

MODULE - 2

ECONOMIC GROWTH AND DEVELOPMENT

ECONOMIC GROWTH

Defⁿ → It refers to the process of increase in production of goods & services in an economy over a long period of time.

Defⁿ → It refers to persistent increase in real GDP or real per capita income.

ECONOMIC DEVELOPMENT

It refers to that process of economic growth which is accompanied by improvement in well-being of people

In other words It refers to progressive changes in the socio-economic structure of an economy.

[2015 - India's growth rate - 7.6 (Highest in the world)]

<u>Economic Growth</u>	<u>Economic Development</u>
⇒ Production ↑	⇒ Prod ⁿ ↑ + social welfare
⇒ <u>Unidimensional</u>	⇒ <u>Multi-dimensional</u> Concept → Health → env.

⇒ Quantitative Concept

⇒ It is just a means

⇒ It can be achieved without
economic development (means)
without economic welfare

⇒ It is a major concern
of developed countries

⇒ Indicators :-

- Real GDP ✓
- Real Per Capita Income

⇒ Qualitative Concept

⇒ It is an end in itself

⇒ It can seldom be achieved
without economic growth.

⇒ It is a major concern of
developing countries.

⇒ Indicators :-

- HDI
- PQLI
- Real PCI
- NEW, etc.

Indicators of Economic Development

① Net Economic Welfare (NEW)

→ Paul Samuelson

$$\text{NEW} = \text{GNP} + \text{value of Housewives Services}$$

$$+ " " \text{ Leisure}$$

- Expenditure on Defence & Civil Administration

- Cost of Environmental Degradation

These are not included in
GDP
Limitations
(or GDP)

$$\textcircled{2} \quad \text{Real Per Capita Income} = \frac{\text{NI}}{\text{Pop}}$$

It is regarded as an indicator of standard

of living. It is not a satisfactory indicator
of economic dev. bcoz :-

- 1) It is based on the value of National Income & does not take into account its composition.

e.g. pread' of alcohol, cigarette, defecie will increas
PCR but not welfare of people.

- 2) It does not show distribution of National Income
i.e. inequalities

- 3) It is silent on the welfare dimension of economic development. eg - Eduⁿ, Health, provision of basic amenities, clean env., political liberty, etc.

Q → "Real PCE is an indicator of Economic Dev." Comment

$\emptyset \rightarrow " GDP$ " " " " " " " " " Comment

\downarrow \downarrow
(not at all) (To some extent)

③ Physical Quality of life Index (PQI)

→ Developed by M.D. Motarji in 1924

It is based on the following 3 indicators :-

- 1) Infant mortality - (children) died within 1 yr out of 1000 live births

- 2) Life Expectancy at the age of 1 year - (as an average
at what age

Harrod - Domar Growth Model (1st FYP)

$$\text{Eco. Growth Rate} = \frac{\text{Investment (I)}}{\text{ICOR}}$$

(EGR)

ICOR - Incremental Capital Output Ratio

$$\text{COR} = \frac{\text{Capital}}{\text{Output}} \rightarrow \text{(Total value of machinery)}$$

