

Journal of Economics and Business

Putra, Adi, Alamsyah, Zulkifli, Kamal, Haryadi, and Syafri, Mohammad. (2019), Comparative Analysis of Regional Economic Growth Before and After the Village Fund Program (Case Study of the Buffer Zone of Kerinci Seblat National Park Kerinci, Indonesia). In: *Journal of Economics and Business*, Vol.2, No.2, 247-260.

ISSN 2615-3726

DOI: 10.31014/aior.1992.02.02.84

The online version of this article can be found at:
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Published by:
The Asian Institute of Research

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Comparative Analysis of Regional Economic Growth Before and After the Village Fund Program (Case Study of the Buffer Zone of Kerinci Seblat National Park Kerinci, Indonesia)

Adi Putra¹, Zulkifli Alamsyah², Haryadi Kamal³, Mohammad Syafri⁴

¹ Economic Development Program STIE Muhammadiyah Jambi, Indonesia. E-mail: putra1020057502@gmail.com

^{2,3,4} Postgraduate Jambi University, Indonesia

Abstract

The availability of productive land is one of the important factors of production to encourage regional economic growth. Kerinci in Jambi Province of Indonesia is one of the regions that experienced this problem, because of the total area of Kerinci Regency covering an area of 3328.14 km², there is 59.8 percent of Kerinci Seblat National Park area which must be protected and 40.1 percent that can be managed as productive land and residential areas. Planning, strategies and optimizing the management of village funds are a form of solution to resolve these problems. Good management of village funds is expected to be able to encourage an increase in village income and regional economic growth. This paper also examines the comparative regional income, GDRP growth rate, Human Development Index, Total Poor Population and Open Unemployment Rate, especially in the buffer areas of Kerinci Seblat National Park in Kerinci, Jambi Province before and after the village fund program.

Keywords: Regional Original Income, GRDP Growth Rate, Human Development Index, Number of Poor Population and Open Unemployment Rate

1. Introduction

Regional development is an integral part of national development which is carried out based on the principle of regional autonomy, where the central government has given broad authority to the regions to be more free and flexible in determining the direction of development in their own regions in accordance with the potential, conditions, and aspirations that develop in the community. Enactment Number. 32 of 2004 concerning Regional Government, also referred to as the Regional Autonomy Law was formed with the aim that the implementation of regional government related to the implementation of regional autonomy must be truly carried out in a tangible and responsible manner.

Regional development with the principle of autonomy is a systematic and continuous effort to create conditions that can provide various legitimate development alternatives for achieving the aspirations of every citizen. Anwar,

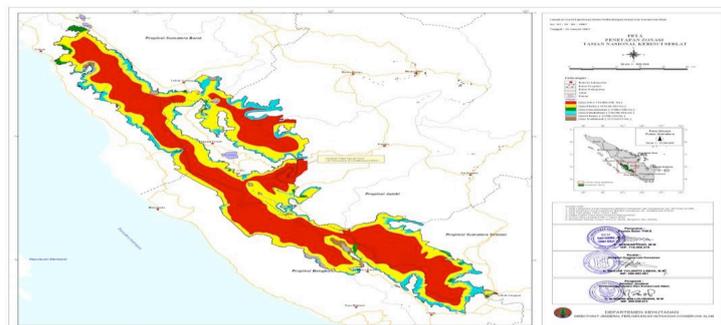
(2005) argues that regional development is carried out to achieve development goals that cover aspects of growth, equity, and sustainability which are related to the socio-economic aspects of the region.

Regional development has also undergone an evolution of change, ranging from development strategies that emphasize economic growth, then growth and employment opportunities, growth and equity, emphasis on basic needs, growth and the environment, and sustainable development. In case, every development activity must have a relationship with social, economic, cultural and environmental activities. It means that there is a construction activity that will be sacrificed and must be suffered by a community group as a consequence of such an activity, either it is a negative or positive form called externality.

One form of regional development activity that has a high externality and occurs at this time is the link between optimization of regional management, especially in areas where the area is largely included in protected areas or natural resource conservation areas. One form of regional development phenomena related to the existence of the conservation area is the existence of the Kerinci Seblat National Park and the development of the Kerinci Regency in Jambi Province.

Kerinci Seblat National Park (TNKS) was established based on Minister of Agriculture Decree Number.736 /Mentan /X/1982 then was strengthened based on Decree of the Minister of Forestry and Plantation No. 901 / kpts-II / 1999 as a conservation area. This area was also inaugurated by the UNESCO World Heritage Committee as a world natural heritage site in 2004. The TNKS area with an area of 1,484,500 hectares is located in 4 provinces, in Indonesia, that is Jambi, West Sumatra, South Sumatra, and Bengkulu Province, with Sketch zoning area as shown in 1 figure below.

Figure 1. Zoning sketch of Kerinci Seblat National Park in Four Provinces in Sumatra



Source: Appendix Director Decree General PHKA No. 07 / IV-KK / 2007

From the total area of the TNKS in the Jambi Province, an area of 635,185 hectares covers the area of Kerinci Regency 271,795 hectares (43%), Merangin District 268,980 hectares (42%), and Bungo Regency covering 94,410 hectares (15%). From the total area of Kerinci Regency covering an area of 3328.14 km², there are approximately 1990.89 km² (59.8%) constituting the area of KSNP and 1337.15 km² (40.1%) which is used for residential and productive land for agriculture and plantation.

