

Analysis of the Development of Tourist Flow to Lake Toba on the Economic Development of North Sumatra

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ABSTRACT

Lake Toba is a tourist area in the province of North Sumatra which has great potential. This can be seen from the development of Lake Toba as a world tourist destination. This research method uses descriptive method, descriptive analysis is to describe all the information data obtained in the form of percentages, average graphs, and others. This research was conducted in Lake Toba, North Sumatra. The results of this study indicate that the development of tourist flows to Lake Toba on the economic development of North Sumatra, indicates a positive impact on the economic development of North Sumatra, this can be seen from the increase in per capita GRDP in the province of North Sumatra, and the increase in tourist visits.

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1. INTRODUCTION

Indonesia is a country in Southeast Asia which is crossed by the equator and is located between the continents of Asia and the continents of Australia. And located between the Pacific Ocean and the Indian Ocean. Indonesia is the largest archipelagic country in the world consisting of 13,466 islands, another name for this country is Nusantara with a population of more than 263,846,946 million people, and is located between 6oN – 11oL and 95oE – 141oBT. Indonesia's territory stretches along 3,977 miles between the Indian Ocean and the Pacific Ocean. Indonesia's land area is 1,922,570 km² and its water area is 3,257,483 km². The most populous island is the island of Java where half of Indonesia's population lives. Indonesia consists of five major islands, namely: Java Island with an area of 132,107 km², Sumatra Island with an area of 473,606 km², Kalimantan Island with an area of 539,460 km², Sulawesi Island with an area of 189,216 km², and Papua Island with an area of 421,981 km². The country of Indonesia as we know it is one of the developing countries that has various kinds of tourism potential, both nature tourism and cultural tourism because Indonesia has various tribes, customs, and cultures and because of the geographical location of Indonesia as a tropical country that produces beauty. nature and animals.

The level of comfort that is still very low for tourists, the cleanliness factor that local residents don't care about, and the long distance that makes tourists less interested in coming to Lake Toba are problems faced by Indonesia to advance tourism locations. Tourism is one sector that is highly relied on in national development because tourism can increase national development because tourism can increase national income, regional income and foreign exchange. Tourism also plays a role in creating jobs and reducing unemployment and at the same time creating community welfare. In reality, the tourism sector is used as a tool to normalize the unstable Indonesian economy. To support the tourism sector, it is necessary to have the participation of the community and the professionalism of the tourism manager in accordance with applicable regulations and provisions. Besides that, with the serious attention of the government on tourism, it is hoped that the business in the tourism sector in Indonesia is expected to develop well.

The progress of the tourism industry of an area is very dependent on the number of tourists who come, because it must be supported by an increase in the utilization of tourist destinations (DTW) so that the tourism industry can develop properly. The country of Indonesia has very beautiful natural scenery, very supportive for the development of the tourism industry sector in Indonesia. As an archipelagic country, Indonesia has the potential to develop its tourism sector. The country of Indonesia has millions of beautiful natural panoramas in it. The wealth of its natural resources is an attraction in itself. Of course, the many and varied landscapes and natural beauty from Sabang to Merauke have hidden natural beauty that other countries do not have.

North Sumatra has great potential in tourism development. Not a few tourist destinations in North Sumatra have international class and are visited by many foreign tourists. With the support of an increasingly advanced airport, the tourism sector in North Sumatra will develop. Lake Toba, for example. It used to be a prima donna tourist destination for tourists who came to North Sumatra. Currently, Indonesia in general and North Sumatra in particular, have turned into an open country compared to other countries. First, the airport is growing, regulations are made easier and the supporting companies at the airport are also getting better. This shows that Indonesia is now pushing the tourism sector better than before. Likewise, support for toll road development will strengthen the tourism sector in North Sumatra. In the 1990s,