$$\text{ICOR} = \frac{\uparrow \text{Capital}}{\uparrow \text{output}}$$

A

$$\text{ICOR} = \frac{10L}{2L}$$

$$= 5 : 1$$

$$= 5$$

B

$$\text{ICOR} = \frac{10L}{2.5L} \rightarrow \text{(more output)}$$

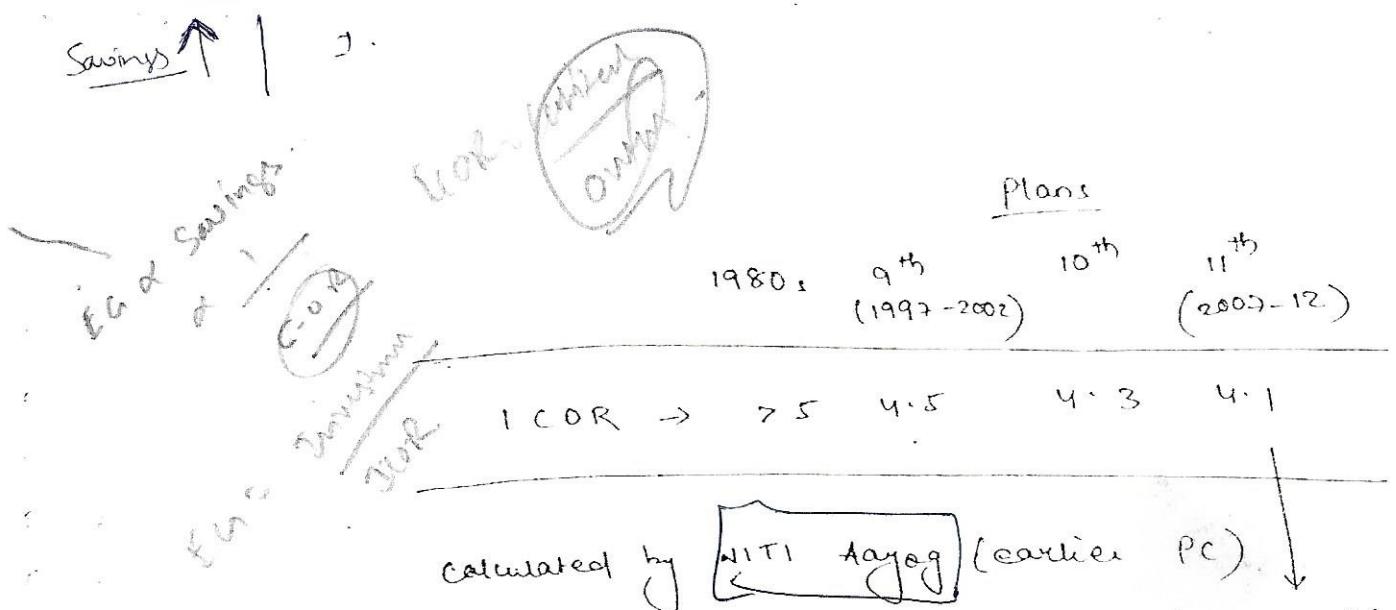
$$= 4 : 1$$

$$= 4$$

(B is better i.e. lower ICOR is better)

ICOR → It measures the units of capital that are required to produce an additional unit of output. Higher ICOR shows lower efficiency.

ANSWER



* In 12th plan projection is made acc to
this formula.

$$EGR = \frac{2}{ICOR}$$

$$\therefore 8 = \frac{32}{4}$$

simpler
for better
projection

Saving:

Financial system
Investment

Stages in Capital formation

1) Savings = Income - Consumption

2) Finance = i.e. mobilization of Savings of households
for investment by firms through financial institutions.

3) Investment = means expenditure on capital goods

1. Savings (Gross Domestic savings) — 33% of GDP

a) Households — 70%

b) Private corporates — 20% → (Undistributed profit)

c) Public sector — 10%

→ CADP - Consumption expenditure.

" Savings is a ~~bad~~ virtue but a public vice.

2. Investment —————— 34.2% of GDP

(Gross Domestic Capital Formation (GDCF)).

a) Private sector — 80%.

b) Public " — 20%.

Closed Economy (or economic):-

$$\boxed{\text{Investment} = \text{Savings}}$$

It is an economy which does not have any economic relation with rest of the world.

Open Economy :-

$$\text{Investment} = \text{Savings} + \text{Net foreign Capital}$$

Inflow

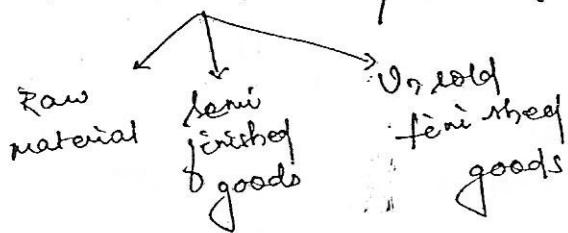
\downarrow
(Investment +
borrowings)

