

A Project Report On Global Terrorism Analysis



Submitted by

Mitul Dudhat (202318024)

Ayush Patel (202318036)

In fulfilment for the award of the degree

of

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in
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Guided by

Urvi Oza



**DA-IICT, Near Indroda Circle,
Gandhinagar 382 007, Gujarat (India)**

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PREFACE

This project serves as an introduction to Exploratory Data Analysis (EDA) applied to the domain of global terrorism using Python. Exploratory Data Analysis is a crucial step in understanding and extracting meaningful insights from complex datasets. In this context, the project aims to leverage Python libraries such as pandas, matplotlib, and seaborn to conduct a comprehensive exploration of a global terrorism dataset.

Global terrorism is a complex and multifaceted phenomenon, and this project seeks to utilize data-driven techniques to uncover patterns, trends, and correlations within the dataset. By employing EDA, we can gain valuable insights into the dynamics of terrorist incidents worldwide, identify key factors influencing their occurrence, and extract knowledge to inform future analyses and decision-making.

The project will guide readers through the process of loading, cleaning, and exploring the global terrorism dataset. It will demonstrate the use of descriptive statistics, data visualization, and other EDA techniques to uncover hidden patterns and relationships within the data. Additionally, the project will delve into feature engineering and extraction to enhance the understanding of the dataset and potentially derive new variables that contribute to a more nuanced analysis.

Furthermore, the project will emphasize the importance of data visualization in conveying complex information and trends effectively. Utilizing Python's powerful plotting libraries, readers will learn how to create insightful visualizations that facilitate a deeper understanding of the global terrorism landscape.

In the final stages of the project, we will discuss the significance of EDA in informing subsequent analyses, such as predictive modeling or clustering. This hands-on exploration will empower readers with the skills and knowledge to not only comprehend global terrorism data but also to make informed decisions based on their findings.

As a comprehensive guide to EDA in the context of global terrorism, this project will equip readers with the necessary tools and methodologies to navigate and analyze intricate datasets, fostering a deeper understanding of the challenges and opportunities within the field of counterterrorism and security studies.

1. INTRODUCTION

1.1 Project Objective:

The scope of this project is to drill down the terrorist events around the world from 1970 through 2017

The primary objectives of this project are:

1. Global Threat Level Analysis:

- Identify and highlight the current threat level globally.

2. Regional Variation in Target Types:

- Explore how the trend in target_types changes from region to region.

3. Understanding East Asia's Transportation Focus:

- Investigate why transportation emerges as a top terrorist target type in the East Asia region.

4. Attribution of Increased Threat Level:

- Determine which specific groups are responsible for the sudden increase in the threat level.

5. Analysis of Preferred Weapons:

- Examine the types of weapons preferred by specific terrorist groups.

6. Analysis of Most Active Terrorist Groups:

- Which terrorist organizations exhibit higher levels of activity, and what are the preferred methods of attack employed by these groups?

1.2 ABSTRACT:

- These objectives collectively aim to unravel the geographical and temporal patterns of terrorism, uncover the key parameters contributing to the success of terrorist attacks, and provide users with an interactive platform to customize their analysis, fostering a nuanced exploration of the data. Through this approach, the project seeks to enhance our understanding of the evolving nature of terrorist activities and enable informed decision-making in addressing global security challenges.

- The idea behind the project is to find out how terrorism has developed in the Western world and whether we need to build tall walls to protect ourselves against future threats.
- We chose our topic to be more global oriented, because
 - It enables aggregation on many geographical levels including the globe, regions, countries, states, and cities.
 - It is very diversified and encapsulates many interesting attributes
 - It has both temporal and geographical data

1.3 SOURCE OF DATA:

- Information on more than 180,000 Terrorist Attacks
- The Global Terrorism Database (GTD) is an open-source database including information on terrorist attacks around the world from 1970 through 2017. The GTD includes systematic data on domestic as well as international terrorist incidents that have occurred during this time period and now includes more than 180,000 attacks. The database is maintained by researchers at the National Consortium for the Study of Terrorism and Responses to Terrorism (START), headquartered at the University of Maryland.

Data Source: <https://www.kaggle.com/datasets/START-UMD/gtd>

2. METHODOLOGIES AND IMPLEMENTATION

2.1. Data Source:

- The Global Terrorism Database (GTD) is an open-source database including information on terrorist attacks around the world from 1970 through 2017. The GTD includes systematic data on domestic as well as international terrorist incidents that have occurred during this time period and now includes more than 180,000 attacks. The database is maintained by researchers at the National Consortium for the Study of Terrorism and Responses to Terrorism (START), headquartered at the University of Maryland.

<https://www.kaggle.com/datasets/START-UMD/gtd>

2.2. Data Cleaning and Preprocessing:

❖ ORIGINAL DATASET:

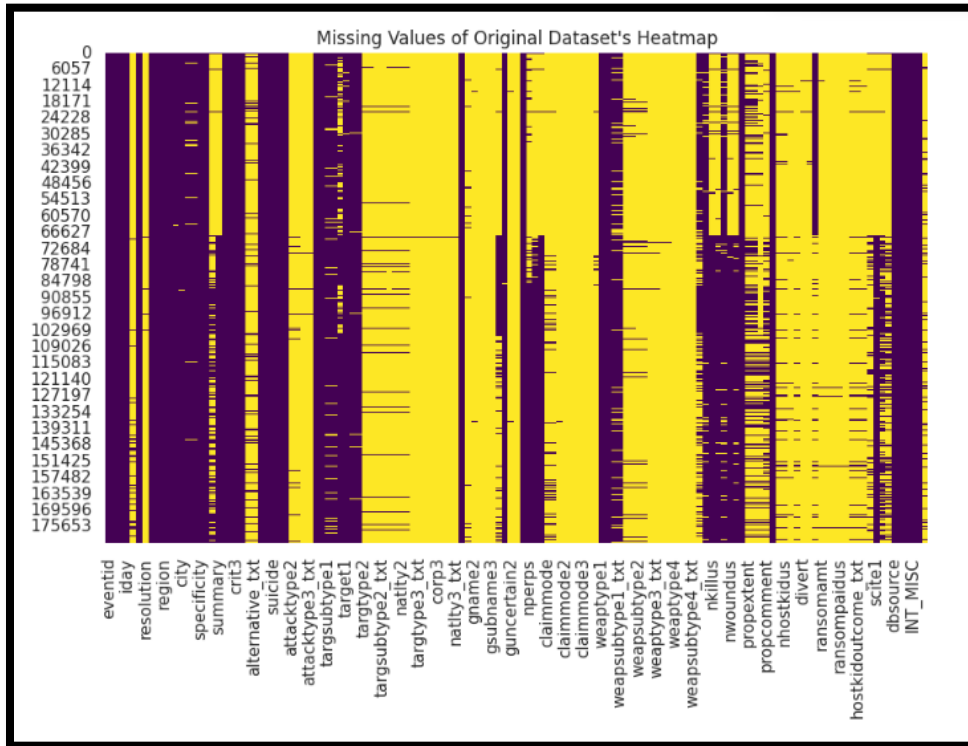
	eventid	year	imonth	iday	approxdate	extended	resolution	country	country_txt	region	...	addnotes	scite1	scite2	scite3	dbsource	INT_LOG	INT_IDEO	INT_MISC	INT_ANY	related
0	197000000001	1970	7	2	NaN	0	NaN	58	Dominican Republic	2	...	NaN	NaN	NaN	NaN	PGIS	0	0	0	0	NaN
1	197000000002	1970	0	0	NaN	0	NaN	130	Mexico	1	...	NaN	NaN	NaN	NaN	PGIS	0	1	1	1	NaN
2	197001000001	1970	1	0	NaN	0	NaN	160	Philippines	5	...	NaN	NaN	NaN	NaN	PGIS	-9	-9	1	1	NaN
3	197001000002	1970	1	0	NaN	0	NaN	78	Greece	8	...	NaN	NaN	NaN	NaN	PGIS	-9	-9	1	1	NaN
4	197001000003	1970	1	0	NaN	0	NaN	101	Japan	4	...	NaN	NaN	NaN	NaN	PGIS	-9	-9	1	1	NaN
...
181686	201712310022	2017	12	31	NaN	0	NaN	182	Somalia	11	...	NaN	"Somalia: Al-Shabaab Militants Attack Army Che...	"Highlights: Somalia Daily Media Highlights 2	"Highlights: Somalia Daily Media Highlights 1	START Primary Collection	0	0	0	0	NaN
181687	201712310029	2017	12	31	NaN	0	NaN	200	Syria	10	...	NaN	"Putin's 'victory' in Syria has turned into a ...	"Two Russian soldiers killed at Hmeymim base i...	"Two Russian servicemen killed in Syria mortar...	START Primary Collection	-9	-9	1	1	NaN
181688	201712310030	2017	12	31	NaN	0	NaN	160	Philippines	5	...	NaN	"Maguindanao clashes trap tribe members," Phil...	NaN	NaN	START Primary Collection	0	0	0	0	NaN
181689	201712310031	2017	12	31	NaN	0	NaN	92	India	6	...	NaN	"Trader escapes grenade attack in Imphal," Bus...	NaN	NaN	START Primary Collection	-9	-9	0	-9	NaN
181690	201712310032	2017	12	31	NaN	0	NaN	160	Philippines	5	...	NaN	"Security tightened in Cotabato following IED ...	"Security tightened in Cotabato City," Manila ...	NaN	START Primary Collection	-9	-9	0	-9	NaN

181691 rows x 135 columns

```
df.shape
```

```
(181691, 135)
```

❖ Identifying Columns with High Null Percentages:



- **Calculation of Null Percentages:**
 - The code calculates the percentage of null values for each column in the DataFrame.
- **Filtering Columns:**
 - Columns with null percentages exceeding 50 are filtered, and the resulting data is stored in the 'filtered_data' dictionary.
- **Conversion for Tabulation:**
 - The filtered data is then converted into a list of tuples, where each tuple contains the column name and the corresponding null percentage.
- **Tabulation and Display:**
 - The tabulate library is employed to generate a structured table displaying the filtered columns along with their null percentages.
- **Counting Filtered Columns:**
 - The code counts the number of columns that meet the specified condition and prints the result.
 - In conclusion, this code offers a clear and concise way to identify and tabulate columns in a Data Frame with null values exceeding a 50% threshold. The tabulated output provides a quick overview of the columns that may require attention due to a significant proportion of missing data, aiding in the initial stages of data quality assessment and preprocessing.

nhours		97.7638	
+-----+			
ndays		95.5287	
+-----+			
divert		99.8217	
+-----+			
kidhijcountry		98.181	
+-----+			
ransom		57.4107	
+-----+			
ransomamt		99.257	
+-----+			
ransomamtus		99.6901	
+-----+			
ransompaid		99.574	
+-----+			
ransompaidus		99.6962	
+-----+			
ransomnote		99.7171	
+-----+			
hostkidoutcome		93.9507	
+-----+			
hostkidoutcome_txt		93.9507	
+-----+			
nreleased		94.276	
+-----+			
addnotes		84.4302	
+-----+			
scite2		57.6572	
+-----+			
scite3		76.0494	
+-----+			
related		86.2195	
+-----+			
Number of columns with null values greater than 50			

- To ensure the **integrity** of our dataset, a preliminary step involves verifying the presence of all valid values within specific columns. The ``unique()`` function is employed to extract a comprehensive list of distinct values from each column, allowing us to meticulously inspect and confirm the quality and diversity of the data within the dataset.
- **Dropping columns** is necessary which are not needed in the analysis process as irrelevant columns just take extra space and hinders the processing. `drop()` function drops the column which is mentioned as a parameter from the dataset.
- Examined for any **duplicate** values, and if found, removed them. However, no duplicates were detected in the dataset, confirming its absence of duplications.

