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Research Article

Analysis of the Elasticity of Village Funds and Special Autonomy Funds and Additional Infrastructure Funds on Poverty and Human Development Index and Human Development Index in Papua

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ABSTRACT

This article analyzes the elasticity of village funds, Special Autonomy Funds, and Additional Infrastructure Funds to poverty, Human Development Index (HDI), and Village Development Index (IDM) in Tanah Papua. Regional development in Indonesia, especially in Papua, is a major concern of the government in order to improve people's welfare and reduce development gaps between regions. Village funds, Special Autonomy Funds, and Additional Infrastructure Funds play an important role in accelerating the development of disadvantaged regions, with a focus on improving the economy, quality of life, and poverty reduction. This study explores the relationship between the allocation of these funds and improvements in the HDI and IDM, both of which are important indicators in assessing the success of development. The results of the analysis show that the elasticity of the use of village funds and Special Autonomy Funds has a significant influence on poverty reduction and improving the quality of life of the community, although there are challenges in distribution and management that need to be overcome to maximize its impact. This article also discusses the importance of synergy between local governments, communities, and the private sector to create inclusive and sustainable development in Papua.

Keywords: Village Funds, Special Autonomy Funds, Additional Infrastructure Funds, Poverty, HDI, IDM, Regional Development, Papua

INTRODUCTION

Regional development has become an increasingly important activity for national and regional governments around the world since the 1960s and 1970s. In parallel, the context of regional development has been significantly reshaped through holistic changes in economic activity patterns and has become a challenging element of development (Pike, et al, 2006). According to the OECD (2020) regional development has a broad meaning, but can be seen as a general effort to improve welfare and living standards in all types of areas, from cities to rural areas, and increase their contribution to national performance and a more inclusive and resilient society. Meanwhile, Arsyad (1999) more specifically states that regional development is a process in which local governments and their communities manage existing resources and form a partnership pattern between local governments and the private sector to create new jobs and stimulate the development of economic activities (economic growth) in the region. However, according to Bærenholdt (2009), regional development is not only measured in income and employment in a particular area, but can also show more general dynamics such as innovation and creativity in the area of focus. Where according to Mahi (2016) the results of regional development are marked by the occurrence of equitable development in all parts of the region and sectors. And one of the goals of regional development is to minimize the emergence of development gaps and welfare disparities between regions.

Regional development is basically related to the level and change during a certain period of time a set of variables, such as production, population, labor force, labor capital ratio, and factor *returns* in the region are clearly defined. The growth rate of regions is usually measured according to output or income level (Hasan and Azis, 2018). In practice, regional development in Indonesia uses a variety of approaches, this is none other than considering several

reasons, both due to the influence of theoretical developments, regional development models, socio-economic order, government systems, and the prevailing development administration paradigm (Budiman, 2021). As can be seen in the development of the region in the Land of Papua so far.

The Land of Papua referred to here is an aggregation of 2 provinces on the island of Papua, namely Papua Province and West Papua Province, especially for the period 2004-2022. Then in 2022 until now it has bloomed into 6 provinces, namely (1) Papua Province; (2) Central Papua Province; (3) Mountainous Papua Province, (4) South Papua Province; (5) West Papua Province; and (6) Southwest Papua Province.

The process of regional development in the Land of Papua has been carried out for approximately 60 years since the time of President Soekarno, to President Joko Widodo, which can be briefly divided into 7 perspectives of the presidential period, namely: (1) the integration of Irian Jaya during the time of President Soekarno in the period 1945-1967; (2) the defense and security of Irian Jaya during the 1967-1998 period of President Soeharto; (3) dialogue on Irian Jaya and regional expansion during the 1998-1999 period of President B.J. Habibie; (4) Papuan reform during the 1999-2001 period of President Abdurahman Wahid; (5) Papua Special Autonomy volume I and regional expansion during the 2001-2004 period of President Megawati; (6) regional expansion, acceleration of development and affirmation of Papua during the 2004-2014 period of President Susilo Bambang Yudhoyono; and (7) Special Autonomy of Papua II, regional expansion, acceleration of development and affirmation of Papua during the 2014-present period of President Joko Widodo.

Many programs and activities for the development of the Papua region have been carried out during the 60 years, this can be seen in the implementation of the Repelita (Five-Year Development Plan) during the New Order era, to the RPJM (Medium-Term Development Plan) until now. However, the intensity and acceleration of the development of the Papua region began to be felt during the time of presidents Susilo Bambang Yudhoyono and Joko Widodo, which was shown by the issuance of various policies to accelerate the development of Papua such as: (1) Presidential Instruction Number 5 of 2007 concerning the Acceleration of Development of Papua Province and West Papua Province; (2) Presidential Decree No. 65 of 2011 concerning the Acceleration of Development of Papua Province and West Papua Province; (3) Presidential Regulation No. 66 of 2011 concerning the Development Acceleration Unit of Papua Province and West Papua Province; (4) Presidential Instruction Number 9 of 2017 on the Acceleration of Welfare Development in Papua Province and West Papua Province; (5) Presidential Instruction Number 9 of 2020 on the Acceleration of Welfare Development in Papua Province and West Papua Province; and the latest is (6) Presidential Regulation Number 24 of 2023 concerning the Master Plan for the Acceleration of Papuan Development for 2022-2041.

Although the policy of accelerating Papua's development has been carried out very intensely, the portrait of Papua still does not seem to have moved from the old profile, such as being labeled as a backward area, the poorest population, and the lowest quality of human resources. These three things can be observed in the tendency of indicators of the Developing Village Index (IDM), the percentage of the poor population, and the Human Development Index (HDI).

Since the IDM was published by the Ministry of Villages, PDT and Transmigration in 2016 to 2022, Papua Province has always been in the status of Very Disadvantaged with a score between 0.4143-0.4647 points. Meanwhile, West Papua Province is labeled as Disadvantaged with a score of 0.4597-0.5184 points. Ironically, Mimika Regency, which is located in Papua Province, Bintuni Bay and Sorong in West Papua Province, all three are areas rich in non-oil and gas and oil and gas mines in Papua, until 2022 it turns out that it is still in the status of Disadvantaged, with a score between 0.4978-0.5254 points.

The same thing can also be seen in the tendency of the quality of human development represented by HDI. Since the HDI was rolled out in Indonesia in the 1990s (experiencing a change in the calculation method in 2010), until 2022 the HDI value of Papua and West Papua Provinces has remained in the lowest position in Indonesia. In 2022, the HDI value of Papua Province is 61.39 points, and West Papua Province is 65.89 points. Meanwhile, for Indonesia it is 72.91 points (BPS, 2023). And again, although Papua has been awarded for being able to accelerate its human development better in Indonesia, it has not been able to raise Papua's HDI so that it is no longer categorized as the lowest.

The development of the Papua region will be increasingly challenging in the future with increasingly open economic conditions, massive technological disruption, high demographic bonuses, increasing urbanization flows, increasingly

dynamic security and public order conditions, and so on. If this challenge is not able to be faced properly, the condition of Papua in the future, especially in the Golden Year of Indonesia 2045, will still lag behind other regions in Indonesia. Therefore, on the occasion of the Professor's Oration, the phenomenon of the results of rural development in the Land of Papua will be discussed, as well as a contextual model for accelerating the development of rural areas to improve the welfare of OAPs (Indigenous Papuans) in the future, especially in the long-term development period.

LITERATURE REVIEW

1.1. Rural Area Development

Local governments in the Land of Papua, and the central government realize that pockets of poverty have been more prevalent in rural areas. Therefore, poverty alleviation in rural areas has always been a priority in short- and medium-term development. According to Maulana, *et* al (2015), poverty in rural areas occurs due to economic problems, the location of remote areas, and limited available socio-economic facilities and infrastructure. This results in limited public access to acquire abilities and skills, including appropriate information and technology. If this situation is allowed to continue, urbanization will become unstoppable, and it is not impossible that in the next few years there will be a change in the composition of Indonesia's population, where the number of urban residents is greater than the population living in villages.

Friedman and Allonso (1978) stated that regional development is a strategy to utilize and combine existing internal (strengths and weaknesses) and external factors (opportunities and challenges) as potentials and opportunities that can be utilized to increase regional production of goods and services which is a function of the needs both internally and externally of the region. These internal factors are in the form of natural resources, human resources and technological resources, while external factors can be in the form of opportunities and threats that arise along with their interactions with other regions.

