

**WP on Transport Statistics  
Geneva, June 2019**



**International Road Federation  
Fédération Routière Internationale  
Federación Internacional de Carreteras**

# **IRF World Road Statistics**

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**Data and Programme Manager**

# The International Road Federation

**Global, Independent, Not-for-profit Organisation**

Established in **1948**. Based in **Geneva**, Switzerland.

UN ECOSOC status since 1951.

Assisting **public** and **private** stakeholders in Roads & Mobility sector for the past **70 years** with:

## 3 Strategic Pillars of Activities

1. Knowledge
2. Connections
3. Advocacy



**Members & Partners**  
in more than  
**90 countries**



[www.irfnet.ch](http://www.irfnet.ch)

# Thematic Streams



# IRF Work: Examples

TOOLS

**RADaR**

Accident Data Recorder

TRAINING  
COURSES



UNIVERSITY OF  
BIRMINGHAM

Road Safety Management  
Road Safety Audits  
Data Collection & Management

PROJECTS  
& DATA



IRF GLOBAL  
ROAD  
DATAWAREHOUSE



KNOWLEDGE  
PLATFORM



Hosting UNRSC resources

# GTKP Website and Knowledge Centre

The screenshot shows the gTKP website interface. At the top, there are social media links for Facebook (Like 1.1K), Twitter (Follow @irfgtkp), and LinkedIn. The main navigation bar includes Home, About, Themes, Knowledge Center, IRF Proceedings, and Contact. A sidebar on the left lists various themes, with a red circle highlighting the entire list. The main content area features a welcome message from the International Road Federation (IRF) and a registration form titled 'Register, it's Free!'. Below the registration form is a section for 'Latest additions to the library' with a table of recent publications. A 'Global Plan for Decade of Action' section is also visible, with a red circle highlighting it. The bottom of the page includes a 'Registered User Login' form and a 'Search Knowledge Center' box.

gTKP global Transport Knowledge Practice powered by IRF

Home About Themes Knowledge Center IRF Proceedings Contact

Environment & Climate Change  
Finances & Economics  
Governance  
Intelligent Transport Systems  
Road Safety  
Rural Transport  
Social Development  
Trade & Transport  
Urban Mobility

Registered User Login

Email or Username  
Password Login

Register now  
Forgot password  
Troubles? Contact us

Search Knowledge Center

Enter keyword here (Required)  
Select related theme

IRF INTERNATIONAL ROAD FEDERATION  
FEDERATION ROUTIERE INTERNATIONALE

Welcome to the global Transport Knowledge Resource Centre!

The global Transport Knowledge Practice (gTKP) is a comprehensive resource centre that features the latest, state-of-the-art information on road infrastructure and transport. Case studies, research papers, publications, reports, presentations – it's all at your fingertips! [Read more](#)

Register, it's Free!

As a member, you have access to all documents in the library. You can also submit your own documents.

Firstname Lastname  
Your e-mail address  
Register

Latest additions to the library

03 Apr 2019 Sustainable and Safe: A Vision and Gu...	21 Sep 2018 SLOPE PROTECTION WORKS FOR A
03 Apr 2019 Global Status Report on Road Safety 2...	21 Sep 2018 Innovative and cost-effective metho...
21 Sep 2018 SAFER ROADS-A WAY TOWARDS EC...	20 Sep 2018 GEOSYNTHETIC APPLICATIONS IN PA...
21 Sep 2018 DESIGN AND CONSTRUCTION OF RO...	20 Sep 2018 MODERN TRENDS IN SELECTION AND...
21 Sep 2018 Design of Geogrid reinforcement and ...	17 Sep 2018 DEM SIMULATIONS OF PUNCH TEST ...

Most popular

15 Mar 2018 Global Status Report on Road Safety 2...	28 Dec 2009 Road Funds and Road Maintenance
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Global Plan for Decade of Action

PILLARS

- 1 Road Safety Management
- 2 Safer Roads and Mobility
- 3 Safer Vehicles
- 4 Safer Road Users
- 5 Post-crash Response

- 9 Themes
- 270 searchable pages
- 2.300 documents
- ≈ 7.000 Subscribers
- Multiple languages
- Free access

[www.gtkp.com](http://www.gtkp.com)



[www.irfnet.ch](http://www.irfnet.ch)



“Without data  
you’re just  
another person  
with an opinion.”

