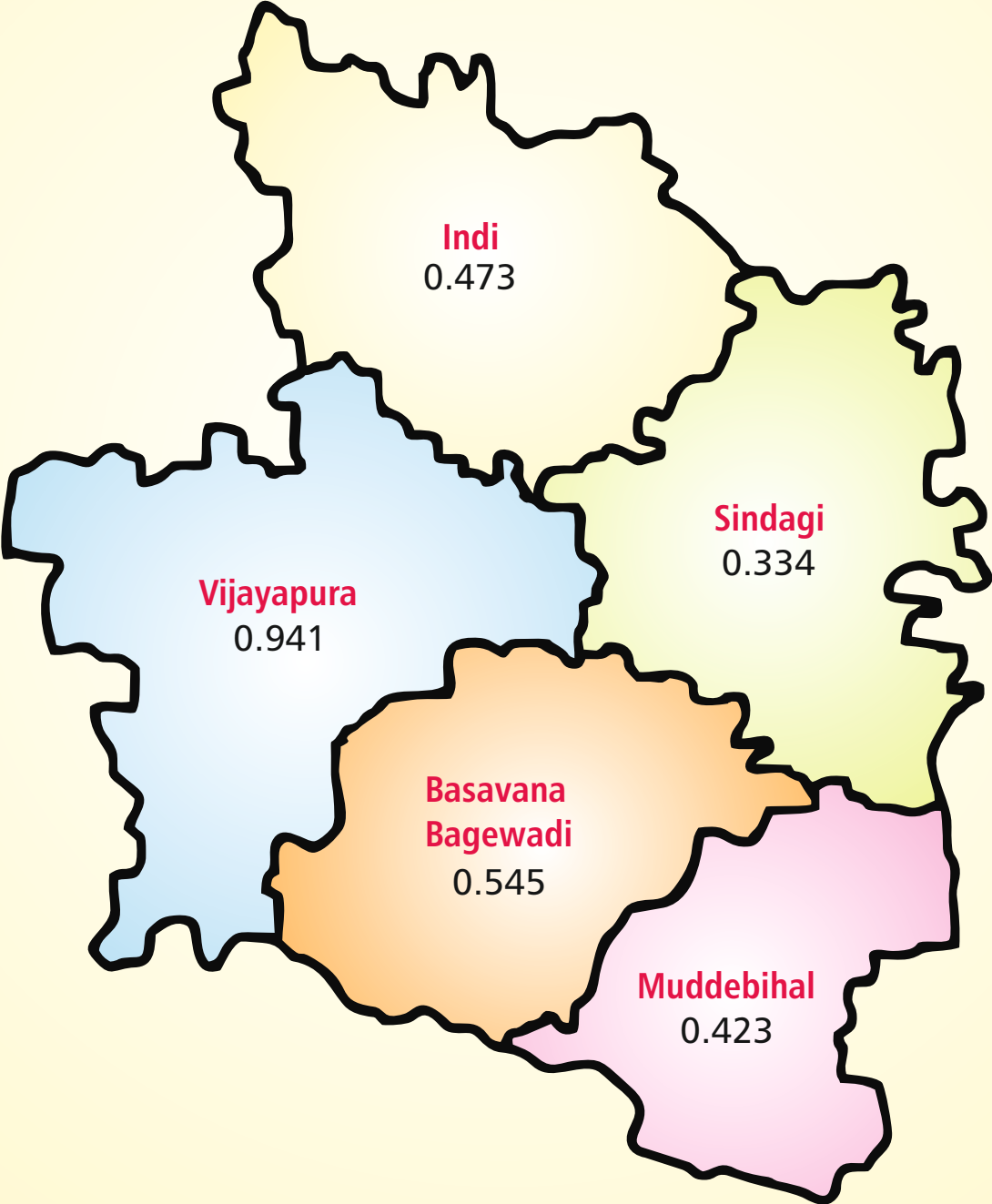


Part 2
Chapter 1

INTRODUCTION



HUMAN DEVELOPMENT INDEX



Chapter One

Introduction

1. Introduction

Since 1950's, planners and policymakers have been attaching importance to quantitative increase in Gross Domestic Product (GDP), and thereby to per capita income. Different strategies such as 'big push', 'critical minimum effort', 'dominant role of public sector', etc, were tried. The idea behind all these was the presumption that 'the benefits of growth will trickle down' and that, these will automatically take care of people living at the margins. No doubt, these strategies recorded success in increasing GDP but the benefits did not trickle down in a desired manner. There wasn't any significant improvement in the quality of life of millions and millions of the people and more so for the people living at the periphery.

The perception of economists, planners and policymakers has now changed significantly. They have now started highlighting the need for and significance of human development as an all-inclusive concept. The need for human development arises because economic growth is not an end in itself. It is only a means to achieve meaningful human development. Human development helps us to realize certain benefits, which a mere higher growth rates would not have done. For example, in the long-run human development adds to higher productivity; helps in lowering the family size by slowing human reproduction; creates healthy civil

society; strengthens democratic values and brings social stability. In brief, human development facilitates a move from bondage to freedom of various kinds.

