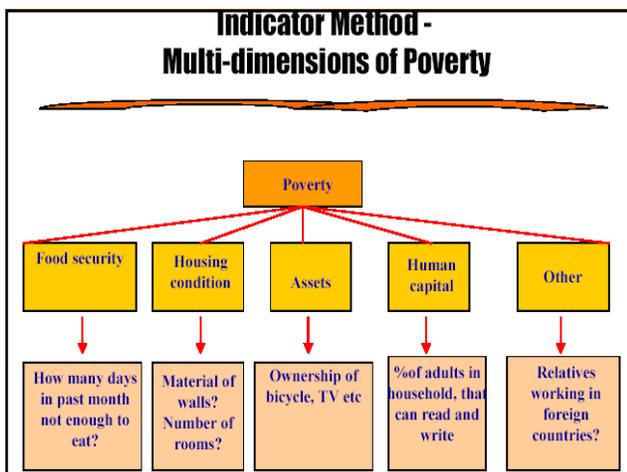


Poverty Index

- Water poverty index
- Child Poverty index
- Human development index
- Human Poverty index
- Health poverty index
- Employment and poverty index
- poverty index in general



Who are the Poor in India?

- It is estimated that one-third of the world's poor live in India, and there are more poor people in India alone than in the whole of Sub-Saharan Africa.
- Although official estimates of the Government of India indicate that only every fourth Indian is poor, according to the estimates of the internationally recognised poverty line of dollar a day, 44% of persons in India are poor, and 86% of people earn less than \$2 a day.
- Even official data indicates that two out of three children are moderately or severely malnourished.

Poverty line

- The national poverty line on the basis of 2400 calories per adult equivalent in rural and 2100 calories in Urban areas
- Below **Rs. 20000** per capita per year is poverty line
- As per the world bank if one's income is less than 1 \$, per capita per day, he is poor.
- Minimum caloric intake
- Minimum annual income
- Living conditions

Table 2 Poverty as assessed by the Planning Commission

Year	Percentage below poverty line	Annual decline in percentage points during the period	
1973-4	36.4	-	-
1987-8	39.1	1974-87	1.3
1993-4	36.2	1987-94	0.4
1999-2000	26.1	1994-2000	1.7

Indicators of Rural poverty

1. Caste Status and Poverty

2. Physical Assets and Poverty

Land, house and live stock

3. Literacy and Poverty

4. Demographic features of households and Poverty

5. Infrastructure and Poverty

6. Village Size and Urban Neighbourhood

Table 1 Livelihood characteristics of the rural poor in 1993-4 (%)

Livelihood category	Scheduled Tribe (ST)	Scheduled Caste (SC)	Others	All households in livelihood category
Self-employed households in agriculture	5.6	4.8	22.5	32.9
Agricultural labour households	6.5	16.2	18.9	41.6
Self-employed households in non-agriculture	0.8	2.4	7.7	10.8
Other rural labour households	1.5	2.4	4.0	7.8
Other (residual households)	0.7	1.5	4.7	6.9
All households	15.0	27.2	57.8	100.0

Source: Government of India (2000)

