



SHORT-TERMINTERNSHIP



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Acknowledgements

This powerbi presentation on topic "Analyzing climate change discourse on Twitter". main objective of this climate change and natural disasters (such as floods, hurricanes, droughts, wildfires, etc.) to identify trends, impacts, and potential areas for intervention. The analysis might include temperature trends, carbon emissions, disaster frequency, affected areas, human and economic impacts, and more. we thank for creating a powerful and intuitive platform for data visualization and analysis.

We thank for their expertise in funding and investment growth, which informed our predictive model. we thank for the providing of Data related to investments used in this project. we thank our team members for their contributions to data analysis and visualization and insights. we acknowledge organization for providing the resources and support necessary to complete this project. we acknowledge to our reviews in succeeding this powerbi presentation. we acknowledge advisors of peers who contributed to this project. Finally, we thank our team members for their hard work and dedication to this project.

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CHAPTER 1: EXECUTIVE SUMMARY

Description of the sector of business and intern organization:- Smart bridge operates in the data analytics sector, providing innovative solutions to enhance the business intelligence. The organization leverages Power BI to empower clients with actionable insights, enabling data-driven decision-making.

Learning Objectives and outcomes :-

- Data Cleaning
- Data Pre processing and manipulation
- Statistical analysis.

Summary of Internship Activities :-

- Attending live training sessions and project-mentoring sessions.
- Selection of topic - "Student Performance Analysis" and gathering, cleaning and analysing its related dataset in Excel.
- Team formation and assignment of tasks to teammembers.
- Designing and developing dashboard and report.
- Drafting project video demonstration and preparation of final reports.

CHAPTER 2: OVERVIEW OF THE ORGANIZATION

Smart Bridge is a platform that offers virtual Internship to the students. The platform's goal is to prepare students for the job market by establishing a cooperative relationship between industry and academia. Smart Bridge partners with companies such as Google to offer virtual internships. The internships provide students with hand-on experience with the latest technologies, and enable project-based learning.

Smart Bridge's flagship event is the "Summer Internship Program". The program develops students' skills in emerging technologies i.e.,

- Artificial Intelligence
- Machine Learning
- Internet of things.

Organization objective : Smart Bridge's main objective is to bridge the existing gaps b/w prevailing Industry standards and what the academics offer to the graduates which passing out of university. Smart Bridges offers suitable skill development and training to the young talent.

before on boarding their first job.

Their skill development programs are designed considering the present in demand skills in the industries. we thereby work along the line to offer best programs that helps the students to gave practical knowledge and hands on training to learn skills of the future. Therefore, the main objectives of Smart bridge is providing Internship for every student , promote Industry approved professional executives , and becomes a talent factory of India by 2026.

CHAPTER 3: INTERNSHIP PART

Description of activities / Responsibilities undertaken:-

- Registering with APACHE smart internz and enrolling for Smartbridges "data analytics course i.e., live training sessions as per the pre-scheduled training calendar.
- Participating weekly quiz and completing weekly assignments with respect to data analytics.
- Team Formation and selection of project topic "Analyzing climate change discourse on Twitter using Power BI".
- Gathering, cleaning and analyzing the excel data sets of the project.
- Attending project-mentoring sessions and designing and developing interactive dashboard story , report
- web integration of above project deliverables with team's web pages using visual studio code , drafting a project video demonstration and preparation of final report.
- submission of team project via uploading the project files in GITHUB repository of the team

CHAPTER 4 OUTCOMES DESCRIPTION

Describe the work environment you have experienced (in terms of people interactions, facilities available and maintenance, clarity of job roles, protocols, procedures, processes, discipline, time management, harmonious relationships, socialization, mutual support and teamwork, motivation, space and ventilation, etc.)

Team Interactions:

- Collaborative and inclusive atmosphere. Open communication and active listening. Respectful and empathetic dialogue. Regular team-building activities and social events.

Facilities and Maintenance:

- Modern, energy-efficient, and sustainable office space. Accessing to cutting-edge technology and research tools. Well-maintained equipment and regular upgrades.

Clarity of Job Roles:

- Clearly defined responsibilities and expectations.
- Regular feedback and performance evaluations.
- Opportunities for growth and professional development.
- Cross-functional collaboration and support.

Protocols and Procedures:

- Established workflows and decision-making processes.
- Regular updates and training on new procedures.

Discipline and Time Management:

- Flexible work arrangements and work-life balance.
- Regular check-ins and progress updates.
- Respect for individual work styles and needs.

Harmonious Relationships and Socialization:

- Inclusive and diverse team culture. Regular social events and team-building activities.

Mutual Support and Teamwork:

- Collaborative problem-solving and idea-sharing.