Components of Investment :-

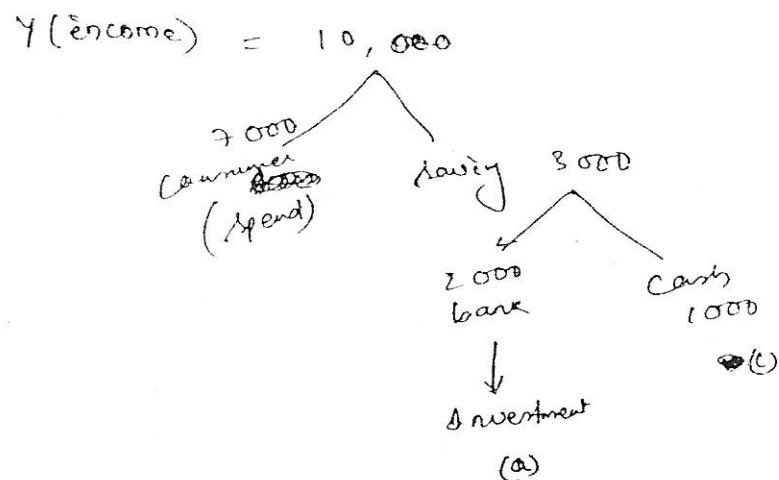
a) fixed investment

b) valuables eg. Gold, silver

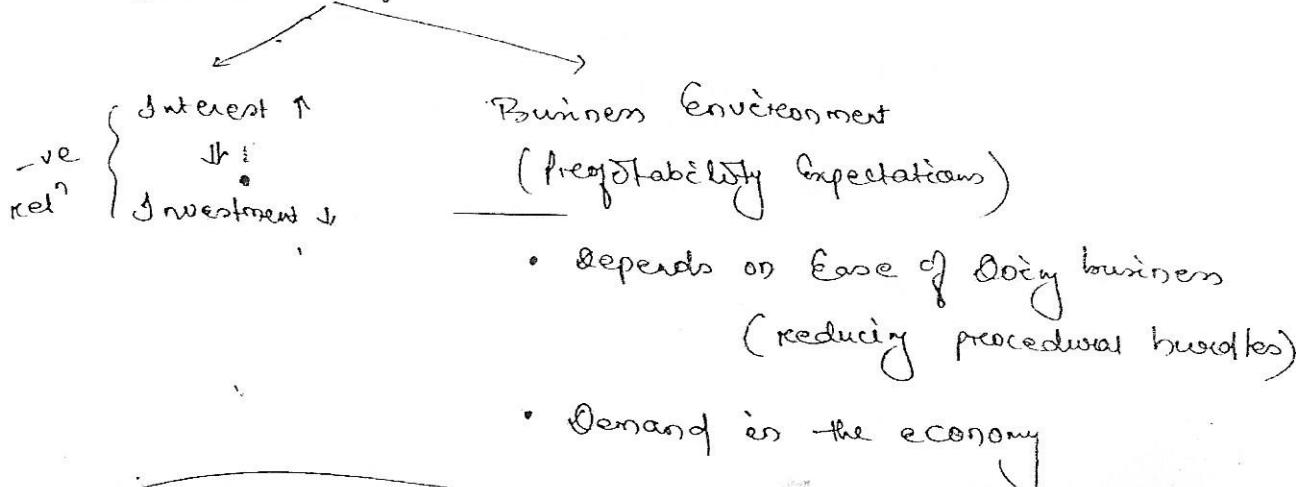
c) Change in inventories / stock



Interest rates \rightarrow Lending ~~and~~ and borrowing would be costlier \rightarrow hence lower investment \rightarrow tight monetary policy.



Determinants of Investment



* Interest $\uparrow \rightarrow$ savings \uparrow

- * In India savings rate is high despite less PCI
 - Cultural factors
 - Govt. promoting savings
 - Financial systems diversified
 - Lack of social security (for old age, disease, etc.)

Developing Countries

- Savings are good as investment $\uparrow \Rightarrow$ Eco Growth \uparrow
 ↓
 (based on supply)

No deficiency of demand

- as over populated
- Developmental expenditure by Govt \Rightarrow
 budgetary deficits have
 to be increased

Developed Countries

- Saving $\uparrow \Rightarrow$ Eco Dev. \downarrow
 (recession)
 ↓
Paradox of Thrift

Eco. growth based on demand

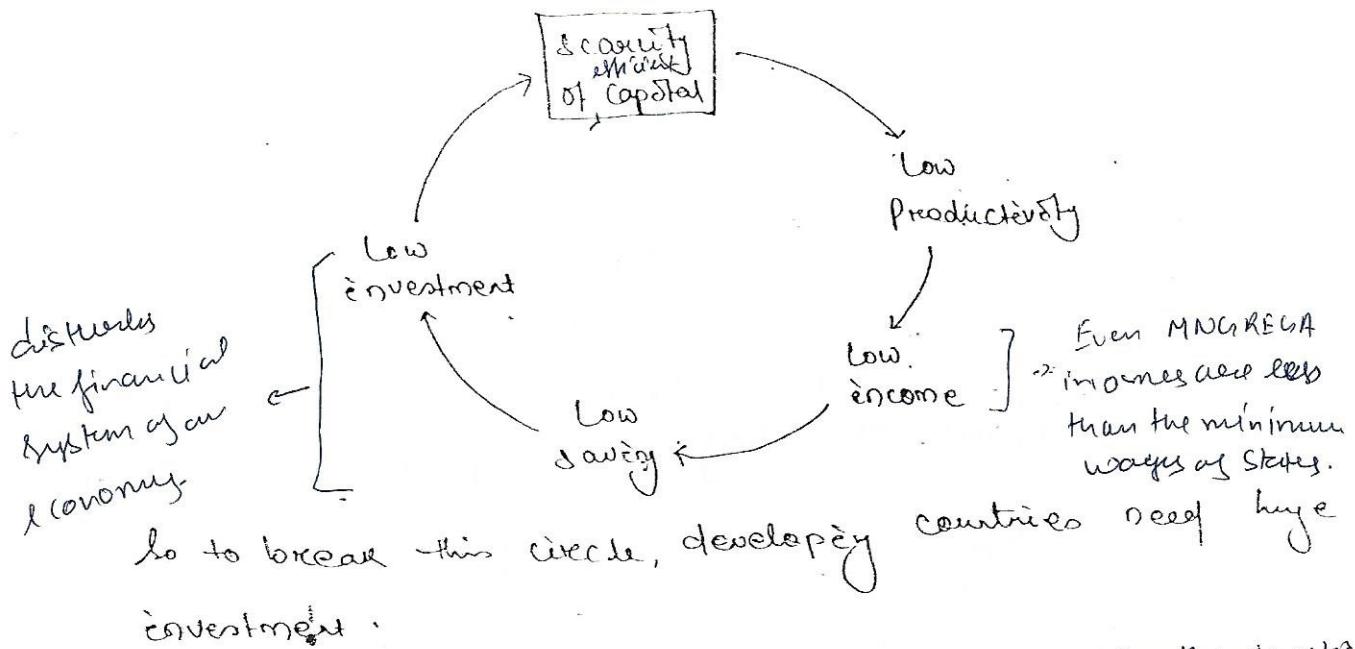
- * China (high rate of growth in recent times bcoz) :
 - high investment rate (about 45-50%) (India 30%)
 - high rate of savings \Leftarrow (high growth with less inflation)

Vicious Circle of Poverty \rightarrow

- Concept given by Prof. Ragnar Nurkse

He said "It is a circular ~~and~~ postulation of forces
 tending to act & react upon one another in such

a way as to keep a poor country in the state of poverty."



