



Economic Status of the Tourism Sector during the COVID 19 Pandemic at Lake Toba Parapat

Raisha Ghadati Raudina^{1*}, Anthoni Veery Mardianta^{2, 3}

¹*Independent Researcher, Medan, Indonesia*

²*Toba Lake & Sustainable Tourism Working Group, Universitas Sumatera Utara, Medan, Indonesia, 20155*

³*Monitoring Center for Sustainable Tourism of Universitas Sumatera Utara, Medan, Indonesia, 20155*

Abstract. Parapat is the main gateway to Samosir Island and is often referred to as Parapat Tourism City. The presence of Lake Toba with its natural beauty makes the surrounding area a priority object and tourist attraction (ODTW) in North Sumatra. Currently, the Lake Toba area is designated as the National Tourist Destination (DPU) in North Sumatra. At the beginning of 2020, the world was shaken by the presence of the Covid-19 virus outbreak. The Indonesian government has also acted to contain the spread of Covid-19 by implementing the policy "Enforcement of Community Activities Restrictions Enforcement (PPKM)". The existence of these social restrictions has led to the stagnation of the tourism industry. The state of Indonesia's tourism economy, especially Parapat, remains volatile due to the Covid-19 pandemic. The purpose of this study is to investigate the economic situation of the tourist destinations of Parapat in the Covid-19 pandemic. This study uses a qualitative study with a descriptive approach. The data collection techniques used in this study include observational studies and literature studies. Looking at the economy of the tourism sector based on the WTO's Tourism Baseline Index for tourism destinations, there are three parameters: business investment in tourism, income from the tourism sector, and public spending. According to the survey, in 2020, the Covid-19 pandemic and the government's implementation of the Community Activities Restrictions Enforcement (PPKM) caused the decline of various economic sectors in the tourism industry.

Keyword: Covid-19, economy, Parapat

Received 27 February 2022 | Revised 18 March 2022 | Accepted 28 March 2022

1 Introduction

Tourism performs an crucial function withinside the monetary improvement of diverse nations. The tourism sector is a sector that has the potential to develop as a source of income for the region. Programs for the development and utilization of local tourism resources and potential are aimed at contributing to economic development in order to generate local income [1]. Tourism has various economic implications. The impact of tourism activities from an economic perspective is not only more influential than the environmental, social and cultural impacts, but

*Corresponding author at: Jl. Tuasan Gg. Kesturi No 5B Medan, Indonesia.

E-mail address: raisharaudina@gmail.com

also the most promising economic impacts [2]. This is because almost all countries and regions tend to measure tourism and advantages from economic sightseeing.

Given the great contribution of the tourism industry, it encourages various regions to participate in the development of the tourism industry in their region, including Parapat. Parapat is the main gateway to Samosir Island and is often referred to as Parapat Tourism City. With many hotels, inns, restaurants and other tourism support facilities, such as the pier connecting Parapat and Samosir Island in the middle of Lake Toba, the city developed and became a tourist destination until its rapid development in the 1990s [3]. The presence of Lake Toba, with its natural beauty, makes the region a major tourist destination and attraction of North Sumatra [4]. Currently, the area around Lake Toba is designated as a national tourist destination in North Sumatra [5]. For this reason, the government has established the Lake Toba region as a national strategic region for the tourism sector. Hereinafter referred to as the National Strategic Tourism Area [6].

At the beginning of 2020, the world was shaken by the presence of the Covid-19 virus outbreak. According to WHO, Covid-19, also known as the coronavirus, is a large family of viruses that can cause disease in animals and humans. In humans, coronavirus causes respiratory infections ranging from the common cold of to more serious conditions such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS) [7]. Covid-19 became a pandemic in Wuhan, China in late 2019 and has spread rapidly to 210 countries around the world, including Indonesia, within the next few months. The presence of Covid-19 has serious implications as almost every aspect of life is paralyzed in parts of the world, including Indonesia. Governments around the world are taking action to curb the spread of Covid-19. This means imposing a blockade and banning the countries and cities most hit by Covid-19 from entering border areas. This is intended to limit the spread of Covid-19 [8]. The Indonesian government has also acted to contain the Covid-19 epidemic by issuing a directive to implement restrictions on community activities.

