

# POVERTY

## POVERTY

- It is a state in which a person or community lacks the financial resources and is unable to fulfil even its basic necessities of life.
- In India, the generally accepted definition of poverty emphasises on minimum level of living rather than reasonable level of living.
- Previously, the Planning Commission was the authority which published poverty estimates based on various rounds conducted by the National Sample Survey Office(NSSO) based on monthly per capita consumption expenditure.
- At present, the poverty estimates are compiled by the National Statistical Office (NSO) under the Ministry of Statistics and Programme Implementation.

17 October is declared as the International Day for Eradication of Poverty by the United Nations (since 1987).

## IBSA TRUST FUND AGREEMENT, 2017

India, Brazil and South Africa signed the IBSA Trust Fund Agreement that seeks to fight poverty in other developing countries, each country contributes USD 1 million annually to this fund, which is managed by the UNDP Special Unit for South-South Cooperation.

## Concept of Poverty

The concept of poverty can be classified into:

1. Absolute Poverty (AP)
2. Relative Poverty (RP)

## Absolute Poverty:

It is a condition which occurs due to deprivation from basic human needs such as food, clothing, health, education, sanitation facilities, shelter, etc.

It is measured through the concept of poverty line and refers to the actual number of people living Below Poverty Line (BPL).

## Measures used to estimate Absolute Poverty:

### Poverty Line:

- It is the required level of income to fulfil basic necessities of life.
- It can be represented in terms of either per capita calorie intake or per capita consumption expenditure required to attain a minimum living condition.
- It may vary from one country to another. It may also vary from one state to another in India due to different price levels prevailing in the country.

As per the World Bank, the present International Poverty Line is \$1.90 per capita per day consumption expenditure (based on 2011 prices) and is found out by averaging the national poverty lines of the poorest 15 countries.

As per the World Bank, any person living on less than \$1.90 per day is considered facing extreme poverty.

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## Head Count Ratio (HCR)/Poverty Incidence Ratio:

(for measuring the incidence of poverty)

- It indicates the percentage of people living BPL.

$$\text{HCR} = \frac{\text{Total no. of BPL people}}{\text{Total population}} \times 100$$

For example -  $13.31 \text{ crore} / 121 \text{ crore} \times 100 = 11 \text{ per cent}$

This 11 per cent is nothing but the Percentage of BPL people living in a country. HCR indicates the incidence of poverty in a nation. Hence, it is also termed as poverty incidence ratio.

A previous World Bank report indicated that India's poverty HCR reached a maximum of 61.6 per cent in 1977. However, as per the latest 2020 report by the World Bank, India's HCR had reduced to 13.4 per cent in 2015 (based on the International Poverty Line). The driving factor behind this drastic reduction in poverty (in comparison to previous years) has been identified as rural electrification, spending on schooling of girls, etc.

## Poverty Gap Ratio (for measuring the intensity of poverty)

- Poverty gap is the difference between the poverty line and the average actual monthly consumption expenditure of a BPL household. It indicates average shortfall from the poverty line.

**In mathematical terms,**

- Poverty gap ratio =  $(\text{Poverty line in monetary terms} - \text{Average actual monthly consumption expenditure per capita of a BPL household}) / \text{poverty line}$
- For example:  $(400 - 330) / 400 = 0.175$ , which indicates that there is a gap of 17.5 per cent.
- Through this measure, the government can derive the per capita amount of transfers required to eliminate poverty. It may be done through perfectly targeted cash transfers.
- More the poverty gap, more are the transfers required to be done by the government to bring BPL households above the poverty line.

## Squared Poverty Gap Index

- The Squared Poverty Gap Index determines the degree of poverty for a given area
- This method squares the poverty gap for each individual/household
- The shortfalls of BPL people are squared giving the very poor much more weight than those falling only a few cents short of the poverty line.
- The Squared Poverty Gap Index is more beneficial to the very poor who are further away from the poverty line because they will receive more amount as aid from the government.