⇒ Purchasing Power Parity (PPP)

- measures the strength of a currency
- ability to purchase goods
- Domestic currency for a sum

It is an exchange rate system under which exchange rates of various currencies are determined on the basis of their relative purchasing power in the respective countries. (what rupee can buy in Ind & what \$ can buy in USA)

	<u>USA</u>	<u>India</u>
Pepper	\$1	₹ 25
Mc burger (Parsesh)	\$2	₹ 70
Samsung Mobile (S8)	\$1000	₹ 70,000

Italy, Saudi, Indonesia,

BRICS + PS (US, UK, France, Russia, China); SCO
(China, India, Russia)

9) Low level of well-being (reflected in terms of

→ HDI Rank - 130/188

→ GDI - 151/161

→ low level of eduⁿ, health, etc.

② Mixed Economy

③ Planned Economy

④ Liberalised / Reformed Economy - 1991

⑤ Emerging market & Transition Economy

(One of the fastest growing economy)

(We are now moving in the path of development)

- India's share in World GDP, world Trade, world investment is constantly increasing.

G20 - top most economic decision making body of

the world. no permanent Secretariat, informal body → 85% of total GDP

• no. of countries = 19 + EU 75% of Global trade.

• India is a member of this group.

• Our share increased bcoz of members of BRICS.

US, UK, EU, China, India, Japan, Russia, South Korea,

South Africa, Argentina, Brazil, Aust, Indo, Italy, SA, Turkey, Can, Mex

⇒ INEQUALITIES →

- It refers to differences in income / expenditure

- two levels of various sections of society.

Canada, US, Mexico, Brazil, Argentina, SA, Saudi Turkey, UK, FRA,

Iran, Italy, India, China, Russia, Japan, Indo, Aust, South Korea,

NSO (National Sample Survey Org.)

Popl'	Cumulative income
Poorest 20%	8.1%
Richest 20%	44.9%

$$\text{Quintile Ratio} = \frac{\text{Income of Richest 20% popl'}}{\text{Poorest 20%}}$$

$$= \frac{44.9}{8.1} = 5.5$$

(higher the no., more inequality)

Popl'	Income	Cumulative income of 20%
0-10	3%	
10-20	5%	
20-30	7%	

$$3+5 = 8\%$$

$$\text{Palma Ratio} = \frac{\text{Income of Richest 10%}}{\text{Poorest 40%}} = 1.4$$

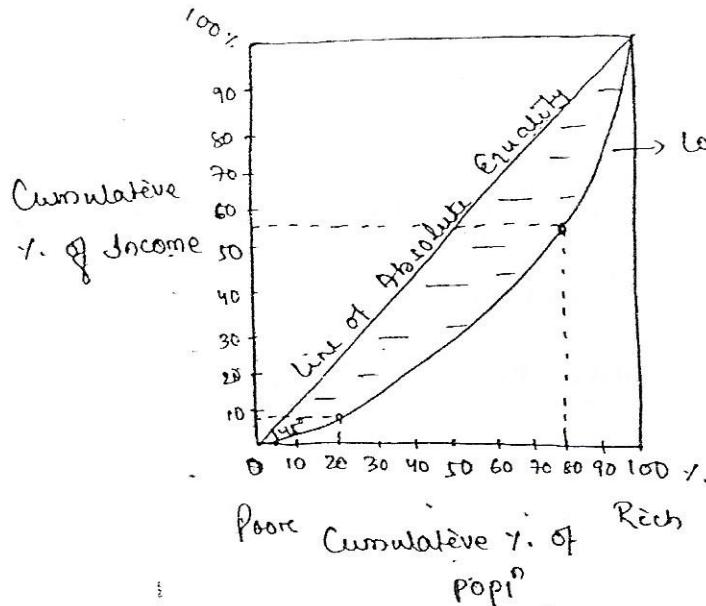
Given by Gabriel Palma
 ↓
 (as variation is generally seen 40-9-10-8-4-0)

He observed that the share of income of the 5th decile to 9th decile popl' remains relatively stable across the nations.

Other tools: Hoover Index, Galt Score, Theil Index.

⇒ Lorenz Curve

• M. D. Lorenz



NSSO

popl

Poorest

Cumulative

income

India

(Use data to calculate
↓
Lorenz Curve)

ABC

5%

Richest

20% → 8.1%

60%

Poorest

20% → 55.3%

⇒ Gini Coefficient → (Another measure of inequality)

• by Corrado Gini

It is a arithmetic measure of inequality which is based on Lorenz curve.

$$G = \frac{\text{Area b/w } 45^\circ \text{ line & Lorenz Curve}}{\text{Area below } 45^\circ \text{ line (above)}}$$

Minimum value = 0

Max. " = 1

India

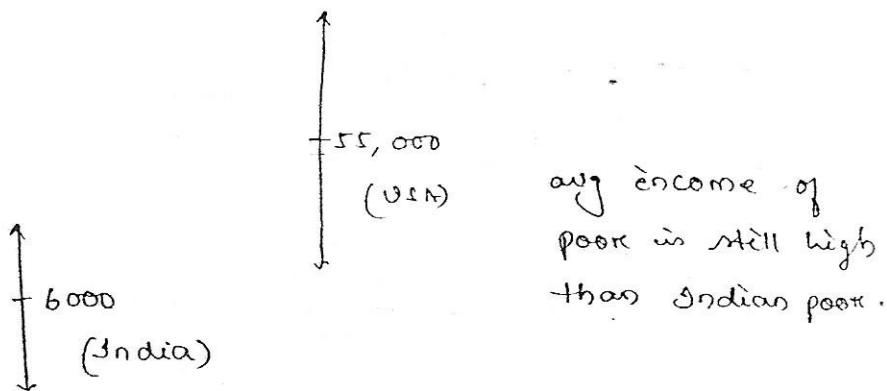
$$G = 33.6 \text{ %} \\ = 0.336$$

USA

$$G = 41.1 \text{ %}$$

Inequalities of USA is more than India.

