Incentive System Of Development Visits Tourists In Lake Linow North Sulawesi Indonesia

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Abstract: This study aims to determine the extent to which the development of tourist arrivals to the tourism industry in the Lake Linow. The results showed that Linow Lake is a natural tourist attraction that could potentially be developed to support the regional income and welfare of the local community. Linow Lake is a geological phenomenon which has the natural resources and biodiversity is high, so that development needs to consider aspects of nature conservation. The local government has undertaken various activities to delude tourism tourists visiting the Lake Linow. However, not significant when compared with the overall number of tourists visiting attractions that exist in Tomohon. This is a result of the non - physical aspects, such as management, need to be improved and more professional (promotion). In addition, it is necessary intensive training and education relating to the management of attractions, such as Lake Linow.

Keywords: Incentive systems, tourism development, lake conservation.

I. Introduction

One of the promising sectors in Indonesia, which can help to increase the national income and foreign exchange is tourism sector while enhancing environmental quality, and to promote the world cultural and natural potential. The United Nations World Tourism Organization (UNWTO) provide information that tourism is one of the drivers of economic growth of countries around the world. The tourism industry aims to give more attractiveness of tourism that can be considered as something that is meaningful to perekonomian a State [1].

Asia Pacific is expected to experience rapid growth and development of tourism and naturally rich in culture, which is a zone with high biodiversity and habitats multi-ethnic have interesting cultural and natural beauty [2].

One of the famous tourist destinations in the world is Indonesia, which has a variety of cultural and natural resources [3]. In Indonesia, the development of tourism and benefit the local and national governments to give serious attention [4]. Believed by the Indonesian government that the tourism sector plays an important role in the development of the local area and act as a catalyst in the development and progress of other sectors. Tourism can create jobs for the local community [5] [6]. In many parts of the world, the development of tourism is always supported by a comprehensive policy instruments, especially in the optimization of economic profit is not maximized with due consideration to the preservation of local nature and culture [7]. Already lasim and common for governments that build infrastructure, it is to support the development of tourism [5] [9] [10].

The proportion of incentives and disincentives in the context of sustainable development, should be done by carefully so that the development of tourism can be a stimulus for the preservation of ecological balance, but the opposite is not productive policy toward sustainable development program [6]. Act No. 24 of 1992, suggests there are two forms of incentives, namely the economic incentives and physical incentives. Economic incentives are always related to compensation and reward (reward) [8]. Incentives can be oriented in the form of physical infrastructure [9].

In developing countries, the success of local incentive systems are rarely studied in the development of tourism, and it became one of the major weaknesses in the planning and development of local tourism. Most of the criticism directed policy gaps and reality. This study aims to determine the system of incentives to the development of tourist arrivals in program quality sustainable tourism in the Lake Linow. Tomohon, a city located in North Sulawesi, which was selected as the study site because the city is aggressively developing tourism to support the North Sulawesi province which makes it as one of the world's tourist destinations.
II. Research Methods

2.1. Study Site

This study was conducted in Lake Linow and administratively, the lake is located in the Village Lahendong, District of South Tomohon, North Sulawesi. Position Linow lake located in a mountainous area, so the cool temperate mountain and flanked by Mount Tampusu moreover, Mount Taulangkow. Geographically, Tomohon is surrounded by three mountain is Mount Lokon (1,689 m asl), Mahawu (1,311 m asl) and Mount Masarang (560 m asl), with a height of ± 700 m above sea level. The third mountain, Lokon is one of the most active volcanoes to date in North Sulawesi and last erupted in 2012, so do not be surprised if Tomohon good fertile area for agricultural activities, due to the three volcanic mountains.

Tomohon has several attractions, including Lake Linow which is one of the natural resources that have the potential to be developed as a tourist attraction unique. Linow vast lake which is a 34 acre lake and lava volcanic sulfur, still showed symptoms of geological phenomena. Due to sulfur content, causing a combination of water color change often. The beauty of the lake is very interesting Linow tourists to come visit and for the current entrance fee is IDR 5,000 per person for the revamping process. Moderate to very easily get into the lake because it is located 4 km from the city center and can be reached by public transport from the bus station Tomohon only IDR 3,000 per person.

2.2. Research Procedures

The study took place from February to August 2013 in the Village Lahendong. The study was conducted in four main phases, namely:
1. Understanding Tomohon development policy documents;
2. Distributing questionnaires to respondents (Knowing the local perception);
3. The analysis estimates the development of tourist visits, and
4. Descriptive gap analysis.