## MULTI-DIMENSIONAL POVERTY INDEX (MPI)

- It is a broader concept which says that poverty not only depends upon the income but also includes deprivation such as poor health, lack of education and inadequate standard of living.
- These deprivations are measured on the household as well as on an individual level.
- MPI measures acute poverty based on overlapping deprivations instead of the world bank's measure of extreme poverty that captures those living on less than 1.90\$ a day.

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- This MPI concept was developed by the UN Development Programme (UNDP) and OPHI (Oxford Poverty and Human Development Initiative)
- MPI replaced the concept of Human Poverty Index.
- Instead of income, MPI uses three dimensions (having 10 indicators to measure absolute poverty)
- Those 3 dimensions and 10 indicators under MPI are mentioned in the below table.

Dimensions of Poverty	Indicator	Condition for treating it (Deprivation)	Weight	Related SDG Area
Education	Years of Schooling	Deprived if no family member ( $\geq 10$ years of age) has completed 6 years of schooling	1/6 <sup>th</sup>	SDG 4 (Quality Education)
	School Attendance	Deprived if any school-aged child is not attending school up to class VIII	1/6 <sup>th</sup>	SDG 4 (Quality Education)
Health	Child Mortality	Deprived if any child of the family has died in the past 5 years	1/6 <sup>th</sup>	SDG 3 (Health and Well Being)
	Nutrition	Deprived if any adult (under 70 years of age) or child is stunted	1/6 <sup>th</sup>	SDG 2 (Zero Hunger)
Standard of Living	Electricity	Deprived if no electricity	1/18 <sup>th</sup>	SDG 7 (Affordable and Clean Energy)
	Sanitation	Deprived if sanitation facility not improved as per sustainable development goals guidelines or it is improved but shared with other house holds	1/18 <sup>th</sup>	SDG 6 (Clean water and Sanitation)
	Drinking Water	Deprived if does not have safe drinking water as per SDGs guidelines or it is a 30-minute walk (round trip) from home	1/18 <sup>th</sup>	SDG 6 (Clean water and Sanitation)
	Housing	Deprived if housing material is inadequate for one roof, walls and floor and/or made up of natural materials	1/18 <sup>th</sup>	SDG 11 (Sustainable Cities and Communities)
	Cooking Fuel	Deprived if cooks with dung, wood, charcoal or coal	1/18 <sup>th</sup>	SDG 7 (Affordable and Clean Energy)
	Assets	Deprived if household does not own any of these – radio, TV, telephone, computer, animal cart, bicycle, motor bike or refrigerator and does not own a car or truck	1/18 <sup>th</sup>	SDG 1 (No Poverty)

**Mathematically,**

**MPI** = Percentage of people who are MPI poor (Incidence of Poverty) x Average intensity of MPI poverty across the poor (%)

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A person is considered multi-dimensionally poor (or "MPI poor") if he/she is deprived in at least one-third of the weighted indicators shown above; in other words, the cut-off for poverty is 33.33 per cent.

## 2021 MPI Report\*

- MPI estimates of the year 2021 covered 109 countries (majority being middle-income countries).
- India's rank is 66", with an MPI score of 0.118 and 25.01 per cent headcount ratio as per the 2021 report.
- As per the 2020 report, India's rank was 62d out of 107 countries with the MPI value of 0.123.