Since early 1990s, two economists, Mahbul Haq and Amartya Sen started stressing that one should go beyond numbers, i.e., quantitative increase in growth rate, increase in per capita income and so on. Their emphasis led to the preparation of Human Development Reports, now a regular feature of UNDP. Its goal is to place people at the center of the development process in terms of economic debate, policy and advocacy. Development is defined to mean entitlements and freedoms. This particular approach has now become the "human face" of development by covering inter-alia, literacy, health and quality of life components.

Very recently, in 2008, Nicholas Sarkozy, the then French President, appointed a Commission on the Measurement of Economic Performance and Social Progress. The members of Commission were Joseph E Stiglitz, Amartya Sen and Jean Paul Fitoussi. Its report was titled *Mis-measuring Our Lives: Why GDP Doesn't Add Up*. It pointed out that 'our measuring systems emphasize averages, but if we go on depending on only the averages, we will get increasingly divorced from the reality'.

There are serious gaps between statistical measurement, socio-

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Poor in India, for instance, were very indifferent when the BSE index, a few years back, sky rocketed. They remained equally indifferent when the index crashed. To them, neither the fall nor the rise had any impact on their lives. The commonly used statistics may not be capturing the real phenomena.

Human development is much more than the rise or fall of national income. It is about creating an environment in which people can develop their full potential and lead productive lives in accord with their needs and interests.

economic phenomena and public perception. The statistical concepts may be correct but the measurement process may not necessarily be perfect. In many cases, there are debates about what are the right concepts and the appropriate uses of different concepts. Most of the people may feel worse-off even though average income may be rising. Poor in India, for instance, were very indifferent when the BSE index, a few years back, sky rocketed. They remained equally indifferent when the index crashed. To them, neither the fall nor the rise had any impact on their lives. The commonly used statistics may not be capturing the real phenomena. For example, increase in the number of vehicles may not capture the impact of carbon emissions and traffic jams. Increase in the number of factories may not capture pollution and so on. There is a discussion on GDP but seldom there is a mention of the real GDP. The statistics may not always be wrong but may be wrongly applied.

When speaking about the socio-economic development, conventionally, people speak of increase in the income. However, there is no guarantee that an increase in the income will be equitably distributed. The experience suggests that it is not distributed in a desired manner. Huge investment in different sectors does not by itself promote human development. Efforts should be made to ensure that the benefits of investment and development reach to the common people. The Human Development Reports have emphasised development of core sectors such as education, health, sanitation, nutrition, safe drinking water, housing, income and livelihood, which directly impact the downtrodden and poor sections of the society.

Vijayapura is considered a socially, economically and educationally backward district for which there are several reasons. A few important are: scanty rainfall, frequent droughts and famines, limited irrigation facilities, dry land farming, limited productive and commercial activities, very limited forest cover, depressed rural economy and poor rail-road connectivity. It is economic growth, be it of a district or taluk, which facilitates human development.

A look at the human development index of Vijayapura district, makes it clear that it has remained at the bottom level. This is simply not acceptable from the viewpoint of social justice and empowerment of marginalised people. In this context, in the present human development report, an attempt is made to identify the reasons that adversely affect holistic human development in Vijayapura district. Social justice, gender equality, development of SCs and STs, economic status of people below poverty line, etc, are some of the major concerns of this report.

1.1. Concept and Methodology

Human development aims at enabling people 'to develop their full potential and lead productive and creative lives in accordance with their needs and interests (United Nations Development Programme , www.undp.org, accessed on 12th December 2013). HDR 1990 opens with the statement 'that people are the real wealth of a nation (United Nations Development Programme, Human Development Report 1990, p.9). The basic objective of human development is to create an enabling environment for people to enjoy long, healthy and creative lives. Human

development is much more than the rise or fall of national income. It is about creating an environment in which people can develop their full potential and lead productive lives in accord with their needs and interests.

Human development is a process of enlarging people's choices. In principle, these choices can be infinite and change over time. However, at all levels of development, the three essential ones for people are, to lead a long and healthy life, to acquire knowledge and to have access to resources needed for a decent standard of living (United Nations Development Programme, Human Development Report 1990, p.10). Human Development Reports have, since their inception, published the human development index, later complemented by indices looking specifically on gender (United Nations Development Programme, Human Development Report 2010, p.15). The HDI is a summary measure of human development.

1.2. Change in Methodology of Computation of HDI

Since 1990, there has been a methodological change in the computation of human development index. This is because a continuous search on the part of UNDP to go in for a better index of human development. As a result, there have been changes in the method of computation of human development index.