The existence of these social restrictions has led to stagnation in various sectors, including economic, social and political sectors. The tourism industry was hit hardest by this pandemic [9]. At Parapat, pressure on the tourism sector is reflected in the decline in the number of foreign tourists arriving. In other words, the total number of foreign tourists in 2020 was 117, a decrease of 99.11% from 13,218 in the previous year [10]. The decline of the tourism industry is affecting UMKM's business and employment. So far, the tourism industry is a labor-intensive sector that absorbs a lot of work [11]. The above explanation shows that the state of Indonesia, especially Parapat's tourism economic sector, remains volatile due to the Covid-19 pandemic. For this reason, in the midst of a Covid-19 pandemic, the author is trying to find out the economics of Parapat's destination.

2 Literature Review

Based on the WTO's Baseline Indicators Of Sustainable Tourism for Tourism Destination, there are three parameters to consider the economy of the tourism sector [12], namely: (1) business investment in tourism; (2) Income from the tourism sector; and (3) Public spending.

Investment is one of the keys in efforts to create new economic growth for the expansion of job creation, income generation and poverty alleviation [13]. Through the increase in investment activity in the form of domestic and foreign capital accumulation, it will be the driving force that the country needs to direct the driving force of the economy to sustainable growth. Investment activities can make a significant contribution to improving economic growth, facilitating the emergence of local raw material supply industries, transferring technology and management processes, and providing benefits to local investors. In addition to the attractive potential of natural resources, there are several factors that may determine an investor's interest in investing in a region. That is, environmental conditions such as infrastructure, education, and levels of local corruption [14].

Investing activities allow communities to further increase economic activity and employment, raising the level of national income and prosperity [15]. The presence of investment facilitates the creation of new capital goods, allowing them to absorb new factors of production. That is, it ultimately creates new employment or employment opportunities that absorb the energy that reduces unemployment [16]. In addition, the manufacturing process includes the cost of purchasing raw materials and equipment and paying employees' salaries, so a large investment can improve the manufacturing process [17].

In measuring the parameters of business investment in tourism, several indicators are needed in the assessment, such as: (1) the number of tourism services (bureaus/travel agents); (2) the number of tourism objects managed by non-government; (3) number of lodging; (4) the total number of rooms rented out; (5) the number of places of food business (restaurants, cafes, etc.); and (6) number of certified/licensed lodgings, places to eat, and tourist attractions.

The tourism sector is a sector that has the potential to develop as a source of income for the region. Efforts to increase local income are programmed through the development and development of local tourism resources and potential contributions to economic development [18]. The development of the tourism sector promotes economic growth at both the national and local levels, which in turn drives the growth of the agriculture, industry and services sectors [19]. Tourism development plays a very important role in the development process and regional development by contributing to the income of local governments and regions [20]. The role of tourism in foreign exchange revenues and the region's gross domestic product shows that tourism activities can be a credible development force, and development policy will further focus on making tourism a major sector [21]. As a labor-intensive industry, tourism offers

diverse employment opportunities and allows it to absorb more workers to support the success of the tourism industry itself [22].

When measuring income parameters in the sightseeing area, some indicators are required for evaluation, such as: (1) Tourism and expenses; (2) Local domestic products; and (3) Domestic total production from the tourist division.

Tourism as a sector has played an important role in development. The tourism sector can create or increase employment opportunities and opportunities for communities around tourism areas such as accommodations, restaurants, tour guides, travel agencies and other services [23]. The tourism sector also contributes directly to other sectors in the form of roads, ports, airports and cleaning program construction or repair efforts, all of which may benefit both the surrounding community and tourists. The tourism sector has stimulated and contributed to the implementation of projects in various sectors of developing and developed countries [24].

When measuring community spending parameters, the assessment requires several indicators, such as: (1) Total budget for regional development; (2) Development budget to support the tourism sector; (3) Amount and ratio of infrastructure expenditure for tourism; (4) Amount and ratio of total annual tourism expenditure; (5) Advertising and promotional expenses per number of tourists; and (6) The amount and proportion of tourism revenue contributions to costs such as water, sanitation, roads, food production, energy, waste management, air quality and human resource development.

3 Methods

This take a look at makes use of a qualitative studies with a descriptive approach. The cause for selecting a qualitative descriptive take a look at is due to the fact this take a look at explores the evaluation of signs of the monetary blessings of locations in Parapat so that you can be offered in descriptive form. Data series strategies used on this take a look at include: (1) observations made on facts acquired via the District, BPS, and the Tourism Office to reap records approximately the economic system in Parapat and a photo of the situation; and (2) a literature take a look at turned into carried out to aid the concept concerning the evaluation of signs of the monetary blessings of locations.