Recognition and Appreciation for Individual Contribution

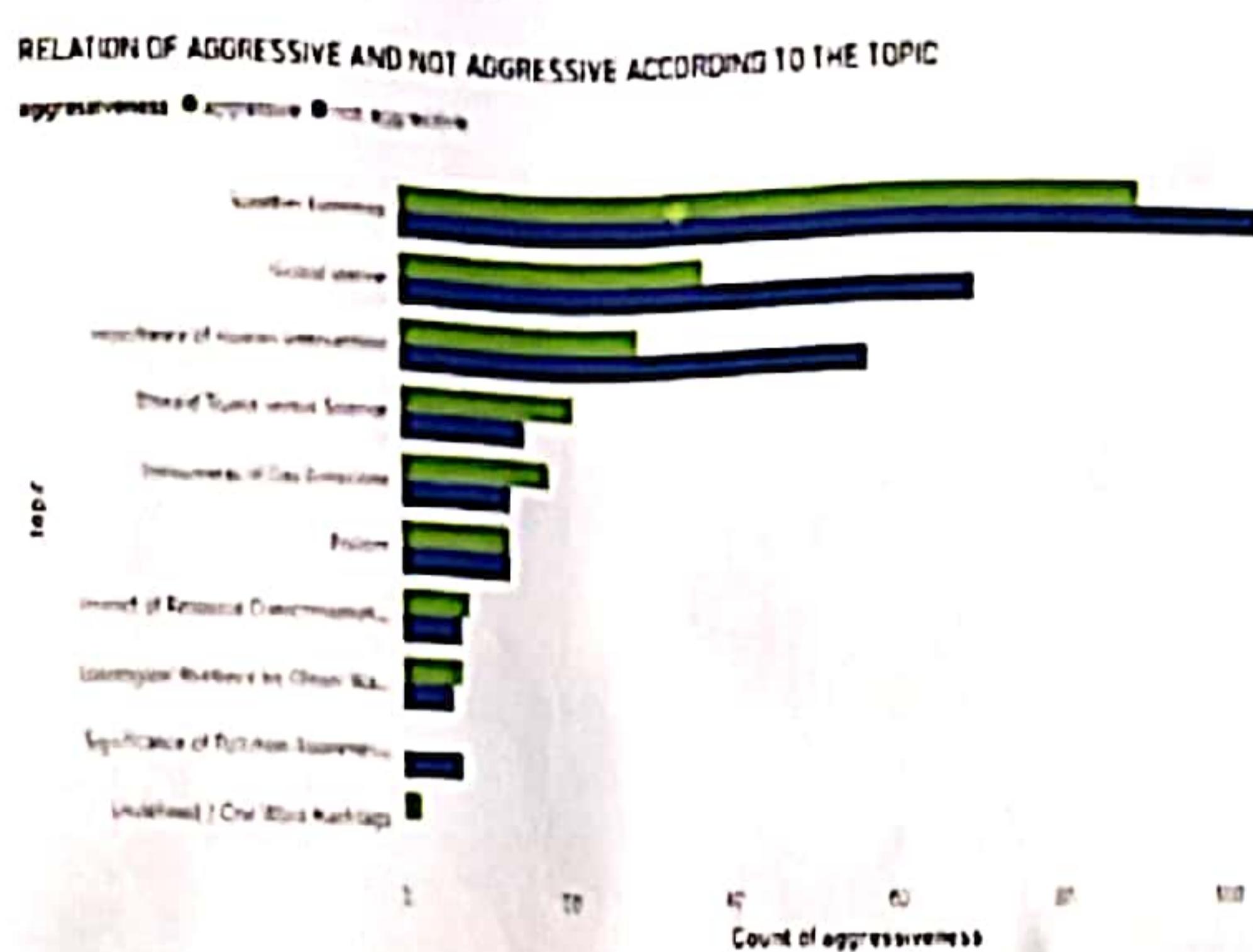
Motivation:

- Clear purpose and meaningful work. Opportunities for growth and development.

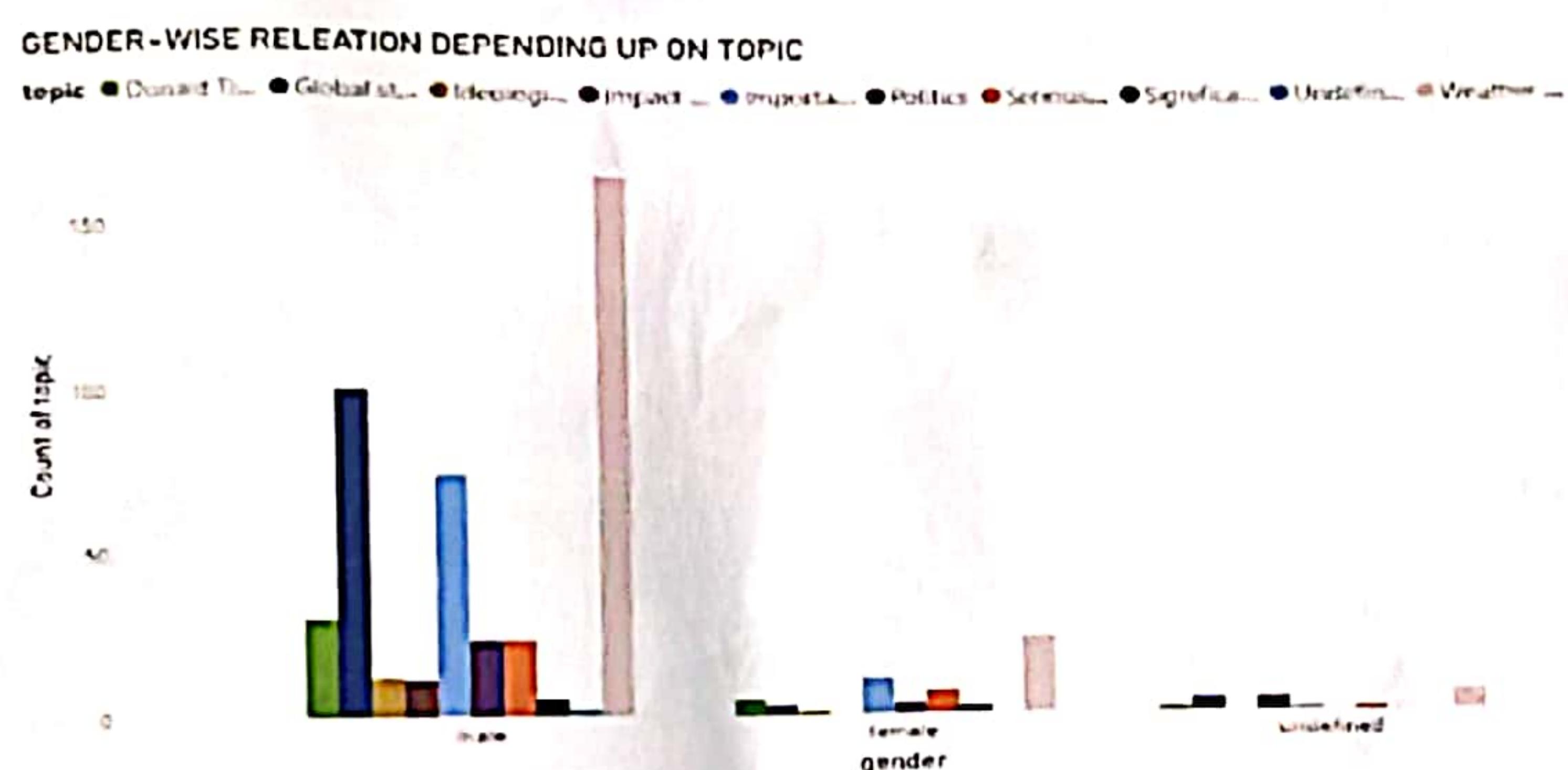
Space and Ventilation:

- Comfortable and well-ventilated workspaces. Access to natural and outdoor spaces. Ergonomic and adjustable workstations.