The following columns represent the finalized set of variables upon which our data analysis will be conducted.

```

RangeIndex: 181691 entries, 0 to 181690
Data columns (total 14 columns):
#   Column                Non-Null Count  Dtype  
---  -
0   iyear                  181691 non-null  int64  
1   imonth                 181691 non-null  int64  
2   iday                   181691 non-null  int64  
3   country_txt            181691 non-null  object  
4   latitude               177135 non-null  float64 
5   longitude              177134 non-null  float64 
6   region_txt             181691 non-null  object  
7   city                   181257 non-null  object  
8   targtype1_txt          181691 non-null  object  
9   targsubtype1_txt       171318 non-null  object  
10  gname                  181691 non-null  object  
11  attacktype1_txt         181691 non-null  object  
12  weaptype1_txt           181691 non-null  object  
13  nkill                  171378 non-null  float64 

```

❖ MODIFIED DATASET

	iyear	imonth	iday	country_txt	latitude	longitude	region_txt	city	targtype1_txt	targsubtype1_txt	gname	attacktype1_txt	weaptype1_txt	nkill
0	1970	7	2	Dominican Republic	18.456792	-69.951164	Central America & Caribbean	Santo Domingo	Private Citizens & Property	Named Civilian	MANO-D	Assassination	Unknown	1.0
1	1970	0	0	Mexico	19.371887	-99.086624	North America	Mexico city	Government (Diplomatic)	Diplomatic Personnel (outside of embassy, cons...	23rd of September Communist League	Hostage Taking (Kidnapping)	Unknown	0.0
2	1970	1	0	Philippines	15.478598	120.599741	Southeast Asia	Unknown	Journalists & Media	Radio Journalist/Staff/Facility	Unknown	Assassination	Unknown	1.0
3	1970	1	0	Greece	37.997490	23.762728	Western Europe	Athens	Government (Diplomatic)	Embassy/Consulate	Unknown	Bombing/Explosion	Explosives	NaN
4	1970	1	0	Japan	33.580412	130.396361	East Asia	Fukouka	Government (Diplomatic)	Embassy/Consulate	Unknown	Facility/Infrastructure Attack	Incendiary	NaN
...
181686	2017	12	31	Somalia	2.359673	45.385034	Sub-Saharan Africa	Ceelka Geelow	Military	Military Checkpoint	Al-Shabaab	Armed Assault	Firearms	1.0
181687	2017	12	31	Syria	35.407278	35.942679	Middle East & North Africa	Jableh	Military	Military Barracks/Base/Headquarters/Checkpost	Muslim extremists	Bombing/Explosion	Explosives	2.0
181688	2017	12	31	Philippines	6.900742	124.437908	Southeast Asia	Kubentog	Private Citizens & Property	House/Apartment/Residence	Bangsamoro Islamic Freedom Movement (BIFM)	Facility/Infrastructure Attack	Incendiary	0.0
181689	2017	12	31	India	24.798346	93.940430	South Asia	Imphal	Government (General)	Government Building/Facility/Office	Unknown	Bombing/Explosion	Explosives	0.0
181690	2017	12	31	Philippines	7.209594	124.241966	Southeast Asia	Cotabato City	Unknown	NaN	Unknown	Bombing/Explosion	Explosives	0.0

181691 rows x 14 columns

3. Exploratory Data Analysis (EDA) Techniques:

3.1 Importing Libraries :

- Certainly! Here's a concise summary of each library used into the Exploratory Data Analysis (EDA) for the Global Terrorism dataset project:

❖ **Pandas (pd):**

- Purpose: Pandas serves as a robust data manipulation and analysis library, providing essential data structures such as DataFrames and Series. This facilitates efficient handling and analysis of structured data.

❖ **Matplotlib.pyplot (plt):**

- Purpose: Matplotlib, specifically through the pyplot module, is a widely-used plotting library. It offers a convenient interface for creating diverse plots and charts, enhancing the visualization of data.

❖ **Seaborn (sns):**

- Purpose: Seaborn, built on Matplotlib, offers a high-level interface for generating aesthetically pleasing and informative statistical graphics. It simplifies the creation of complex visualizations.

❑ **Geopandas (gpd):**

- -Purpose: Geopandas extends the capabilities of Pandas to support spatial operations and data structures. It is particularly valuable for working with geospatial data, enabling seamless analysis and visualization of datasets with geographic information.

❖ **Folium:**

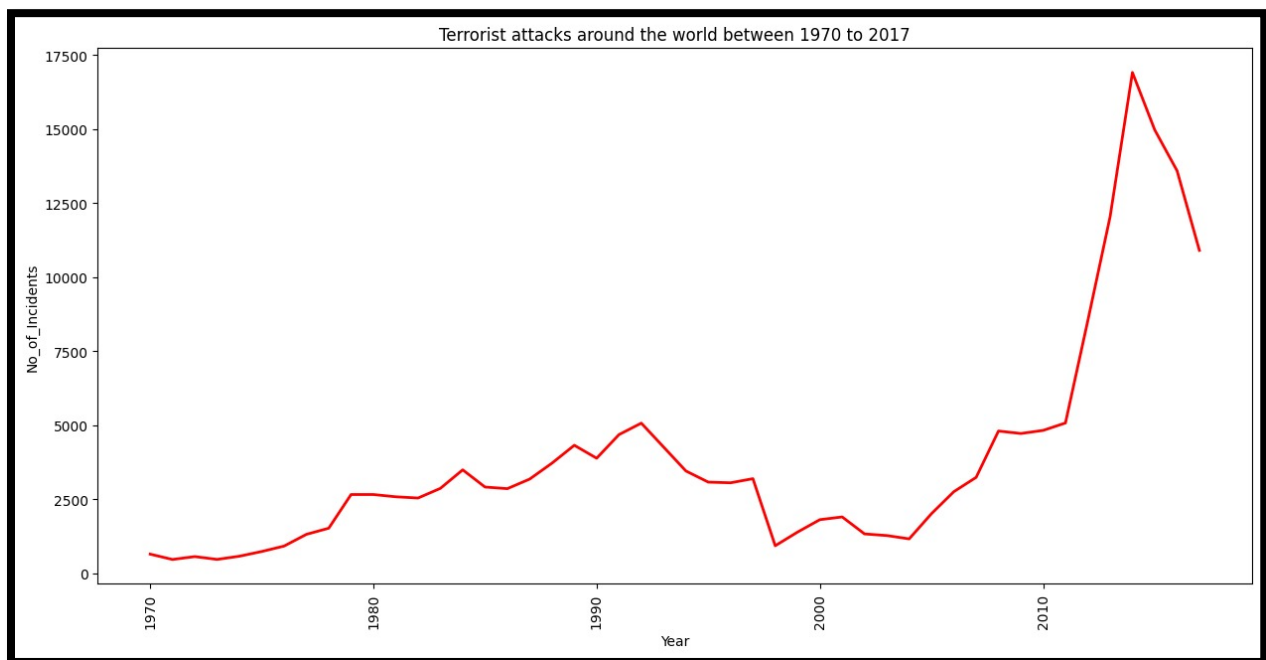
- Purpose: Folium is a Python library designed for interactive map creation. Utilizing Leaflet.js, it enables the generation of maps embedded with markers, pop-ups, and interactive features. This feature is especially beneficial for visualizing geographic data in the context of the Global Terrorism dataset project.
- These libraries collectively provide a comprehensive set of tools for data cleaning, analysis, and visualization, as well as handling geographical information, which is crucial for a project involving the Global Terrorism dataset.

3.2 DATA VISUALIZATIONS:

3.2.1 ANALYSIS-I: OVERALL OBSERVATION OF THE DATASET

- **LINE PLOT FOR SEEING THE TREND OF TERRORISM FROM 1970 TO 2017**

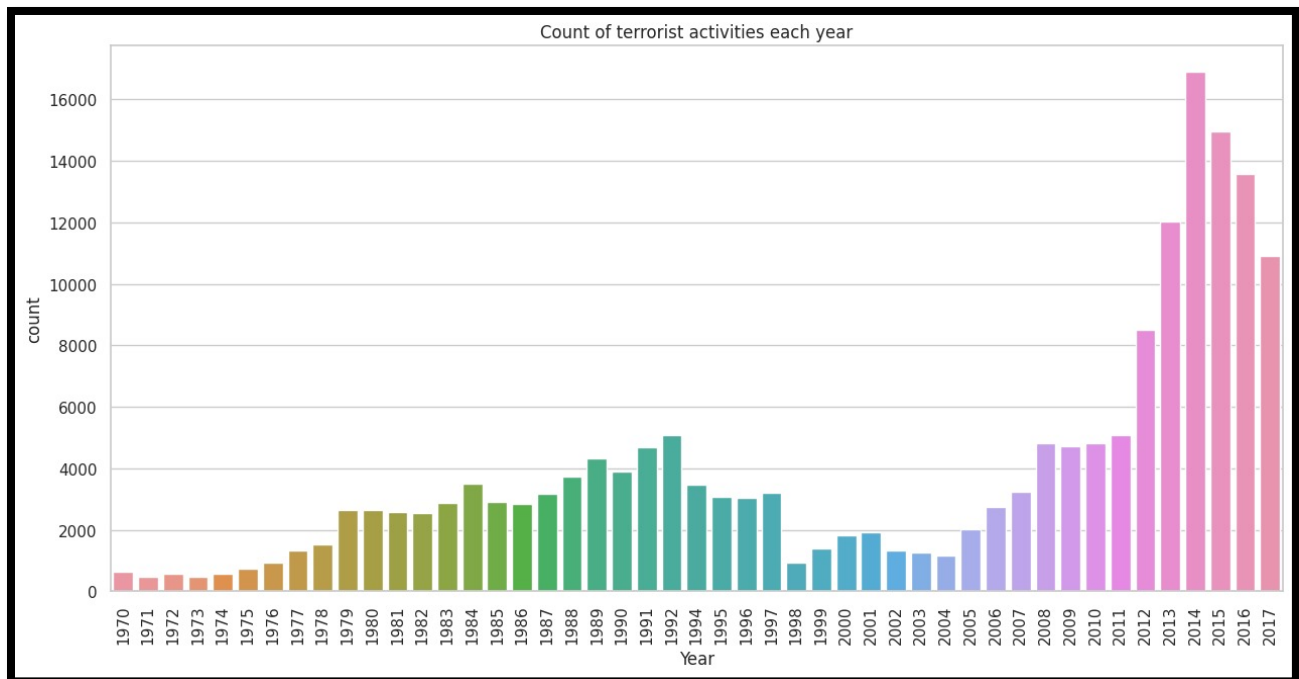
-The peak of over 15,000 incidents in recent years suggests an alarming global trend of increased terrorist activity or improved reporting mechanisms. The relatively low number of incidents in the 1970s (around 500) could reflect both less frequent terrorist activity and less comprehensive data collection.



- **COUNT CHART FOR TERRORIST ACTIVITIES EACH YEAR**

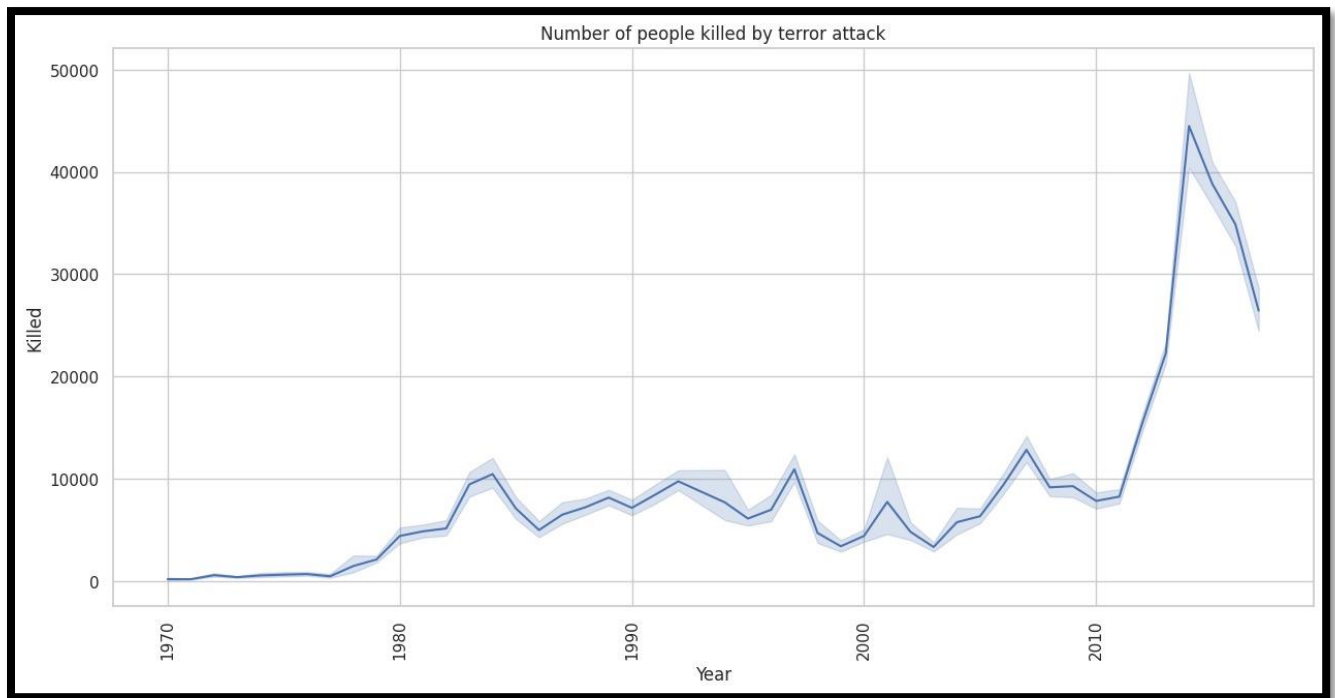
Insight: The insight that can be gained is the trend of terrorist activities over the years. We can see if the frequency of attacks is increasing, decreasing, or remaining relatively stable.

Help of this information: These insights are crucial for predicting future trends, which could help law enforcement and security agencies plan resources and strategies. However, if the trend shows an increase in terrorist activities, this could lead to a negative impact as it indicates a growing problem.