4 Results and Analysis

Undeniable that the Covid-19 pandemic has undermined the world economy. As can be seen in table 1, the Covid-19 pandemic, such as Indonesia, has affected the tourism zone in addition to the social, training and financial sectors. The policy of implementing Community Activities Restrictions Enforcement (PPKM) and closing recreational and recreational facilities aimed at

curbing the spread of Covid-19 will reduce community liquidity and have a significant economic impact on the tourism sector.

Table 1. Performance Indicators Issues of Economic Benefits for Destinations

Monitoring Issues	Baseline Indicator	Unit	Amount			Performance Indicators	
			2018	2019	2020	2019	2020
Economic Benefits for Destinations	Number of tourism services (bureau/travel agent)	Business Unit	5	6	5	20	-16,67
	Number of tourist attractions managed by non-government	Business Unit	16	16	18	0	12,50
	Number of lodging (hotels, cottages, guesthouses, villas, motels)	Business Unit	54	55	54	1,85	- 1,82
	Total number of rooms for rent	%	27,93	24,8	18,76	11,21	-24,35
	Number of places of food business (restaurants, cafes, etc.)	Business Unit	256	266	286	3,91	7,52
	Number of accommodations, places to eat, and tourist attractions that are certified/licensed	Business Unit	71	71	71	0	0
	Gross Domestic Product of the region	Rp (Billion)	25.996,21	27.348,70	27.625,70	5,2	1,01
	Gross Domestic Product from the tourism sector	Rp (Billion)	227,59	240,53	227,85	5,69	-5,27
	Total local development budget	Rp	1.635.026.247	1.700.748.000	1.383.829.793	4,02	-18,63
	Development budget in support of the tourism sector	Rp	6.831.472.489	11.716.807.353	3.400.959.272	71,51	-70,97

3.1. Business Investment In Tourism

From data obtained through BPS (Table 1), in 2018 there were 5 tourism services (travel agency bureaus) in the Girsang Sipangan Bolon district of Simalungun Regency. In 2019 there was an increase in tourism services (travel agency bureaus) by 20% with a total of 6 tourism services (travel agency bureaus). In 2020 the number of tourism services returned to 5 business units as in 2018 due to a decrease of 16,67%.

From the data obtained through BPS (Table 1), in 2018 and 2019 there were 16 tourist attractions managed by non-government in the Girsang Sipangan Bolon district of Simalungun Regency. In 2020 there was an increase in tourism objects by 12,5% where the number of tourist objects managed by non-government in Girsang Sipangan Bolon District, Simalungun Regency became 20 tourist objects.

From data obtained through BPS (Table 1), in 2018 there were 54 number of inns (hotels, cottages, guesthouses, villa motels) the Girsang Sipangan Bolon district of Simalungun

Regency. In 2019 there was an increase in tourism services (travel agency bureaus) by 1,85% with a total of 55 tourism services (travel agency bureaus). In 2020 the number of tourism services returned to 54 business units as in 2018 due to a decline of 1,82%.

From the data obtained through BPS regarding the total number of rooms for rent in the Girsang Sipangan Bolon district of Simalungun Regency in 2018-2020, it has decreased every year (Table 1). In 2018 there were a total number of rooms of 27,93%. In 2019 there was a decrease of 11,21% with the total number of rooms being rented out as much as 24,8%. In 2020 there was also a decrease of 24,35% with the total number of rooms being rented out as much as 18,76%.

From data obtained through BPS regarding the number of food business places (restaurants, cafes, etc.) in the Girsang Sipangan Bolon district of Simalungun Regency in 2018-2020 has increased every year (Table 1). In 2018 there were 256 business units (restaurants, cafes, etc.) In 2019, there was an increase of 3,91% with the total number of food business places (restaurants, cafes, etc.) being 366 business units. In 2020 there was also an increase of 7,52% with the total number of food business places (restaurants, cafes, etc.) being 386.

From the data obtained through RIPARDA 2021 regarding the number of certified/licensed lodging, dining, and tourist attractions in the Girsang Sipangan Bolon district of Simalungun Regency in 2018 - 2020 is stable, does not increase or decrease (Table 1). There are 71 inns, places to eat, and certified/licensed tourist attractions located in the Girsang Sipangan Bolon district of Simalungun Regency [25].