## National Multidimensional Poverty Index (NMPI)

- NITI Aayog has released the NMPI based on the National Family Health Survey (NFHS-4) 2015-2016.
- India's MPI score, as per NMPI report is 0.118 and headcount ratio is 25.01 per cent.
- Kerala and Bihar have the highest and lowest proportion of people of the state's population who are multidimensionally poor respectively

## Methods to estimate Absolute Poverty

The following three methods are used:

1. Uniform Reference/Recall Period (URP)
2. Mixed Reference/Recall Period (MRP)
3. Modified Mixed Reference/Recall Period (MMRP)

1. **URP** Until 1993-94 the poverty line estimated by NSSO was based on URP. Under URP, consumption data for ALL items are collected for a 30-day recall period When URP is applied the households are surveyed about their consumption in the last 30 days preceding the date of survey.
2. **MRP** from 1999-2000 onwards. NSSO started using MRP instead of URP. MRP takes into account consumption expenditure for five non-food items (clothing, footwear, durable goods education and institutional medical expenses) for a 365-day recall period, and consumption data for the remaining items are collected for a 30-day recall period.

Currently all poverty line estimates use the MRP method

### 3. MMRP

MMRP is the most recent concept out of the three.

Under MMRP,

1. 365-day recall period is used for clothing. footwear, education, institutional medical care and durable goods,
  2. 7-day recall period for edible oil, egg. fish and meat. vegetables, fruits, spices, beverages, refreshments, processed food. paan, tobacco and intoxicants and
  3. 30-day recall period for the remaining food items, fuel and light, miscellaneous goods and services including non-institutional medical, rents and taxes
- The MMRP method was used by NSSO to compute poverty for the years 2009-10 and 2010-11

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- The Rangarajan Committee in its 2014 report recommended MMRP as a more suitable method to measure poverty as compared to URP and MRP methods.
- The World Bank in 2015 also supported the idea of shifting from MRP to MMRP

## Poverty Estimates under URP vis-à-vis MRP vis-à-vis MMRP -A Comparative Analysis

If URP Method is Used	If MRP Method is Used	If MMRP Method is Used
Poverty estimates will be highest as compared to MRP or MMRP	Poverty estimates will be less as compared to URP but will be more than in the case of MMRP.	Poverty estimates will be lower as compared to URP or MRP

## INCOME-BASED POVERTY LINE VERSUS CONSUMPTION EXPENDITURE-BASED POVERTY LINE

NSSO estimates the poverty line based on consumption expenditure to be a better measure than the income-based poverty line for reasons such as the following:

- Income is irregular for a majority of households in the informal sector, but their consumption patterns are comparatively stable
- Use of URP, MRP or MMRP may not be feasible to compute income-based poverty line

## VARIOUS ESTIMATES OF POVERTY IN INDIA

### Pre-Independence Estimates

- The first/estimate of poverty was made by Shri Dadabhai Naoroji in his book Poverty and the Unbritish Rule in India. He computed subsistence based on poverty line ranging from 16 to 35 per capita per year at 1867-68 prices.
- He never used the word 'poverty line' but instead used 'subsistence-based poverty line'
- Later in 1938, the National Planning Committee (headed by Shri J.L. Nehru) regarded an irreducible minimum income between 15 and 25 per capita per month at pre-war prices. However, it was not tagged as poverty line of the country.
- In 1944, the Bombay Plan suggested a poverty line of R75 per capita per year.

### Post-Independence Estimates

Name of the Committee/Group	Data Bas	Details of Method Used	Estimates of Poverty (HCR)
B.S. Minha's Study (In the 1950s)	1956-57	All these four committees used the same source of data for their studies, but their estimates of poverty were different due to the different methodologies adopted by the	65%
M.S.Ahluwalia's Study (In the 1960s)	1960-61		39%
P.D. Ojha's Estimate (In the 1960s)	1960-61		44%
P.K. Bardhan's Study (In the 1960s)	1968-69		54%