The limitation of productive land for regional development is a major problem for improving the welfare of the community, especially those in rural areas. The Ministry of Agriculture of the Republic of Indonesia in 2017 states that there is only 33 percent of Indonesia's territory that can be used for agriculture, the remaining 67 percent is protected forest areas. The extent of the TNKS area will greatly affect the pattern of regional development and the income of the surrounding community. Therefore, it can affect the economic growth of the Kerinci Regency region. Regional development requires production factors in the form of productive land, but the productive areas are still extensive, they are included in the TNKS protected forest area.

In addition to economic phenomena, the management of Kerinci Seblat National parks is not free from problems and social complications with particular communities living in buffer zones such as the emergence of overlapping and multilayered land regulations between customary land laws. These social complications will result in the destruction of forests and the destruction of biodiversity. Kausar, 2010 suggests that stakeholders involved in social conflicts between communities and conservation areas, and forms of conflict themselves include: *First*, conflicts between global/international interests and Indonesia; *Second*, conflict between the state and the people; *Third*, conflict between the Central and Regional Governments; *Fourth*, conflicts between the Government and the People.

To avoid a greater conflict between the community and conservation areas and to preserve the environment, it is very important for the relevant parties, especially the Central, Provincial, Regency/City Governments, and related Offices to formulate appropriate programs and policies to resolve the development problems of the region. The presence of Village Autonomy and the enactment of the Law of the Republic of Indonesia No 6 of 2014 concerning Villages is expected to be a solution especially for the Village community to solve development problems that exist in their regions, because in the Law on Villages, it also provides a foundation for the Village Government such as how to organize the government independently, how to oversee development activities and how to know the rights of the community, especially the right to obtain the equal service.

The strong commitment of the central government to support the implementation of an independent Village Government is the issuance of Government Regulation Number. 60 of 2014 concerning the Village Fund, where the Government Regulation provides an opportunity for the Village Community to organize government, carry out development, organize community development and empower the Community Village. Effective Village Fund Management is also expected to be able to encourage the emergence of new Innovations and Creativity in village development so that the role of the Village Community can be put forward and returned as part of the community's right to improve their welfare.

From the explanation above, the writer is very interested in investigating (1) How is the regional economic growth before and after the Village Fund program, especially in areas that have limited productive land? 2) What are factors that can influence regional economic growth before and after the Village Fund program in areas that have limited productive land? Therefore, this research is entitled "Comparative analysis of regional economic growth before and after the Village Fund Program" (*Study in the buffer zone of Kerinci Seblat National Park in Kerinci District, Jambi-Indonesia*)

2. Theoretical Concept

2.1. Regional Development Concept.

There are several approaches and theories of development in which these theories contain a variety of social approaches that attempt to address the problem of backwardness. One form of regional development theory is uneven growth developed by Hirschman and Myrdal. The theory suggests that the development of a region is the process of formulating and implementing development goals on a supra-urban scale, where regional development is basically carried out by using natural resources optimally through local economic development in basic economic activities that occur in a region. Moreover, a region cannot develop if there is a balance, so imbalances must occur. Investment planting is not possible in every sector in an area equally, but it must be done in leading sectors which are expected to attract progress in other sectors.

Perroux which is famous for the growth polar theory also states that growth does not appear in various regions at the same time, but growth only occurs in a few places which are growth centers (poles) with different intensities (Perroux, 1988 in Mudrajat, 2002). Furthermore (Kuznets in Todaro, 2000) suggests that, at the initial stages of growth, income distribution tends to deteriorate, but in the next stage it will improve.

Indeed the development theory is closely related to development strategies, namely changes in the structure of the economy and social institutions which are sought to find consistent solutions to the problems faced, one of which is the issue of regional development, where broadly regional development is defined as an effort to formulate and

apply the framework theory into economic policies and development programs in which consider aspects of the region by integrating social and environmental aspects towards achieving optimal and sustainable welfare (Nugroho and Dahuri, 2004).

In an effort to encourage regional development, an important factor is the strength of technology supported by quality human resources and research. Sukirno, (2013) explained that in the new theory of regional growth stated that an important factor in regional development is the power of technology (as an endogenous factor) and innovation as the dominant factor in regional growth (to increase productivity). High technology and innovation supported by quality human resources and research are requirements to increase regional growth. Included in the scope of the new theory is the inclusion of non-economic variables such as the following Macroeconomic Model: Regional Output = (K, L, Q, Tr, T, So), they are K (Capital / Capital / Investment), L (Labor), Q Land (resources), Tr (transportation), T (Technology) and So (Social Politics).

2.2. Village Funds and Local Revenue

Enactment No. 6 of 2014 has provided authority for villages to regulate and manage their needs, where the Village Government is given full authority to develop and set priorities for the use of it and for village development and empowerment of rural communities. Furthermore, the Government Regulation of the Republic of Indonesia No 60 the Year 2014, more specifically explains that Village Funds are sourced from the State Revenue and Expenditure Budget and will be transferred through the Regency/City Regional Revenue and Expenditure Budget, then allocated to each Village entitled to receive them in accordance with applicable regulations.