- **LINE CHART: FOR NUMBER OF KILLS FROM 1970 TO 2017 BY TERRORIST ATTACKS GLOBALLY**

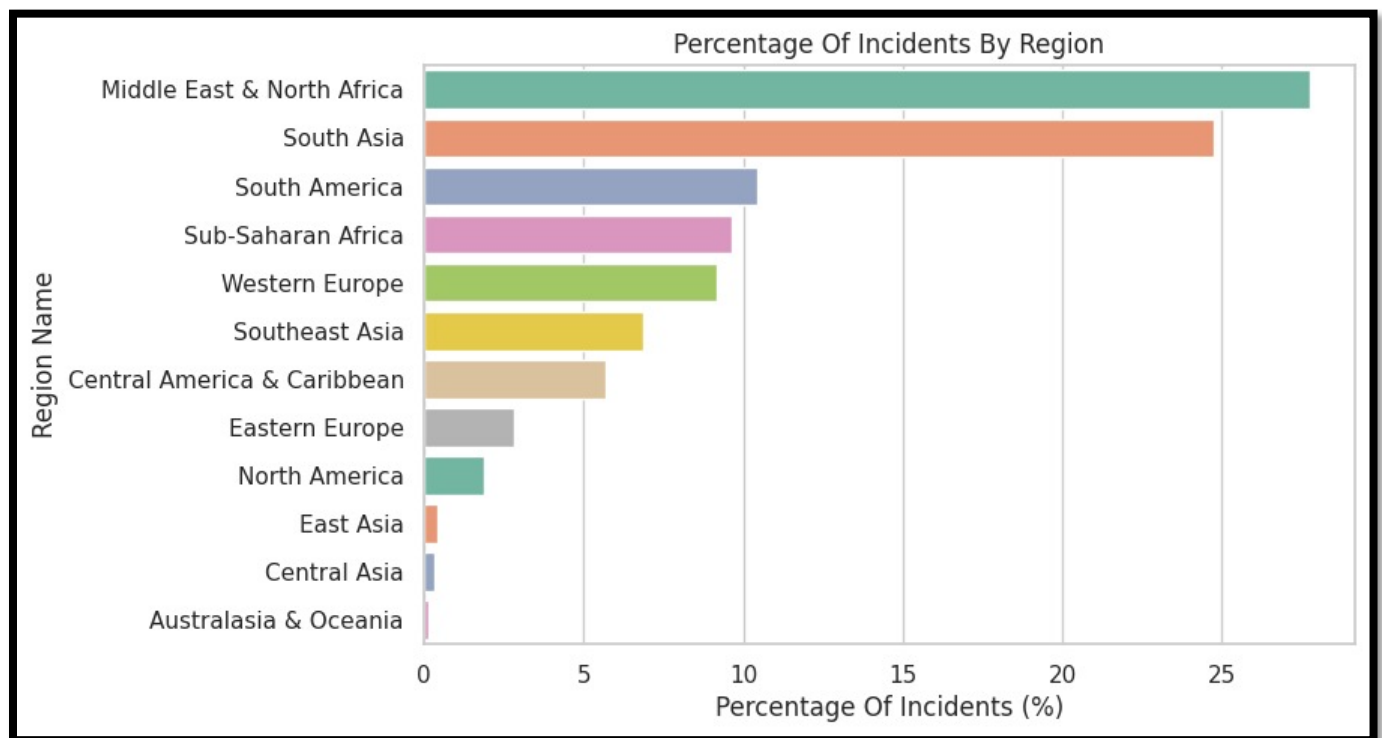
- -It can be seen from the graph below that the number of kills in 2001 was significantly higher than its left and right Neighbours. It is because about 3000 deaths have been reported during the attacks of 9/11. The number decreases after that maybe because of decreasing terrorist activity due to subsequent measures taken by U.S. government and rest of the world. It rose during second decade of 21st century due to birth and rise of infamous terrorist groups like ISIS, ISIL, Taliban etc.



Above insight can be verified by the graph below, which shows the number of kills in the **Middle East region**. It has been growing ever since 2010 i.e., during increasing conflicts in Syria, "2011 March - Security forces shoot dead protestors in southern city of Deraa demanding release of political prisoners, triggering violent unrest that steadily spread nationwide over the following months." (<https://www.bbc.com/news/world-middle-east-14703995>)

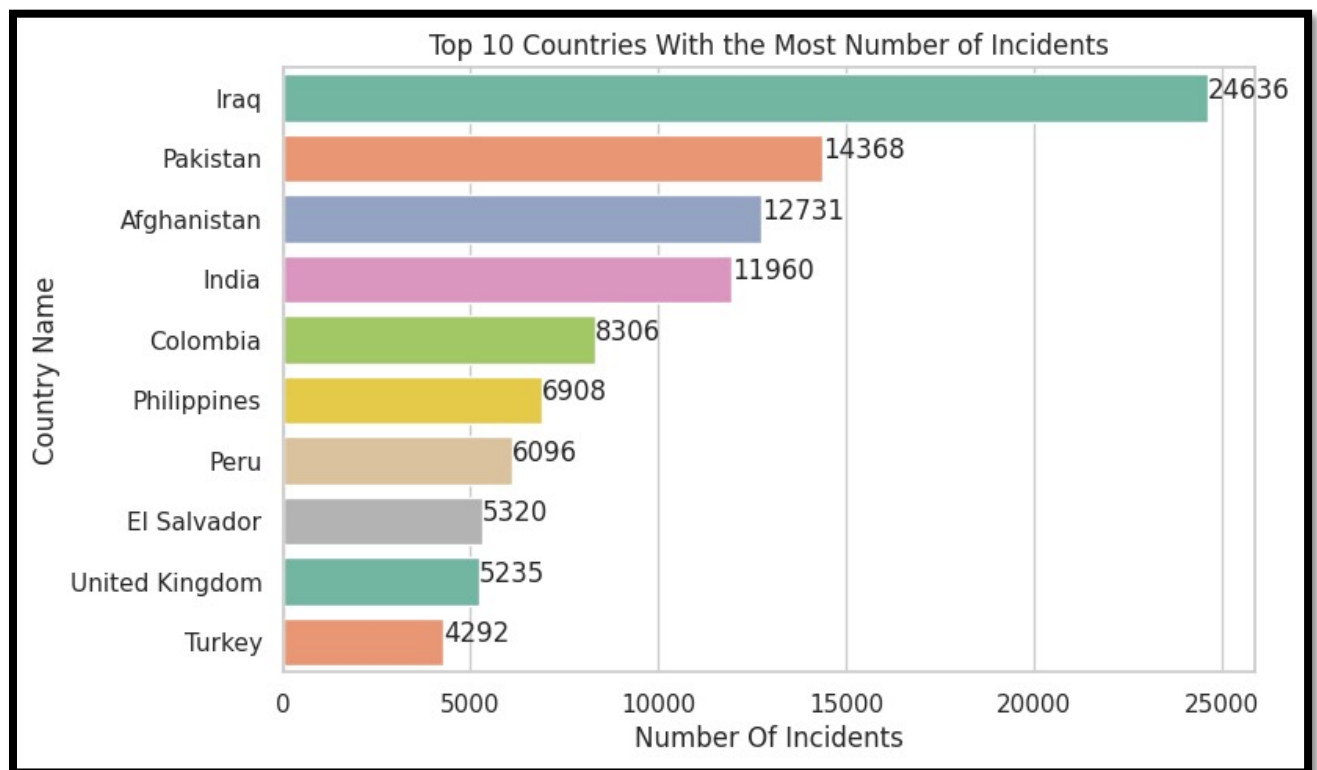
- **BAR CHART: FOR PERCENTAGE OF INCIDENTS BY REGION**

- The Middle East & North Africa region accounts for over 25% of incidents, pointing to it as a major focal point for terrorist activities.
- Australasia & Oceania have the smallest percentage, indicating a relatively lower threat level or more effective counter-terrorism measures.



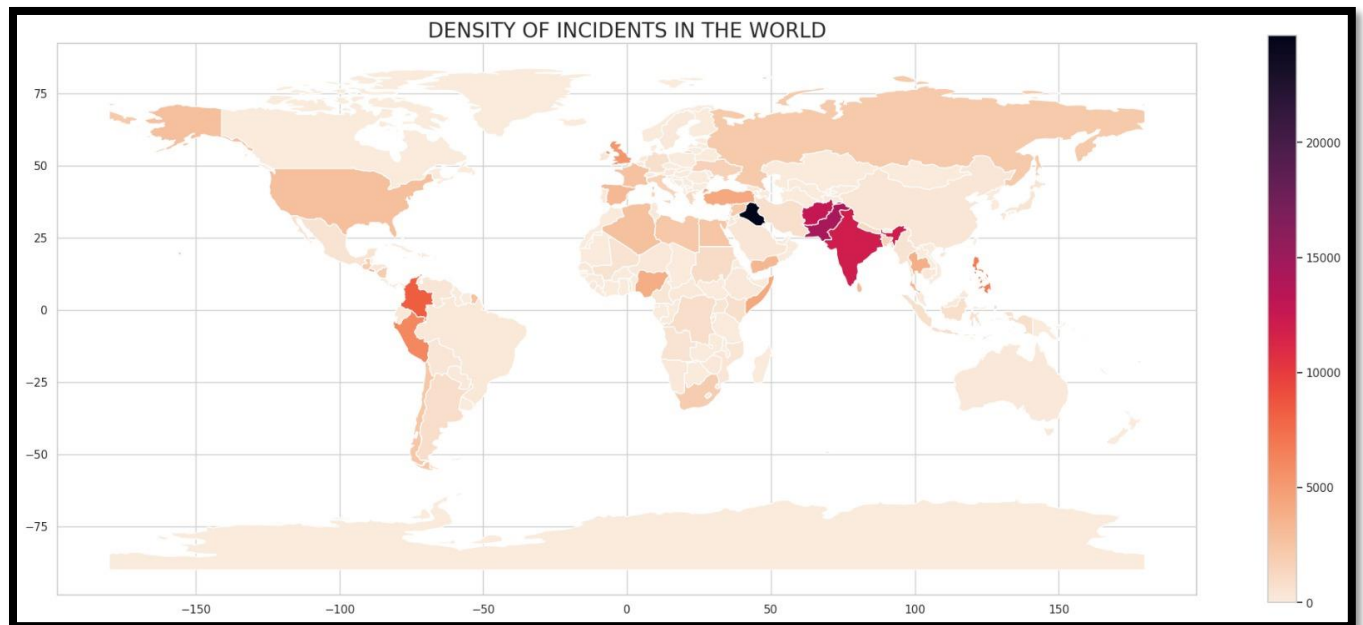
- **BAR_CHART FOR TOP 10 COUNTRIES WITH THE MOST NUMBER OF INCIDENTS**

- **Iraq** leads with over 24,000 incidents, which likely reflects the ongoing conflicts and the presence of multiple terrorist factions.
- **Turkey**, at the bottom of this list with over 4,000 incidents, shows the wide range in the number of incidents across these most-affected countries.



- **WORLD_MAP FOR DENSITY OF INCIDENTS IN THE WORLD**

- Looking at the density map, it is not surprising that the area in the middle of the map is the darkest, which means the most terrorist attacks, namely the Middle East and North Africa, and South Asia. When these are areas with many political and military fluctuations. In addition, the north of North America is also a complex and volatile area.

