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Evaluation of Human Indicator In Rural areas of Kohgiloyeh & Boyerahmad Province

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ABSTRACT

Human Development Indicator (HDI) had been applied from 1991 by the UN development program. Then a list of countries by a sort of highest to lowest ranks is being published every year in comparison to charts and other countries. Human indicator means ranking of countries in terms of enhancement in human development and also in average level of conveniences of living. Human development indicator consists of three sub-indicators called Life, Education and Income. For achieving a dynamic economy along with a rapid growth, we should concentrate on training a creative and well-informed manpower, provide environment for increasing in longevity along with health. Hence, this survey addresses the evaluation of HDI in rural areas of Kohgiloyeh & Boyerahmad province. Methodology in this research is descriptive-analytical, used Data and census collected from Education and training organization, Statistical Yearbook, Educational and health centers, and other relevant bureau and organizations of province. Results show an improvement in status of human development in rural areas of province compared to previous years. It increased from 0.446 in1996 to 0.703 in 2011; which means an improvement in the status of human improvement in the province

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INTRODUCTION

Meaning of human development is infinitely more extensive than the pact meaning of economic development; for models of economic growth generally is measured by the expansion of GNP than by improvement in level and quality of life. Dentson (1962).[4] For a long time development Based on these models was mean growth in GNP (Gross National Product). Although economic growth is a prerequisite for improvement of public, but is not requisite, and social welfare is more dependent on the way this income is use [3].

One of the problems of developing countries, are problems related to health and hygienic. It means government expenditure on improving and supplying of sanitary services, on one hand cause an increase in human development indicator by improvement in life expectancy indicator, and on the other hand cause an increase in economic growth, national revenue, and at last capitation revenue, by improvement in labor force quality as one the input factors and so once again cause improvement in HDI indicator indirectly [8].

One of the problems which developing countries are encountered with is low literacy level and improper education. Funding in this field by supplying proper educational facilities in outlying areas by improvement in education indicator in the one hand, and by improvement in manpower quality in the other hand, governments could provide an increase in level of HDI[8].

Rafiee Emam and Abassi nejad carried a study in surveying evaluation of human development in rural areas of Iran[10]. Based on this survey, the average of HDI for rural areas in the year 1365 was equal to 0.357 which reached up to 0.469 in the year 1375 during a decade with annual average growth of 2.8. Results of this study show that all rural areas of country are in low human development.

In a study done by Nourbakhsh (2002) titled by "human development and regional inequalities", Kohgiloyeh & Boyerahmad province stood among the last provinces in ranking of HDI[9].

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In one study Taghvaee(2007), understood that rural points of Tehran, Fars, Isfahan and Yazd provinces have the HDI, and lowest ranks belong to rural points of Sistan-balochestan, Ilam, Kuhgiluye-Boyerahmad and Khorasan provinces[13].

MATERIALS AND METHODS

This study has been done for exploration and recognition of different dimensions of human development in rural areas of Kohgiloyeh & Boyerahmad province. This survey is analytical-descriptive study; data collection was based on library method and needed data extracted from formal census of population and housing, statistical yearbook, Census and Information Organizations, Sanitary Centers[11], Literacy Movement Organization, Educational and Treatment Organization. After collecting needed data and information, first we will calculate the components of HDI (knowledge indicator, life expectancy indicator and income indicator); then calculate the HDI.

HDI as a combinated index has three sub-indexes:

1: life expectancy: indicates longevity and health.

2: scholastic achievement: indicates knowledge and science.

3: Gross Domestic Product (GDP): indicates a comfort and favorable life.

Each of the three components of HDI will indexation base on the following definition:

$$xi = \frac{\text{xi} - \min \text{xi}}{\text{MAX xi} - \min \text{xi}}$$

In this part Min and Max amount should appoint. The Min and Max amount which its standard amount described by UNDP are as follows[14].

A: life expectancy at birth: 25 & 85 years

B: adults' literacy rate: 0 & 100 %

C: combinational rate for gross enrollment in all education profiles: 0 & 100 %

D: Real per capita of Gross Domestic Product: 100 & 40000$

Regarding mentioned items, human development indicator (HDI) calculates as below:

HDI = 1/3 [income indicator + literacy indicator + life expectancy indicator]

Significance of HDI in growth and development is clearly obvious by examining its sub-indexes [1].

E.g. Education effect on economic growth, education effect on life expectancy, relation between hygiene and productivity[15].

