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HUMAN DEVELOPMENT INDEX IN HILLY AREA OF KOLHAPUR DISTRICTS

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ABSTRACT

Human Development Index is related to the Human Development. Last few decades, there has been a shift in development paradigm from economic growth approach to human development approach. As per as HDI is concern, that the Human Development Report (HDR) was first launched in 1990 with the single goal. For the purpose of understanding human development in the hilly area many relevant indicators are analysed in this paper concerning to the study area. Considering all the educational indicators, Educational Index of Shahuwadi taluka is slight better than Gagan Bavada Taluka. Similarly, Shahuwadi taluka is ahead of Gagan Bavada taluka in Life Expectancy Index as well as Income Index. Overall, Human Development Index in hilly area does not present satisfactory scenario as HDI of Shahuwadi and Gagan Bavada talukas is below 0.600.

KEYWORDS :Human Development Report, Human Development Index, UNDP, Life expectancy, Mean year of schooling, Expected year of schooling, Per capita income.

INTRODUCTION :

Human progress is conditioned by

the conception of development. Until the end of 1980's, development is often viewed as growth in income. The rapid growth of the economy has resulted in massive industrialization. In most nations this was unplanned and unsystematic. Consequently migration to towns and cities, unplanned urbanization with unhygienic and slum conditions of living, pollution, over population, poverty and unemployment were the common features characterizing the lives of the masses, resulting in a deterioration in the quality of life. As such in the last few decades, there has been a shift in development paradigm from economic growth approach to human development approach. Now it is

realized that the purpose of development is to create an atmosphere to develop people's capabilities and opportunities for both present and future generation in all part of the country as well as down trodden of every people. Sen(1997) argues that, "Economic growth cannot be sensibly treated as an end in itself. Development has to be more concerned with enhancing the life we need and the freedoms we enjoy. In this sense, economic growth is considered as a means to achieve human development. The purpose of development is human development and enhancing the freedoms of the people." Paul Streeten (1996), says that human development is a means to higher productivity. A well nourished, healthy, educated, skilled, alert labour force is the most important productive asset. It helps in lowering the family size by slowing human re-production. It is the experience of all developed countries that improvement in education levels (particularly of girls), better health facilities and reduction in infant mortality rates leads to a lowering of the birth rates.

OBJECTIVES OF THE STUDY

In the present study, an attempt is made to study the variation in the human development in hilly areas of Kolhapur district. The major objectives of the present study are as follows;
1.To study the educational status of hilly areas in Kolhapur district.
2.To study the economic status in hilly areas in Kolhapur district.
3.To calculate HDI in hilly areas of Kolhapur district

RESEARCH METHODOLOGY

The entire study is based on both primary and secondary type of data. The primary data was collected by conducting personal interviews of rural people from the sample households at study area. The data has been collected with the help of planned and pre-tested schedules and also from the field observation. For that, Convenient Sampling technique was used.

The secondary data and other related information have been collected from the District Statistical Abstract, Socio-Economic Reports, Census Reports, Kolhapur Gazetteer, Various records of Government Offices like Tahsil offices, Collector Office, Grampanchayats, Zillah Parishad, Panchayat Samiti, etc. Besides, sources were assessed from Internet also.

1.7.6.1 Sample Selection

In the present study, two types of sampling methods i.e. Random Sampling and Convenient Sampling have been used while selecting of takukas, villages and households from that villages.

There are 12 talukas in Kolhapur district. Accordingly 08 talukas are hilly and 04 talukas are non-hilly. Out of these talukas, two talukas from hilly area i.e. Shahuwadi and Gagan Bavada as a sample for this study, by using that Random Sampling technique. Moreover, 10 per cent villages from each taluka and 05 per cent households from each village were selected for collecting actual information. For that, again Random Convenient Sampling techniques were used respectively.

Data Analysis

The present study is based on both primary and secondary sources of data. The collected data has been processed by using various appropriate quantitative and statistical techniques such as average, percentage, deviation, etc. Cartographic techniques are also used at appropriate places. Diagrams, photographs have been depicted and their interpretation support is given for better comprehension.

