

Analysis of the Determination of Leading Sector of the Regional Economy: Case Study - Underdeveloped Regions in the Northern Part of Aceh

Nurlina, Puti Andiny, and Ziaul Maula

Faculty of Economics Samudra University, Meurandeh, Langsa, Aceh, Indonesia

Abstract. The purpose of this study is to analyze the development strategy of underdeveloped areas based on leading sectors in the Northern Aceh Region. The analytical method used is Klassen Typology, LQ, Shift Share, and SWOT analysis. Based on the results of the Klassen typology analysis using data from 2010-2017, it was found that the Regencies that are categorized as underdeveloped areas in the Northern part of Aceh Region are North Aceh District and Bireuen District. Based on the results of the SWOT analysis, the priority of the strategy in developing leading sectors for the development of underdeveloped areas in North Aceh District is the development of featured products in rural areas. Meanwhile, in Bireuen District the priority of the strategy in developing leading sectors for the development of underdeveloped areas is the development of agribusiness and agro-industry based agriculture.

Keywords. Underdeveloped regions · Leading sector · SWOT

1 Introduction

Underdeveloped area is an area with a district whose community and territory are relatively less developed compared to other regions on a national scale. The backwardness of the area can be measured based on six main criteria, namely economy, human resources, infrastructure, regional financial capacity, accessibility and regional characteristics. Therefore, a planned and systematic regional development effort is needed so that the underdeveloped areas are ultimately on par with other regions in Indonesia that have developed first.

Efforts to achieve prosperity is a form of implementation of equitable development, especially in underdeveloped areas. Therefore, it is necessary to develop an underdeveloped regional development strategy as a real step that is integrated and directed at regions with social, cultural, financial economic conditions of the region, accessibility, and the availability of infrastructure that is still lagging behind. These conditions are generally found in areas that are geographically isolated and remote or far from the reach of facilities of the District Capital. On the other hand, special attention is needed to regions that have the economic potential to progress, but are left behind as a result of their limited ability to exploit potential, or due to social and political conflicts. In relation to the acceleration of development, it is necessary to have a common perception and vision between the various elements of

stakeholders in the regions with the central government in this case the Ministry of Underdeveloped Regions which has the function of facilities, coordination, synchronization of acceleration data for the development of underdeveloped regions.

The acceleration of development in underdeveloped areas is the implementation of the third *Nawa Cita* agenda, namely developing Indonesia from the suburbs by strengthening regions and villages within the framework of a unitary state. In the 2015-2019 RPJMN (National Medium-Term Development Plan), the targets to be achieved in the development of underdeveloped areas are an increase in average economic growth, a decrease in the average percentage of the poor, an increase in the human development index and a decrease in the number of underdeveloped areas becoming developed districts.

Table 1 explains the general condition of rural areas which are underdeveloped villages based on the Big Island Region in Indonesia.

Table 1. Number of Underdeveloped Villages based on Big Island Region in 2014.

No.	Island Region	Number of Villages ¹⁾	Number of Very Underdeveloped Villages ²⁾	%
1.	Sumatera	22.056	8.241	37,36%
2.	Jawa	22.458	806	3,59%
3.	Kalimantan	6.382	1.702	26,67%
4.	Sulawesi	8.233	1.213	14,73%
5.	Nusa Tenggara & Bali	3.599	424	11,78%
6.	Maluku	1.958	833	42,54%
7.	Papua	5.204	4.049	77,81%
<i>Total of District /City (514 Kab/Kota)</i>		74.045	17.268	23,32%

Source: 1) PUM Director General of Ministry of Home Affairs, December 2014

2) PODES data, 2011 (processed), Village Ministry, PDT, 2014

Based on data from the Ministry of villages, Development of Underdeveloped areas and Transmigration of the Republic of Indonesia that there are still underdeveloped areas in Indonesia. There are 17,268 villages throughout Indonesia that are designated as underdeveloped villages which will then be made as a priority target. Table I.1 shows that the island which has the most number of underdeveloped villages is in Papua Island, which is 77.81 percent of the number of villages that are very underdeveloped, followed by Maluku island at 42.54 percent, Sumatra at 37 percent, Kalimantan at 26.67 pesen, Sulawesi by 14.73 percent, and Nusa Tenggara and Bali which is 11.78 percent (web.kominfo.go.id).