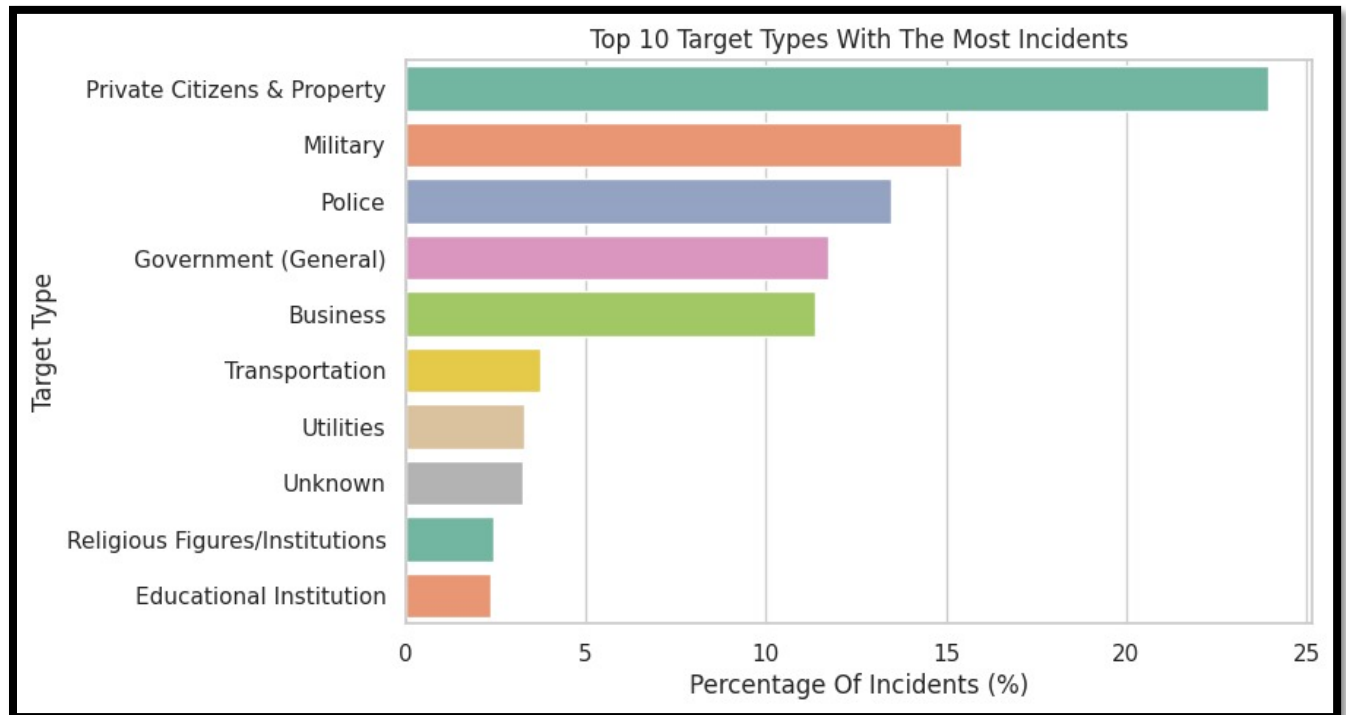


References:

<https://towardsdatascience.com/interactive-geographical-maps-with-geopandas-4586a9d7cc10>
<https://colab.research.google.com/github/shakasom/GDS/blob/master/Part1%20-%20Introduction.ipynb#scrollTo=A91qAwyjOTs8> <https://python-visualization.github.io/folium/quickstart.html>

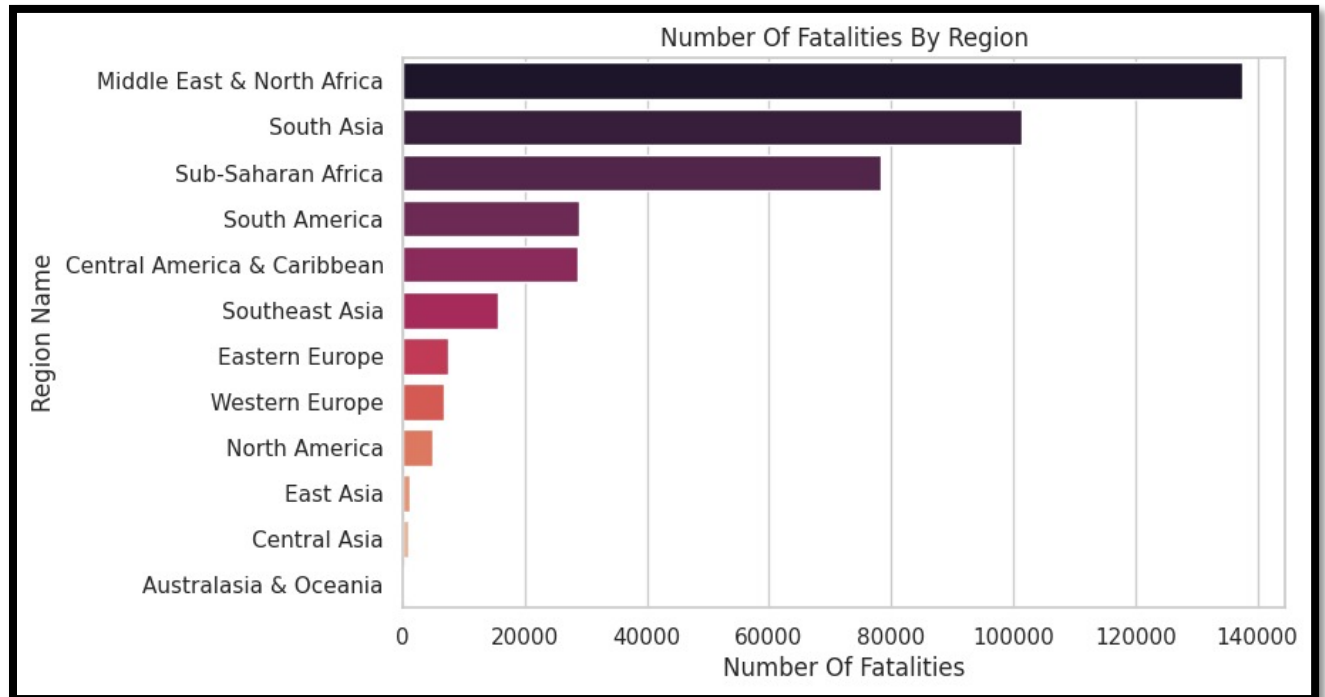
- **BAR CHART FOR TOP 10 TARGET TYPES WITH THE MOST INCIDENTS**

- Private citizens & property being targeted in 25% of incidents has profound implications for societal fear and the disruption of daily life, influencing public perception and national policies. Educational institutions being the least targeted (under 5%) might indicate a lower strategic value or effectiveness in achieving terrorist objectives.



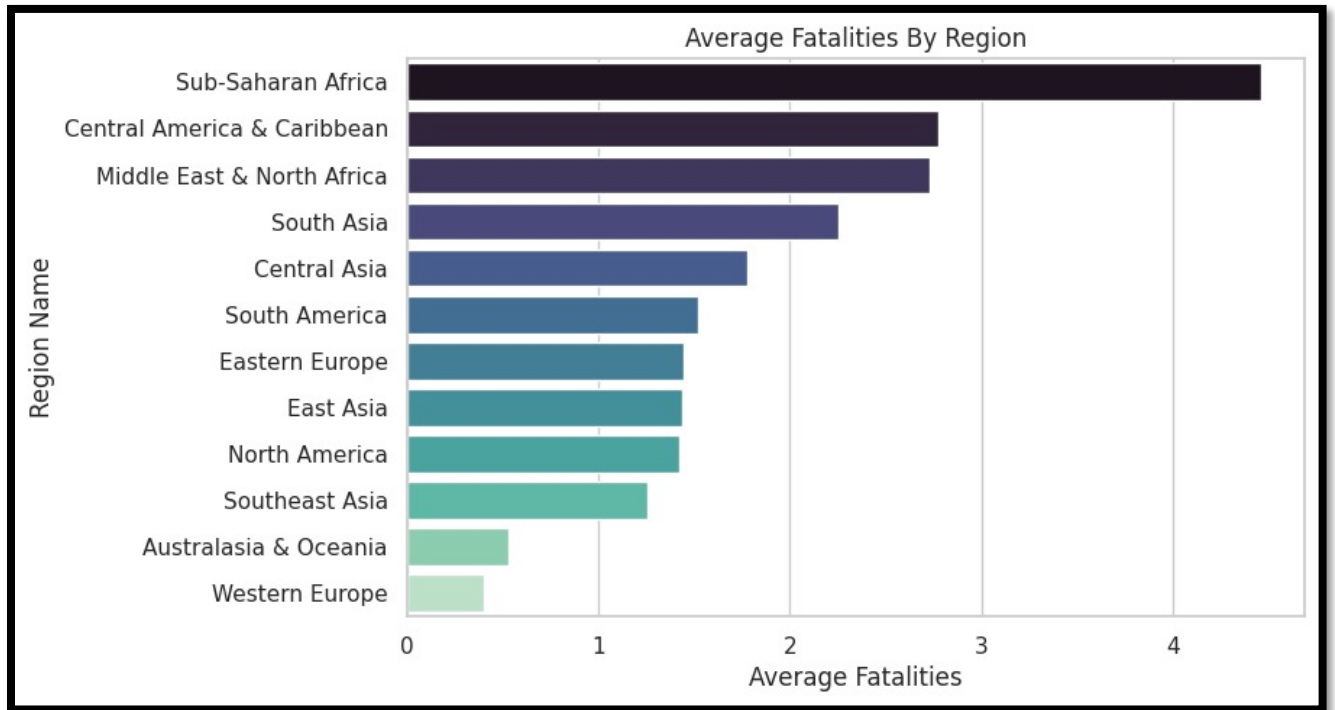
- **BAR CHART FOR NUMBER OF FATALITIES BY REGION**

- The stark contrast between over 120,000 fatalities in the Middle East & North Africa and under 5,000 in regions like Australasia & Oceania shows the disproportionate impact of terrorism on different regions. This disparity reflects geopolitical tensions, the presence of armed conflicts, and the effectiveness of regional security measures.



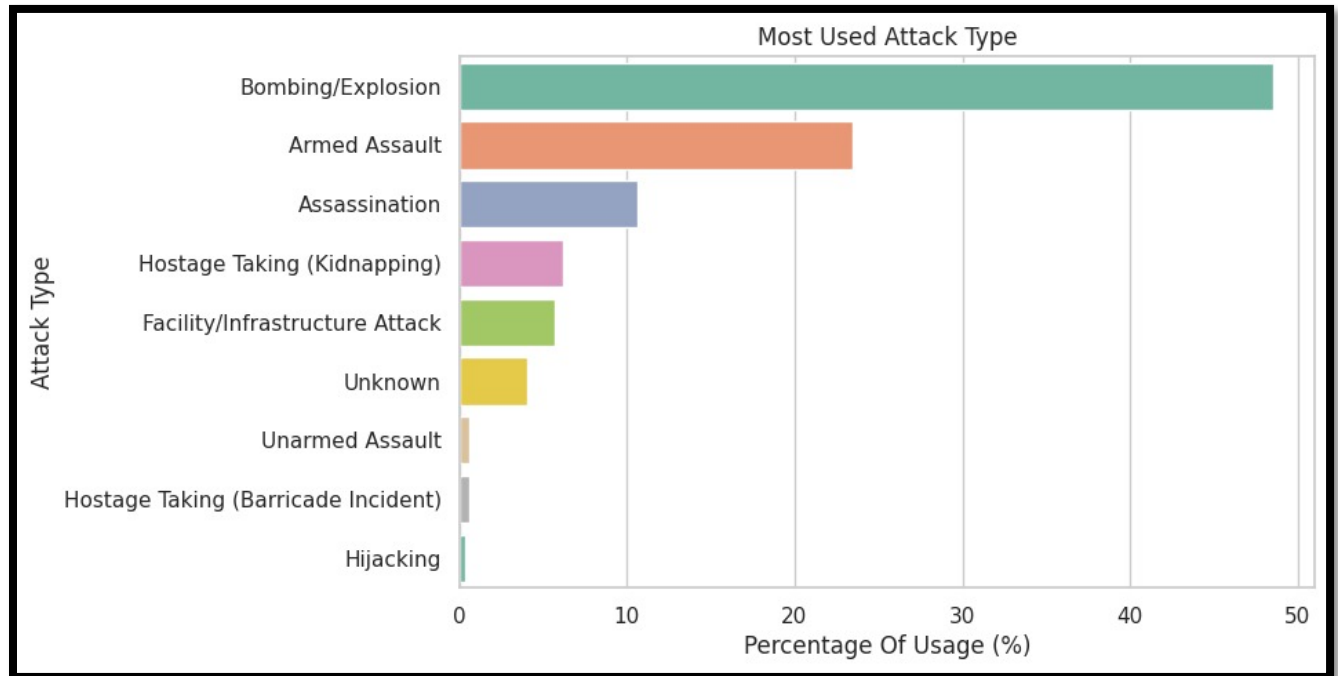
- **BAR CHAR FOR AVERAGE FATALITIES BY REGION**

- The high average fatalities per attack in Central Asia (around 4) implies attacks there are particularly lethal, which could be due to the use of more destructive tactics or targeting of more crowded venues. In contrast, Western Europe's lower average suggests either less lethal attacks or more effective emergency and medical responses.



