

# **Project Report: Country level analysis of Happiness and Peace**

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## **Motivation**

We aim to explore how the general happiness level in a country and its determinants such as perception of corruption, freedom of choice, social support and economic status vary with time (over the 2009-2020 time period). In addition, we also analyse the time trend for peace and investigate how it correlates with income and happiness in a particular year. In order to carry out country-level analysis on happiness and peace, we also delve into exploring whether gender of the head of state impacts these factors. We will see whether countries who had a female head of state in the year 2020 (i.e the pandemic year) fared better on these indices than those with male heads of state. We also consider geographical proximity in analysing how these ranks vary across countries. We expect countries clustered together to have similar ranks.

## **Data Description**

### **Data 1: Data from the World Happiness Report**

**Source:** <https://worldhappiness.report/ed/2021/>

**Key Variables:** Country name, Ladder (Happiness) score, Logged GDP per capita, Social support, Healthy life expectancy, Freedom to make life choices, Generosity, Perceptions of corruption, Year

The data will be downloaded via an API.

### **Date 2: Data on the Global Peace Index**

**Source:** <https://www.visionofhumanity.org/maps/#/>

**Key Variables:** Country Name, Global Peace Indicator, Year

The data will be downloaded via an API.

### **Date 3: List of Female Heads of State**

**Source:**

[https://en.wikipedia.org/wiki/List\\_of\\_elected\\_and\\_appointed\\_female\\_heads\\_of\\_state\\_and\\_government](https://en.wikipedia.org/wiki/List_of_elected_and_appointed_female_heads_of_state_and_government)

**Key Variables:** Country Name, Mandate Start Date, Mandate End Date

The data will be scraped using scrapy

**Figures**

1. Time trends of different variables such as the Happiness and Peace indices for all countries
2. Bar Chart comparing the mean values of the indices (specifically peace, general happiness and perception of corruption)) in countries led by women to the values in countries led by men in the year 2020.
3. We will also try to an interactive map which geographically represents the indices values for each country