

The Safe System Approach in Action

Road-safety management and
capacity building in Cameroon

Case study

This case study is part of a package of materials accompanying the final report of a joint International Transport Forum–World Bank Working Group, entitled *The Safe System Approach in Action*.

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Introduction

This case study was prepared by a joint International Transport Forum–World Bank Working Group convened in 2020–2021. The case study forms part of a package of materials accompanying the Working Group’s final report, *The Safe System Approach in Action* (ITF, 2022a).

The Safe System approach to road safety takes as its starting point the ethical position that there is no acceptable level of road deaths and serious injuries. The report proposes a framework for designing, implementing and assessing projects with a Safe System focus. It draws on lessons from real-world case studies to offer guidance on implementing Safe System interventions.

The Working Group analysed 17 case studies in total, paying special attention to their Safe System content. While not every case study was a perfect example of the Safe System approach, all contained valuable lessons. In addition, several common themes emerged. A separate ITF Working Paper (2022b) sets out the thematic analysis.

This case study contains four parts. First, it provides context for the specific intervention and the road-safety problems it aimed to solve. Second, it outlines the interventions implemented to solve these problems and the results. The analysis is structured according to the five key components of the Safe System framework outlined in the main main report (ITF, 2022a), namely:

1. **Establish robust institutional governance.** Permanent institutions are required to organise government intervention covering research, funding, legislation, regulation and licencing and to maintain a focus on delivering improved road safety as a matter of national priority.
2. **Share responsibility.** Those who design, build, manage and use roads and vehicles and provide post-crash care have a shared responsibility to prevent crashes resulting in serious injury or death.
3. **Strengthen all pillars.** When all road-safety pillars are stronger, their effects are multiplied; if one part of the system fails, road users are still protected.
4. **Prevent exposure to large forces.** The human body has a limited physical ability to tolerate crash forces before harm occurs; the system should prevent those limits from being exceeded.
5. **Support safe road-user behaviour.** While road-user errors can lead to serious harm, the Safe System focuses on roads and vehicles designed for safe interaction with road users. It supports humans not to make mistakes and tune their tasks as much as possible to their competencies.

Third, the case study identifies lessons from the project, again structured according to the five key components of the Safe System framework. Fourth, it offers conclusions.

Access the full set of case studies on the ITF website: <https://www.itf-oecd.org/safe-system-in-action>.

Context

This case study relates to three separate road-safety initiatives financed by multilateral organisations and undertaken in Cameroon between 2015 and 2019. The initiatives sought to address the poor quality of road-crash data, the lack of skills and knowledge on road safety, and the lack of co-operation in road-safety management.

Road-safety themes: Road-crash data

According to national statistics, 16 000 road crashes occur in Cameroon every year, together resulting in more than 1 000 deaths. However, according to World Health Organization estimates, about 6 000 people die every year in road crashes in the country (WHO, 2018).

This high under-reporting rate – as well as disparities in reporting formats by different agencies, deficits in the various data-collection systems and other similar gaps – means that it is difficult to obtain reliable, comparable, timely and consolidated data on road safety in Cameroon. In addition, the fact that the properties of a large proportion of all fatal crashes are unknown hinders effective policy making.

Furthermore, and again according to national statistics, the number of road deaths in Cameroon increased over the period 2008–2014, partly due to a tripling of the motorised vehicle fleet, from 210 000 vehicles in 2010 to 675 000 in 2014. Powered two-wheelers represent about 40% of that fleet.

In 2018, the United Nations Economic Commission for Europe (UNECE) estimated that economic losses related to road deaths and serious injuries in Cameroon amount to nearly 100 billion CFA francs per year, which is equivalent to 1% of the country's gross domestic product (GDP). Meanwhile, the World Bank estimates economic costs amount to 10% of GDP (Wambulwa and Job, 2019).

Since 2015, three separate road-safety initiatives financed by multilateral organisations have been carried out in Cameroon.

1. Design and Implementation of Traffic Accident Databases and of an Information System for Road Safety in Cameroon (2015-2019). This project, funded by the World Bank, involved the National Advanced School of Public Works (Ecole Nationale Supérieure des Travaux Publics, ENSTP), the Cameroonian ministries of Transport (MINT) and Public Works (MINTP) and the National Observatory on Public Health (ONSP) within the Ministry of Public Health (MINSANTE), as well as the police, gendarmerie and hospitals.
2. Road-Safety Management Capacity Review (RSMCR). This project, funded by the European Commission within the SaferAfrica research project (2016-2019), had a work package dedicated exclusively to capacity building and training aimed at local stakeholders in five countries (see Usami et al., 2021; González-Hernández et al, 2021). In Cameroon, the actors and organisations involved included the ENSTP, MINT, MINTP, ONSP and the gendarmerie.
3. Cameroon's Road Safety Performance Review (RSPR). Conducted in 2018 with funding from UNECE, this project involved three Cameroonian ministries: MINT, MINTP and ONSP/ MINSANTE.