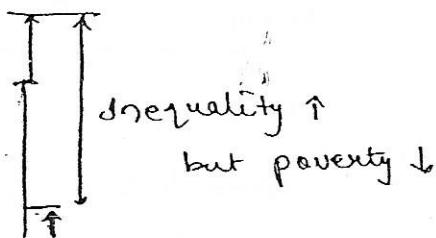
It is an exception. Most normally developed countries have less inequality.



Cause of inequality

- 1) Differences in ownership of land & wealth
- 2) Institution of property & inheritance laws
- 3) Scarcity of capital - which leads to unemployment

After LPG



- a) Inadequate infrastructure specially social & infrastructure (school, hospital)
- b) Leverages in Govt's developmental expenditure.
*(Rajiv Gandhi - When we spend ₹1, poor people get ₹15 paise)
- c) Difference in access to credit
- d) " " " " education & training
- e) Inherent differences in abilities of individuals.

Remedial measures :-

- 1) Land Reforms
- 2) Govt. initiated various developmental programs like
 - a) Poverty Alleviation & Employment Generation Program
Ajeerika, PAP, MGNREGA, etc.
 - b) Skill Dev. Program
DDU Kaushal Vikas Yojana, USTAD, CTET, Naya Mantri, etc.
 - c) Social security Program
eg. BIMA Yojna
 - d) Rural Dev. Programs
PMGSY, PURA → Chhavai Prasad Mukherjee Urban Mission
Kriti Kisan
 - e) Educational Prog
 - f) Health Prog

g) Women Emp. Prog

Beti Bachao Beti Padhao, Mukanya Samvidhi

3) Reservation for SC, ST & Weaker Sections

4) Financial inclusion

e.g. Nationalisation of Banks, PM Jan Dhan Yojana

5) Promotion of Micro, Small & Medium Enterprises (MSME)

6) Progressive taxation & Govt. expenditure.

11.7
⇒ POVERTY

Poverty is a situation in which an individual/a section of society is unable to meet even basic necessities of life.

Types of Poverty :-

① Absolute Poverty → Deprived from basic amenities.
It is expressed in relation to poverty line used in developing countries.

② Relative Poverty → It is expressed in terms of differences in income/expenditure levels of various sections of society.

It measures Inequality.
Used in developed countries.

PL (≈ 42)

e.g. % of popl' earning less than 50% of the median income.

* $\{ 1, 2, 3 \}$ mean = $\frac{1+2+3}{3}$

note :
median = 2 (middle no.)

(give better picture when calculating average income)

* $\begin{cases} \text{USA} \rightarrow \text{Relative poverty is more} \\ \text{India} \rightarrow \text{both} \end{cases}$

Rationale / need for Poverty Estimation :-

- 1) to assess effe improvement in social welfare i.e. effectiveness of developmental programs.
- 2) to identify beneficiaries of developmental programs.

it is being done by the
socio-economic caste & Census
(by states)

* Tendulkar - 21.33 (which was too low) \rightarrow so 2nd component was not accepted.

Estimation of Poverty in India

In India poverty is estimated by PwPc / Niti Aayog
on the basis of the consumption expenditure data of

National Sample Survey Organisation / Office (now) (noso)

* { Est. - P.C
Data - noso (Consumption Expenditure data)

Poverty is estimated on the basis of a methodology suggested by an expert committee.

Expert Committees :-

- ① 1993 - Lakdawala Committee → It defined poverty line on the basis of minimum recommended nutritional requirement. (recommended by ICMR (Indian Council for Medical Research)).
It defined poverty line on the basis of expenditure required to purchase food having 2100 Kcal Calories for Urban area & 2400 Kcal per person per day for Rural areas.
→ It ~~never~~ used Uniform Recall Period (URP) data i.e. 30 days recall / reference for expenditure of all items.
- ② 2009 - Swarsh Tendulkar Committee → It defined poverty line on the basis of expenditure on a basket of commodity containing food & selected

non food items.

It used Mixed Recall Period (MRP) data.

