

**BHARATIYA VIDYA BHAVAN'S**  
**SARDAR PATEL INSTITUTE OF TECHNOLOGY**  
(Empowered Autonomous Institute Affiliated to University of Mumbai)  
[Knowledge is Nectar]

**Department of Computer Engineering**  
**Advanced Data Visualization**

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**Experiment 9:**

**Aim:**Design Big Data Dashboard using Tableau on dataset -Women empowerment / Gender participation

**DATASET LINK:** [Women Empowerment Index](#)

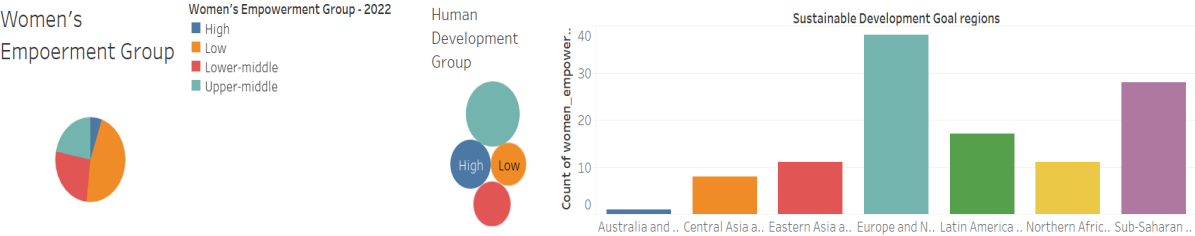
**Dataset Columns :**

1. **Country:** The name of each country included in the dataset.
2. **Women's Empowerment Index (WEI) - 2022:** A score representing women's empowerment in each country in 2022, typically indicating the level of economic and social opportunities available to women.
3. **Women's Empowerment Group - 2022:** A categorical grouping based on the WEI score, such as "Low," "Lower-middle," "Upper-middle," and "High," showing different tiers of empowerment.
4. **Global Gender Parity Index (GGPI) - 2022:** A score measuring gender parity in each country in 2022, which reflects the balance in opportunities, resources, and power distribution between genders.
5. **Gender Parity Group - 2022:** A categorical grouping of countries based on the GGPI, such as "High," "Very high," etc.
6. **Human Development Group - 2021:** Classification of countries based on human development levels from the previous year (2021), categorized as "Low," "Lower-middle," "Upper-middle," and "High."

7. **Sustainable Development Goal regions:** Regions based on the United Nations Sustainable Development Goals (SDG) regions, like "Europe and Northern America," "Sub-Saharan Africa," and others, providing a regional grouping for analysis.

DASHBOARD USING TABLEAU:

