Accident Report Analysis 2021 vs 2022

Project Overview

This report presents a comprehensive analysis of road accident casualties across the years 2021 and 2022. The purpose of this analysis is to understand trends, identify high-risk factors, and highlight key insights using visualizations. The dashboard supports data-driven decisions by providing filters for **accident date** and **location**.

Key Performance Indicators

1. Total casualties - This metric provides a quick glance at the overall severity of road accidents.

Total Casualties :   417883

2. Casualties by Accident Severity and Vehicle Type - Identifies the most dangerous vehicle types and the impact of severity levels on casualty count.

| Fetal	Serious	Slight	car
7135	59312	351436	333485
1.71%	14.19%	84.10%	79.80%
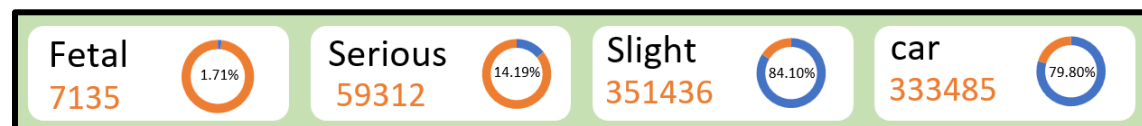
3. Casualties by Vehicle Type – It is showing casualties split by different vehicle types. Cars are observed as the most casualty-prone vehicle, indicating a need for stricter driver behavior monitoring and enforcement.

Total casualties by vehicle type

🚗	333485
🚌	12798
🚚	33472
🚜	1032
🏍️	33672
🚫	3424
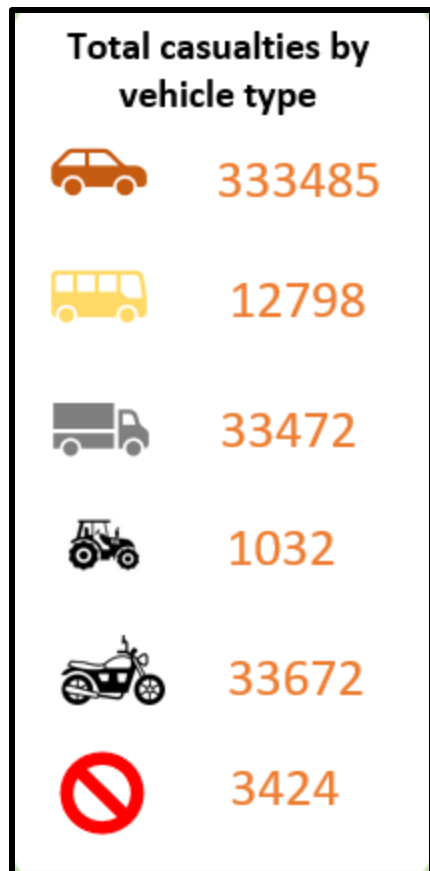
4. Monthly Trend (Line Chart) - Line chart comparing month-wise casualties for 2021 and 2022.

Current year vs previous year
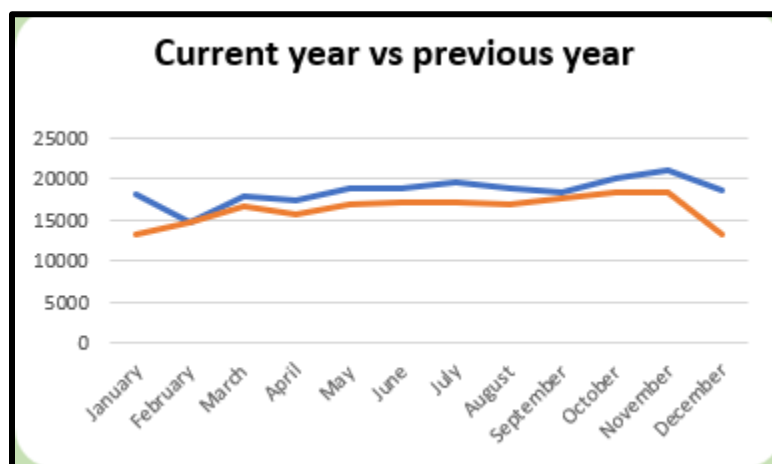
5. Casualties by Road Type (Bar Chart) - Identifies roads with higher risk and helps urban planners focus on safer infrastructure design.
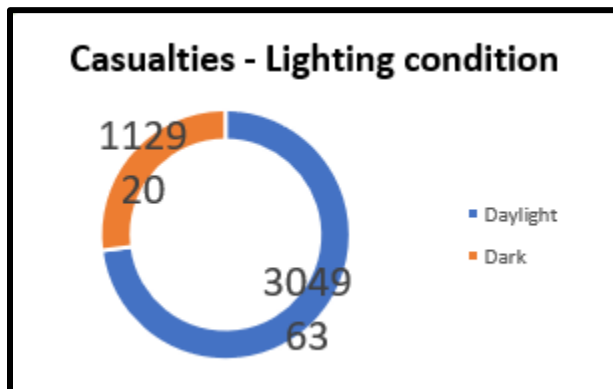

