Animal Collision Induced Road Accidents in the Southern Expressway

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Declaring open the Southern expressway in November 2011 marks a major milestone of the future road network development in Sri Lanka. Ensuring road safety is one of the key considerations during the operational phase of an expressway as vehicles travel at a much faster rate, which will increase the probability of road accidents. During the period, November 2011 to December 2013, 1023 road accidents have taken place in the Southern Expressway. Out of these, 20% have resulted due to animal-vehicle collision. Animal-vehicle collisions could result in property damage, personal injury or fatalities to the commuter. This study was undertaken to analyze temporal and spatial patterns of animal induced road accidents reported in the southern expressway that would inform development of mitigation measures to reduce the incidence of road accidents caused by animal collision. Accident reports available for animal collision related road accidents during the period, December 2011 to December 2013 was collected and analyzed to identify animal collision patterns. During this period 173 road accidents have taken place. Out of these 172 accidents only involved only a single vehicle while one of the incidents involved two vehicles. Further, 98% of the incidents (169) resulted only property damages while the remaining four incidents have resulted in injury to the 10 commuters. During the study period no fatalities have resulted due to accidents due to animal collisions. There was no significant difference between the incidence of road accidents resulting due to animal collisions reported in the Galle bound section (87 incidents) compared to Colombo bound section (86 incidents) of the highway. The rate of accidents resulting due to animal collisions has reduced by 11% during the second year of operation compared to the first year. Animal collision rates fluctuated over time with highs in April and July and lows during March and May. The highest number of incidents was reported in the stretch between 80 and 90 km followed by 21 to 30 km stretch. Out of the 173 accidents recorded, 70% (121 incidents) have resulted due to collision with dogs followed by pigs (20 incidents), birds (20 incidents) monkeys (7 incidents). Out of the 20 accidents reported due to bird collision 13 have resulted due to Peacocks. Other animals that have resulted in accidents include land monitors, buffaloes, goats, porcupines and foxes which have all contributed less than 5% of the incidents. The road accidents resulting due to collision with dogs have undergone a 33% reduction during the second year of operation compared to the first year. Out of the 173 animal collision related road accidents reported 74% involved motor cars followed by vans (11%), jeeps (8%), cabs (5%), busses (1%) and lorries (1%), indicating

smaller vehicles are more susceptible for animal collision related road accidents. Out of the reported animal related road accidents 58% have occurred during day time and 87% of these accidents have occurred on sunny days while the rest on rainy days. Further 83% of the animal related road accidents have taken place on clear days compared to 13% that have occurred during rainy days. Therefore, lack of visibility or whether condition may have not contributed to animal related road accidents. This study indicates that animal related road accidents show clear spatial and temporal patterns that can be used to develop mitigation measures in the future.

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