Gini Coefficient: Notes for UPSC

Gini Coefficient is a measure of the income inequality in a country or between countries. In an economic context, it is important to understand what this coefficient or index is, how it is measured and what is India's current status, for the IAS exam.

What is Gini Coefficient?

In economics, the Gini coefficient, also known as the Gini index or Gini ratio, is a measure of statistical dispersion intended to represent the income or wealth distribution of a nation's residents, and is the most commonly used measurement of inequality. It was developed by the Italian statistician and sociologist Corrado Gini. In simpler terms, the Gini Coefficient is a measure of statistical dispersion representing a country's income or wealth distribution among its residents.

How is the Gini Coefficient Measured?

The explanation is given below in points:

- A value of 0 indicates perfect equality (where everybody has the same wealth/income) and 1 indicates perfect inequality (that is, where one person owns all the wealth in a country).
- Practically, the value falls between 0 and 1 for most countries. In countries with a high inequality, the value would be close to 1.
- A value below 0.4 is considered acceptable generally.
- There are multiple ways to calculate the Gini Coefficient.
- The two most popular methods are:
    - Based on pre-tax (market) income
    - Based on disposable income
- The second method takes into account taxes and social spending as well.
- The difference in both the methods is an indicator of the efficacy of an economy's fiscal policy in bringing down the rich-poor divide by means of social spending and taxation.
- Mathematically, the Gini Index is defined based on the **Lorenz Curve**. The Lorenz Curve is a graphical representation of the distribution of wealth/income.

Gini Coefficient Significance

Cowell says that the Gini coefficient is useful, particularly because it allows negative values for income and wealth, unlike some other measures of inequality. But the Gini coefficient also has

limitations. For one, it takes all the data from the Lorenz curve and converts it to a single number.

In addition, the Gini coefficient cannot tell that person A is a 27-year old sanitation worker who has negative income because of house mortgages, whereas person B, who has the same amount of negative income, is unemployed and without job prospects. It samples people at random points of their lives, which means that it can't separate those whose financial futures are reasonably secure from those who do not have prospects. Its results are also sensitive to outliers—a few very wealthy or very poor individuals can change the statistic significantly, even in a large sample.

Other reasons why it is important is as follows:

- An increase in the Index implies that the government's policies benefit the rich more than the poor and are not inclusive enough.
- So, a higher ratio may encourage the government to spend more on social welfare schemes and also increase the tax burden on the rich.
- It is important that the government tries to maintain a good ratio so that the rich-poor divide can be kept in check.

Gini Coefficient India

- As per the World Bank, India's Gini Index is 35.2 (0.35) as of March 2020
- Currently though, it is estimated to be close to 0.50, which is the highest value till date. Lesotho currently holds the distinction of the country having the highest Gini Coefficient at 0.632.

Nations with high Gini Coefficient

The following table gives ranking of the top 10 nations with a high Gini Coefficient:

Countries with the highest Gini coefficients	
Country	**Rankings**
Lesotho	0.632
South Africa	0.625
Haiti	0.608
Botswana	0.605
Namibia	0.597

Zambia	0.575
Comoros	0.559
Hong Kong	0.539
Guatemala	0.530
Paraguay	0.517