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# EQUALITY IMPERATIVE

## **SDG 10 REDUCED INEQUALITIES**

SDG 10 or Sustainable Development Goal 10 focuses on its topic “Reduced Inequalities”. As inequality threatens the society in long-term social and economic development, harms poverty reduction and destroys people’s sense of fulfillment and self-worth. Historically, the incomes of the poorest 40 percent of the population have been increasing faster than the national average in many countries. However, preliminary yet inconclusive evidence suggests that the COVID-19 pandemic may have disrupted this positive trend, contributing to rising within-country inequality. Addressing both within and between countries' inequality demands equitable resource distribution, investment in education and skills development, the implementation of social protection measures, efforts to combat discrimination, support for marginalized groups, and the promotion of international cooperation for fair trade and financial systems.

### **Women’s Inequalities**

Women, in particular, face multiple layers of inequality. They are often subject to gender-based violence, wage disparities, and limited access to education and healthcare. For instance, in many parts of the world, women are less likely to receive secondary education, which restricts their employment opportunities and economic independence. In the workplace, women frequently earn less than their male counterparts for the same work, and they are underrepresented in leadership positions. Additionally, cultural norms and practices can restrict women's mobility and participation in public life, further perpetuating gender inequality.

To combat these issues, it is essential to implement gender-sensitive policies that promote equal access to education, healthcare, and employment opportunities. Ensuring women have equal rights to inherit and own property, access credit, and participate in decision-making processes at

all levels can significantly reduce gender disparities. Moreover, addressing harmful cultural practices and stereotypes through education and advocacy is crucial in changing societal attitudes towards women.

### **Why SDG 10**

Women's inequalities often intersect with other forms of discrimination, such as race, ethnicity, and socioeconomic status. SDG 10's broad mandate allows for an intersectional approach, recognizing that reducing gender inequality requires addressing multiple overlapping forms of disadvantage.

### **Gender Inequality Index (GII)**

GII is a composite metric of gender inequality using three dimensions: reproductive health, empowerment and the labor market. GII usually varies between 0.1 to 1, a low GII value indicates low inequality between women and men, and vice-versa.

### **The Human Development Index (HDI)**

HDI is a summary composite measure of a country's average achievements in three basic aspects of human development: health, knowledge and standard of living. It is a measure of a country's average achievements in three dimensions of human development, which is a long and healthy life, knowledge, and a decent standard of living. Typically, there is an inverse relationship between HDI and GII. Countries with higher HDI values tend to have lower GII values. This suggests that higher levels of human development are associated with lower levels of gender inequality.

### **Maternal Mortality**

Maternal Mortality rate is the annual number of female deaths from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy. As there are many factors affecting this situation, we believe that the maternal mortality rate of a country is influenced by the Gender Inequality Index as well.



1 in 30  
Indonesian  
Woman  
**Pregnant as**

Our infographic shows that around 3% of teenage girls in Indonesia have experienced pregnancy. This equates to 1 out of every 30 teenage girls in the country. This statistic underscores a pressing issue that demands urgent attention. Teenage pregnancies can significantly impact the health, education, and economic prospects of young women. Addressing this issue is essential for enhancing gender equality and ensuring that all girls have the opportunity to reach their full potential.

**CODE :**

```
#jumlah penduduk perempuan indonesia yang berusia remaja 15- 19 menurut BPS Indonesia
```

```
jumlah_F_R_I <- 10755
```

```
# jumlah perempuan remaja usia 15-19 tahun yang melahirkan
```

```
jumlah_F_R_M_I <- Indonesia_status$Adolescent_birth_rate
```