Figure 2 Poverty Rate in India, 1974-2000

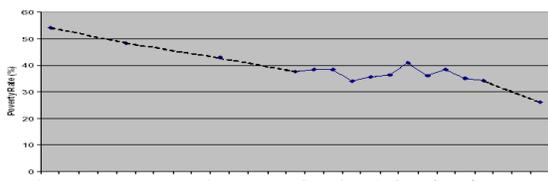
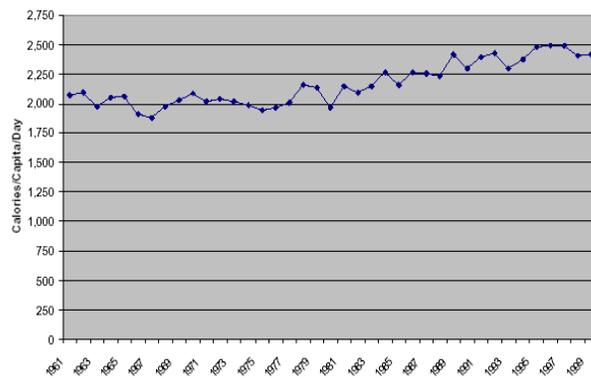
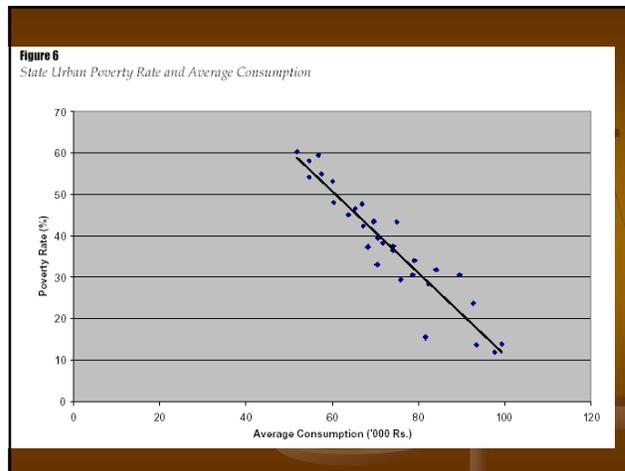
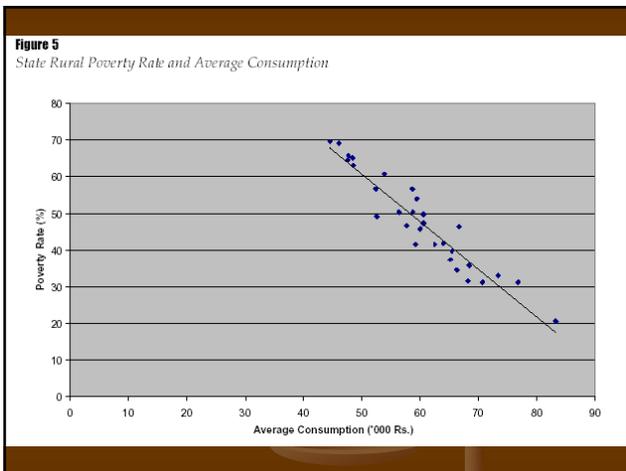


Figure 7

India: Average Caloric Intake, 1961-1999





Mean Per Capita Expenditure Levels Across the States in 1999-00

States	Rural Mean*	Ranking	Urban Mean	Ranking
Andhra P	604.35	5	808.30	8
Assam	404.70	14	1117.11	1
Bihar	403.90	15	776.13	12
Gujarat	592.36	6	850.49	7
Haryana	656.83	3	1043.85	3
Karnataka	583.19	7	786.03	11
Kerala	711.91	2	913.45	6
Madhya P	462.63	12	675.98	15
Maharas	533.61	9	808.11	9
Orissa	415.00	13	676.47	14
Punjab	725.22	1	1104.52	2
Rajasthan	546.92	8	788.83	10
Tamil N	613.36	4	951.57	5
Uttar P	485.06	11	750.79	13
W Bengal	533.37	10	1007.62	4
All India	519.82		840.66	

Type of poverty

Problems of poverty

- Survival
- Security
- Quality of Life

Types of solving poverty

- Declining
- Coping
- Improving

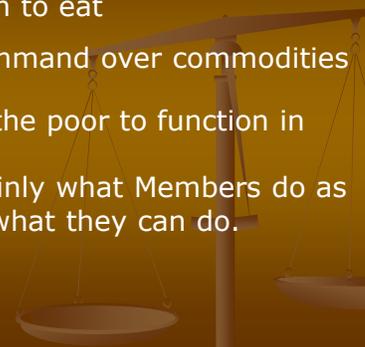
Five dimensions for viewing poverty

1. income/consumption,
2. health,
3. education,
4. security,
5. and empowerment.



Definition of Urban poverty

- Not enough to eat
- Lack of command over commodities
- Capability of the poor to function in society
- That is mainly what Members do as opposed to what they can do.



Urban Poverty

- About 50 % of Indian population i.s about 600 million people are expected live in urban areas by 2020
- About 40 to 60 % of them would be poor



The following table, on "Urban Poverty Matrix," summarizes key features of poverty across these same dimensions in the urban context.

Dimension of Poverty	Roads	Drains	Water	Street lights	Latrines	Pre-schools ⁶⁸	Health
Survival							
Low-income		*	**				
Chronic/critical ill-health			**				**
No income substitution/PDS							
Security							
Irregular income	*					*	
Lack of assets	**	*		**			
Lack of empowerment				*		**	
Quality of life							
Poor public health		*	**		*		*
Environmental hazards	**	***	***				
Discomfort/drudgery	***	**	**	***	**	**	

Results

- 83 per cent of respondents noted that the scheme had improved the image of the slum;
- 88 per cent reported improved access for vehicles and pedestrians;
- 48 per cent noted a reduction in flooding and 55 per cent a reduction in water stagnation;
- 44 per cent reported an increased use of public space for social activity, 47 per cent for household activities and 13 per cent for economic activities;
- with regard to water, 62 per cent of households reported a decline in the burden for women while 68 per cent reported a time saving.

