

# Stakeholders' Perception Behind the Index of Human Resources Development for Villages (IDRDV) in Klaten Regency, Central Java - Indonesia

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**Abstract**— The purpose of this study was to express an opinion of the stakeholders in Klaten Regency behind the Index of Human Resources Development for Village (IHRDV). The IHRDV was composed by three key indicators, namely indicators of health, education indicators and economic indicators. The index system and the model of Analytical Hierarchy Process (AHP) have been applied in this study. Among 3 (three) indicators, indicator of education in Klaten Regency have given the biggest contribution to the IHRDV. Meanwhile, based on the opinion from stakeholders, there have been found that economic aspects placed in first rank (35.6%). Stakeholders argued that most desirable for village development should be focused on economic development.

**Keywords**—rural development; indicator of village development, central java – Indonesia

## I. INTRODUCTION

The results of macro indicators of development in Indonesia, especially when compared with the other countries shows that of the 14 kinds of development indicators, the most prominent ranking in Indonesia is an indicator of the population, ranks 4th out of 237 countries, with a total population in the year 2010 about 237,6 million. On the other hand, the numbers of population are not proportional with the level of prosperity of the population and the quality of Human Resources Development (HDR). Gross Domestic Product (GDP) per capita as a reflection of the level of prosperity of a nation, including in the category of low, amount to U.S. \$ 4,300; ranks 154 out of 237 countries. While the human quality level as measured by the Human Development Index (HDI) included the low category, ranks 108 out of 169 countries [1].

On the other hand, the national income as a result of the implementation of national development, if it is distributed into the rural and urban areas still have a relatively large inequality. It shows by high levels of poverty in rural areas compared with urban areas. In 2011, the poor in Indonesia reached 30.02 million people or about 12.49% of the overall population; where about 18.97 million people or approximately 15.72% were in rural areas. Province of Papua

and Maluku have large numbers of poor people in rural areas, about 35.20% [1].

Measuring to the progress of economic development indicator in the form of an index, usually uses data at the state level, provincial, district / city, and hasn't applied to the government in the lower levels such as at the level of village government. In the context of Indonesia, the national development policy in related with the field of regional development among others, is aimed to reduce the gap of development among the villages in Indonesia.

The purposes of this study was to construct the IHRDV for measuring and evaluating the progress of human resources development for village in Klaten Regency and then compared it with the opinion from stakeholders related with the process of village development.

## II. LITERATURE REVIEW

In several years ago, Morris as in [2] had developed the composite indices called by the Physical Quality of Life Index (PQLI). This effort has been continued by Mahbub ul Haq as in [3] by composing indices called by the Human Development Index (HDI) in year 1990s.

Morris [2] had used two main indicators, namely health indicator and education indicator. Both of these indicators were measured by infant mortality rates, life expectancy at age one, and literacy percentage rates. Meanwhile, Mahbub ul Haq in 1990s [3] had also developed the Morris's model by adding other indicator, namely the indicator of income that measured by GDP which corrected by Power Purchasing Parity (PPP).

In recent years, there were a lot of composite indices for measuring the progress of development in the specific areas. For examples: Indicators of Good Governance (IGG) has developed by Philippine Institute for Development Studies [4], and Urban Governance Index (UGI) has arranged by UN-HABITAT for the Global Campaign on Urban Governance [5].

For measuring the progress of development in People's Republic of China (PRC), Wang as in [6] had developed a Regional Development Index (RDI) by using 10 (ten) field

indices (and one reference index) to measure the regional development in different fields in the government of province. On the other hand, BAPPENAS (Indonesia - State Planning Agency) as in [7] had also constructed a Regional Development Index (RDI). This RDI was developed to measuring the regional development in 26 provinces in Indonesia by using secondary data in years 1994, 1996 and 1998.

Khalifa and Connelly as in [8] had also constructed the Local Indicators of Sustainable Development and Local Human Development Index in the case of rural in Egypt. They has used 5 (five) indicators and 12 sub-indicators to get guideline for evaluating the criteria for the success of rural development. Meanwhile Emilija and Meyers as in [9] also had implemented the the assessment for measuring the regional indicators for the development of the villages in Lithuania. They used 4 (four) aspects, then derived into 9 (nine) indicators.

### III. METHODOLOGY

In this study, authors developed the IHRDV that it was constructed by using a simple average method from 3 (three) indicators, namely: (i) Health Indicators, (ii) Education Indicators, and (iii) Economic Indicators. And after then, it compared with the perception of stakeholders.

