Strategies for strengthening the rural economic base in stimulating the growth of Bone Bolango Regency

Iwan Mustapa*, Sumarmo, Budi Setiawan, Heny Pramoedyo

Faculty of Agriculture, Universitas Brawijaya, Malang - East Java, Indonesia

* Corresponding author's E-mail: iwanhmustaapa@yahoo.com

ABSTRACT

This study aims to formulate a model for the development of rural areas in Bone Bolango Regency, Gorontalo Province. This study was conducted using a descriptive research model built on regional economic theories with regional economic analysis measuring instruments. The locus of study was focused on rural areas in 18 sub-districts in Bone Bolango Regency. Sampling for SWOT analysis is carried out by Purposive Sampling, where respondents are selected based on criteria that are considered relevant and have the knowledge and ability to provide information about problems and research objectives. The sample that was successfully collected was 179 respondents consisting of representatives of government officials, business actors, experts (lecturers/practitioners), village governments, farmer leaders, and fishermen. Data analysis for rural economic bases using Location Quotient (LQ) and Shift Share where all rural areas are sampled. Analysis of strengthening strategies on the basis of the rural economy uses SWOT analysis tools to dissect internal and external factors. The results showed that several sectors include the agricultural, forestry, and fisheries sectors; mining and quarrying sector; the manufacturing industry sector; electricity and gas procurement sector; and the transportation and warehousing sector has a coefficient value of LQ>1 which means that the sector is the leading base sector of the Bone Bolango Regency area and is very prospect to continue to be developed. The results of the SWOT analysis found that the strategy of strengthening the economic base in the Bone Bolango patent was in an aggressive position (Quadrant 1). Strategies to strengthen the rural economic base that need to be implemented based on the position of quadrant 1 are: 1) increasing the competitiveness & productivity of a sustainable village economic base and integrated with superior commodity-based industries through business investment instruments and utilizing village development budgets based on rural typology characteristics. 2) strengthening the connectivity of rural areas with district service centers, especially mountainous and coastal areas, and 3) provision of economic facilities at the district center as a rural service center through strengthening business investment and government budgets.

Keywords: Location quotient, Rural ecosystem, Shift share, Strategy.
Article type: Research Article.

INTRODUCTION

The purpose of rural development is to realize a just and prosperous society materially and spiritually based on pancasila as a forum for the State of the Republic of Indonesia that is united sovereignly in an atmosphere of safe, serene and dynamic national life (Prayitno & Subagiyo 2018). Village development in an effort to equalize development continues to be rolled out by the central and regional governments. The gap between one region and another region is still very visible in Indonesia. The discourse of inequality between regions does not have to talk about rural and urban areas, since to date, there will still be striking differences. The balance of development needs to be continuously studied related to the conditions and suitability of needs. Yani (2017) argues that development imbalances cause rural areas to become underdeveloped. To date, the