Lake Toba is the largest caldera lake in the world, located in the province of North Sumatra, 176 km to the west of Medan as the provincial capital. Lake Toba (2,880 N-98,502 E and 2,350 N-99.10 E) is the largest lake in Indonesia (90 x 30 km²) and is also the largest quarter volcanotectonic caldera (giant volcanic crater) in the world. As the largest tectonic volcano lake in the world, Lake Toba has a length of 87 km in a northwest-southeast direction with a width of 27 km with an altitude of 904 meters above sea level and the deepest lake depth of 505 meters. Lake Toba is in the province of North Sumatra, approximately 176 km from the city of Medan. The area of Lake Toba's waters is 1,130 km² with a maximum depth of 529 meters. The total area of the catchment area (DTA) of Lake Toba is approximately 4,311.58 km², and is the largest and deepest lake in Southeast Asia. Above the lake there is an island, namely the island of Samosir. Around Lake Toba, there are 7 district administration areas, namely Samosir district, Toba Samosir district, Simalungun district, Karo district, Dairi district, North Tapanuli district, and Humbang Hasundutan district which divides the waters of Lake Toba.

Lake Toba will become a new destination that will develop Indonesian tourism. Lake Toba is located in the middle of the hills at an altitude of 900 meters above sea level and is enveloped by cool air, making Lake Toba worthy of the title of the main tourist destination in Indonesia. Not only does it have alluring natural scenery, the second largest lake in the world also holds a great history for the development of human civilization thousands of years ago. Now, Lake Toba has turned into a popular tourist attraction in Indonesia. Even Lake Toba is planned to become the NEW BALI in 2019. For the sake of this plan, the government will facilitate access to Lake Toba. This ease of access is realized in the form of revitalizing Silangit airport,

The 98.5 kilometer long toll road is planned to start construction in 2017. This new access will be connected to the Medan-Binjai-Tebing Tinggi toll road which is currently under construction. The Ministry of PUPR is conducting a feasibility study or land acquisition for the Tebing Tinggi-Pematang-Siantar-Parapat toll road. Meanwhile, the Medan-Binjai-Tebing Tinggi toll road has made significant progress in terms of land acquisition, reaching 80 percent and physical progress at 30 percent. In

addition to building infrastructure, the PUPR ministry is also planning to develop and repair the area around Lake Toba. From the data obtained, the average stay of foreign guests in hotels and other accommodations by district/city (days), 2009-2015. In 2009 it was 1.81. In 2010 it was 3.93. In 2011 it was 2.25. In 2012 it was 2.04. In 2013 it was 2.18. In 2014 it was 2.1. In 2015 it was 2.63. The data obtained also shows that the average length of stay of domestic guests in hotels and other accommodations by month and classification (days), 2009-2015. In 2009 the average was 1.37. In 2010 it decreased to 1.37. In 2011 there was an increase of 1.55. In 2012 it decreased to 1.49. In 2013 it was still 1.49. In 2014 it was still at 1.49. In 2015 there was an increase of 1.66. The purpose of this study is to analyze the development of tourist flows to Lake Toba on the economic development of North Sumatra. The data obtained also shows that the average length of stay of domestic guests in hotels and other accommodations by month and classification (days), 2009-2015. In 2009 the average was 1.37. In 2010 it decreased to 1.37. In 2011 there was an increase of 1.55. In 2012 it decreased to 1.49. In 2013 it was still 1.49. In 2014 it was still at 1.49. In 2015 there was an increase of 1.66. The purpose of this study is to analyze the development of tourist flows to Lake Toba on the economic development of North Sumatra. The data obtained also shows that the average length of stay of domestic guests in hotels and other accommodations by month and classification (days), 2009-2015. In 2009 the average was 1.37. In 2010 it decreased to 1.37. In 2011 there was an increase of 1.55. In 2012 it decreased to 1.49. In 2013 it was still 1.49. In 2014 it was still at 1.49. In 2015 there was an increase of 1.66. The purpose of this study is to analyze the development of tourist flows to Lake Toba on the economic development of North Sumatra. In 2014 it was still at 1.49. In 2015 there was an increase of 1.66. The purpose of this study is to analyze the development of tourist flows to Lake Toba on the economic development of North Sumatra. In 2014 it was still at 1.49. In 2015 there was an increase of 1.66. The purpose of this study is to analyze the development of tourist flows to Lake Toba on the economic development of North Sumatra.