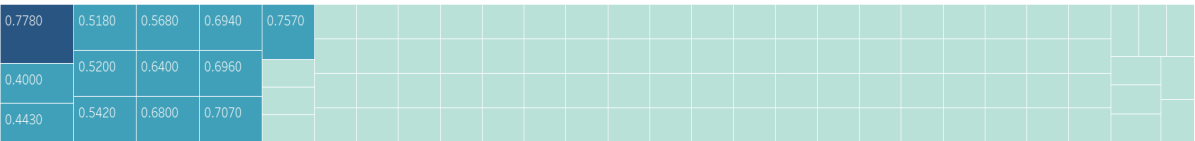
Women’s Empowerment Data Visualization



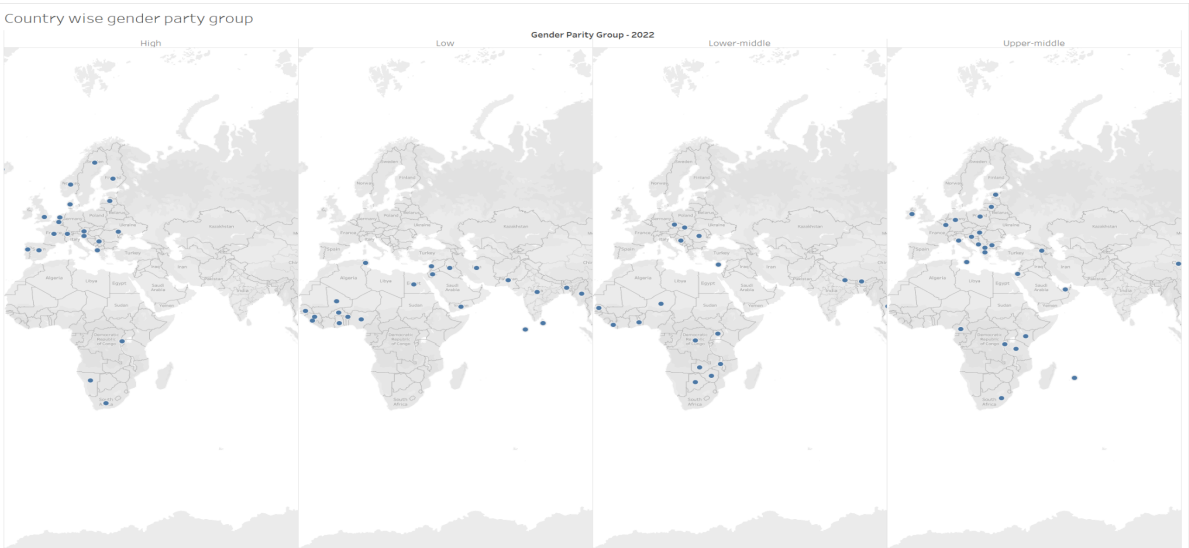
Gender Parity Group



Women’s Empowerment Index

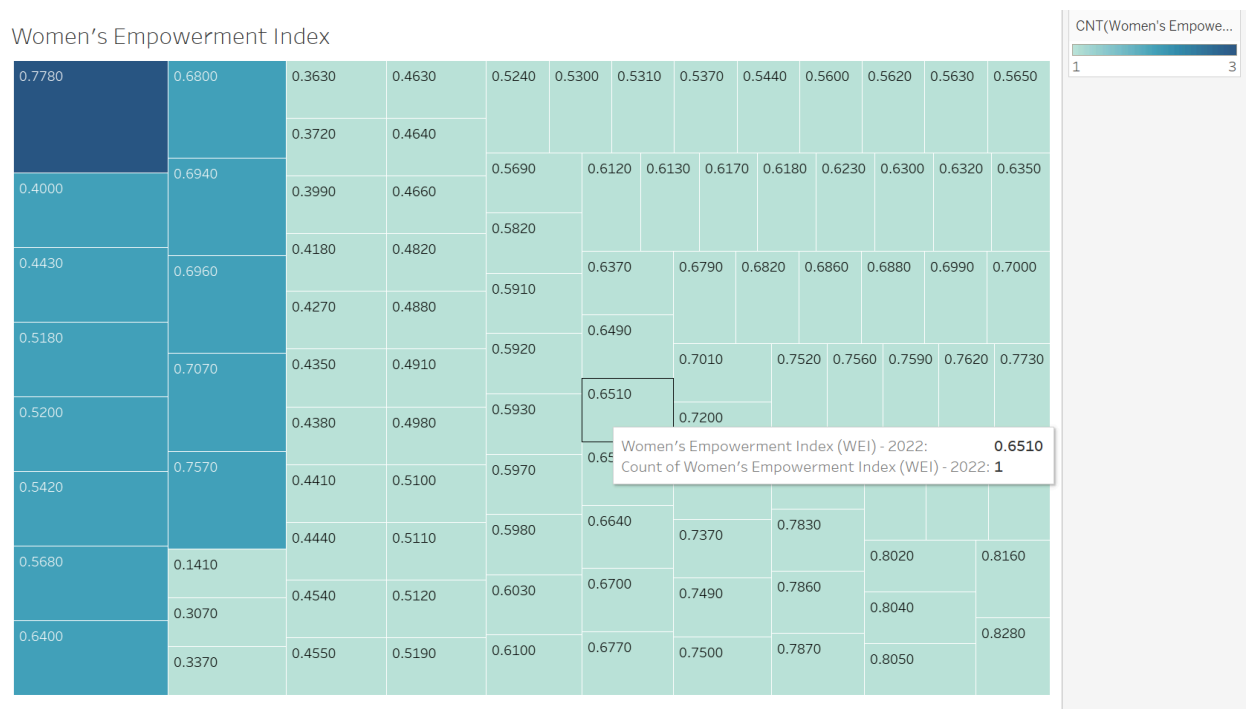


CHARTS IN THE DASHBOARD:



Map Chart (Global Women Empowerment Index):

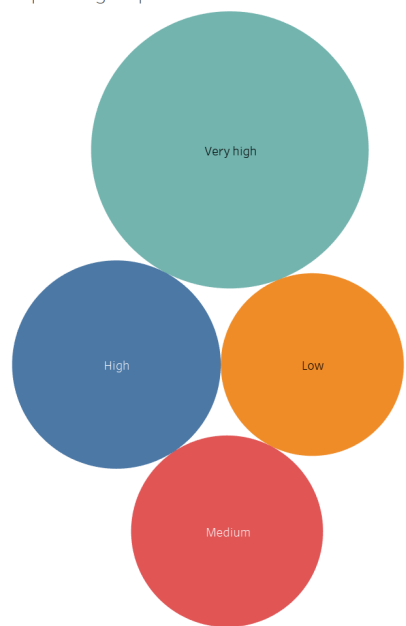
- Highlights global variations in the Women Empowerment Index (WEI) by country.
- Higher WEI scores are concentrated in regions like Europe and North America, indicating better gender equality and empowerment policies.
- Lower WEI scores are found in regions like Africa and parts of Asia, showing areas where women’s empowerment is still developing.



Tree Map (Women Empowerment Index Scores):

- Shows empowerment index scores with varying shades indicating frequency or intensity.
- Mid-to-high scores are more common, with darker shades indicating countries scoring moderately to well on empowerment.