gap between rural areas and one another is also very visible in various regions in Indonesia. The causative factors are not only in the aspect of equitable development, but many factors are suspected to trigger inequality between rural areas. Efforts to accelerate the development of rural areas are indeed motivated by the gap between rural and urban areas. Sjafrizal (2012) argues that inequality in regional development can be reduced by the development of special/certain areas into growth poles in a spreading manner. Rural development is found to be inappropriate causing *"Urban Bias"*. Lipton (1977) states that urban bias is a deviation from the correct norm and refers to the physical conditions of rural conditions that do not correspond to a real weight or fit. The efficiency and equitable allocation of resources tends to favor urban areas giving rise to greater spatial disparities in terms of regional welfare and progress. The process of impoverishment of rural areas as an "Urban Bias" phenomenon, that is, policies that systematically shift in one direction (urban) and deviate from the ideal development of urban-rural relations, especially in terms of resource allocation. The village development model in Indonesia seems to be not optimal which is influenced by the backwash effect where the absorption of village potential into areas that have developed (cities). So that, village areas will be more difficult to grow and develop. The role of the growth pole theory introduced by Francois Perroux is a growth locomotive that spreads development results and growth impacts to hinterlands through the *"Trickiling Down Effect"* mechanism. Growth at the municipal and patent level gives a backwash effect to rural areas (Ke & Feser 2010). However, empirical evidence proves the failure of the "Trickiling Down Effect" over the strategies that the government has implemented. Like the form of direct investment program, it turns out that it is spatially unable to cause "Trickiling Down Effect" and tends to be biased (Zhao 2020). Bone Bolango Regency is an area that has a variety of potentials based on regional tipology that can be moved in an effort to strengthen economic growth. Each rural area has an economic base and various supporting aspects can be formulated into a strategy to strengthen the rural economic base. Based on the economic criteria of the Building Village Index aspects of village economic facilities, regional connectivity, labor force quality, village economic base, village fiscal capability, diversification of village business products in each typology of rural areas have contributed positively to the growth of the regional center of Bone Bolango Regency (Mustapa *et al.* 2022). This can explain that the villages in Bone Bolango County are ready for further development adapted to the circumstances of the village. The potential of the agricultural, forestry, plantation, marine and other sectors that are leading commodities is expected to be further strengthened in creating a large thrust for regional growth. Economic Growth of Bone Bolango Regency in the agricultural, plantation, livestock and fishery sectors is above 38% of regional economic output (GRDP; Muslim *et al.* 2017; Molla, 2020; Mustapa *et al.* 2022). Rural development should be revisited in determining the long-term sustainability of rural development. So far, the development of rural areas in Bone Bolango regency has shown a growth impact on the region, although it has not been noticeably seen. Local governments that have disbursed a lot of budgets and programs if they need a strategy to strengthen the rural economic base that can trigger regional economic growth. The failure in the development of a region is caused by a growth strategy that has never been conceptually evaluated (Parr 1999). Especially now in the conditions of the Covid-19 pandemic, it is feared that it will be enough to hinder the development process of rural areas, where the budget is more allocated in the aspect of social protection. Ella & Andari (2018) stated that the government has not developed a development model that can be applied to villages. The purpose of this study is to formulate a rural area development model in Bone Bolango Regency that can stimulate regional growth more broadly.

MATERIALS AND METHODS

This study was conducted using a descriptive research model built on regional economic theories with regional economic analysis measuring instruments. This study was conducted to formulate a strategy to strengthen the economic base of rural areas that can trigger the growth of the Bone Bolango Regency area. The locus of this study was focused on rural areas in 18 sub-districts in Bone Bolango Regency. Analysis of strengthening strategies on the basis of the rural economy uses SWOT analysis tools to dissect internal and external factors. Sampling for SWOT analysis needs is carried out by Purposive Sampling, where respondents are selected based on criteria that are considered relevant and have the knowledge and ability to provide information about problems and research objectives. The sample that was successfully collected was 179 respondents consisting of representatives of government officials, business actors, experts (lecturers/practitioners), village governments, farmer leaders, and fishermen. Data analysis for rural economic based using LQ and Shift Share where all rural areas were taken as research samples.

RESULTS AND DISCUSSION
Location Quotient (LQ) Analysis
The results of the Location Quotient (LQ) analysis of Bone Bolango Regency show that in 2016-2021, several sectors have LQ>1 cophysific values, including the agriculture, forestry, and fisheries sectors; mining and quarrying sector; the manufacturing industry sector; electricity and gas procurement sector; and the transportation and warehousing sector (Table 1). This means that the sector is the leading base sector of the Bone Bolango Regency area and is very likely to continue to be developed to improve the economy of Bone Bolango Regency in the future. On the other hand, the determination of the leading base sector using LQ is static. This means that the sector that becomes the leading base in a given year will not necessarily become a rollout in the future. Evidently, the sector of providing accommodation and eating and drinking in 2021 will not be a leading base sector anymore in Bone Bolango Regency. Meanwhile, several sectors such as showing the value of the LQ<1 coefficient prove that the sector is a non-base sector or not a mainstay sector in the Bone Bolango Regency area in 2016-2021. Goods produced by the non-base sector cannot be exported outside the region or only consumed in the Bone Bolango Regency area. So, it needs further management, such that this subsector can develop in the coming year. Pratama (2020) stated that the average yield of the agricultural sector is the leading base of the region with an LQ value of > 1.