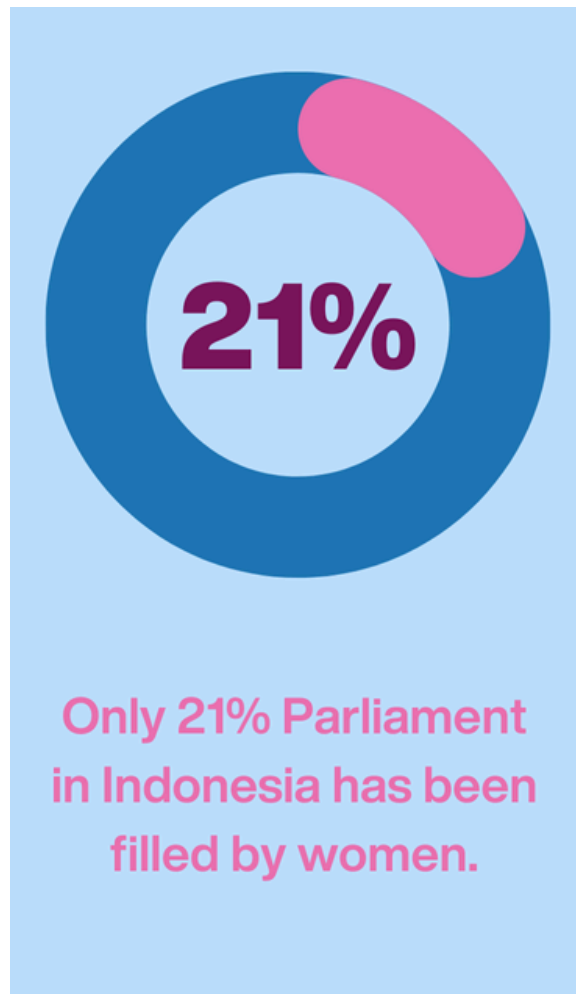
```
#menghitung
```

```
jumlah_F_M_I <- (jumlah_F_R_M_I/ 1000) *jumlah_F_R_I
```

```
presentase_remaja_premenpuan_melahirkan <- (jumlah_F_M_I/jumlah_F_R_I) *100
```

```
presentase_remaja_premenpuan_melahirkan
```

```
#Maka persentase remaja perempuan yang melahirkan adalah 3.39% yaitu 1 dari 30 perempuan
```



In the government parliament, only 21% of the members are women. While this statistic alone doesn't necessarily indicate discrimination, it highlights a significant gender imbalance. So why is this important? We want to emphasize the need to increase the number of women in parliament. Having more women in parliament is crucial for addressing issues that affect women directly. Women who understand and have experienced these challenges can provide better insights and propose more effective solutions. While the impact may not be immediate or drastic, it is still significant and necessary for progress.

**CODE :**

```
#jumlah persentase perempuan pada kedudukan parlemen indonesia  
Indonesia_status$Seats_parliament
```

# 35%

is the percentage  
decline in the  
**Indonesian GII Index**  
from **1990 - 2021.**

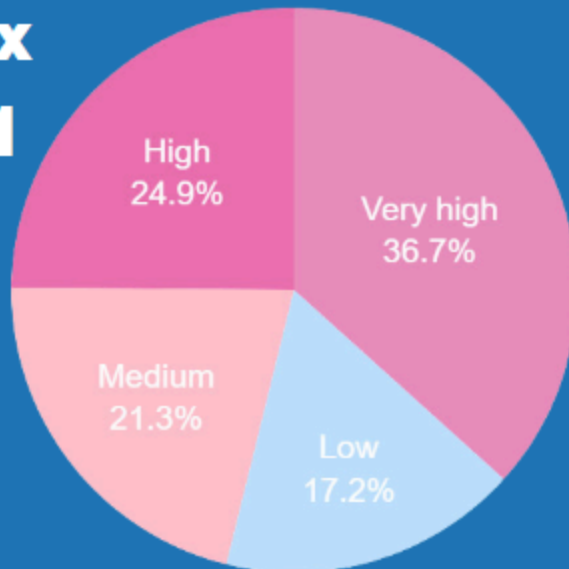
The notable achievement of Indonesia's Gender Inequality Index (GII) decreasing by 35% between 1990 and 2021 reflects significant strides in promoting gender equality. This substantial reduction demonstrates the country's successful efforts in this area. However, there's still a need for further improvement. Despite the progress, Indonesia's GII is still below the global average, indicating that while considerable advancements have been made, more efforts are required to achieve full gender equality

#### CODE :

```
Indonesia_status <- df_index_2021 %>% filter(Country == "Indonesia")
Indonesia_status
table_education_world <- data.frame(
  Gender = c("Male", "Female"),
  Average_Education = colSums(df_index_2021[, 8:9])/169
)

table_education_world
```

# Human Development Index 2021



HDI considers health, education, and standard of living. When women have equal access to education and healthcare, the overall health and knowledge of the population improves.

Similar to GII, the Human Development Index also ranges from 0 to 1. The HDI is categorized into four levels: Very high(HDI of 0.8 to 1), High(HDI of 0.7 to 0.799), Medium(HDI of 0.550 to 0.699), and Low(below 0.550). From the pie chart above, it is shown that countries categorized with a very high human development have the biggest percentage compared to other categories. While, countries categorized with low human development have the lowest percentage compared to others.