3.2 *Revenue Through the Tourism Sector*

From the data obtained through the 2022 RKPD (Table 1) regarding the Value of Local GRDP at Constant Prices in 2018-2020 in the Girsang Sipangan Bolon district of Simalungun Regency, there is an increase every year. The total local Gross Regional Domestic Product in the Girsang Sipangan Bolon district of Simalungun Regency in 2018 was 25.996,21 Billion Rupiah. In 2019 there was an increase of 5,2% with a total local Gross Regional Domestic Product of 27.348,70 Billion Rupiah. In 2020 there was also an increase of 1,01% with a total local Gross Regional Domestic Product of 27.625,70 Billion Rupiah [26].

From the data obtained through the 2022 RKPD (Table 1) regarding the GRDP Value of the Tourism Sector at Constant Prices in the Girsang Sipangan Bolon district of Simalungun Regency in 2018, there was a total of 227,59 Billion Rupiah. In 2019 there was an increase of 5,69% with the total Gross Regional Domestic Product from the tourism sector of 240,53 Billion Rupiah. In 2020 there was a decrease of 5,27% with the total Gross Regional Domestic Product from the tourism sector amounting to 227,85 Billion Rupiah.

3.3 Community Expenditure

From the data obtained through LKPI Simalungun (Table 1) regarding the Realization of the OPD Budget for the 2018 Fiscal Year in the Girsang Sipangan Bolon district of Simalungun Regency, there is a total local development budget of Rp. 1.635.026.247 [27]. In 2019 there was an increase of 4,02% with a total local development budget of Rp. 1.700.748.000 [28]. In 2020 there was a decrease of 18,63% with a total local development budget of Rp. 1.383.829.793 [29].

From the data obtained through LKPI Simalungun (Table 1) regarding the Realization of the OPD Budget for the 2018 Fiscal Year in the Girsang Sipangan Bolon district of Simalungun Regency, there is a total development budget to support the tourism sector of Rp. 6.831.472.489. In 2019 there was an increase of 71,51% with the total development budget to support the tourism sector of Rp. 11.716.807.353. In 2020 there was a decrease of 70,97% with the total development budget to support the tourism sector of Rp. 3.400.959.272.

From the data obtained through the Tourism and Culture Office of Simalungun Regency regarding Programs/Activities for the 2018 Fiscal Year in the Girsang Sipangan Bolon district of Simalungun Regency, there is a total budget for infrastructure spending for tourism of Rp. 434.579.200 (98,66%). In 2019 there was an increase of 192,15% with the total budget for infrastructure spending for tourism of Rp. 1.269.626.000 (99,65%). In 2020 there was a decrease of 83,99% with the total budget for infrastructure spending for tourism of Rp 203.287.450 (88,97%).

From data obtained through the Tourism and Culture Office of Simalungun Regency regarding Programs/Activities for the 2018-2020 Fiscal Year, the total annual operational expenditure for tourism in the Girsang Sipangan Bolon district of Simalungun Regency, has decreased every year. The total annual operational expenditure for tourism in the Girsang Sipangan Bolon district of Simalungun Regency is calculated by adding up the budget for the Office Administration Service Program, the Apparatus Facilities and Infrastructure Improvement Program, and the Work Performance Reporting System Development Improvement Program and Finance. The total annual operational expenditure for tourism in 2018 was Rp. 1.600.258.999 (70,35%). In 2019 there was a decrease of 9,46% with the total annual operational expenditure for tourism of Rp. 1.448.841.241 (95,06%). In 2020 there was also a decrease of 16,66% with the total annual operational expenditure for tourism of Rp. 1.207.525.422 (89,18%) [30].

From the data obtained through the Simalungun Regency Tourism and Culture Office regarding Programs/Activities for the 2018 Fiscal Year in Simalungun Regency, there is a total cost of advertising and tourism promotion of Rp. 4.363.616.490. The total cost of advertising and tourism promotion in Simalungun Regency is calculated by adding up the budgets for several tourism programs. In 2019 there was an increase of 39,63% with the total cost of advertising and

tourism promotion of Rp. 6.092.963.641. In 2020 there was a decrease of 64% with the total cost of advertising and tourism promotion of Rp. 2.193.433.850.