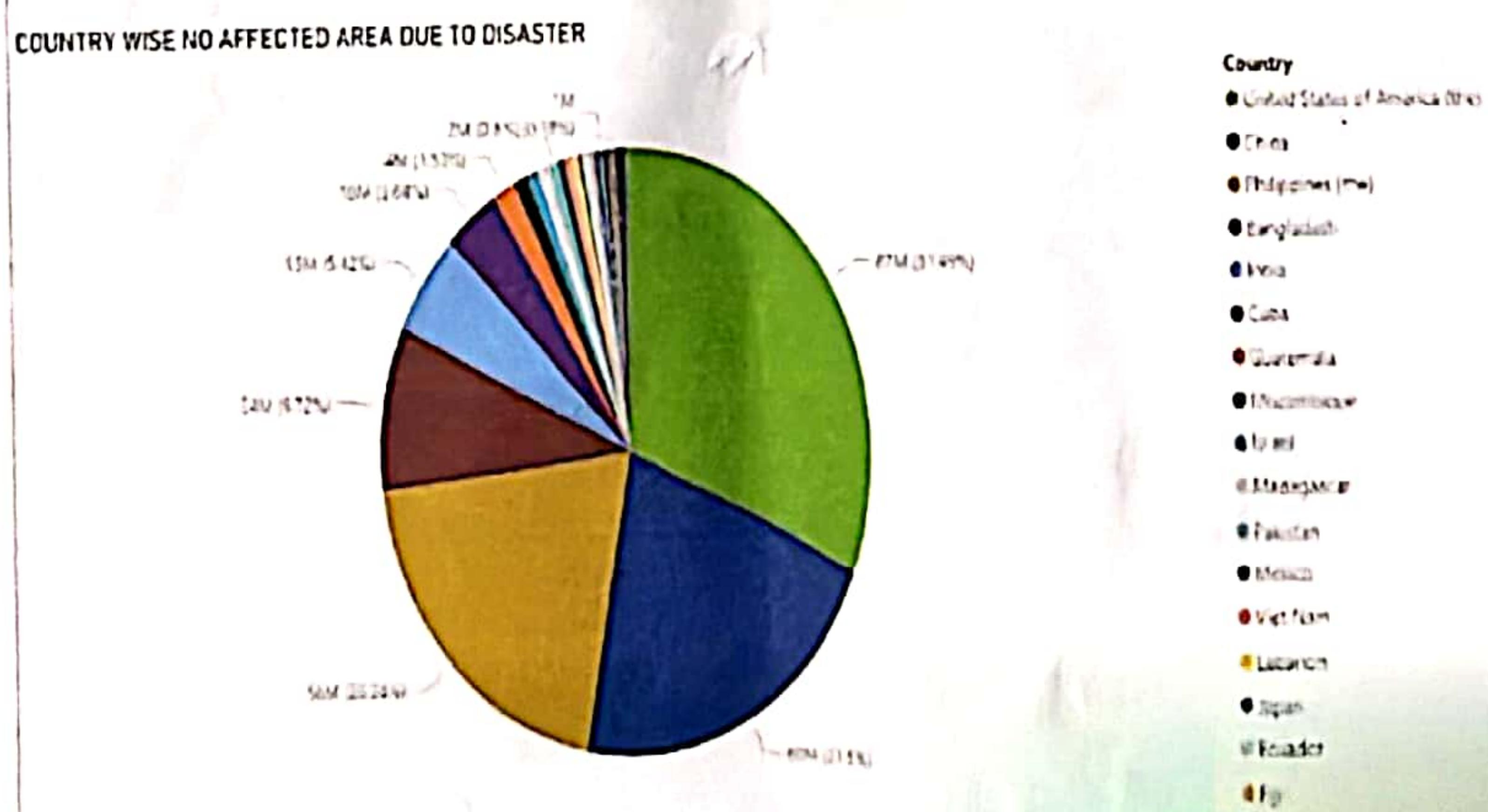
RELATION OF AGGRESSIVE AND NOT AGGRESSIVE ACCORDING TO THE TOPIC



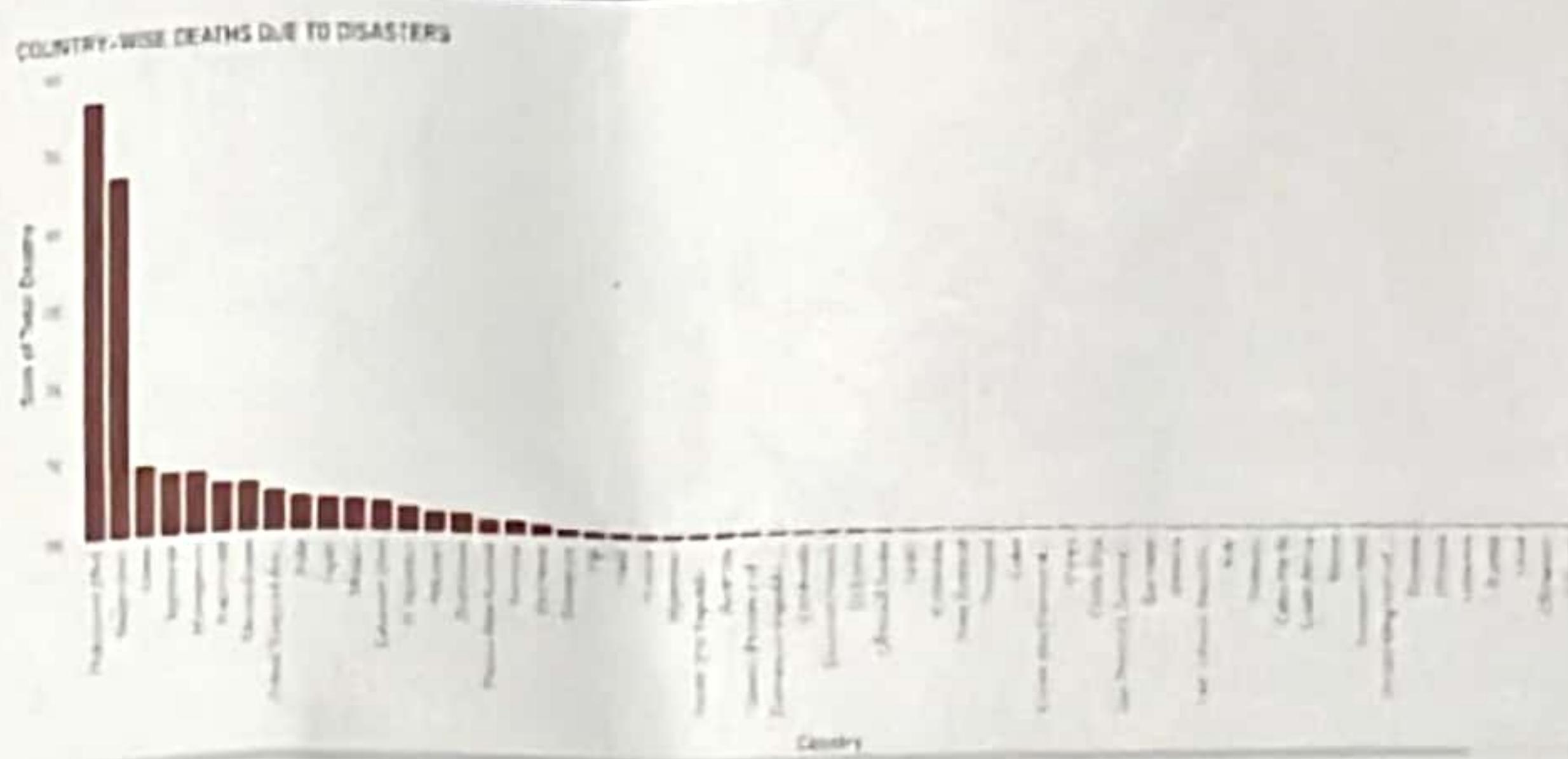
GENDER-WISE RELATION DEPENDING UP ON TOPIC



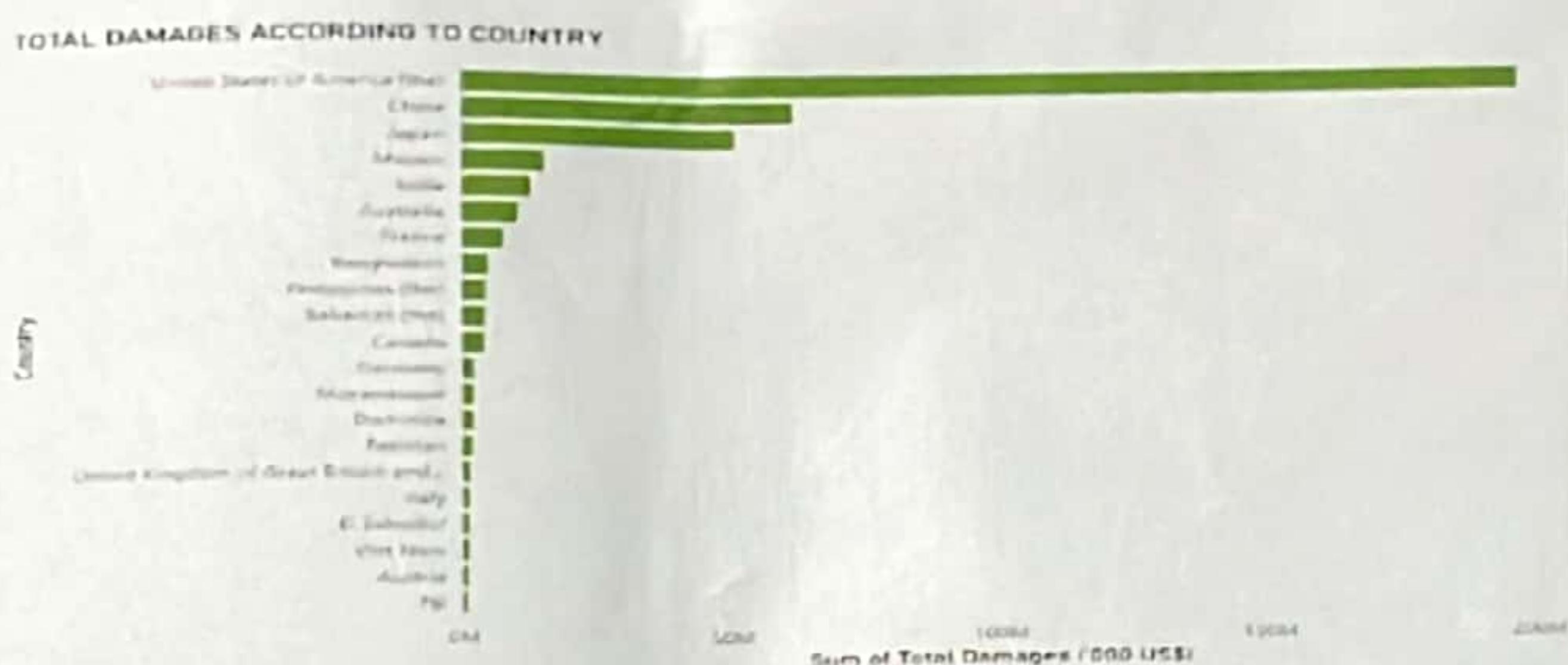
COUNTRY-WISE NO AFFECTED AREA DUE TO DISASTER



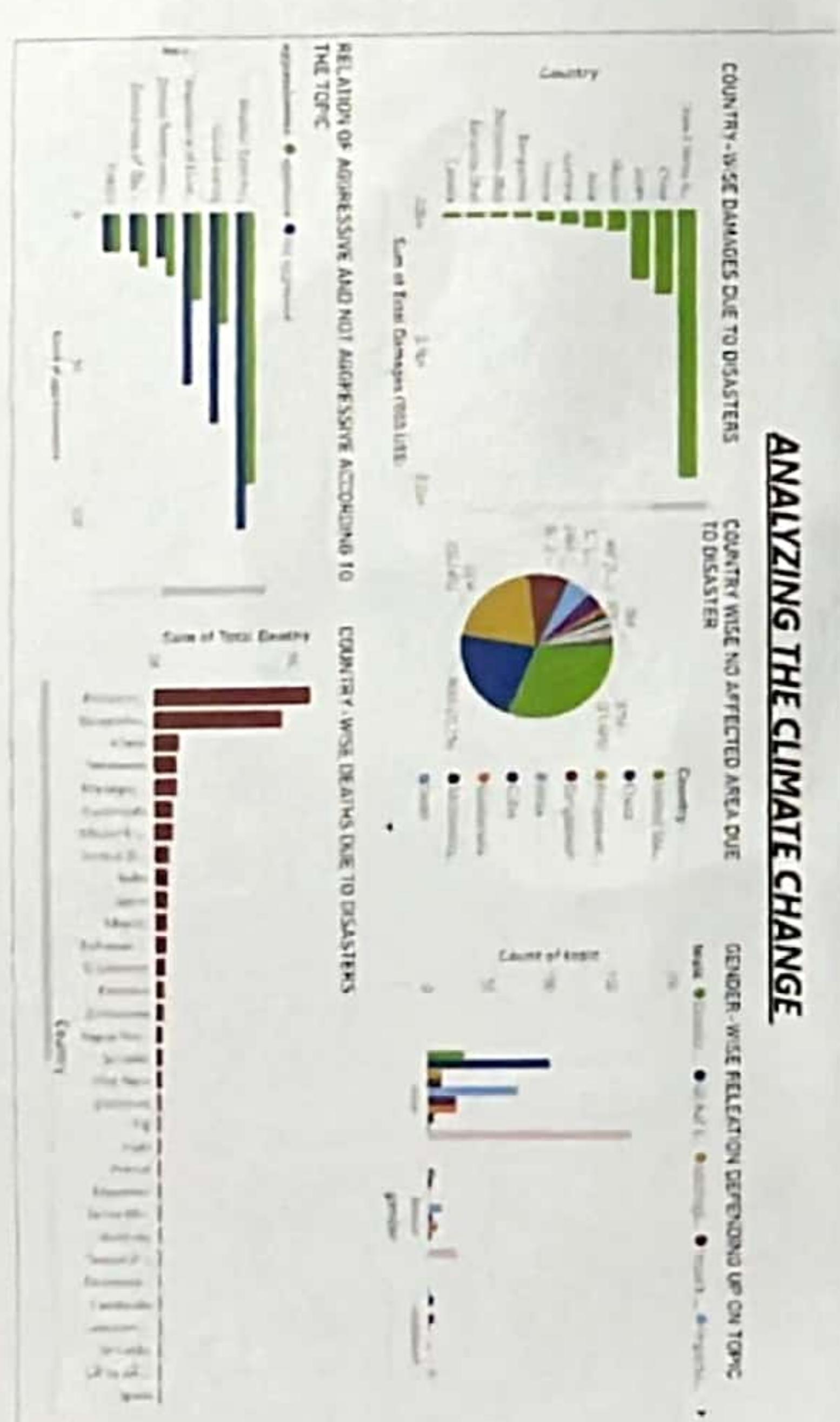
COUNTRY-WISE DEATHS DUE TO DISASTERS



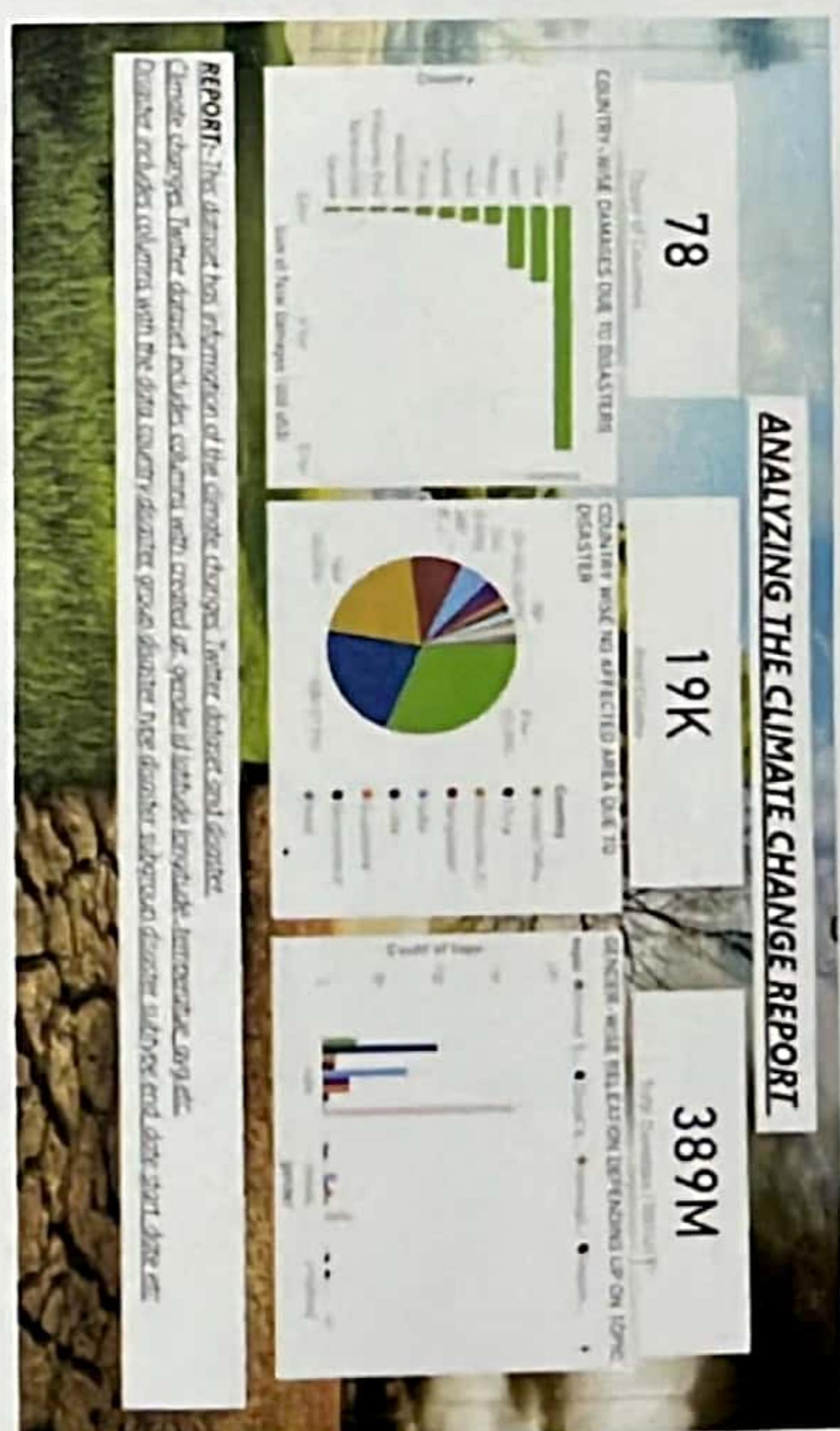
COUNTRY-WISE DAMAGES DUE TO DISASTERS



ANALYZING THE CLIMATE CHANGE



ANALYZING THE CLIMATE CHANGE REPORT



Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1 3/7/24	Introduction of data analysis and interpreted data visualization	Analysis of the topic	
Day - 2 4/7/24	Agenda and understanding consumers and its solution	Clear view of business problem and its solution	
Day - 3 5/7/24	Types of analysis process and download of Power Bi	Clear analyses on DA tools and process regarding it	
Day - 4			
Day - 5			
Day - 6			

WEEKLY REPORT

WEEK - 1 (From Dt. 3/7/24 to Dt. 5/7/2024 ,)

Objective of the Activity Done:

Introduction to Power BI, Data Analytics

Detailed Report:

Agenda of data analytics includes understanding the fundamentals of Power BI and the importance of data analytics in business decision-making.