The goal of regional development according to Triutomo (1999) contains 2 (two) interrelated sides, namely the social and economic sides. In other words, regional development is an effort to provide welfare and improve the quality of life of the community, for example creating production centers, providing convenient infrastructure and logistics services and so on.

The approach to regional development in Indonesia can generally be divided into two, namely *the top-down* and *butt-up* approaches (Yunelimeta. 2008). The regional development system in Indonesia before regional autonomy was implemented on *a top-down* basis, both the policy of expanding administrative areas and the formation of economic zones. The concept of spread *effect* or *trickle down effect* became the basis of hope at that time. However, development planning and application with *a top-down* (centralistic) paradigm cannot make changes, especially for regional equity. The hope *of a trickle down effect* did not occur, in fact, what was realized was a *backwash effect*. Finally, this *top-down* approach began to be evaluated and gradually transformed into a *bottom-up system* since the promulgation of the policy of decentralization and regional autonomy in 1999. Regional development opportunities are non-structural, based on local initiatives and managed without having an administrative structural attachment to the hierarchy above them.

One of the *buttom up* approaches that has been intensively implemented to date is the development of rural areas. According to Putra (2021), in general, the development of rural areas aims to advance rural areas and their communities, support food self-sufficiency, increase food production, provide basic facilities and infrastructure to the community, provide industrial raw materials, increase community participation, and develop regional relations between rural and urban areas that are mutually supportive and beneficial. The main objectives of rural development include: (1) the achievement of strong economic conditions of the people in rural areas, capable of growing independently and sustainably, (2) the achievement of economic linkages in rural and urban areas, (3) the realization of prosperous rural communities, and (4) the overcoming of poverty problems in rural areas.

Muta'ali (2016) said that villages and rural areas have a lot of potential, especially the potential for natural resources that can be used as capital in improving the economy if used optimally. The development of rural areas has long been pursued through various forms of policies and programs that have the goal of utilizing all potential resources optimally so that they can improve the welfare of village communities. In its development, the development of rural areas that have been carried out since the beginning of Regional Autonomy until now has not given satisfactory results

in improving the welfare of rural communities. One of them can be seen in the results of the development of rural areas in the Land of Papua. Although various development policy programs have been implemented so far, such as PNPM-Mandiri Respect (2007-2014), Prospect (2015-2021), Prosppek-Special Autonomy Papua (2021), Green Economy Growth (2019-2021), Determination or Integrated Village Economic Transformation (2022-present), the condition of villages and their communities in the Land of Papua is still lagging behind, poverty and inequality are still very high, and the availability of village facilities and infrastructure is still insufficient.

1.2.Agro-Based Cluster

At this time, Papuan agricultural commodities are always under pressure from outside. Various agricultural products from outside the region (outside the province and Indonesia) arrive and meet the local market. Even found in various supermarkets or *large malls* in Jayapura City and other areas in Papua, local fruits must compete with products from outside, such as bananas, mangoes, rambutan, oranges, and so on. Including vegetables that should be able to be supplied all from the Papua region itself, but are not able to compete with vegetables from outside. Likewise with rice, although the production of Merauke Regency is able to meet the needs of rice in Papua Province, the invasion of rice from the islands of Sulawesi and Java with various qualities and variants cannot be contained. Papuan local rice must compete with foreign products. For livestock commodities, although the available development potential is very large, such as in Merauke and Jayapura, the fulfillment of meat and egg needs is still very dependent on external supply (Papua Provincial Bappeda, 2016).

Efforts to increase the competitiveness of the agricultural sector must be an important agenda and a priority to be implemented over the next 20 years (long-term) to realize an Independent, Fair and Prosperous Papua which is the Vision of RIPPP (Master Plan for the Acceleration of Papua Development 2022-2041). Therefore, the framework for agricultural development in the Land of Papua must be based on the idea of making it a *leading sector* and competitive. Where this can be realized by developing an Agro-based Cluster. According to Siregar (2006), the development of agricultural clusters (*Agro-based Cluster*) is one of the models for the development of agribusiness-based industries that are able to increase the competitiveness of the agricultural sector.

Agro-based cluster is a form of approach in the form of centralizing agribusiness activities in a certain location. This effort is carried out to increase efficiency and effectiveness by reducing the cost component from downstream to upstream in the production of a commodity. The form of centralization carried out is where in an area there are agribusiness subsystems from the upstream agribusiness subsystem, the farming subsystem, the downstream agribusiness subsystem, namely agroindustry, supporting services and marketing. This centralization is expected to reduce costs, especially transportation costs between subsystems that are focused on certain commodities (Siregar, 2006).

The concept of cluster was popularized by Porter (1998), according to him cluster is a geographical concentration of companies and institutions that are interconnected in a certain sector. They are connected because of togetherness and complementing each other. Clusters encourage industries to compete with each other. In addition to industry, the cluster also includes the government and industry that provide service support such as training, education, information, research and technology support. In his argument, Porter (1998) argues that the superior industry in a region/country is not from its own success but is the success of the group with the relationship between companies and supporting institutions. A group of companies and institutions in an industry in an area is called an industrial cluster. In the industrial cluster, the companies involved are not only large and medium-sized companies, but also small companies. The existence of industrial clusters will stimulate the occurrence of new businesses, new jobs, and new entrepreneurs who are able to turn around new loans. Based on the description above, it can be believed that the cluster approach is an effective approach for industrial development. While Schmitz (1997) uses the definition, a cluster is a group of companies that gather in a certain geographical area, which produce products of the same type/same or that are interrelated. Meanwhile, the Ministry of Industry (PP. No. 28/2008), a cluster is defined as a group of core industries that are concentrated regionally and globally that are interconnected or interact socially dynamically, both with related industries, supporting industries and supporting services, economic infrastructure and related institutions in increasing efficiency, creating assets collectively and encouraging the creation of innovation so as to create a competitive advantage.

According to Rosenfeld (1997) in Hanim, *et al* (2012), the success of a cluster is determined by several factors, namely (1) specialization, (2) research and development capacity, (3) knowledge and skills, (4) human resource development,

(5) cooperation networks and social capital, (6) proximity to suppliers, (7) availability of capital, (8) entrepreneurial spirit, and (9) leadership and shared vision.

The discourse on agricultural clusters is very diverse, but referring to the concept above, business units and institutions in agricultural clusters are expected to play a mutually supportive function/relationship for economic development in the area. Thus, in the agricultural cluster development area, existing investments can function efficiently, appropriately and are able to encourage maximum local and national economic growth.

Considering that most of the agricultural commodities in the Land of Papua are exported (between islands or between countries) in the form of primary products, it is hoped that with *the Agro-Based Cluster a* strong agricultural product processing industry will be built with the support of other agribusiness subsystems so that the added value of a product can be increased and strengthen the competitiveness of local Papuan commodities so that the transformation of the Papuan economy from *an agricultural-based economy* becoming an *agro-industry-based economy* can be gradually implemented (Bappeda Papua Province, 2016).

Sari, *et al* (2017) stated that the cluster success indicators consist of 16 indicators, namely market access, networking and cooperation, access to information (market and technology), strong social capital, proximity to suppliers, strong innovation base, adequate infrastructure, specialization, competence, leadership and shared vision, access to financial resources, access to business support services, competition, strong entrepreneurial culture, access to specialist services, and the presence of large companies. The pillars of a sustainable cluster consist of 4 (four) things, namely business infrastructure, cluster human resources, cluster institutions, and the role of the government.

1.3.Tentative Model of Agro-Contextual Rural Area Development

The effort to find a contextual agro-cluster-based rural area development model is realized to be a new, complicated and complex challenge because in addition to changing the perspective of rural development which is always marginalized in development planning in the Land of Papua, it also involves the need to pay attention to the welfare of OAPs who are dominant in villages or rural areas.

The definition is known that *Agro-based cluster* is a form of approach in the form of centralizing agribusiness activities in a certain location. So if it is associated with rural areas, this means that this agriculture-based cluster is a form of centralization carried out, where in a rural area there are agribusiness subsystems from the upstream agribusiness subsystem, the farming subsystem, the downstream agribusiness subsystem, and supporting services. *Agro-based Cluster* is carried out to increase efficiency and effectiveness by reducing cost components and increasing added value from downstream to upstream in the production of a commodity.

