



Keynote speech: Data-Driven Discourse on Safe System Approach to Road Safety in Africa



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Keynote Address (cont.)

- I deem it an honour to deliver the Key Note Address at this all-important International Conference on “Data-driven Discourse on Safe System Approach to Road Safety in Africa” being held from August 14-15, 2025, at the University of Winneba Students Centre.
- Road safety is a major public health concern affecting communities worldwide. With the increase in vehicle usage and urbanization, it has become imperative to give critical attention to road safety. According to the World Health Organization (2023) – Global Status Report on Road Safety-2023, around 1.19 million people died and between 20 and 50 million were injured in road traffic crashes globally in 2021
- Approximately, 90% of all road traffic deaths occur in Low- and Middle- Income Countries (LMICs), even though these countries have 54% of the world’s vehicles.



Keynote Address (cont.)

- While some countries have made progress in reducing road traffic deaths over the last several years, many countries, especially those in the LMICs continue to grapple with the disproportionately high burden of injuries and increasing trends in road traffic fatalities.
- Africa is currently the worst performing continent in road traffic safety, holding the highest fatality rate in the world at 19.4 deaths per 100 000 population. The African region accounts for 19% of the global road fatality figure despite having merely 3% of the global vehicle feet. According to WHO, the African mortality rate is about three times that of Europe's. Several reasons might account for the disparity.

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- In Europe, a lot of resources has been committed to road safety research and systematic implementation of scientific-based interventions across the spectrum of road safety improvement – involving credible injury surveillance systems, improved road infrastructure, defensive driver training, strict enforcement of traffic laws on seat belt use and drink-driving, proper trauma care and rehabilitation of those severely injured. On the contrary, not much resources have been committed to road safety improvement in Africa.
- The worsening road safety situation in Africa underscores the urgent need for researchers, policy-makers and road safety practitioners to come together to discuss the critical traffic safety issues and find practical solutions to the growing African road safety challenges without further delay.

Keynote Address (cont.)

- It is laudable that AfroSafe has organized this conference at such an opportune time like this, to discuss frankly the nexus between road traffic crash data and the safe system approach to improving road safety in Africa as a whole. In other words, how can we use credible road crash data to leverage safety improvements in Africa using the safe system approach?
- It is a common knowledge that any effective road safety management at the country level starts with a Lead Agency. In Ghana and in most other countries Lead Agencies for road safety management have been established. In Ghana, the Lead Agency for road safety management currently is the National Road Safety Authority (NRSA). Historically, it started as the National Road Safety Committee in the 1990s, then by an Act of Parliament it became the National Road Safety Commission in year 2000 but was changed in 2019 to the National Road Safety Authority.

Keynote Address (cont.)

- The other important aspect of road safety management in Ghana has been with the establishment of a credible road traffic crash database. This involved crash data collection nationwide from police crash reports, coding of the data and scientific analysis, so as to identify first what the national road safety challenges are.
- Reliable and accurate crash data are needed to correctly identify and help understand the nature, magnitude and characteristics of the road traffic crashes, fatalities and injuries, the associated risk factors and priority areas for research. Data also helps road safety practitioners to formulate strategies, raise awareness about the road traffic fatality challenges, and to convince policy-makers of the need for a well-defined action.
- In most African countries, road traffic crashes disproportionately affect vulnerable road users, especially pedestrians, cyclists and motorcyclists which together account for more than 50% of all road traffic deaths. In most cities and urbanized areas, however, the figure is even higher than 70%.

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- Little has been done in Africa to achieve safe walking and cycling because there is the general lack of dedicated road infrastructure to support safe walking and cycling in most African countries, especially in Ghana. We have situations where most roads are designed without adequate provision for the safety of vulnerable road users. Pedestrians tend to share the road space with fast moving motorized vehicles, thereby exposing pedestrians to danger. For example, some local roads have design specifications which encourage speeding to the detriment of pedestrians and cyclists. Traffic calming measures are woefully inadequate.

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- Currently, attempts to improve road safety in Africa have been dictated by the success stories from the high-income countries (HICs) without regard to the differences in road user fatality patterns.
- For example, whereas the road users most at risk of death in road traffic in Europe are the car drivers and the occupants, we have pedestrians and motorcyclists in Africa and in South East Asia we have motorcyclists being the most road users at risk of death in road traffic. Clearly, the risk factors in Europe are completely different from what we have in most African countries. Yet, roads are constructed only to meet the needs of motorized vehicles without safety considerations for pedestrians and cyclists. Further, care should be taken how safety measures from HICs are applied in our context and cultural settings.

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- This 2nd AfroSafe conference should therefore seek to find pragmatic ways of improving the safety of vulnerable road users in Africa. Scientific research should be tailored to establish ways to mitigate the risk of pedestrians and cyclists in traffic just as we have seatbelt use for car occupants and helmet use for motorcyclists. In effect, what must we do to protect the pedestrian as a road user? What simple studies can we carry out to indicate the level of risk of pedestrians in traffic?



