastating consequences.

## Road Traffic, Accident, Insurance