Apart from that, UNDP's new method (i.e. used from the year 2010) for measuring Human

Development Index has been used for calculating the human development in hilly of Kolhapur district. By using this method Education Index, Life Expectancy Index and Income Index of the study area have been calculated. For calculation of Income Index, Per Capita Gross National Income (GNIpc) converted in US $ for that Per Capita Income of India in rupees (Rs. 90,688) and Purchasing Power Parity (PPP) in US $ ($ 5,855) of the year 2013-14 considered as base values. The details of this method are as follows –

1. Life Expectancy Index (LEI) = $\dfrac{LE - 20}{85 - 20}$

2. Education Index (EI) = $\dfrac{MYSI + EYSI}{2}$

3. Mean Years of Schooling Index (MYSI) = $\dfrac{MYS}{15}$

4. Expected Years of Schooling Index (EYSI) = $\dfrac{EYS}{15}$

5. Income Index (II) = $\dfrac{\log(GNIpc) - \log(100)}{\log(75,000) - \log(100)}$

6. HDI = $\dfrac{LEI + EI + II}{3}$

EDUCATIONAL STATUS IN HILLY AREA

Education is a vital tool for any country or region, since it promotes knowledge, skills, habits and values. It is recognized not only as a central element in economic and social development but also in human development. It is a proper input in modernization and means not only of raising political and social consciousness, but also of increasing the number of skilled workers, and raising the level of trained manpower. It is, no doubt, an important factor in determining the level of human development of a given country or region.

Actual Mean Years and Expected Years of Schooling

After 2010, UNDP made slight change in method of measurement of educational index; now educational index is measured by actual and expected mean year of schooling. Mean year of schooling means years that a person of 25 year age or older has spent in schools and expected years of schooling means years that 5 year old child might have been spent in schools throughout his life. Following table shows actual and expected mean years of schooling in hilly area of Kolhapur district.

Table 1
Actual Mean Year and Expected Years of Schooling

Sr. No.	Taluka	Actual mean years of schooling	Expected years of schooling
1	Shahuwadi	8.07	9.96
2	Gagan Bavada	7.88	8.91

Source : Compiled by Researcher

On the basis of primary data actual mean of schooling years in Shahuwadi taluka is 8.07 years and it is 7.88 years in Gagan Bavada taluka. Expected years of schooling in Shahuwadi taluka are 9.96 years and in Gagan Bavada taluka are 8.51 years. Actual mean year of schooling years and expected schooling of years in Gagan Bavada taluka is lower than Shahuwadi taluka.

4.2.9 Education Index of Shahuwadi Taluka

As per above discussion and with the help of UNDP new method Education Index (EI) for Shahuwadi taluka is calculated in following manner.

$$\text{Mean Years of Schooling Index (MYSI)} = \frac{MYS}{15}$$
$$= \frac{7.88}{15}$$
$$= 0.525$$

$$\text{Expected Years of Schooling Index (EYSI)} = \frac{EYS}{18}$$
$$= \frac{9.96}{18}$$
$$= 0.553$$

$$\text{Education Index (EI)} = \frac{MYSI + EYSI}{2}$$
$$= \frac{0.538 + 0.553}{2}$$
$$= 0.545$$

As per above calculation Mean Year of Schooling Index (MYSI) for Shahuwadi taluka is 0.538, whereas Expected Year of Schooling Index (EYSI) is 0.553. According to these indices, Education Index (EI) of Shahuwadi taluka is measured and that is 0.545.

4.2.10 Education Index of Gagan Bavada Taluka

Likewise the Shahuwadi taluka, Education Index (EI) for Gagan Bavada taluka is also calculated in following manner.

$$\text{Mean Years of Schooling Index (MYSI)} = \frac{MYS}{15}$$
$$= \frac{7.88}{15}$$
$$= 0.525$$

$$\text{Expected Years of Schooling Index (EYSI)} = \frac{EYS}{18}$$
$$= \frac{8.91}{18}$$
$$= 0.495$$

$$\text{Education Index (EI)} = \frac{MYSI + EYSI}{2}$$
$$= \frac{0.525 + 0.495}{2}$$
$$= 0.510$$

As per above calculated Mean Year of Schooling Index (MYSI) for Gagan Bavada taluka is 0.525, whereas Expected Year of Schooling Index (EYSI) is 0.495. According to these indices, Education Index (EI) of Gagan Bavada taluka is measured and that is 0.510.