The Village Fund is part of Regional Original Income which is one of the sources of funding for development funding in the region that must be encouraged to optimize its use to increase regional income as a manifestation of the principle of decentralization. The Village Fund aims to provide flexibility to the regions and to manage village funding in the implementation of regional autonomy so that the greater the funding of development in the area of regional income also increases. So that it can provide maximum contribution to regional economic growth.

The rights, authority, and obligations that are given to the regions regarding the management of development funds are also in line with the rural development targets set out in the 2015-2019 RPJMN, where the use of Village Funds is directed at supporting the alleviation of underdeveloped villages in order to realize village independence. The use of the Village Fund is basically the right of the Village Government in accordance with the authority and priority of the needs of the local village community while continuing to prioritize the principle of justice and achievement of the village development goals annually.

2.3. The Concept of Village Funds, Economic Growth, and Community Welfare

Village income sources are not only come from Village Funds but also from Village Fund Allocation, Social Assistance and Village Original Revenue. Various village income sources would make the rotating funds in the village increase every year if it was managed properly.

The economic growth of the village is measured by the output or income level of the village community as seen from the rate of GDRP growth in each region. Tarigan, (2005) states that the economic growth of the village is the overall income increase of the community in a region as seen from the increase in value added that occurs in the region. Regional income calculations are initially made at current prices, but in order to see accruals from one period to the next, they must be expressed in real values or constant prices. Regional income also describes remuneration for production factors received by regions from available production factors such as land, capital, labor, and technology, which can also roughly describe prosperity in the area.

Growth rate Economic growth is the development of activities in the economy which causes the goods, services and prosperity increase. The process of economic progress of an area is aimed at using the level of increase in Gross Regional Domestic Product, the higher the GRDP in an area, the greater the potential source of regional revenue (Nuraini, 2017)

The success of economic development is not only seen from its growth but must be followed by an increase in the welfare of its people. If not, it can cause gaps and inequality of life in the community. In Indonesia, the concept of well-being has long been recognized where social welfare has existed in the Indonesian constitutional system contained in Article 33 of the 1945 Constitution concerning the economic system and article 34 concerning the state's concern for the weak (poor and neglected children) and social security systems. This means that social welfare is actually a platform for the economic system and social system in Indonesia (Swasono, 2004).

Enactment No 11 of 2009, states that community welfare is a condition of fulfilling the material, spiritual, and social needs of citizens in order to live properly and be able to develop themselves so that they can carry out their social functions. Wijaya, (2005) argues that community welfare is closely related to the extent of community participation in development. Community participation can be done in the form of authorization, delegation of authority or the provision of lower-level autonomy while the core of empowerment is how efforts to generate existing capabilities to achieve goals through growth, motivation, initiative, creativity, appreciation, and recognition. The Central Bureau of Statistics, stated that the measure of community welfare that is widely used by developed countries (OECD), consists of 11 indicators, namely: 1) Housing; 2) income; 3) work; 4) community; 5) education; 6) environment; 7) civic engagement; 8) health; 9) life satisfaction (life satisfaction); 10) security/safety; and 11) work-life balance.

Village Fund Management is expected to encourage improvement in community welfare, where Village Fund is also very important to measure the extent of its contribution to increasing income, health, and community education because the management of Village Funds that are good and in accordance with the potential of each village, will lead to superiority called one village one product, so that the acceleration of development in the village becomes faster. Furthermore, the Village Fund is able to encourage community development, community empowerment, increase economic growth and reduce poverty. It is caused from low living standards directly affect income, health, education, moral life, and a sense of self-esteem which are also indicators of the Human Development Index.

2.4. The Concept of Village Funds and Availability of Employment

One of the priorities of the Village Fund is the development and empowerment of village communities. Therefore, the Village Fund whose source is from the National Budget is not only prioritized for village infrastructure development but also for the empowerment of the village community. Sumpeno, (2011) explains that empowerment is an effort made by elements from outside the order of an order so that the order is able to develop an independent equivalent. Empowerment is also an effort that is intended so that an order can achieve a condition that allows it to develop itself. The Village Fund Program is an empowerment program for Village Communities that is tailored to the needs of the community itself. One of the program priorities set by the village government is to encourage the community to be more productive and creative and innovative in creating new jobs.

High population growth and limited availability of employment will result in an increase in unemployment which also encourages an increase in crime rates so that it will become a problem of development and the burden of the regional government. With the existence of a Village Fund and well managed by the Village Community, it is hoped that the Village Fund can encourage the emergence of new efforts that will contribute to job creation, reduce poverty, increase people's prosperity and reduce the imbalance in rural development.

2.5. Village Funds and Environmental Conservation

Policy instruments to solve economic and social problems in the management of conservation areas are very important, especially to overcome conflicts in conservation forest areas in accordance with the root causes. Krott in Purwawangsa, (2017) suggests several types of instruments that are often used in forestry policy analysis, including regulatory instruments, administrative instruments, economic instruments and information instruments, in economic instrument policies to achieve ideal goals and development principles, namely wise in the use of goods natural resources and calculation for each expenditure that will be carried out in such a way that the benefits from the use of the last unit of cost used are greater or at least equal to the loss of benefits from other activities due to the expenditure.