2. RESEARCH METHOD

There are many indicators that are commonly used to find out how the economic development of a region is. The indicators include economic growth, unemployment, inflation and so on.

2.1 Economic growth

Economic growth is a process where there is an increase in real gross national product or real national income. So the economy is said to be growing or developing if there is real output growth. Another definition of economic growth is that economic growth occurs when there is an increase in per capita output. Economic growth describes an increase in the standard of living measured by real output per person. Which means that the growth process itself produces a force or momentum for the continuation of that growth in subsequent periods.

How to calculate per capita income:

$$\text{GDP Per Capita} = \frac{PDB}{\text{Jumlah penduduk}} + \dots$$

a. National Income Method

1) Production Approach

This is formulated by: $\{(P1 \times Q1)\} + (P2 \times Q2) + (P3 \times Q3) + \dots + (Pn \times Qn)\}$

Information:

- Y : National income
- P : Number of products produced
- Q : Unit price of a product

2) Expenditure Approach

How to calculate national income with this method is formulated as follows:

$$Y = C + I + G + (XM)$$

Information

- Y : National income
- C : Household consumption

- I : company investment
 G : Government spending (both consumption and investment)
 (XM) : Net exports (difference between export value and import value)

3) Income Approach

The calculation of national income is formulated as $Y = W + r + i + P$
 Information

Y : National income

W : wage (salary or wages), this is the income received by the owner of the labor factor

R : Rent is a form of income obtained by the owner of the factors of production in the form of land, buildings, assets and others.

I : interest (interest) is a form of income obtained by the owner of the factors of production in the form of capital.

P : profit (profit) is the income or income received by the owner of the entrepreneurial factors of production.

2.2 Research approach

In order for this research to be more focused and in accordance with the desired objectives, the writing method used is descriptive quantitative. The data presented is a time series, namely data that is chronologically arranged according to time on one variable.

2.3 Variable operational definition

The variables used in this study are:

- a. Tourist flow
- b. North Sumatra Economic Development

In the preparation of this study, the authors conducted research on Lake Toba tourism objects in the province of North Sumatra and the time of this research is planned in October 2017

2.4 Types and Sources of Data and Data Collection Techniques

The type of data used is secondary data. Secondary data is data collected in the form of GRDP, Inflation, Unemployment data obtained from BPS and related agencies. The data collection method used by the author in this study is to use secondary data obtained from the Central Bureau of Statistics of North Sumatra. The author collects this material from books and other references related to the Lake Toba Province Tourism in North Sumatra.

2.5 Analysis Method

Data analysis is the process of simplifying data into a form that is easier to read and interpret. The method chosen to analyze the data in this study is descriptive analysis, which describes all the information data obtained in the form of percentages, averages, and others.

3. RESULTS AND DISCUSSION

Foreign tourists who came to North Sumatra by entrance from 2011 to 2015 experienced an increase and decrease. In 2011 amounted to 223,126 and the most came through the entrance to Polonia Airport, in 2012 amounted to 241,833 and the most came through the entrance to Polonia Airport, in 2013 amounted to 259,299 and the most came through the entrance to Polonia Airport, in 2014 amounted to 270,837 and the most came through the entrance to Polonia Airport, in 2015 amounted to 229,288 and the most came through the entrance to Polonia Airport and the number of tourists who came to North Sumatra through the entrance in 2011-2015 was 1,224,433 person. Number of hotels and other accommodation by district/city, 2009 to 2015 experienced increases and decreases. In 2009 the number of hotels in North Sumatra was 727, in 2010 it increased to 784, in 2011 it increased again to 788, in 2012 it increased again to 795, in 2013 it decreased to 789, in 2014 it increased again to 823, in 2015 it increased to 829. The number of hotels in North Sumatra from 2009-2015 was 5,535. The thing that causes the decline in the number of hotels in North Sumatra can be caused by several factors such as low visits to the hotel so that the hotel goes out of business. In 2014 it increased again to 823, in 2015 it increased to 829. The number of hotels in North Sumatra from 2009-2015 was 5,535. The thing that causes the decline in the number of hotels

Sidimpuan. In August, the highest inflation occurred in the city of Medan. In September, the highest inflation occurred in Sibolga City. In October, the highest inflation occurred in Sibolga City. In November the highest inflation occurred in the city of Sibolga. In December, the highest inflation occurred in Pematangsiantar City. The highest amount of inflation in 2016 occurred in the city of Sibolga. One of the things that caused inflation was because of the large amount of money in circulation.

