

Myths about life expectancy & income

THE HUMAN Development Report of the United Nations Development Programme (UNDP) started carrying statistics on the Human Development Index (HDI) since 1990.

HDI focuses on human development as distinct from economic growth. Economic growth strategies aim at transforming a developing country into an industrialised one so that the GDP of that country, in both per capita and absolute terms, increase. High growth rates of GDP, however, can coexist with a skewed income distribution, with a majority of the people living well below the poverty line.

High economic growth, thus, need not translate itself into a high quality of life for the majority. On the contrary, the areas of priority for human development as captured by the HDI are basic education, primary health care, safe drinking water, adequate sanitation, family planning and nutrition, all of which contribute towards a better standard of life for a nation.

HDI is 'a composite index of achievements in basic human capabilities in three fundamental dimensions — a long and healthy life, knowledge and a decent standard of living.'

These three aspects are reflected in three indicators; life expectancy, educational attainment and income. Specifically, life expectancy (LE) refers to the number of years a newborn infant would live if prevailing patterns of mortality at the time of birth were to stay the same throughout the child's life.

The educational attainment is

Life expectancy shows a closer link with the literacy rate than with real GDP per capita, says Tanuka Endow

measured by a combination of adult literacy and combined primary, secondary and tertiary enrolment ratios. Income is measured by real GDP per capita (\$PPP). PPP is the purchasing power parity of a country's currency which is measured by the number of units of that currency needed to buy the same representative basket of goods and services that a US dollar would buy in the US.

The Human Development Report 1996 provides HDI as well as data for all the three indicators

for 174 countries for 1993. India ranks 135 among the 174 countries according to the ranking by HDI. It is seen that, of the three basic points under consideration while constructing an HDI, the first two — life expectancy (LE) and literacy rate (LR) (which has two-third weightage in the indicator for literacy) — exhibit a close connection. The countries with high values of LE above 78, like Ja-

pan, Iceland, Sweden and Switzerland also have high values of LR at 99 per cent. Countries like Guinea-Bissau, Afghanistan, Guinea, Uganda, Malawi which have low values of LE at around 44-47 years also have low LR of around 30-55 per cent. There are, of course, exceptions in so far as some countries like Estonia with relatively low LE fare better in terms of LR, but in general the two indicators

	Life expectancy at birth (years) (1988-92)	Work participation rate (workers as % of population) 1991	Literacy rate 1991 (%)	Net state domestic product at current prices Rs crore (1991-92)
Kerala	71.3	31.43	89.81	15102
Punjab	66.6	30.88	58.51	20293
Maharashtra	63.4	42.97	64.87	64536
Haryana	62.5	31.00	55.85	14580
Karnataka	62.2	41.99	56.04	26487
Tamil Nadu	61.5	43.31	62.66	33030
West Bengal	61.4	32.19	57.70	36044
Andhra Pradesh	60.2	45.05	44.09	37344
Gujarat	59.5	40.23	61.29	25031
Bihar	57.5	32.16	38.48	25121
Rajasthan	56.3	38.87	38.55	20106
Orissa	55.4	37.53	49.09	12505
Uttar Pradesh	55.4	32.20	41.60	55937
Assam	54.1	36.09	52.89	10430
Madhya Pradesh	53.4	42.82	44.20	29318

Source: Economic Survey, 1995-96

show a definite positive correlation.

The income variable, however, does not show a close link with life expectancy. LR and LE show a correlation coefficient of 0.67, which is fairly high. By contrast, the correlation coefficient between LE and real GDP per capita (RGDP) is only 0.46. Both estimates are based on the same set of cross-country data for 1993. This is clear evidence of the fact that growth in income of a country does not necessarily imply that the majority of its citizens will lead a better and healthier life.

The same conclusion is borne out by Indian statistics. Using cross-section analysis for data on life expectancy, literacy rates, work participation rates and net state domestic product at current prices for the 15 states of Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal for 1991 (the

date for LE is an average for 1988-92 and is centred around 1990), we find that while LR has a strong link with LE (correlation coefficient 0.67), the variables 'work participation rate' and 'net state domestic product' have nearly zero correlation with LE.

In particular, for the state of Kerala, the life expectancy and literacy rate figures are the highest among the fifteen states considered at 71.3 years and 89.81 per cent respectively. But work participation rate is as low as 31.43 per cent (ranking 13th), and in terms of net state domestic product too it ranks low at the 12th position.

A similar finding is observed by Shiva Kumar (1996) in the HDI 1996. A disaggregated analysis of the Gender Development Index (GDI) has been carried out here where GDI 'attempts to capture achievement through the same set of basic capabilities included in the HDI ... but adjusts the HDI for gender inequality.'

GDI values for 16 states reveal that Kerala tops of the list with a GDI value of 0.597 (with the average for India at 0.41 only, ranking 103 among 137 countries.) Yet women's share of earned income in Kerala is only 12 per cent, while the same for Maharashtra is 30 per cent. In this context, it Maharashtra seems to show a more all-round development compared to Kerala.

In the statewide analysis of data for 15 states, Maharashtra ranks 2nd in terms of literacy rate, third in terms of life expectancy and work participation rate and tops the list in terms of net state domestic product.