

Bridging the Road Safety Gap in Africa – an educational framework for professionals

Aslak Fyhri*¹, Haneen Farah², Tor Olav Nævestad¹, Sonja Forward³, Marjan Hagenzieker², Torkel Bjørnskau¹, Aliaksei Lareshyn⁴

*lead presenter: aslak.fyhri@toi.no

¹ The Institute of Transport Economics, Norway

² Delft University of Technology, Netherlands

³ Swedish National Road and Transport Research Institute, Sweden

⁴ Lund University, Sweden

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Background and Aim

Road traffic injuries and fatalities remain disproportionately high in many African countries, partly due to limited capacity in road safety planning, management, and delivery. The AfroSAFE project, funded by the Horizon Europe programme, seeks to promote the Safe System approach in Ghana, Tanzania, and Zambia through capacity building and knowledge transfer from European countries that have led the way in Safe System implementation. A key component of this work is identifying gaps in professional education and proposing a structured framework for developing relevant training programmes for road safety professionals. This abstract presents key findings and a proposed educational framework emerging from the project's analysis of road safety education and training across five Safe System pillars.

Method

We conducted a comprehensive mapping of road safety education and training in three African countries (Ghana, Tanzania, Zambia) and four European countries (Norway, Sweden, Denmark, Netherlands). The analysis was structured around the five pillars of the Safe System approach: road safety management, safe infrastructure, safe vehicles, safe road user behaviour, and post-crash care. For each pillar, we identified key target groups (e.g., road authorities, vehicle inspectors, driving schools, ambulance services) and collected information via desk research, surveys, and interviews with relevant stakeholders. Additionally, we reviewed learning theories and best practices in curriculum development to inform the design of an educational framework.

Findings

The study revealed significant and recurring gaps in education and training across all five pillars in the African countries:

- **Road Safety Management:** A lack of multidisciplinary training and weak integration of core Safe System elements (e.g., target setting, data-driven planning, monitoring).
- **Safe Infrastructure:** Absence of short courses on Road Infrastructure Safety Management (RISM), reliance on overseas training, and very low numbers of certified road safety auditors.
- **Safe Vehicles:** Minimal consumer awareness regarding vehicle safety, limited training for inspectors, and a need to align with UN vehicle safety agreements.
- **Safe Road User Behaviour:** Driver training in African countries focuses on lower-order skills (vehicle handling), neglecting higher-order cognitive skills such as risk perception and self-assessment.
- **Post-Crash Care:** Training gaps are overshadowed by more structural issues, such as a shortage of trained staff, equipment, and emergency vehicles. However, training bystanders and first responders remains essential.

There are also stark contrasts in resource levels. For instance, European countries have hundreds of road safety professionals per million inhabitants, while African countries have only a handful. Similarly, the availability of certified auditors, vehicle inspectors, and driving instructors is much lower in the African sample.

Educational Framework

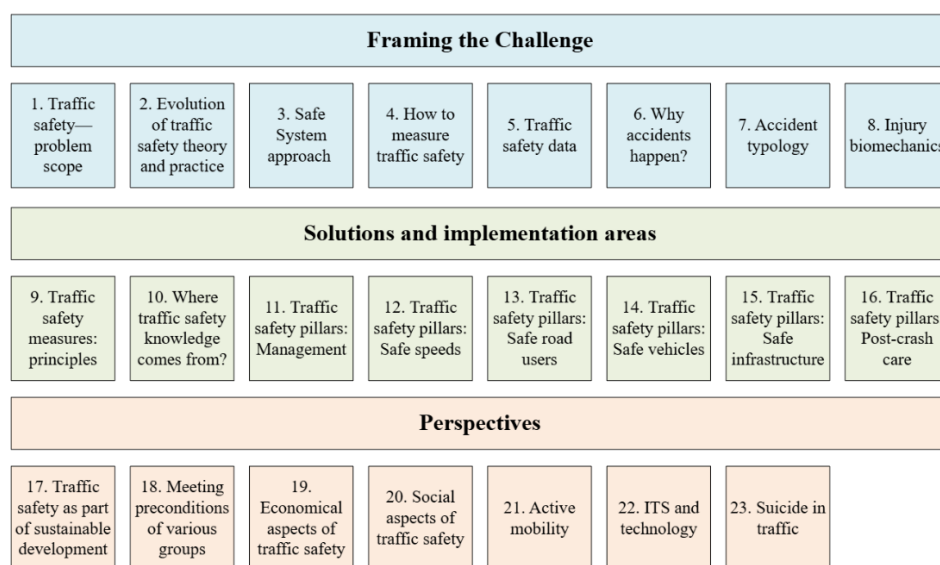


Figure 1: Structure and outline of the proposed road safety curriculum

To address these gaps, we propose a modular curriculum for road safety professionals, based on contemporary pedagogical principles such as constructive alignment, active learning, and problem-based learning. The curriculum is structured in three parts:

1. **Framing the Challenge:** Understanding the scale of the road safety problem, accident typologies, and the rationale for the Safe System approach.
2. **Solutions and Implementation:** Evidence-based measures aligned with each Safe System pillar, tailored to specific professional roles.

3. **Broader Perspectives:** Cross-cutting themes such as active mobility, inclusion, new technologies, and cost-benefit analysis.

The curriculum is designed for flexibility and scalability, allowing for adaptation to different professional groups, educational levels, and local contexts. Emphasis is placed on “training the trainers” to promote sustainability and local ownership.

Conclusion

There is an urgent need for structured, scalable, and locally adapted road safety education in African countries. The AfroSAFE project identifies key training gaps and proposes a flexible curriculum framework aligned with the Safe System approach. Key takeaways include:

- Significant pillar-wise gaps in professional training across all Safe System domains
- A need for continuous adaptation as professional roles and challenges evolve
- The importance of evidence-based and context-sensitive teaching methods

Our ongoing work involves piloting course modules and supporting national and regional knowledge centres. We will present targeted recommendations for curriculum development as well as concrete examples of course modules at the conference.