

- iii) The HDI has been used especially when a researcher wants a composite measure of development. For such user, other indicators have sometimes been added to the HDI.

Limitations

The HDI has also invited serious criticism; these point out the limitations of HDI as an effective indicator of social development. Some of the questions raised can be briefly reviewed as follows:

- i) Why only three indicators? Are these too many or too few?
- ii) Are the variables (indicators) chosen to measure the development adequate? And for each dimension, are the associated variables too many or too few?
- iii) Are the measures subject to measurement errors, and, if so, do such errors invalidate the results? A subsidiary question is how up to date are the data used to construct the index?
- iv) Is the choice of the minimum and the maximum justifiable, or is it arbitrary? In any case, how robust is the measure to alternative maximum and minimum values?
- v) Why choose equal weights? How sensitive is the measure to other weighting schemes?

It would be seen that most of the questions raised relate to the methodology of HDI. The UNDP is continuously engaged in the task of refinement of this methodology.

Check Your Progress 3

- 1) Explain in brief the concept of Human Development Index.
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- 2) State a few important uses of Human Development Index.
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- 3) State a few limitations of Human Development Index.
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22.6 GENDER RELATED DEVELOPMENT INDEX (GDI)

The Gender – Related Development Index (GDI) has also been introduced by the Human Development Report, published annually by the United Nations Development Programme. It was published for the first time in the year 1995.

22.6.1 Concept and Construction of GDI

The GDI measures achievements in the same dimensions and variables as the HDI does, but takes account of inequality in achievement between women and men. The greater the gender disparity in basic human development, the lower a country's GDI compared with its HDI. The GDI is simply the HDI discounted, or adjusted downwards, for general inequality.

The GDI uses the same variables as the HDI. The difference is that the GDI adjusts the average achievements of each country in life expectancy, educational attainment and income in accordance with the disparity in achievement between women and men

The GDI adjusts the maximum and minimum values for life expectancy to account for the fact that women tend to live longer, than men. For women the maximum value is 87.5 years and the minimum value is 27.5 years ; for men the corresponding values are 82.5 and 22.5 years.

Similarly, before income is indexed, the average adjusted real GDP per capita of each country is discounted on the basis of the disparity in the female and male shares of earned income in proportion to the female and male population shares.

The indices for life expectancy, educational attainment and income are added together with equal weight to derive the final GDI value.

GDI in Some Selected Countries

TOP TEN		BOTTOM TEN	
1	Canada	137	Chad
2	Norway	138	Gambia
3	Sweden	139	Mozambique
4	Iceland	140	Guinea
5	USA	141	Burundi
6	France	142	Ethiopia
7	Finland	143	Mali
8	New Zealand	144	Burkina Faso
9	Australia	145	Niger
10	Denmark	146	Sierra Leone

India: GDI: 0.419 Rank :118

22.6.2 Results

Several conclusions can be drawn from the GDI rankings.

First, no society treats its women as well as its men. This is evident from the fact that the GDI value for every country is lower than its HDI value.

Second, gender inequality is strongly associated with human poverty. The four countries ranking lowest in the GDI also rank lowest in the human poverty index.(HPI).

Third, gender inequality is not always associated with income poverty.

Fourth, gender equality can be achieved across a range of culture and political ideologies.

22.7 GENDER EMPOWERMENT MEASURE (GEM)

The gender empowerment measure indicates whether women are able to actively participate in economic and political life. It focuses on participation, measuring gender inequality in key areas of economic and political participation and decision- making. It thus differs from the GDI, an indicator of gender inequality in basic capabilities.

22.7.1 Construction of GEM

The GEM is computed on the basis of three indices relating to:

- 1) Economic participation and decision-making;
- 2) Political participation and decision-making;
- 3) Power over economic resources.

To reflect economic participation and decision-making two variables are chosen: (a) women's and men's percentage shares of administrative and managerial positions, and (b) their percentage shares of professional and technical jobs. These are broad, loosely defined occupational categories. Because the relevant populations for each is different, a separate index for each is calculated and then the two are added together.

Women's and men's percentage shares of parliamentary seats is chosen to reflect political participation and decision making power.