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V.M. Dandekar and Neel Kantha Rath Committee (report submitted in 1971)	1960-61	It fixed 2,250 calories intake as the desired minimum level of nutrition (Minimum Consumption Line) per capita per day and on that basis estimated poverty converting it into the required monetary consumption expenditure	HCR for rural areas - 40% HCR for urban areas - 50%
Y.K. Alagh Task Force (constituted in 1977 And submitted report in 1979)	1973-74	<ul style="list-style-type: none"> <li>For rural areas, calorie intake of 2,400 per capita per day and 2,100 for urban areas was fixed to estimate poverty. The logic used was that rural people do more physical work than their urban counterpart.</li> <li>Health and education was not taken into account to measure poverty on the assumption that government would take care of it.</li> </ul>	
D.T. Lakdawala Committee  (constituted in 1989 and submitted report in 1993)	1973-74	<ul style="list-style-type: none"> <li>Used calorie intake-based per capita consumption expenditure, i.e. 2,400 for rural areas and 2,100 for urban areas</li> <li>URP was used to collect data.</li> <li>This committee recommended state specific poverty line.</li> <li>As per the report, poverty line to be updated using CPI (Agricultural Labour) in rural areas and CPI (Industrial Worker) in urban areas.</li> </ul>	54.9% (All India)
Suresh Tendulkar Committee (constituted in 2005 And submitted report in 2009)	2004-05	<ul style="list-style-type: none"> <li>This committee did not construct a poverty line, it adopted the officially measured urban poverty line of 2004-05 based on the Lakdawala methodology and converted this poverty line from URP to MRP consumption.</li> <li>Private expenditure on health and education was also taken into account.</li> <li>Uniform urban poverty line basket was used for both rural and urban areas.</li> </ul>	37.2% (All India) (This was much more than 21.8% poverty figure computed by the 61 <sup>st</sup> round of NSSO)

### ESTIMATES AS PER THE 61\* ROUND OF NSSO VERSUS TENDULKAR COMMITTEE ESTIMATES

- The 61st round of NSSO (2004-05) As per this round, poverty (HCR) was estimated to be 28.31 per cent as per URP and 21.8 per cent as per MRP. However, as per the Tendulkar Committee report, HCR was much higher, i.e., 37.2 per cent based on MRP.  
The following can be inferred:
  - The estimate of the Incidence of Poverty by the Tendulkar Committee at both 1993-94 prices and 2004-05 prices was much more than other official estimates.
  - However, the Extent of Poverty reduction as found by the Tendulkar Committee was almost similar to other official estimates by the NSSO.

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Name of the Committee	Data Based on	Details of Method Used	Estimate of Poverty (HCR)
Rangarajan Committee (constituted in 2012 and submitted report in 2014)	2011-12	<ul style="list-style-type: none"> <li>Used a method of calculating urban and rural poverty separately (similar to the Lakdawala Committee).</li> <li>Took into account both food and non-food items of expenditure</li> <li>Used the MMRP method instead of MRP.</li> <li>Poverty was based on monthly expenditure of a family of five (and not individual as in case of the Tendulkar Committee).</li> </ul> <p>All three, i.e., Calorie + Protein Fat intake values were taken into to estimate poverty.</p>	29.5%

## Tendulkar Committee versus Rangarajan Committee

Tendulkar Committee	Rangarajan Committee
Submitted Report in 2009	Submitted Report in 2014
Per capita monthly expenditure was used	Monthly expenditure of a family of five was used
Used MRP method	Used MMRP method
Only calorific value was used in evaluating expenditure	Calorie Protein Fat value was used to compute expenditure
Estimate of poverty derived was 37.2% based on 2004-05 data	Estimate of poverty derived was 29.5% based on 2011-12 data
Used the all India urban poverty line basket to derive urban and rural poverty	Used separate rural and poverty line baskets

- Later, the Planning Commission estimated poverty ratios for the years 2009-10 and 2011-12 by using The Tendulkar method and Rangarajan method separately. The results derived were as follows:

Methodology Applied	Poverty in 2009-10	Poverty in 2011-12	Extent of Reduction in Poverty
Applying the Tendulkar Methodology	29.8%	21.9%	7.9%
Applying the Rangarajan Methodology	38.2%	29.5%	8.7%

- Thus, it can be interpreted that all-India poverty ratio derived through the Rangarajan method for both financial years is higher than that derived through the Tendulkar method.

