SAFER AFRICA

The SaferAfrica Project

George Yannis, Professor National Technical University of Athens <u>www.nrso.ntua.gr/geyannis</u>

> Athens Regional Workshop On setting up road safety reliable, harmonized and comparable data collection system and sharing at regional level 8-10 May 2018



Co-funded by the Horizon 2020 Framework Programme of the EU under Grant Agreement No 724029

African-European Dialogue Platform on Road Safety



Road traffic fatality rates per 100,000 population (WHO 2015) Europe 26.6 Eastern Mediterranean 24.1 Fatalities / 100,000 30 Americas Population Africa 20 10.3 9.3 10 0 2010 2013

■ Europe ■ Africa

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 Africa presents the highest traffic fatality rates globally, with almost three times higher fatality risk than Europe

South East Asia

Western Pacific

The SaferAfrica Project

- Funded under the Horizon 2020 Mobility for Growth
- Title: SaferAfrica Innovating Dialogue and Problems Appraisal for a Safer Africa
- Duration: **36 months** (Oct 2016 Sep 2019)
- Project Leader: University of Roma La Sapienza

SaferAfrica Objectives:

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Create favorable conditions and opportunities for the effective implementation of actions for road safety and traffic management in African countries, by setting up:

- a **Dialogue Platform** between Africa and Europe
- the African Road Safety Observatory



•	F	Partner	Country	
	1	CTL	Italy	
HORIZON 2020	2	NTUA	Greece	
	3	IBSR	Belgium	
	4	IRF	Switzerland	
	5	IFSTTAR	France	
	6	LOUGH	UK	
	7	LNEC	Portugal	
	8	SWOV	Netherlands	
	9	SITRASS	France	
CAEED	10	APRE	Italy	
JAFER	11	SAFER	Sweden	
	12	ENSTP	Cameroon	
SAFER AFRICA	13	HI	Belgium	
	14	OCAL	Benin	
	15	ICI	Burkina Faso	
	16	CITA	Belgium	



African-RSO Objectives

- Assess the implementation of the African Action Plan
- Activate Twinning Programs between Africa and Europe
- Conduct capacity reviews
- Enable sharing of good practices
- Support capacity-building activities
- Assess thoroughly the needs of African stakeholders in terms of knowledge, data and information tools





African-RSO Structure

- About the African-RSO
- Statistics

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- Road Safety Management
- Good Practices
- Capacity Building
- Dialogue Platform
- News

www.africanroadsafetyobservatory.org

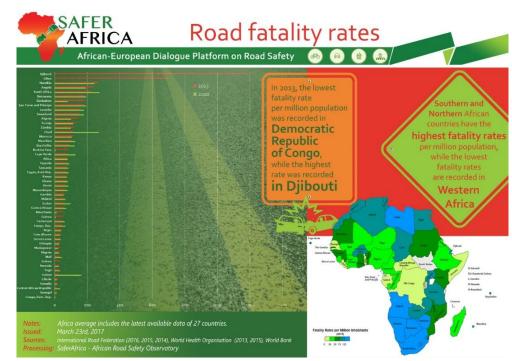


African-RSO Statistics

• Statistics

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- Data Collection
- Indicators
- Infographics
- Analysis
- Underreporting
- Accidents, Exposure, Performance Indicators
- Thorough Quality Control

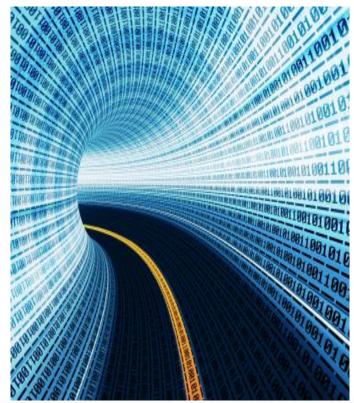




Methodology

Exploitation of existing road safety analysis reports – survey findings:

- Manual of the WHO on Data Systems (2011)
- EU-funded research project SafetyNet (2008)
- Survey in the context of Safer Africa project
 - road safety data
 - data collection systems
 - definitions



Type of Data Assessed

• 3 types of data

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- accident data
- exposure data
- road safety performance indicators
- Limitations in the collection process
 - experience
 - unavailability
 - lack of standardization
- 2-fold priorities scenario per data type proposed
 - usefulness
 - ease to collect



Accident Data

 Common dataset composed of minimum data elements (variables) acts as key tool for ensuring the appropriateness of data captured

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- Uniformity of accident data crucial for subnational international comparisons
- 2-step approach for developing common data collection system
 - improvement and harmonisation of existing data and methods
 - collection of new harmonised data



Common Accident Data Collection System

The minimum set of standardised data elements enables:

- comparability of available road accident data in Africa
 - serving national needs (organizations, authorities, etc.)
- compatibility with international data

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- transferability of knowledge and best practices from developed countries
 - taking into account particular local needs and conditions



Accident Data - Definitions and Standards (1/2)

Road fatalities

- International definition:
 "the persons who died within 30 days from the day of the accident"
- At present, this definition is used by a number of African countries and is suggested to be adopted by the remaining ones
- Some countries have to modify the data collection process and develop appropriate conversion factors, prior to the adoption of the common definition

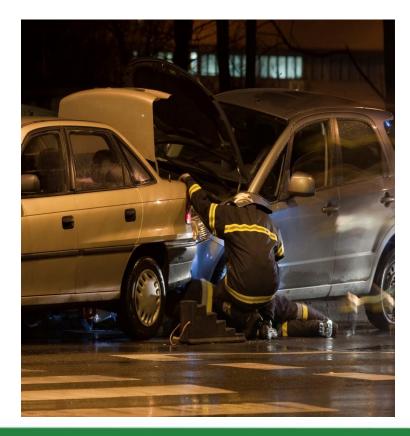


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Accident Data - Definitions and Standards (2/2)

Injury severity

- The minimum injury for which an accident is recorded by the Police varies among countries
- Important differences among countries between seriously and slightly injured persons.