Data on Programs / Activities of the Simalungun Province Tourism and Culture Bureau 2018-2020, tourism from Simalungun Province in Girsang Sipangan Bolon to water supply, sanitation, roads, food production, energy, waste management, air quality and human resource development costs takes every year from Girsang Sipangan Bolon district, which contributes to the total income. The total contribution of tourism revenue to costs such as water, sanitation, roads, food production, energy, waste management, air quality and human resource development in 2018 was Rp. 38.991.079 (76,45%). The total contribution of tourism revenue to costs such as water and sanitation, roads, food production, energy, waste management, air quality and human resource development in 2019 was Rp. 29.102.694 (57,74%), a decrease of 25.36%. In 2020, tourism revenue contributed to total costs such as water and sanitation, roads, food production, energy, waste management, air quality and human resource development, resulting in Rp. 27.849.525 (59,25%), a decline of 4,31%.

5 Conclusion

In terms of business investment in tourism in the Girsang Sipangan Bolon district of Simalungun Regency, there was a decline in tourism services (travel agency bureaus) which resulted in the number of inns (hotels, cottages, guesthouses, villa hotels) and the total number of rooms being rented also decreasing. This is because the issue of the COVID-19 pandemic in Girsang Sipangan Bolon District started from early 2020 so that people are not allowed to visit the tourism location. Meanwhile, the number of non-government managed tourism objects and the number of food establishments (restaurants, cafes, etc.) continues to increase. However, the number of inns, places to eat, and tourist attractions in Girsang Sipangan Bolon District, Simalungun Regency, did not increase or decrease so it was not allowed to carry out activities that invited many people.

In terms of income through the tourism sector in Simalungun Regency, an increase in Local Gross Regional Domestic Product has increased. This is because the agriculture, forestry and fisheries sectors have increased due to the Covid-19 pandemic which has caused people to switch professions. Meanwhile, there was a decline in the Gross Regional Domestic Product from the tourism sector due to the implementation of the implementation of restrictions on community activities (PPKM) by the government.

In terms of public spending in Simalungun Regency, in 2019 there was an increase in the total local development budget; development budget in support of the tourism sector; the amount of infrastructure spending on tourism; and tourism advertising and promotion costs. However, in

2020 all indicators have decreased. On the other hand, the total of annual tourism operating expenses and tourism income.

Acknowledgment

Researchers would like to thank the Simalungun Regency Tourism and Culture Office, Simalungun Regency Central Statistics Agency, Girsang Sipangan Bolon District, and the surrounding community who have supported and provided information and data for research purposes.