- Attended an orientation session on the internship objectives and deliverables.
- completed introductory, key features, and capabilities
- Learned about the various types of data sources that can be connected to Power BI.
- It developed a foundational understanding of Power BI.
- Connected to different data sources basic visualizations such as bar charts and line graphs.
- Participated in a workshop on basic data cleaning and transformation techniques.

ACTIVITY LOG FOR THE SECOND WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1 8/7/24	Features and components of Power BI	Clear view on every component required.	
Day - 2 9/7/24	Power BI in action and its architecture	Visible insights and seeks format	
Day - 3 10/7/24	Power query and transformation operations	Clarity about ETC tools	
Day - 4 11/7/24	Tools present in Power BI desktop	Clear view on each and every tool present.	
Day - 5 12/7/24	Analysing the data in different types	Learned about practically on data usage.	
Day - 6			

WEEKLY REPORT
WEEK - 2 (From Dt. 8/7/24.. to Dt 12/7/24)

Objective of the Activity Done:

Data Importing and modeling

Detailed Report:

This week dedicated to mastering data importing and modeling within Power BI

- Explored different data connectors available in Power BI, such as Excel, SQL databases and online services.
- Learned about the ETL (Extract, Transform, Load) process within Power BI.
- Practiced data modeling techniques, including creating relationships between tables, using DAX (Data Analysis Expressions), Functions, and designing calculated columns.
- Successfully imported datasets from multiple sources into Power BI.
- Built a robust data model with well-defined relationships.
- Used DAX to create calculated columns and measures for enhanced analysis.

ACTIVITY LOG FOR THE THIRD WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1 15/7/24	Data collection and data cleaning	Learned about the process of DA	
Day - 2 16/7/24	Differentiated between Storyboard, dashboard and report	Learned the differences about contents to represent	
Day - 3 18/7/24	Data structuring and its usage with Power Bi	Learned the usage of data structure	
Day - 4 19/7/24	Revised on topics as per completed	clear view with the usage of Power Bi	
Day - 5	
Day - 6			

WEEKLY REPORT

WEEK - 3 (From Dt.15/7/24 to Dt. 19/7/24)

Objective of the Activity Done:

Data visualization techniques

Detailed Report:

This week focused on creating effective and interactive data visualization in Power BI.

- Studied various visualizations options available in Power BI, including advanced charts, maps, and custom visuals.
- Participated in a hands on session design interactive dashboards with slicers, filters, and drill-throughs.
- Learned best practices for choosing appropriate visualizations for different data types and insights.
- Designed a comprehensive dashboards featuring key metrics using a mix of visuals.
- Implemented interactivity through slicers and filters to allow users to explore the data dynamically.
- Presented the dashboards to peers to feedback.

ACTIVITY LOG FOR THE FORTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1 22/7/24	Research the additional information	Additional information about Power bi	
Day - 2 23/7/24	Revised about data collection and data cleaning	Learned about starting process in DA	
Day - 3 24/7/24	Revised about the data visualization	Clearview on visualization part	
Day - 4 25/7/24	DAX and DAX functions	Clearview on DAX functions	
Day - 5 26/7/24	All the functions present in power Bi	Learned about the functions to apply	
Day - 6			

WEEKLY REPORT

WEEK - 4 (From Dt. 22/7/24 to Dt. 26/7/24)

Objective of the Activity Done

Advanced data analysis with DAX

Detailed Report:

This week was dedicated to deepening our understanding of DAX for advanced data analysis.