In the development of the *agro-based cluster* model this time, an innovative diction is added, namely *Contextual* or contextual. According to KBBI (Great Dictionary of Indonesian), contextual is defined as something related to context. What is meant by context is the condition in which a situation occurs. Contextual meaning can arise due to a situation, place, environment or time. To more easily capture the contextual meaning, we can use linguistic examples, for example the word "Head". The word head, if placed in different situations and conditions, will also have a different meaning. Examples: (1) Headache; (2) Principal; and (3) Stubbornness. These three have different meanings and meanings. Headache is a pain or pain in the head that can appear gradually or suddenly. Then the Principal is the person who leads the school. Meanwhile, stubbornness is the nature of people who do not want to follow the advice of others.

Linguistics has directed us how to interpret the word contketual. And this was developed by Andry (2021) when introducing the Contextual Model of Regional Development Planning for Papua. According to Andry (2021), there are three basic principles of contextual development for Papua, namely ecological zones, local wisdom, and socio-culture. Ecological Zone, which consists of: (a) Ecology and livelihood systems: (b) Work Ethics, and (c) Local Environment. Local Wisdom, which consists of: (a) Land Tenure System, and (b) Religion and Belief System. Finally, Socio-Culture, consisting of: (a) Social Structure; (b) Cultural Values, and (c) Political System.

If associated with *agro-based clusters*, Andry (2021) also explained that contextual models in agriculture need to be prepared by adjusting each customary area. For example, coastal areas with fishery richness but in mountainous areas there are no sea fish, so a form of planning is needed for the provision of food by building integration between the two different geographical forms. This form of integration aims to prevent Papua from receiving food supplies from outside the region and uphold the food security of the local community.

Moving on to the concepts of thinking above, *agro-based* contextual clusters can be interpreted as agricultural-based clusters developed based on ecological zones, local wisdom and socio-cultural communities in the Land of Papua. In order for the implementation of *contextual agro-based clusters* to run optimally and effectively for the development of rural areas in the Land of Papua, it is necessary to lay a foundation framework that will direct the implementation of this model in the future, so that the goals of rural area development in the Land of Papua to reduce poverty, improve the quality of human resources of village communities, and improve village development performance can be achieved to the maximum.

Agro-Contextual Production. One of the characteristics that should be noted in developing *contextual agro-based clusters* in the Land of Papua is commodities based on local products. Because by making local products as a superior commodity, the development of rural areas becomes easier and more optimal. Although there is no standard provision regarding how long the business takes, at least the processing of commodities that have been carried out for 10-20 years by the local population can be used as an indication of local products. If referring to a concept like this, it can be said that commodities/businesses such as crops, gardens, fisheries, livestock, handicrafts and MSMEs have become local products carried out by OAP residents in the Land of Papua. So that these commodities can be used as the main product of the development of *contextual agro-based clusters* in the Land of Papua. There are several factors that must be considered in relation to this agro-contextual production, namely: (1) regional and natural resource potential; (2) the capacity and competence of OAP as a producer; (3) quality, quantity and continuity of production; (4) capital ownership; (5) the use of technology; (6) economies of scale and added value produced; and (7) value chains.

Strengthening corporations. According to Hermanto (2022), farmer corporations are a form of farmer economic empowerment that has a strategic dimension in agricultural development. Therefore, the development of farmer corporations has become a must in agricultural development. A farmer corporation is a unit of business entities formed from, by and for farmers. Through farmer corporations, the principle of economic scale can be applied so that resource management in an agricultural area can be more optimal. This can be done by integrating the overall function of the value chain from upstream to downstream; subsystems of infrastructure, facilities and cultivation, post-harvest handling, processing, and marketing, as well as supporting services and supporting industries with agricultural cultivation as the core node. In this regard, in relation to strengthening corporations in the development of *contextual agro-based clusters* in the Land of Papua, it is necessary to pay attention to 5 (five) aspects that greatly affect it, namely: (1) institutional; (2) Funds; (3) Governance; (4) Facilities and infrastructure; and (5) Regulations.

Product Marketing. The marketing subsystem in agribusiness is the weakest point as well as the strongest point if managed well, considering that marketing is the spearhead of every business, namely being able to return capital and obtain profits. Therefore, effective and competitive marketing is needed to encourage farmers and agro-industry producers as well as related marketing institutions. Related to this, it is necessary to consider several marketing factors in *contextual agro-based clusters* in the Land of Papua, namely: (1) Promotion; (2) Digital platforms; (3) Venue and segmentation; and (4) Selling price.

Based on the framework of the foundation and contextual factors of Papua that need to be considered above, a *Contextual Agro-Based Cluster model* in the development of rural areas in the Land of Papua can be proposed as follows:

Figure 1. Contextual Agro-Based Cluster Model for Rural Area Development in Tanah Papua

RESEARCH METHODS

1.4.Thinking Framework

Local governments in the Land of Papua, which are also supported by the central government, realize that the factor of poverty in rural areas is the trigger for the high poverty rate so far, as empirical evidence has been presented previously. According to Yahya and Agustina (2022), the centralization of the economy in urban areas has caused a much larger number of rural poverty compared to urban areas. Therefore, it is appropriate in the future that rural economic transformation is used as a super priority strategic program, in order to accelerate poverty reduction in the Land of Papua.

Many studies show that rural development programs can alleviate poverty, for example Rusman (2020), in his study showed that PNPM-Mandiri Rural was able to significantly reduce the poverty rate by 7.35 percent. Furthermore, Wijayanto (2012) who is more specific in researching the impact of PNPM-Mandiri Rural by focusing on the variables of women's savings and loans and road pavement. The results of the study confirmed that the allocation of PNPM-Mandiri Rural funds for women's savings and loan activities and road pavement has a significant partial and simultaneous impact on poverty alleviation in the village, where the most dominant factor is road pavement.

As for Handra (2022), who observed the impact of the Village Fund, it has been proven that the use of the Village Fund during the 2015-2019 period has an impact on poverty reduction. He said that every increase in village funds per capita by one percent was able to reduce the poverty rate by 0.002 percent. The results of the study also show that the impact of Village Funds on poverty in the 2018-2019 period is better than in the 2015-2017 period. Then a study conducted by Gusmeri, *et al* (2019), showed that the management of Village Funds in the field of development partially had a positive and significant effect on poverty, and the management of Village Funds in the field of community empowerment also had a positive and significant effect on poverty partially. It was suggested in his research that the government should better supervise the Village Fund so that it can be more on the side of the poverty alleviation process.

The results of the above studies provide an affirmation of the importance of increasing the role of the government in designing strategies and programs for rural poverty alleviation, especially with designs and models based on community empowerment programs. The government's lack of optimality in managing *pro-poor* programs, ranging from planning, budgeting, implementation, to monitoring and evaluation, causes budgeted funds to be ineffective in accelerating poverty reduction. For example, in the Land of Papua, as the results have shown, although statistically the management of the Village Fund and the Special Autonomy Fund-+DTI has a significant impact on poverty, the effectiveness value is very low. This condition ultimately causes (1) the level of welfare and quality of life of rural communities in the Land of Papua is still low, (2) the availability of physical and non-physical facilities and infrastructure in rural areas is still inadequate, and (3) the helplessness of rural communities in the Land of Papua due to economic and non-economic factors.

ANALYSIS AND DISCUSSION

1.5.Descriptive Empirical Analysis

The basic development capital that Papua has to catch up so far is actually very many and diverse, most of which have not been utilized optimally. The basic capital will be a strength and opportunity to realize that Papua can be superior to other regions for the next 20 years (at least equal), including a large population with a productive age that exceeds the non-productive age (demographic bonus), as well as a wealth of very diverse Natural Resources (SDA) with abundant numbers.

- The total area of Papua Island is 785,753 km², of which the Indonesian part covers an area of 412,214.62 Km² (52.46%), and the territory of Papua New Guinea covers an area of 373,538.38 Km².
- Papua is also the area with the largest protected forest area in Indonesia. Papua Island is home to 15,000-20,000 species of plants (55% endemic), 602 species of birds (52% endemic), 125 species of mammals (58% endemic), and 223 species of reptiles (35% endemic).
- The island of Papua is surrounded by 3 waters that store abundant fisheries and marine wealth, namely WPP-NRI (State Fisheries Management Area of the Republic of Indonesia), namely WPP-711 (Pacific Ocean), WPP-715 (Maluku Sea), and WPP-718 (Arafura Sea).
- Papua is rich in minerals, oil and natural gas. Papua is located in the "Ring of Fire" region, which is the meeting of the Indo-Australian Plate and the Pacific Plate, so Papua is one of the richest mineral-rich zones in the world. There are two types of mining activities in Papua, namely small-scale mining and large-scale mining (Dwiyana 2001, in Kartikasari, *et al*, 2012).
- Based on the Ministry of Home Affairs Number 100.1.1-6117 of 2022, the Land of Papua consists of 5,104 islands, 40 districts, 2 cities, 788 sub-districts, 205 sub-districts, 7,156 villages, with a total population of 5,518,052 people.
- In 2022, the island of Papua is divided into 6 regions, namely Papua Province, West Papua Province, Mountainous Papua Province, South Papua Province, South Papua Province, and Southwest Papua Province.