Health indicators were composed by: (i) Ratio of the number of health facilities to the number of population times by 1,000, (ii) Ratio of the number of medical staff to the number of population times by 1,000, (iii) Percentage of the number of toilet ownership by family to the number of households, (iv) Infant bird rate per 1.000, and finally (v) Infant mortality rate per 1,000.

Education Indicators were composed by: (i) Ratio of the number of primary school building to the number of pupils times by 100, (ii) Ratio of the number of pupils to the number of teachers in primary school level, (iii) Ratio of the number of pupils in primary school to the number of school age population 7-12 years times by 100, and (iv) Percentage of population with educational attainment in senior high school and over to number of population age 5 year over.

And finally, Economic Indicators were composed by: (i) Ratio of the number of trading and finance facilities to the number of population times by 1,000, (ii) Ratio of the number of micro, small and medium enterprises to the number of population times by 1,000, (iii) Percentage of the number of employment in agriculture sector to the total number of employment, (iv) Percentage of the number of employment in industry sector to the total number of employment, (v) The number of cars and motorcycles to the number of households times by 100, (vi) Ratio of length of roads asphalted to the total number of length of roads times by 100, (vii) Ratio the total number of length of roads to the land area of village, and (viii) Ratio the number of telecommunication facilities to the number of house-holds times by 100.

Secondary data which adopted from the document of Kecamatan Dalam Angka (Sub-District in the Vignures) Year 2012 in Klaten Regency covering 26 sub districts and 391

villages was used to construct the IHRDV. To derive the aggregation of field indices and the overall index (the IHRDV), data need to be normalized, so all the basic indicators are transformed into a 0-10 score. The scores 0 and 10 indicate the positions of the relevant villages at the lowest and highest levels of village development. Equation of the index system can be formulated as follows [10, 11]:

$$i^{\text{th}} \text{ village} = \frac{V_i - V_{\min}}{V_{\max} - V_{\min}} \times 10 \quad (1)$$

For negative indicators (smaller numbers reflect a higher level of village development), the following formula is used:

$$i^{\text{th}} \text{ village} = \frac{V_{\max} - V_i}{V_{\max} - V_{\min}} \times 10 \quad (2)$$

Equation (1) and (2) will be applied into basic variables before the IHRDV will be resulted.

Meanwhile, the tool of the Analytical Hierarchy Process (AHP) was applied to get the preferences of 25 stakeholders that included academia, government, business and society. There were 5 (five) criterias used to know the aspect that determined the progress of villages development, namely economic aspects, social aspects, the physical aspects of infrastructure, the government aspect , and political aspects.

### IV. RESULT

By using three indicators, namely: (i) Health Indicators, (ii) Education Indicators, and (iii) Economic Indicators; from Figure 1, we can see that the indicator of education provides the greatest value toward the value of IHRDV (score 5.7019), followed by the health indicator (score 3.5672), and the economic indicator (score 2.3695).

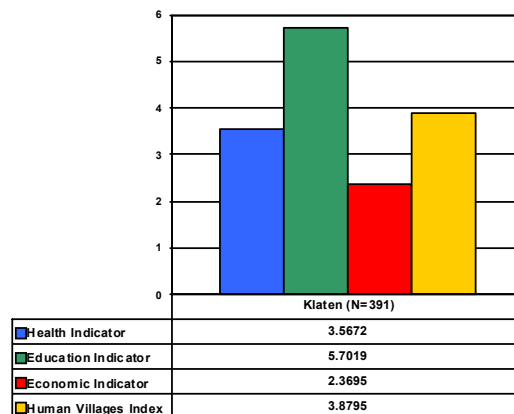


Fig. 1. Value of IHRDV and Its Constituent

On the others hand, when each of indicator that forming the IHRDV was correlated with IHRDV, from Figure 2 we can see that the indicators of economic has the highest correlation with the IHRDV (value 0.608), followed by the indicator of health (value 0.573) and indicator of education (value 0.536).