Human Poverty Index

HPI is based on four component measures of deprivation, each of which needs to be defined:

- **Longevity:**
 - the percentage of the population with a life expectancy of less than 60 years;
- **Illiteracy:**
 - the percentage of the population aged 15 years or over who are unable, with understanding, both to read and write a short, simple statement on their everyday life

Human Poverty Index

- **Standard of living:**
 - the percentage of the population living below the poverty line
- percentage of the work force in long-term unemployment (12 months or more).

HP1 and HP2

- **Human Poverty Index (HPI)**
- The criteria used differ between developing and developed countries. For example, one measure is the % of people not expected to survive to age 40. For industrialised economies, the index includes the % of people not expected to survive to age 60.
- HPI-1 includes 92 developing countries. HPI-2 contains 17 industrialised nations. All nations included in the HPI-2 index have achieved a high level of human development. They all score at least 0.894 on the Human Development Index.

Human Poverty index

- $HPI-2 = [0.25 (P2 + P4 + P5 + P6)] 0.3$
- where:
- P2 = illiteracy rate
- P4 = percentage of people not expected to survive to 60 years
- P5 = percentage of people with disposable income < 50% of the median
- P6 = percentage of people in long term unemployment

Human poverty index, (HPI-1) in selected countries of the SEA Region, 2000

Table 20. Human poverty index, (HPI-1) in selected countries of the SEA Region, 2000

Country	HPI (%)	Rank *
Thailand	14.0	21
Maldives	15.8	25
Maldives	15.8	25
Sri Lanka	18.0	31
Indonesia	21.3	38
Myanmar	28.0	43
India	34.3	55
Bangladesh	43.3	73
Nepal	44.2	77

Human Development Index

- **The Human Development Index (HDI)** is an alternative measure of a country's economic standard of living that has been developed under the United Nations Development Programme.
- The HDI is constructed as an aggregate index of three components: education, income, and life expectancy at birth and scaled to lie within a 0 to 1 interval.

Human Development Index

- The steps performed in the estimation of HDI are as follows:
- *Step 1:* Generate an index for each component of HDI, i.e., health (H), education (E), and real per capita income (Y).
- Index for H: $I_H = (H - H_{min}) / (H_{max} - H_{min})$
- where H is the life expectancy at birth (in years) by province
 - $H_{max} = 85$ years
 - $H_{min} = 25$ years
- The minimum and maximum values adopted for life expectancy at birth are based on the values being used by UNDP.

Human Development Index

- Index for E: $I_2 = 2/3 (E_1) + 1/3 (E_2)$
- where $E_1 = (Lit - Litmin)/(Litmax - Litmin)$
 $E_2 = (Enrol - Enrolmin)/(Enrolmax - Enrolmin)$
 $E_1 =$ index for functional literacy by province
 $Litmax = 100$
 $Litmin = 0$
 $E_2 =$ index for combined elementary and secondary net enrolment rate by province
 $Enrolmax = 100$
 $Enrolmin = 0$

Human Development Index

- Index for Y: $I_3 = (Y - Ymin) / (Ymax - Ymin)$
- where Y is the real income per capita by province
 for 1994,
 $Ymax = \text{PhP}37,070$
 $Ymin = \text{PhP} 6,533$
 for 1997,
 $Ymax = \text{PhP}48,930$
 $Ymin = \text{PhP} 8,181$

Human Development Index

- *Step 2:*
Take the simple average of all three indices.
- $HDI = 1/3 (I_1 + I_2 + I_3)$

Poverty Index Assessment

- Marital status
- Education
- Occupation
- Housing condition
- Income
- Food

A. APPLICANT DATA Date: ____ / ____ / ____

1. Clients' name

2. Clients' address (Locality):

3. Sex __ 1.Male __ 2.Female

4. Age __ 18 – 24 __ 25 – 34 __ 35 – 44 __ 45 – 54 __ 55 and above

B. POVERTY LEVEL

1	What is your marital status?	Score
A	Single = 1	
B	Married living with husband = 4	
C	Married with husband living away = 6	
D	Divorced / Separated = 8	
E	Widow = 12	
2	May I ask about your approximate level of education?	
A	Full secondary / TTC = 2	
B	Half secondary / Modern school = 4	
C	Full primary = 6	
D	Half primary / koranic school = 10	
E	None = 14	
3	What is your occupation?	
A	Employed worker = 2	
B	Services (like food canteen, fashion shop) = 8	
C	Average farmer = 10	
D	Small production / trading (like kiosk, hawking, road side baking, etc) / Small farmer = 14	
E	No regular occupation = 20	