Method Before 2010

The HDI combined three dimensions, last used in its 2009 Report:

- 1. Life Expectancy at Birth, as an index of population health and

Table- 1.1: Twenty Two Years of HDR

Sl. No	Year	Themes
1.	1990	Concept and Measurement of Human Development
2.	1991	Financing Human Development
3.	1992	Global Dimensions of Human Development
4.	1993	People's Participation
5.	1994	New Dimensions of Human Security
6.	1995	Gender and Human Development
7.	1996	Economic Growth and Human Development
8.	1997	Human Development to Eradicate Poverty
9.	1998	Consumption for Human Development
10.	1999	Globalization with a Human Face
11.	2000	Human Rights and Human Development
12.	2001	Making New Technologies Work for Human Development
13.	2002	Deepening Democracy in a Fragmented World
14.	2003	Millennium Development Goals: A Compact Among Nations to End Human Poverty
15.	2004	Cultural Liberty in Today's Diverse World
16.	2005	International Cooperation at a Crossroads: Aid, Trade and Security in an unequal World
17.	2006	Beyond Scarcity: Power, Poverty and the Global Water Crisis
18.	2007	Fighting Climate Change: Human Solidarity in a Divided World
19.	2009	Overcoming Barriers: Human Mobility and Development
20.	2010	The Real Wealth of Nations: Pathways to Human Development
21.	2011	Sustainability and Equity: A Better Future for All
22.	2012	Report not published
23.	2013	The Rise of the South: Human Progress in a Diverse World

Source: UNDP, Human Development Reports, different issues.

- longevity;
- 2. Knowledge and education, as measured by the adult literacy rate (with two-thirds weightage) and the combined primary, secondary and tertiary gross enrollment ratio (with one-third weighing);
- 3. Standard of living, as indicated by

the natural logarithm of gross domestic product per capita at purchasing power parity.

New Method (2010 Report onwards)

The Human Development Index remains an aggregate measure of progress in three dimensions- health, education and income. However, in HDR 2010 the indicators used to measure progress in education and in income are modified and the method to aggregate them is also changed.¹ In the knowledge dimension, mean years of schooling replace literacy, and gross enrollment is recast as expected years of schooling-the years of schooling that a child can expect to receive given current enrollment rates. To measure the standard of living, gross national income (GNI) per capita, replaces gross domestic product (GDP) per capita. It is also reconsidered how to aggregate the three dimensions. A key change was to shift to a geometric mean (which measures the typical value of a set of numbers). In 2010 HDR, the HDI is the geometric mean of the three dimension indices. It is summarized as under:

- A long and healthy life- Life expectancy at birth.
- Education index- Mean years of schooling and expected years of schooling.
- A decent standard of living- GNI per capita (PPP US \$100).

It well known that the UNDP started publishing human development reports since 1990. In India, the process started from 2001. Many states in India have made efforts to prepare HDR reflecting

the status of human development primarily based upon the methodology adopted by UNDP. Madhya Pradesh was the first state to prepare HDR followed by Karnataka. Karnataka has so far brought out two such reports, one in 1999 and other in 2005. At the district level, the exercise began in 2005 and human development reports were prepared for Vijayapura, Kalaburagi, Mysuru and Udupi for the year 2008. Now the Government of Karnataka has decided to prepare DHDR for all the thirty districts, Vijayapura being one of them.

In this Report we have used radar figures to depict the various variables relating to indices. It is a geometric tool used to present quantitative variable in a demonstrative way and useful tool to present the multivariate variables in a multidimensional manner. It is possible to document various variables relating to a particular subject matter on single radar. There are spokes starting from the axis with uniform angle. Each spoke can be used to represent value of one variable. The area occupied by the variable in the radar is the value of the achievement attained by that variable. Radars are multidimensional in nature and therefore it is possible to show many variables. However, if there are too many variables, the figure would become clumsy and indistinct. It is better to use limited number of variables on radars so that it looks distinct and clear. It is easy even for a layman to understand the nuances of a variable with the help of a radar.

The Lead Team conducted two district level and four taluk level workshops in

¹ United Nations Development Programme, Human Development Report 2010, p.15.

which more than 700 stakeholders participated. Similarly, six core committee meetings were also conducted in which in total more than 160 officers from different departments participated. The Lead Team, by interacting with stakeholders and officers, could get a fair idea of present status of human development in Vijayapura district.

1.2.1. Broad Objectives of DHDR 2014

In the context of above discussion, the objectives of DHDR 2014 are developed as under:-

- 1. To study the relative standing of different taluks of Vijayapura in respect of different indices, mostly notably the HDI.
- 2. To examine relative standing of Vijayapura district with that of other districts in the state.
- 3. To study disparities in respect of gender, children, food security, social groups and basic amenities.
- 4. To study the factors affecting human development at the taluk level and thereby at the district level.
- 5. To create a dependable document for carrying on further research in the area of human development and its different dimensions.

1.2.2. Scope of Vijayapura DHDR 2014

The most notable feature of DHDR 2014 is its wider scope than before. The earlier human development reports, though important in their places, had limited scope. They dealt with limited indices and indicators. Since, Karnataka state has acquired much expertise in the preparation of HD reports, the scope of

latest DHDR stands enlarged. It covers seven indices; each index has different dimensions and a number of related indicators. These are enumerated with the help of Table- 1.2.

This DHDR, which encompasses above-mentioned indices, dimensions and indicators, is bound to have a wide scope. This enables to have a comprehensive look at the whole issue of human development both at the district and taluk levels.

