Global Missing Migrants Dataset

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1. Topic:

Many migrants face harsh survival conditions on their journey to reach their settlements. We want to visualize incidents of many migrants who went missing and recorded deaths globally every year. We want to analyze patterns of migration and challenges faced by aggregating the incidents that took place in the routes.

2. Dataset:

The data consists of missing cases of migrants while on migrating to other countries, collected by Missing Migrants Project. The dataset was a collection of events across the globe since 2014.

- Each **item** is a **Report of Incident.**
- For each incident, there are 20 **attributes** like:
    1. **Cause of incident,**
    2. **Geolocation Coordinates** (where it happened)**,**
    3. **Count of People missing,**
    4. **Year and Month of Incident,**
    5. **Origin Country,**
    6. **Migration Route, etc.**

2.2 Content and Pre-processing:

The dataset consists of 13021 incidents (items) and 19 columns (attributes) of which we have filtered out 2 columns which we believe are irrelevant to our visualization. The 17 attributes (columns) that we are going to use are:

Attribute	Type	Description
Incident Type	Categorical	Type of Incidents
Incident Year	Quantitative	Year that the event took place
Reported Month	Categorical / Ordinal	Month of the incident
Region of Origin	Categorical	Region where the migrant was coming from
Region of Incident	Categorical	Region where the incident took place
Country of Origin	Categorical	Country of origin of migrants
Number of Dead	Quantitative	Count of deaths of migrants

Minimum Estimated Number of Missing	Quantitative	Minimum estimated count of missing migrants
Total number of Dead and Missing	Quantitative	Count of both deceased and missing migrants
Cause of Death	Categorical	Cause of Death of migrants
Migration Route	Categorical	Route taken by migrants during the journey
Location of Death	Categorical	Approximate location of incident
Coordinates	Quantitative	Geo coordinates of incident
Number of Males	Quantitative	# Males involved in incident
Number of Females	Quantitative	# Females involved in incident
Number of Children	Quantitative	# Children involved in incident
UNSD Geographical Grouping	Categorical	Grouping according to United Nations Statistics Division

2.3 Acknowledgements

The dataset serves as a tribute to the individuals who lost their lives, as well as the families and communities impacted by their absence, collected by the Missing Migrants Project, an initiative implemented by the International Organization for Migration (IOM) since 2014.

3. Why we selected:

Understanding Immigration Trends and Patterns: Data visualization helps in revealing trends and patterns within the dataset that might not be immediately apparent from raw data. We can use charts and graphs to visually identify incidents over time, seasonality, and any correlations between variables.

Identifying Outliers: Visualizations make it easier to spot outliers or unusual data points. For instance, we can quickly identify regions of high deaths, which might indicate issues that need attention.

Communication and Reporting: Effective data visualization is crucial for communicating findings to governments. Visualization helps governments to be aware of what can happen in less vigilant regions.

Humanitarian and Ethical Considerations: The dataset sheds light on the tragic journeys of missing migrants and highlights the challenges they face during migration. By working with this dataset, our project can contribute to raising awareness about the human cost of migration and honoring the lives lost in the process. It provides an opportunity to show empathy and respect towards the individuals who have lost their lives during their migration journeys and the families and communities impacted by their absence.

Diverse Analysis Opportunities: The dataset offers a wide range of variables, allowing for diverse analysis possibilities. We can explore migration patterns, demographic aspects, survival rates, causes of death, temporal trends, and geospatial patterns. Analyzing these aspects can help you answer critical questions about migration, such as which regions are most affected, what routes are commonly taken, and what factors contribute to mortality or disappearance during migration.

4. Conclusion

In summary, data visualization is essential for exploring, analyzing, and presenting insights from the migration incidents dataset. It not only makes data more understandable but also facilitates better decision-making, strategy development, and communication of findings to relevant governments.

5. References

[1] International Organization of Migration, https://www.iom.int