For regional development, the role of natural resources is very important, both as a provider of raw materials for economic development and as a support for the life system. It can be said that natural resources are the backbone of a region that can contribute to increasing community income and the regional economy, where one of the most important roles is agricultural natural resources which in a broad sense includes food crops, plantations, livestock, forestry, and fisheries. This also includes agricultural services, which include agriculture-based tourism services.

The economic management of agricultural natural resources has the nature of dispersion (spreading) and inclusive (even), so that the agricultural sector has a very important role for the development and development of the region in the Land of Papua, including: (1) producing products to meet the primary needs of humans; (2) easily absorb a lot of labor; (3) supporting the welfare of rural communities; (4) the most strategic sector to reduce poverty; (5) fulfilling food security and sovereignty; (6) the basic skills of the Papuan nation that have been passed down from generation to generation; (7) the state of nature in Papua; (8) have *high backward* and *forward linkage*; (9) can contribute considerable regional income to Papua; and (10) have bright prospects related to Papua's important role in the national and international economy.

The experience of China and India in fighting poverty through rural development can be used as an empirical lesson. According to *the book The Dragon and The Elephant: Agricultural and Rural Reforms in China and India*, between 1978 and 2005, China's per capita income surpassed India so quickly that it doubled that of India in 2005. This transformation is associated with a 'quarter century of reform'. After 1978, China is considered to have reformed its agriculture by switching to a *household responsibility system* in land use, liberalizing agricultural prices, and creating a free market for agricultural products. As a result, China's rural poverty fell from 33 to 11 percent between 1978 and 1984. On the other hand, even after a series of reform measures that began in 1991, India recorded a record in reducing rural poverty (Gulati and Shenggen, 2007).

If this empirical experience is passed down to a smaller area such as Papua, then it is not naïve to hypothesize that the development of rural areas can overcome various development problems that have existed in the Land of Papua so far, one of which is poverty. Several studies have also proven how the influence of rural regional development,

both through economic, social and infrastructure variables, is very significant on poverty reduction (Achjar and Panennungi, 2010; Terefe, 2012; Yahya and Agustin, 2022; Farida *et al*, 2022).

Local governments in the Land of Papua have long been aware of this, and have also implemented various rural development policies for the past 2 decades. For example, in Papua Province in 2007 we know that there is a RESPEK Program (Village Development Strategic Plan). Then to align with the National Community Empowerment Program or PNPM, in 2008 it changed its name to PNPM-Mandiri RESPEK until 2014. Furthermore, in the 2015-2020 period, it was renamed PROSPEK (Village Economic Development Strategic Program). Meanwhile, in West Papua Province, there is PROSPPEK-OTSUS or the Strategic Program for Improving Village Development - Special Autonomy, which has been rolled out since 2020. The village empowerment programs implemented in the Land of Papua basically aim to improve governance and village development to prosper the indigenous Papuans, with the main source of the budget being the Papuan Special Autonomy Fund.

Empirical facts show that the rural poverty rate in the Land of Papua throughout the implementation of these village programs is still the highest in Indonesia. And when compared to the poverty that occurs in cities, there is a very deep gap, where the poverty rate in rural areas is always much higher than in urban areas. Trends during 2007-2022 can visualize this.

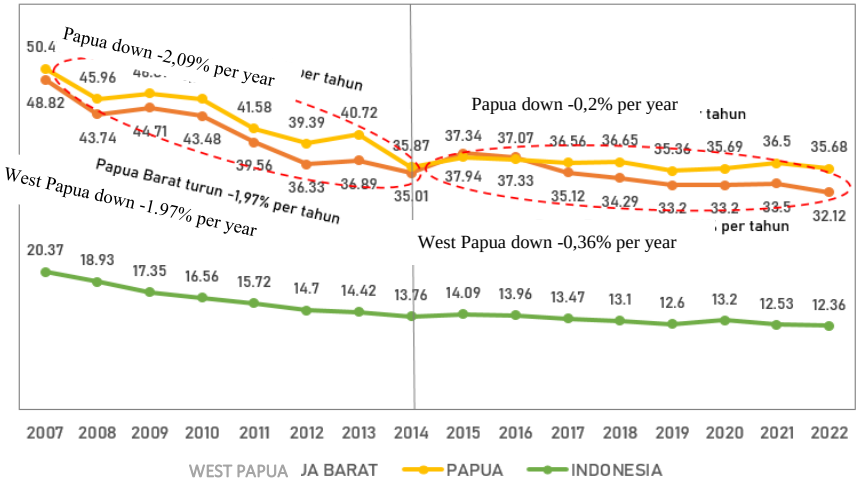

Figure 2. Development of Rural and Urban Poverty in Tanah Papua During the Period 2007-2022 (in %)

Source : BPS RI, 2023 (data processed)

1.5.1. Poverty Disparity Between Rural and Urban Areas

Figure 3 shows that during the period 2007-2014 poverty reduction in rural areas was seen to be faster than in the period 2014-2022. In 2007-2014, the acceleration of rural poverty in Papua Province was -2.09% per year, while in West Papua Province it was -1.97% per year. Meanwhile, in the 2014-2022 period, the rate dimmed to -0.02% per year in Papua Province, and -0.36% per year in West Papua Province. It was recorded that at the end of 2022 the rural poverty rate in Papua Province was 35.68%, and for West Papua Province it was 32.12%. The rural poverty in Indonesia was 12.36% for the same year. The average difference in the percentage of poverty in the Land of Papua with the total of Indonesia in the period 2007-2022 is around 17.54% per year.

The figure is far different from urban poverty in the Land of Papua. For the period 2007-2022, the poverty rate tends to look better than Indonesia's total, because every year it seems lower than Indonesia's, (see Figure 1.b). The average reached -3.2% per year lower.

The disparity between rural and urban poverty looks very striking in the numbers. As visualized in Figure 1.d, it is clear that the average poverty gap between the two regions in the Land of Papua reaches 33.33% per year, which is higher in rural areas.

In addition to absolute terms, a high gap also occurs in relative poverty which is represented by the Gini Ratio inequality in rural and urban areas. As shown in Figures 2.a and 2.b below, both in West Papua Province and Papua Province, the inequality of interpersonal income in rural areas is always much higher than in urban areas. For example, in 2022, the difference in the Gini Ratio between the two regions in West Papua Province will reach 0.134 points. Meanwhile, in Papua Province it was 0.125 points. It can be said that the average gap in the Gini Ratio between rural and urban areas as a whole in the Land of Papua was 0.061 points every year during the period 2007-2020.

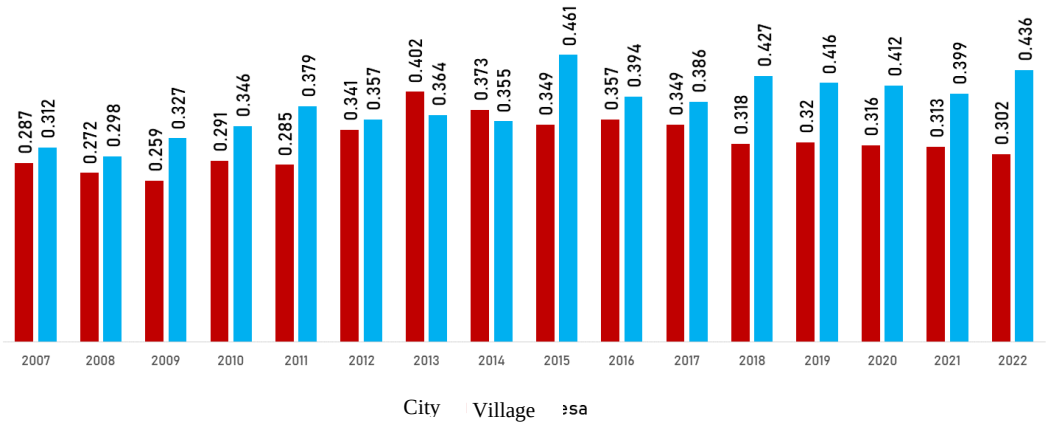

Figure 3. Development of Income Inequality in Rural and Urban Areas in the Land of Papua During the Period 2007-2022

