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**THE 6TH IRTAD CONFERENCE**

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# An Overview of Road Safety Statistics in Africa

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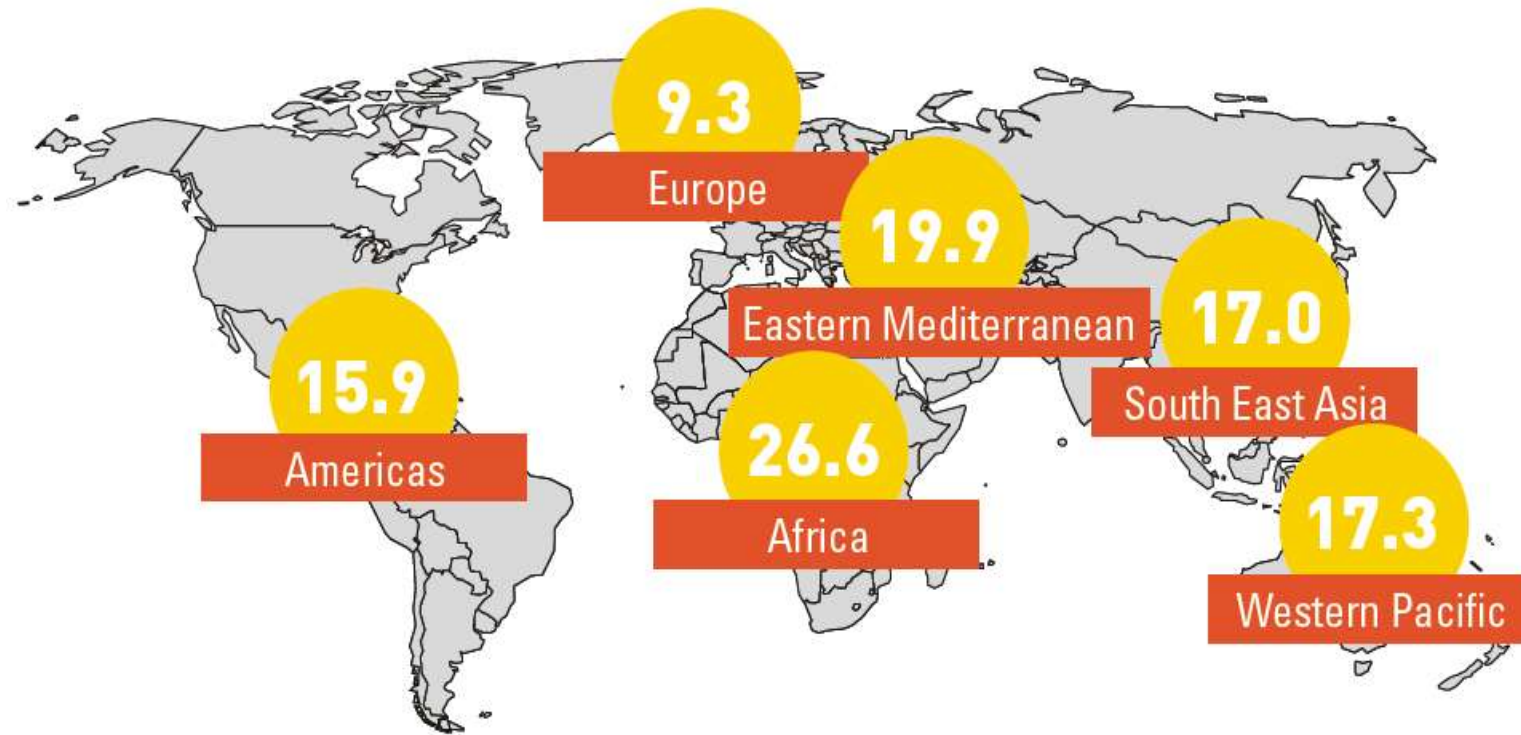
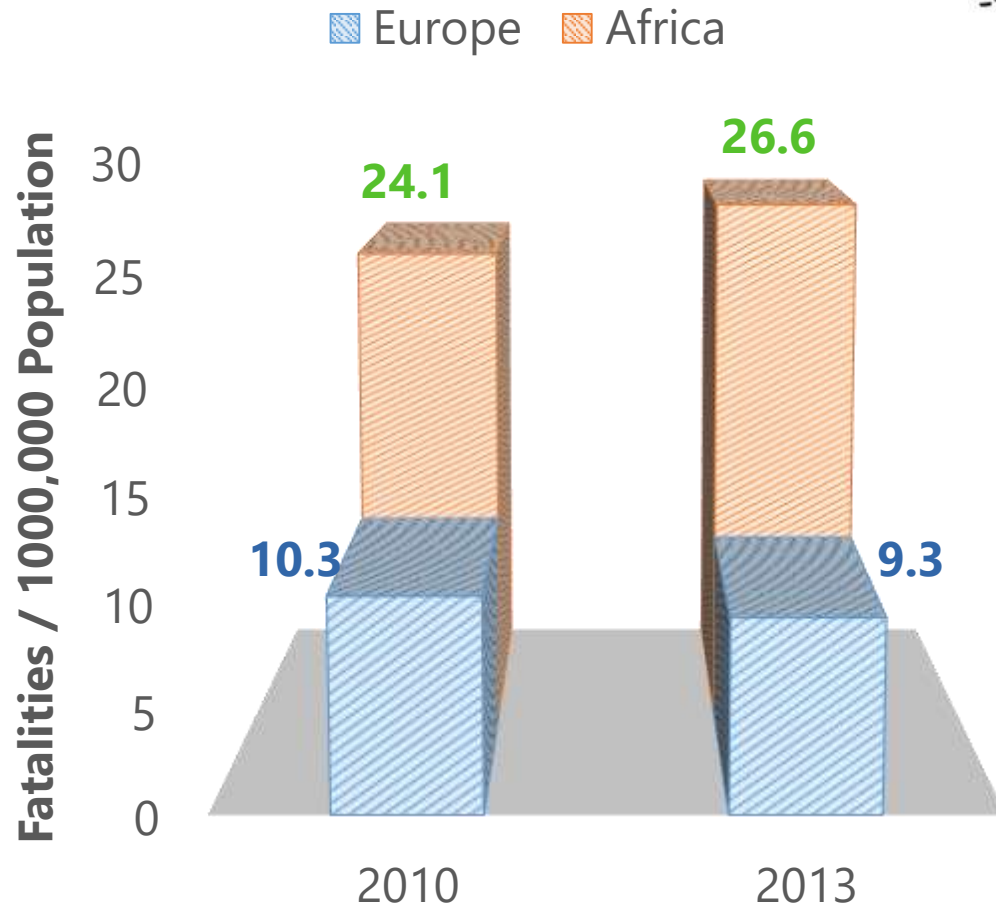