RESULTS AND DISCUSSIONS

In order to calculate the education indicator, first we should calculate the adults' literacy indicator (ALI) and gross enrollment indicator (GRI), then these two indexes compose to obtain knowledge indicator [12]. Adults' literacy rate for rural areas of Kuhgiloyeh province in 1390 is 92.67 % and gross enrollment rate for the same year is 80.1 percent [5].

. Also education indicator is 0.885.

$$\text{ALI} = \frac{92.7 - 0}{100 - 0} = 0.927$$

$$\text{GRI} = \frac{80.1 - 0}{100 - 0} = 0.801$$

$$\text{Education indicator} = \frac{1}{3}(\text{GRI}) + \frac{2}{3}(\text{ALI}) \rightarrow \frac{1}{3}(0.801) + \frac{2}{3}(0.927) \rightarrow 0.627 + 0.618 = 0.885$$

Life expectancy indicator (Li) which indicates longevity is the number of years a person is expected to live at birth. In the other hand, life expectancy at birth is: the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life [2].

$$\text{Li} = \frac{\text{Actual} - \min}{\max - \min}$$

HDI measured relative gleaning about life expectancy at birth. HDI for Kohgilohieh province was 0.761 in 1390.

$$\text{Life Expectancy at Birth Indicator (Li)} = \frac{70.7 - 25}{85 - 25} = 0.761$$

Capitation Revenue Indicator (CRI) shows the living level of a country or region and means the ratio of GDP on population. In HDI, income utilizes as a replace for all the human development dimensions. [3] These

dimensions did not allocated in longevity and education criteria. Since achieving an acceptable level of HD does not need an unlimited earning, therefore there would be an adjustment and revision in earnings; hence we should use Logarithm in calculations[7].

$$\text{Gross Domestic Capitation Income Indicator} = \frac{\text{Log Actual} - \text{Log min}}{\text{Log max} - \text{Log min}}$$

$$\text{Gross Capitation Income Indicator} = \frac{\text{Log}(1642) - \text{Log}(100)}{\text{Log}(40000) - \text{Log}(100)} = 0.465$$

Now, three components of HDI add to each other, then divided on three and at last HDI will calculate.

$$\text{HDI} = \frac{\text{Incme Indicator} + \text{Life expectancy Indicator} + \text{Education Indicator}}{3}$$

$$\text{HDI} = \frac{0.885 + 0.761 + 0.465}{3} = 0.703$$

Regarding to the main goal of current study based on evaluation of HDI in rural areas of Kuhgiloyeh province, we analyze achieved results now:

Table 1: HDI in rural areas of Kuhgiloyeh province in years 2007-2012

title	Life expectancy at birth	Life expectancy indicator	combinational rate for gross enrollment	Adults literacy rate	Educational indicator	Gross capitation revenue (dollar)	Income indicator	Human development indicator (HDI)
Year 1385	68.1	0.717	93.7	89.87	0.910	776	0.338	0.655
Year 1390	70.7	0.761	80.16	97.62	0.885	1642	0.465	0.703

Source: researcher's findings

As it is shown in table1 HDI in rural areas has developed, and from 0.665 by the year 2007 reached to 0.703 by the year 2012, so regarding to global divisions it considers as an average HDI. It means that fundamental funding in previous years led to favorable trend in province and thus general status of public developed in educational, hygienic and earning sections.

Life expectancy from 68.1 by the year 2007 reached to 70.7 by the year 2012 and life expectancy indicator (Li) from 0.717 by the year 2007 reached to 0.761 by the year 2012.

Other important indicator is education indicator which composed of two other indexes – Gross enrollment of students' rate and adults' literacy rate. Adults' literacy rate increased from 89.87 in 1385 to 92.67 in 2012; but enrollment rate decreased from 93.7 in 2007 to 80.16 in 2012. Enrollment rates have been reduced due to extreme rural migration and also absence of high school in some rural areas that cause secondary students have to move to cities and thus education indicator goes down about 25% compared to 2007. Earning indicator and country mans' Gross revenue per capita in the mentioned period increased respectively from 0.337 to .0465 and from $766 to $ 1642.

Conclusion:

According to this study, general HDI in rural areas of province changed and improved compared to previous years; however, achieving desired situation needs fundamental investments in rural areas and spread facilities such as ways, communications, sanitary and educational facilities in deprived regions.

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