- Completed advanced DAX training modules, covering topics such as time intelligence, advanced filtering, and context management.
- Worked on a case study that required creating complex measures to calculate year-over-year growth and rolling averages.
- Collaborated with peers to troubleshoot DAX-related issues in our data models.
- Developed proficiency in writing complex DAX expressions.
- Applied time intelligence functions to analyze trends over time.
- Improved the accuracy and efficiency of data models using advanced DAX.

ACTIVITY LOG FOR THE FIFTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1 29/7/24	Explained more factors in DAX	Learned about expressions and functions in DAX	
Day - 2 30/7/24	more about filters functions in DAX	clearview on different views	
Day - 3 31/7/24	Preparation for grand assessment	Prepared for test	
Day - 4 1/8/24	Preparation for grand assessment	Prepared for test	
Day - 5 2/8/24	grand assessment test	Grand the test	
Day - 6			

WEEKLY REPORT

WEEK - 5 (From Dt..... 29/7/24, to Dt..... 2/8/24)

Objective of the Activity Done:

Real-world case study: Sales Analysis

Detailed Report:

The focus this week was on applying Power BI skills to a real-world sales analytics case study.

- Received a dataset representing sales data from a fictional company.
- Defined key performance indicators such as sales growth, customer acquisition and product performance.
- Built a sales dashboard to visualize the KPIs and identify trends, outliers and areas for improvement.
- Created a comprehensive sales dashboards that highlighted crucial business insights.
- Used data story telling techniques to communicate findings effectively.
- Received positive feedback from mentors on the practical application of Power BI skills.

ACTIVITY LOG FOR THE SIXTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1 5/8/24	Optimising Power BI report	Clear view on Optimising.	
Day - 2 6/8/24	Implementation of Incremented data	Learned about DA with huge dataset.	
Day - 3 7/8/24	Application in business scales.	Clear view on real-time applications.	
Day - 4 8/8/24	Application of techniques to size data models.	Learned about sizing data models.	
Day - 5 9/8/24	Learned about using information with reports.	Clear view on report based data	
Day - 6			

Page No:

WEEKLY REPORT
WEEK - 6 (From Dt. 5/8/24 to Dt. 9/8/24.)

Objective of the Activity Done:

Report optimization and performance tuning.

Detailed Report:

This week focused on optimizing Power BI reports for performance and scalability.

- Learned about Power BI report optimization techniques, including data reduction, efficient use of DAX, and query optimization.
- Implemented incremental data refresh to improve report load times.
- Explored best practices for managing large datasets and reducing memory usage.
- Optimized existing reports to load faster and handle larger datasets.
- Applied techniques to reduce the size of data models without losing critical information.

ACTIVITY LOG FOR THE SEVENTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1 12/8/24	Formation of team	clearview on team.	
Day - 2 13/8/24	project scope and objectives	Clear view on project assigned	
Day - 3 14/8/24	Aggregation of public reports	segregation of data analysis.	
Day - 4 15/8/24	Configured public refreshes	Reviewed self on dataset	
Day - 5 16/8/24	Feedback on accessibility with published report.	clearview on outcome of reports	
Day - 6			

WEEKLY REPORT

WEEK-7 (From Dt 12/08/24..... to Dt. 16/08/24.....)

Objective of the Activity Done:

Project work - Data analysis and visualization

Detailed Report:

The seventh week marked the beginning of the project phase. We started by defining the project scope, objectives, and deliverables. The project involved analyzing a dataset provided by Smart Internz, cleaning and transforming the data, and building a data model. Our team focused on identifying key metrics, trends, and patterns that could drive business decisions. The initial reports and dashboards were created to visualize these insights, using the skills and techniques learned over the past six weeks.

ACTIVITY LOG FOR THE EIGHTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day -1 19/8/24	presenting actionable insights.	clearview on Pictorial representation	
Day -2 20/8/24	presenting the dashboards and reports.	Representing the final output	
Day -3 21/8/24	collaborations, file uploading	Allowing work to all members in team.	
Day -4 22/8/24	Reviewing on dashboard , report	clearview on work done in DA	
Day -5 23/8/24	Submission of Project	Submitted to mentors.	
Day -6			

WEEKLY REPORT

WEEK-8 (From Dt. 19/08/24 to Dt. 23/08/24.....)

Objective of the Activity Done:

Finalization and Presentation

Detailed Report:

In the final week, we completed the Project by refining our reports and dashboards, ensuring they met the Project requirements. We focused on enhancing the visual appeal and usability of the dashboards by adding interactive elements and ensuring the data was accurately represented. The week culminated with a presentation to the Smart Internz team, where we showcased our findings, explained the methodologies used, and demonstrated how the insights could be applied to solve real business problems. The Project was well received, marking a successful Conclusion to the Internship.

Describe the real time technical skills you have acquired (in terms of the job-related skills and hands on experience)

Data Analysis and Visualization:

- 1) Proficiency in tools like Excel, Google Sheets, Tableau, Power BI, or D3.js for data analysis and visualization.
- 2) Experience with programming languages like Python, R, or SQL for data manipulation and analysis.

Climate Modeling and Simulation:

- 1) Familiarity with climate models like IPCC, CMIP5, or CMIP6.
- 2) Experience with simulation tools like NetCDF, ArcGIS, or Google Earth Engine.

Programming and Scripting:

- 1) Proficiency in languages like Python, R, or MATLAB for climate-related tasks.
- 2) Experience with scripting languages like Bash or Perl.

Geospatial Analysis:

- 1) Familiarity with GIS tools like ArcGIS, QGIS, or GRASS.
- 2) Experience with geospatial data formats like Shapefile or GeoJSON.

Machine Learning and AI:

- 1) Knowledge of machine learning libraries like scikit-learn, tensorflow, or PyTorch.
- 2) Experience with AI applications in climate change, like predictive modeling or natural language processing.

Cloud Computing:

- 1) Familiarity with cloud platforms like AWS, Google Cloud, or Microsoft Azure.

Communication and Collaboration:

- 1) Proficiency in presentation tools like Power Point, Google Slides, or LaTeX.
- 2) Experience with collaboration platforms like GitHub, Slack, or Trello.