Source : BPS RI, 2023 (data processed)

1.5.2. West Papua Province

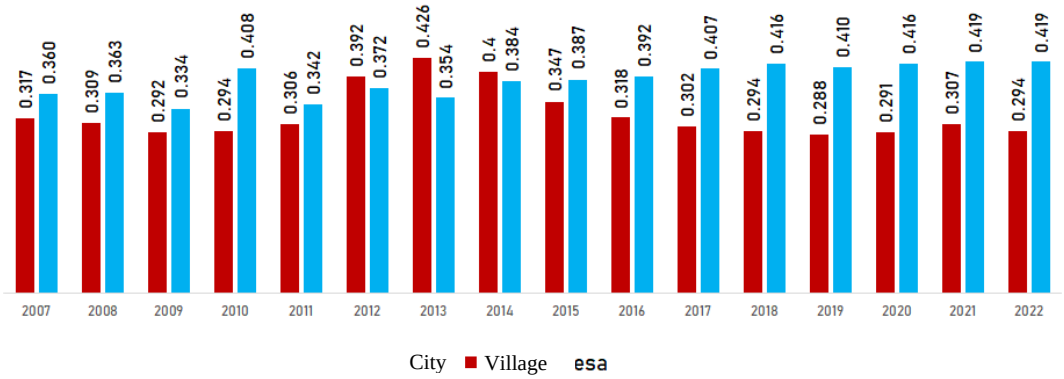

Figure 4. Development of Income Inequality in Rural and Urban Areas in the Land of Papua During the 2007-2022 Period.

Source : BPS RI, 2023 (data processed)

1.5.3. Papua Province

Based on the trend of absolute and relative poverty rates above, it can be generalized that throughout 2007-2022 the development conditions of rural areas in the Land of Papua are still far behind urban areas, and also below rural Indonesia as a whole. Various development acceleration programs that have been implemented during this period, including the Special Autonomy Fund programs, do not seem to be able to lift the rural economy to be on par with urban areas, as well as with the average rural Indonesia.

In fact, we all know that since 2015 the Government of Indonesia has disbursed Village Funds (DD) in accordance with the mandate of Law Number 6 of 2014 concerning Villages to all villages in Indonesia, including in the Land of Papua. In the 2017-2022 period, for example, the total Village Funds that have been rolled out to the Land of Papua are Rp. 38.15 trillion. The most in Papua Province, which is Rp. 29.46 trillion. Meanwhile, in West Papua Province it is Rp. 8.69 trillion.

The total Village Fund, which is managed by more than 38 trillion rupiah mentioned above, has not been able to catch up with rural development in the Land of Papua so far. Rural poverty is still the highest in Indonesia, as is the condition of interpersonal income inequality (see previous discussion). This indicates that the use of Village Funds is not so effective in accelerating the reduction of rural poverty in the Land of Papua.

In addition to the Village Fund, another source of funds that can also be disbursed to rural areas in the Land of Papua is the Papua Special Autonomy Fund. Referring to the trend of managing the Special Autonomy + DTI Fund in all districts/cities during 2017-2022, it is indicated that the total Special Autonomy + DTI Fund in the Land of Papua (outside the province) is Rp. 46.39 trillion, with details of the total regency/city in Papua Province of Rp. 30.82 trillion, and the total regency/city in West Papua Province of Rp. 15.57 trillion.

One of the objectives of the management of Village Funds and Special Autonomy Funds (RESPEK, PROSPECTS, and PROSPPEK) is the development of villages or villages. It is hoped that through the management of these funds, village governance, the availability of village facilities and infrastructure, the empowerment of village communities, and so on will all improve. Where to measure this we can use one of the development indexes, namely the Developing Village Index abbreviated as IDM, which was issued by the Ministry of Villages, Development of Disadvantaged Regions, and Transmigration of the Republic of Indonesia (Kemendes PDTT).

In accordance with Permendes PDTT Number 2 of 2016, IDM is a composite index consisting of several single indices: (1) Social Resilience Index (IKS); (2) Economic Resilience Index (IKE); and (3) Environmental Resilience Index (IKL). In each single index, there are several constituent variables with various indicators, which will basically accumulate the classification of villages with the status of progress and independence, namely: (1) Independent Village or Intermediate Village is a village that has a Developing Village Index greater than (>) of 0.8155; (2) Advanced Village or Pre-Intermediate Village is a Village that has a Developing Village Index less than and equal to (≤) 0.8155 and greater than (>) than 0.7072; (3) Developing Village or Intermediate Village is a village that has a Developing Village Index less than and equal to (≤) 0.7072 and greater than (>) than 0.5989; (4) Disadvantaged Villages or Pre-Intermediate Villages are villages that have a Developing Village Index less than and equal to (≤) 0.5989 and greater than (>) than 0.4907; and (5) Very Disadvantaged Villages or Primary Villages are Villages that have a Developing Village Index less or less (≤) than 0.4907.

Actually, not all villages in the Land of Papua are in a disadvantaged or very disadvantaged condition. There are also several villages that have good development performance so that they can be classified as villages with the status of Developed or Developing. As shown in Figure 5, out of a total of 5,411 villages in Papua Province, there are 0.04% with "Advanced" status and 0.76% with "Developing" status. Meanwhile, in West Papua Province, out of a total of 1,742 villages, around 0.11% have the status of "Advanced", and as many as 1.26% have the status of "Developing". Some of the villages that are categorized as Advanced status in Papua Province include Kampung Demta (Demta District, Jayapura), Holtekamp (Muara Tami District, Jayapura City), and Kurik (Kurik District, Merauke). As for West Papua, among others, Sisir Village (Central Fakfak District, Fakfak), Gag (Waigeo Islands District, Raja Ampat), and Argosigemerai (Bintuni District, Bintuni Bay).

1.6.Econometric Empirical Analysis

Moving on to the empirical analysis of the above statistics, we have found a formulation of a statistical hypothesis related to the development of rural areas in the Land of Papua if it is associated with the management of the Village Fund and Special Autonomy Fund, namely: The management of the Village Fund and the Special Autonomy Fund is less effective in developing rural areas in the Land of Papua, so that the rural conditions in the Land of Papua are still lagging behind to date.

In order to prove this statistical hypothesis, it is necessary to test the econometrics of the influence of the Village Fund and the Special Autonomy Fund on several variables that are considered to represent the development of rural areas. On this occasion, 3 (three) variables were used that were considered representative, namely: IDM (Developing Village Index), Percentage of Poverty, and HDI (Human Development Index). Although HDI is one of the best indicators to explain the development of rural areas, until now there is no single institution that has calculated and published rural HDI to date. Therefore, in the empirical analysis of econometrics here, district/city HDI is used. The use of district/city HDI as a representation of village HDI is quite basic because administratively of the 40 districts/cities in the Land of Papua consisting of 7,361 villages and villages, around 97.22% have village or village

status, meaning that almost 100% are all villages. So we can draw the conclusion that the HDI measured at the district/city level is a reflection of the rural HDI.

The use of district/city HDI as an indicator of rural HDI, we can also place district/city poverty as an indicator of rural poverty. Including the district/city IDM is an indicator of rural IDM. Based on this kind of thinking framework, the formulation of major and minor hypotheses can finally be derived in complete as follows.

- **Major Hypothesis**

  The management of Village Funds and Special Autonomy Funds has not been effective in developing rural areas in the Land of Papua, so that the rural conditions in the Land of Papua are still lagging behind to date

- **Minor hypothesis**
  1) The management of Village Funds and Special Autonomy Funds has not been effective in influencing the increase in the Developing Village Index.
  2) The management of Village Funds and Special Autonomy Funds has not been effective in influencing the improvement of the Human Development Index.
  3) The management of Village Funds and Special Autonomy Funds has not been effective in reducing poverty.