The open unemployment rate in North Sumatra in 2012 was 6.20 people, in 2013 6.53 people and in 2014 6.23 people. Where the highest unemployment occurred in the city of Sibolga. Number of job seekers by sex North Sumatra province 2015 (people). In 2015 the number of male and female job seekers was 199,251 people.

3.1 Tourist Flow Development

a. The Development of Tourist Flow to Lake Toba

The following is a table of the number of international and domestic flights through Polonia/Kuala Namu Airport in 2009-2013, which can be seen from the following table.

Table 1.
Number of International And Domestic Flights Via
Polonia/Kuala Namu Airport (Kali) 2009-2013

Year/Month	International		Domestic	
	Come	Leave	Come	Leave
2009	5 381	5 321	19 779	19 882
2010	6 177	6 176	23 031	23 054
2011	7 408	7 408	23 378	23 404
2012	7 715	7 711	25 263	25 261
2013	9 098	9 110	28 280	28 266
January	666	671	2 192	2 193
February	599	598	1 928	1 924
March	667	669	2 254	2 250
April	664	667	2 259	2 255
May	675	676	2 371	2 368
June	775	776	2 471	2 473
July	798	797	2 501	2 499
August	861	862	2 610	2 611
September	879	879	2 522	2 522
October	860	861	2 443	2 442
November	824	824	2 332	2 333
December	830	830	2 397	2 396

Based on the table above, the number of international and domestic flights through Polonia/Kuala Namu Airport in 2009-2013. In 2009 international flights arrivals were greater than departures by 5,381 while domestic flights departed more than arrivals by 19,882, in 2010 international flights arrived more than those departed by 6,177 while domestic flights departed more than arrivals amounted to 23,054, in 2011 flights international departures and arrivals were equal to 7,408 while domestic flights arrived more than departures by 23,404, in 2012 international flights arrived more at 7.

The following is a table of the flow of ship visits according to the port attempted in 2013 which can be seen below.

Table 2
Flow of Ship Visits by Port is Trying 2013

Year	Between countries		Inter-island	
	Unit	Grt	Unit	Grt
Belawan/Badan	1 631	14 647	3 040	14 000 465
Beryan/Base Susu	-	414	-	-
Sibolga/Mount Sitoli	-	-	2 393	2 508 581
Tanjung Balai Asahan	1 231	255 486	62	18 338
Kuala Tanjung	193	2 515 031	90	237 492
Amount	3 055	17 417 931	5 585	16 800 876

Based on the table above, the flow of ship visits by port was attempted in 2013. The flow of ship visits between countries from Belawan/Pangkalan Brandan/Pangkalan Susu GRT was greater at 14,647,414, while from Sibolga/Gunung Sitoli there was none, from Tanjung Balai Asahan GRT it was greater by 255,486, from Kuala Tanjung GRT it was bigger by 2,515,031. The flow of ship visits between islands from Belawan/Pangkalan Brandan/Pangkalan Susu GRT is larger by 14,000,465, from Sibolga/Gunung Sitoli GRT it is larger by 2,508,581, from Tanjung Balai Asahan GRT it is larger by 18 338, from Kuala Tanjung GRT it is more large of 237,492. From these data, it can be seen that the number of GRT between countries is greater than the GRT between islands.

The following is a table of the length of district/city roads according to road conditions in 2011-2013.