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# Road Safety in Africa

- Road traffic fatality rates per 100,000 population (WHO 2015)



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

# 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:**  
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**

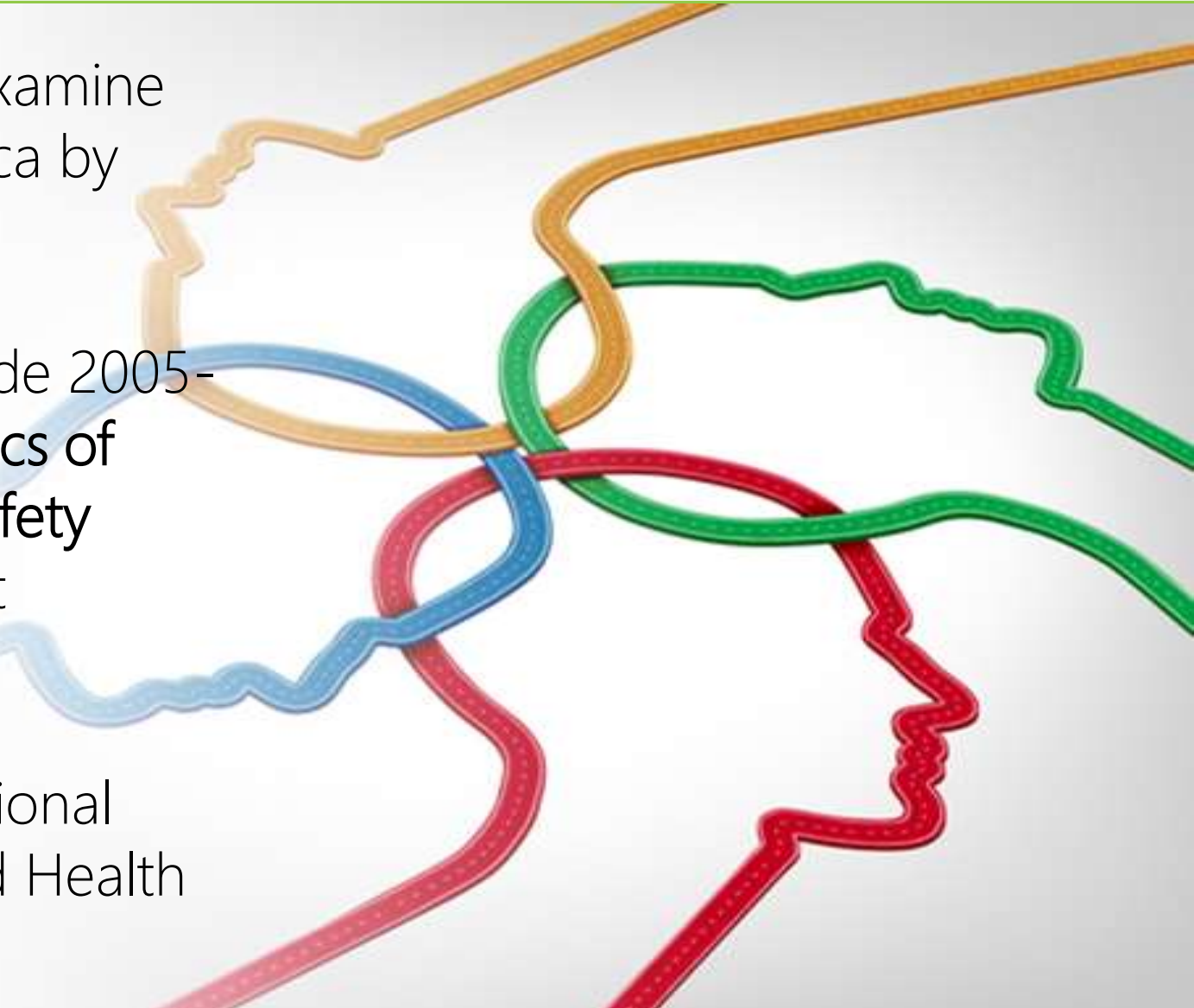


Partner		Country
1	CTL	Italy
2	NTUA	Greece
3	IBSR	Belgium
4	IRF	Switzerland
5	IFSTTAR	France
6	LOUGH	UK
7	LNEC	Portugal
8	SWOV	Netherlands
9	SITRASS	France
10	APRE	Italy
11	SAFER	Sweden
12	ENSTP	Cameroon
13	HI	Belgium
14	OCAL	Benin
15	ICI	Burkina Faso
16	CITA	Belgium



# Objective - Methodology

- The **objective** of this research is to examine the road safety phenomenon in Africa by presenting basic road safety facts.
- **Road accident fatalities** for the decade 2005-2014, as well as data on **characteristics of road network, exposure and road safety performance indicators** for the latest available year have been collected.
- The **international databases** International Road Federation (IRF) and the World Health Organisation (WHO) were used.



# Road Safety Data in African Countries

- There is a serious lack of road safety data in African countries.
- Only a few countries have full-time series of fatality data.
- Little information exists concerning data collection systems, data definitions, etc.



# Road fatality data in Africa - WHO

- Three types of fatality data are included in the WHO reports:
  - 1) Reported numbers of road deaths
  - 2) Reported numbers of road deaths adjusted to 30-days definition
  - 3) Estimated number of road deaths based on statistical modelling
- In the **GHO database** there are available data only for 2013.
- Data on the number of road fatalities for 2010 and 2007 are available in the **published WHO reports**.
- **43 out of 47 African countries** have participated in the last WHO report (2015).
- **Different road fatality definitions** are used by African authorities, according to WHO report.

Definitions used by African Authorities	Number of African countries
at crash scene	6
24 hours	1
48 hours	2
7 days	4
30 days	24
1 year	4
unlimited time period	5
no definition	1