1.2.3. Significance of the Present Report

It is, thus, clear that because of a change in the methodology, the scope of different indices has now widened helping to bring out a comprehensive picture of human development. Previously, neither the number of indicators was large nor adequate data was available. Consequently, a restricted picture was emerging. The present study is important because it makes use of many indices, each index is multi-dimensional and around 126 indicators are used. The sources of data are reliable and are cross-checked at different stages, a realistic picture emerges.

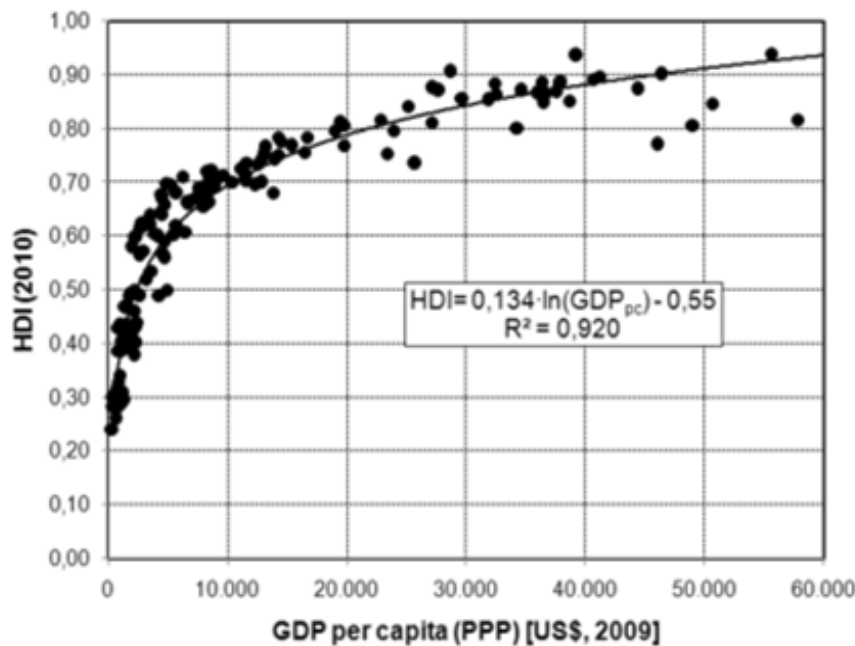
Previously, neither the number of indicators was large nor adequate data was available. Consequently, a restricted picture was emerging. The present study is important because it makes use of many indices, each index is multi-dimensional and around 126 indicators are used.

Table- 1.2: DHDR Indices, Dimensions and Indicators

S. No	Index	Number of Dimensions	Number of Indicators
1.	Human Development Index	03	11
2.	Gender Inequality Index	03	15
3.	Child Development Index	03	03
4.	Food Security Index	03	18
5.	Composite Taluk Development Index	03	68
6.	Urban Development Index	-	11

Source: 126 Indicators

Graph. 1.1: Relation between Per capita Income and Level of HDI.



A human being is a bundle hundreds of aspirations and is affected by both the physical and emotional

Universally, countries with high per capita income are those where human development index is high and vice versa. Increase in the per capital income is important for the reason that, even in the absence of a proactive role of the government, it ensures access to education, health and other amenities.

Emphasis is placed on inter-taluk comparisons using radar technology for depicting the inter-taluk differences, in an appealing way. The measurement of human development is normally done through three core indicators. However, the recent UNDP reports suggests that it is also relevant and realistic to consider the status of other indicators that have a deeper impact on human development and quality of living, making human development broad based.

The importance of present DHDR flows from the fact that for the first time, radar method is used which enables us to study inter-taluk and intra-taluk disparities. The use of radars helps the policy makers to take corrective actions looking at the visible disparities. Surely, the present V-DHDR will be a valuable document in the hands of the stakeholders.

1.2.4. Factors Contributing to Human Development

The entire process of human development is very sensitive, because in the process of measuring human development we deal, not with material (goods and services) but with human beings. A human being is a bundle hundreds of aspirations and is affected by both the physical and emotional factors. In this context, it is rather difficult to prepare a comprehensive list of factors affecting human development. Nonetheless, an attempt is made to identify certain factors. These are as discussed below.

a. Consistently Satisfactory Rate of Economic Growth.

There is a strong argument in the reviewed literature that the process of human development is affected by economic growth rate. There is, however, no warranted growth rate that can be described as 'satisfactory', yet, it is agreed that there should not be a wide difference between the 'warranted' and 'actual' growth rates. If the actual growth rate falls short of warranted growth rate, it would create problems and would minimise chances of desired improvements in the human development level. In India, the states, which have recorded satisfactory SDP (State Domestic Product) growth, are also the states, which have done well in human development, for example, Punjab, Haryana, Gujarat, Maharashtra, Karnataka, A.P. and Tamil Nadu. Within the states, districts with high per capita income have fared better on human development front.

b. High Per capita Income

A consistently satisfactory economic growth results in an increase in the gross domestic product and thereby per capita income. Universally, countries with high per capita income are those where human development index is high and vice versa. Increase in the per capita income is important for the reason that, even in the absence of a proactive role of the government, it ensures access to education, health and other amenities. Graph No. 1.1 helps us to understand the intrinsic relation between per capita income and level of HDI.