## BPL CENSUS

### 1. BPL Census in Rural Areas

BPL Census for rural areas is conducted by the Ministry of Rural Development (MoRD). The 1st BPL Census for rural areas was conducted in 1992 under the 8th Five-Year Plan. The 2<sup>nd</sup> and 3<sup>rd</sup> BPL Census for rural areas were conducted in 1997 and 2002, respectively.



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Later in 2008, MoRD constituted the N.C. Saxena Committee to advise a suitable methodology to conduct BPL Census in rural areas. The committee in its report in 2009 recommended that:

1. The methodology of automatic inclusion and automatic exclusion for conducting census may be adopted.
2. Percentage of people entitled to BPL status in India to be revised to at least 50 %
3. There should be a proportionate increase in state-level estimates also.

Thus, the estimates of the N.C. Saxena Committee varied largely with the estimates of the Planning Commission. This difference in estimate is a bone of contention between the planning commission and MoRD.

As per the report of the last (i.e., 4<sup>th</sup>) BPL Census or the 1<sup>st</sup> Socio Economic and Caste Census conducted in 2011, there are 24.3 crore households in India, of which 17.91 crore live in rural areas and 60% of the 17.91 crore rural households have been considered to be deprived or poor.

## 2. BPL Census in Urban Areas

In 2012, the Ministry of Housing and Urban Poverty Alleviation appointed the S.R. Hashim Committee to recommend a methodology for identification of BPL families in urban areas.

The committee recommended a three-stage identification process –

- (a) automatic exclusion
- (b) automatic inclusion and
- (c) Scoring Index of remaining urban families in this order.

### (a) Stage 1 - Automatic Exclusion

- Households with  $\geq 4$  dwelling rooms to be excluded from the BPL list.
- Households with either of four-wheeler/motor cycle/AC/computer or laptop with Internet, to be excluded from the BPL list.
- Households possessing any three of the following assets to be excluded-refrigerator, telephone, washing machine or two-wheeler motor cycle.

### (b) Stage 2- Automatic Inclusion

- Households facing certain specific residential or social or occupational vulnerability to be automatically included in the BPL list.

### (c) Stage 3-Scoring Index for Remaining Households

- To be included in the list, they will be assigned scores from 0 to 12 based on various indicators.

The recommendations of the S.R. Hashim Committee are yet to be implemented.

## Amartya Sen's Capability Approach on Poverty

The capability approach is a people-focused approach. It focuses on enhancing people's well-being by expanding their capabilities so that they can lead the life they value. It does not encourage welfare programs, but advocates empowerment initiatives.

The capability approach consists of the following two elements:



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1. Freedom to achieve well-being is of primary moral importance.
2. Well-being should be understood in terms of people's capabilities and functioning's.

As a result, development is now seen as the process for creating an enabling atmosphere so that people can achieve valuable functioning's and have the freedom to pursue what they value.

However, many have criticised the capability approach for being individualistic and under-theorised and having information gaps.

## Sen Index of Poverty:

Developed by Nobel Laureate Prof. Amartya Sen in 1976, it accounts for the extent and severity of poverty as well as level of inequality in a country. It is based on three elements: HCR, Poverty Gap Index and Gini Coefficient.

Mathematically,

$$S = H [ I + (1 - I) G ]$$

Where, S = Sen Index of Poverty

H = Head Count Ratio

I = Poverty Gap Index

G = Gini Coefficient

## Randomised Controlled Trial

- Economics Nobel Laureates of 2019 - Abhijit Banerjee, Esther Duflo and Michael Kr considered to be instrumental in using Randomised Controlled Trial (RCT) to test the of various policy interventions to alleviate poverty.
- RCT is an experiment that is designed to isolate the influence that a certain or variable has on an outcome or event.
- For example, a researcher who wants to find the effect of employing more teacher's children's on children's learning outcomes, for instance, can conduct a Randomised Controlled Trial to find the answer.