# Road fatality rates in Africa

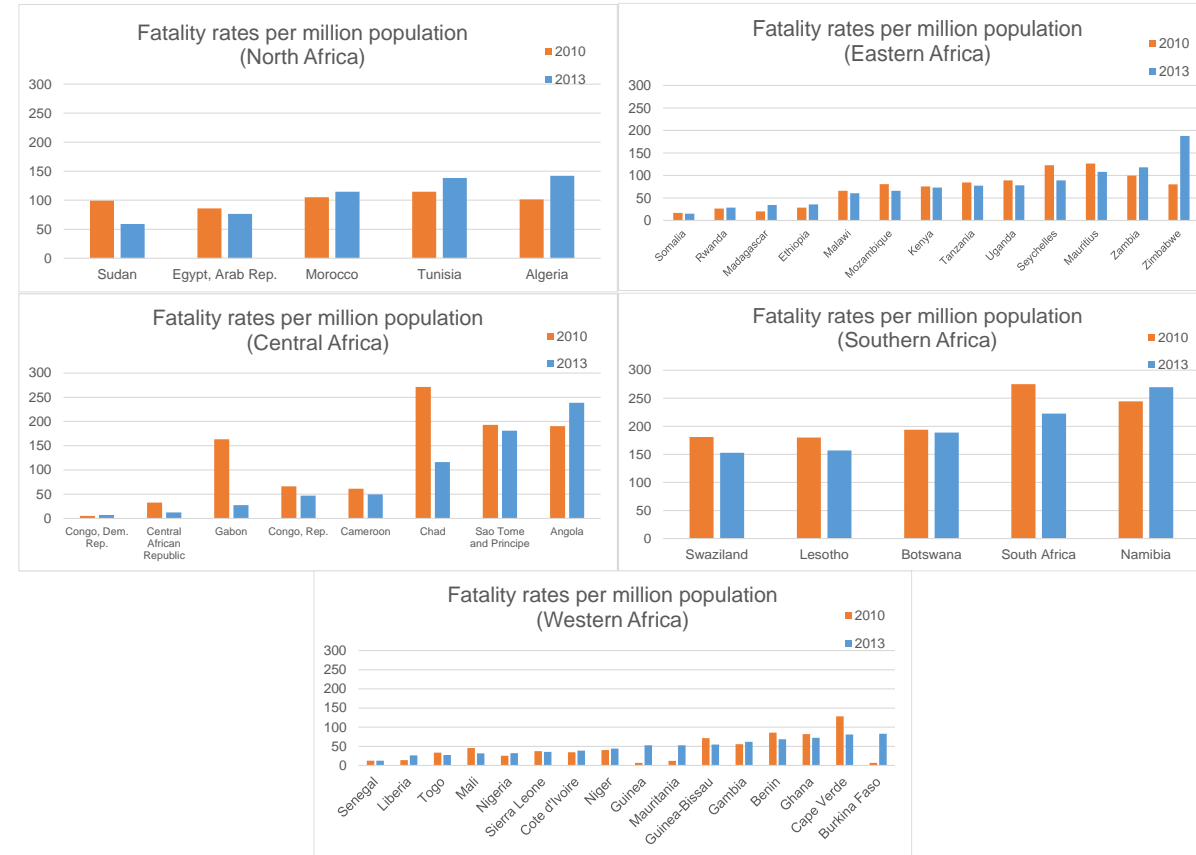


- The estimated number of fatalities is much higher than the respective reported number in almost all countries.
- For Angola, Botswana, Egypt, Libya, Mauritius, Seychelles and South Africa the estimated number of fatalities is close to the reported one.
- For the remaining countries, the estimation of WHO is from about 2 to 13 times higher than the reported number of fatalities.
- These differences affect the ranking of the countries concerning their road safety performance in terms of road safety outcomes.



# Road fatality rates in African regions

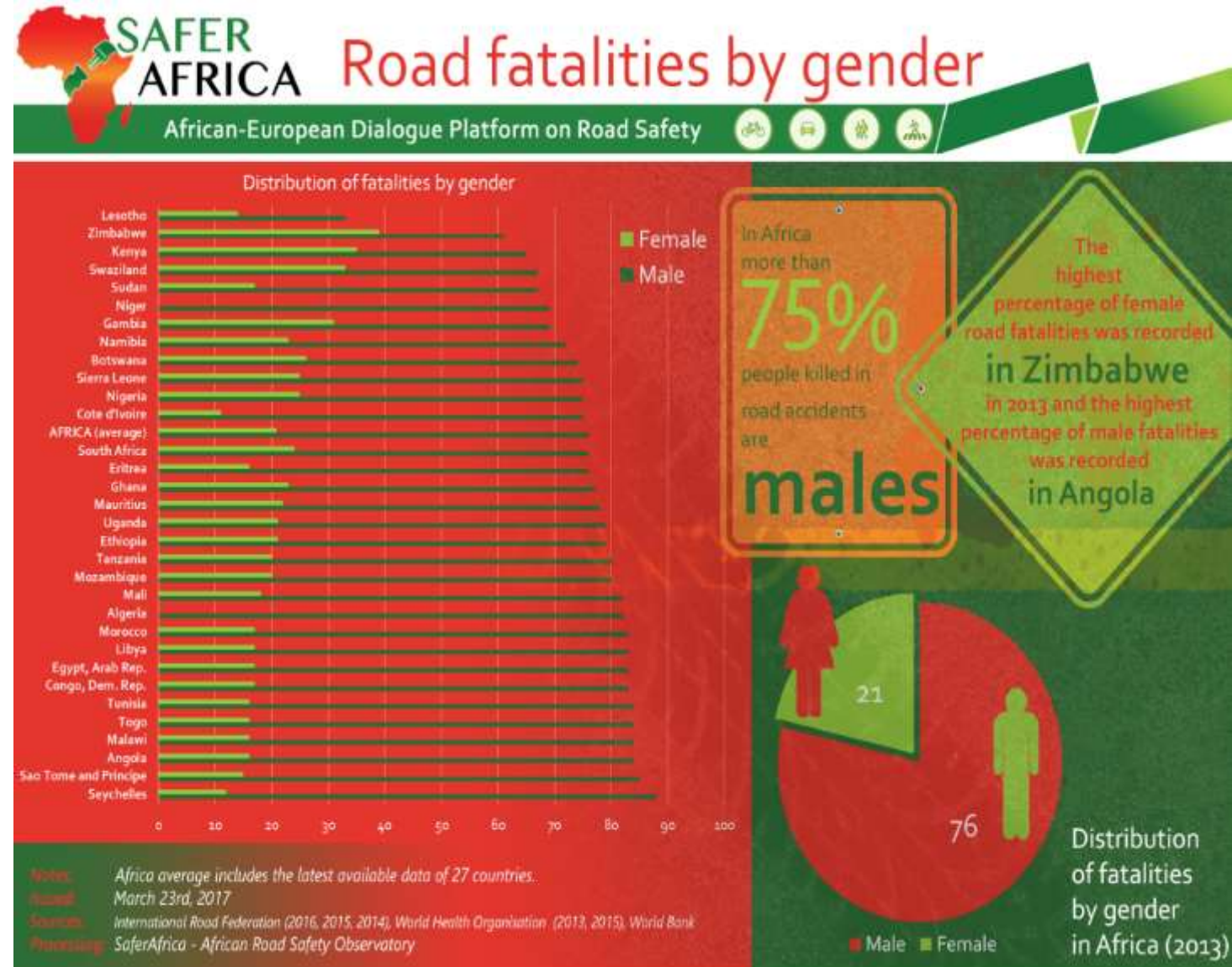
- In **North Africa**, the fatality rates in 2013 ranged between 59 killed persons per million population in Sudan and 142 killed persons per million population in Algeria.
- In **Eastern Africa**, the lowest fatality rate was recorded in Somalia (15 fatalities per million population) and the highest fatality rate in Zimbabwe (188 fatalities per million population).
- In **Central Africa**, the fatality rates range between 7 killed persons per million population in the Democratic Republic of Congo and 238 killed persons per million population in Angola.
- In **Southern Africa**, the range of the fatality rates is smaller compared to the other regions (153 in Swaziland and 270 in Namibia).
- In **Western Africa**, the lowest fatality rate was recorded in Senegal (12 killed persons per million population) and the highest was recorded in Burkina Faso (83 killed persons per million population).