- **BAR CHART FOR MOST USED ATTACK TYPE**

- **Bombing/Explosion** is the most common type of attack, constituting nearly 50% of all incidents, suggesting a preference for the high impact and fear these attacks generate.
- **Hijacking** is the least common, which could reflect its complexity and the global improvements in aviation security



3.2.2 ANALYSIS – II: Target Type Trend of Regions and How They Change from Region to Region?

- Explore the evolving trends of target types across different regions in our global terrorism dataset through an extensive exploratory data analysis (EDA). Investigate how the patterns and preferences in target types change from one region to another, providing valuable insights into the dynamics of terrorism over the years. This analysis aims to uncover nuanced variations in target selections, contributing to a comprehensive understanding of global terrorism trends and aiding in the formulation of effective counter-terrorism strategies

- **CREATE RANKING TABLE TARGET TYPES OF EACH REGIONS:**

Looking at the table above, we can:

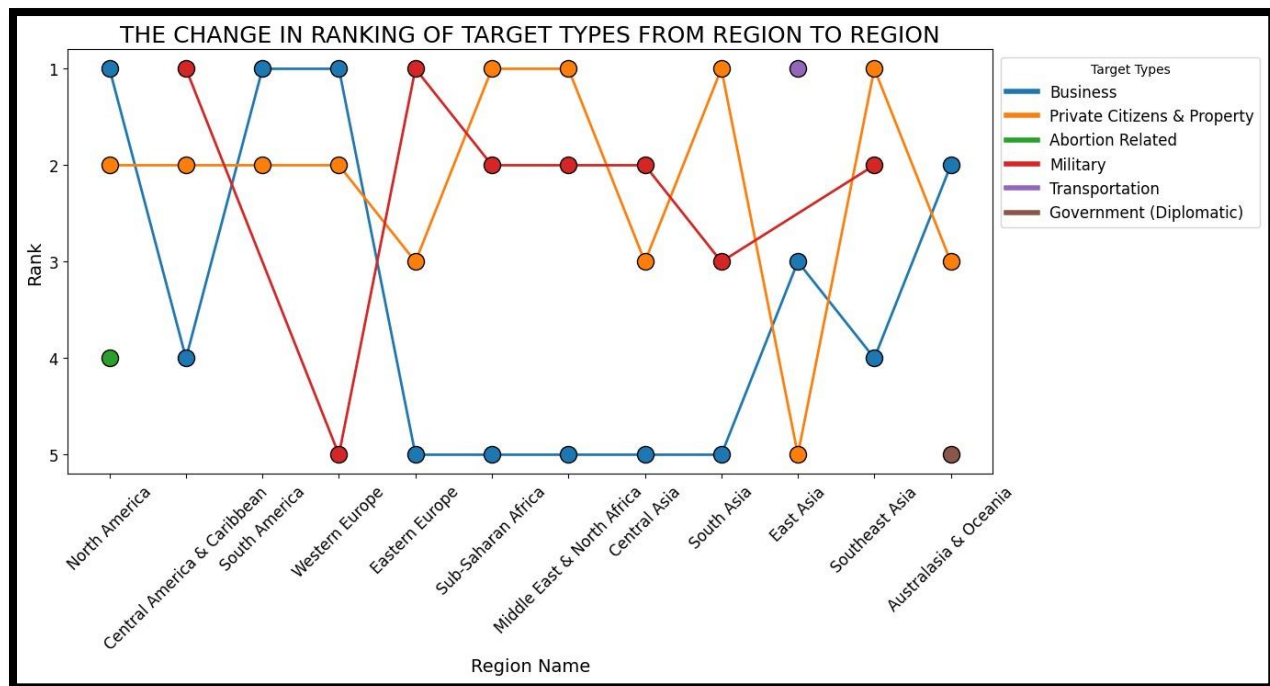
- ◇ Easily read the names of the top 5 target types of each region.
- ◇ Finding the similar and different target types of each pair of regions.
- ◇ Number of unique target types in the ranking table: 9

Since, there are only 9 unique target types in all 12 regions.

In general, there's not much shuffling of target types in 12 regions. Therefore, the top 5 target types of the regions are only within range of 9 unique target types. That means there are many common target types between them. So, what's the difference?

Observe the chart below to have a more general and in-depth view across all regions.

- **CREATE A LINE CHART SHOWING THE CHANGE IN RANK OF EACH TARGET FROM REGION TO REGION**



- A **Bump Chart** is a special form of a line plot. This chart is well-suited for exploring changes in rank over time. Using this chart, you can easily compare the position, performance or rankings of multiple observations with respect to each other rather than the actual values itself.
- In the common target types, there is still a difference in rank of them. This represents the difference in priority of each region for target types. For example, of some remarkable target types:
- The **blue line** shows the priority for the '**Business**' target type in regions with developed economies such as North America, South America, Western Europe, Australasia & Oceania.
- The **red line** shows the priority for the '**Military**' target type in regions that are inherently politically and militarily unstable such as Central America & Caribbean, Eastern Europe, Middle East & North Africa, etc.
- We can also see a very clear contrast of these two lines, when one has a high rank, the other has a low rank and vice versa.
- The **orange line** represents for '**Private Citizens & Property**' target type which is usually get high rank because it ranked 1st in overall
- In addition, there are individual markers and are not linked to any other markers of the same color, which means that these target types are completely outside the

top 5 of the other regions. This makes the region have its own remarkable feature. For instance, bottom right brown marker represents for '**Government (Diplomatic)**' target type in Australasia & Oceania region.

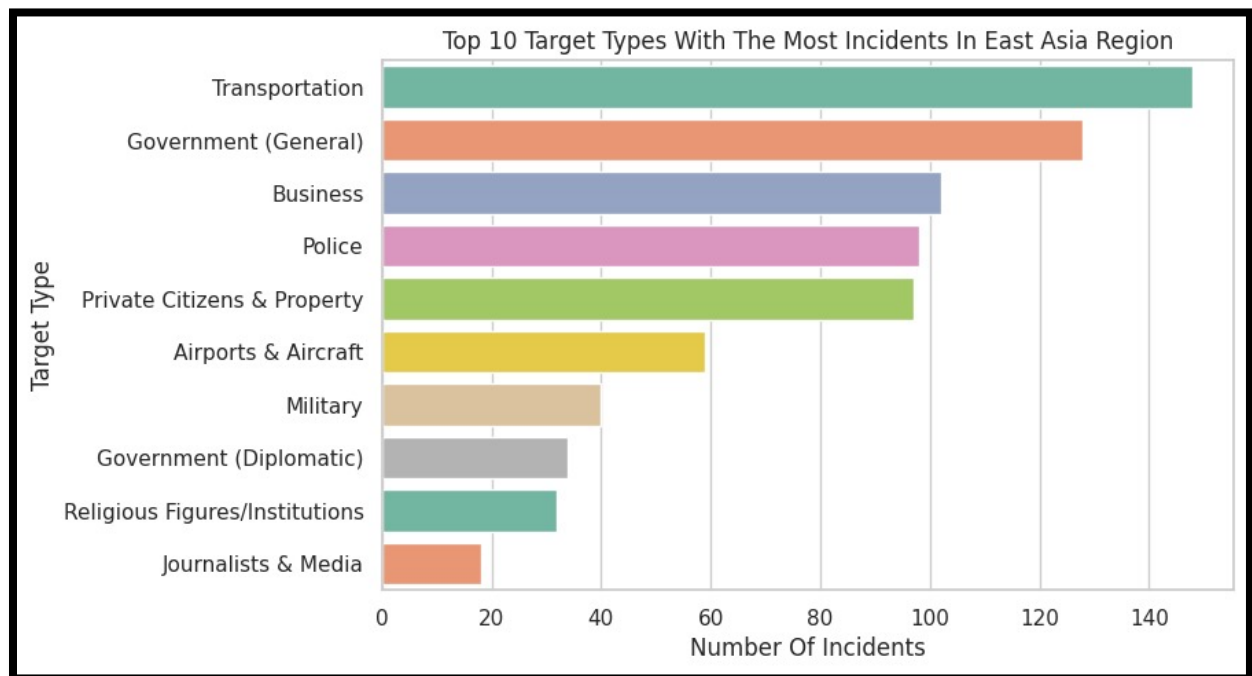
- However, a remarkable anomaly emerges with a distinctive **purple** marker near the top right corner. This marker symbolizes the '**Transportation**' target type in **the East Asia region**, uniquely ranking 1st. The significance of this outlier invites further exploration to comprehend the underlying factors influencing this exceptional ranking.

3.2.3 ANALYSIS-III : WHY TRANSPORTATION IS A TOP TERRORIST TARGET TYPE IN EAST ASIA REGION?

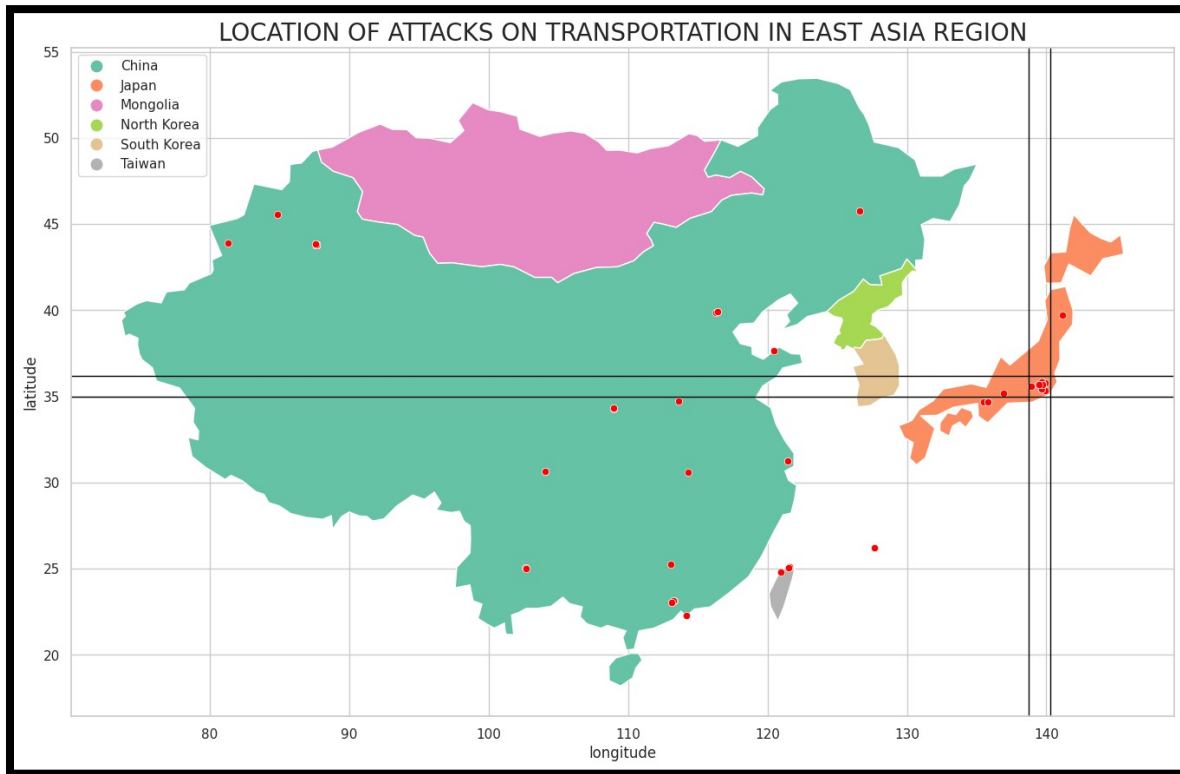
- The East Asia region, comprising countries such as Japan, Taiwan, South Korea, China, and North Korea, has recorded a total of 802 incidents. Notably, despite ranking 3rd from the bottom in the overall section of charts, the region exhibits a distinctive pattern in the prioritization of target types. Specifically, the '**Transportation**' target type, which holds the 6th position overall, emerges with considerable prominence in East Asia, ranking quite high. With 148 incidents attributed to transportation-related targets, this region's unique emphasis on this target type becomes evident, warranting a closer examination of the factors contributing to its distinct ranking in comparison to the broader global trends.

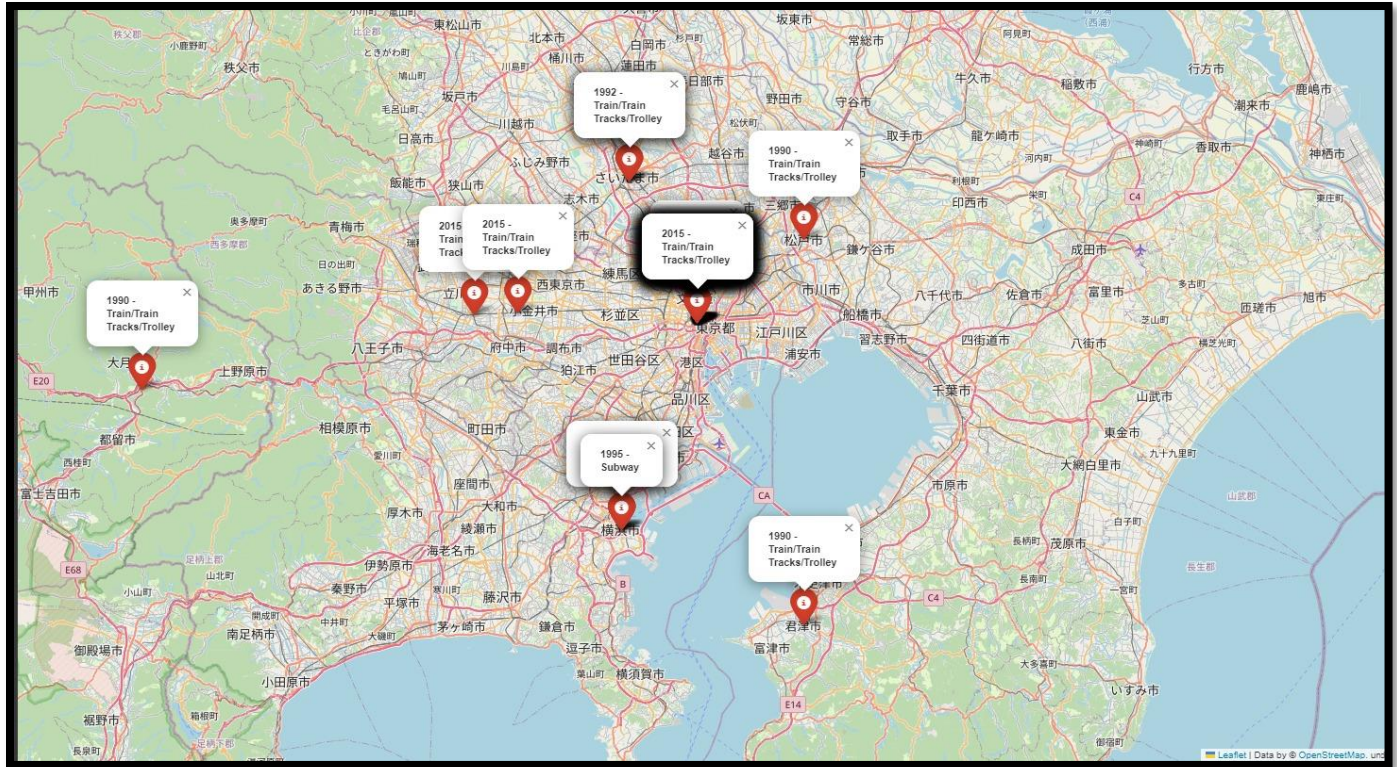
- **BAR CHART TOP 10 TARGET TYPES WITH THE MOST INCIDENTS IN EAST ASIA REGION**

- Transportation being the most targeted, with around 140 incidents, suggests that disrupting mobility is a primary goal in this region, affecting economies and freedom of movement. The fact that journalists & media are least targeted (under 20 incidents) could imply either a strategic choice to avoid media attention or effective protective measures for these entities.