As for the Province of Aceh, there are 2,244 villages that are categorized as underdeveloped and developing villages spread across 23 Regencies / Cities in Aceh Province (dialeksis.com).

The contributing factor to the large number of underdeveloped villages in Aceh Province is that there are still many people living in remote areas with all the limitations on all the access to the resources and facilities they need. In fact, some of them have not been completely reached by government bureaucratic services, such as population data so that they do not get health services through free health insurance

from the government. Then inadequate facilities and infrastructure such as electricity, education facilities, transportation access, and road infrastructure. The deterioration was increasingly felt after the earthquake and Tsunami which hit Aceh and prolonged conflict so that it cannot be touched by government development programs, both central, provincial and district.

Seeing these conditions, it is necessary to make efforts to create synergy of various elements in encouraging accelerated development in Aceh Province. Not only that, it needs to be done in-depth studies related to the potential that can be developed for community empowerment, such as agriculture and other potentials, so that breakthrough programs can be formulated to build in an integrated and participatory manner.

The objectives to be achieved in this study are:

1. Analyzing areas categorized as undeveloped areas in the North-East Region of Aceh.
2. Analyzing sectors that have potential as a base sector and have competitive advantage or competitiveness.
3. Analyzing development strategies for underdeveloped areas based on leading sectors.

2 Research Method

The location in this study was underdeveloped areas in Northern Part of Aceh. The type of data used was secondary data from the Central Bureau of Statistics (BPS) and other sources from the internet, journals and literature studies.

Data analysis methods in this study used Klassen typology analysis, location quotient analysis (LQ), shift share analysis, growth ratio model (MRP) analysis, overlay analysis, and SWOT analysis.

3 Result and Discussion

3.1 Underdeveloped Regions

Identification of underdeveloped areas using the Klassen Typology method, namely the division of regions in 4 Quadrants. Quadrant I (developed regions) is a region with a PDRB (*Gross Regional Domestic Product*) per capita and economic growth is above average. Quadrant II (developed but depressed regions) is an area with a PDRB (*Gross Regional Domestic Product*) per capita is above average and economic growth IS below average. Quadrant III (fast developing regions) is a region with below average of PDRB (*Gross Regional Domestic Product*) per capita and economic growth is above average. Quadrant IV (Underdeveloped Area) is a region with a GDRP (*Gross Regional Domestic Product*) Per Capita and economic growth is below average.

Based on the results of data analysis using the Klassen Typology method, regencies included in the relatively underdeveloped /underdeveloped region in the Northern Part of Aceh Region are Bireuen District and North Aceh District

3.2 Regional Potential Analysis

3.2.1 Location Quotient (LQ)

LQ analysis is used to find out the level of specialization of the base or leading sector. This analysis method is also used to measure the concentration of an activity (industry) in an area with the role of similar activities or industries in the regional or national economy. The basis calculation uses the PDRB (*Gross Regional Domestic Product*) variable on an activity in the regional economic structure. If a sector that has a LQ value of more than 1, it indicates that the role of the economic sector is quite prominent in the area and the sector is able to export a portion of the added value it generates. Conversely, if a sector that has an LQ value of less than 1, it is only able to meet the domestic or local market area and tends to import from other regions.

Based on the results of the LQ analysis, it shows that there were 4 (four) base sectors in Bireuen District in 2010-2017, the 4 (four) sectors were (1) the agriculture, forestry and fisheries sectors (1,091), (2) the water supply sector, waste management, waste and recycling (1,166), (3) wholesale and retail trade sector, car and motorcycle repair (1,482), (4) transportation and warehousing sector (1,204).