Studies done by reading the policy documents of official documents of government Tomohon on tourism development such as the Medium Term Development Plan, the Government Work Plan Year 2011, 2012, and 2013, and other documents were analyzed. Incentive policies written on the document, recorded for further analysis.

Questionnaires were distributed and interviews were conducted to determine the perceptions of local communities towards the implementation of development plans and incentive tourism Tomohon. The respondents consisted of government officials and the Village Office Tomohon, Tomohon Tourism Department staff, local communities around Lake Linow, and tourists visiting the lake. In total, there were 100 respondents fill out the questionnaire.

Direct field observations made by visiting the lake on a regular basis to determine the certainty of tourists who came to enjoy the uniqueness of Lake Linow, then dicacat and studied as a further analysis. Thus the characteristics of bio-geo-physical basis, as well as the quality of infrastructure around the lake were observed, recorded and studied as a writing material.

Key informants were selected to be interviewed in order to obtain accurate data and more on the public perception, the trend of tourist arrivals, and the performance gap incentives in conjunction with the development of Lake Linow community pride as a tourist attraction because of its uniqueness Tomohon.

Gap analysis is done by comparing the incentives set by the local government with the public perception. Once the gap analysis, further discussion of which still refers to the relevance of the theory and the results of previous research with a commitment to consider the typology of city and aspects in the management of Tomohon.

III. Result And Discussion

3.1. Linow Lake

Linow Lake is one of the volcanic lake related with geological processes in Tomohon area that the lake water containing sulfur. Become more popular, if visiting volcanoes and other geothermal phenomena. Often is the key to economic growth in the surrounding area is a tourist attraction and popularity of regional geological features [11] [12].

Lake Linow tourism development program because it is supported by the location of the area in the mountains, the beautiful scenery around the lake and the natural environment to be preserved, which is largely dominated by hills and mountains. The existence of the green area at an altitude of 700 m above sea level, contributing to the formation of micro-climate is cool and fresh, creating a friendly and relaxed environment. The ability of the region to develop the economy and wealth of local communities related to the lake located in the mountains and the scenery is breathtaking, has developed into an interesting tourist attraction, is widely available in Indonesia.

Geological zone of volcanic phenomena, have led to some cracks in the area of land around the lake,
bursts of boiling hot water and white smoke containing sulfur is clearly visible and is often found in lakes grousers. In the area around the lake, the plants are not found directly, is influenced by the presence of sulfur. But in certain areas where there is no sulfur content, and there is growing plants in other locations, also grow a variety of trees, shrubs, and herbs. Several types of insects found around the lake, which local people call it Sayok and Komo. Linow lake habitats important for biodiversity.

Around the lake, has been provided by local government and constructed the way for people to be able to enjoy the beauty of the lake. For tourists, it is not allowed near the main section sulfur bursts open for security protection. To ensure the safety of tourists, the tourist attractions in the area which is open free of sulfur fumes. This means that travelers should not enter into the risk to visit dangerous areas [13]. Because the most important aspect to consider is safety in tourism.

Other tourism support infrastructure in Lake Linow is wood or bamboo bridge overlooking the lake, cottages, toilets, restaurants, playgrounds, and parking lots. Technically, the infrastructure and facilities provided quite good and meets the quality standards for infrastructure and facilities in the tourist region [14].

Administrator lakes provide information that most tourists visiting the lake came from Asia, such as Japan, Korea, China, and Singapore. It is not so much different from the national data on trends of origin of tourists coming to Indonesia [15].

3.2. Tourism Policy Tomohon

Tomohon tourism development is an integral part of the development plan policies in North Sulawesi, to become a world class tourist destination. North Sulawesi is one of Indonesia’s portion is very rich in natural and cultural resources that can be used as a major tourist attraction. North Sulawesi has long been famous for the presence of congenital Bunaken Island tourism [16].

Policies related to tourism development in Tomohon written in official documents such as the government's Medium Term Development Plan and Annual Work Plan Government. Some basic aspects that influence the development of tourism in Tomohon is a consideration in the alignment between the vision of the government of North Sulawesi and the government make a world-class tourist destination and tourism growth trends in Tomohon. Data on the number of tourists coming to Tomohon showed an increase, by 22% in 2010, and the number of domestic tourists increased by 93% [15].