The agricultural sector is the basic sector in 29 provinces in Indonesia (Irham & Mulyo 2016). The base sector, namely the agricultural sector and the processing industry, exhibits a positive and significant impact on employment, while the non-basis a negative and insignificant effect (Syarifuddin 2014). Data per village obtained by the business field sector with significant growth is mainly the base sector in the village. The growth rate of the base sector in the village is in the range of 0.21% - 1,358.31% (Table 2). The villages that have significant growth are located in Suwawa district which is the parent of all sub-districts in Bone Bolango Regency. Although in 2016 there was not a single village that was the base sector.

In 2021 there was a significant increase, and almost all sectors were the base (flagship) in the village. Similarly, in Bone Raya and Bulango Timur districts, which experienced a significant growth trend of 395.78% and 123.02% respectively, over the past five years. Furthermore, villages are under threat that are experiencing a positive growth trend, including Bone, Bulango Ulu, Bulango Utara, Kabila Bone, Kabila, Pinogu, South Suwawa and Central Suwawa districts. Increasing the productivity of the regional economic base sector has an impact on the development of agropolitan areas based on rural agribusiness systems towards increasing community incomes and regional economies (Surya 2021).

Shift Share Analysis
Province / National Growth Effect
Provincial economic growth (PN) for five years (2016-2021) shows that the Agriculture, Forestry, and Fisheries sector exhibited the highest growth rate compared to other sectors in Gorontalo Province, amounting to Rp. 2,015.04 billion. These results also show that this sector in Gorontalo Province makes the largest contribution to the national economy. Furthermore, the high growth rates were found in the Transportation and Warehousing sector (IDR 527.61 billion); Construction sector (IDR. 396.05 Billion); Manufacturing Industry sector (IDR. 292,12 Billion). Overall, all sectors have positive economic growth, which proves that from all business sectors in Gorontalo Province there is the potential to increase their growth.

Proportional shift
The fastest growth of the Processing Industry sector occurred in Bone Bolango Regency. The Manufacturing Industry sector exhibited a positive proportional shift value of IDR. 91.3 billion. Meanwhile, there are 9 other sectors that displayed a positive proportional shift value, including the Agriculture, Forestry, and Fisheries sectors; Large Trade & Retail; Car & Motorcycle Repairs; Financial Services & Insurance; Educational Services; which exhibited a proportional shift value above IDR. 50 billion.

In addition, there are several sectors in Bone Bolango Regency that have slow growth indicated by the negative proportional shift value, including the Mining & Digging sector; Construction; Transportation & warehousing; Real Estate; Corporate Services; Government Administration, Defense & Compulsory Social Security; and Other Services.