In an effort to integrate the economic interests of the community with the importance of preserving the diversity of plants and their ecosystems, especially for building and managing buffer zones outside the Nature Conservation Area, the government has issued *Enactment* No. 5 of 1990 concerning Conservation of Biological Resources and their Ecosystems. The Law provides an understanding of natural conservation areas, namely areas that have the function of protecting the life support system, preserving the diversity of plants and animals, as well as the sustainable use of biological natural resources and their ecosystems. Next Government Regulation No. 25 of 2000 concerning the Authority of the Central Government and Provincial Governments as autonomous regions in environmental management has given political recognition through the transfer of authority from the Central Government to Regional Governments with one program namely increasing the role of the community in natural resource management and preservation of environmental functions.

Bismark et.al (2007) suggest that high population growth and rapid regional development outside conservation areas have a negative effect on the function of conservation areas, so structuring regional functions need to be done primarily to increase the value and opportunities of regional use in supporting regional development activities, so that it is important the existence of economic analysis relating to benefits and costs in government investment activities. In the analysis of natural resource management which is very important to be taken into account is the amount of net benefits obtained from the management of natural resources for the welfare of society as a whole regardless of who provides these resources. Benefit-cost analysis for the use of natural resources and the environment can use the Net Present Value (NPV) method, Internal Rate of Return (IRR), and Benefit Cost Ratio (B/C Ratio). Because if in investment activities we can equate additional benefits (marginal benefits) with additional costs (marginal cost), then it means the achievement of a solution to the two problems of the allocation of maximum production factors in the natural resource extraction activities.

Munawaroh, (2011) argues that the optimization of the role of conservation areas in regional economic growth is one of the mitigation efforts to reduce pressure on the National Park itself. The root of the dominant problem is that encroachment or community activities in conservation areas existed before this conservation area was established. In addition, the expansion of national parks or conservation areas is also often carried out in areas that have been opened by the community. In this context, the government overcomes the encroachment of forest areas by making the area encroached into a conservation area. On the one hand, the level of community dependence on meeting basic needs is quite high.

Ervizal, A.Z. (2011), added that the development of an integrated national park is actually a development of the concept of national park management and anticipation of the problems faced. The emergence of the concept of integration and partnership is caused by several factors, namely:

1. There is a dichotomy between conservation versus development. Conservation is considered the opposite of development because conservation is narrowly defined, namely only protection of natural resources.
2. The emergence of conflicts between local communities and conservation areas, especially in developing countries. This conflict arises because of the loss of access of local people to natural resources that are their livelihoods, as a result of the establishment of a protected area.
3. The weight of the supervision of national parks that must be borne by the area manager or the government, especially for activities that can disrupt the integrity of the area, such as settlements, cultivation, tree felling and so on. For this reason, a large amount of funds, facilities, and labor is needed, in addition to the ability, skills and dedication of the manager.

3. Research Method

The research method used in this research is descriptive and comparative method, the data that has been obtained from research can be used to understand, solve and anticipate problems. Descriptive Research and Comparative Research, Sugiyono (2014) explains, in general, research methods are interpreted as scientific ways to obtain data with specific purposes and uses, descriptive research is research conducted to determine the existence of independent variables, either one variable or more variables (variables that stand alone) without making comparisons or looking for variable relationships with each other, whereas comparative research is research that compares the state of one or more variables in two or more different samples, or two different times.

Data collection techniques used in this study are library research that is conducted to obtain secondary research data, by reviewing theories related to research topics originating from library research sources. The sources of library research can be obtained from: books, journals, magazines, results of previous studies that have been published, and other sources (internet, newspapers, etc.) that are in accordance with the research topic.

The data analysis technique used consists of four steps, namely: data collection, data processing, data presentation, and conclusion or verification. The first steps of analysis are Univariate with frequency and percentage of each variable studied which is described in the form of Combined graph in each period and region analyzed. The second analysis is by Bivariate analysis using Independent sample T-Test and Paired T Test (parametric difference test) on two pairs of data, as a different test or comparative test.

$$t = \frac{\bar{n}_1 - \bar{n}_2}{\sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2} \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

The next analysis is SLR (Simple Linear Regression) which is also one of the Statistical Methods used in production to forecast or predict the characteristics of quality and quantity. Simple Linear Regression with a semi-log model with the aim to see the difference in activity of each tested variable in the form of the Independent variable influence on the Dependent variable with the SPSS 23 Analysis Tool, with the formula:

$$\text{LogROI} = \alpha + \beta_1 \text{GDRP-GR.}$$

$$\text{LogROI} = \alpha + \beta_2 \text{HDI.}$$

$$\text{LogROI} = \alpha + \beta_3 \text{LogTPP}$$

$$\text{LogROI} = \alpha + \beta_4 \text{logOUR}$$

Where ROI (Y) as an influencing variable while (X1) GRDP Growth Rate, (X2) HDI (Human Development Index), (X3) TPP (Total Poor Population) and (X4) OUR (Open Unemployment Rate) as Variables that are affected.

4. Findings and Discussions

4.1 Average Difference Test Results (Comparative Test)

a. Independent sample t-test.

The results of the analysis of the Independent sample T-Test, to test the average difference using SPSS. 23 by testing all the independent variables tested, the values are shown in Table 1 are as follows:

Table 1. Results of analysis of Independent sample T-Test for all independent variables tested

Variable	Value	Status	Explanation
GDRP-GR.	0,030	0,030<0,05	Different
HDI	0,158	0,158>0,05	No Different
TPP	0,242	0,242>0,05	No Different
OUR	0,239	0,239>0,05	No Different

Source : results of data processing 2018.