4	What is the interior & exterior walls / flooring condition of your dwelling house?	
A	Floored with carpet = 2	
B	Floored with cement and walls painted = 4	
C	Cemented and plastered all round = 6	
D	Floored only with cement but walls not plastered = 8	
E	Not cemented /plastered = 10	
5	What is the sleeping arrangement like in your household?	
A	Only one person sleeps in each room = 1	
B	Two persons to room = 2	
C	Three persons to room = 6	
D	Husband, wife own rooms but children share only one room = 8	
E	All household members live in one room only = 10	
6	How steady is your total household income from month to month	
A	Steady = 1	
B	Somewhat steady = 4	
C	Somewhat unsteady = 10	
D	Unsteady = 12	
E	Very unsteady = 14	

7	How regular is the daily feeding of your household?	
A	Regular = 2	
B	Somewhat regular = 4	
C	Somewhat irregular = 6	
D	Irregular = 10	
E	Very irregular = 14	
8	How often do you cook special food for your household?	
A	When I want = 1	
B	Once in four days = 2	
C	Once in a week = 4	
D	Occasionally = 5	
E	Rarely = 6	
TOTAL		

Client screening

- Each indicator has five response categories with scores
- Maximum score = 100
- Five levels of poverty score
- Target clients on poverty score from 41 – 100

Level	Score range	Score
Least poor	1 – 20	
Less poor	21– 40	
Average poor	41 – 60	xxxxx xx
Poor	61 – 80	xxxxx xx
Very poor	81 – 100	xxxxx xx

Indicators

1. Frequency of purchase of cooking oil
2. Frequency of purchase of rice
3. Condition of interior wall
4. Households electricity supply
5. Value of Television (Val TV)
6. Rating of the condition of the main house
7. Type of apartment the family currently resides
8. Number of children in private schools
9. Type of exterior walls

Indicators

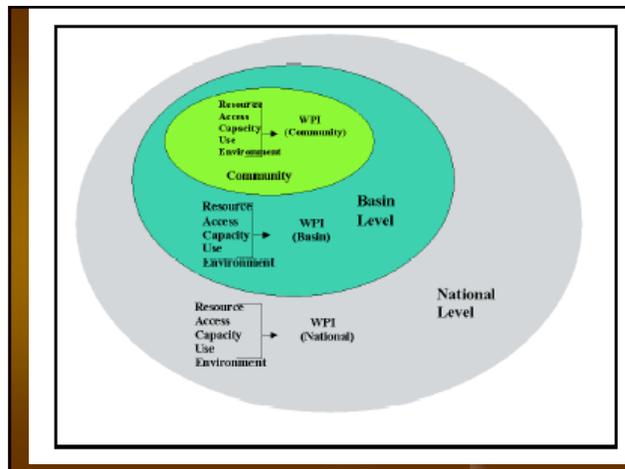
1. Value of Appliances (Val Appl)
2. First medical steps for sick member of household
3. Number of times quality food is served in a week
4. Number of prescribed text that is purchased for a child in a school year
5. Number of times low quality food is served in a week.
6. Source of water supply
7. Type of toilet facilities

Concept of WPI

- water availability and access.
 - 'water poor' if not having sufficient water for their basic needs because it is not available.
- walk a long way to get it or supplies may be limited for various reasons.
 - 'water poor' because they are 'income poor'; although water is available, they cannot afford to pay for it.

Concept of WPI

- **Resource** - Physical availability of surface and ground water
- **Access** - The extent of access to this water for human use
- **Capacity** - The effectiveness of people's ability to manage water
- **Use** - The ways in which water is used for different purposes
- **Environment** - The need to allocate water for ecological services



$$WPI = 1/3(W_a * A + W_s * S + W_t(100 - T))$$

A: Water Availability (%)

S: the population with access to safe water and sanitation (%)

T: Time index (e.g., between 0 and 100)

(100 - T) is the structure used to indicate the time taken as an index

w_a, w_s and w_t are the weights given to each component of the index (so that w_a + w_s + w_t = 1).

WPI -comparison

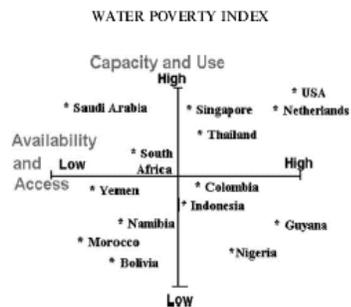


Figure 2. Using a matrix approach to express the WPI. Source: Sullivan (2001a).