Life Expectancy Rate and Health Facilities in Hilly Area

"The health of a nation is an essential component of development, vital to the nation's economic growth and internal stability" (Planning Commission 2008). Infirmity and morbidity contribute to losses in the productivity of individuals and keep away them from earning a decent living. Ensuring the good health of a country's population by providing them with accessible, affordable and good-quality health care could go a long way in contributing towards their productive capabilities.

Life Expectancy in Hilly Area

Life expectancy from birth is a frequently utilized and analysed component for human development. It represents the average life span of a newborn and is an indicator of the overall health of a country as well as human development. The investigator has to calculate the life expectancy through total age of the people divided by total death of people. Therefore, he has calculated total death and total age from the death registers maintained in Gram-Panchayat offices in the year 2014 of each sampled villages in hilly area.

Table 2
Life Expectancy in Hilly Area

Sr. No.	Particulars	Total Death					
		Shahuwadi			Gagan Bavada		
		Male	Female	Total	Male	Female	Total
1	No. of Death	43	37	80	12	07	19
2	Life Expectancy	67.12	69.03	68.08	66.92	67.14	67.03

Source : Official records of concern Grampanchayats of sample villages

Table 4.11 depicts that life expectancy in hilly area. In the Shahuwadi taluka there were total 80 death in the year 2014 out of them 43 were male and 37 is female. The average age of death in these people is 68.08 years. The male average age of death is 67.12 years is comparatively less than females. Female's average age of death is 69.03. In the Gagan Bavada taluka total deaths in the year 2014 were 19 out of these 12 were male and 07 were female. The average age of death is 67.03 years. The gender wise average death age is different, average of males death is 66.92 years and females is 67.14 years.

The life expectancy in hilly area follows an average of state. Life expectancy of Shahuwadi taluka is 68.08 years and in Gagan Bavada taluka it is 67.03 years. In these two talukas, life expectancy in Shahuwadi taluka is comparatively higher than Gagan Bavada taluka. Apart from that, in both the talukas female life expectancy is also found higher than the male. It is mainly due to females in the hilly area mostly having a secondary work, while males doing a very heavy work.

Life Expectancy Index of Shahuwadi Taluka

As per above discussion on life expectancy and with the help of UNDPs new method Life Expectancy Index (LEI) the life expectancy index for Shahuwadi taluka is calculated in following manner.

$$\text{Life Expectancy Index} = \frac{LI - 20}{85 - 20}$$

$$= \frac{68.08 - 20}{85 - 20}$$

$$= 0.740$$

As per above discussion, Life Expectancy (LI) in Shahuwadi taluka is 68.08 years and accordingly Life Expectancy Index (LEI) of Shahuwadi ttaluka is 0.740.

Life Expectancy Index of Gagan Bavada Taluka

Likewise the Shahuwadi taluka, Life Expectancy Index (LEI) for Gagan Bavada taluka is also

calculated with the help of UNDP's guidelines.

$$\text{Life Expectancy Index} = \frac{LI - 20}{85 - 20}$$

$$= \frac{67.03 - 20}{85 - 20}$$

$$= 0.724$$

As per above discussion Life Expectancy (LI) in Gagan Bavada taluka is 67.03 years and accordingly Life Expectancy Index (LEI) of Gagan Bavada taluka is 0.724.

GDP and PCI of Sample Households in Hilly Area

Table 3
Gross Domestic Product (GDP) and Per Capita Income (PCI)
of Sample Households in Hilly Area

Sr. No.	Particulars	Figures	
		Shahuwadi	**Gagan Bavada**
1	Total Population	2311	403
2	GDP (in Rs.)	10,51,38,945	1,36,54,849
3	PCI (in Rs.)	45,495	33,883
4	GDPpc (in US $)	2937	2188

Source : Compiled by researcher from fieldwork and field observations

Table 4.19 reveals that Gross Domestic Product and Per Capita income of sample households in hilly area. In Shahuwadi taluka, total 499 sample households' population is 2311 and GDP of the households is Rs105138945 and per capita income is Rs 45495. In Gagan Bavada taluka total 83 sample household's population is 403 and GDP of the households is Rs 13654849 and per capita income is Rs 33883. GDPpc of Shahuwadi and Gagan Bavada talukas is $ 2937 and $ 2188 respectively as per PPP of the year 2013-14.