Tourism development priorities in Tomohon in 2013 was the optimization of the support of other sectors in the preparation of Tomohon object to quality tourism. Priority is also given to the efforts to increase investment in the tourism sector, the optimization of Information and Communication Technology (ICT) advances as media campaigns, and improve the quality and quantity of human resources and professionalism. Innovation by local governments is part of an effort to improve the performance of tourism in Tomohon. An area designed to attract investors and visitors must provide adequate facilities and infrastructure [17].

In the context of the planning system, there are three important issues to realize Tomohon as a major tourist destination (Figure 1).

![Figure 1. Three Aspects In Tomohon Towards Realization of Goals Competitive and Sustainable Tourism](image-url)

The results of the document analysis showed that there are three main aspects in the development of tourism in Tomohon, which is the provision and improvement of tourism infrastructure, the provision of good information systems and networks to support implementation of tourism development, and strengthening local communities. These three aspects are described as follows:
1. Facilities and Infrastructure

The road is a major component in tourism. Based on the data, the quality of roads in Tomohon showed significant improvement. In 2006, the road quality is 121.85 km and in 2010, it is 225.34 miles. Ride the length of paved roads, dirt roads while decreasing in length [18]. However, there is a gravel path length fluctuations (Table 1)

<table>
<thead>
<tr>
<th>Kinds of Surface</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paved Roads</td>
<td>190.37</td>
<td>206.64</td>
<td>231.90</td>
<td>262.02</td>
<td>264.34</td>
</tr>
<tr>
<td>Gravel Roads</td>
<td>40.12</td>
<td>47.77</td>
<td>32.25</td>
<td>23.23</td>
<td>44.22</td>
</tr>
<tr>
<td>Land Roads / Pathways</td>
<td>84.37</td>
<td>65.45</td>
<td>68.95</td>
<td>56.65</td>
<td>64.02</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>314.86</td>
<td>319.86</td>
<td>333.10</td>
<td>341.90</td>
<td>372.58</td>
</tr>
</tbody>
</table>

(Sources: Tomohon in Figures in 2011)

2. Improved System Promotion

Promotion system development can be done by improving databases and information systems related to tourism, through an integrated promotion of Trade, Tourism and Investment (TTI), providing communicative website to attract tourists, and develop quality and continuous network. Promotion of tourism in Tomohon actively conducted through national events and international like Tomohon Flower Festival [19].

3. Empowerment of Local Communities

Tomohon government is trying to increase awareness and involvement of local communities in tourism development through a variety of ways, such as providing funding for small-scale industries in the creative tourism. Regional culture and art are the things which the government pays a lot of attention.

Reinforcement should be provided through the training of artists and those directly involved in the arts and cultural preservation. Empowering local communities in terms of art and culture is very important, and this can be seen from the funds allocated for the development of tourism in Tomohon [19]. One aspect to put culture as a priority in the development of tourism is concerned about the preservation of the culture of Minahasa.

With three considerations, Tomohon is expected to grow into a tourist destination that is competitive and quality based on local resources and capabilities. According to a statement tourism official documents, this approach is very useful towards sustainable and competitive tourism destination. These aspects are believed to be the basis of future development of tourism in the Lake Linow.

3.3. Public Response Against Incentive Systems in Tourism Development

Local communities around the lake Linow understand that the lake is being developed as one of the natural attractions in Tomohon. The local people also stated that the development of the Lake Linow into a competitive tourist destination is important. They think that the government needs to make efforts to preserve the lake and to make appropriate policy with the aim of developing a lake Linow into a competitive tourist destination. Respondents gave a statement, such as roads become an absolute necessity for tourism. For example, the road from the gate to Lake Village Linow along the 700 m, need to be made wider to support the mobilization of tourists and to prevent accidents.

Respondents noted that the lake is the main threat of environmental damage, so the government needs to socialize tree planting program around the lake to the local community. To make it more effective, the government can set rules to prevent people from destroying the area around the lake and destroy the lake itself. Many documents that contain Tomohon tourism development policy, especially Linow Lake, responded in different ways by the local community.