Differential shift

For five years (2016-2021) the highest profit in Bone Bolango Regency was achieved in the Construction sector (IDR. 515.45 billion). Furthermore, sectors with high profits were the Transportation & Warehousing sector (IDR. 488.48 billion); Agriculture, Forestry, & Fisheries sector (IDR. 407.83 Billion); the Government Administration, Defense & Compulsory Social Security sector (IDR. 277.09 billion), and several other sectors with positive differential shift values. Thus, the sector that has a positive differential shift value in the Bone Bolango Regency area has the potential to be further developed. However, there are several sectors in Bone Bolango Regency that still have low competitiveness which is indicated by the negative differential shift value, including the Electricity & Gas Procurement sector; Water Procurement, Waste Management, Waste & Recycling; Large Trade & Retail; Car & Motorcycle Repairs; Provision of Accommodation & Drinking Meals; and the Information & Communication sector.
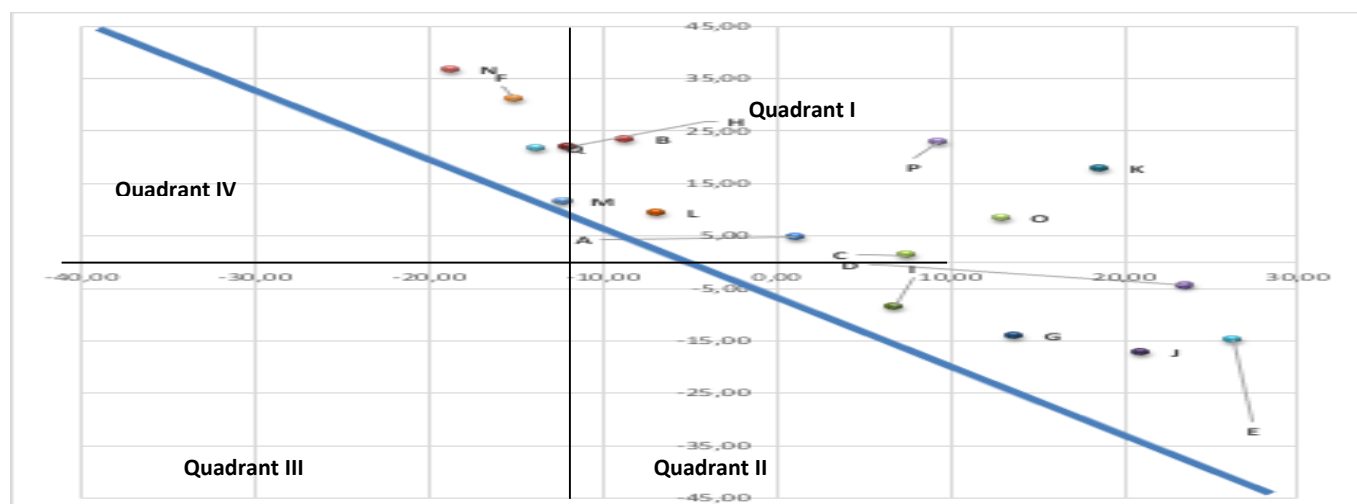

Fig. 1. Distribution of Business Field Sector Potential in Bone Bolango Regency in 2016-2021.

Quadrant I shows that the sectors in the Bone Bolango region consisting of sectors A (agriculture, forestry, fisheries), C (processing industry), K (information and communication), O (education services), P (health services, social activities) have rapid growth (leading sectors), in addition to competitiveness for these sectors are good. Pratama (2020) stated that the calculation of total shift share that triggers rapid growth in the studied area is agricultural commodities such as paddy rice, corn, cassava, soybeans and green beans.

SWOT Analysis

SWOT analysis is one of the analyses that has been widely used by corporate organizations, as well as government agencies. One of the reasons why SWOT analysis is widely used is because this analysis is quite basic in determining the best solution in helping to determine strengths and weaknesses before determining logical goals and actions (Fatimah 2016).

Identification of internal and external factors

Before formulating a strategy or model for the development of rural areas in Bone Bolango District, it is necessary to identify internal (strengths and weaknesses) and external (opportunities and threats) factors. The following is the result of identifying internal and external factors that have been equipped with weighting and scoring which are processed based on primary data. Based on Table 3, in the internal factor, the strength value of 1.98 is greater than the strength value of 0.37 in the weakness. This means that the development of rural areas in Bone Bolango regency has greater strengths than weaknesses. According to the analysis of external factors, the opportunity value of 2.02 is greater than 0.63 belonging to threat value exhibiting that the opportunity for the development of rural areas has a greater opportunity than the possible threat that will occur. Internal and external motivations should be integrated to meet village development goals (Li *et al.* 2019). Fig. 2 depicts that the rural area development model based on the analysis of internal and external factors is in Quadrant 1 (Strength - Opportunity). Quadrant 1 is interpreted as an excellent or favorable situation. The condition of the region /

environment as well as the role and capacity of the Bone Bolango District government have opportunities and strengths. So that, they can take advantage of various rural area development programs. In quadrant 1, the strategy that can be taken, is an aggressive strategy. An aggressive strategy supports local governments to continue maximizing their strength and seize existing opportunities to continue innovating regional development in the future.

Table 3. Results of external and internal environment analysis.

