**Nigeria Road Traffic Crashes (2020–2022)**  
Road crashes are defined as incidents involving vehicles on roadways that result in damage, injury, or death. This report presents a comprehensive analysis of road crashes in Nigeria over a four-year period (2020–2023). It examines various contributing factors, including drug or alcohol use, driver fatigue, adverse weather conditions, and speed violations.

**Data Preparation and Methodology**  
The dataset used for this analysis was thoroughly checked for blanks and inconsistencies. While no missing values were found, some column headers were coded and required decoding through external research. Additionally, the Other Factors column contained negative values which were corrected.

The majority of data cleaning was done using Microsoft Excel. Visualization was carried out in Power BI. It was observed that most columns were independent, and as such, visualizations were structured around state-wise and quarterly distributions to uncover geographic and temporal patterns.

**Key Findings**

Total Records (2020–2022):  
Crashes: 43,000  
Vehicles Involved: 52,000  
Casualties: 148,000  
Deaths: 21,000  
Injuries: 127,000

**Contributing Factors:**  
 Speed Violation: 20,000  
 Fatigue: 12,000  
 Poor Weather: 184  
 Drug/Alcohol: 73  
 Other Factors: 25,000

**Casualty and Mortality Statistics by State**

- Total Casualties: Kaduna (13,506), Ogun (10,113), FCT (9,892), Niger (8,488), Nasarawa (8,146)  
- Total Killed: Kaduna (2,242), Ogun (1,400), Niger (1,356), Bauchi (1,155), FCT (1,087)  
- Total Injured: Kaduna (11,264), FCT (8,805), Ogun (8,713), Nasarawa (7,401), Niger (7,132)

**Top 5 States by Factor**

- Poor Weather Conditions: Niger (64), Oyo (22), Kaduna (19), FCT (12), Lagos (11)  
- Drug/Alcohol: Lagos & Nasarawa (9), Ekiti & FCT (7), Niger (4)  
- Fatigue: FCT (1,636), Ogun (1,316), Niger (740), Jigawa (706), Nasarawa (664)  
- Speed Violation: Ogun (2,455), FCT (2,101), Kaduna (1,238), Jigawa (1,076), Nasarawa (1,047)  
- Other Factors: FCT (3,486), Nasarawa (1,953), Ogun (1,831), Kaduna (1,287), Kogi (1,182)

**Quarterly Trend Analysis**

- Highest Deaths: Q1 2022 (1,834), Q4 2020 (1,818), Q1 2021 (1,668), Q4 2021 (1,652), Q4 2022 (1,608)  
- Highest Injuries: Q1 2022 (10,294), Q4 2020 (10,232), Q4 2021 (10,171), Q1 2021 (10,057)  
- Speed Violation Peaks: Q4 2020 (2,645), Q1 2021 (2,429), Q1 2024 (2,998), Q2 2023 (2,298), Q2 2021 (2,126)  
- Total Casualties: Q1 2022 (12,128), Q4 2022 (11,840), Q4 2021 (11,823), Q1 2021 (11,725), Q4 2020 (11,520)  
- Poor Weather: Q1 2022 (42), Q3 2021 (38), Q3 2022 (31), Q2 2022/Q4 2021 (22)  
- Fatigue: Q3 2022 (2,586), Q1 2022 (2,561), Q2 2022 (2,418), Q4 2021 (2,265), Q3 2021 (2,153)  
- Drug/Alcohol: Q1 2024/Q2 2021 (10), Q2 2023/Q4 2022/Q4 2023 (8)

**Recommendations**

1. Enhanced Road Safety Education and Public Awareness

Launch targeted public awareness campaigns emphasizing the dangers of speed violations, drug/alcohol use while driving, and fatigue. Implement periodic driver re-certification programs with compulsory training modules on safe driving practices.

1. Strengthen Law Enforcement Mechanisms

Equip traffic regulatory agencies like the FRSC with more tools and personnel for real-time surveillance, especially in high-incident states such as Kaduna, Ogun, and FCT. Increase penalties for repeat offenders of traffic laws, especially for DUI (driving under the influence) and speeding.

1. Improve Road Infrastructure

Invest in repairing and expanding roads in states with high accident records, such as Kaduna, Ogun, and Niger. Install adequate signage, reflectors, and speed-calming devices (e.g., speed bumps and rumble strips) in accident-prone areas.

1. Implement Data-Driven Monitoring

Expand the current accident tracking framework to include GPS-based incident reporting and mobile alerts for emergency response. Encourage nationwide standardization of accident data collection for better forecasting and prevention strategies.

1. Enforce Driver Rest Regulations

Introduce mandatory rest schedules and driving hour limits for commercial drivers to reduce fatigue-related incidents. Establish rest stations on major highways and enforce their use through checkpoint monitoring.

1. Climate-Responsive Driving Policies

Develop real-time weather advisory systems integrated into traffic control systems and public radio to alert drivers of poor weather conditions. Restrict heavy-duty vehicle movement during hazardous weather periods.

1. Enhance Emergency Medical Services (EMS)

Increase EMS coverage in rural and high-risk areas for quicker accident response and reduction in casualties. Train local first responders and community volunteers in first aid and emergency support.

**Conclusion**  
The visuals include full state-by-state breakdowns beyond the top five figures provided here. Power BI slicers were used for dynamic filtering, allowing for flexible analysis by state, quarter, and contributing factors.