REFERENCES

- [1] Ningsih, N. W. A. S., & Suryasih, I. A. The Socio-Economic Impact of Tourism on Souvenir Traders at the Tourist Attraction of Gunung Kawi Temple Tampaksiring Gianyar. *Journal of Tourism Destinations*, vol. 6, no.1. 2018.
- [2] Wahab, S, *Tourism Management*. Jakarta: Pradnya Paramitha, 2007.
- [3] Central Bureau of Statistics, *Girsang Sipangan Bolon District in Figures 2021*. Pematangsiantar: BPS, 2021.
- [4] Simalungun Regency Tourism and Culture Office. *Simalungun Regency Regional Tourism Development Master Plan (RIPPARDA)*. Jakarta: Simalungun Regency Tourism and Culture Office, 2020.
- [5] Presidential Regulation of the Republic of Indonesia Year 2020 Concerning the Master Plan for Priority Tourism Destinations of Lake Toba for 2020-2045.
- [6] Government Regulation No. 26 of 2008 concerning National Spatial Planning.
- [7] Nicola, M., Alsafi, Z., etc. The socio-economic implications of the coronavirus pandemic (Covid-19): A review. *International Journal of Surgery*, vol. 78, pp. 185–193. 2020.
- [8] Fotiadis, A., Polyzos, S., & Huan, T. C. T. C. The good, the bad and the ugly on COVID-19 tourism recovery. *Annals of Tourism Research*, vol. 87, pp. 103-117. 2021.
- [9] Škare, M., Soriano, D. R., & Porada-Rochoń, M. 2020. Impact of Covid-19 on the travel and tourism industry. *Technological Forecasting and Social Change*, vol. 163. 2020.
- [10] Central Bureau of Statistics, *Girsang Sipangan Bolon District in Figures 2021*. Pematangsiantar: BPS, 2021.
- [11] Sanaubar, G., Hidayat, W., & Kusuma, H. The Effect of Tourism Potential on Labor Absorption in the Hospitality Sector in 9 Regencies/Cities of East Java Province in 2012-2015. *Journal of Economics*, vol. 1, no. 3, pp. 324–339. 2017.
- [12] World Tourism Organization. *Indicators of Sustainable for Tourism Destination*. Madrid: WTO, 2004.
- [13] Damayanti, N. L. E., & Kartika, I. N. The Effect of Foreign Tourist Visits and Investments on Labor Absorption and Economic Growth. *E-Journal EP Unud*, vol. 5, no. 7, pp. 882-900. 2016.
- [14] Lindblad, J. Thomas. Foreign Direct Investment In Indonesia : Fifty Years Of Discourse. *Bulletin Of Indonesian Economic Studies*, vol. 51, no. 2, pp. 217-273. 2015.
- [15] Sukirno, S., *Introduction to Microeconomic Theory*. Jakarta: Raja Grafindo Persada, 2000.
- [16] Wahyuni, Putri Ayu. The Influence of Government Expenditure and Investment on Economic Growth and Income Gap in Regency/City in Bali Province. *E-Journal of Development Economics, Udayana University*, vol. 3, no. 8. 2014.
- [17] Mariana. The Effect of Investment Growth, Growth of Labor Absorption on Changes in Economic Growth and Changes in Economic Structure in the Province of Bali. *Udayana University Journal of Economics and Business*, vol. 3, no. 6, pp. 330-344. 2014.
- [18] Widiastuti, Ni Komang. 2013. The Influence of the Tourism Sector on Regional Financial Performance and District/City Community Welfare in Bali Province. *Essay of Faculty of Economics and Business, Udayana University*.

- [19] Yamakawa, R. 2007. Poverty Reduction through Tourism: The experiences in Asia. United Nations Economic and Social Commission for Asia and the Pacific. *Workshop on expanding the role of tourism in Poverty reduction*.
- [20] Suartini, Ni Nyoman dan Made Suyana Utama. The Influence of the Number of Tourist Visits, Entertainment Taxes, Hotel and Restaurant Taxes on Regional Original Income in Gianyar Regency. *E-Journal of Development Economics, Udayana University*, vol. 2, no. 3. 2013.
- [21] Purwanti, Dwi Novi dan Mustika Dewi Retno. 2014. The Influence of the Number of Tourist Visits on the Regional Original Income of Mojokerto Regency in 2006-2013. *Scientific Journals of Faculty of Economics, State University of Surabaya*.
- [22] Kibara, N. Obidah, Odhiambo, M. Nicholas, and Njuguna, M. Joshepine. Tourism And Economic Growth In Kenya: An Empirical Investigation. University of South Africa, South Africa. *International Business & Economics Research Journal*, vol. 11, no. 5. 2012.
- [23] Buditiawan, K. Jember Regency Tourism Destination Development Strategy. *Journal of Development Policy*, vol. 15, no. 1, pp. 37-50. 2020.
- [24] Utama, I.G.B.R. *Tourism Marketing*. Yogyakarta: ANDI Publishers, 2017.
- [25] Simalungun Regency Tourism and Culture Office. *Simalungun Regency Regional Tourism Development Master Plan (RIPPARDA)*. Jakarta: Simalungun Regency Tourism and Culture Office, 2020.
- [26] Simalungun District Government. *Local Government Work Plan (RKPD) Simalungun Regency in 2022*. Pematang Raya: Simalungun District Government, 2021.
- [27] Simalungun Regency Regional Government. Simalungun Regent Accountability Report for 2018 Fiscal Year. Pematang Raya: Simalungun Regency Regional Government, 2019.
- [28] Simalungun Regency Regional Government. Simalungun Regent Accountability Report for 2019 Fiscal Year. Pematang Raya: Simalungun Regency Regional Government, 2020.
- [29] Simalungun Regency Regional Government. Simalungun Regent Accountability Report for 2020 Fiscal Year. Pematang Raya: Simalungun Regency Regional Government, 2021.
- [30] Simalungun Regency Tourism and Culture Office. *Simalungun Regency Regional Tourism Development Master Plan (RIPPARDA)*. Jakarta: Simalungun Regency Tourism and Culture Office, 2020.