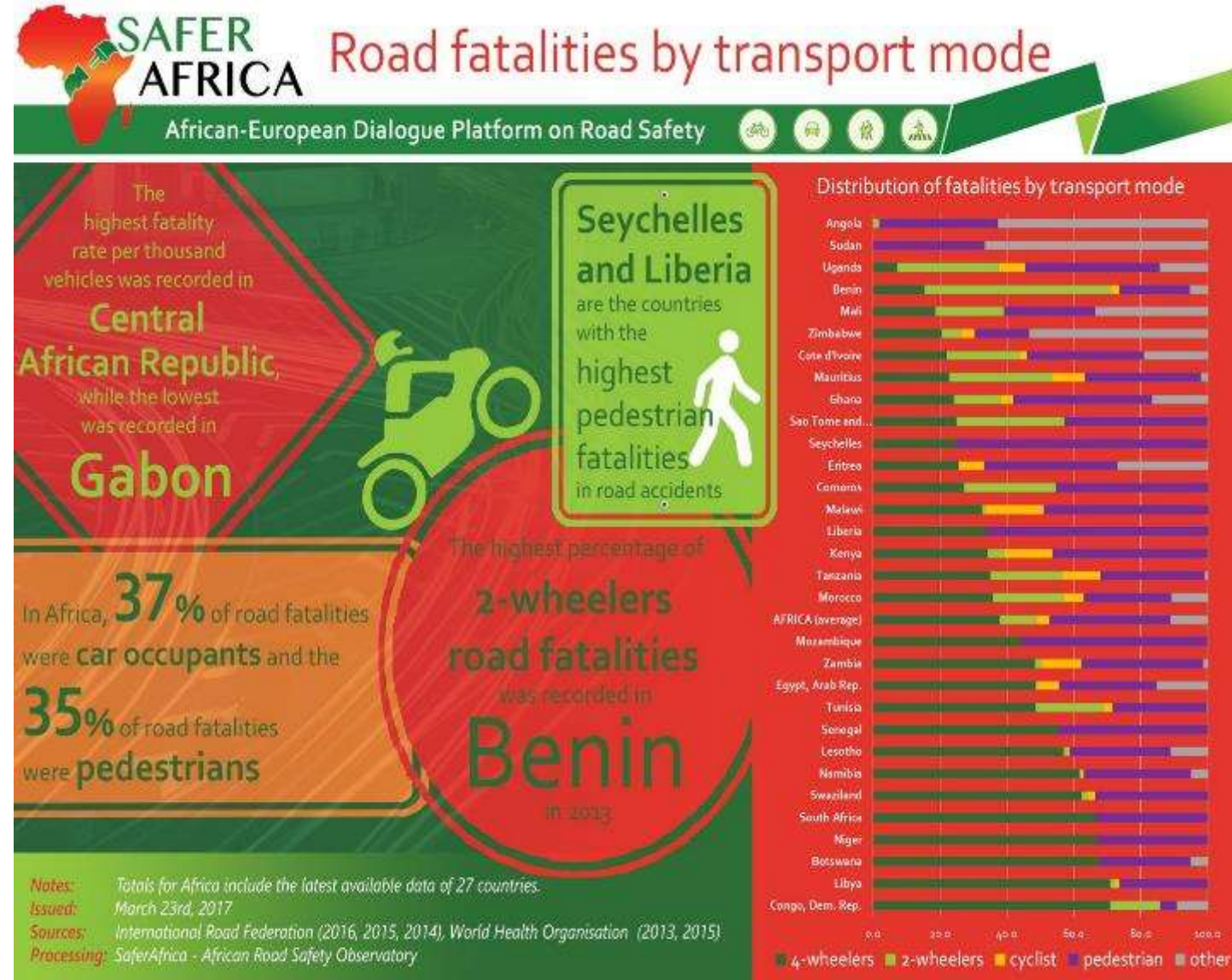
# Road fatalities by gender in Africa

- 30 countries have provided WHO with fatality data by gender.
- 76% of the fatalities were male and 21% of the fatalities were female in Africa.
- In 12 countries, the percentage of male fatalities was higher than 80%.
- Algeria and Niger have not provided data on female fatalities.



# Road fatalities by transport mode in Africa

- Data from **31 countries**
- 37% of people killed in road accidents were travelling by **4-wheeled vehicles**.
- 35% of fatalities in 2013 concerned **pedestrians**.
- 11% of fatalities were **2-wheelers' riders**.
- The highest percentages of pedestrian fatalities were recorded in **Liberia (66%), Mozambique (56%) and Malawi (49%)**.
- The **Democratic Republic of Congo and Libya** had the most 4-wheelers fatalities, while in **Uganda** only 7% of killed persons were travelling by 4-wheeled vehicles.





# Road fatality data in Africa - IRF

- Data published in IRF are those **reported by the national sources**, which use different definitions.
- Only 6 countries, i.e. Botswana, Egypt, Kenya, Mauritius, Morocco and South Africa, have provided the IRF with road accident **data for the whole period 2000-2014**.
- For 11 countries, there are **no accident data** or they are not participating in the surveys.
- 12 countries have **more than 60% availability** of road accident data over this period, ranging from 93% in Ghana and 67% in Algeria, Cameroon and Guinea.
- However, **this is not the case for all road accident indicators**, e.g. data may be available for a country for a specific year on the number of injury accidents but not on the number of killed or injured persons.