Table one explains that from the results of the Independent statistical test sample T-Test with a significance limit value of $\alpha = 0.05$) only the GRDP growth rate variable has a value of $p < 0.05$ ($0.030 < 0.05$) which means H_a is accepted and explains there are significant differences between the independent variables studied with the dependent variable. While the variables of HDI, TPP, OUR value of $p > 0.05$, respectively 0.158, 0.242, and 0.239 means that H_a is rejected and H_o is accepted so that there is no significant difference between the independent variables and the dependent variable.

b. Paired T test.

Results of analysis of Paired T test. The test is intended for different tests or comparative tests, by comparing whether there are differences in MEAN or the average of two groups in pairs of the same subject.

Table 2. Results of Paired Samples Analysis Correlations of research variables

		N	Correlation	Sig.
ROI	Before & After	3	.987	.103
HDI	Before & After	3	.996	.060
TPP	Before & After	3	.945	.212
GDRP-GR	Before & After	3	-.995	.065
OUR	Before & After	3	.103	.934

Source: results of data processing 2018.

Correlation value between each variable such as ROI, HDI, TPP, positive value above 0.940 illustrates a very strong and positive relationship between before and after the Village Fund Program, the GDRP-GR variable value above -0.995 also describes a strong and negative relationship before and after the Village Fund Program. The variable Open Unemployment Rate (OUR) has a positive and very small value of 10.3 percent. The level of significance of the relationship of all tested variables was <0.05, and it means that the relationship of all variables was not significant at the 0.05 level.

Table 3. Results of Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)
		Mean	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
ROI	Before & After	-239953.33	19695.36	-324695.66	-155211.00	-12.18	2	.007
HDI	Before & After	-1.78	.03	-1.94	-1.62	-48.72	2	.000
TPP	Before & After	-6466.66	3101.79	-19812.59	6879.26	-2.08	2	.172
GDRP-GR	Before & After	1.18	1.03	-3.26	5.62	1.14	2	.372
OUR	Before & After	1419.00	1084.20	-3245.95	6083.95	1.30	2	.321

Source: results of data processing 2018.

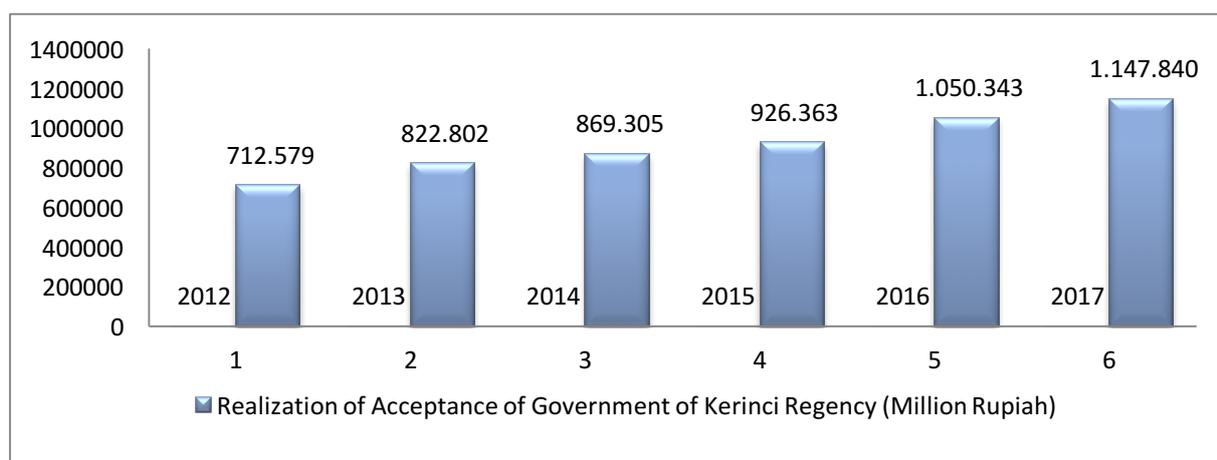
The results of the ROI and HDI analysis show Sig. (2-tailed): Probability value / p value T Paired test: The result is 0.007 and 0,000, meaning that there is a significant difference between the period before and after the Village Fund Program because the p value is > 0.05 (95% confidence). While TPP, GDRP-GR and OUR, the results are 0.172, 0.372 and 0.321 meaning that there is no significant difference between the period before and after the Village Fund Program at the 95% confidence level.

Comparative test results showed that in the period before and after the Village Fund program there were very significant differences in the ROI and HDI variables. In TPP, GDRP-GR and OUR variables, there were no significant differences in the period before and after the Village Fund program. This condition explained that in the short term the Village Fund program had not shown its contribution to community welfare and regional economic growth.

4.2 Effect of Regional Original Income on Regional Economies.

Based on data from the Jambi Provincial Statistics Office, from 2012 to 2017 the realization of the original revenue of the Kerinci Regency continued to increase from 712,579,- (million rupiahs), to become 1,147,840,- (million rupiah), with an increase of 435,261,- (million rupiah). While the average growth of Kerinci Regional Original Income the period was 10.07 percent/year. The graph of the realization of regional revenue of the Kerinci Regency government in this period is illustrated in figure 1 as follows.

Histogram 1. Realization Of Regional Revenue In Kerinci Regency, 2012-2017.