Table 3.
District/City Road Length According to Road Condition (Km) 2011-2013

County/city	Well	Currently	Damaged	Heavily damaged	Not specified	Amount
DISTRICT						
Nias	201.56	120.31	182.04	287.13	-	791.04
Christmas mandailing	246.43	158,70	504.47	703.40	-	1 613.00
South Tapanuli	263.70	261.07	450.93	141.14	-	1 116.84
Middle Tapanuli	230.36	164.82	167.23	172.45	-	734.86
North Tapanuli	358.91	237.87	334.23	182.50	-	1 113.51
Toba Samosir	305.53	165.35	363.12	251.22	-	1 085.22
Labuhanbatu	382.46	217.83	249.70	143.82	-	993.81
sharpen	465.63	219.87	382.63	164.88	47.77	1 280.78
Simalungun	501.00	927.14	585.79	208,16	-	2 222.09
Dairi	271.05	135.22	390,37	596.87	-	1 393.51
Karo	395.24	287.89	256,60	278.42	-	1 218.15
Deli Serdang	1 357.06	1 132.08	257.52	328,89	-	3 075.55
Langkat	298.60	308,28	680.85	125,20	-	1 412.93
south nias	162.65	126.15	123.67	323.63	-	736.10
Complaints of slander	525.45	134.28	74.21	251.46	-	985,40
Mr. Bharat	271.61	92.86	141.40	56.17	-	562.04
Samosir	74.56	47.60	47.86	31.48	-	201.50
Serdang different	502.12	315.07	384.28	262.48	-	1 463.95
Coal	195.42	134.02	142,20	37.53	-	509.17
North ancient fields	405.01	373.47	355.08	471.54	-	1 605.10
old field	364.96	174.64	379.68	440.72	-	1 3600.00
South	160.95	93.55	103.20	171.11	-	528.81
Labuhanbatu						
North Labuhanbatu	357,80	263.37	274.96	167.81	-	1 063.94
North Nias	201.99	219.03	281.69	28.15	-	730.86
West Nias	135,12	134.35	97.55	87.27	-	454.29
CITY						
Sibolga	24.30	9.60	21.15	-	-	55.05
Tanjung Balai	197.81	77.56	44.36	6.54	-	326.27
Pematangsiantar	221.87	34.76	38.33	23.49	-	318.45
High cliff	105.89	46.42	62.13	3.36	-	217,80
Medan	2 802.54	47.67	28.39	72.78	-	2 951.38
Binjai	181.61	83.25	73.45	14,17	-	352.48
Padangsidempuan	61.00	180.00	234.00	-	-	475.00
Mount Sitoli	80.79	109.82	119.32	124.85	-	434.78
North Sumatra	12 310.98	7 033.90	7 832.39	6 158.62	47.77	33 383.66
2013						
North Sumatra	13 879.01	7 455,48	7 068.01	4 904.63	635.64	33 942.77
2012						
North Sumatra	12 966.71	6 819.22	7 606.89	5 545.56	905.66	33 844.04
2011						

Based on the table above, the length of district/city roads according to road conditions (km) 2011-2013. In 2011 the number was 33,844.04 consisting of 12,966.71 good roads, 6,819.22 moderate roads, 7,606.89 damaged roads, 5,545.56 heavily damaged roads, not specified 905.66. In 2012 the number was 33,942.77 according to good roads 13,879.01, medium roads 7,455.48, damaged roads 7,068.01, heavily damaged roads 4,904.63, not specified 635.64. In 2013 the number was 33,383.66 consisting of 12,310.98 good roads, 7,033.90, moderate roads, 7,832.39 damaged roads, 6,158.62 badly damaged roads, not specified 635.64.

4. CONCLUSION

Based on the research results from the discussion that has been described in the previous chapter, the following conclusions can be drawn:

The impact of tourism for the development of Lake Toba tourism is the increase in tourist visits every year so that it can increase foreign exchange for the country.

- a. The positive impact of the tourism sector is reducing the number of unemployed in the Lake Toba area or in North Sumatra.
- b. The negative impact of the tourism sector is that it will increase crime that will disturb tourists visiting Lake Toba.

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