- W. Edwards Deming,  
Data Scientist

# IRF World Road Statistics



Road Networks



Country Profiles



Production, Import, First  
Registration & Export of  
Motor Vehicles



Road Traffic  
Volumes



Road Accidents



Multimodal Traffic  
Comparisons



Vehicles in Use



Road Expenditures  
& Revenues

[www.worldroadstatistics.org](http://www.worldroadstatistics.org)



# World Road Statistics

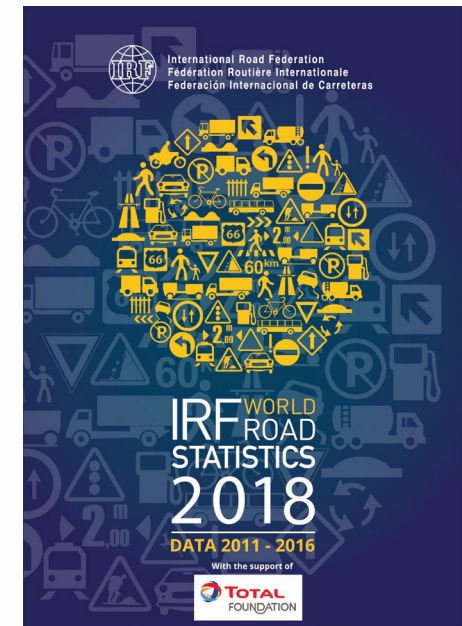
- Edited yearly since 1964 (**55 years**)
- More than **205 countries, 45 indicators**, 9 sections
- Data collected from **primary statistical sources** (Ministries, Road Authorities, National Statistical Offices)
- **Definitions** based on the **Glossary of Transport Statistics** (ITF/EUROSTAT/UNECE) and The World Bank
- Data used by Governments, Investment & Development Banks, Public & Private Companies, Research Institutes & Universities, NGOs, International Organizations, etc.





# WRS – Methodology

- **Annual survey** via questionnaire in three languages (English, French and Spanish) covering the past 6 years
- The collected data is **complemented by national statistics** from secondary sources such as **official yearbooks**
- Data is **verified** (comparison with other sources, reconciliation of definitions / units of measurements, etc.)



# WRS – Example Indicators

## Road Network

- Total length of road network (Km)
- Percentage of paved road
- Density of total road network (Km/Km<sup>2</sup>)

## Road Traffic

- Annual traffic volume per vehicle category (Mio Veh-Km)
- Annual traffic volume per road network (Mio Veh-Km)

## Multimodal Traffic Comparisons

- Inland surface freight transport per mode (Mio T-Km)
- Inland surface passenger transport per mode (Mio P-Km)

## Vehicles in Use

- Vehicles in use per category (n)
- Passenger cars per 1,000 people (n/1,000 pop)
- Vehicles per km of road (n/Km)

# WRS – Example Indicators

## Road Accidents

- Persons killed in road accidents per 100,000 people
- Injury accidents per 100 Mio Veh-Km
- Number of persons killed (n) by road network

## Production, Imports, 1<sup>st</sup> Registrations and Exports of Motor Vehicles

- Number of vehicles produced, imported (new & used), 1st Registered and exported (new & used) per vehicle category

## Road Expenditures & Revenues

- Total road expenditure per administrative level (Mio USD)
- Total road expenditure per category (Mio USD)
- Total Road Revenue per category (Mio USD)

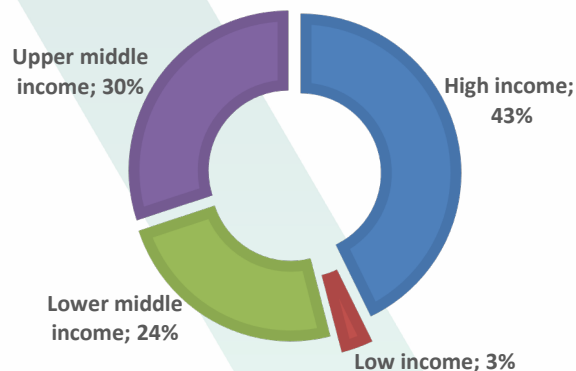
## Energy

- Diesel prices (USD cents per litre)
- Super gasoline prices (USD cents per litre)