Based on the results of the LQ analysis, there are 3 basic sectors in North Aceh District in 2010-2017, these 3 sectors are (1) the agriculture, forestry and fisheries sector (1,228), (2) the mining and quarrying sector (4,512), (3) the manufacturing industry sector (2,696). These three sectors are sectors that have advantages so that they are able to meet the needs in North Aceh District and have the potential to be exported out of North Aceh District.

3.2.2 Shift Share Analysis

Shift Share Analysis is used to analyse changes in various indicators of economic activity, such as production at two time points in an area and to determine the performance of the regional economy. From this analysis it is known that the development of a sector in an area when compared relatively to other sectors, whether its growth is fast or slow. This analysis is useful to see the development of the region to a wider area for example the development of districts to provinces or provinces to the national. With a shift share, it can be known the development of sectors compared to other sectors and it can compare the economic rate in a region. In this analysis the components of economic growth are divided into three, namely: Regional Share, Proportionality Shift (Mixed Shift) and Differential Shift (Competitive Shift).

Based on the results of the Shift Share analysis of underdeveloped areas in the Northern Part of Aceh in 2010-2017, it can be seen that the electricity and gas supply sector; Water Supply, Waste Management, Waste and Recycling; and Wholesale and Retail Trade; The Car and Motorcycle Repairation are the sectors that have competitiveness in Bireuen District. Meanwhile, in North Aceh District it can be seen that the electricity and gas procurement sector; Water Supply, Waste Management, Waste and Recycling; Wholesale and retail trade; Car and Motorcycle Reparatons; Provision of Accommodation and Food and Drink; Real estate; Government Administration, Defence and Social Security; Educational Services; Health Services and Social Activities; and Other Services are the sectors that have competitiveness.

3.3 SWOT Analysis

3.3.1 SWOT Analysis as a Formulation Tool for Bireuen District Development Strategy

Based on the largest number of integrity, the order / ranking of priority strategies in developing underdeveloped areas are (1) Development of agribusiness and agroindustry based agriculture systems (2) Developing new growth centres in areas that are not yet served by growth centres (3) Making the tourism development masterplan connected with the province, sustainable (4) Improvement of agricultural facilities and infrastructure (5) Zoning strategic areas (6) Diversification and differentiation of product (7) Improved licensing process services (8) Strengthening of instruments for preventing pollution and/or environmental damage (9) Vocational training to improve the quality of human resources (10) Improved management of a strong defence and security system.

3.3.2 SWOT Analysis as a Formulation Tool for North Aceh District Development Strategy

Based on the largest number of integrity, the order / ranking of priority strategies in developing underdeveloped areas are (1) Development of leading products in rural areas (2) Infrastructure development (3) Tourism development (4) Socializing and promoting the potential of the area to outside parties (investors) (5) Diversification and differentiation of product (6) Strengthening of instruments for preventing pollution and / or environmental damage (7) Restructure and redistribute ownership of productive assets to rural communities (8) Improved licensing process services (9) Developing the competitiveness of cooperatives and MSMEs (10) Vocational training to improve the quality of human resources (11) Improved management of a strong defense and security system.

4 Conclusion

1. Districts/ Cities categorized as underdeveloped areas in the North-East Part of Aceh Region are Bireuen District, North Aceh District, East Aceh District, and Aceh Tamiang District.
2. Sectors that have potential as a base sector based on LQ analysis are:
 - a. The basic sectors in Bireuen District is wholesale and retail trade, car and motorcycle repair.
 - b. The basic sectors in North Aceh District is the mining and quarrying sector.

Whereas sectors that have comparative advantages or competitiveness based on Shift Share analysis are:

- a. In Bireuen District are (1) electricity and gas procurement (2) water supply, waste management, waste and recycling (3) wholesale and retail trade, car and motorcycle repair.