Domain-specific knowledge:

- 1) Understanding of Climate Change concepts, impacts, and mitigation strategies.
- 2) Familiarity with climate-related policies, agreements and frameworks.

Describe the managerial skills you have acquired (in terms of planning, leadership, team work, behaviour, workmanship, productive use of time, weekly improvement in competencies, goal setting, decision making, performance analysis, etc.

Planning :

Strategic planning for climate change projects and initiative. Developing and implementing action plans and timelines. Coordinating with teams and stakeholders to achieve goals.

Leadership :

Inspiring and motivating teams to work towards climate changes mitigation. Providing guidance and support for team members.

Teamwork :

Building and leading high-performing teams to address climate change challenges. Facilitating collaboration and communication among team members.

Behavior and workmanship :

• Demonstrating a strong work ethic and commitment to climate change work. Exhibiting professional behavior and integrity in all interactions.

Productive use of time:

Prioritizing tasks and managing time effectively to meet deadlines.

Weekly Improvement in Competencies:

Staying up-to-date with the latest climate change research and developments, seeking feedback and learning from mistakes.

Goal setting:

Establishing clear and achievable goals for climate change projects. Developing and implementing strategies to achieve goals.

Decision Making:

Analyzing data and information to inform climate change decisions, weighing options and considering multiple perspectives.

Performance Analysis:

Monitoring and evaluating the effectiveness of climate change initiatives. Identifying areas for improvement and implementing changes.

3
Describe how you could improve your communication skills (in terms of improvement in oral communication, written communication, conversational abilities, confidence levels while communicating, anxiety management, understanding others, getting understood by others, extempore speech, ability to articulate the key points, closing the conversation, maintaining niceties and protocols, greeting, thanking and appreciating others, etc.,)

1) Oral communication :

- Improvement APProach: practice speaking clearly and concisely about climate change, focusing on delivering complex information in an accessible manner.

2) Written communication : Enhance active listening to understand and accurately respond to other's point of view.

3) Conversational Abilities : Develop the ability to navigate conversations smoothly by staying informed on the latest climate change data, trends, and opinions.

4) Confidence level : Increase confidence by deepening knowledge on climate change and practicing in low-stakes environments, such as discussions with peers or in smaller groups.

- 5) Anxiety management :- use mindfulness techniques, such as deep breathing or visualization, before engaging in conversation on climate change.
- 6) Understanding others; work on empathy by actively trying to see the issue of climate change from other's perspectives.
- 7) Getting understood by others; simplify technical jargon and use relatable examples to explain climate change concepts.
- 8) Extempore speech; practice impromptu speaking on climate change topics by participating in debates, discussions, or even setting a timer and speaking on a random subtopic.
- 9) Articulation of key points; focus on identifying the most critical aspects of climate change for each conversation.
- 10) Closing the conversation; - Learn to ~~end~~ close conversations on a positive note by summarizing the key points discussed and suggesting actional steps or further discussion.

- 11) maintaining Niceties and protocols:- Develop the habit of starting and ending conversations with appropriate greetings, expressions of thanks, and acknowledgments of other's ~~input~~, contributions.
- 12) Greeting, thanking and appreciating others:- Develop the habit of starting and ending conversations with appropriate greetings, expressions of thanks and acknowledgments of other input. This reinforces a positive and respectful communication atmosphere.

Describe how could you enhance your abilities in group discussions, participation in teams, contribution as a team member, leading a team/activity.

To enhance abilities in group discussions, team participation, and leadership on climate change:

Group Discussions:

- 1) Prepare thoroughly on climate change topics.
- 2) Listen actively and respond thoughtfully.
- 3) Ask open-ended questions to foster dialogue.

Participation in Teams:

- 1) Volunteer for tasks and take initiative.
- 2) Share knowledge and expertise on climate change.
- 3) Be respectful and open-minded in team interactions.

Contribution as a Team member:

- 1) Identify areas of expertise and contribute accordingly.
- 2) Offer creative solutions to address climate change challenges.
- 3) Support team members and provide resources when needed.

- 4) Help set goals and objectives for team projects.
- 5) Celebrate team successes and learn from setbacks.

Leading a Team (Activity):

- 1) Set clear goals and objectives for the team (project).
- 2) Encourage participation and empower team members.
- 3) Lead by example, demonstrating passion and commitment to addressing climate change.

Additionally:

- Stay updated on climate change research and news.
- Develop strong communication and interpersonal skills.
- Emphasize collective ownership and shared responsibility for addressing climate change.
- Foster a positive and inclusive team culture.

5
Describe the technological developments you have observed and relevant to the subject area of training (focus on digital technologies relevant to your job role)

- 1) Remote sensing and satellite Imaging: Advancements in satellite technology enable monitoring of climate-related changes, such as deforestation, glacier melting, and sea-level rise.
- 2) Climate modeling and simulation software: Improved climate models, like IPCC's CMIP6, simulate future climate scenarios, helping scientists predict and prepare for climate change impacts.
- 3) Big Data Analytics and Artificial Intelligence: AI applications, such as machine learning algorithms, analyze large climate datasets, identifying patterns and trends to inform decision-making.
- 4) Internet of Things (IoT) and sensor technologies: IoT devices monitor environmental parameters, like temperature, humidity, and air quality, providing real-time data for climate research.
- 5) Cloud computing and storage: Cloud-based platforms, like Google Earth Engine, store and process large climate datasets, enabling global collaboration and research.

- 6) Geographic Information Systems (GIS) and Mapping:
Advanced GIS tools visualize climate data, helping researchers understand spatial relationships and impacts.
- 7) Virtual and Augmented Reality: Immersive technologies raise climate change awareness, enhance education, and facilitate stakeholder engagement.
- 8) Blockchain and Climate Finance: Blockchain technology ensures transparency and security in climate finance transactions, promoting global cooperation.
- 9) Renewable Energy Technologies: Advancements in solar, wind, and hydro power (as well as energy storage) support the transition to low-carbon economies.
- 10) Digital Twinning and Urban Planning: Virtual replicas of cities (digital twins) optimize urban planning, reducing carbon footprints and enhancing climate resilience.