- 30 day recall / reference for exp on all items
- ~~365 days~~ recall for 5 items (durable goods like furniture, etc ; clothing ; foot wear ; institutional medical expenses ; educational expenses)

Poverty line $\begin{cases} \text{₹ 33 for Urban areas} \\ \text{₹ 27 for Rural areas} \end{cases}$

(at 2011-12 prices)

* CPI is used for adjusting inflation

$$\begin{aligned} * & \left\{ \begin{array}{l} 5 \text{ members} \\ 33 \times 5 = 165 \times 30 = 4950 \text{ (2011-12)} \\ \downarrow \quad \text{(months)} \end{array} \right. \rightarrow \frac{700}{6500} \\ & \qquad \qquad \qquad \downarrow \end{aligned}$$

It was
miterated
predicted
at that
time

family can afford
min. basic and necessities
with this

- It is low, not ridiculously low
- It was higher than WB's estimated PL at that time.
- It is a subjective concept, so focus should be on most vulnerable
- at ₹ 33 - 22% of people living BPL

③ 2013 - Dr. C. Rangarajan Committee →

It also expressed poverty line in terms of

expenditures on basket of commodities. The poverty line had 2 components i.e.

- x 1) Expenditure on food items to purchase food items containing minimum nutritional requirement of energy (calories, fats & proteins)
- y 2) Expenditure on selected non food items like clothing, rent, educational expenses, etc. The expenditure of the median fractile (45-50%) household on these items were taken as reference for Poverty line.

$$x+y = ₹ 47$$

$$(\text{taken as reference}) \leftarrow \begin{array}{l} \text{(middle most } \leftarrow \frac{50\%}{45\%} \\ \text{family}) \end{array} = PL(₹ 47)$$

It used modified MRP data (MMRP)

- ① 20 days . . .
 - ② 365 days . . .
 - ③ 7 days (recall your expenditure on selected items like grains & vegetables, fish & meat, spices, beverages, tobacco, intoxicants, etc.
bcoz consumed frequently)
- Poverty line to be revised on the basis of CPI based inflation.

PL
 Urban \rightarrow ₹ 47
 Rural \rightarrow ₹ 32
 (at 2011-12 prices)

* { 29.5% people came
 into picture at
 this price

// * NITI Aayog uses Suresh Tendulkar Committee Report

Years	Laxdales Comm. H (in %)	S. Tendulkar Comm. H No. of poor Rural (H) Urban (H)			D.R.C. Rangrajan Comm. H
		365 days	365 days	MRP [33 - Urban H 27 - Rural H]	
1973-74	54.9		~ 40 Cr		
1993-94	36.0	45.8	40.3 Cr]		
2004-05	21.8	37.2	40.7 Cr]		
2009-10		29.8	35.4 Cr]		
2011-12		21.9	26.9 Cr 25.7 13.7		29.5

Weightage average
of these 2

Mixed Period
Period

$$H = \text{Head Count Ratio} = \frac{\text{No. of BPL}}{\text{Total popn}} \times 100$$

* { $\frac{22}{100} \times 100 = 27$
 \downarrow
 (1.2 billion popn)

30 days food
 365 days non food
 like items
 good 1.

\Rightarrow Average Annual Decline in Poverty (Data by NITI)

1983 to 1993-94 \rightarrow $\sim 2\%$

1993-94 to 2004-05 \rightarrow 0.79% (Govt. focus more on Rev. Report)

2004-05 to 2011-12 \rightarrow 2.18% ("↑ exp. on social sector)

⇒ International Poverty Line

PPP \$ 1 = ₹ 19

World Bank

PPP \$ 1.9 per person per day (Revised) (2015)

Earlier → PPP \$ 1.25 per person per day

Int. PL i.e. \$ 1.9 is the average of National
Poverty lines of selected poorest 15 countries.

2011 - 12

India → 21.3 %

World → 12.8 %

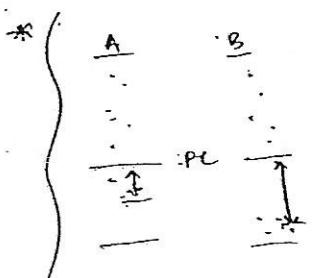
* theoretically MPI is better but practically not
feasible.
(Multidimensional
poverty index)

TERMS related to measurement of Poverty

① Head Count Ratio (H) ⇒ It shows extent of
(Poverty ratio) poverty

② Poverty Gap Index (PGI) ⇒

$$PGI = \frac{\text{Poverty line} - \text{Avg. Income of Poors}}{\text{Poverty line}}$$

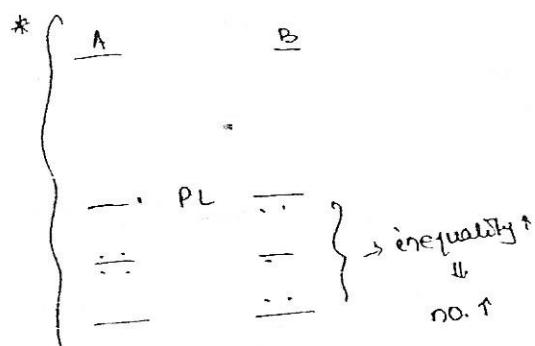


→ It shows severity/intensity
of poverty

③ Squared Poverty Gap Index (SPGI) \Rightarrow

It is the mean of squared individual poverty gaps.

$$SPGI = \frac{\frac{(Income)}{(PL - YP_1)^2}}{PL} + \frac{(PL - YP_2)^2}{PL} + \dots$$



* (square \Rightarrow if inequality large \rightarrow square will more more large)

(Well being better) * average same in both the case)

It measures severity of poverty by taking into account inequality among the poor.