An income variable is used to reflect power over economic resources. It is calculated in the same manner as for the GDI except that unadjusted rather than adjusted real GDP per capita is used. The maximum value for income is thus PPP \$ 40,000 and the minimum PPP \$ 100.

The three indices are added together to derive the real GEM value.

GEM in Selected Countries

TOP TEN	BOTTOM TEN
1 Norway	85 Papua New Guinea
2 Sweden	86 India

3	Denmark	87	Sudan
4	Finland	88	Congo
5	New Zealand	89	Zaire
6	Canada	90	Central African Republic
7	USA	91	Solomon Islands
8	Austria	92	Pakistan
9	Germany	93	Togo
10	Netherlands	94	Mauritania

India: GEM 0.228. Rank 86.

22.7.2 Results

Several conclusions can be drawn from the GEM rankings:

- 1) Countries in the top order in GEM rankings are not only good at strengthening the basic capabilities of women, they have also opened many opportunities for them to participate in economic and political fields.
- 2) Some developing countries outperform much richer industrial countries in gender equality in polit.

22.8 CAPABILITY POVERTY MEASURE (CPM)

The UNDP in its Human Development Report 1996 introduced a new measure of social development and called it the Capability Poverty Measure (CPM).

The CPM focuses on human capabilities. It considers the lack of three basic capabilities. The *first* is the capability to be well-nourished and health—represented by the proportion of children under five years of age who are underweight. The *second* is the capability for healthy reproduction – proxied by the proportion of births unattended by trained health personnel. The *third* is the capability to be educated and knowledgeable – represented by female literacy.

The three measures are added together and divided by three to give a simple arithmetic mean. The lower this mean, the less the capability poverty.

In most of the countries in South Asia, capability poverty is more widespread than income poverty, for example, the HRD 1996 estimates 25.4 percent of the total population in India as poor by the income poverty index, whereas by CPM this has been estimated at 61.5 percent.

The lesson is simple: poverty cannot be eradicated merely by boosting income. It will also take a broad expansion of basic human capabilities and the productive use of these capabilities.

22.9 HUMAN POVERTY INDEX (HPI)

The UNDP further build upon the CPM and in its annual Human Development Report 1997 formulated the Human Poverty Index (HPI).

22.9.1 Concepts and Components

The HPI measures deprivation in basic human development in the same dimensions as the HDI – longevity, knowledge and a decent living standard.

The first deprivation relates to survival – the vulnerability of death at a relatively early age – and is represented in the HPI by the percentage of people expected to die before age 40.

The second dimension relates to knowledge—being excluded from the world of reading and communication—and is measured by the percentage of adults who are illiterate.

The third aspect relates to a decent standard of living, in particular, overall economic provisioning. This is represented by a composite of three variables—the percentage of people with access to health services and to safe water and the percentage of malnourished children under five.

A composite HPI is computed by taking a simple average of the three measures discussed above.

22.9.2 HPI-II

Introduced in the HRD 1998, the HPI II measures human poverty in industrial countries. Because human deprivation varies with the social and economic conditions of a community, this separate index has been devised for industrial countries, drawing on the greater availability of data. It focuses on deprivation in the same three dimensions as HPI-I and one additional one, social exclusion. The variables are the percentage of people likely to die before the age of 60, the percentage of people whose ability to read and write is far from adequate, proportion of people with disposable income of less than 50% of the median and the proportion of long-term unemployed (12 months or more).

22.10 OTHER INDICATORS OF SOCIAL DEVELOPMENT

22.10.1 Social Development Index (SDI)

The SDI was constructed by the United Nations Research Institute on Social Development (UNRISD) In 1970. The SDI incorporates 16 core indicators. These indicators were selected on the basis of their high intercorrelation to form a development index using weights derived from their various degrees of correlation.

The SDI was found to correlate more highly with individual social and economic indicators than per capita GNP correlated with the same indicators.

22.10.2 International Human Suffering Index (IHSI)

This index was formulated by the Washington-based Population Crisis Committee and was published in 1987. The index was created to measure, in a single figure, differences in living condition among countries. Each country index was compiled by adding 10 measures of human welfare related to economics, demography, health and governance.