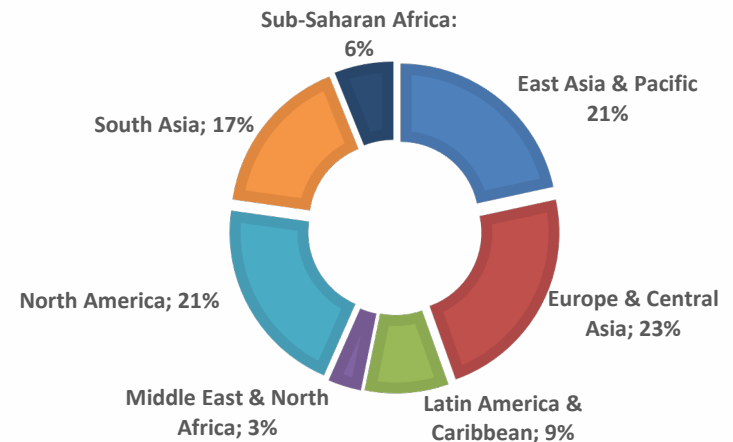
# Global Road Network

- **High income countries** account for **43% of global road network** while **low income countries** only account for **3%**.
- **The EU** accounts for **16% of global road network**, whilst only encompassing **3% of global land mass (1.37km/km<sup>2</sup>)**.
- In stark contrast, **sub-Saharan Africa** constitutes only **6% of global road network**, whilst representing around **18% of global land mass (0.10km/km<sup>2</sup>)**.

**TOTAL ROAD NETWORK DISTRIBUTION BY INCOME GROUPS (%)**



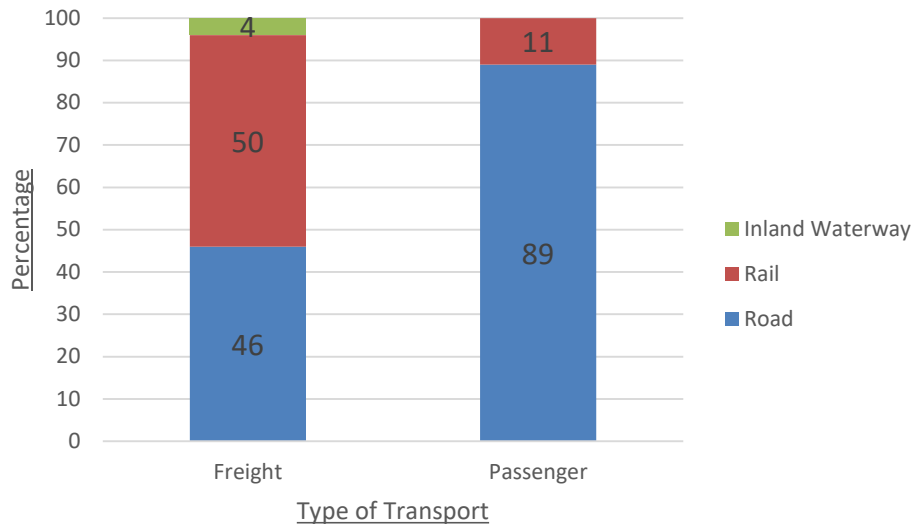
**TOTAL ROAD NETWORK DISTRIBUTION BY REGIONS (%)**



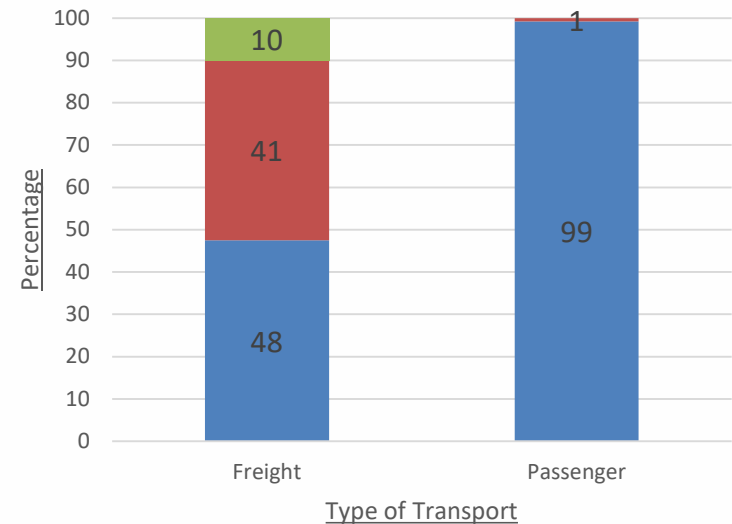
# Multimodal Traffic

- **Freight transport** is almost evenly split between road and rail in both Europe/ Central Asia and North America.
- **Passenger transport** in these regions is **essentially all by road** with 89% of passengers travelling by road in Europe/ Central Asia and 99% in North America.