④ Sen Index of Poverty \Rightarrow

: Given by Prof Amartya Ku. Sen

$$\delta = H [I + (1-I) G] - \frac{N_{BPL}}{Total\ PL}$$

↓ ↓ ↓
Head Count Ratio PGI PGI Geni Coeff.

* (More comprehensive, as all elements (H, PGI & inequality) are included in this.)

Amrt \rightarrow ~~HCR~~, PGI, Gini coefficient

NSSO → mostly ; headed by a DC appointed by C.R. → In 2017 → Started
PLFS → Quarterly Survey → two reports → a) Annual Report (U.E.R.) ;
b) Quarterly Bulletin (Only for Urban) ; 2018 → first annual report to
be submitted ; both formal and informal survey.

Two approaches Causes of Poverty

a) usual status approach . Similar to causes of unemployment & inequality

+ No. of unemployed /
who has no gainful

work during \Rightarrow UNEMPLOYMENT

for major time

in any ~~duration~~ 365

days . It is a situation in which an individual who

- measures long term is able & willing to work at the prevailing wage

Unemployment

fails to find a job .

LFPR, UR, • It refers to involuntary \Rightarrow Unemployment .

• Unemployment / employment are expressed in relation
to labour force .

Labour force consists of the people in the working

age group who are able & willing to work .

(15 - 59 years)

Labour force participation Rate ,

$$(LFPR) = \frac{\text{Labour force}}{\text{Popn}} \times 100$$

(as per NSSO)

woman LFPR \approx 27%

man LFPR \approx 77%

In-India \Rightarrow LFPR = 36%

Cohesively :

woman LFPR \approx 49%

$$\boxed{\text{Labour force} = \text{No. of Employed} + \text{No. of Unemployed}} \\ (\text{work force})$$

Underemployment \rightarrow It is a situation in which a person is employed in an activity which is not

at par with his/her qualifications / experiences.

OR

a person could get only a part time job

Demographic Dividend → $\frac{\text{increasing in working age popl}}{\text{popl}}$

* $\left\{ \begin{array}{l} \text{Dev.} \rightarrow \text{people survive more} \rightarrow \text{i.e. aged popl} \uparrow \rightarrow \\ \text{less DD} \end{array} \right.$

* Opportunity as well as threat (DD)

b) Types of Unemployment

① Disguised / Hidden Unemployment → It is a situation in which more people are employed in an activity than actually / optimally required. The marginal product of such workers is zero. It is usually associated with agricultural sector in developing countries.

② Open Unemployment → same defⁿ as that of Unemployment

③ Structural Unemployment → It is caused due to structural deficiencies of an economy like scarcity of capital, inadequate infrastructure, immobility of labour, etc.

Mainly in developing countries.

PM Kisan Yojana → by ESIC

(a) Seasonal Unemployment → It usually exists during lean season

e.g. Agricultural, weeder

• Developing Country

(b) Technological Unemployment → It is caused due to adoption of labour saving technology.

• Both in economy (Developed + Developing)

(c) Educational Unemployment → It is a situation in which an educated & trained person fails to find a job

(d) Cyclical Unemployment → It is associated with business cycles i.e. it exists during recession or depression.

• Developed Countries

(e) Keynesian Unemployment →

• named after J. M. -Keynes

It is caused due to deficiency of aggregate demand in the economy.

* He told the cause of Great depression. He gave macro economic concepts:

(Demand in
less)

(so govt.↑ demand to overcome depression)

↓
(due to micro economic
concept implied in macro
economic situation)

1929 → when entire capitalist system failed while only USSR (Socialist Economy) survived

- * Marx also criticised Capitalist economy (but as recession was most common these days)

- Developed Countries

- ① Frictional Unemployment / Between Jobs Unemployment →

it is a temporary unemployment which exists during shifting of labour from one job to another.

- Developed countries (mainly confined to)

- * India

- mainly:
 - Organised Unemployment
 - Structural "

Types of Employment

- ① Formal Employment → Employment with proper job security & related benefits like insurance, pension, etc.

- ② Organised Sector Employment → Employment in the organised sector of the economy.
(maintain proper record)

- * formal Emp. is much better than 2^o (as not all formal, also some casual labour employees)

- ③ Informal Employment → no job security

(6% in India of
with CAGR of
25-30%)

Civil Economy

- (4) Casual Employment → No systematic hours of work. It is actually need based. No job security.
- (5) Contractual Employment → Employment for specific time period under specified terms & conditions
 - * Contractual is good as compared to Casual
 - * Organised " " " " " Contractual
- (6) Unorganised Sector Employment →

NSO

2011-12

	Organised Sector	Unorg. Sector	Total
Formal Emp.	8%	0.4%	8%
Informal Emp.	9%	83%	92%
	17%	83%	

* (Formal Emp. in Unorg. Sect is possible)

Causes:- (Stigmatization of Employment)

- base of rigid labour force

↳ affecting ease of doing business

- Not good for companies → as they ^(labour) will not be attached, loyal to company - as they are not going to get long term benefit.

⇒ Measurement of Unemployment

• NSSO & Labour Bureau

Concepts:-

1) Usual status :→ ^(usual status)

Under US those people are included in labour force who ~~were~~ ^{are} available for work for major part of the reference/survey year period (year).

* (6 months & above → part of labour force)

It is estimated in relation to 2 types of activities namely -

- Principal &
- Subsidiary activities.

