



Safety Health : Road Safety

Road Safety: Body Count

The world could save millions of lives and billions of dollars by making road travel safer thereby tackling a global pandemic more deadly than malaria.



Counting the Cost

People stand amidst a pileup on the main motorway between Prague and Brno in the Czech Republic (Photo: Reuters)

Road deaths and injuries are largely accepted as the tragic but unavoidable price society pays for the multiple benefits of road transport. While plane or train crashes are headline news, traffic accidents are footnotes.

Yet humanity's restless urge for greater mobility has devastating consequences. Every year, the world's roads kill more people than malaria : 1.2 million dead plus 50 million injured. Four out of five road deaths now occur in developing countries where the poor, who travel by foot, bicycle, or motorcycle, are especially vulnerable.

Road accidents will be the third biggest burden on global health by 2020, predicts the World Health Organization, with an 80 percent increase in casualties in low and middle-income countries.

The Cost of Motoring

This human devastation costs economies over 500 billion dollars every year in lost productivity, according to a 2004 report from the World Bank and WHO: "World Report on Road Traffic Injury Prevention". The U.S. alone loses over 230 billion dollars annually, the European Union more than 160 billion Euros.

These figures don't even include the human and social costs, and the impact on healthcare services, which in poorer countries struggle to cope with disease and malnutrition without the added burden of traffic casualties.

The huge economic impact is partly explained by the fact that over half of road fatalities are aged between 15 and 44, in other words productive workers and parents. Road crashes are also the leading cause of disability in the EU.

Developing countries, meanwhile, lose more through road accidents than they gain in international development assistance. Despite this, road safety "does not feature in the Millennium Development Goals (MDGs) and is missing from United Nations and G8 policies," reports the Commission for Global Road Safety. The UK, for example, committed just 1.5 percent of its budget for overseas road projects in 2003-4 to road safety.

Accidents Will Happen

Countries can make great economic and social gains by protecting their road-using citizens, including progress towards MDGs like halving extreme poverty and reducing child mortality.

The first step is to challenge fatalistic attitudes. "The term 'accident' can give the impression of inevitability and unpredictability—an event that cannot be managed. This is not the case," argues the World Report.

That has been proven in Western European countries, Asia-Pacific, and North America where traffic deaths and injuries peaked in the

1970s and were reversed in the 1980s and 1990s, despite increased traffic volumes.



Picture Gallery (click on the picture to start)

Facts and figures about the safety of the seven most important means of transportation (Photo: Reuters)

Governments shifted from a 'blame human error' culture towards a 'safe systems' approach that incorporates the road user, vehicles, and road infrastructure. They enforced speed limits and seatbelt and drink-driving laws, built safer roads, and made manufacturers produce safer vehicles.

France, for example, reduced road deaths by 20 percent between 2002 and 2005 after a vigorous public campaign and aggressive use of radar devices and breath testing equipment. The economic return in reduced crash costs was 50 times the annual amount spent on road safety promotion, reports the Commission for Global Road Safety.

Cost-Benefit Analysis

Can poorer countries afford better road safety as well? To justify the expenses, they would have to calculate the benefits and invest accordingly. But putting a price on lives saved or injuries prevented is notoriously difficult, and varies enormously even within the industrialized world. However, many countries have made cost-benefit analyses of road safety measures.

The UK, which boasts some of the world's lowest casualty figures, calculated in 2005 that it saved over 1.6 million pounds (2.3 million Euros) per fatality prevented based on the loss of output, medical, and police costs, and human costs of grief and suffering. The total value of preventing all road accidents in the UK was estimated at over 17 billion pounds (25 billion Euros).

European Union countries could save themselves over 30 billion Euros in fifteen years if they used automated speed enforcement equipment, intensive checking for drunk driving and non-use of seat belts, and public awareness campaigns, according to a 2003 cost-benefit analysis conducted for the European Commission.

But not all measures are equally helpful. ROSEBUD, a network of researchers and government officials funded by the European Commission, analyzed case studies worldwide. The experts found that a United States program of selective traffic enforcement at high-risk times and locations saved lives at an average cost of just 5200 dollars per life. By contrast, fitting seat belts for passengers in U.S. school buses prevented very few deaths, but cost a colossal 2,800,000 dollars per life saved.

One of the best cost-benefit ratios was demonstrated by tests of Intelligent Speed Adaptation (ISA) technology in the UK. ISA uses GPS location and digital maps to plot vehicle location and synchronize the vehicle with the applicable speed limit.

Save Lives, Save Money

Sophisticated technical fixes like ISA will not be available to the majority of road users in the world. However, many of the most effective measures cataloged by road safety experts are awareness and enforcement campaigns that target the three primary causes of road casualties: speed, alcohol, and non-use of seat belts.

For example, Swiss authorities expect that introducing speed limits of 30 km/h in residential areas and 50 km/h on main urban roads will cost 11 million Euros a year, but reap total annual benefits in terms of avoided fatalities, injuries and property damage of 102 million Euros.

Low and middle-income countries could in theory enforce similar measures to reverse the spiraling trend in road casualties. The World Bank says that if fatality rates per vehicle in poorer countries were

reduced by 30 percent by 2020, more than 2.5 million lives could be saved and 200 million injuries avoided.

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Lives saved would translate into wider socioeconomic savings. Recent studies in Bangladesh and Bangalore, India showed that between 33 and 71 percent of poor households that lost a family member in a road accident were not poor before the accident. Because of the loss of earnings from the victim, more than seven out of ten families ate less food.

It sounds strange, but the biggest challenge will be persuading society to no longer accept that the human collateral damage caused by road transport is a price worth paying.

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