INTERNAL FACTORS	WEIGHT	RATING	SCORE
STRENGTH			
The growth of the economic base of the village	0.10	3.4	0.27
Village fund budget	0.12	3.8	0.34
High accessibility with district centers	0.11	3.5	0.29
Availability of district service facilities	0.11	3.7	0.31
Regional connectivity	0.11	3.6	0.30
			1.98
WEAKNESS			
The quality of local human resources is not adequate	0.09	3.7	-0.26
Limitations of village infrastructure	0.10	3.6	-0.26
Budget constraints	0.09	3.6	-0.24
Lack of village innovation	0.09	3.5	-0.24
The potential of natural resources is uneven in each region	0.09	3.5	-0.23
			-1.61
TOTAL	**1.00**		**0.37**

Table 3 (continued). Results of external …

EXTERNAL FACTORS	WEIGHT	RATING	SCORE
OPPORTUNITY			
Investment and business support	0.11	3.70	0.38
Rising economic growth	0.11	3.60	0.40
Job opening	0.11	3.70	0.39
Increasing number of business units	0.11	3.70	0.39
Equitable distribution of development	0.11	3.70	0.41
			2.02
THREATS			
Economic polarization to other regions (Gorontalo City)	0.09	3.30	-0.30
Potential gaps between regions	0.09	3.20	-0.27
Population migration	0.09	2.80	-0.24
Environmental degradation	0.10	3.20	-0.30
Natural disasters and pandemics	0.09	2.90	-0.25
			-1.39
TOTAL	**1.00**		**0.63**

Source: Primary data processed, 2022.

The model of strengthening the rural economic base that needs to be implemented based on the position of quadrant 1 are: 1) increasing the competitiveness and productivity of a sustainable village economic base and integrated with superior commodity-based industries through business world investment instruments and also utilizing village development budgets based on rural typology characteristics. Assagaf *et al.* (2019) stated that local governments must ensure the implementation of the distribution of land management for each village by considering the ability of the village. 2) strengthening the connectivity of rural areas with district service centers, especially mountainous and coastal areas. Asher & Novosad (2020) noted that rural development through infrastructure is quite important, but road infrastructure is an expensive investment 3) provision of economic facilities in the district center as a rural service center through strengthening business investment and government budgets. Wahyudi (2008) stated that the existence of facilities and infrastructure to support the development of the agricultural sector needs to be done. Besides, increasing the budget allocation for the three sectors (agriculture, plantations, marine) is very important in an effort to grow the sector. Four regional economic development strategies include physical/locality development, business development, human resource development and community economic development (Siwu 2019). Bone Bolango Regency has a variety of abundant natural potentials which are also strengthened by the commitment of the local government in various programs that have been carried out in the aim of advancing the region. The success of the village is based on the integration and coordination of internal and external forces, participation, negotiation and cooperation among key actors to encourage the establishment of rural network development with key actors (Li *et al.* 2019). The 'triple helix' model

(universities, industry, and governments) must be connected to each other to create shared value (Erina *et al.* 2017). Advice for local governments in the future rural development program, should still prepare scenarios for potential threats that may occur at any time. The Covid-19 pandemic has provided lessons related to various negative impacts in the socio-economic order that can hinder regional development programs. A scenario model of regional development is needed in extraordinary conditions or in disaster situations. The design of developing villages during a pandemic is an important step that needs to be recommitted. The pandemic situation needs to be used as an opportunity to stimulate village growth.

The formulation of rural area development model using SWOT

Table 4. SWOT matrix of rural area development in Bone Bolango Regency.

