INSIGHT EXCHANGE

Powering smarter municipal planning

Provocation Piece | March 2026

Road Safety Data in South Africa: A Technical Gap, or a Governance Design Failure?

South Africa continues to face severe road safety challenges, with high levels of fatalities and injuries recorded across the country each year. The challenge raised in the March Insight Exchange was whether South Africa has the data architecture needed to understand and prevent it effectively.

Participants noted that substantial amounts of road safety data are already being collected by various entities. Institutions such as the Road Traffic Management Corporation (RTMC), the South African Police Service (SAPS), provincial transport authorities, municipalities, the Road Accident Fund (RAF), as well as emergency, health and forensic services, all generate or rely on information related to crashes, injuries and fatalities. Despite this, practitioners continue to face challenges when attempting to use the data for planning, analysis and decision-making.

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We are collecting data, but struggling to integrate it

Participants described a system in which road safety data is generated across multiple entities. Police reports, administrative records, compensation claims and municipal planning systems all contain pieces of the broader road safety picture, but these datasets are not consistently integrated. Much of this information is collected for administrative or operational purposes (such as law enforcement, insurance claims or national reporting) and is not always structured in ways that support ***preventative road safety planning.***

While institutions such as RTMC have made progress in consolidating fatal crash information and producing national reporting outputs, the wider ecosystem remains fragmented. Analysts and planners attempting to build a comprehensive picture of road safety outcomes often struggle to bring these datasets together in a consistent and reliable way. In this sense, the challenge described in the session was ***not a lack of data,*** but the ***data's quality and its consolidation.*** We are struggling to incentivise consistent crash reporting and assemble a coherent national record across multiple institutions.

How institutions are using road safety data

Across the system, multiple institutions rely on crash data for operational and strategic purposes. For example,

- National agencies use crash data to monitor fatality trends and produce national statistics.
- Provincial authorities analyse crash patterns to inform enforcement strategies and road safety campaigns.
- Municipalities rely on crash information to identify dangerous corridors and intersections and inform engineering and urban design interventions.
- Compensation systems depend on verified crash records to process claims and determine liability.

In municipal contexts in particular, participants noted that crash data plays a critical role in planning and infrastructure prioritisation.

This includes decisions such as:

- Where to introduce traffic calming measures
- Which intersections require redesign or signalisation
- Where pedestrian infrastructure improvements are needed
- How limited capital budgets should be prioritised.

The challenge of geolocation and crash-level detail in preventative planning

For planners working at the local level, the usefulness of crash data depends heavily on how precisely individual crashes can be located and described.

It is often difficult to obtain crash data with sufficient spatial precision. Crash records are not always captured with accurate or consistent geolocation information. In some cases, crash locations are recorded using broad descriptions or reference points rather than precise coordinates, which creates challenges for municipal planning and analysis.

For municipalities attempting to prioritise road safety interventions within constrained budgets, gaps in spatial precision and crash-level detail make it difficult to translate crash data into targeted infrastructure improvements and preventative interventions.

Beyond location, practitioners also noted inconsistencies in the level of detail recorded for individual crashes. Despite there being a standardised crash report form issued by RTMC, information such as the circumstances of the crash, the type of road user involved (passengers, drivers, pedestrians and cyclists), or the contributing environmental and infrastructure factors are not captured in a consistent or structured way across systems. This limits the ability of analysts and planners to understand patterns in road safety outcomes.

From the civil society perspective, accessible and credible road safety data is critical for public advocacy and accountability. Clearer and more consistent national data would strengthen the ability of civil society actors to highlight risk patterns and support evidence-based road safety interventions.

Supplementary data sources: the role of citizen-reported information

Official crash datasets are not the only potential source of information about road safety risks. Supplementary data sources, such as citizen-reported information, can provide additional insight into dangerous locations, near misses or road design issues that may not appear in formal crash records.

The Road Ethics Project has experimented with gathering road safety observations directly from members of the public, in collaboration with Hammanskraal United Commuters Voice. This type of citizen-generated information can help identify risk patterns, unsafe road conditions and locations where communities perceive persistent danger, offering a useful complementary perspective for identifying emerging safety concerns and potential preventative interventions.

Image: Citizen science data gathering – 7-8am on a school morning (The Road Ethics Project)

Verification challenges across the system

Participants also noted challenges related to the verification and consistency of crash information. One example raised during the session was the experience of the Road Accident Fund, which relies on verified crash information when processing compensation claims. Participants noted that verifying crash details can be difficult when crash information captured is *incomplete, inconsistent* or *difficult to trace across the systems of various entities.* A municipal colleague described instances where officials rely on manual follow-ups and informal coordination between institutions to confirm crash details or fill gaps in records.

These challenges raise a broader question:

If multiple institutions rely on the same crash data, who is responsible for confirming that the underlying records are accurate and complete?

A question of governance *(people and process – not just technology)*

Institutional responsibilities for crash data are, in principle, already defined. SAPS is responsible for generating crash records through incident reporting, while the RTMC holds a mandate to collate and report this information at the national level. However, the discussion suggested that the existence of formal mandates does not necessarily guarantee a coherent national dataset in practice. There is also a need to collect data from role players such as *emergency medical services, health facilities,* and *forensic pathology services.*

Questions remain around the incentives, operational pressures and institutional processes that shape how crash information is captured, verified and consolidated across the system.

The road safety data challenge is therefore not purely technical. Improvements to digital systems, reporting tools and data integration platforms are important, but there is an underlying issue of institutional responsibility and coordination:

- In the absence of sufficient institutional incentives to ensure that SAPS collects accurate crash data, what intervention is required?
- How should data from different institutional systems be integrated and verified?
- What roles should national, provincial and municipal actors play in maintaining data quality?

These questions point toward the governance architecture that underpins the road safety data ecosystem. Without clarity on roles, responsibilities and incentives, even well-designed technical systems may struggle to produce consistent results.

What needs to be unblocked to improve fit-for-purpose road safety data?

South Africa is not starting from a position of data scarcity. However, in its current form, much of this data remains difficult to use for preventative planning.

A key issue raised in the discussion concerns the relationship between data custodianship and data authority. Multiple institutions act as custodians of road safety information within their respective mandates, capturing, managing or using crash data for operational purposes. However, custodianship does not necessarily translate into authority over official crash records.

One significant challenge may ultimately lie in how SAPS is incentivised to collect useful crash data, particularly where officials responsible for incident reporting face competing operational priorities. A second, linked, challenge is road safety data authority and verification.

This raises several practical questions for the system:

- What would it take for RTMC to establish a trusted, fit-for-purpose national crash data registry?
- Who is responsible for verifying the accuracy of underlying crash records?
- Where does accountability sit when data across institutions does not align?

The formation of the National Crash Data Observatory (Priority 3 under revised National Road Safety Strategy) would address some these questions.

Participants raised the potential role of the insurance industry in supporting the development and maintenance of a national crash data system. Given the sector's reliance on accurate and timely crash information, there may be a case for exploring how private sector actors could contribute to strengthening the resourcing and sustainability of road safety data systems.

Without clear governance arrangements for how crash data is consolidated, verified and maintained across institutions, fragmentation across systems is likely to persist. Until these governance issues are resolved, South Africa may continue to generate large volumes of road safety data without producing a consolidated and trusted national record.

Resources

The National Strategic Hub Portal →

Session Presentations →

The International Road Assessment Programme →

The Australian Crash Data Map →

Online Portal for Crash Reporting →

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