## BARE NECESSITIES INDEX

Economic Survey 2020-21 has introduced the concept of Bare Necessities Index and has highlighted the importance of access to bare necessities of housing, water, sanitation, electricity and clean cooking fuel, which are consumed by all the members of the household.

It is derived using 26 indicators which are based on 5 dimensions - water, sanitation, housing, micro-environment and other facilities.

## UNIVERSAL BASIC INCOME (UBI) - IS THIS SINGLE UBI SCHEME AN ALTERNATIVE TO ALL EXISTING WELFARE SCHEMES?

UBI was highlighted upon in one of the chapters in the Economic Survey 2016-17.

UBI is a concept under which there is a periodic cash payment, unconditionally delivered to everyone on an individual basis, without means test or work requirement.

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Various Countries are now deliberating upon the option of going for UBI by providing citizens a guaranteed amount of income, irrespective of their economic or employment status.

This. UBI is based on the principle that every citizen should have the right to basic income for covering their needs. In other words, UBI is based on three hallmarks:

**1. Universality (targeting all population)**

**2. Unconditionality**

**3. Agency**

## Rationale for UBI

- It may provide freedom to an individual to spend as per his or her own choice.
- UBI may be a solution to technology-induced unemployment in developed countries.
- It may reduce inequality and increase aggregate consumer demand.
- It may promote social justice by empowering the poor to make their own economic decisions and choices.
- UBI may replace all welfare schemes (around 950 schemes running at present) which accounts for expenditure amounting to around 5.2 per cent of GDP (based on 2016-17 GDP figures)
- It may overcome leakages and wastages which occur during implementation of welfare schemes.
- Also, it will be easy to monitor one UB instead of a huge number of welfare schemes.
- May be a solution to leakages and corruption.
- May help to tackle expected unemployment due to obsolescence of workforce as a result of rapid technological advancements.
- May improve the status of financial inclusion.

## Cost of implementing UBI

- As per the estimates of the Economic Survey 2016-17, UBI will involve expenditure amounting to around 4.9 per cent of the GDP, which is lower than the present expenditure of 5.2 per cent of GDP spent on all welfare schemes taken together.
- Economic Survey further suggests that the per capita UBI amount will be indexed to prices and will be revised/increased periodically.

## Challenges in implementing UBI

- Pre-requisite of for an effectively functional JAM (Jan Dhan, Aadhar and Mobile) infrastructure for implementing UBI.
- Deciding on expenditure share of the centre and the states
- Stress of implementation on the banking system in the left out rural areas.
- In the present scenario, if one scheme fails to deliver, another scheme can compensate for that loss. However, in the case of UBI, there will be no alternative for any mishandling of UBI.
- A poor person may spend the UBI amount on unwanted activities like alcohol, gambling, etc. However, a 2011 pilot project in Madhya Pradesh has given results in favour of UBI.
- There are concerns raised by some critics as to whether UBI will actually replace all welfare schemes or complement them. If both welfare schemes and UBI are implemented parallelly, there will be a huge burden on the government exchequer.

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- There are some countries like Canada, Brazil, Iran, etc. which have experimented with UBI on a pilot basis. However, no major economy across the globe has implemented it fully fledged until now.

Thus, there is an urgent need for a serious analysis of and discussions on UBI so that a pathway may be thought of and derived regarding its viability and implementation over a period of time.

## INEQUALITY

The gap in income between the rich and the poor is referred to as inequality. In other words, it indicates the disparity in the distribution of economic assets and income.

In our case, we will deal with income inequality.

### Causes of Income Inequality

- Concentration of assets in the private sector
- Urban bias in private investment
- High Inflation in goods and services
- More focus on capital-intensive ways of production, etc.

### Methods to Measure Income Inequality

The concept of relative poverty is used to indicate the level of income inequality of a nation. It is measured through Gini Coefficient in mathematical terms and Lorenz curve in graphical terms.