Source : BPS Statistics of Jambi Province Jambi 2018.

Histogram 1 explained that at the time before the Village Fund Program (2012-2014) the Regional Original Opinion of the Kerinci Regency had increased by an average of 10.56 percent, then in 2015-2017 after the Village Fund program, the District's Original Opinion Kerinci increased to 11.33 percent, or increased by 0.77 percent. The BPS publication showed that after the Village Fund program, the regional revenue of Kerinci Regency increased. It was caused from a portion of the regional revenue that was handed over to villages for village development.

4.3 Regional Income on the Economic Growth Rate of Kerinci

The average per capita of GRDP in Jambi Province is based on data from the Jambi Provincial Central office of Statistics from 2012 to 2017, and the highest is in Tanjung Jabung Barat Regency of Rp. 95,412 and the lowest is in Merangin district of Rp. 28,261 the average GDRP per capita of Kerinci Regency in that period was Rp. 28,767 as the second smallest after Merangin Regency.

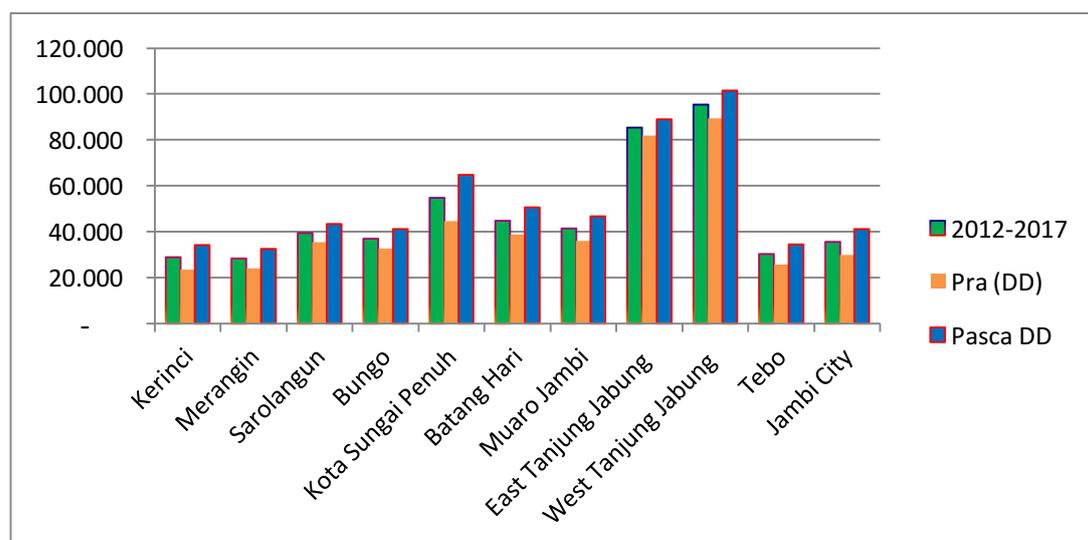
Per capita, GRDP per district in Jambi Province in (thousand rupiahs) before and after the Village Fund Program was the highest in West Tanjung Jabung Regency, the lowest before the Village Fund Program was in Kerinci District, while after the Fund Program, the lowest is in Merangin District. The average value of the regency per capita of GRDP in Jambi Province in 2012-2017 is shown in figure 2 as in the following:

Table 4. Graphs of District / City Per-Capita GRDP in Jambi Province in 2012-2017, Before the Village Fund Program and the Village Fund Program

Region	GDRP per capita on Average (thousand rupiahs)		
	2012-2017	Before (VF)	After (VF)
Kerinci	28,767	23,422	34,112
Merangin	28,261	24,059	32,463
Sarolangun	39,341	35,451	43,230
Bungo	36,784	32,553	41,015
Kota Sungai Penuh	54,689	44,657	64,720
Batang Hari	44,725	38,796	50,653
Muaro Jambi	41,255	35,908	46,601
East Tanjung Jabung	85,475	81,975	88,975
West Tanjung Jabung	95,482	89,414	101,551
Tebo	30,147	25,767	34,526
Jambi City	35,494	29,837	41,151

Source : Central office of Statistics of Jambi Province Jambi 2018.

Histogram 2. Regency/City average per-capita GRDP in Jambi Province in 2012-2017, before the Village Fund Program and already the Village Fund Program



Source: Central office of Statistics of Jambi Province Jambi 2018.

Table 4 and Histogram 2 above showed that the average per capita GRDP of Kerinci Regency before and after the Village Fund program was still very low when compared with the average per capita GRDP of regencies/cities in Jambi Province. The increase in Regional Original Income due to the Village Fund program period (2015-2018) has led to an increase in the per capita GRDP of Kerinci Regency by 45.64 Percent.

Kerinci Regency's GRDP growth rate based on ADHK in 2012-2017 is from 7.50 percent to 6.03 percent, with a fluctuating growth rate with an average of 1.14 percent/year. Kerinci Regency's GRDP-ADHK growth rate in the period 2012-2014 or before the Village Fund has increased by an average of 14.61 percent/year, but in the 2015-2017 period after the GRDP-ADHK Village Fund was disbursed by -3,06 percent/ year.

Table 5. The Effect of Regional Original Income on the Growth Rate of Kerinci Regency Gross Regional Domestic Product (GRDP-GR) in 2012-2017.

