



Africa Sustainable Urban Mobility Course, Abuja

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THE NEED FOR AND THE MANAGEMENT OF ADEQUATE AND ACCURATE TRANSPORT AND ROAD SAFETY DATA

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1. The only country in the world with more bicycles than inhabitants.
2. We put cyclists first; We protect them and in urban areas we give them equal rights as motorized traffic.



CURIOSITY

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THE BOTTOM LINE

- We are asking questions
- We are getting answers
- We are learning and growing
- We are increasing our knowledge
- With this knowledge we are able to understand
- When we understand; we are able to solve challenges
- When we share our knowledge; we multiply knowledge
- When we multiply knowledge we are able to solve challenges faster and better
- Final result: saving more lives on our roads in shorter time



THE STRUCTURE OF THE PRESENTATION

- Why do we need data?
- What data do we need and what are the requirements?
- How do we manage the data?

THE NEED: WHY?

- Road traffic injuries are a major public health problem and a leading cause of death and injury around the world
- Therefore it is essential that each country puts in place a scientific and consistent system to collect, store, analyse, disseminate and apply road crash data

LESSONS LEARNED FROM HI-COUNTRIES

WHO & World Bank

- A decrease in road traffic deaths identified in high-income countries active in road safety
 - Road safety management
 - Evidence based approach
 - Specific actions
- Also identified the importance of collecting accurate, reliable data on the magnitude of the road traffic injury problem
 - The need for a data system
 - To collect the information needed
 - To develop evidence-driven road safety policies

DATA IS INFORMATION

- **Reliable and accurate data are needed**
 - To raise awareness on the magnitude of road crashes & victims
 - To make road safety political priority with sustainable funding
 - To convince decision-makers of the need for urgent action
 - To correctly identify problems, risk factors and priority areas
 - To formulate strategy, set targets and monitor performance
 - To ensure a shift of paradigm (rethinking of design)
- **Ongoing, data-led diagnosis and management of the leading road traffic injury problems**
 - Enables focus and appropriate action
 - Allocation of resources

DATA PIRAMIDE



DATA NEEDED FOR PREVENTIVE APPROACH

❑ Road Crash Data

number of persons killed in road traffic crashes

number of persons seriously injured in road traffic crashes

number of road crashes

Applicability: - long term targets
- group or total of interventions/measures taken
- reactive approach

❑ Safety Performance Indicators

different achievement indicators related to risk factors in traffic
(quality of infrastructure, risk behaviour)

Applicability: - short-term and medium-term targets
- individual interventions/measures taken
- proactive approach

ROAD TRANSPORT versus ROAD SAFETY

- Road transport is vital to development
- In facilitating the movement of people and goods, it improves access to education, health care, employment, and economic markets
- Building and repairing road networks in low- and middle-income countries, thereby generating economic growth and employment

UNFORTUNATELY.....

- **Absence of adequate attention to safety and emphasis on maximizing the efficiency of road transport systems have led to significant loss of lives, health and wealth**
- **With devastating economic and social costs, for families and for society**
- **Transport, law enforcement, health and other sectors have a direct impact on and making road safety a critical public policy issue**
- **Thanks to advocacy efforts and improvements in data, governments and the international community increasingly recognize that the magnitude of road crashes and victims is a crisis requiring immediate action**

DATA CAN HELP

- **Reliable, accurate data can also help build political priority with ensuring sustainable budgets for road safety by:**
 - **Documenting the nature and **magnitude** of road traffic crashes, fatalities and injuries.**
 - **Demonstrating the **effectiveness** of interventions that prevent crashes and injuries (evidence based)**
 - **Providing information on **reductions in socio-economic costs****
 - **that can be achieved through effective prevention**

OBSERVATIONS

- **Priority for Road Transport, including adequate funding is much higher compared to road safety**
- **The focus is car-oriented (lot of space for motorized traffic)**
- **It seems that movement is considered more important than to stay alive in traffic**
- **Data can help to change this unbalance**
- **Making road safety top priority, especially in urban areas**
- **To ensure a safer position and more space for NMT**

DATA ALSO NEEDED FOR VISION ZERO AND SAFE SYSTEM

- The use of reliable data to identify problems and target resources more effectively is also a key element of the **Safe System approach**
- An approach increasingly recognized as the most effective way to make road transport systems safer for all user
- This approach aims to develop a road transport system that is better able to **accommodate human error** and take into consideration the vulnerability of the human body, rather than maintaining a primary focus on preventing human error