22.10.3 Quintile Income and Quintile Growth

In a background paper for UNDP’s Human Development Report, 1996, Kaushik Basu has argued that in evaluating human well being one should look at the per capita income of the poorest 20 percent (quintile income); and that one should assess progress by looking at the growth rate of per capita income of the poorest 20 percent (quintile growth). This move away from per capita income and growth to quintile income and quintile growth changes the ranking of societies drastically. In 1993 Switzerland with a per capita income of \$ 35,760 was the richest country, followed by Japan with \$ 31,490; then came Denmark, Norway and U.S. Once we turn to quintile income, Japan with \$13,698 ranks first by an enormous margin. No other country exceeds \$ 10,000; the U.S. drops to 12th position.

22.10.4 Genuine Progress Indicators (GPI)

A San Francisco based group called *Redefining Progress* has evolved the concept of “Genuine Progress Indicators”. It takes into account various social and ecological factors. According to this criteria the U.S. economy shows a steady decline since the seventies. Similarly, in U.K., Germany and Austria also, although GDP per capita has gone up, GPI per capita has fallen. In other words, as material wealth has gone up, relational wealth has gone down. People in fact are worse off.

22.10.5 Green Index

The World Bank’s environmentally Sustainable Division has developed what has come to be known as “Green Index”. Green Index measures a nation’s *wealth* by using a new system of measurement, as contrasted to the prevalent system which measures wealth according to the GNP per capita. The new system attaches a dollar value to each of the three components, viz (i) produced assets, (ii) natural resources, and (iii) human resources. It puts a price tag on produced assets, the sum of all machinery, factories, roads and other infrastructure. It assigns an economic value to land, water, timber, minerals and all other natural resources. It looks at the human resources available, the education level, and the range of skills. It then calculates the true estimates of a country’s wealth, taking into account all such resources which do not always show up on traditional economic indicators.

Check Your Progress 4

- 1) How is GDI different from HDI?

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- 2) What conclusion can we derive from the country rankings on GEM?

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3) Explain in brief the concept of Human Poverty Index?

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22.11 LET US SUM UP

The problems associated with using per capita GNP as a measure of development are well known. Among the major objectives of this measure are the failure to indicate non-marketed (and, therefore, non-priced) subsistence production, and to incorporate welfare and income distribution considerations. As a result there have been numerous efforts both to remedy its defects and to create other composite indicators that could serve as complements or alternatives to this traditional measure. Some of these indicators measure development in terms of the quality of life, whereas the others seek to measure development in terms of interaction among social, economic and political factors.

22.12 KEY WORDS

- Social Development** : A process whereby a society matures and advances from one stage to another.
- Human Development** : A process of widening people’s choices and the level of well-being they achieve.
- Human Development Index** : Measures the average achievements in a country in three basic dimensions of human development-longevity, knowledge and standard of living.
- Human Poverty Index** : Measures deprivation in basic human development in the same dimensions as the HDI.
- Gender-Related Development Index** : Measures achievements in the same dimensions and variables as the HDI does, but takes account of inequality in the achievements between women and men.
- Gender Empowerment Measure** : Indicates whether women are able to actively participate in economic and political life.
- Quintile Income** : Per capita income of the poorest twenty per cent.
- Quintile Growth** : Growth rate of the per capita income of the present income of the poorest twenty per cent.

22.13 SOME USEFUL BOOKS

UNDP: (2005) Human Development Report (Annual) Oxford University Press.

I. C. Dhingra, (2005) : *Indian Economic Environment*, Sultan Chand & Sons, New Delhi.

Paul A. Samuelson and William D. Nordhaus : *Economics (Sixteenth Edition)*.

22.14 ANSWERS OR HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) See section 22.2 and explain the meaning of social development
- 2) See section 22.2.2
- 3) See section 22.2.3

Check Your Progress 2

- 1) See sub-section 22.3.1
- 2) See section 22.4
- 3) See sub-section 22.4.2
- 4) See sub-section 22.4.3

Check Your Progress 3

- 1) See sub-section 22.5.1
- 2) See sub-section 22.5.5
- 3) See sub-section 22.5.5

Check Your Progress 4

- 1) See section 22.6
- 2) See section 22.7
- 3) See section 22.9