

Wildlife and Roads: world problems, sustainable solutions.

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Worldwide, the movements of 750 million vehicles on 50 million km of public roads kill an estimated 200 vertebrate animals per second. Around 900 people are injured or killed each day from animal/vehicle contact. Medical and vehicle damage costs are around Euro 5-10 million per day. These rates could increase significantly by 2020. By then China aims to build 650,000 km of new major roads and India, Africa and Eastern Europe among others will greatly expand and upgrade their road networks. Growth in the use of various impacts-mitigation measures is accelerating. As international oil supply peaks and energy costs increase, maximum permitted speeds are likely to reduce for greater efficiency, probably to around 80-90 km/hr and this may help reduce mortality. Sustainable solutions might best use 50-year predictions, given the life expectancy of road construction materials and the likelihood of a subsequent emphasis (2020-2030) on more regional travel and supply patterns. Designs for new regional road networks, vehicle use policies and objectives for landscape defragmentation require well advanced planning. To avoid waste and repetition of outmoded designs, mitigation planning urgently now requires clearer international standards. A more detailed reference glossary of terminology, and a more informed and consistent approach, including theoretical and field research-based objectives could deliver more effective and low-maintenance applied designs.