Freight (Mio Ton-Km) vs. Passenger (Mio Pass-Km) Transport (%) in Europe/ Central Asia

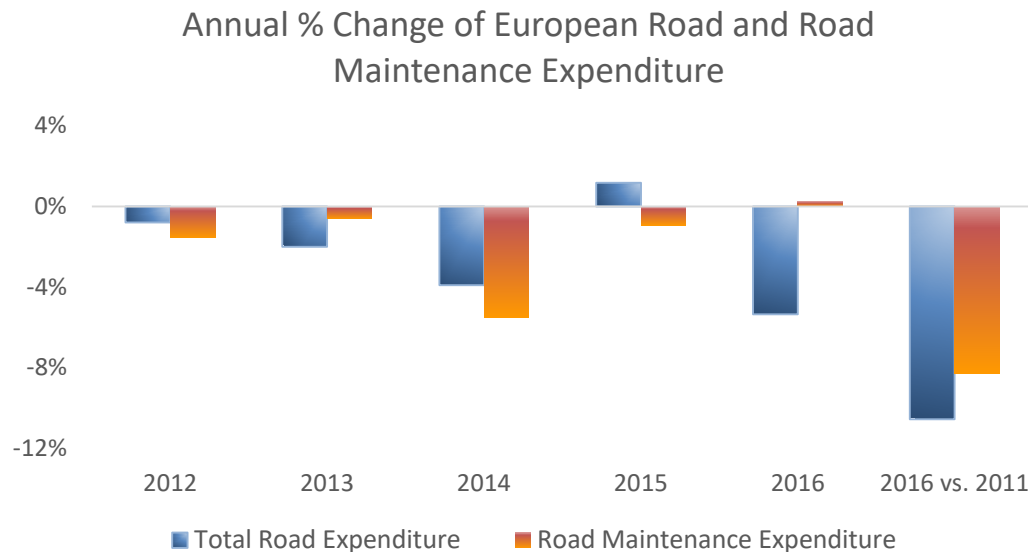


Freight (Mio Ton-Km) vs. Passenger (Mio Pass-Km) Transport (%) in North America




# European Road Expenditure

- **Total European road expenditure** (investments, maintenance and other costs) in **2016 decreased by 11% vs. 2011**, driven by a significant expenditure decline in Spain and France, partially offset by an increase in UK spending.
- **European road maintenance expenditure in 2016 decreased by 8% vs. 2011**, primarily driven by decreased spending in UK and France.
  - Interesting to highlight that the UK shows a decrease in road maintenance expenditure whilst total road expenditure is increasing. There was a clear focus on new road investments during the 2011-2016 period, with UK road investments being almost double their road maintenance expenditure.



# IRF Global Road Data Warehouse

- Project supported by  **TOTAL**  
FOUNDATION
- Multifunction on-line data platform
- IRF datasets + Dashboards (by country / region)
- Capacity to integrate additional datasets from other sources. Opportunity to collaborate.



# Dashboard Example - Morocco

World Road Statistics - Africa Road Safety Dashboard (All data is reported directly from official sources)