Before	After
GRDP-GR = 66,256 + 0,184ROI+ e	GRDP-GR = 32,087 - 4,270ROI+ e
Tsig = (0,734)	Tsig= (0,615)
R = 0,405	R = 0,569
R Square= 0,164	R Square= 0,323

Source : results of data processing 2018.

Table.5 explained the influence of Regional Original Income before and after the Village Fund Program on the growth rate of the Kerinci Regency. The results of the analysis showed that before and after the Village Fund Program the constant / intercept value (a) was positive at 66.256 and 32.087, this result explained that before and after the Village Fund if the Regional Income value did not change then the GRDP Growth Rate value was 66.256 and 32.087. Then the terminated coefficient (β) obtained was 0.184 and (-4.270) respectively, explaining that before the Village Fund if Regional Original Income increased by 1 percent, GRDP Growth Rate increased by 0.184 percent. After the Village Fund, Regional Original Income rises 1 Percent GRDP Growth Rate and decreased by 4,270 Percent. The significance value of T-sig (0.734 and 0.615) showed that the period before and after the Village Fund Program, the influence of Regional Income on GRDP Growth Rate in Kerinci Regency was not significant at the 95% confidence level with ($\alpha = 5\%$).

The R value of (0.405 and 0.569) showed there was no high relationship between Regional Income and Kerinci GRDP Growth Rate, while the R square value (0.614 and 0.323) explained that before the Village Fund Program

the influence of Regional Original Income on Kerinci Regency GRDP Growth Rate was 16.4. The percentage is smaller than after the disbursement of the Village Fund with a value of 32.3 percent, an increase of 16.90 percent.

Increased development funds with the Village Fund program are expected to encourage changes in the development transition from Top Up (top-down) to Bottom Up so that the role of rural communities becomes greater as the spearhead of national development. Good Village Fund management starts from the planning, implementation, and accountability stages while at the same time encourages the improvement of the quality of human resources as well as production factor productivity, so that various economic potentials in the countryside will grow well, and boost regional economic growth. According to Samsubar Saleh (2003), Regional Original Income is a component that greatly determines the success or failure of the independence of the Regency/City government in the context of current regional autonomy. One component that is very much considered in determining the level of regional independence in the framework of regional autonomy is the Regional Revenue sector.

4.4 The Effect of Regional Income on Human Development Index in Kerinci

Human Development Index in Kerinci Regency from 2012-2017 continued to increase from 66.94 percent to 69.99 percent with an average growth of 0.90 percent/year, Growth in Kerinci Regency Human Development Index in the period 2012-2014 or before the existence of the Village Fund experienced was in average of 0.97 percent/year, but in the period 2015-2017 after the disbursement of Village Funds Human Development Index, it was increased by 0.94 percent/year.

Table 6. The Effect of Regional Income on Human Development Index in Kerinci

Before	After
HDI = -13,414 + 13,731ROI+ e	HDI = -18,499 + 14,615ROI+ e
Tsig = (0,102)	Tsig= (0,114)
R = 0,987	R = 0,984
R Square= 0,974	R Square= 0,968

Source : results of data processing 2018.

Table 6 explained how the Regional Original Income influenced before and after the Village Fund program for the Kerinci Regency Human Development Indeks. The results of the analysis showed that before and after the Village Fund Program, the value of the terminated coefficient (β) obtained at 13.731 and 14.615 explained that before Village Fund if Regional Original Income increased by 1 percent then Human Development Index increased by 13.731 percent, while after Village Fund when Regional Original Income increased 1 Percent Human Development Index has increased by 14,615. The significance value of T-sig (0.102 and 0.114) showed that the period before and after the Village Fund Program the influence of Regional Original Income on the Human Development Index of Kerinci Regency was not significant at the 95% confidence level with ($\alpha = 5\%$).

The R value of (0.987 and 0.984) showed there was high relationship between Regional Income and Human Development Index in Kerinci Regency, while the R square value (0.974 and 0.968) explained that before the Village Fund Program, the influence of Regional Original Income on Kerinci Regency Human Development Index was 97.4 Percent, it was greater than after the Village Fund program with a value of 96.8 percent.

The results of the study explained that before and after the Village Fund Program, the Regional Income increased and so did the number of the Human Development Index. This result was in accordance with the statement (Suparwati in Fadli. Z 2018) that Regional Income was the most important funding source to support regional financing capabilities in implementing regional autonomy. In this case, Regional Income as a measurement of own regional income is highly expected as a source of funding for improving service to the community so that the quality of the population of a region in terms of life expectancy, intellectuality, and decent living standards also increases.

4.5 The Effect of PAD on the Total Poor Population in Kerinci

Poor Population Growth in Kerinci Regency from 2012-2017 fluctuated with an average growth of 0.13 percent/year, Growth in the Number of Poor People of Kerinci Regency in the period 2012-2014 or before the Village Fund had decreased by an average of 1.37 percent/year, but in the period 2015-2017 after the disbursement of Village Funds, the Number of Poor Populations decreased by 3.99 percent/year.

Table 7. The Effect of Regional Original Income on Total Poor Population in Kerinci Regency.

Before	After
TPP = 6,165 – 0,167ROI+ e	TPP = 7,331 – 3,44ROI+ e
Tsig = (0,469)	Tsig= (0,293)
R = 0,741	R = 0,896
R Square= 0,549	R Square= 0,803

Source : results of data processing 2018.