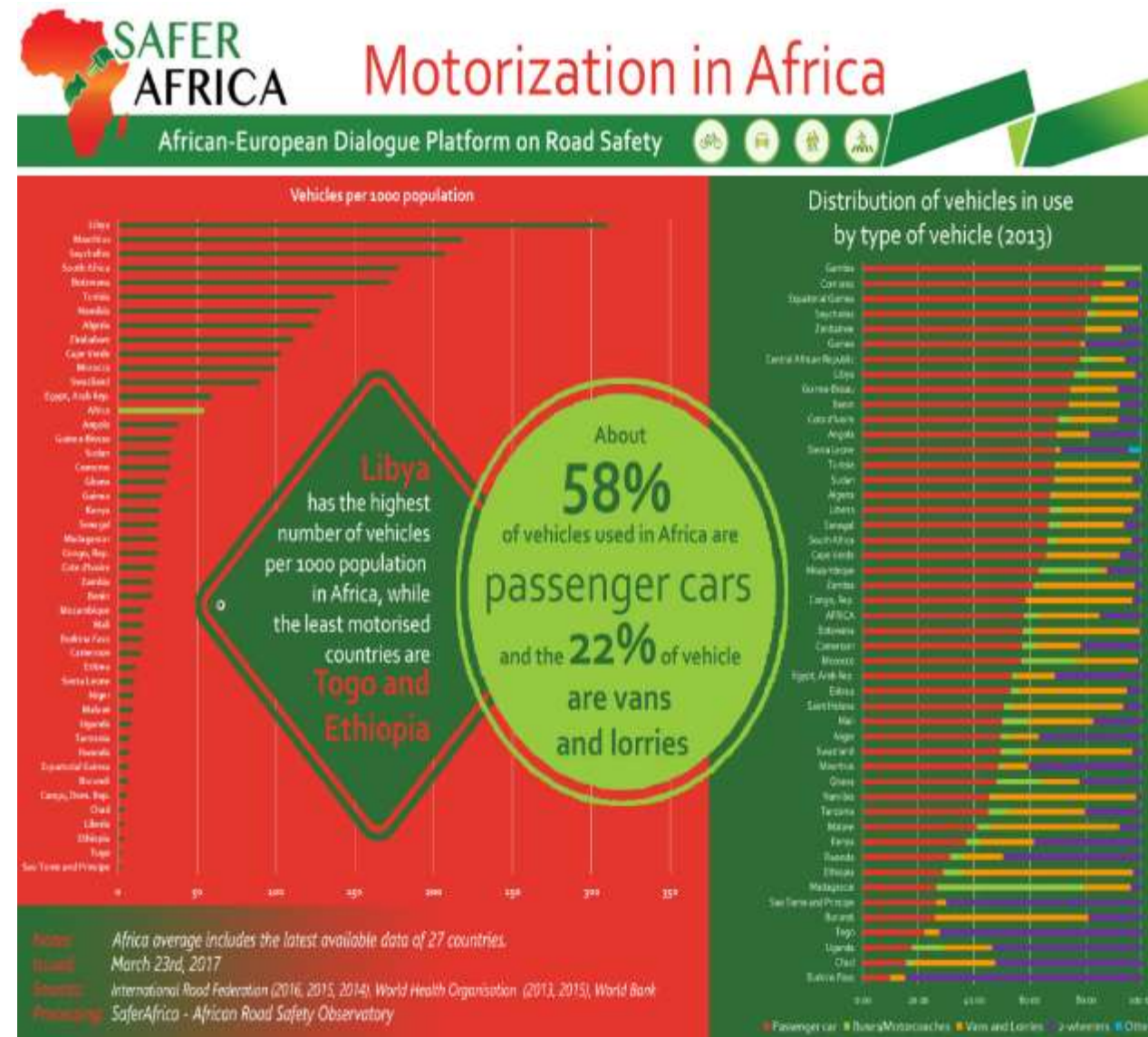
Availability of road accident data by country and year in the IRF database

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Algeria															
Angola															
Benin															
Botswana															
Burkina Faso															
Burundi															
Cameroon															
Cape Verde															
Centr. Afr. Republic															
Chad															
Comoros															
Congo, D.R.															
Congo, Rep.															
Cote d'Ivoire															
Djibouti															
Egypt, Ar. R.															
Equatorial Guinea															
Eritrea															
Ethiopia															
Gabon															
Gambia															
Ghana															
Guinea															
Guinea-Bissau															
Kenya															
Lesotho															
Liberia															
Libya															
Madagascar															
Malawi															
Mali															
Mauritania															
Mauritius															
Morocco															
Mozambique															
Namibia															
Niger															
Nigeria															
Rwanda															
Sao Tome & Principe															
Senegal															
Seychelles															
Sierra Leone															
Somalia															
South Africa															
South Sudan															
Sudan															
Swaziland															
Tanzania															
Togo															
Tunisia															
Uganda															
Zambia															
Zimbabwe															