It is clear from Graph No. 1.1 that high income countries are also the one who enjoy high HDI. In the same way, it can be argued that the low-income countries experience low human development. Increase in income, particularly real income is thus crucial to human development.

c. Political Institutions

It is widely believed that the institution of democracy plays a vital role in human development. A popularly elected government, free from different pressures and with a very clear mandate, may ensure human development on a wider scale. Similarly, a government which holds itself accountable to people, is more likely to use its scarce resources efficiently for the purpose economic development in particular and human development in general. A government, which values human aspirations, is more likely to do wonders, whereas an apathetic, indifferent and corrupt government may spoil the chances of economic development and for that matter human development. Similarly, a government

formed with coalition partners, may not take bold decisions because it has to yield to various pressures. A right decision not taken at the right time indicates policy paralysis.

d. Constitutional Structures

Normally, there are two types of constitutional structures, namely, unitary and federal. The universal trend is in favour of federal system where there are different levels of governance, popularly at three levels. The whole idea is to decentralise governance down to the village level. It is presumed that decentralised governance greatly satisfies local aspirations and thereby human development via education, health, sanitation, etc. However, things are not that simple. If local governance itself is corrupt and if the administrative machinery is self-serving, no amount of resource mobilisation will ensure rapid human development. In India, almost every day, newspapers carry reports of large-scale frauds, diversion and improper uses of funds.

e. State Capacity

The state capacity signifies the ability of a government to deliver desired results. It is possible only when the government is non-corrupt, political leadership is committed to the welfare of poor and bureaucratic system is strong enough to resist the pressure of political bosses. One can think of human development only when the governance is effective and political class is responsive to needs of people in general and poor in particular.

It is widely believed that the institution of democracy plays a vital role in human development. A popularly elected government, free from different pressures and with a very clear mandate, may ensure human development on a wider scale.

Table- 1.3 : Sources of Data

S. No.	Sources	Indicators
1.	Census Reports	47
2.	District Health Office	16
3.	Health Information Management System (HIMS)	14
4.	District At A Glance Prepared by District Statistical Office	18
5.	Department of Women and Child Development	09
6.	Urban development cell	12

Source: Lead Agency, Vijayapura

f. Climatic Conditions- Regional geographical factors.

Generally speaking, climatic conditions do affect human development through their profound impact on productivity factor. Dry, desert and scarcity areas record slow growth rates and thereby they are at the bottom scale of human development. Shortage of water, non-availability of fertile tracts of lands, depressing economic conditions take a heavy toll on human development through limited, or no economic development at all.

g. Locational Advantages

Certain areas have locational advantages. For example, state capitals, district head quarters, areas with good rail-road connectivity, cities that are educational and industrial centers, prosper faster than other areas. Areas on their periphery also perform well in comparison to the areas with locational disadvantages. Bengaluru, Hubballi-Dharwad, Mangaluru and Mysuru have recorded satisfactory human development when compared to Vijayapura, Raichur, Yadgir, etc. Further, within the district, the district

head quarter performs better than the other taluks. Because of locational advantage, they become hub of educational, commercial, health and industrial activities. However, in the long run, economic growth, concentrated in a few areas only, may spoil future possibilities of human development. These areas experience huge in-migration of people with low levels of education, training and expertise. Number of slums increase creating diverse types of pressures on already stressed urban areas.

1.3. Data Collection, Compilation and Validation

In the preparation of present Human Development Report 2014, huge data was collected in respect of 126 indicators so that the six indices, namely, Human Development Index (HDI), Gender Inequality Index (GII), Child Development Index (CDI) Food Security Index (FSI), Urban Development Index (UDI) and Composite Taluk Development Index (CTDI) may be developed. Their breakup is as follows: HDI (11 indicators), GII (15 indicators), FSI (18 indicators), UDI (11 indicators), CDI (3 indicators) and CTDI(68 indicators),

An important issue pertaining to data is its authenticity. It is necessary that for any meaningful exercise the collected data should be reliable. In the absence of accuracy and reliability, discrepancies may arise in the analysis. It is quite possible that we may arrive at wrong conclusions. Keeping this particular aspect in mind, data for all 126 indicators was collected from the sources, which are reliable. Table- 1.3 throws light on different sources of data for 126 indicators.

All these sources are from the various departments of the central, state and local governments. Certain data was made available from State Consultant and Coordinator (Planing Department), Bengaluru. It is, therefore, maintained here that there is no reason to doubt about the authenticity and reliability of data.

The data so available was cross-checked at different levels. The Vijayapura District Lead Agency held several rounds of meeting with the District level officers. In some cases, data submitted earlier by different departments was revised by them and resubmitted to the Lead Agency. Finally, the approval of Chief Executive Officer, Zilla Panchayat, Vijayapura, was obtained, validating the data generated so far. From time to time, the Planing Department itself crossed checked data and asked the Lead Agency to revise the same.