- **SCATTERPLOT OF LOCATION OF ATTACKS ON TRANSPORTATION IN EAST ASIA REGION**

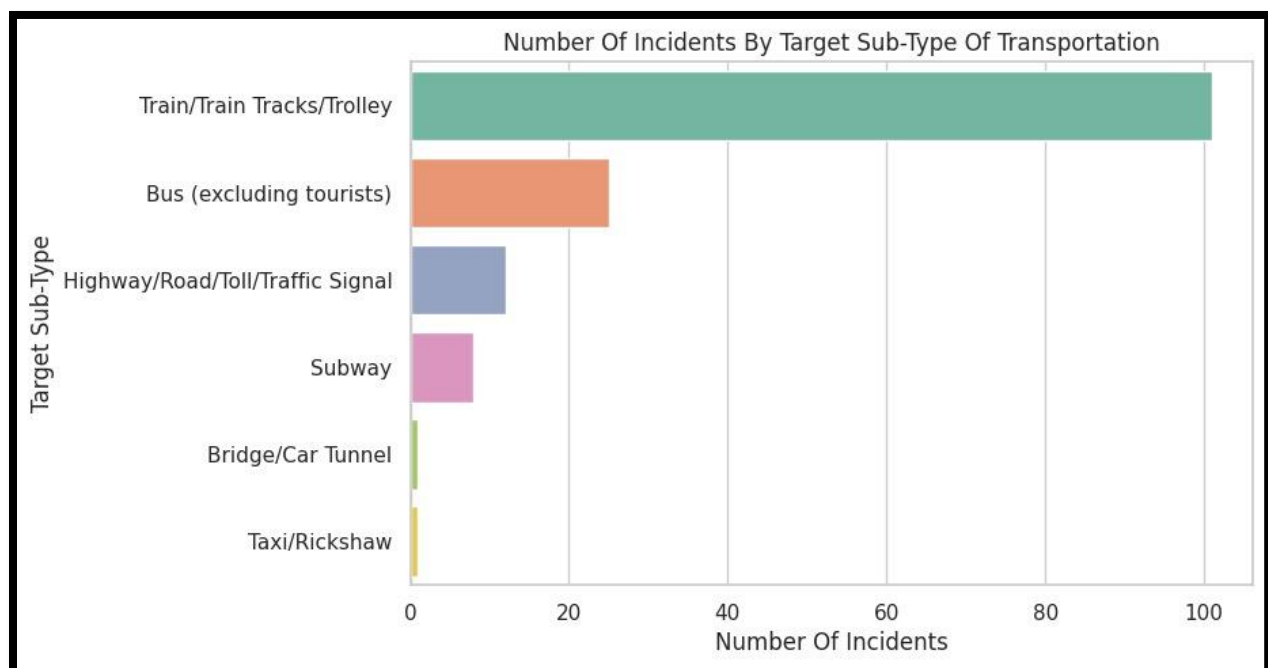




- In Japan, the transportation system experiences a predominant focus of attacks, particularly on trains, subway systems, and city centers characterized by dense populations and heavy traffic. This emphasis aligns with the local context, where urban hubs and major transit arteries become targets. To broaden our perspective, it would be valuable to investigate whether such trends extend across the entire East Asia region. An exploration of the broader East Asian landscape may provide insights into commonalities or variations in the targeting of transportation systems, shedding light on the factors influencing security concerns and threat patterns in this regional context.

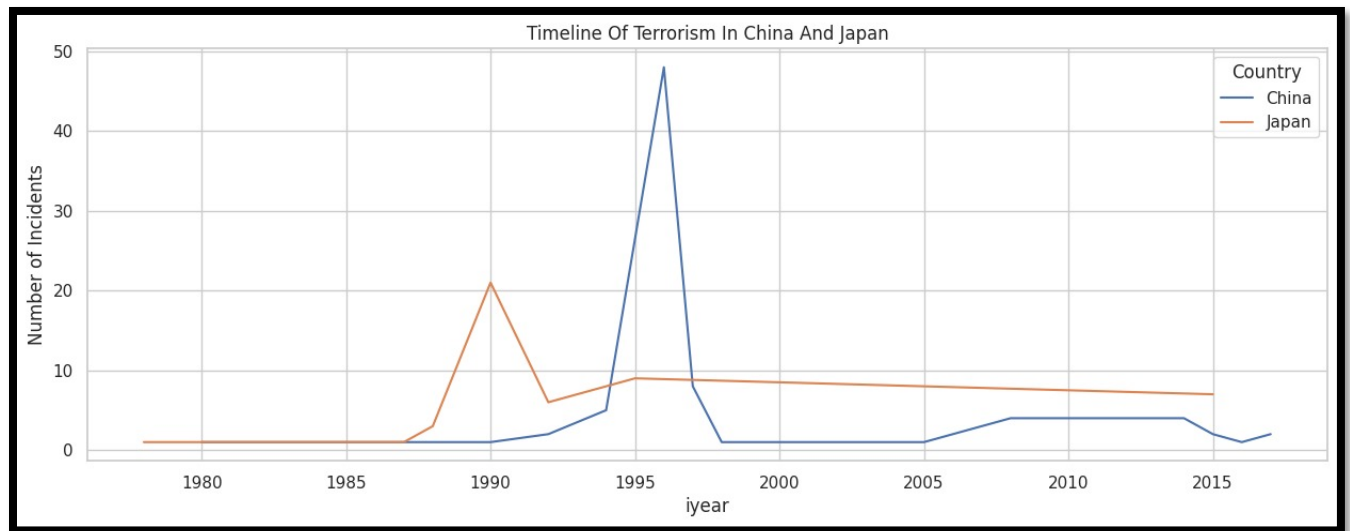
- **BAR CHART FOR NUMBER OF INCIDENTS BY TARGET SUB-TYPE OF TRANSPORTATION**

- Train target type is still ranked 1st and leave the rest. It's quite understandable, because, as we all know that almost developed countries in East Asia like China or Japan have a very large subway system. This partly explains the reason why transportation is the number 1 target type.
- In terms of geographical location of attacks, they will usually take place in big cities with dense traffic systems and crowded places like subways. In order to cause great damage to people and property, as well as partly possible to prevent trade and indirectly destroy the economy.
- To answer the question more completely, continue to Analyse the timeline of the terrorist attacks in China and Japan.



- **LINE CHART FOR TIMELINE OF TERRORISM IN CHINA AND JAPAN**

- A sharp spike in China around the year 2000 stands out, with nearly 50 incidents, which may be attributed to specific political unrest or a large-scale attack.
- Japan shows a more consistent, lower level of incidents, indicating differing levels of terrorist activity or counter-terrorism success.



- Tokyo subway attack of 1995 coordinated multiple-point terrorist attack in Tokyo on March 20, 1995, in which the odorless, colorless, and highly toxic nerve gas sarin developed by the Nazis was released in the city's subway system. It was the worst domestic terror attack ever carried out on Japanese soil, the attack resulted in the deaths of 12 (later increased to 13) people, and some 5,500 others were injured to varying degrees. The culprits were AUM Shinrikyo, an obscure religious group who believed the end of the world was coming. Members of the Japan-based new religious movement AUM Shinrikyo (since 2000 called Aleph) was soon identified as the perpetrators of the attack.



References:

- <https://www.bbc.com/news/world-asia-35975069>
- <https://www.britannica.com/event/Tokyo-subway-attack-of-1995>
- https://en.wikipedia.org/wiki/Tokyo_subway_sarin_attack
- The main cause of the transportation terrorist attacks in China around since 1990 was relevant to the course of Uyghur-related violence in Xinjiang and Central Asia. The locations and types of violent incidents were influenced by a combination of Chinese government policies and the political geography of Xinjiang.
- <https://www.jstor.org/stable/41447781>
- https://en.wikipedia.org/wiki/Uyghur_genocide
- https://en.wikipedia.org/wiki/Terrorism_in_China

❑ CONCLUSIONS FOR ABOVE ANALYSIS-III:

1. Target Type Prioritization:

- In the East Asia region (encompassing Japan, Taiwan, South Korea, China, and North Korea), 'Transportation' emerges as the predominant target type despite the overall regional ranking being 3rd from the bottom in the charts.
- Specifically, 148 incidents are attributed to transportation-related targets, signaling a unique emphasis on disrupting mobility.

2. Impact on Economy and Freedom of Movement:

- The prioritization of transportation-related attacks suggests a primary goal in the region, impacting both economies and freedom of movement.
- This focus aligns with a broader trend of targeting urban centers, particularly notable in Japan where trains, subway systems, and city centers are key targets.

3. Timeline Analysis in China and Japan:

- In China, a notable spike in terrorist attacks is observed around the year 2000, potentially linked to political unrest or large-scale attacks.
- Japan, in contrast, demonstrates a more consistent, lower level of incidents, reflecting differing levels of terrorist activity or successful counter-terrorism efforts.
- The Tokyo subway attack of 1995 by the AUM Shinrikyo religious group is a significant historical event, resulting in 13 deaths and over 5,500 injuries.

4. Main Cause of Transportation-Related Attacks in China:

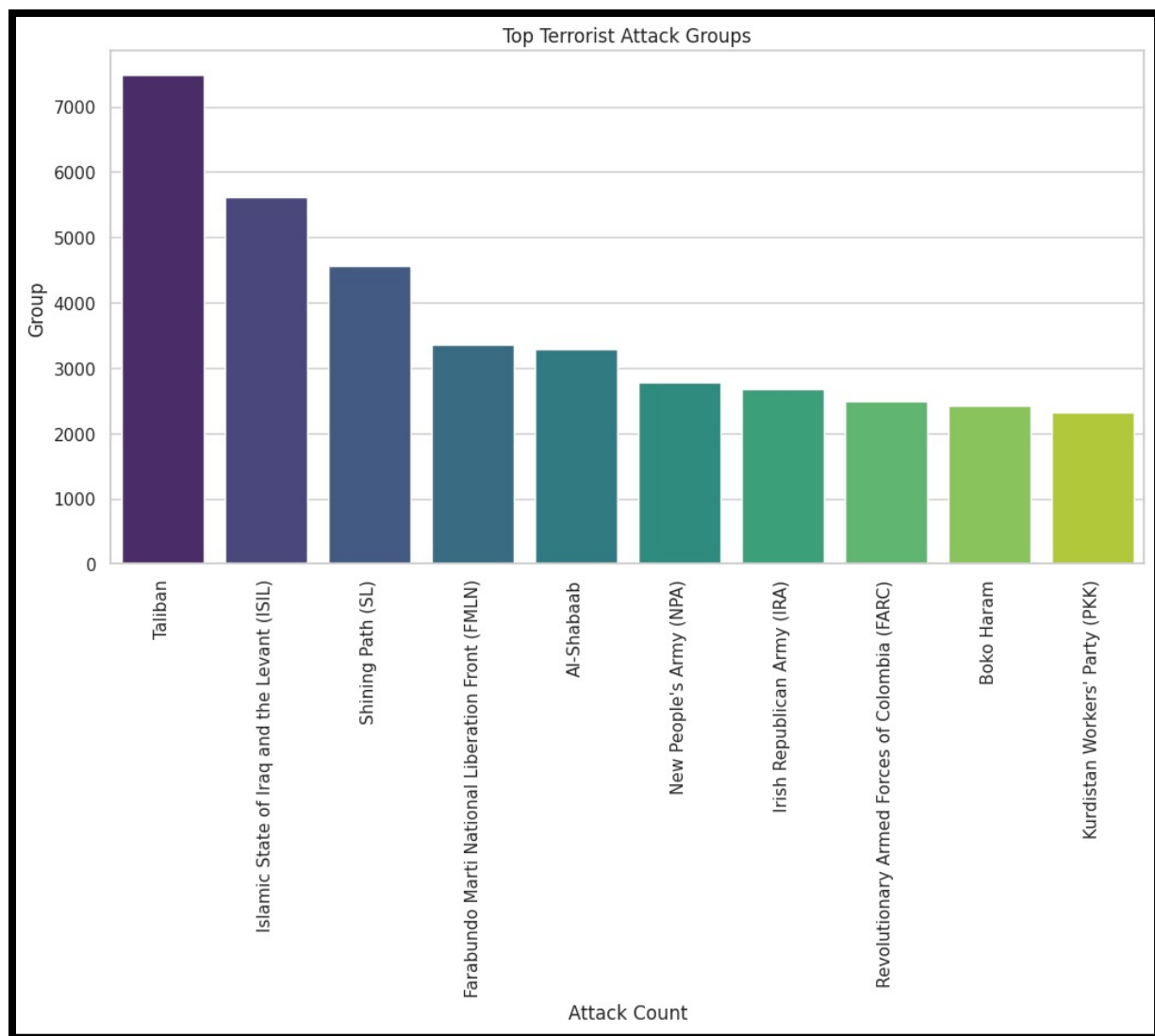
- Since 1990, Uyghur-related violence in Xinjiang and Central Asia is identified as the main cause of transportation-related terrorist attacks in China.
- The locations and types of incidents are influenced by Chinese government policies and the political geography of Xinjiang.