## Morocco

Killed persons in road accidents per 100,000 population



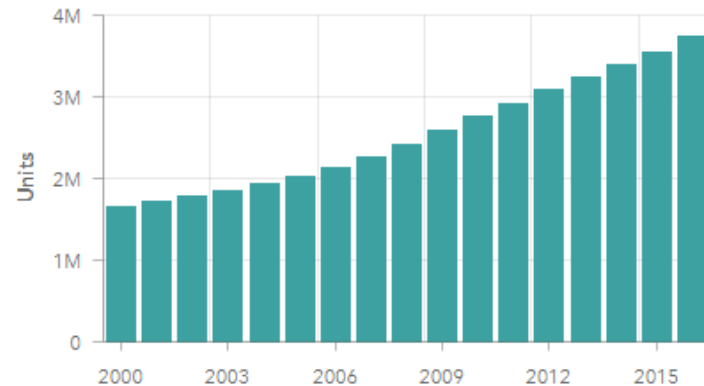
Most recent year 2016

Injury accidents per 100,000 population

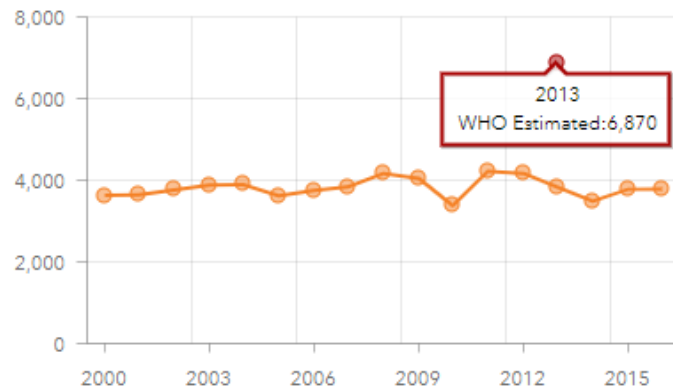


Most recent year 2016

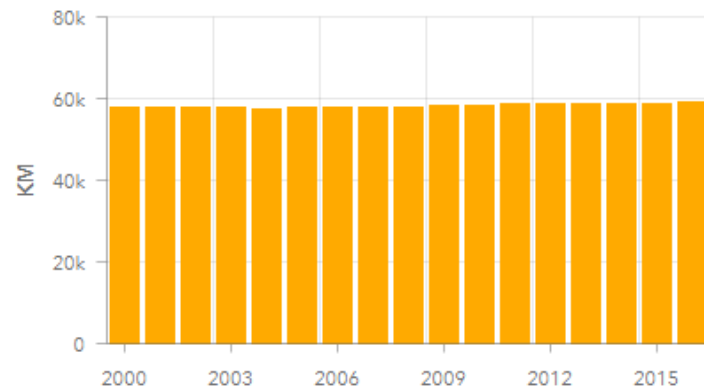
## Total Vehicles



## Persons killed in road accidents



## Total Network Length

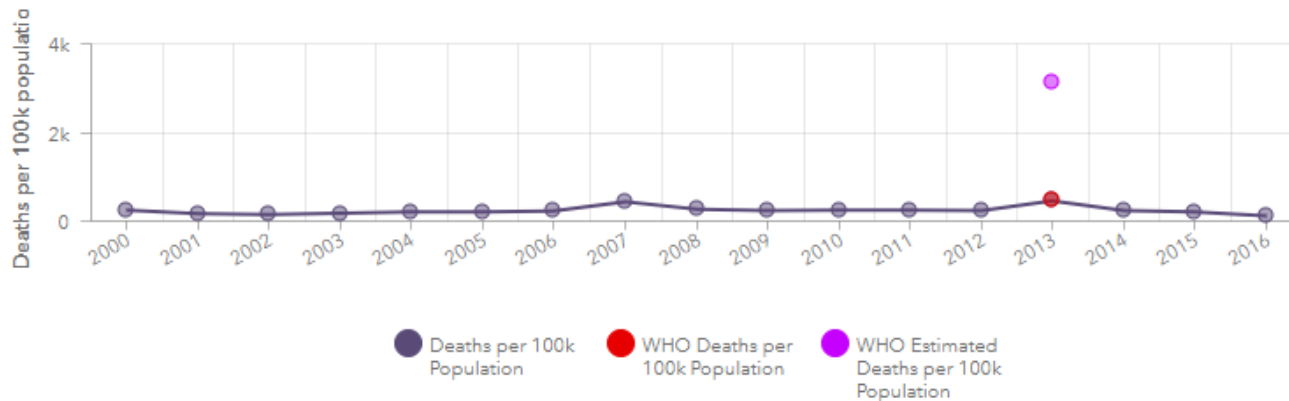


# Dashboard Example - Africa

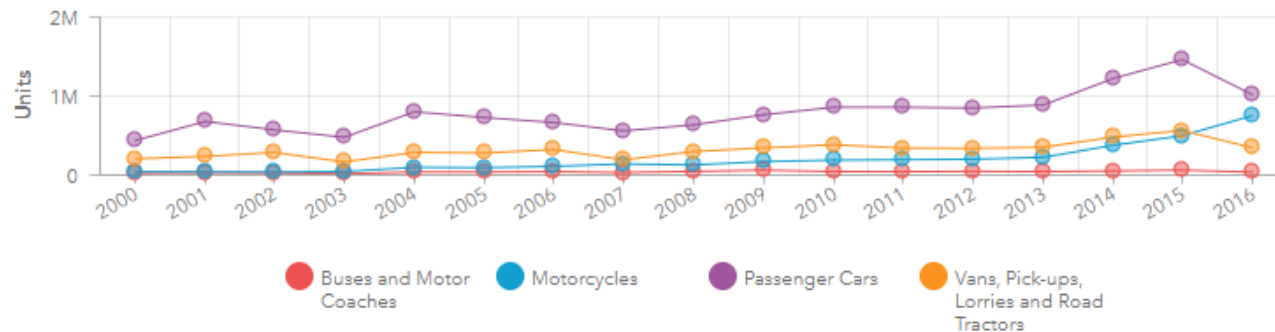
## World Road Statistics - Africa Dashboard

(All data is reported directly from official sources)

### Road Traffic Death Rates - IRF & WHO



### Vehicles in Use





**Thank you!**

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**[www.irfnet.ch](http://www.irfnet.ch)**