1.4. Measurement of Indices

In the preceding paragraphs, we have already discussed about human development. Now a discussion on the preparation of indices follows as under :

1.4.1. Human Development Index (HDI)

Human Development Index is prepared using eleven indicators. It has three dimensions. First, living standard dimension; secondly, health dimension and thirdly, education dimension. The living standard dimension covers seven indicators. The health and education dimensions cover two indicators each. The geometric mean is used. Its value is found out using the following formula:

Index Value=
$$\frac{\text{Actual Value} - \text{Maximum Value}}{\text{Maximum Value} - \text{Minimum Value}}$$

The geometric mean value of three dimensions is calculated as under:

HDI=
$$(SI_l \times SI_h \times SI_e)^{(1/3)}$$

where SI_l means living standard, SI_h health dimension and SI_e education dimension. The average of geometric mean of these three dimensions is human development index. It lies between 0 and 1. When the value is close to zero it indicates low human development and when the value is close to one it indicates high human development.

1.4.2. Gender Inequality Index (GII)

United Nations Development Programme in its 20th Human Development Report 2010 introduced this new index. The introduction in 1995 of the Gender-related Development Index (GDI) and the Gender Empowerment Measure (GEM) coincided with growing international recognition of the importance of monitoring the progress in the elimination of gender gaps in all aspects of life. While the GDI and GEM have contributed immensely to the gender debate, they have, however, conceptual and methodological limitations.² For instance, GDI was not a measure of gender inequality, it was the HDI adjusted for gender disparities in its basic components and cannot be interpreted independently of the HDI. The difference between the HDI and the

The GII was introduced on an experimental index in HDR 2010. The disadvantages facing women and girls are a major source of inequality. All too often, women and girls are discriminated against in health, education and the labour market-with negative repercussions for their freedoms.

² www.undp.org, accessed on February 3rd , 2014.

Step 1. Aggregating across dimensions within each gender group using geometric mean

For females

$$GF = \sqrt[3]{\left[\left(\frac{1}{MMR}\right) \times ID \times ANE\right]^{1/3} \times [PR_F \times CHLD_F \times LIT_F]^{1/3} \times [WPR_F \times NAG_F \times WAGE_F]^{1/3}}$$

For males

$$GM = \sqrt[3]{1 \times [PR_M \times CHLD_M \times LIT_M]^{1/3} \times [WPR_M \times NAG_M \times WAGE_M]^{1/3}}$$

Step 2. Aggregating across gender group using a Harmonic mean

$$HARM(G_F, G_M) = \left[\frac{(GF)^{-1} + (GM)^{-1}}{2} \right]$$

Step 3. Calculate the geometric mean of the arithmetic means of the each indicator

$$G_{F,M} = \sqrt[3]{\text{health.empowerment.LFPR}}$$

$$\text{Where health} = \left[\frac{\left[\left(\frac{1}{MMR}\right) \times ID \times ANE\right]^{1/3} + 1}{2} \right]$$

$$\text{Empowerment} = \frac{[PR_F \times CHLD_F \times LIT_F]^{1/3} + [PR_M \times CHLD_M \times LIT_M]^{1/3}}{2}$$

$$\text{LFPR} = \frac{[WPR_F \times NAG_F \times WAGE_F]^{1/3} + [WPR_M \times NAG_M \times WAGE_M]^{1/3}}{2}$$

Calculating the GII by comparing the equally distributed gender index to the reference standard. The GII value ranges from zero to one.

$$\text{Step 4. GII} = 1 - \frac{HARM(G_F, G_M)}{G_{F,M}}$$

The index shows inequality between female and male achievements in these dimensions it ranges from 0, which indicates that women and men fare equally, to 1 which indicates that women fare poorly in all measured dimensions

GDI appears to be small because the differences captured in the three dimensions tend to be small, giving an erroneous impression that gender gaps are irrelevant. Nearly, all of the GEM indicators reflect an elite bias, making the measure more relevant for developed countries and urban areas in developing countries.³ The GII introduces methodological improvements and alternative indicators; it measures inequality between genders in three dimensions, with carefully chosen indicators to reflect women's reproductive health status, their empowerment and labour market participation relative to men's.⁴

The GII was introduced on an experimental index in HDR 2010. The disadvantages facing women and girls are a major source of inequality. All too often, women and girls are discriminated against in health, education and the labour market-with negative repercussions for their freedoms.⁵ GII is a composite index measuring loss in achievements in three dimensions of human development- reproductive health, empowerment and labour market, due to inequality between genders.⁶ The method of calculating GII is as follows:

The index shows inequality between female and male achievements in these dimensions. It ranges from zero, which indicates that women and men fare equally, to one, which indicates that women fare poorly in all measured dimensions.

1.4.3. Child Development Index (CDI)

The Child Development Index (CDI) was developed in United Kingdom by an organization named 'Save the Children' in 2008. This was the result of the extensive contributions of Terry

³ www.undp.org, accessed on February 3rd, 2014.

⁴ www.undp.org, accessed on February 3rd, 2014.

⁵ United Nations Development Programme, Human Development Report 2010, p.7.

⁶ United Nations Development Programme, Human Development Report 2010, p.224.