Under Usual Principal Status (UPS) those people are regarded as employed who work for major part of the time period for which they were available for work.

Those people who were classified as unemployed or outside labour force under UPS but worked for at least 30 days during the survey year are regarded

as employed on subsidiary basis. Usual Principal

2) Subsidiary Status (UPSS)

NSSO (68th round)
2011 - 12

UPS \rightarrow 2.7%

UPIS \rightarrow 2.2%

- * Sample size is large
- ** & data size is not accurate

(usual status) • US measures chronic unemployment (long term + serious severe unemp.)

$$\bullet \text{ UPS} = PS + SS \quad \begin{matrix} \text{E sometimes called as} \\ (\text{principal status}) \quad (\text{subsidiary status}) \end{matrix}$$

$$\bullet \text{ UPIS} = PS$$

2) Current Weekly Status (CWS) \rightarrow 3.7%

Under CWS those people are regarded as employed who got atleast 1 hour of job during on any day of the survey week.

• It also measures chronic unemployment but with the reduced reference period i.e. a week.

* Sample size is small, but data is accurate

3) Current Daily Status (CDS)

* $\left\{ \begin{array}{l} \text{NSSO - large sample (every 5th yr) - (2011-12)} \\ \text{small n. (every year)} \end{array} \right.$

It is measured in person-days or man-days.

It takes into account activity status of labour force
for each day of the survey ~~last week~~ week.

Criteria -

job for < 1 hr on a particular day \Rightarrow Unemp.

1-4 hr \Rightarrow Employed for 1/2 man-day

> 4 hr \Rightarrow Employed for 1 man-day

Days	Working hours	Employment status (in man-days)
1	6	1
2	7	1
3	6	1
4	0	0 { Unemployed man-days }
5	42	0
6	5	1
7	-	-
Emp \rightarrow 4		

$$\text{Total man day} = 6$$

$$\text{Unemp. man-days} = 2$$

$$\text{CDS} = \frac{\text{Unemployed man-days}}{\text{Total man-days}} \times 100 = 5.6\%$$

$$= 5.6\%$$

It is the most comprehensive concept of Unemployment
as it takes into account unemployment as well
as underemployment.

$$\text{Elasticity of Employment} = \frac{\text{Growth rate of Emp.}}{\text{" " " " GDP.}}$$

• If Elasticity of Emp. \downarrow \Rightarrow jobless growth

Reasons of Jobless growth

+ less requirement of human labour.

- 1) Capital intensive investment + technological advancement
- 2) Reduction of Public / Govt. Developmental Expenditure
- 3) ↓ Public investment (Govt. started disinvesting (i.e. reducing investment on public sector))
- 4) Service sector failed to create commensurate jobs
+ (with contribution to GDP)
- 5) Adverse impact on SMEs, bcoz of excessive competition;

57.

Labour Bureau

(based on UPS)

PLFS

5th Annual Emp- Unemp Survey 2015-16

(April - Dec 2015) - (actual time period of data collection)

(Aged 15 yrs & above)

	Rural (%)	Urban (%)	Total (%)	Male (%)	Female (%)
LFPR	53.0	43.5	50.3	75	23.7
WPR	50.4	41.4	47.8	72.1	21.7
UR	5.1	4.9	5.0	4.0	8.7
PU	2.7	2.1	2.5	3.0	2.1

↳ LFPR = $\frac{\text{Labour Force}}{\text{Total Pop}}$ = Rural $>$ Urban.

WPR = $\frac{\text{Employed Person}}{\text{Total Pop}}$

LFPR \rightarrow Labour force Participation Ratio = $\frac{\text{Labour force}}{\text{popi}^n}$

WPR \rightarrow Women Popiⁿ Ratio = $\frac{\text{Total women}}{\text{popi}^n} \times 100$

UR \rightarrow Unemployment Rate = $\frac{\text{Unemp}}{\text{Labour force}}$

PU \rightarrow Proportion Unemployed = $\frac{\text{No. of Unemp.}}{\text{Total popi}^n}$

$$\left\{ \begin{array}{l} \text{NSCO} \quad (\text{Age - 15 - 59}) \\ \text{LFPR} = 36.7 \end{array} \right.$$

$$\text{UPS} \quad (\text{Age - 15 + above})$$

$$\text{LFPR} = 50.3$$

why variation? \curvearrowright

$$\begin{aligned} UR &= 5 \\ PW &= 2.5 \end{aligned} \quad \text{as labour force is half of total popi}^n$$

$$*(\underline{\text{LFPR}} = \underline{\text{WPR}} + \underline{\text{PU}})$$

	2011-12	2012-13	2013-14	2015-16
Unemp Rate (UR) (based on UPS)	3.8%	4.7%	4.9%	5%

23.8

Time use Survey

	India	World
Men's share in Paid work	2.2	1.8 (times of women)
Women's " " Unpaid "	9.6	3 (" " men)

$$\text{LFPR} = \frac{\text{Labour force}}{\text{Total Pop}} = \frac{\text{Employed} + \text{Unemployed}}{\text{Total Pop}}$$

$$= \frac{\text{Emplo. in}}{\text{Total Pop}} + \frac{\text{Un}}{\text{Total Pop}}$$

$$\text{LFPR} = \text{WPR} + \text{PU}$$