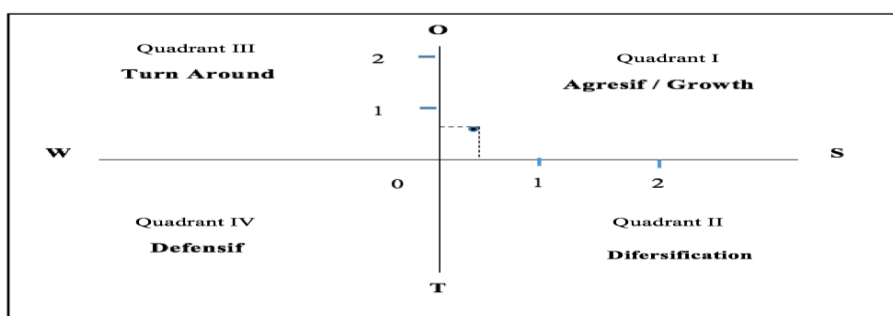| Internal / External Factors	Strength: The existence of an economic base for each rural area. Availability of village budget. Availability of district service facilities begins to grow. Connectivity of rural areas with district centres. Accessibility with provincial trade centres.	Weakness: The quality of village human resources is inadequate. Support for rural infrastructure facilities is inadequate. Village budget constraints for thorough builders. Lack of village innovation. The potential of natural resources is uneven in each region.
Opportunity: Equitable distribution of development Increasing economic growth Job openings Increasing number of business units Business investment support	**S-O Strategy:** Increasing the competitiveness &productivity of the sustainable village economic base and integrated with superior commodity-based industries through business investment instruments and utilizing village development budgets based on rural typology characteristics. Strengthening the connectivity of rural areas with district service centres, especially mountainous and coastal areas, as well as providing economic facilities in the district centre as rural service centres through strengthening business investment and government budgets. Provision of trade service facilities in the transition area to avoid polarization effects to the growth centre of Gorontalo City.	**W-O Strategy:** Human resource development in rural areas in accordance with the potential and needs, especially for the young / millennial workforce. Encourage csr improvement and build business investment partnerships through ease of investment policies that support the growth of rural areas. Prioritization of village infrastructure development in each rural area which has a bear effect on the development of the rural economic base and the attractiveness of business investment in rural areas.
Threats: Economic polarization to other regions (Gorontalo City) Environmental degradation Potential gaps between regions Population migration Natural disasters / Pandemic	**S-T Strategy:** Building a new growth pole in the transition area as a centre for trade services and engineering the interaction and connectivity channels of the trade area. Development of an environmentally friendly rural economic base and taking into account environmental risks and disaster mitigation. Allocation of village budgets based on priority needs and balance of development between rural areas. Development of the economic base through the digitization of trade services both during the pandemic and preventing economic polarization in the long term.	**W-T Strategy:** Strengthening regulations and policies for the Bone Bolango trading service area Strengthening village innovation in the development of rural areas in the management of village budgets both for village infrastructure and the development of the village economic base. Optimization of the potential of village natural resources for the development of superior village commodities to prevent lagging behind rural areas.

Fig. 2. SWOT diagram analysis of the development of rural areas in Bone Bolango regency.

CONCLUSION

The sectors in the Bone Bolango region consist of agriculture, forestry, fisheries, the manufacturing industry, information and communication, education services and the health services sectors. Social activities exhibited rapid growth (leading sectors). So, too competitiveness for these sectors is high. The business sector in the village displayed significant growth, which is a base sector, with its growth rate and can reach 1,358.31%. The villages that have significant growth are located in sub-districts in Bone Bolango Regency. In addition, the villages located in the area are experiencing a positive growth trend. The strategy of strengthening the rural economic base in the Bone Bolango patent is in an excellent or profitable position. The potential of the region and the support of local governments are forces that can be utilized to seize all existing opportunities. Being in an aggressive position, local governments can carry out various innovations in Daerah development through stimulus for the development of rural areas. The model of strengthening the rural economic base that needs to be implemented based on the position of quadrant 1 is to increase the competitiveness & productivity of a sustainable and integrated village economic base, strengthen the connectivity of rural areas with district service centers, and provide economic facilities in the district center as a rural service center.

REFERENCES

Asher, S & Novosad, P 2020, Rural roads and local economic development. *American economic review*, 110: 797-823.

Assagaf, SSF, Pulhehe, S, Zakariah, I, Yusuf, N, Sangaji, MF, Kembauw, E & Basrun, M C 2019, Construction of the Village as a Development Shaft in the Island Buru. *International Journal of Scientific & Technology Research*, 8: 2139-2143.