Mckinley, Director of the Centre for Development Policy and Research at the School of Oriental and African Studies (SOAS), University of London, with support from Katrina Kyrili.⁷

In 2008, to monitor progress in child well-being, 'Save the Children' launched the Child Development Index (CDI), a global tool to assess the performance of 141 countries on child mortality, nutrition and access to primary education.⁸ The Child Development Index is made up of three indicators of three areas of child wellbeing.⁹ These indicators are chosen because they are easily available, commonly understood, and clearly indicative of child wellbeing. The three indicators are:

- Health – (by the under-five mortality rate)
- Nutrition- (by the percentage of under-five who are moderately or severely underweight)
- Education- (by the percentage of primary school-age children who are not enrolled in school).

The three indicators are aggregated by simply calculating the average score between them for each period under review, meaning that they each have equal weightage in the index scores. A scale of 0 to 100 is used to know the score. A zero score would mean that all children survive beyond their fifth birthday, all under-fives are well nourished, and all primary school-age children are enrolled in primary schools. Conversely, a maximum score of 100 would represent a situation where all children under five were underweight, all primary schools children were out of school, and under-fives were dying at the highest possible

rate on the scale- that is, at a rate of 340 per 1,000 live births.¹⁰

Key Findings

A few key findings of The Child Development Index 2012 Report are¹¹:

- Overall improvement rates in child well-being almost doubled in the first decade of the 21st century.
- Developing countries experienced faster rates of progress than developed countries in the same period.
- Under nutrition remains one of the main factors holding back progress on children's well-being as shown by the Index.
- The proportion of children suffering from acute weight loss actually rose in the second half of the 2000s.¹²

Computation of Child Development Index

The indicators have been broadly categorised under three parameters that influence the HDI. All the above indicators are negative in nature. The index values for each of the indicators can be calculated by using the following formula.

Index value = maximum value - actual value/ maximum value-minimum value

The index values for each of the indicators would range between zero and one. The child development index

In recent decades, along with human development, the notion of food security has also attracted the attention of different countries of the world. It is for this reason that growth without adequate quantity and quality of food is meaningless.

⁷ Save the Children, The Child Development Index, United Kingdom, 2008, p.iv.

⁸ Save the Children, The Child Development Index 2012, United Kingdom, 2012, p.iv.

⁹ Save the Children, The Child Development Index, United Kingdom, 2008, p.5.

¹⁰ Save the Children, The Child Development Index, United Kingdom, 2008, p.5.

¹¹ Save the Children, The Child Development Index 2012, United Kingdom.

¹² Save the Children, The Child Development Index 2012, United Kingdom.

Food security is related to being able to feed the people and keeping them healthy all the time. Sustainability of food security is a long-term perspective of producing and providing food in perpetuity. World Development Report (1986) defined food security as “access by all people at all times to enough food for an active, healthy life”.

Urbanization is on the rise in India. It has two dimensions, firstly, there is an increase in the number of urban areas and secondly the rise in the percentage of urban population.

would be the average of the index values of the three indicators with highest value indicating better child development.

1.4.4. Food Security Index

In recent decades, along with human development, the notion of food security has also attracted the attention of different countries of the world. It is for this reason that growth without adequate quantity and quality of food is meaningless. The food security situation in India is paradoxical because, in spite of having self-sufficiency achieved in food production, we have not been able to eliminate chronic hunger and poverty. The concept of food security in the Indian context has been increasingly refined during the last fifty years. After World War II, food security meant building emergency grain reserves and ensuring the physical availability of the food in the market. After the onset of green revolution in the late sixties, it became evident that access to food is equally important for ensuring food security at the household level. During the eighties, it was evident that the principle of social inclusion with special reference to marginalised communities should be added to the concept of food security. Now we have food security bill with us.

Food security is related to being able to feed the people and keeping them healthy all the time. Sustainability of food security is a long-term perspective of producing and providing food in perpetuity. World Development Report (1986) defined food security as “access

by all people at all times to enough food for an active, healthy life”. In February 2012, the Economic Intelligence Unit (EIU) brought together a panel of global experts to discuss the development of a food security index.¹³ The Economic Intelligence Unit created the Global Food Security Index in 2012 to deepen the dialogue on food insecurity and measure the risks in a consistent, rigorous framework. Sponsored by DuPont, the index assesses food security across three internationally designated dimensions: affordability, availability and utilization, the last modified to assess food quality and safety.¹⁴

The Global Food Security Index (GFSI) uses the following definition of food security: “When people at all times have physical, social and economic access to sufficient and nutritious food that meets their dietary needs for a healthy and active life”.¹⁵ GFSI considers the core issues of affordability, availability, and quality across a set of 107 countries. The index is a dynamic quantitative and qualitative scoring model, constructed from 27 unique indicators, that measures these drivers of food security across both developing and developed countries.¹⁶

Three Dimensions

The three dimensions, affordability, availability and utilization are briefly explained below:

Availability - It measures the ability of consumers to purchase food, their

¹³ Global Food Security Index, www.foodsecurityindex.eiu.com/Index, accessed on February 8th 2014.

¹⁴ Global Food Security Index 2013, The Economist- Intelligence Unit, 2013, p.6.