Casualties by road type
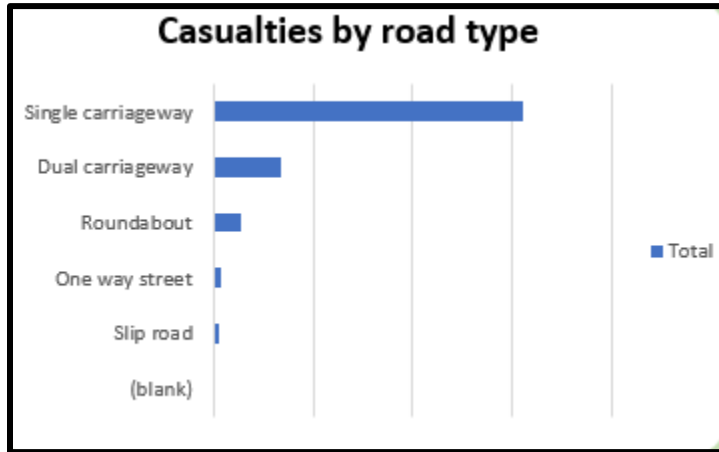
6. Casualties by Road Surface (Treemap) - Treemap offers a compact way to highlight road conditions that lead to more casualties.

Casualties - Road Surface
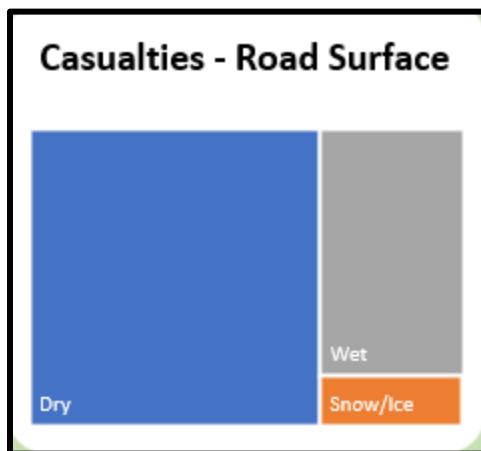
7. Casualties by Location (Donut Chart) - Donut chart showing regional/city-wise breakdown

Casualties - Location/Area

162 019

255 864

Urban_or_R...
- Rural
- Urban
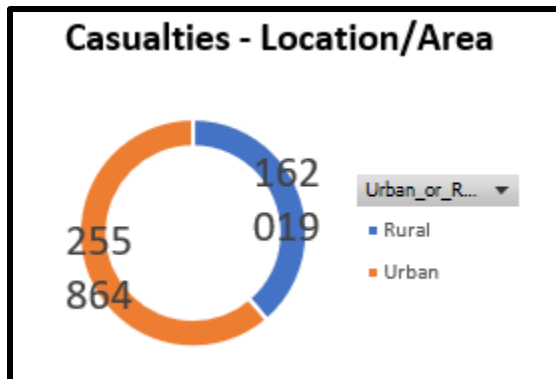
8. Casualties by Light Condition (Donut Chart) - Highlights time-of-day risk patterns.

Casualties - Lighting condition

1129 20

3049 63

- Daylight
- Dark

Filter Pane:

- **Accident Date**: Allows users to select specific time periods for analysis.
- **Location**: Helps zoom into specific cities or regions for focused insights.

Dashboard

Accident Report 2021 vs 2022

Total Casualties : 417883

Fetal	Serious	Slight	car
7135	59312	351436	333485
1.71%	14.19%	84.10%	79.80%

Total casualties by vehicle type
- 🚗 333485
- 🚌 12798
- 🚚 33472
- 🚜 1032
- 🏍 33672
- 🚫 3424

Current year vs previous year

Casualties by road type
- Single carriageway
- Dual carriageway
- Roundabout
- One way street
- Slip road
- (blank)
- ■ Total

Casualties - Road Surface
- Dry
- Wet
- Snow/Ice

Casualties - Location/Area
- 162 019
- 255 864
- Urban_or_R... ▾
- ■ Rural
- ■ Urban

Casualties - Lighting condition
- 1129 20
- 3049 63
- ■ Daylight
- ■ Dark

Filter/Panel
- Accident Date
- All Periods   YEARS ▾
- 2021 2022 2023
- Urban_or_R...
- Rural
- Urban

Key Recommendations

1. **Increase safety awareness** for car drivers, especially during peak months.
2. **Improve lighting** and road signage in accident-prone areas.
3. **Focus infrastructure investments** on high-casualty road types.
4. **Conduct regular maintenance** to reduce accidents uneven road surfaces.
5. **Enhance enforcement** in regions and times with high accident frequency.

Conclusion

The dashboard provides a multi-dimensional view of accident casualties for 2021 vs 2022. By examining severity, vehicle type, environmental conditions, and temporal patterns, stakeholders can prioritize interventions for improving road safety.