Interventions and results

Establish robust institutional governance

The establishment and support of data systems were specifically identified as part of the Global Plan for the Decade of Action (WHO, 2011), with Pillar 1 (Road-Safety Management) highlighting the importance of this activity. However, in most low- and middle-income countries, crash-injury databases are either not fully established or not operating effectively.

From March 2015 to July 2019, the project financed by the World Bank developed a centralised and integrated data system for collecting, managing and analysing road-crash data in Cameroon. The system is centrally managed by the newly created Road Safety Data Analysis Centre, based at the ENSTP. The centre is responsible for data quality control and for monitoring, analysing road safety and preparing official statistics in Cameroon.

The data system is equipped with a centralised road-crash and injury database that receives data from the national police (for crashes in urban areas) and the national gendarmerie (for crashes in peri-urban areas). The project also made it possible to integrate hospitals in road-injury data collection. In this way, it was possible to centralise the data for the collection of traffic crashes and injuries (reports and registration).

In addition, the project supported training for the police, the gendarmerie and hospital staff in Yaoundé and Douala on basic data-entry requirements, new equipment, new procedures, new system features, and co-ordination between the different institutions involved in the process of data collection.

The Government of Cameroon has appointed the Director of Transport as Head of the Road Safety Analysis Centre. The MINT is working toward effective operationalisation of the data centre, in collaboration with other stakeholders including the ENSTP, the gendarmerie and the police.

Lessons

Establish robust institutional governance

Dedicated committees and operational teams have been established to ensure monitoring, effective implementation and prior validation of deliverables. These committees and teams are composed of representatives from the main road-safety stakeholders in Cameroon, including the Prime Minister's Office, MINT, MINSANTE, the Ministry of Housing and Urban Development, the General Delegation for National Security and the national gendarmerie.

One of the success factors in initiating the implementation of the Safe System approach in Cameroon was the evaluation of road-safety management performance through the RSMCR and the RSPR. These initiatives offered a systematic assessment of the state of road-safety management.

The evaluation identified significant resources mobilised for the development of safety interventions through the country's Road Fund. The Road Fund is a sustainable source of funding that has contributed nearly 2.5 billion CFA francs per year between 2013 and 2019. However, because the country does not have a well-defined plan to establish priorities for the fund or a plan for monitoring the programmes and policies implemented, it is difficult to evaluate the efficiency and effectiveness of the resources invested.

The following weak points and opportunities were identified:

- There was no lead agency;
- There was weak horizontal and vertical co-ordination;
- There was an abundance of road-safety legislation (laws, decrees and circulars), some of which needed revision to better respond to objectives;
- Formal resource allocation procedures were lacking;
- Promotion of road safety was ineffective compared to international best practices;
- Sustainable systems were not operational to collect and manage data on road crashes and mobility;
- There was minimal existing research capacity in road safety;
- There was no comprehensive study on the social costs of road traffic crashes;
- Statistics on institutional outputs were not published or made available to stakeholders.

The results of the reviews have led to the planning of related activities by institutions and to research collaborations on these topics (such as the evaluation of social costs) with European research institutions.

At a more practical level, although during the planning of the RSMCR, the stakeholders involved gave their full availability, some problems arose during the interviews, such as stakeholders not attending, limited time availability, and difficulties in approaching high government officials.

During the implementation of the World Bank-funded project, the following problems were encountered:

- Lack of information and delays in the historical crash data of the police and gendarmerie. Police crash data was in paper format and included only generic information. The gendarmerie's database provided historical data, although with a delay. These data are also incomplete (e.g. a significant number of reported crashes have not been entered into the gendarmerie database).
- Delays occurred in fitting out the premises to host the databases. Although the information on IT and database development needs was provided according to the initial schedule, the acquisition of IT tools and civil works at ENSTP was finalised well beyond the expected timeframe.
- The provision of the Internet connection was also severely delayed. This caused delays in installing information systems and databases, testing of products and training in the use of project products.

A separate project was planned on the design and implementation of a master's level training course in transport planning in Cameroon. However, the contracting process has been too long because of the uniqueness of such a project in Africa and due to delays in preselecting the five consultants in competition. In addition, collaboration between stakeholders is very difficult because of lengthy administrative procedures and lack of clear leadership concerning the design and follow up of the road-safety strategy in Cameroon.

Conclusions

The database development and the review of road-safety management provide important opportunities for improvement. The project succeeded in connecting the police, gendarmerie and emergency systems for more comprehensive crash data. Further exploration of how serious and fatal crashes are missing from the data system (including the lack of reporting to police and gendarmerie) is suggested.

Cameroon's high-level commitment to, and management of, road safety must be improved, including expanded dedicated government funding of road safety, rather than reliance on global funders for road-safety improvements; enhanced expertise and management capacity, accountability and responsibility for management of funding and delivery of road safety; and improved recording and use of data to guide road safety, to maximise the value of the developments undertaken.

For maximum efficacy, road-safety works funded by the Road Fund should be managed, or at least selected by considering road safety benefits (i.e. efficiency), with follow-up checking on delivery. Connecting the data system with the Africa Road Safety Observatory will also add value, and enhance opportunities for others to benefit from this programme of work.

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