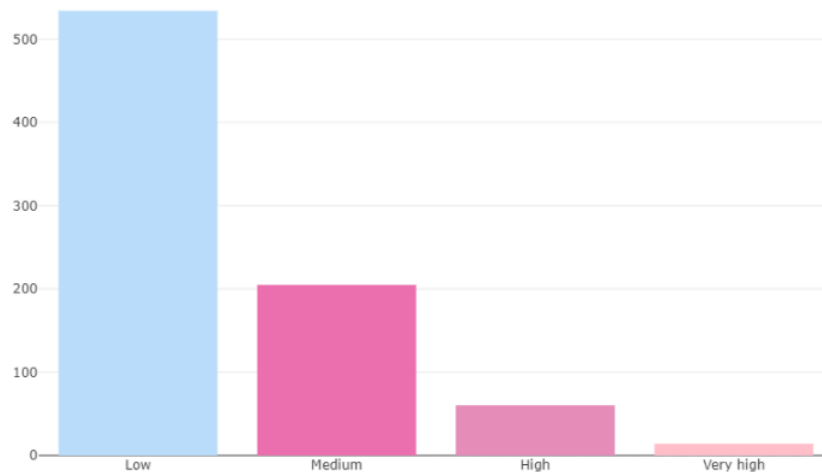
## CODE :

```
plot_ly(  
  table_HDI_Country,  
  labels = ~Human_development,
```

```
values = ~Total,  
type = "pie",  
marker = list(colors = ~color_hd_mortality),  
textinfo = "label+percent",  
insidetextfont = list(  
  color = "white",  
  weight= "bold",  
  size = 25,  
  family = "Helvetica"  
),  
showlegend = FALSE  
)
```



## AVERAGE MATERNAL MORTALITY & HDI



Countries with low and medium human development ratings have higher female mortality rates.

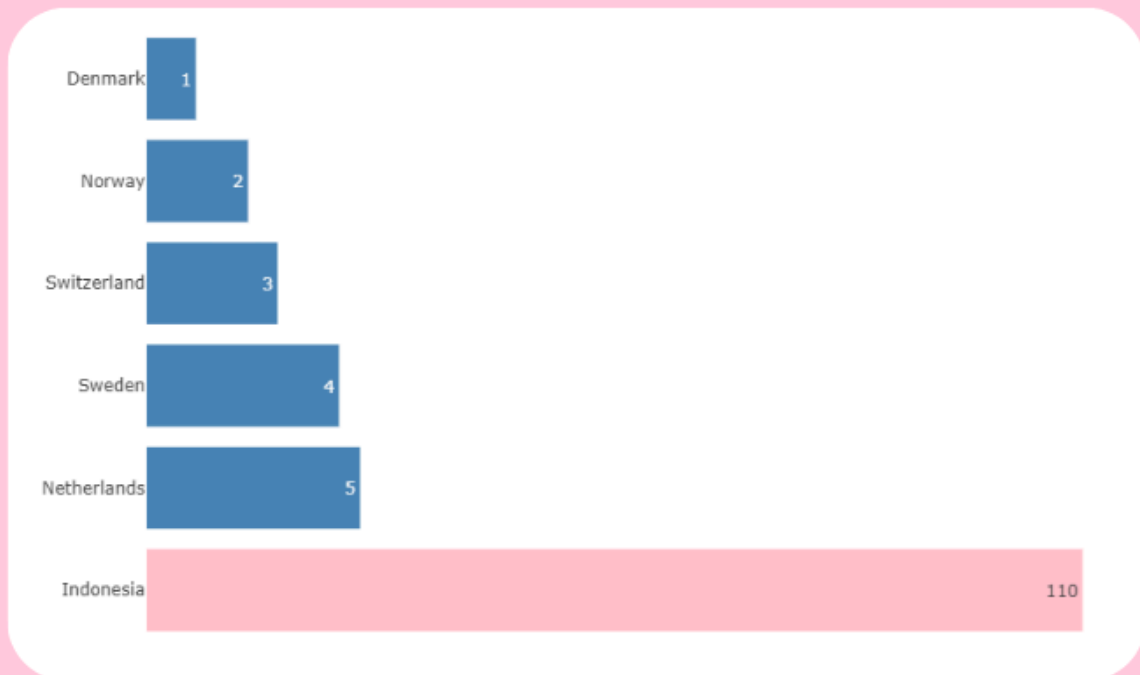
Using the bar chart, we then compare the Human development groups to see the correlation between the average maternal mortality of each country categorized in that specific group. From the chart, we can see a clear pattern that countries with lower human development index have a higher maternal mortality rate. This shows that the human development rating of a country does matter in the attempt to reduce maternal mortality. This visual data underscores the critical link between human development and maternal health outcomes, emphasizing that countries with lower and medium HDI ratings face greater challenges in reducing female mortality during childbirth.

