**Standard Method of Calculating the HDI of a Country**

**Binod Goswami**

 **Nowgong Girls’ College**

The Human Development Index (HDI) is a statistical tool used to measure a country's overall achievement in its social and economic dimensions. The social and economic dimensions of a country are based on the health of people, their level of education attainment and their standard of living. This index shifted the focus of development economics from [national income](https://en.wikipedia.org/wiki/National_income) accounting to [people-centered policies](https://en.wikipedia.org/wiki/People-centered_development). Pakistani economist Mahbub ul Haq shaped HDI in 1990. Mahbub ul Haq constructed the Human Development Reports for the first time with the help of some development economists [Paul Streeten](https://en.wikipedia.org/wiki/Paul_Streeten), [Frances Stewart](https://en.wikipedia.org/wiki/Frances_Stewart_%28economist%29), [Gustav Ranis](https://en.wikipedia.org/wiki/Gustav_Ranis), [Keith Griffin](https://en.wikipedia.org/wiki/Keith_Griffin_%28economist%29), Sudhir Anand, and [Meghnad Desai](https://en.wikipedia.org/wiki/Meghnad_Desai). The United Nations Development Program (UNDP) has been using this index since then to measure the country's development. [Amartya Sen](https://en.wikipedia.org/wiki/Amartya_Sen) also utilized Haq's work in his own work on human capabilities.

The HDI has three dimensions-

Life expectancy at birth

Knowledge

A decent standard of living

Calculation of the index combines four major indicators-

 Life expectancy for health

 Expected years of schooling

 Mean of years of schooling for education and

 Gross National Income per capita for standard of living.

From the above indicators it calculates the following three dimension index-

Life expectancy index

Education index and

GNI index

## Measurement of the HDI

The HDI is a summary measurement of basic achievement levels in human development. The computed HDI of a country is an average of indexes of each of the life aspects that are examined: knowledge and understanding, a long and healthy life, and an acceptable standard of living. Each of the four components is normalized to scale between 0 and 1, and then the geometric mean of the three components is calculated. In its 2010 Human Development Report, the UNDP began using a new method of calculating the HDI. The following three indices and HDI are calculated as follows-

Life Expectancy Index (LEI) :

LEI =

The health aspect of the HDI is measured by the Life Expectancy Index, as calculated at the time of birth, in each country. This component is equal to 0 when life expectancy is 20 and equal to 1 when life expectancy is 85. LE is the life expectancy of the countries.

[Education Index](https://en.wikipedia.org/wiki/Education_Index) (EI) :

EI = where MYSI(Mean Years of Schooling Index) = and

 EYSI(Expected Years of Schooling Index)= = MYSI + EYSI 2 {\displaystyle ={\frac {{\textrm {MYSI}}+{\textrm {EYSI}}}{2}}}

Education Index is measured on two levels: the mean years of schooling(MYS) for residents of a country and the expected years of schooling(EYS) that a child has at the average age for starting school. These are each separately normalized so that 15 mean years of schooling equals one, and 18 years of expected schooling equals one, and a simple mean of the two is calculated. Here 15 is the projected maximum indicator for 2025 and 18 is equivalent to achieving a master degree in most countries.

Income Index (II):

I I =

The metric chosen to represent the standard of living is GNI per capita based on [purchasing power](https://www.investopedia.com/terms/p/purchasingpower.asp) parity (PPP), a common metric used to reflect average income. The standard of living is normalized so that it is equal to 1 when GNI per capita is $75,000 and equal to 0 when GNI per capita is $100.

The final Human Development Index score for each country is calculated as a geometric mean of the three components by taking the cube root of the product of the normalized component scores.

HDI=