In economic models, the word effectiveness is commonly measured by elasticity (E), with the limitation that E > 1 means effective, while E < 1 means ineffective. Departing from this concept of thinking, finally it was established that the econometric model used in testing the hypothesis above is a constant elasticity model, which is derived into the form of *pooled data* (a combination of *time series* and *cross sections*), with the form of transformation as follows.

$$\text{Log IDMtk} = \text{Log a0} + \text{a1 Log DDtk} + \text{a2 Log DOtk} + \text{e1}$$

$$\text{Log IPMtk} = \text{Log bo} + \text{b1 Log DDtk} + \text{b2 Log DOtk} + \text{e2}$$

$$\text{Log MSKtk} = \text{Log co} + \text{c1 Log DDtk} + \text{c2 Log DOtk} + \text{e1}$$

where:

IDM is the Developing Village Index

HDI is the Human Development Index

MSK is the Poverty Level

DD is Village Fund

DO is Special Autonomy Fund

t is the time element to 't'

k is the element of the region to 'k'

a1, b1, c1 are the elasticity of the DD variable

a2, b2, c2 are the elasticity of the DO variable

a0, b0, c0 are intercepts

E1, E2, E3 are *disturbance errors*

Logs are logarithmic data

This constant elasticity model was formed with *a data panel* using *big data* consisting of 6 time series (2017-2022) and 41 samples of district/city areas, so that the *total observation pool* was 164 data. Complete data can be found in the appendix. After 2 tests of the data panel model, namely Chow-Test and Hausman-Test, it was finally determined that the model used was the *Fixed Effect Model* (FEM) for each variable tested, with the results one by one as follows.

Table 1. Model of Constant Elasticity of Village Funds and Special Autonomy Funds + DTI Towards Poverty Levels, HDI and IDM in the Land of Papua

Analysis Methods	Dependent	Variable	Coefficient	Std. Error	t-Statistic	Prob.
Pooled Least Squares (Fixed Effect)Time Series : 2017 2020Sample Region : 41 DistrictsTotal pool (balanced) observations: 164 *Note: Koef. Fixed Effects (Cross) not listed to shorten the rendering*	Poverty	C	3.9484	0.0998	39.5534	0.0000
		VILLAGE FUND*	-0.1078	0.0203	-5.3145	0.0000
		SPECIAL AUTONOMY FUND&GTI*	-0.0259	0.0081	-3.2175	0.0017
		R-squared 0.9942F-statistic 492.8739 (0.0000) Durbin-Watson stat 1.6406				
Pooled Least Squares (Fixed Effect)Time Series : 2017 2020Sample Region : 41 DistrictsTotal pool (balanced) observations: 164 *Note: Koef. Fixed Effects (Cross) not listed to shorten the rendering*	HDI	C	3.6661	0.0365	100.4483	0.0000
		VILLAGE FUND*	0.0688	0.0074	9.2711	0.0000
		SPECIAL AUTONOMY FUND&GTI*	0.0088	0.0029	2.9817	0.0035
		R-squared 0.9969 F-statistic 917.7773 (0.0000) Durbin-Watson stat 1.1886				
Pooled Least Squares (Fixed Effect)Time Series : 2019 2020 Sample Region : 41 DistrictsTotal pool (balanced) observations: 82 *Note: Koef. Fixed Effects (Cross) not listed to shorten the rendering*	IDM	C	-1.8032	0.4938	-3.6517	0.0008
		VILLAGE FUND*	0.2199	0.0948	2.3191	0.0257
		SPECIAL AUTONOMY FUND&GTI*	-0.0024	0.0114	-0.2081	0.8362
		R-squared 0.9888 F-statistic 81.8182 (0.0000) Durbin-Watson stat 3.9048				

* Log Data

Table 2. Model of Constant Elasticity of Village Funds and Special Autonomy Funds + DTI Towards Poverty Levels, HDI and IDM in Papua Province

Analysis Methods	Dependent	Variable	Coefficient	Std. Error	t-Statistic	Prob.
Pooled Least Squares (Fixed Effect)Time Series : 2017 2020	Poverty	C	3.6589	0.0644	56.7822	0.0000
		VILLAGE FUND*	-0.0705	0.0122	-5.7587	0.0000
		SPECIAL AUTONOMY FUND&GTI*	-0.0034	0.0061	-0.5650	0.5736

Sample Region : 29 DistrictsTotal pool (balanced) observations: 116 *Note:* *Koef. Fixed Effects (Cross) not listed to shorten the rendering*		R-squared 0.9984 F-statistic 1807.6240 (0.0000) Durbin-Watson stat 2.4683				
Pooled Least Squares (Fixed Effect)Time Series : 2017 2020 Sample Region : 29 DistrictsTotal pool (balanced) observations: 116 *Note:* *Koef. Fixed Effects (Cross) not listed to shorten the rendering*	HDI	C	3.6571	0.0440	83.1689	0.0000
		VILLAGE FUND*	0.0637	0.0083	7.6238	0.0000
		SPECIAL AUTONOMY FUND&GTI*	0.0089	0.0042	2.1440	0.0349
		R-squared 0.9972 F-statistic 1006.5280 (0.0000) Durbin-Watson stat 1.1642				
Pooled Least Squares (Fixed Effect)Time Series : 2019 2020 Sample Region : 29 DistrictsTotal pool (balanced) observations: 58 *Note:* *Koef. Fixed Effects (Cross) not listed to shorten the rendering*	IDM	C	-1.5628	0.2764	-5.6547	0.0000
		VILLAGE FUND*	0.1595	0.0529	3.0179	0.0055
		SPECIAL AUTONOMY FUND&GTI*	0.0054	0.0062	0.8635	0.3955
		R-squared 0.9980 F-statistic 440.0994 (0.0000) Durbin-Watson stat 3.8667				

* Log Data

Table 3. Model of Constant Elasticity of Village Funds and Special Autonomy Funds + DTI Towards Poverty Levels, HDI and IDM in West Papua Province

Analysis Methods	Dependent	Variable	Coefficient	Std. Error	t-Statistic	Prob.
Pooled Least Squares (Fixed Effect)Time Series : 2017 2020 Sample Region : 12 DistrictsTotal pool	Poverty	C	5.2946	0.3468	15.2684	0.0000
		VILLAGE FUND*	-0.3921	0.0793	-4.9479	0.0000
		SPECIAL AUTONOMY FUND&GTI*	-0.0318	0.0168	-1.8903	0.0673
		R-squared 0.9824 F-statistic 145.8156 (0.0000)Durbin-Watson stat 2.2612				

(balanced) observations: 48 *Note:* *Koef. Fixed Effects (Cross) not listed to shorten the rendering*						
Pooled Least Squares (Fixed Effect)Time Series : 2017 2020 Sample Region : 12 DistrictsTotal pool (balanced) observations: 48 *Note:* *Koef. Fixed Effects (Cross) not listed to shorten the rendering*	HDI	C	3.5696	0.0777	45.9518	0.0000
		VILLAGE FUND*	0.1101	0.0178	6.2023	0.0000
		SPECIAL AUTONOMY FUND&GTI*	0.0054	0.0038	1.4278	0.1625
		R-squared 0.9901 F-statistic 262.0693 (0.0000) Durbin-Watson stat 1.5203				
Pooled Least Squares (Fixed Effect)Time Series : 2019 2020 Sample Region : 12 DistrictsTotal pool (balanced) observations: 24 *Note:* *Koef. Fixed Effects (Cross) not listed to shorten the rendering*	IDM	C	-2.1427	1.7531	-1.2222	0.2496
		VILLAGE FUND*	0.3280	0.3373	0.9725	0.3537
		SPECIAL AUTONOMY FUND&GTI*	-0.0244	0.0436	-0.5585	0.5888
		R-squared 0.9201 F-statistic 8.8600 (0.0008) Durbin-Watson stat 3.6923				

* Log Data

To shorten the presentation, the following is a recapitulation of the results of constant elasticity modeling from the Village Fund and the Special Autonomy Fund + DTI for each region.

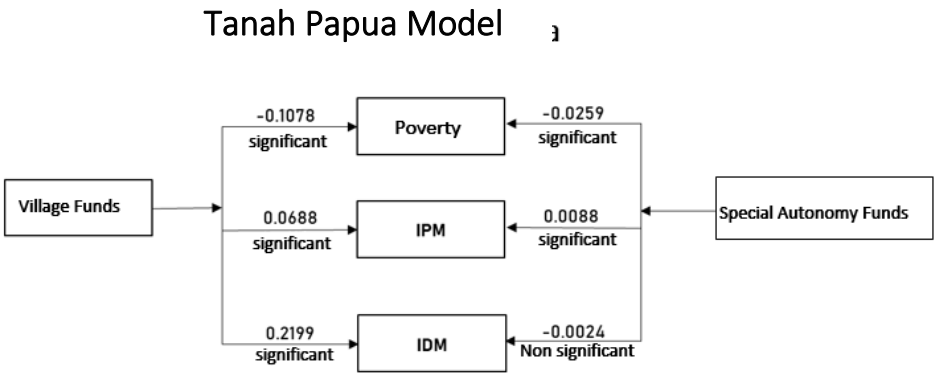

Figure 5. Recapitulation of the Model of Constant Elasticity of Village Funds and Special Autonomy Funds + DTI Towards Poverty, HDI and IDM in the Land of Papua.