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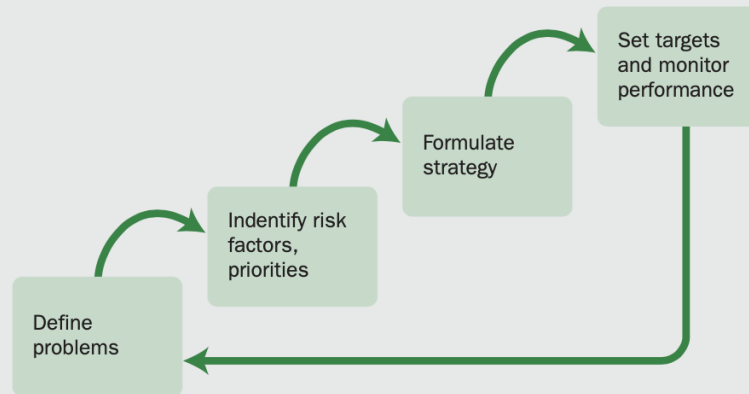
DATA ALSO NEEDED FOR VISION ZERO AND SAFE SYSTEM

- It requires recognition that road safety is a **shared responsibility** of designers of the road transport system as well as users of that system
- The goal of the approach is to prevent fatal and severe injuries by identifying and addressing the major sources of error and the design flaws that contribute to them
- Road users, vehicles and the road network/environment are addressed in an **integrated manner**, through a wide range of interventions, with greater attention to speed management and vehicle and road design than in traditional approaches to road safety

THE CYCLE

This cycle of gathering data, taking action and then evaluating is fundamental for any road safety strategy

Figure 1.1 Use of data for public health approach to road safety



Source: based on (6, 7)

QUALITY OF DATA

- **Basic information on road traffic crashes and injuries is collected every day in most countries (Police officers, Health workers, Insurance companies)**
- **The main purpose of documenting this information is usually to assist an agency in carrying out its specific function – investigation, law enforcement, provision of health care.**
- **While such information may be useful to individual agencies, it cannot be used for identifying risks, selecting interventions, or measuring outcomes at an aggregate level**

GOOD ROAD CRASH DATA SYSTEM MINIMUM REQUIREMENTS

- Capture nearly all crashes that result in death and a significant proportion of those that result in serious injuries
- Provide adequate detail on the vehicle, the road user and the road/environment to assist with identification of causes, and selection of countermeasures
- Include accurate crash location information
- Provide reliable output in a timely manner to facilitate evidence-based decisions

DATA MANAGEMENT

The need for three levels of data management

- Political/ institutional level
- Tactical level
- Operational level

DATA MANAGEMENT

Political/institutional level

- It is of importance to have the highest political support to set up a data management system and data sharing
- Establish an independent national body or agency responsible for the coordination and accessibility of data (Nat. RS Observatory)
- Build a network and collaboration between knowledge institutes for analyzing trends, risks and performance indicators
- Align with the Africa Road Safety Observatory (ARSO)
- Prepare an agreement of collaboration and knowledge sharing between the relevant stakeholders

DATA MANAGEMENT

Tactical level

- The creation of a comprehensive accident database
- The recording of all accidents and in a **geolocalized** way
- Make accident data **accessible** to all parties on the basis of data analyses, ensure effective coordination of integrated road safety efforts, activities and strategies
- The creation of a **working group** on road safety bringing together representatives of Federal Road Safety Corps, the national police, VIOs, fire brigades, the Ministry of Health and the Ministry of Transport , etc.

DATA MANAGEMENT

Tactical level

- Data should be properly coded, entered in a computerized database system, processed, analyzed and disseminated
- A Road crash data system is needed
- For collecting and managing information this involves:
People, Processes, Hardware, Software
- Road crash data systems should process information in a way that allows for analysis at an aggregate level and facilitates data-driven action

DATA MANAGEMENT

Operational level

- Procure software that allows all actors to have access to the data
- Enhance the registration of crashes (templates/forms for high quality, use of smart phone, iPad, geolocation, training programs)
- Combine with other data (roads, vehicles, traffic)
- Provide training to road safety professionals on
 - (A) the establishment of multi-stakeholder cooperation and data sharing
 - (B) the development of targeted road safety actions based on comprehensive analyses and data.

SUMMARIZED

- Without reliable and accurate data no significant and sustainable reductions will be achieved in risks, crashes and victims
- In the current situation movement wins over staying alive in traffic
- Robust Data System supports Vision Zero and paradigm shift
- Political priority, inclusive ensured budgets for safety & data are key
- Investments in a solid data system will be earned back later
- Registration of crash data is focused on blame & investigation and is not suitable for analysis
- A good data system allows to focus on effective interventions and results
- Data management system consists of: People, Processes, Hard-and Software

SUMMARIZED

- Focus on analyzing risks, factors and groups to be able to follow a proactive and preventive approach (SPIs). Currently we are reacting on crashes
- Data Management is on strategical, tactical and operational level
- Don't sit on information but share for better and faster results
- Create teamwork (trust, sharing attitude, clear responsibilities)
- Prepare an agreement for collaboration between stakeholders and develop clear responsibilities for each partner
- Establish an independent National Road Safety Observatory, aligned with African Road Safety Observatory (ARSO)

THANK YOU and DISCUSSION



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