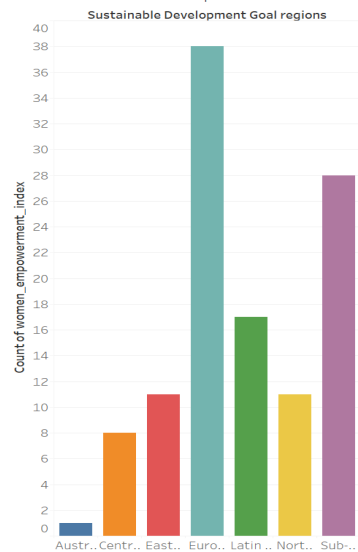
Human development groups



**Bubble Chart (Human Development Groups):**

- **Displays four human development levels: Very High, High, Medium, and Low.**
- **Very High and High development groups are prominent, indicating a larger portion of countries in these categories.**

Sustainable Development

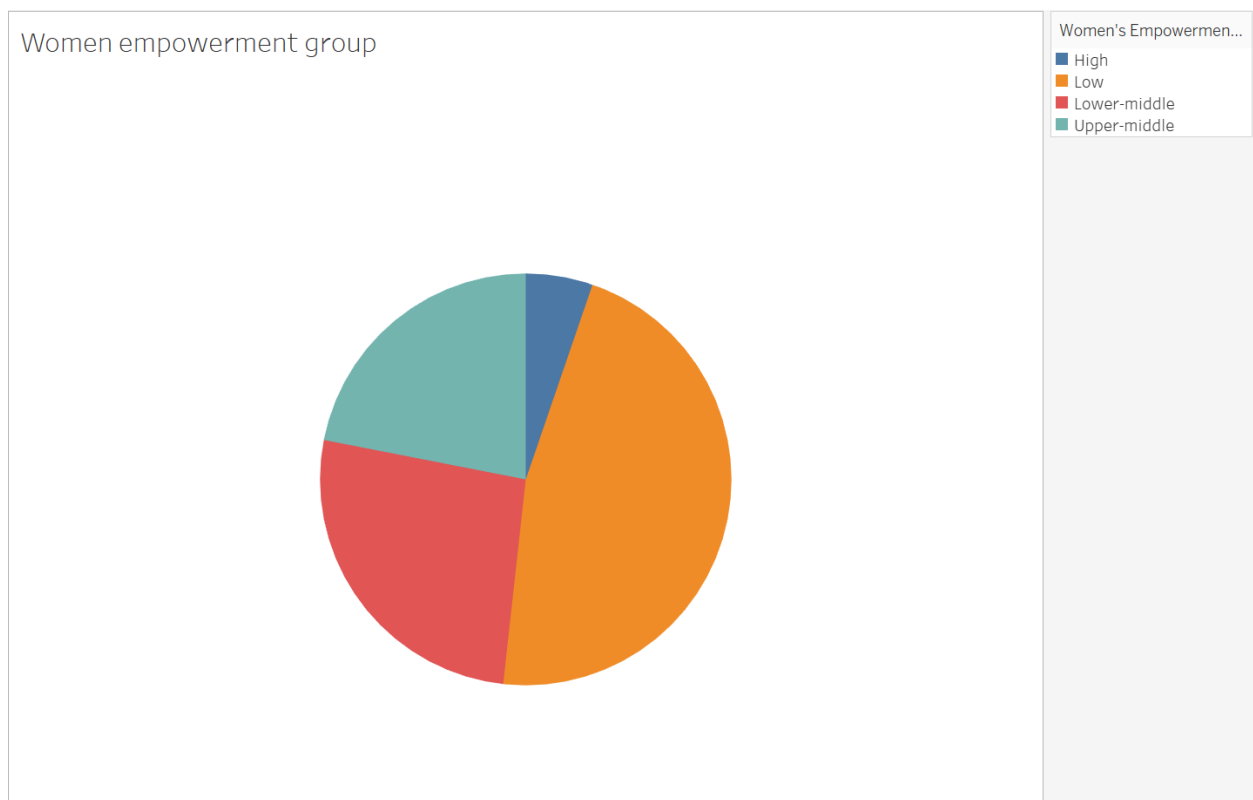


Sustainable Developme...

- Australia and New Ze...
- Central Asia and Sout...
- Eastern Asia and Sout...
- Europe and Northern ..
- Latin America and the ..
- Northern Africa and ..
- Sub-Saharan Africa

### Bar Chart (SDG Regions and WEI Counts):

- Shows regional distribution of WEI data across Sustainable Development Goal regions.
- Europe and Northern America have the highest count, followed by Sub-Saharan Africa, highlighting strong regional attention to empowerment data.
- Australia and New Zealand has the least data, possibly indicating lower reporting or focus.



### Pie Chart (Women Empowerment Groups):

- Depicts the distribution across WEI categories, with Low as the largest portion.
- High is the smallest, and Lower Middle and Upper Middle are nearly equal, indicating a global tendency toward lower to moderate empowerment levels.

## Conclusion:

These charts collectively highlight that:

- **High human development countries** often score better in women's empowerment, while **low-development regions** have work to do.
- **Europe and North America** lead in both data coverage and higher empowerment scores.
- Globally, the **Low empowerment category** is the largest, reflecting substantial potential for progress, particularly in Africa and parts of Asia.

Hence, implemented visualization using tableau.