Ella, S & Andari, RN 2018, Developing a smart village model for village development in Indonesia. In 2018 International Conference on ICT for Smart Society (ICISS), pp. 1-6.

Erina, I, Shatrevich, V, & Gaile-Sarkane, E 2017, Impact of stakeholder groups on development of a regional entrepreneurial ecosystem. *European Planning Studies*, 25: 755-771.

Fatimah, Fajar Nur'aini D 2016, *Teknik analisis SWOT*. Jakarta: Anak Hebat Indonesia.

Irham, I & Mulyo, JH 2016 Contribution of agricultural sector and sub sectors on Indonesian economy. *Ilmu Pertanian Agricultural Science*, 18: 150-159.

Ke, S & Feser, E 2010, Count on the growth pole strategy for regional economic growth? Spread–backwash effects in Greater Central China. *Regional Studies*, 44: 1131-1147.

Li, Y, Fan, P & Liu, Y 2019, What makes better village development in traditional agricultural areas of China? Evidence from long-term observation of typical villages. *Habitat International*, 83, 111-124.

Lipton, M 1977, Why poor people stay poor: a study of urban bias in world development. Temple Smith, Australian National University Press.

Molla, M 2020 Conservation-based breeding program for indigenous sheep breeds in Ethiopia: the way forward. *Online Journal of Animal and Feed Research,* 10: 17-24.

Muslim, MHH, Jamhari, J & Darwanto, DH 2017, Agriculture category advantages and economic structures in the region of West Nusa Tenggara Province. *Agro Ekonomi*, 28: 64-79.

Mustapa, I, Setiawan, B & Pramoedyo, H 2022, Impact of rural area development in driving regional growth of Bone Bolango Regency: Case study of "Desa Tumbuh Daerah Maju". *ITALIENISCH*, 12: 885-892.

Parr, JB 1999 Growth-pole strategies in regional economic planning: a retrospective view: Part 2. Implementation and outcome. *Urban Studies*, 36: 1247-1268.

Pratama, MP 2020 Analisis dan Kontribusi Sektor Basis Non-Basis: Penentu Potensi Produk Unggulan Kabupaten Kebumen. *Jurnal Ilmiah Akuntansi Dan Keuangan*, 9: 75-82.

Prayitno, G, & Subagiyo, A 2018 *Membangun Desa: Merencanakan Desa dengan Pendekatan Partisipatif dan Berkelanjutan*. Malang: Universitas Brawijaya Press.

Roberts, D 2003, The economic base of rural areas: a SAM-based analysis of the Western Isles, 1997. *Environment and Planning A*, 35: 95-111.

Siwu, HFD 2019, Strategi pertumbuhan dan pembangunan ekonomi daerah. *Jurnal Pembangunan Ekonomi Dan Keuangan Daerah*, 18: 6.

Surya, B 2021, Rural agribusiness-based agropolitan area development and environmental management sustainability: Regional economic growth perspectives. *670216917*.

Sjafrizal, S   2012   Ekonomi Wilayah dan Perkotaan. Jakarta: Raja Grafindo Persada.

Syarifuddin, H   2014, Analisis Sektor Basis dan Non Basis Terhadap Penyerapan Tenaga Kerja di Kabupaten Mojokerto Tahun 2003-2012. *Jurnal Pendidikan Ekonomi JUPE*, 2: 1-11.

Wahyudi, ST   2008, Penguatan Sektor-Subsektor Ekonomi Dalam Upaya Peningkatan Pembangunan Ekonomi Daerah. *Journal of Indonesian Applied Economics*, 2: 22-42.

Yani, RDF   2017, Urban Bias Sebagai Perangkap Keterbelakangan Pembangunan Desa. *Geomedia: Majalah Ilmiah dan Informasi Kegeografian*, 15: 193-204.

Zhao, SX, Wong, DW, Wong, DW & Jiang, YP 2020, Ever-transient FDI and ever-polarizing regional development: Revisiting conventional theories of regional development in the context of China, Southeast and South Asia. *Growth and Change*, 51: 338-361.