Income Index of Shahuwadi Taluka

According to the above discussion, Income Index (II) for Shahuwadi taluka is calculated with the help of UNDP's guidelines.

$$\text{Income Index (II)} = \frac{\log (\text{GDPpc}) - \log (100)}{\log (75000) - \log (100)}$$

$$= \frac{\log (2937) - \log (100)}{\log (75000) - \log (100)}$$

$$= \frac{3.47 - 2.00}{4.88 - 2.00}$$

$$= 0.510$$

As per above discussion Per Capita Income (PCI) of Shahuwadi taluka is Rs. 45495 and GDPpc $ 2937 as per 2013-14 PPP. Accordingly Income Index (LEI) of Shahuwadi taluka is 0.510, which is calculated with the help of UNDP's guidelines.

Income Index of Gagan Bavada Taluka

As similar to Shahuwadi taluka, Income Index (II) for Gagan Bavada taluka is also calculated with the help of UNDP's formula.

$$\text{Income Index (II)} = \frac{\log (\text{GDPpc}) - \log (100)}{\log (75000) - \log (100)}$$

$$= \frac{\log (2188) - \log (100)}{\log (75000) - \log (100)}$$

$$= \frac{3.34 - 2.00}{4.88 - 2.00}$$

$$= 0.465$$

As per above discussion Per Capita Income (PCI) of Gagan Bavada taluka is Rs. 33883 and GDPpc $ 2188 as per 2013-14 PPP. Accordingly Income Index (II) of Gagan Bavada taluka is 0.465, which is calculated with the help of UNDP's guidelines.

4.5 Human Development Index in Hilly Area

Educational Index (EI), Life Expectancy Index (LEI) and Income Index (II) of both hilly talukas are calculated in the earlier part of this chapter. According to this, Human Development Index of these talukas has been also measured, for that purpose again the guidelines and formula by the UNDP are used.

Human Development Index in Shahuwadi Taluka

As per UNDP, Human Development Index is a geometric mean of Educational Index (EI), Life Expectancy Index (LEI) and Income Index (II). All these indices are calculated before, hence, with these indices Human Development Index (HDI) has been calculated for Shahuwadi takuka. Accordingly, HDI value of Shahuwadi Taluka is 0.598.

$$HDI = \frac{EI + LEI + II}{3}$$
$$= \frac{0.545 + 0.740 + 0.510}{3}$$
$$= 0.598$$

Human Development Index in Gagan Bavada Taluka

Educational Index (EI), Life Expectancy Index (LEI) and Income Index (II) are calculated and with the help of these indices Human Development Index (HDI) has been calculated for Gagan Bavada takuka, which is 0.566.

$$HDI = \frac{EI + LEI + II}{3}$$
$$= \frac{0.510 + 0.724 + 0.465}{3}$$
$$= 0.566$$

CONCLUSION

For the purpose of understanding human development in the hilly area many relevant indicators are analysed in this chapter concerning to the study area. According to that, there is lack of many basic facilities in the educational institutes in sample villages such as toilets and latrines, electricity, sport ground, library, laboratory, etc. Besides, level of literacy is found almost 70 per cent in the sample households and as obvious female literacy is far behind to male literacy. Poverty as well as educational and traditional backwardness in the family is the main reasons of illiteracy in the sample households. Gross enrolment rate of student is ranging 50 to 60 per cent; moreover enrolment rate in

Gagan Bavada taluka is slight better than Shahuwadi taluka. Dropout rate of students in higher secondary to higher education is always high in both the hilly talukas. Considering all the educational indicators, Educational Index of Shahuwadi taluka is slight better than Gagan Bavada Taluka. Similarly, Shahuwadi taluka is ahead of Gagan Bavada taluka in Life Expectancy Index as well as Income Index. Overall, Human Development Index in hilly area does not present satisfactory scenario as HDI of Shahuwadi and Gagan Bavada talukas is below 0.600.

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