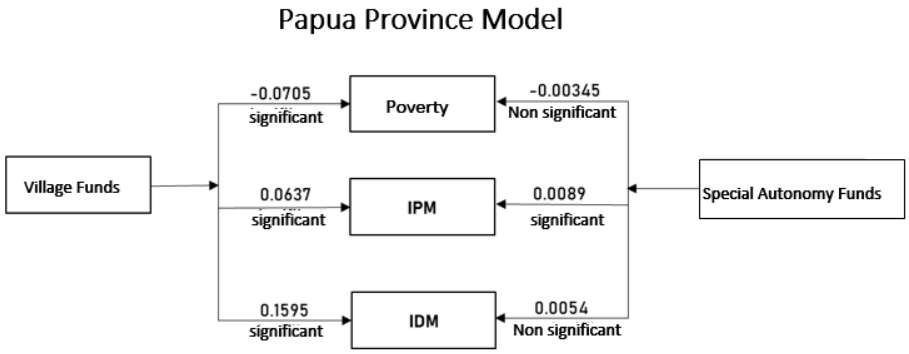

Figure 6. Recapitulation of the Constant Elasticity Model of Village Funds and Special Autonomy Funds + DTI Towards Poverty, HDI and IDM in Papua Province.

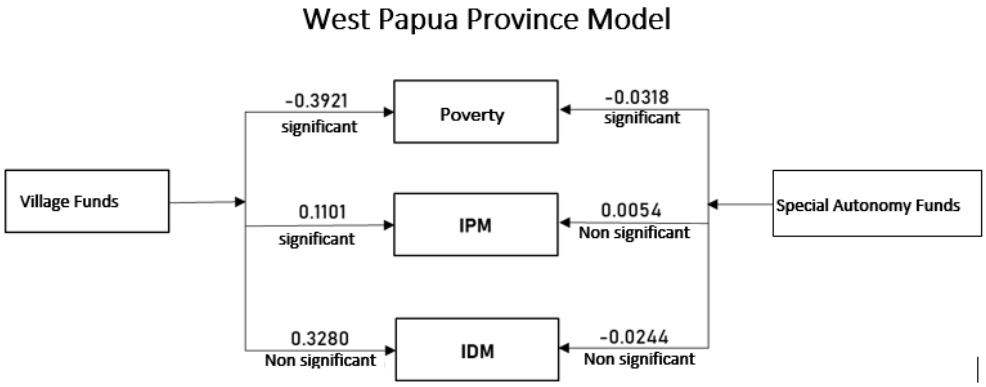

Figure 7. Recapitulation of the Constant Elasticity Model of Village Funds and Special Autonomy Funds + DTI Towards Poverty, HDI and IDM in West Papua Province.

1.7.Analysis of the Elasticity Model of Rural Area Development in the Land of Papua

The utilization of Village Funds and Special Autonomy Funds + DTI can be said to have a significant impact on increasing HDI and reducing poverty in rural areas, which is indicated by the p-value of each independent variable (Village Fund and Special Autonomy Fund + DTI) smaller than 0.10 (see Table 1). Meanwhile, for IDM, only the Village Fund is significant, while for the Special Autonomy + DTI Fund, the influence is not significant.

Although the two sources of funds are declared significant, all elasticity values are less than 1. For the Village Fund variable it is only -0.1078 to poverty, which means that every 1% increase in the Village Fund is only able to reduce poverty by -0.1078%. The Special Autonomy + DTI Fund can only reduce poverty by -0.0259% for the same injection value. Referring to these two elasticity figures, it can be generalized that the management of the Village Fund and the Special Autonomy Fund + DTI has been less effective in accelerating the reduction of rural poverty in the Land of Papua.

The same thing is also evident in the HDI variable, the use of Village Funds and Special Autonomy Funds + DTI is indicated to be less effective in accelerating the increase in HDI in the Land of Papua, which is shown by an elasticity value of less than 1, where the elasticity of the Village Fund to HDI only reaches 0.0688, while the Special Autonomy Fund + DTI is 0.0088. In the IDM variable, because the Special Autonomy + DTI Fund does not have a significant influence, it can be stated that the implementation of PROSPECT and Special Autonomy Proposals in the Land of Papua does not have an impact on the performance of rural development, even though the total Special Autonomy and DTI Funds disbursed during 2017-2022 to districts/cities in the Land of Papua are very large, reaching Rp. 46.39 trillion (see Figure 3).

1.8. Analysis of the Elasticity Model of Rural Area Development in Papua Province

If this elasticity model is only observed in Papua Province, it is illustrated that the Village Fund has a significant impact on poverty reduction, increase in HDI and IDM. The indication is shown by the p-value of each elasticity coefficient in each dependent variable all less than 0.10 (see Table 2). However, this is not the case for the Special Autonomy + DTI Fund, the modeling results show that this variable only has a significant impact on the increase in HDI, while the reduction in poverty and the increase in IDM are not significant. This shows that the management of the Village Fund is better than the Special Autonomy + DTI Fund in terms of developing rural areas in Papua Province. However, the level of effectiveness of the Village Fund on the performance of rural development is not satisfactory, because the elasticity value is still less than 1. For example, in the poverty variable, with an elasticity value of -0.0705, it indicates that every 1% increase in the Village Fund is only able to reduce poverty in Papua Province by -0.0705%, which means that the output is smaller than the input. The same condition is also seen in the HDI and IDM variables, the elasticity of the Village Fund is less than 1.

1.9.Analysis of the Elasticity Model of Rural Area Development in West Papua Province

The condition is quite concerning when we analyze the model in West Papua Province. The results of the elasticity model test show that the Special Autonomy + DTI Fund does not have a significant impact on the acceleration of HDI and IDM increase in West Papua Province, because the p-value of the elasticity coefficient is seen to be greater than 0.10 (see Table 3). With results like this, it can be generalized that the management of the Special Autonomy + DTI Fund has not been able to accelerate the development of rural areas in West Papua Province so far, especially for the performance of rural development and the quality of rural human resources. However, for the poverty level, there is a significant indication, but with an elasticity smaller than 1, which means that it is still not effective in accelerating poverty reduction.

In contrast to the Village Fund, the impact on accelerating poverty reduction and increasing HDI is indicated to be significant. However, its effectiveness is still very low, which is characterized by an elasticity coefficient value less than 1. In the poverty variable, the elasticity is -0.3921. As for the HDI variable, it is 0.1101.

Ironically, the use of Village Funds in West Papua Province did not have a significant impact on village development performance. This condition is illustrated by the significance value of the p-value of the elasticity coefficient to the IDM greater than 0.10. Referring to this result, it can be generalized that the Village Fund in West Papua Province has not been managed properly so far, so it does not have an impact on rural development. Based on all the results of the constant elasticity model test above, it is evident that the management of the Village Fund and Special Autonomy Fund has not been effective in developing rural areas in the Land of Papua, so that the rural conditions in the Land of Papua are still lagging behind to date. For this reason, a super priority policy is needed to direct the use of Village Funds and Special Autonomy Funds to better develop rural areas in the Land of Papua. For this reason, on this occasion, a more constructive, innovative and effective model of rural area development for the Land of Papua was offered, namely the Contextual Agro-Based Cluster Model.

CONCLUSION AND SUGGESTION

1.10. Conclusion

The utilization of Village Funds and Special Autonomy Funds + DTI can be said to have a significant impact on increasing HDI and reducing poverty in rural areas, which is indicated by the p-value of each independent variable (Village Fund and Special Autonomy Fund + DTI) smaller than 0.10 (see Table 1). Meanwhile, for IDM, only the Village Fund is significant, while for the Special Autonomy + DTI Fund, the influence is not significant. If this elasticity model is only observed in Papua Province, it is illustrated that the Village Fund has a significant impact on poverty reduction, increase in HDI and IDM. The results of the elasticity model test show that the Special Autonomy + DTI Fund does not have a significant impact on the acceleration of HDI and IDM increase in West Papua Province, because the p-value of the elasticity coefficient is greater than 0.10. Based on all the results of the constant elasticity model test above, it is evident that the management of the Village Fund and Special Autonomy Fund has not been effective in developing rural areas in the Land of Papua, so that the rural conditions in the Land of Papua are still lagging behind to date. For this reason, a super priority policy is needed to direct the use of Village Funds and Special Autonomy Funds to better develop rural areas in the Land of Papua. For this reason, on this occasion, a more

constructive, innovative and effective model of rural area development for the Land of Papua was offered, namely the Contextual Agro-Based Cluster Model.