#### 1. Gini Coefficient or Gini Index

- It was developed by the Italian statistician and sociologist Corrado Gini in 1912.
- It measures the degree of income inequality in a country by calculating the ratio of the area between the diagonal (line of perfect equality) and the Lorenz curve divided by the total area of the half square in which the curve lies.
- The value of Gini Coefficient varies between 0 and 1
- 0 (zero) represents perfect equality, i.e. a situation where every resident has the same income.
- 1 (one) indicates perfect inequality i.e. one resident earns all the income and the others have no income)
- For understanding it simply - say an increase in value from 0.29 to 0.36 indicates more income inequality, which is certainly not good for an economy.
- The higher is the Gini Coefficient, the more is the gap between rich and poor in a country, i.e. higher level of income inequality.

#### 2. Lorenz Curve

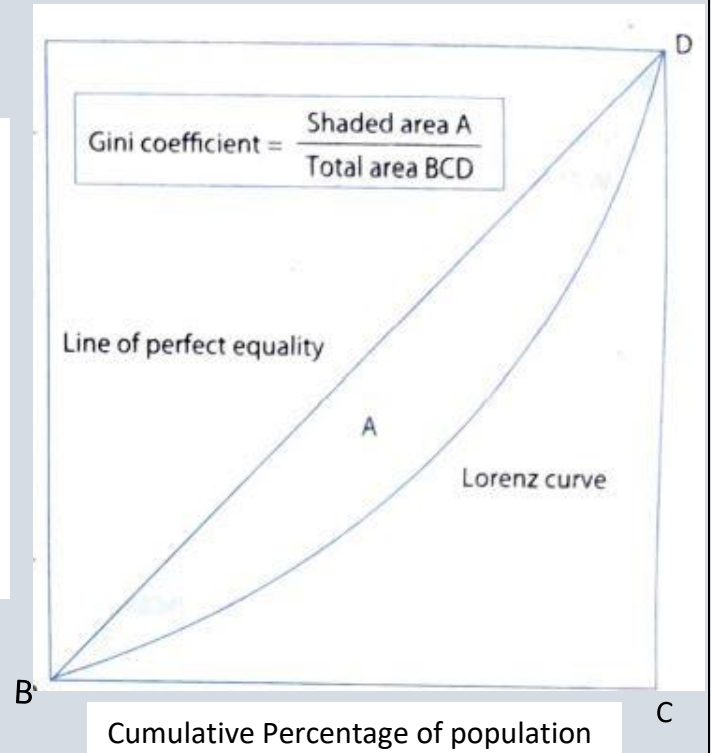
- It is a curve that measures the relationship between the Percentage of income earned and the Percentage of people who earned that particular Percentage of income.
- It is a graphical representation of Gini Coefficient. In other words, Gini Coefficient can be represented graphically through the Lorenz curve.
- Cumulative population share (in %) is presented on the X-axis and cumulative income share (in %) is presented on the Y-axis.

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## Lorenz Curve Explained

- Perfect equality is represented by a straight 45-degree curve.
- Curve placed below the line of perfect equality represents the Lorenz curve.
- The closer is the Lorenz curve to the perfect equality line, the less is the level of income inequality and vice versa.
- 'A' indicates the shaded area.
- From the graph, Gini Coefficient = shaded area A / area of BDC.
- If A = 0, it means the Lorenz curve is actually the line of equality, and then it indicates perfect equality with Gini Coefficient = 0.

Cumulative Percentage of income



## Present Status of Income Inequality in India - A Global Comparison

- As per the 2020 report on Human Development by UNDP, the Income Gini Coefficient of India has reduced to 0.352. As per the 2011 report, it was 0.368.
- In the 2019 report, it was mentioned that there were many developed nations whose income inequality was much higher than that of India. Some of them included China (0.386), the United States (0.415), Israel (0.389), Russia (0.377), etc.