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- The overarching aim of road safety management is to reduce road traffic fatalities and injuries through data data-driven evidence-based interventions. Therefore, road safety data should not just be collected but must be analyzed and disseminated to relevant stakeholders for needed corrective measures to be taken.
- In Ghana, the CSIR-Building and Road Research Institute (CSIR-BRRI), through the support of the Ministry of Transport (MoT) and the National Road Safety Authority (NRSA) has established a police-reported computerized crash database which spans well over three decades. The database has been used extensively to prepare annual road crash statistics reports for the NRSA for advocacy, training and public education. The crash database is also used for research and development purposes. I believe, similar crash databases would be established in all member African countries to serve as a foundation for effective road safety management

What is the safe system approach to road safety?

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- First, I would like to talk about the traditional approaches to road safety, where in the past, the driver was viewed as the major cause of road crashes. Here, the driver was responsible for ensuring a crash did not occur and when a crash did occur, the driver was blamed for the ensuing injuries.
- Again, strategies to reduce road traffic fatalities and injuries focused only on enforcement, education and engineering (i.e. the 3 Es), as stand-alone measures. They were hardly integrated. The traditional approaches held the view that fatalities and serious injuries were a fundamental component of the transport network. In effect, the strategies which were applied meant that an individual road user should adjust to the road network as opposed to the network being tolerant of the individual.

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- The safe system approach, however, offers a paradigm shift towards treating the road network and its component parts as a system which are interconnected. Again, it recognized that fatalities and serious injuries could be prevented, using the industrial injury prevention approaches. The current shift has taken the focus from blaming the vehicle operator and instead reframed road safety to a more holistic systems-based approach.
- In the Netherlands, this was referred to as the Sustainable Safety approach. This adopted a 'forgiving' system, where crash energies should not result in fatalities or serious injuries. In Sweden, this new approach was termed Vision Zero; a notion that a target of zero fatalities is achievable.
- Inspired by the Swedish Vision Zero and the Dutch Sustainable Safety approaches, Australia developed the 'Safe System' approach to road safety

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- The Safe System approach is based on the principle that road user errors must not lead to death and that the forces dissipated in a crash are minimized and forgiven to prevent serious injuries and deaths. Thus, it recognises that humans (or people) make mistakes and that crashes will occur but it is unacceptable to have fatal or serious injuries on roads.
- The safe system approach, indeed, is an attempt to redefine the approach to road safety as one that does not accept fatalities and serious injuries on the road network, shifting from a traditional approach where it is believed that road traffic fatalities and serious injuries are a fundamental component of the road network

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- The safe system has five elements (or pillars) – safer road infrastructure, safe road users, vehicle safety, safer speeds (through the use of speed management strategies) and post-crash response aimed at addressing road safety challenges through coordinated efforts to reduce the frequency and severity of road crashes.
- The ultimate aim of safe system approach is that of reducing the burden of road traffic fatalities and serious injuries to zero and focusing on road safety as a system with interconnected parts. The safe system approach if fully implemented in Africa should bring about a reversal in the increasing trend in road traffic fatalities and serious injuries in member countries.
- This conference must have this takeaway, which is that “it is unacceptable for human mistakes on road networks to claim lives”.

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- The implications are that efforts should be mustered by AfroSafe to create the general awareness among road safety practitioners in Africa, both academic and public servants, of changes occurring in road safety management towards the use of the safe system approach.
- Emphasis should be placed on the fact that there is a paradigm shift from the traditional approach to the new safe system approach which views road safety management from systems approach.
- This new approach must be data-driven to help policy-makers and researchers clearly understand the nature and characteristics of the road safety burden and the component parts which needs to be addressed.

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- The safe system approach must guide infrastructure development to address the safety needs of all road users, particularly those for vulnerable road users, such as pedestrians, motorcyclists and bicyclists whose safety concerns are the major challenges confronting Africa.
- It is instructive to know that the global road safety community is currently galvanized around the “safe system approach” to road safety which focuses on minimization of road fatalities as against crashes (WHO, 2015). From a historical consideration, there has been a shift from focusing on single problem areas such as the driver, the vehicle and the road, towards a system’s view.
- Africa must be intentional and strategic about tackling the road safety menace by adopting the safe system approach, being guided by data and evidence-based solutions.

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- In conclusion, the burden of road traffic crashes in Africa remains critical. This is against the backdrop of rapid urbanization and motorization which is exacerbated by exponential growth of two-and three-wheeler use, inadequate funding for research, low road engineering measures and poor enforcement of risky road use behaviour.
- Reliable crash data for road safety planning and implementation is paramount in Africa. Accurate crash data is needed not only to inform interventions but also to evaluate the effectiveness of interventions.
- African governments, organizations and individuals must work together to prioritize road safety and ensure the well-being of all road users.



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- The road safety challenge in Africa requires committed collective efforts that foster shared expertise, experience and resources and by adopting modern technologies to create safer road environments using the speed management strategies will help reduce fatalities and serious injuries.
- Though mindful of the limited resources, we can still make a big difference when we work together. We must therefore forge collaborations and partnerships, both locally and at international levels, aiming at zero road traffic fatalities and serious injuries in Africa.



Thanks for your attention!

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