- b. In North Aceh District are (1) electricity and gas procurement (2) water supply, waste management, waste and recycling (3) construction (4) wholesale and retail trade, car and motorcycle repair (5) accommodation and food and beverage providers (6) real estate (7) Government Administration, Defence and Social Security (8) Educational Services Health Services and Social Activities (9) Other Services.
3. Based on the results of the SWOT analysis, the leading sector development strategies for regional development are:
 - a. The strategic priority in developing underdeveloped areas in Bireuen District is the development of agribusiness and agro-industry based agriculture systems.
 - b. The strategic priority in developing disadvantaged areas in North Aceh District is the development of leading products in rural areas.

References

- Ambardi, Urbanus dan Priwantoro, Socia. 2002. Regional Development and Regional Autonomy. Jakarta: Regional Policy and Technology Development Centre.
- Arsyad, Lincoln. 2010. Economic Development. Yogyakarta: UPP STIM YKPN.
- National Development Planning Agency. 2004. Procedures for Regional Development Planning to Accelerate Regional Development. Directorate of Special and Underdeveloped Area Development. Jakarta: National Development Planning Agency.
- National Development Planning Agency. 2015. Directorate of Special and Underdeveloped Area Development. Jakarta: National Development Planning Agency
- _____. 2015. Planning and Strategy Control Report on the Development of Disadvantaged Areas in Five Regencies. Jakarta: National Development Planning Agency
- Gulo, Yarman. 2015. Identification of Growth Centres and their Supporting Areas in the Development of the Nias District Region. Widyariset Journal, Vol. 18, No. 1, Hal: 37-48
- Ministry of Development of Underdeveloped Regions of the Republic of Indonesia. 2016. Technical Guidelines for Determining Indicators in the Determination of Underdeveloped Regions Nationally. Ministry of Development of Underdeveloped Regions of the Republic of Indonesia. Jakarta.
- Kettongkham, Parit. 2012. Strong Defence and Security System Management Can Enhance Indonesia's Economic Resilience. <https://fhukum.unpatti.ac.id>
- Regulation of the Minister of Villages, Development of Underdeveloped Areas, and Transmigration No. 3 of 2016 concerning the National Technical Guideline for the Determination of Underdeveloped Areas Ministry of Villages, Development of Underdeveloped Regions, and Transmigration
- Prawoto, Nano. 2010. Development of Potential Leading Sector in Agriculture. Journal of Economics and Development Studies, Faculty of Economics, Muhammadiyah University, Yogyakarta. Vol. 11, No. 1, page: 1-19
- Sjafrizal. 2009. Practical Techniques for Preparation of Regional Development Plans. Padang: Badouse Media
- Syahza, Almasdi. 2012. Formulation of Poverty Alleviation Model Through Program and Mapping of Economic Potential for Coastal Areas Communities in Riau Province. Research Institute of Riau University, Pekanbaru.
- Syahza, Almasdi & Suarman. 2013. Development Strategy of Underdeveloped Region in order to Accelerate Rural Economic Development. Journal of Economics and Development Studies, Vol. 14, No. 1, Hal: 126-139

- Tarigan, Robinson. 2005. Regional Economics-Theory and Application. Revised Edition. Jakarta: Bumi Aksara.
- _____. 2009. Regional Economy. Revised Edition. Jakarta: PT Bumi Aksara.
- Utama, Suyana, I Made. 2010. Regional Economics Textbook. Denpasar: Faculty of Economics, Udayana University.
- Wanggai, V. V. 2004. Underdeveloped Sub-Directed Area Work Plan. Jakarta: Bappenas (National Development Planning/National Development Planning Agency)
- Widodo, Tri. 2006. Development Planning: Computer Applications. Yogyakarta: UPP STIM YKPN.
- <https://dialeksis.com/aceh/2244-gampong-di-aceh-masuk-kategori-desa-tertinggal/>
- <https://setkab.go.id/quo-vadis-strategi-pembangunan-daerah-tertinggal-di-indonesia/>
- <https://web.kominfo.go.id/sites/default/files/users/12/01.%20Papan%20Dirjen%20PDT%20Kemendes-%20Rakornas%20Kominfo%202015.pdf> u
- <http://harian.analisadaily.com/tajuk-rencana/news/penduduk-terpencil-aceh/444920/2017/11/04>

