

INSIGHT ARTICLE

Staying alive

Road accidents place a heavy burden on South Africa's economy - loss of life, productivity and resources. The question is: Are we turning a blind eye to one specific contributory factor, and why? by Tony Stone and Milton Webber



The poor condition of SA's national, provincial and municipal roads contribute to 20% of all road deaths

A STUDY commissioned by KwaZulu-Natal's Interdisciplinary Accident Research Centre (Uniarc) in 2004, established South Africa's road death toll to be among the highest in the world. Nothing has changed. The economic cost to the country is more than substantial. At an estimated R56 billion in 2009, according to transport minister Sibusiso Ndebele's predecessor, Jeff Radebe, this can no longer be shrugged off. Detailed statistics for 2009 are not available, but in 2008, 14 627 people died in motor vehicle accidents. Of those injured, 49 199 sustained serious injuries, and 126 134 minor injuries. In all, about 500 000 accidents took place.

According to Uniarc's research, most collisions occurred at night and at weekends, with pedestrians making up almost 40% of all road trauma victims. Just over 12% of all the victims were children, with the most "at risk group" aged between six and 12. More recently, during the December 2009/January 2010 festive season, 1 247 fatal crashes were recorded on our country's roads killing

1 582 people (397 drivers, 637 passengers and 548 pedestrians). The highest number of fatalities occurred on roads within cities and towns, followed by provincial roads and national roads.

Talking about the festive season's fatalities, Ndebele said the number of road deaths in South Africa each year is unacceptable. He is quite right. We cannot continue treating road deaths as something that is normal when we are facing death by design, death by human error, death through carelessness, death through drunkenness and death through municipal incompetence and mismanagement, all of which can be prevented.

Almost all deaths on the road can be avoided. As unreliable as our national statistics are, it can, within reasonable probability be concluded that the condition of our national, provincial and municipal roads contribute to as much as 20% of all road deaths. Simply stated, this means 3 000 people die each year and almost 10 000 people are seriously injured because our roads are not properly

maintained. The Arrive Alive Campaign is quite clear on issues of road safety and one of the campaign's most important considerations is the condition of our roads.

Taking into consideration the total distances covered by South Africa's roads, it is clear that maintaining these roads is a mammoth task. But, as the old saying goes, "many hands make light work." However, once we start to fall behind, it is going to be an even bigger job to catch up. And, since the condition of our roads is a critical road-safety component, the importance of constantly monitoring and maintaining them cannot be underestimated.

The commitment of the South African government to the transformation of the public sector led to the founding of the National Road Agency Limited (SANRAL) in April 1998. SANRAL's mandate is to develop, maintain and manage the national road network; it is a mandate they manage well.

As such, this agency plays an extremely important role in enhancing road safety. However, provincial and municipal roads are another matter entirely and this is where the wheels start to fall off.

Take a drive anywhere in Gauteng – be it on a provincial or a municipal road – and you will find roads cracking and potholes galore. In fact, deputy transport minister, Jeremy Cronin, recently said that in the vast majority of municipalities the monitoring of roads were neglected to such an extent that it was open to abuse. "Road maintenance is wide open to abuse in our country at municipal level because this capacity to monitor, to assess, to know what is going on in the roads – and then make adequate decisions – is not there." According to SANRAL's review of the country's road network, 80% of the roads are older than their expected lifespan of 20 years, and are in urgent need of maintenance.

"This means that in most municipalities, they are not even just doing basic checking, going out onto their roads to check their state. Now, if you are not doing that, then you are not able to allocate budgets effectively and intelligently. "You are not able to make a decision as to what the priorities are and you certainly are not going to be able to project manage," said Cronin.

The sixth State of Logistics Survey, published by the Council for Scientific and Industrial Research (CSIR), Imperial Logistics and the University of Stellenbosch, states that the percentage of bad roads in South Africa's secondary road network increased from 8% in 1998 to 20% in 2008, with significant deliveries

of bad national roads increased from 7% to 9% over the same period, said Hans Ittmann, executive director of the CSIR Built Environment.

He added that high transport demand and poor network configuration, deteriorating road conditions and higher storage and inventory costs required increased funding to bolster capacity.

Dr Jan Havenga, director of the Stellenbosch University Centre for Supply Chain Management, said the country required more transport than the rest of the world to keep the economy going. He said the fact that the country's economic centre was located deep inland – 600km from the nearest port – was one of the contributing factors.

Unfortunately, rail transport has not kept up with the ever-increasing transport needs. This has further exacerbated the poor road conditions owing to more trucks transporting goods from the ports inland.

In fact, rail traffic has remained unchanged over the past 15 years, while the roads workload has more than doubled over the same period. In 2008, 1.4 billion tonnes of a total of 1.6 billion tonnes of freight were transported by road over an average distance of 185 km.

Rail transported 204 million tonnes at an average transport distance of 640 km. Two years following Transnet's multibillion-rand capital investment, rail capacity is still insufficient to offset South Africa's high logistics costs. In addition, the country saw an increase of 6.9% in logistics costs to R339 billion in 2008, compared with the previous year's R317 billion, and 2004's R213 billion.

For Transnet to create adequate rail capacity, both the public and private sector should be involved. Regarding Transnet's investment plan, Havenga said he expected "marked improvement" in rail capacity after three to 10 years, "if we are lucky".

A limited case study indicated that trucks travelling on roads with average and bad riding conditions experienced an increase in costs of between 684% and 1 560%, respectively. Total vehicle maintenance and repair can increase by as much as 121% for a truck travelling on roads in a bad condition



rating, resulting in an increase of as much as 10% in the total logistics costs of a company, Ittmann said.

According to the State of Logistics Survey, the deteriorating condition of South Africa's roads is affecting the maintenance and repair costs of freight trucks and vehicles negatively, which, in turn, escalates logistics costs.

Commenting on the survey, Mutshutshu Nxumalo, president of South African Road Federation, said the country's roads were not being maintained and repaired properly.

The impact of the country's deteriorating road conditions on the broader economy can be measured by the lives lost, injuries sustained, vehicle damage costs and increased vehicle operating costs, as well as damage

and costs to pavements, cargo and the environment, and increased road traffic congestion, not to mention declining safety.

With a total vehicle population of 9 393 919 as at the end of March 2009, leading to an overall increase in traffic

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volumes, up 30% on the previous year, South Africa urgently needs to get its road maintenance back on track. Our lives depend on it. 35

Table 1: The estimated distance of roads per road/street category – in kilometres

Province	Municipal urban roads and streets	National and numbered provincial roads	Provincial and rural access roads	Total roads and street length
Gauteng	40 917	3 759	10 333	55 009
KwaZulu-Natal	33 237	9 938	54 734	97 909
Western Cape	31 830	10 293	50 057	92 180
Eastern Cape	10 124	10 505	57 855	78 485
Free State	11 484	9 836	90 033	111 353
Mpumalanga	11 471	8 444	36 110	56 025
North West	10 920	9 137	52 556	72 613
Limpopo	10 401	7 936	48 066	66 403
Northern Cape	9 145	12 173	89 877	111 195
RSA	169 530	82 019	489 623	741 172