FRICA Limitations for International Comparisons of Road Accident Data (1/3)

Incompatibility of data

- different collection procedures
- different definitions of the variables and values utilized

Sources of data incompatibility

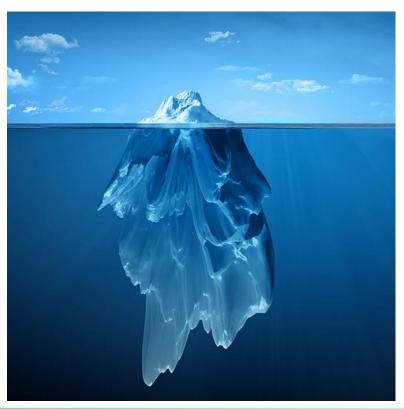
- missing or incomplete national definitions (e.g. for weather conditions)
- different definitions in different countries (e.g. for road types)



RICA Limitations for International Comparisons of Road Accident Data (2/3)

<u>Underreporting</u>

- Issue of general concern in Africa
- Affects the degree to which the statistical output of a country's data system reveals the actual situation of road safety
- Road accident databases linking Police and hospital data may serve as a potential solution



FRICA Limitations for International Comparisons of Road Accident Data (3/3)

Additional inaccuracies

- Conditions under which the primary information is collected by the police officer
- The way this information is filled-in later on
- Inadequate training of the Police
 collecting the information

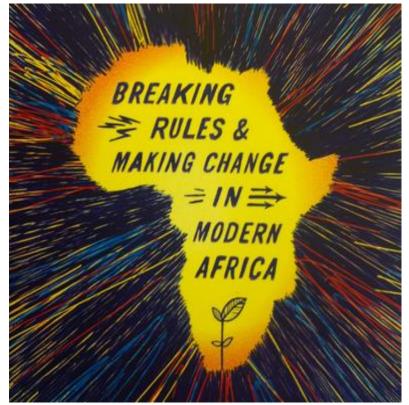


Establishment of Common Rules for Africa

- Based on recommendations from relevant international projects (e.g. CARE system)
 - data structure, definitions and formats for the most common variables in road safety analyses can be used as a **basis for the development of an African common data set**
- However,

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- changes in definitions and values of existing data elements should be minimized
- in case of such changes, the date of change should be clearly noted in official records



Accident Data Collection Process

Police reports

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- key role in the accident data collection process
- responsible for **providing the authorities** with the collected data
- main tool: accident data collection form with clear instructions on
 - filling process
 - data transmission process to the national data file
- Hospital data
 - necessity for clear guidelines on the collection and coding of variables to be included in Hospital data
 - identifiers should match hospital and police data
- In-depth accident investigations
 - high level of detail about each accident and how this can be related to a number of outcomes
 - aimed at the cause of the accident, not who was to blame



Accident Data Collection Priorities

- Common road accident database in a uniform format
 - continuously updated (compatible comparable data)
 - allowing for more reliable analyses and assessments across the African countries
- Selection criteria for defining minimum data elements
 - data elements values useful for road accident analysis at both national and international level
 - level of detail of the variables values corresponds to all data useful for macroscopic data analysis
 - data elements values comprehensive and concise
 - data difficult to collect should not be included
 - all variables and values refer to casualty road accident
 - Data structure to follow the structure proposed in the WHO (2011) manual



AFRICA Proposed Data Structure of the Common Road Accident Data Set

Accident related variables		Road related variables		Vehicle related variables		Person related variables	
1 st priority	2 nd priority	1 st priority	2 nd priority	1 st priority	2 nd priority	1 st priority	2 nd priority
Accident ID	Impact type	Type of roadway	Speed limit	Vehicle number	Engine size	Date of birth	Person ID
Accident date		Road functional class	Road obstacles	Vehicle type	Vehicle special function	Gender	Occupant's vehicle number
Accident time		Junction	Road surface conditions	Vehicle make		Type of road user	Pedestrian's linked vehicle number
Accident region - municipality			Traffic control at junction	Vehicle model		Seating position	Safety equipment
Accident location			Road curve	Vehicle model year		Injury severity	Pedestrian manoeuvre
Accident type			Road segment grade	Vehicle manoeuvre		Driving licence issue date	Alcohol use suspected
Weather conditions						Age	Alcohol test
Light conditions							Drug use
Accident severity							



Implementation Roadmap

General

- Establishment of capacity at the authorities
- Summary sampling and costing
- Adopt **standard data definitions** and collection processes
- Dedicated **budget**
- Formation of **Pan-African coordinate organization**

<u>SaferAfrica</u>

- Recommendations to be rapidly conversed to the involved local African authorities through a **network of national experts**
- SaferAfrica coordinator in charge
- Steps
 - identify data set needed as well as costs
 - secure funding
 - carry out regular data collection
 process (data base) and analyse



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