REFERENCES

[1] Achjar, N., and Panennungi, M.A. 2010. The Impact of Rural Infrastructure Development on Poverty Reduction in Indonesia. Economics and Finance In Indonesia, Vol. 57 (3) : pp. 339-348.

[2] Aisyah, S. 2022. Pengelolaan Pembangunan Perdesaan. Universitas Terbuka, Jakarta

[3] Andry. 2021. Model Kontekstual Perencanaan Pembangunan Daerah: Studi Kasus Provinsi Papua. Disertasi Program Pascasarjana Universitas Cenderawasih, Jayapura.

[4] Arsyad, L. 1999. Pengantar Perencanaan dan Pembangunan Ekonomi Daerah. Yogyakarta: BPFE.

[5] Bærenholdt, J. O. 2009. Regional Development and Noneconomic Factors. International Encyclopedia of Human Geography, Vol. 9 : pp. 181-186.

[6] Bappeda Provinsi Papua. 2016. Penyusunan Dokumen Pengembangan Klaster Produksi Pertanian. Kerjasama Badan Perencanaan Pembangunan Daerah Provinsi Papua Dengan Pusat Kajian Ekonomi dan Keuangan Daerah UNCEN, Jayapura.

[7] Budiman. 2021. Manajemen Pembangunan Wilayah. Peneribit FISIP UIN SGD PRESS, Jakarta.

[8] Dwiyana, A. 2001. Oil, Gas, Mining and Decision Making Process in Papua. Paper prepared in the context of Rapid Assessment of Conservation and Economy (RACE). Conservation International Indonesia, Jayapura.

[9] Farida, A., Arifuddin, M.A., Rahimi, N., dan Kamarni, N. 2022. Pengaruh Pembangunan Desa terhadap Penanggulangan Kemiskinan di Indonesia. Jurnal Samudera Ekonomi dan Bisnis, Vol. 13, No. 2 : hlm. 191-205.

[10] Fikriman. 2017. Transformasi Pertanian dan Pembangunan Perdesaan. Jurnal Agri Sains, Vol. 1 (02) : hlm. 1-12.

[11] Friedmann, J., and Allonso, W. 1978. Regional Economic Development and Planning. Mass. MIT Press, London.

[12] Gulati, A., and Shenggen, F. 2007. The Dragon and the Elephant: Agricultural and Rural Reforms in China and India Get access Arrow. John Hopkins University Press, Baltimore.

[13] Gusmeri, et al. 2019. Analisis Pengaruh Dana Desa Terhadap Penanggulangan Kemiskinan Di Kecamatan Ulee Kareng Kota Banda Aceh. Laporan Penelitian, Kerjasama Badan Perencanaan Pembangunan Daerah Dengan Fakultas Ekonomi Dan Bisnis Islam Universitas Islam Negeri (UIN) Ar-Raniry.

[14] Handra, H. 2022. Analisis Kebijakan Dampak Dana Desa Terhadap Kemiskinan, Perekonomian, Pengangguran, dan Pelayanan Publik Periode 2015-2019. Penerbit Kolaborasi Masyarakat dan Pelayanan untuk Kesejahteraan (KOMPAK), Jakarta.

[15] Hanim, W., Iriani, Y., dan Utarsih H. 2012. Pengembangan Klaster Bisnis Usaha Kecil Dan Menengah Dengan Menggunakan Analisis SWOT. Proceeding Pekan Ilmiah Dosen FEB – UKSW, Salatiga.

[16] Hasan, M., dan Azis, M. 2018. Pembangunan Ekonomi dan Pemberdayaan Masyarakat : Strategi Pembangunan Manusia dalam Perspektif Ekonomi Lokal. Diterbitkan oleh : CV. Nur Lina dan Pustaka Taman Ilmu

[17] Hermanto. 2022. Pengembangan Korporasi Petani untuk Kesejahteraan Petani. [https://news.republika.co.id /berita /qzqsuq377/pengembangan-korporasi-petani-untuk-kesejahteraan-petani]

[18] Kartikasari S.N., A.J. Marshall, B.M. Beehler. 2012. Ekologi Papua. Yayasan Pustaka Obor Indonesia dan Conservation International. Jakarta. Mahi, A. K. 2016. Pengembangan Wilayah : Teori dan Aplikasi. Penerbit Kencana, Jakarta.

[19] Maulana, M., et al. 2015. Pokok Pikiran Pembangunan Kawasan Perdesaan. Working Paper TNP2K 29 – 2015. TNP2K dan Australian AID, Jakarta.

[20] Muta'ali, L. (2016). Pengembangan Wilayah Perdesaan. Yogyakarta: Badan Penerbit Fakultas Geografi UGM

[21] OECD. 2020. Regional Development Policy. [https://www.oecd.org /regional/regionaldevelopment.htm]

[22] Pike, A., Rodríguez-Pose, A., and Tomaney, J. 2006. Local and Regional Development. This edition published in the Taylor & Francis e-Library, New York.

[23] Porter, M.E. 1998. Cluster and The New Economic of Competition. Harvards Business Review, Massachusetts.

[24] Putra, I. M. 2021. Pengembangan Wilayah. Program Studi Pengembangan Masyarakat Islam, Fakultas Dakwah Dan Komunikasi, Universitas Islam Negeri Sumatera Utara, Medan.
[25] Rusman. 2020. Evaluasi Dampak Implementasi Pnpm-Mandiri Perdesaan Terhadap Tingkat Kemiskinan Pedesaan Di Indonesia. Jurnal Bina Bangsa Ekonomika, Vol. 13 (01): hlm. 147-163.
[26] Sari, Y.R., et al. 2017. Laporan Kajian Arah Pengembangan Klaster Nasional Dalam Rangka Mendukung Pengendalian Inflasi. Bank Indonesia, Jakarta.
[27] Schmitz, H. 1999. Collective efficiency: growth path for small-scale industry. Journal of development studies, 31(9) : pp. 465-483.
[28] Siregar, H. 2006. Perspektif Model Agro-Based Cluster Menuju Peningkatan Daya Saing Industri. Makalah dalam Seminar "Meningkatkan Daya Saing Industri Indonesia: Masalah dan Tantangan" dalam rangka Pameran Produksi Indonesia, yang diselenggarakan oleh Departemen Perindustrian, Jakarta.
[29] Sugianto, F.X. 2012. Bangun Desa ala India. Media Online Gagasan Hukum. Penerbit Slamet Hariyanto & Rekan, Jakarta.
[30] Terefe, L.A. 2012. Impact of Road on Rural Poverty Evidence Form Fifteen Rural Villages in Ethiopia. A Research Paper Presented, International Institute of Social Studies, Den Haag.
[31] Triutomo, S. 2001. Pengembangan Wilayah Melalui Pembentukan Kawasan Ekonomi Terpadu dalam Tiga Pilar Pengembangan Wilayah, BPPT, Jakarta.
[32] Wijayanto, W. 2012. Pengaruh Program Nasional Pemberdayaan Masyarakat (PNPM) Mandiri Pedesaan Terhadap pengentasan kemiskinan (Studi pada Desa Ngasinan Kecamatan Jetis Kabupaten Ponorogo). Sarjana thesis, Universitas Brawijaya, Malang.
[33] Yahya, A., dan Agustina, R. E. 2022. Pembangunan Desa Dan Tingkat Kemiskinan Kabupaten Di Indonesia. Jurnal Litbang Sukowati : Media Penelitian dan Pengembangan, Vol. 6 (1) : Hlm 98-108.
[34] Yunelimeta. 2008. Pembangunan Pedesaan Dalam Konteks Agropolitan, Desentralisasi, Dan Otonomi Daerah Di Indonesia Studi Kasus Daerah Minangkabau-Sumatera Barat. Tesis Program Pasca Sarjana Magister Teknik Pembangunan Wilayah Dan Kota Universitas Diponegoro, Semarang.