Source: <http://worldroadstatistics.org/index.html>

# Motorization in Africa

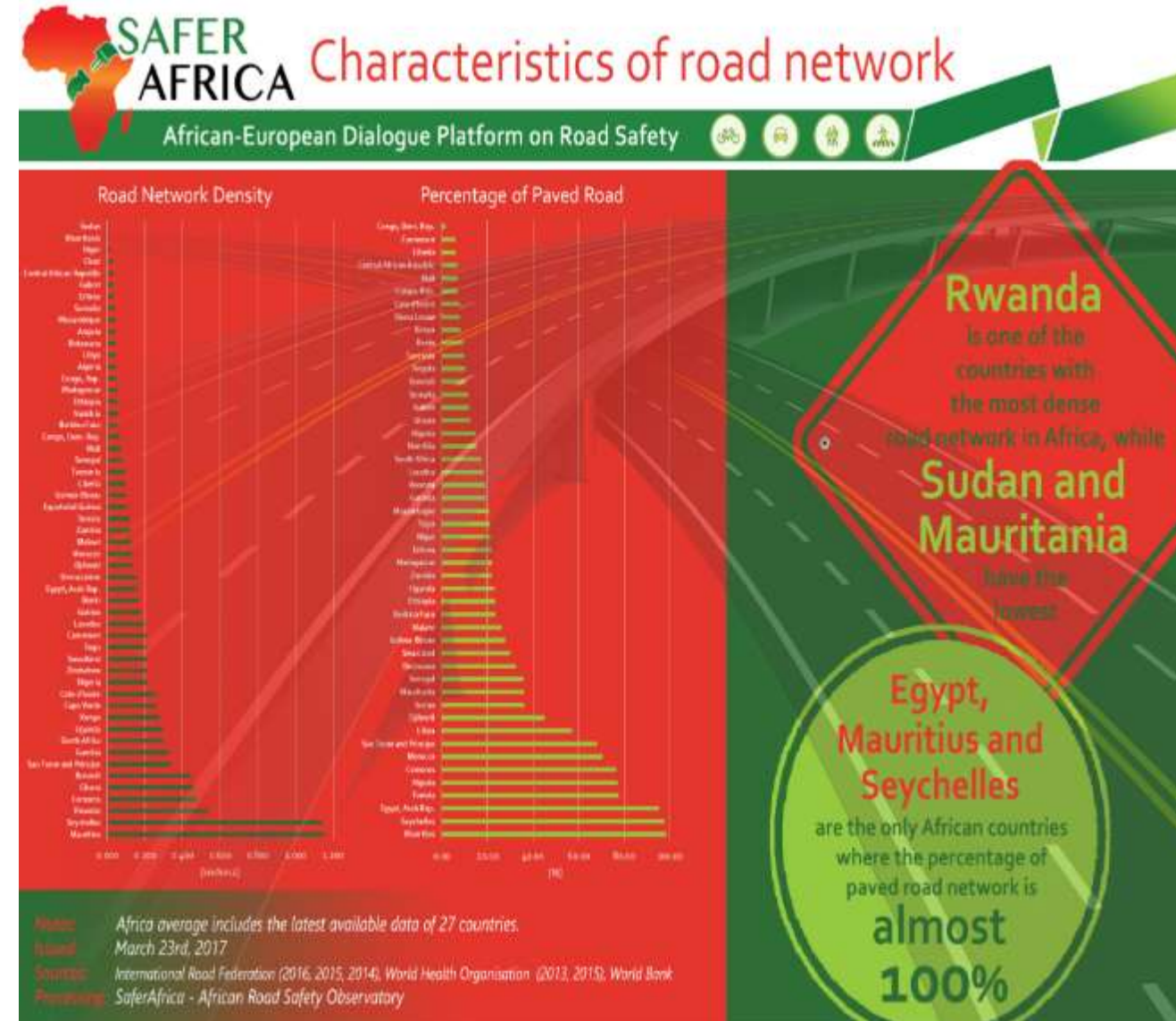
- Data on number of vehicles by type of vehicle in African countries come mainly from the **IRF database**.
- The latest available data have been used for each country.
- **32 out of 45 countries** have a vehicle rate lower than the average African rate.
- Libya is the country with the **highest vehicle rate** (310 vehicles per 1000 population), followed by Seychelles, Mauritius and South Africa.
- The countries with the **fewest vehicles per population** are Sao Tome and Principe, Togo, Ethiopia and Liberia.
- 58% of vehicles in Africa are **passenger cars** and 22% are vans and lorries.
- The **motorized two-wheelers** constitute 15% of the total vehicle fleet.
- Gambia is the country with the highest percentage of passenger cars, while in Burkina Faso most vehicles in use are motorized two-wheelers.





# Road network characteristics in Africa

- Data come from IRF database.
- For each country, data for the **latest available year** have been collected with the most common year being 2000.
- Only **19 countries** have provided IRF with data referring to 2010 and later.
- Among the large countries, Sudan, Mauritania and Niger have the **lowest road network density**.
- South Africa, Kenya and Nigeria have the **densest road network**.
- Egypt, Tunisia and Algeria have the **highest percentages of paved roads**.
- The Democratic Republic of Congo has the **lowest percentage of paved roads**.



# Road safety performance indicators in Africa

- Data come from WHO database.
- Disaggregate rates may not refer to the same year nor come from the same source.
- 16 countries have only data on the use of seat-belts for drivers and for the front seats in general.
- Total use rates and use rates for rear occupants are available only for 9 and 7 countries respectively.
- As far as the use of a helmet is concerned, only 16 countries have provided the related data.
- In Eritrea, Seychelles, Swaziland, South Africa and Botswana the helmet use rates for drivers are above 90%.





# Conclusions

- Significant differences regarding **data availability and collection** exist between African countries.
- Only **few countries have full time series of road fatality data** and especially for the latest available decade 2005-2014, only 21 African countries have available data for more than 5 years.
- A reliable comparison of the safety performance of the countries based on the fatality rates is not possible, due to **different definitions** used by country.
- The greatest lack in data concerns risk **exposure and safety performance indicators**.
- Reported and estimated fatality rates by WHO highlight the **under-reporting issues**.
- Great attention has to be given when **using international databases in a complementary way**.
- The results of this research will allow to **understand the road safety problem in the African region** and identify the data needs and limitations.



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