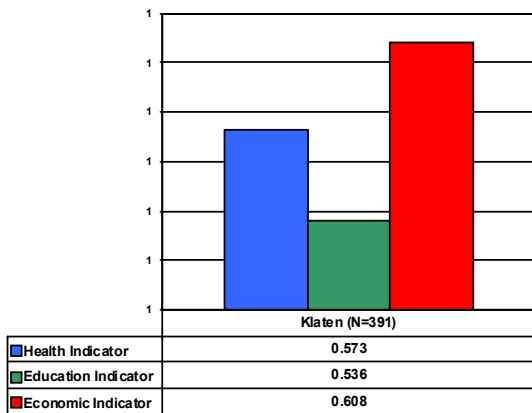
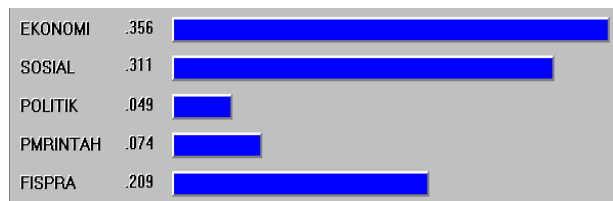


Fig. 2. Value of Degree of Correlation of IHRDV and Its Constituent

Based on the results of AHP analysis, it has been found that the largest weight value on the rural development strategy was economic aspect (1) with a value of 35%. The next aspect was Social Aspect (2) with a weight value of 31.1%; Physical and Infrastructure aspect (3) with a weight value 20.9%; the fourth aspect was Governmental Aspect (4) with a weight value was 7.40%; whereas the last sequence was the political Aspects (5) with a weight value of 4.90%. Explanation on diagrammatic can be seen in Figure 3.



Note: (1) EKONOMI (Economic Aspect); (2) SOSIAL (Social Aspect); (3) POLITIK (Political Aspect); (4) PMRINTAH (Government Aspect); (5) FISPRA (Physical and Infrastructure Aspect)

Fig. 3. Five Aspects to Achieve the Successful of Rural Development

## V. CONCLUSION

The IHRDV can be used to measure the performance of village development in Indonesia. It is necessary because the government of Indonesia has increased the expenditures of its national budget from central to local government (provinces, regencies, and cities) year by year up to now.

The IHRDV can be instruments for knowing the level of development in the villages context. In particular to knowing the level of equity and equality of the village development.

The result of this research can provide the new ideas in applying the model for measuring the succeed of the human development for villages.

Although the indicator of economic contributed the smallest value on IHRDV, but most stakeholders argued that most desirable for village development should be focused on economic development. This step can be started by the increase of the revenue fund of village, improve of allocation fund for village, and finally by monitoring governmental funds in the villages.

Finally, modelling for this human resources development for villages can be alternative in formulating the policy of village development, specifically in determining of the target of indicators, providing the key variables, and collecting the data for supporting and creating the good administrative in the village government in the future

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## REFERENCES

- [1] Badan Pusat Statistik (BPS), *Perkembangan Beberapa Indikator Utama Sosial-Ekonomi Indonesia [Trends of Selected Socio-Economic Indicators of Indonesia]*. Jakarta, BPS, 2012.
- [2] Morris, Morris David, *Measuring the Conditions of the World's Poor: The Physical Quality of Live Index*, USA, Pergamon Press, 1979.
- [3] UNDP, *Human Development Report 2006 (Beyond Scarcity: Power, Poverty and the Global Water Crisis*, New York, Palgrave Macmillan Ltd, 2006.
- [4] Manasan, Rosario G., Eduardo T. Gonzalez and Romualdo B. Gaffud, "Indicators of Good Governance: Developing an Index of Governance Quality at the LGU Level", *Discussion Paper Series*, No. 99-04, March, 1999.
- [5] UN-HABITAT, *Urban Governance Index (UGI): A Tool to Measure Progress in Achieving Good Urban Governance [Global Campaign on Urban Governance]*, 2002. [Online]. Available: [http://www.impactalliance.org/file\\_download.php?location=S\\_U&file\\_name=11533840311\\_Urban\\_Governance\\_Index.pdf](http://www.impactalliance.org/file_download.php?location=S_U&file_name=11533840311_Urban_Governance_Index.pdf).
- [6] Wang, Xiaolu, "Who's in First? A Regional Development Index for the People's Republic of China's Provinces", *ADB Institute Discussion Paper*, No.66, pp.1-31, May, 2007.
- [7] Badan Perencanaan Pembangunan Nasional (Bappenas), *Indeks Pembangunan Daerah (Regional Development Index). Draft/Rancangan dalam Bentuk Ringkasan*, Jakarta, Bappenas, 2001.
- [8] Khalifa, Marwa A. and Stephen Connelly, "Monitoring and Guiding Development in Rural Egypt: Local Sustainable Development Indicators and Local Human Development Indices". *Environment Development Sustainability*. Vol. 11, p.1175–96, 2009.
- [9] Emilija, Kairytė and William H. Meyers, "Territorial Indicators For Rural Development: Targeting Lagging Areas In Lithuania", *Research papers*, Number 20, January, 2010.