5. Motivations Behind Attacks:

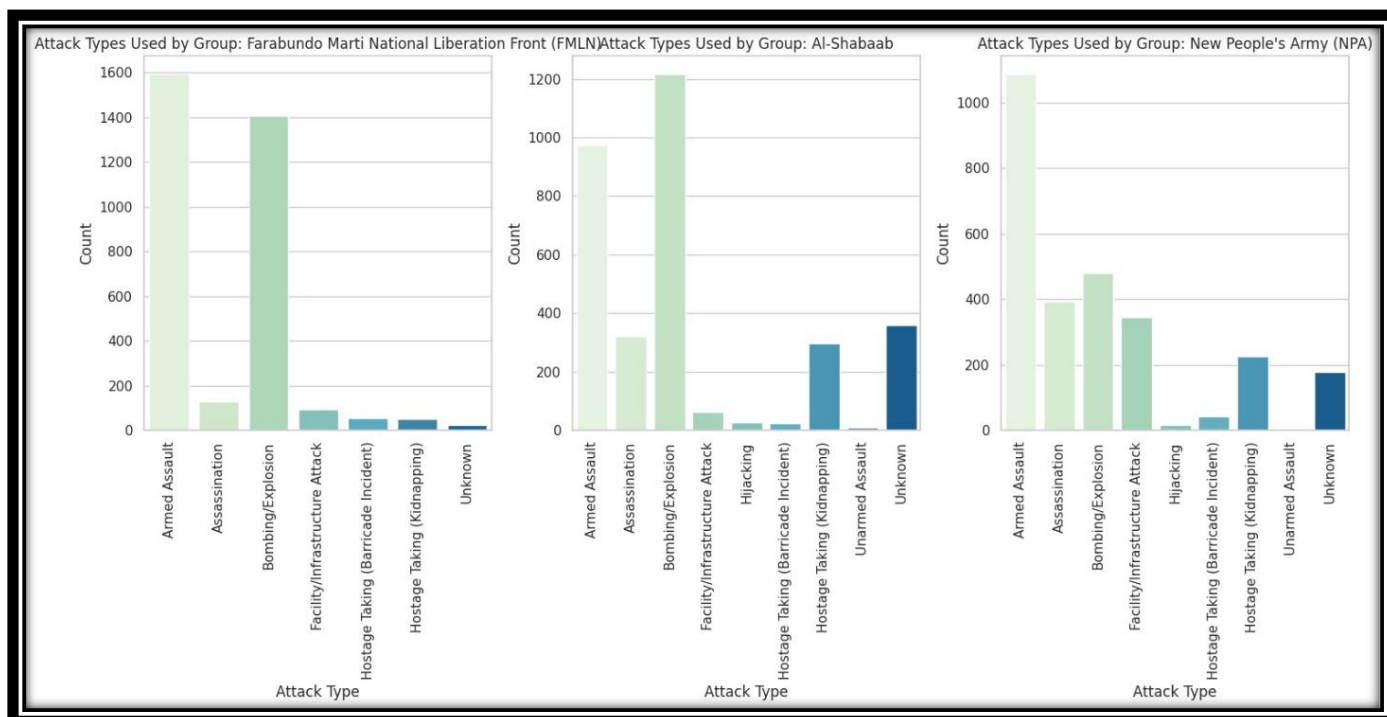
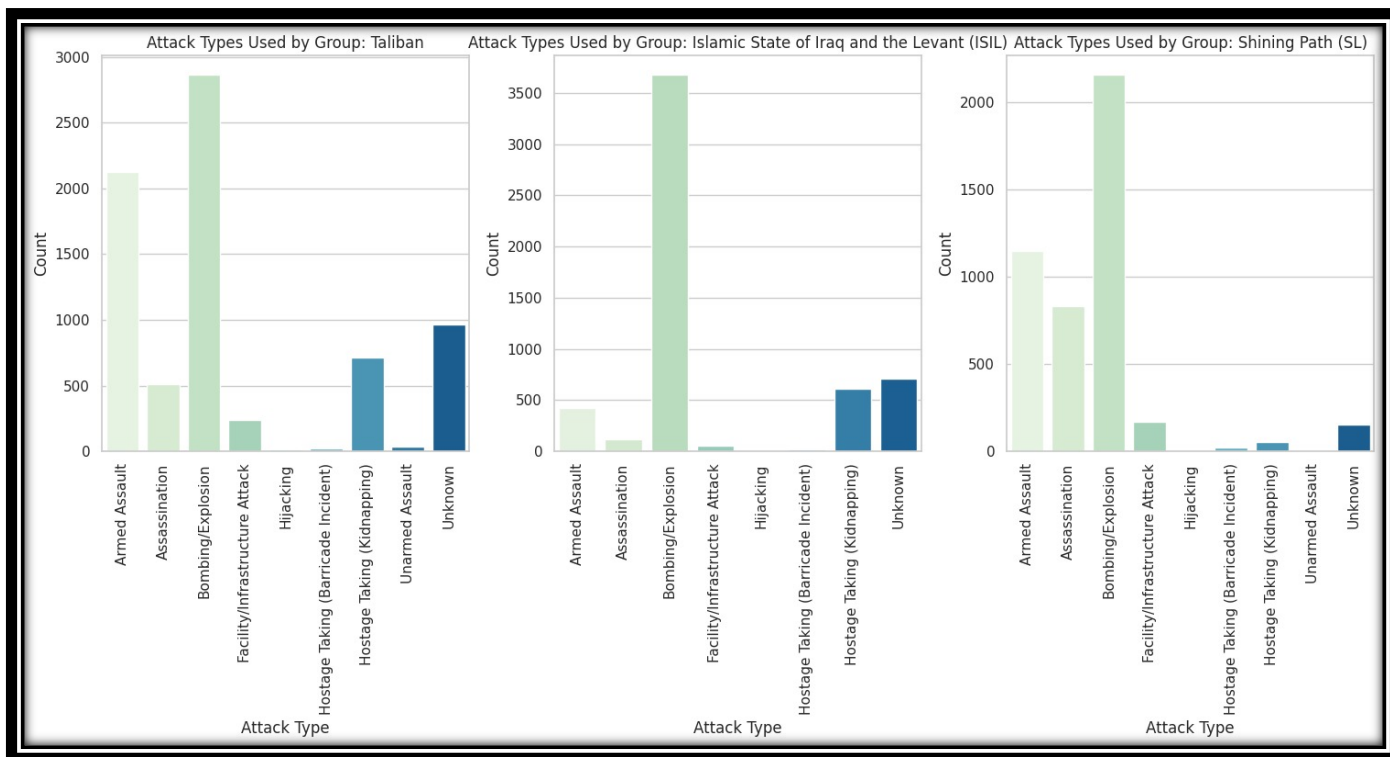
- The motivations behind transportation-related attacks in the East Asia region range from political unrest to religious extremism.
- Understanding these diverse motivations is crucial for devising effective counter-terrorism strategies tailored to the unique dynamics of the region.

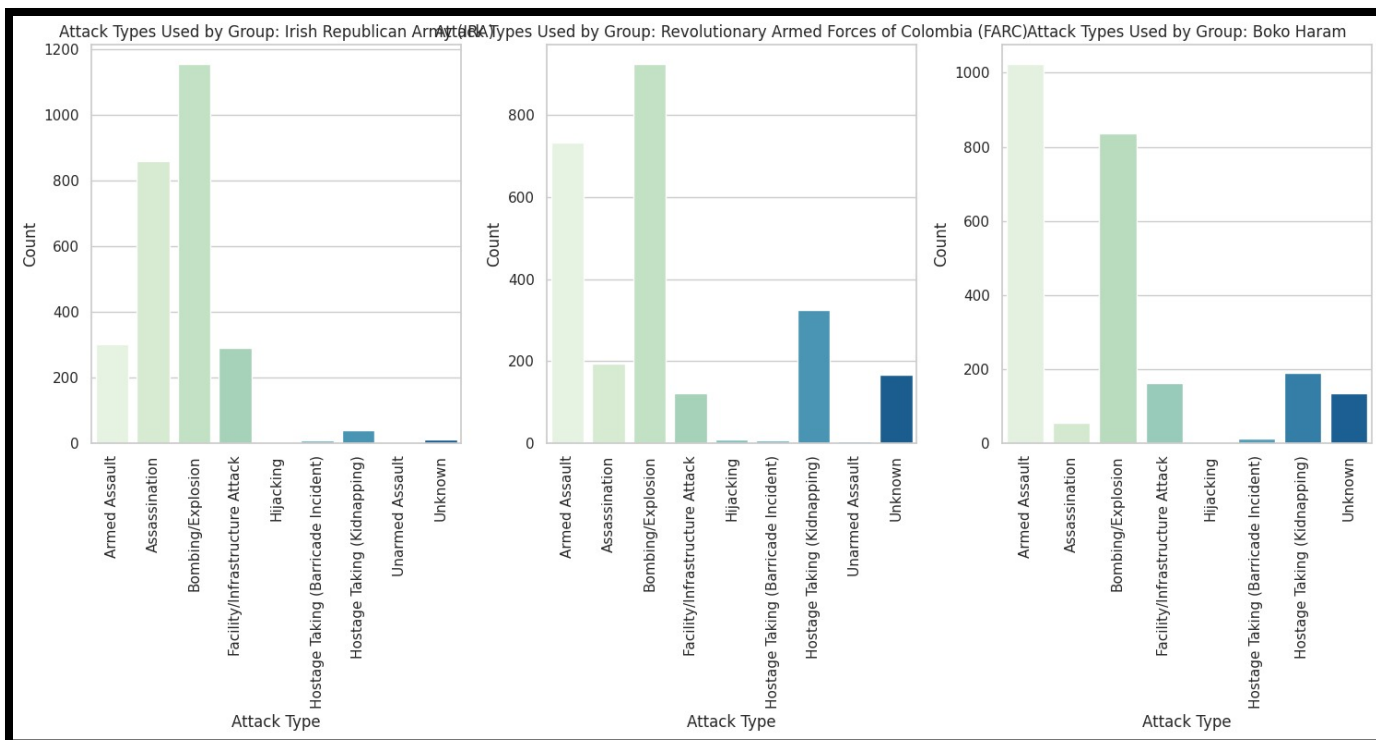
3.2.4. ANALYSIS – IV: IDENTIFICATION OF THE MOST PROLIFIC TERRORIST GROUP AND THEIR WEAPONRY