The results of the above analysis showed that before and after the Village Fund Program the growth in the number of poor people in Kerinci Regency continued to increase (positive), then the terminated coefficient value (β) of each period was (-0.167) and (-3.44) explained that before and after the Village Fund Program, if the Regional Income increased by 1 percent, the number of poor people decreased from 0.167 percent to 3.44 percent. The significance value of T-sig (0.469 and 0.293) showed that the effect of Regional Income on Total Poor Population was not significant at the 95% confidence level with ($\alpha = 5\%$), while the relationship between the two variables was also better from 0.741 to 0.896. The R-square value of (0.974 and 0.968) explained that before the Village Fund Program the influence of Regional Income on Total Poor Population in Kerinci District was 54.9 percent. It was lower than after the Village Fund Program with a value of 80.3 percent.

This result explained that before and after the Village Fund Program, if the Regional Income increased, the Number of Poor Population decreased, this was in accordance with the function and role of Regional Income, where Regional Income was expected to be able to increase regional capital expenditure budget so that the income was more beneficial to finance expenditures, such as personnel expenditures and daily life of regional government so as to encourage people's welfare and reduce poverty.

4.6 The Effect of Regional Income on the Open Unemployment Rate in Kerinci

The open unemployment rate of Kerinci Regency from 2012-2017 had decreased from 5,163 people to 4,678 people, while its growth had a growth rate of 2.9 percent/year, the Kerinci Regency unemployment rate in the period 2012-2014 or before the existence of Village Funds experienced an increase from 5,163 people to 8,465 people, with an average growth of 12.86 percent/year. Then after the Village Fund was disbursed in the 2015-2017 period of unemployment experienced a decline from 4,891 people to 4,678 people declined in growth of 3.56 percent/year.

Table. 8 The Effect of Regional Income on Open Unemployment Rate in Kerinci

Before	After
OUR = -1,544 + 0,903ROI+ e	OUR = 5,659 – 0,328ROI+ e
Tsig = (0,777)	Tsig= (0,162)
R = 0,344	R = 0,968
R Square= 0,118	R Square= 0,937

Source : results of data processing 2018.

Table 8 The results of the analysis of the effect of Regional Original Income on the Kerinci Regency Open Unemployment Rate before and after the Village Fund Program obtained the terminated coefficient value (β) of (0.903) and (-0,328) respectively. This value explained that before Village Fund if Locally-generated revenue increased 1 percent, then Open Unemployment Rate increased 0.903 percent, while after the Village Fund

Program, if Locally-generated revenue increased 1 Percent, Open Unemployment Rate experienced a decrease of 0.328 percent. Whereas the significance value of T-sig (0.777 and 0.162), it had been shown in the two periods, the effect of Regional Original Income on the Open Unemployment Rate in Kerinci Regency was not significant at the 95% confidence level with ($\alpha = 5\%$).

The value of R for (0.344 and 0.968) showed that before the existence of Village Fund, the relationship between Regional Original Income and Open Unemployment Rate was low, whereas, after the existence of Village Fund, the relationship between Locally-generated revenue and Open Unemployment Rate was very high, as well as the level of influence of both.

These results explained that before the Village Fund program, if the Regional Original Income increased, the Open Unemployment Rate also increased, but after the Village Fund Program if the Regional Original Income increased, Open Unemployment Rate decreased. This condition was consistent with the research of Ni Luh Gede Cintya Adriani (2015) who argued that increasing regional income and balancing funds encourage an increase in indirect expenditure which was a budget for the welfare of society. Regional Income was managed appropriately and could be appropriately allocated by the government so that allocations through indirect expenditure would reduce the unemployment rate.

5. Conclusion

From the above findings and discussions, it could be concluded in the following.

1. Before and after the existence of the village fund, Kerinci regency increased by an average of 10.56 percent to 11.33 percent. The comparative analysis resulted in Independent sample t-test and the Paired T test. It illustrated that before and after the Village Fund program, there were very significant differences in the Locally-generated revenue and Human Development Index variables. Meanwhile, in the Total Poor Population, GRDP Growth Rate and in Open Unemployment Rate variables, there was no significant difference. This condition explained that in the short term, the Village Fund Program had not shown a large contribution to community welfare and economic growth in the Kerinci regency.
2. Original Regional Opinion Influence on GRDP Growth Rate showed that before and after Village Fund, if Locally-generated revenue increased, GRDP Growth Rate increased, with a very small increase not even significant at 95% confidence level with ($\alpha = 5\%$), while the effect of Locally-generated revenue on Human Development Index showed that before and after the existence of Village Fund, if the Locally-generated revenue increased, the Human Development Index also increased. The influence of Locally-generated revenue on the Total Poor Population of Kerinci Regency obtained values (β) of (-0.167) and (-3.44) explaining that before and after Village Fund if Locally-generated revenue increased, Total Poor Population decreased, while the effect of Locally-generated revenue on Open Unemployment Rate explained before Village Fund if Locally-generated revenue increased then Open Unemployment Rate conditions increased but after Village Fund if the Locally-generated revenue increased Open Unemployment Rate decreased. This result explained that the Village Fund program is very useful especially for regions with limited production factors because it is in a conservation area.

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