¹⁵ Global Food Security Index 2013, The Economist- Intelligence Unit, 2013, p.6.

¹⁶ Global Food Security Index, www.foodsecurityindex.eiu.com/Index, accessed on February 8th 2014.

vulnerability to price shocks, and the presence of programmes and policies to support consumers when shocks occur.

Accessibility - It measures the sufficiency of the national food supply, the risk of supply disruption, national capacity to disseminate food, and research efforts to expand agricultural output.

Absorption - It measures the variety and nutritional quality of average diets, as well as the safety of food.

The DHDR guidelines speak of the following three major parameters in terms of availability, accessibility and absorption indicators. The availability among other things includes cropping intensity, change in net sown area, per capita food grain production, per capita forest cover, irrigation intensity, etc. The accessibility includes percentage of BPL families in the taluk, per capita income, average size of holdings, villages having PDS outlet, etc. The absorption includes the CMR, access to safe drinking water, percentage of pregnant women with anemia, percentage of malnourished children, female literacy.

1.4.5. Urban Development Index

Urbanization is on the rise in India. It has two dimensions, firstly, there is an increase in the number of urban areas and secondly the rise in the percentage of urban population. Urbanization as such is not bad per se, but if not regulated it would have several economic and social repercussions. India is not highly urbanised but the huge urban population of 381 million in 2011, indicated the magnitude of urban India and also its impact on providing basic urban services. At the national

level, contribution from urban areas to our GDP exceeds 60 percent and therefore the urban centers have a greater impact on the human development.

The urban issues such as slums, urban poverty, housing shortages, lack of basic infrastructure like water supply, power and sewerage are considered the negative urban indicators of development. It is the quality of urban infrastructure that matters most in measuring the true urban development. Certain indicators which are used in the construction of UDI are: percentage of urban population to total population, number of households without own houses, proportion of slum population, water supply, sewerage/ drainage, number of hospital beds, own resource mobilisation, per capita development expenditure, road kilometer, per square kilo meter, crime rate, road accidents, etc.

The index value in the case of a positive indicator can be calculated using the formula:

$$\text{Index Value} = \frac{\text{Actual Value} - \text{Min. Value}}{\text{Max. Value} - \text{Min. Value}}$$

The index value in the case of a Negative indicator can be calculated by using the Formula

$$\text{Index Value} = \frac{\text{Actual Value} - \text{Min. Value}}{\text{Max. Value} - \text{Min. Value}}$$

The index values for each of the indicators would range between 0 and 1 – 0 indicating the lowest ranking for urban area and 1 indicating highest ranking of urban area

The development process is meant to reflect consistent improvements in different dimensions of human development. It is now universally recognised that, in real sense of the term, the traditional method of measurement is actually a mismeasure of development. Development is now a move away from unfreedom to freedom.

1.4.6. Composite Taluk Development Index (CTDI)

The DHDR intends to study human development at sub-district level. So far, the studies concentrated their attention on data at the district and national levels. The DHDR aims to collect taluk level data so that human development at sub-district level is studied. As per the Guidelines Document, CTDI is computed taking into consideration sixty-eight indicators covering population, education, health, sanitation, roads, forest cover, livelihood opportunities, agriculture, industry, employment, economic infrastructure, social infrastructure and financial and technical infrastructure.

There are three dimensions of CTDI, namely, 1) Standard of living, 2) Health and 3) Education. First, the standard of living covers demography, livelihood and employment, housing, assets and work participation rate. The demography covers decadal population growth, density and sex ratio. Secondly, livelihood and employment cover cropping intensity, irrigation intensity, percentage of houses covered under MGNREGS, average agricultural wages, percentage of agricultural labourers to total workers, percentage of main workers to total workers, percentage of workers in household industry, decadal employment growth, etc. Thirdly, housing and assets cover percentage of pucca houses, siteless households, percentage of households provided with house sites, percentage of houses constructed for houseless poor families, cycles, two-wheelers and percentage of houses with no assets. Fourthly, work participation rate is also considered.

The second dimension, “health” covers health, sanitation and water. Health includes sex ratio, IMR, MMR, CMR, institutional deliveries, etc. The sanitation covers toilets and drainage facilities in the households. Water covers drinking water within the house, outside the house and faraway from houses.

The third dimension, which is education, includes percentage of literacy, gross enrollment rate, GER in primary and secondary schools, percentage of dropout children mainstreamed, students teacher ratio, SSLC and PUC pass percentage, per capita education expenditure, percentage of villages having a primary school within one km. distance. The CTDI is computed taking into account the mean value of standard of living dimension, health dimension and education dimension

1.5. Concluding Remarks

In recent years, the issue of human development has not only received recognition at the global level but at the sub-national level. Now, the development process is meant to reflect consistent improvements in different dimensions of human development. It is now universally recognised that, in real sense of the term, the traditional method of measurement is actually a mismeasure of development. Development is now a move away from unfreedom to freedom. In addition to the conventional human development, the need for other indices such as GDI, GEM, GII, CDI, CTDI, etc, is also felt. All these indices, when developed and measured, reflect a holistic view of human development dynamics.

