

DataVerse-StarkBrains

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Problem

Problem Statement 2 :

Being an NGO, Smile Social Welfare Foundation is committed to uprooting hunger from the poverty-stricken regions in marginalized parts. In the entire world, hunger has become the most significant problem that demands the immediate attention of one who can come up with better solutions to meet the daily food needs of the underprivileged and serve them lifelong happiness. (Satiating the Hunger of Underprivileged Children)

2.1 Expectation from participants :

You have joined the foundation as a Data analyst. You are assigned the responsibility of extracting data and presenting the data with good visualization and efficient statistical modulation depicting the hunger index to give a clear picture.

Approach

We've analysed the data using the tools:

- Excel
- Python (Google Colab)

Proposed Solution

1. Gathered data from-

<https://www.globalhungerindex.org/download/all.html>

2. Cleaned the data by excluding countries with insufficient data
3. Approximated percentage of population undernourished less than 2.5% as 2.5 for calculations.
4. The formula (as mentioned in next slide) have been applied on the columns
5. The data was visualised using Tableau.

The steps to calculate the Hunger Index

Determine values for each of the component indicators:

PUN: proportion of the population that is undernourished (in %)

CWA: prevalence of wasting in children under five years old (in %)

CST: prevalence of stunting in children under five years old (in %)

CM: proportion of children dying before the age of five (in %)

Standardize component indicators:

$$\text{Standardized PUN} = \frac{\text{PUN}}{80} \times 100$$

$$\text{Standardized CWA} = \frac{\text{CWA}}{30} \times 100$$

$$\text{Standardized CST} = \frac{\text{CST}}{70} \times 100$$

$$\text{Standardized CM} = \frac{\text{CM}}{35} \times 100$$

STEP 3 Aggregate component indicators:

$$\begin{aligned} & \frac{1}{3} \times \text{Standardized PUN} \\ & + \frac{1}{6} \times \text{Standardized CWA} \\ & + \frac{1}{6} \times \text{Standardized CST} \\ & + \frac{1}{3} \times \text{Standardized CM} \\ & \hline & = \text{GHI score} \end{aligned}$$

Code

<https://github.com/Deepika-Pavundoss/DataVerse-StarkBrains>

	Country	GHI
0	Afghanistan	42.3
1	Albania	9.0
2	Algeria	11.6
3	Angola	41.0
4	Argentina	7.7
...
111	Uruguay	6.1
112	Uzbekistan	9.8
113	Venezuela (Boliv. Rep. of)	30.9
114	Viet Nam	19.9
115	Yemen	64.3

Results - Global Hunger Index (2021)

Results (Visualization)

Word_population

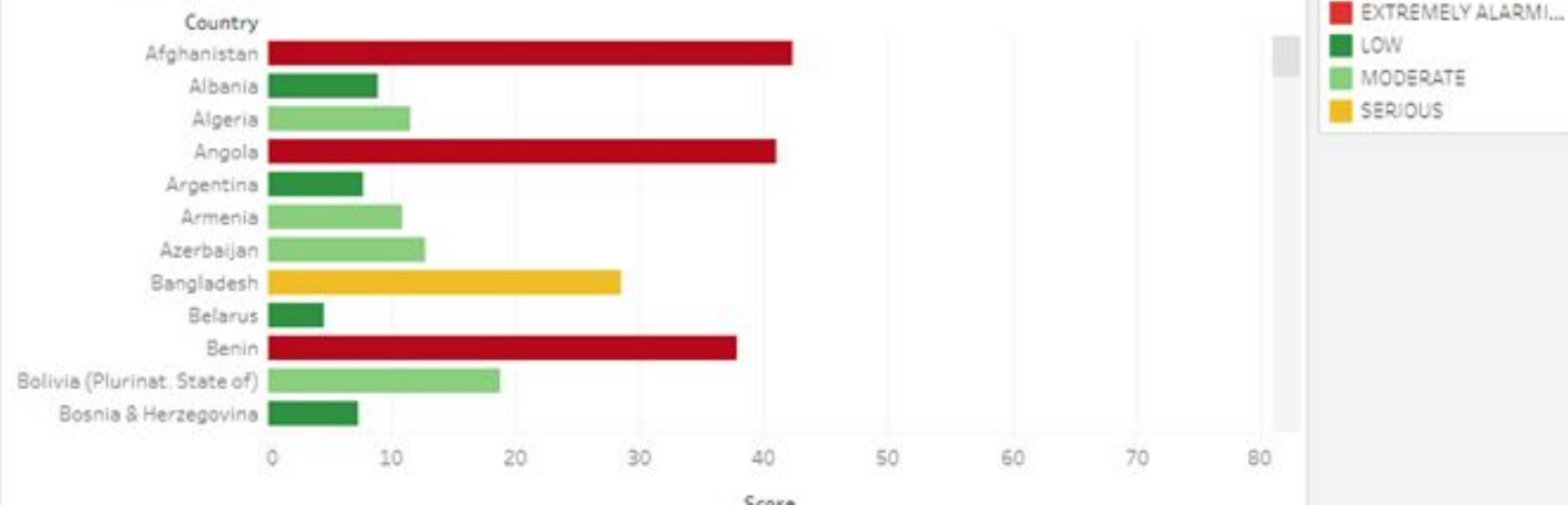
Colour_scheme

- ALARMING
- EXTREMELY ALARMI...
- LOW
- MODERATE
- SERIOUS



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Bar_comparision



References:

- <https://www.globalhungerindex.org/pdf/en/2021/appendix-b.pdf>