### CODE :

```
plot_ly(table_HD_Mortality,  
        x = ~reorder(Human_development, -average),  
        y = ~average,  
        color = ~Human_development,  
        colors = color_hd_mortality_1,  
        type = "bar") %>%  
layout(
```

```
title = "",  
xaxis = list(title = ""),  
yaxis = list(title = ""),  
showlegend = FALSE  
)
```

# TOP 5 GII RANK & INDONESIA



Indonesia was rank 110th out of 190 Countries In Gender Inequality Index Rank.

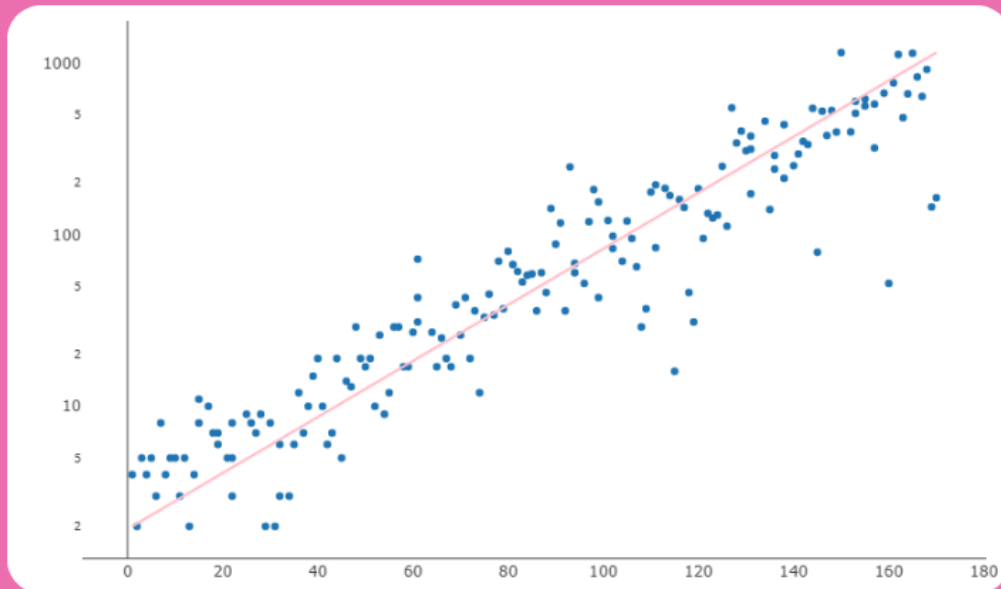
Using the bar chart, we compare Indonesia with the top 5 countries with the lowest GII. As we can see, Indonesia is ranked 110, signifying much higher gender inequality. This implies the urgent need for Indonesia to implement effective policies and initiatives to bridge this gap and enhance gender equality, particularly in areas such as reproductive health, empowerment, and labor market participation.

## CODE :

```
plot_ly(df_sorted_country,  
        x = ~GII_2021,  
        y = ~reorder(Country, GII_2021, decreasing = TRUE),  
        type = 'bar',  
        text = ~GII_Rank_2021,  
        textposition = "auto",
```

```
marker = list(color = ~color)) %>%  
layout(  
  title = "  
  xaxis = list(  
    title = "  
    type = 'log',  
    showticklabels = FALSE,  
    showgrid = FALSE  
  ),  
  yaxis = list(  
    title = "",  
    categoryorder = "total descending"  
  )  
)
```

## MATERNAL MORTALITY BASED ON GII RANK 2021



Higher GII rank resembles lower maternal mortality.  
Gender equality does matter.

The scatter plot in the image demonstrates the relationship between maternal mortality rates and Gender Inequality Index (GII) ranks for the year 2021. It shows a clear positive correlation as the GII ranks increases (higher gender inequality), maternal mortality rates also increase. Higher GII rank correlates with lower maternal mortality, emphasizing the importance of gender equality in achieving better health outcomes for women.

### CODE :

```
plot_ly(df_rank_mortality,  
        y = ~ Maternal_mortality,  
        x = ~ Rank,  
        type = "scatter"  
) %>%  
  add_trace(  
    type = "scatter",  
    mode = "lines",  
    x = ~c(min(Rank), max(Rank)),
```

```
y = ~c(min(Maternal_mortality), max(Maternal_mortality)),  
line = list(color = "pink")  
)%>% layout(  
  showlegend = FALSE,  
  xaxis = list(  
    title = "Gii Rank",  
    showline = TRUE,  
    showgrid = FALSE  
  ),  
  yaxis = list(  
    title = "",  
    type = "log",  
    showgrid = FALSE  
  )  
)
```