- **BAR CHART FOR TOP TERRORIST ATTACK GROUPS:**

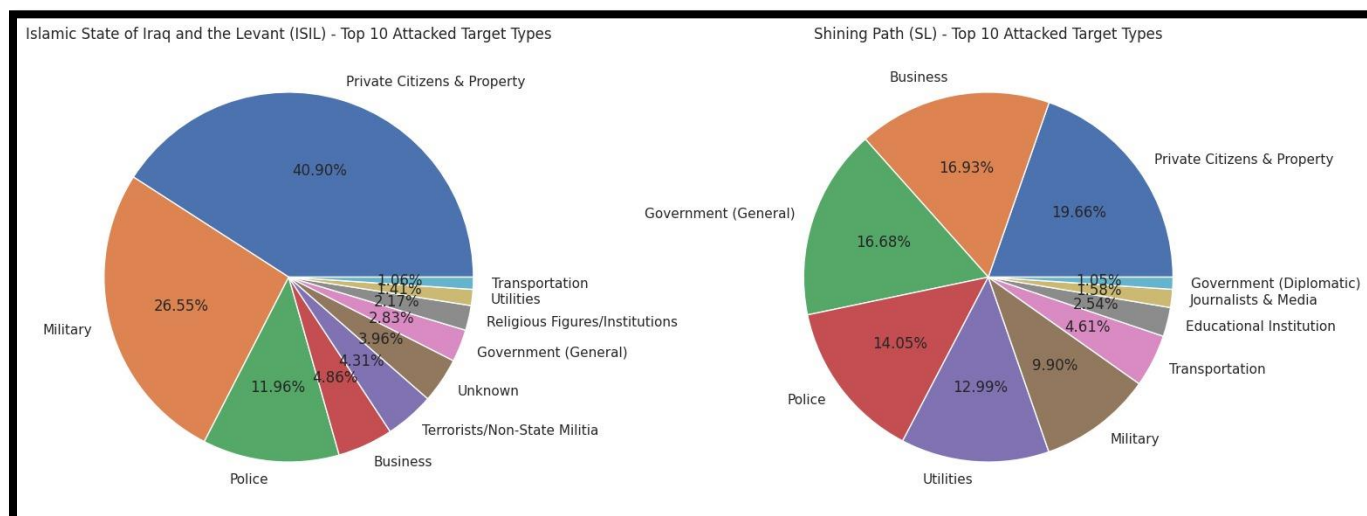
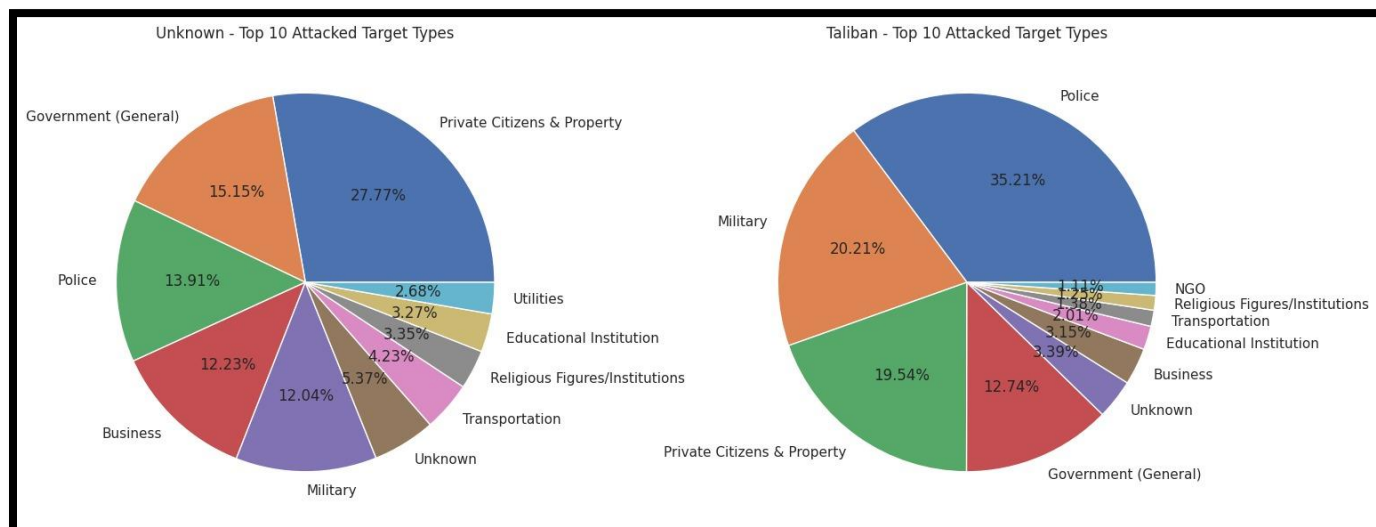


- METHODS OF ATTACK USED BY EACH GROUP:**

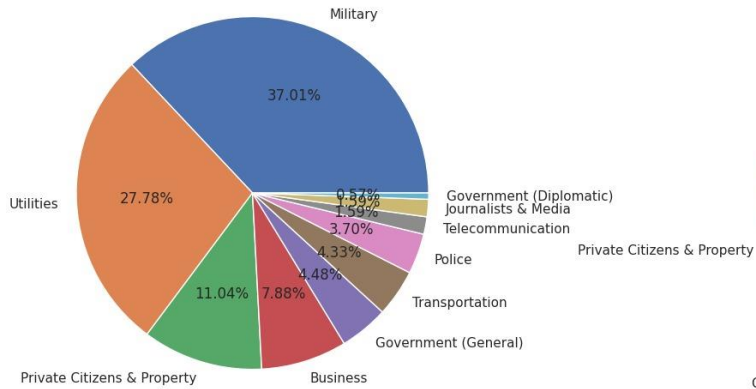




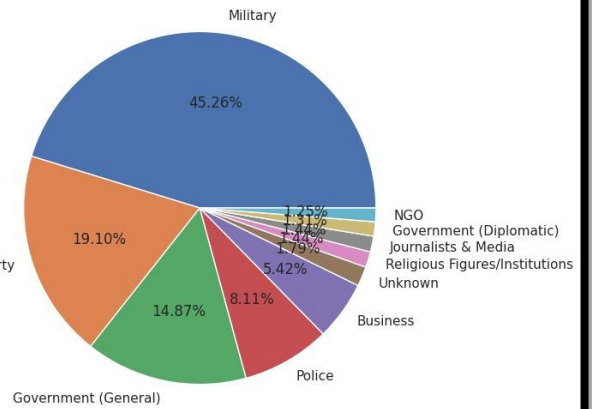
- CHECK THE TREND BY TOP 10 TERRORIST GROUPS THEIR FAVOURITE TARGET TYPES**



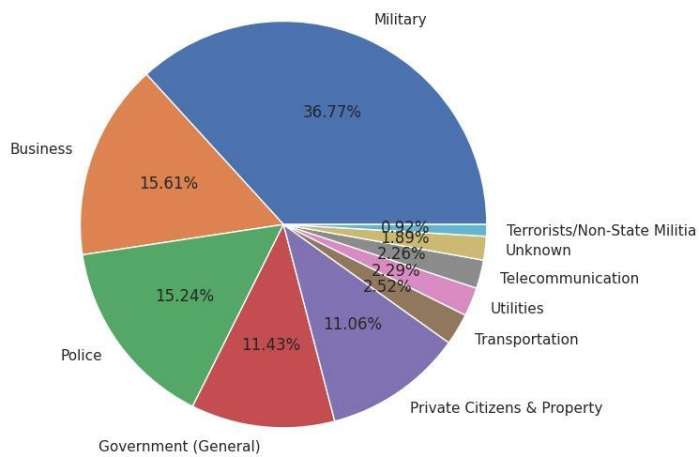
Farabundo Marti National Liberation Front (FMLN) - Top 10 Attacked Target Types



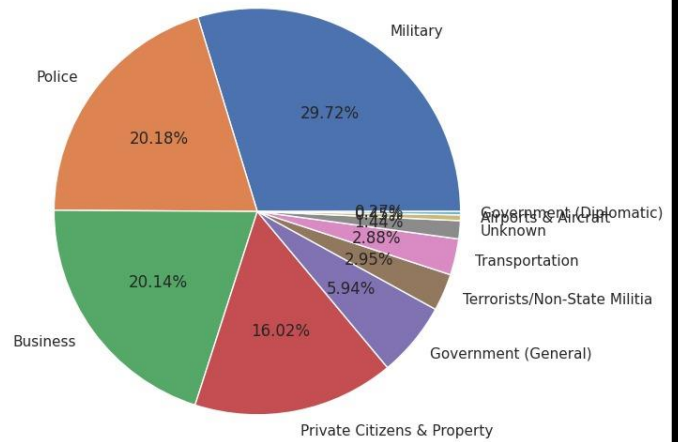
Al-Shabaab - Top 10 Attacked Target Types

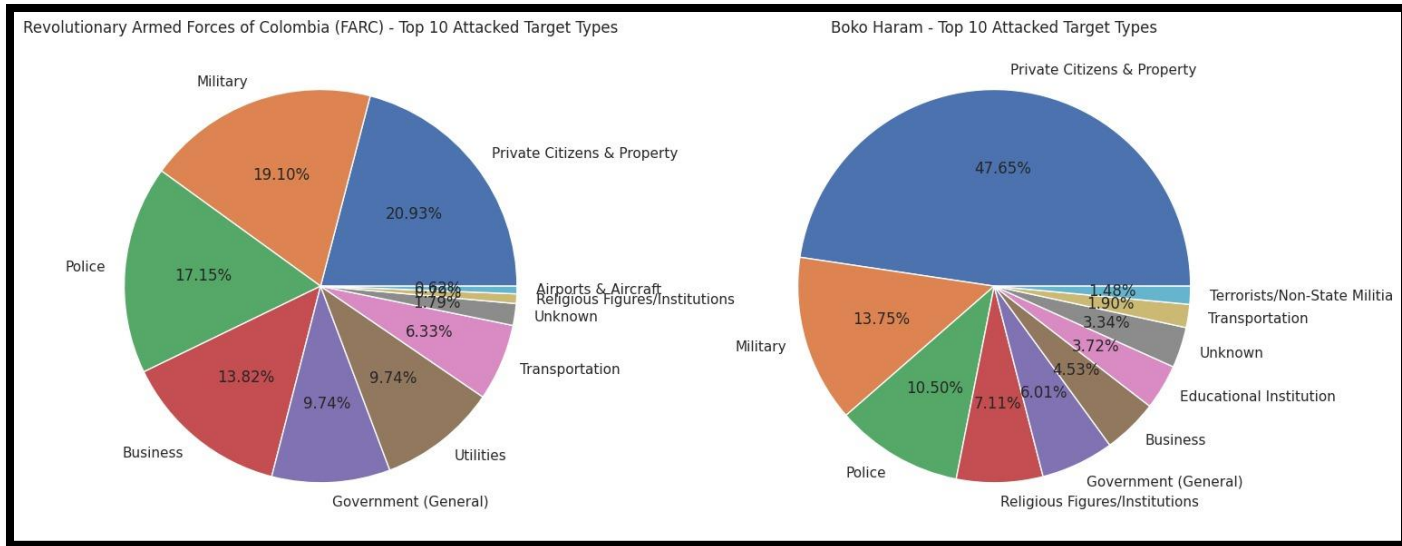


New People's Army (NPA) - Top 10 Attacked Target Types



Irish Republican Army (IRA) - Top 10 Attacked Target Types





1. ISIL (Islamic State of Iraq and the Levant):

- In 2016, ISIL emerged as the deadliest group, experiencing a more than 100 percent increase in deaths compared to its previous peak in 2015.
- Although initially active in Iraq, a decline in activities followed attacks in 2016, leading to near-complete military defeat in Iraq and Syria.
- As a result of this defeat, there is a noticeable decrease in events involving ISIL in the subsequent years.
- ISIL primarily employs Explosion and Bombing as its methods of attack, with 'Private Citizen and Property' and 'Military' being their most targeted sectors.

2. Taliban:

- Over the years, the Taliban's terrorist activities have shown a consistent upward trend, indicating potential for major events globally.
- In present times, the Taliban has gained control in Afghanistan after overthrowing the government.
- The Taliban predominantly employs bombings and armed assaults as its primary modes of attack, with a focus on targeting 'Police and Military.'

3. Al-Shabaab:

- Al-Shabaab, a Salafist militant group in East Africa, experienced a more than fourfold increase in casualties in 2017 compared to 2016.
- This exponential growth suggests a strengthening of the group in the regions of Somalia and Kenya.
- Al-Shabaab mainly utilizes bombings and armed assaults, with a preference for targeting the 'Military.'

4. Boko Haram:

- Boko Haram, a jihadist extremist group in northeastern Nigeria, emerged in terrorism activities around 2010 and became prominent with a major attack in 2014 resulting in over 300 casualties.
- The group primarily employs Armed Assault and frequently targets 'Private Citizen and Property.'
- In 2016, Iraq saw a 40 percent increase in deaths, reflecting heightened ISIL activity following attacks by the Iraqi Armed Forces.

❖ Global Terrorism Trends:

- From 2005 to 2015, the Middle East & North Africa and South East Asia witnessed a significant surge in terrorism activities, while Central and South America were least affected.
- Globally, attacks against private properties increased by nearly 16 percent from 2015 to 2016.
- The primary targets of terrorists globally are private citizens and property.

❖ CONCLUSION OF ABOVE ANALYSIS - IV:

- The analysis revealed the most active terrorist group and shed light on the weaponry associated with their activities. Understanding the preferred weapons of a group is crucial for security and counter-terrorism efforts.

Result:

- The identified most active terrorist group was Taliban, with 7478 recorded incidents. The types of weapons frequently used by this group include bombing and explosion, indicating a diverse range of weaponry in their activities.

Insights and Implications:

- This analysis contributes to understanding the landscape of terrorism by pinpointing the most active groups and their weapon preferences. The insights gained can inform strategic decisions in counter-terrorism efforts, resource allocation, and intelligence gathering.

Recommendations:

- Based on the identified active group and their weapon usage patterns, law enforcement and security agencies can tailor their strategies to address specific threats effectively. Ongoing monitoring and analysis of these patterns are crucial for staying ahead of evolving tactics and ensuring the safety and security of affected regions.