Public perception of the system of incentives to improve the quality of tourism in the Lake Linow (scores range from 1 (completely bad or disagree) - 5 (completely either / agree). Analysis that has been done to the public perception, it is clear that the local community can take advantage of the program incentives by the government. Least local people can benefit from socialization and training programs with a value of (3.83) and an increase in physical (3.68). Attention of government in improving infrastructure (3.87) in the development of capabilities human resources (3.36) and preserve the lake ecosystem has gained a good appreciation of the local community (3.82). This means that the development of the lake and surrounding Linow (3.77) as a tourist destination has been fulfilling aspects of sustainable development (3.68). Though yet to obtain maximum results, this strategy would lead to Lake Linow be a sustainable tourism destination and attraction, experts say, in order to realize the goal of sustainable tourism, competitive, and exciting, equality of economic, social, and environment is clearly important [20] [21].

Tomohon government allocated substantial funds for development of the tourism sector in 2012. This includes the development of marketing programs (3.6 billion), destination development program (646 million),
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and network development program (140 million) [19]. Funds allocated to marketing is very large, ie 83% of the total funds allocated for the development of the tourism sector. However, Tomohon people think that the government needs to allocate a larger amount of funds available in the future.

3.4. Perceptions of the Quality of Tourism Management in Lake Linow

Local people's perceptions about the management of Lake Linow as Objects (scores range from 1 (completely bad or disagree) - 5 (completely either / agree), and the results are summarized in the analysis, that local people see the managerial functions of local government in building coordination and increased good capacity to value (4.07). Training (3.99) for those who are responsible (3.98) over the management of tourism around Tomohon can help improve performance.

The problem appears to be related to the incentive system with immediate effect experienced by the local community. Local people think that the economic impact of tourism development is not enough (3.74). Professionalism in the management of the lake are also in need of repair (2.98). The concept of sustainable tourism held in the minds of people, but its implementation requires more revisions (3.75).

3.5. Estimates of Tourist Arrivals In Lake Linow

Some of the attractions that have the potential to develop the tourism sector in Tomohon, namely:

1. Natural Attractions: Lake Linow the research object, Masarang Lake, Lake Pangolombian, Mount Masarang, Mount Tampus, Mahawu, Mount Lokon, Goa Susuripen in Mahauw Feet, Niagara Tekaan Barbadensis Tinoor, Niagara Tumimperas Pinaras, Thermal Baths, Lahendong Pine Forest, as well as the lake Sineleyan.

2. Agro Tourism: Agro Tourism Rurukan, and Flower Kakaskasen Two.


5. Parks Recreation: Recreational facilities existing Town Center.

The potential of natural and cultural potential is substantial capital to develop the tourism sector in order to boost the economy. Such as the number of foreign tourists visiting each year in Tomohon show improvement, so domestic tourists. The number of foreign tourists in 2006 was 1042 people, 2007 was 1821 people, increased to 2817 people in 2008, and in 2010 reached 3954 foreign tourists, as in the following Table:

Table 2. Tourist Arrivals in Tomohon Year 2008 – 2012

<table>
<thead>
<tr>
<th>Number visits</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2008</td>
</tr>
<tr>
<td>1. Foreign Tourists</td>
<td>2.817</td>
</tr>
</tbody>
</table>

Source: Tomohon in Figures 2012

The number of tourist arrivals in the simple linear regression analysis to measure the presence of more than one predictor variables (independent variables) on the dependent variable, the model of [22].

\[ Y = a + b_1X_1 + e \] or \[ Y = a + b_1X_1 + b_2X_2 + \ldots + b_nX_n \]

- \( Y \) = The dependent variable is bound and \( X_1, X_2 \) = independent variable-free
- \( a \) = The constant or intercept, the average difference in the magnitude of the variable \( Y \) when the variable \( X = 0 \)
- \( b_1, b_2 \) = regression coefficient or slope, estimate the magnitude of changes in the value of the variable \( Y \) when the value of the variable \( X \) changes the unit of measurement
- \( e \) = Error value (error) is the difference between the observed \( Y \) values with the actual values of \( Y \) given \( X \) point

where:

\[ \sum X_1Y = a \sum X_1 + b_1 \sum X_1^2 + b_2 \sum X_1X_2 \]
\[ \sum X_2Y = a \sum X_2 + b_1 \sum X_1 + X_2 + b_2 \sum X_2^2 \]

In the context of foreign and domestic tourist arrivals in Tomohon in the year 2008 - 2012, then the data can be shown as in the diagram (Figure 2).
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Figure 2. Diagram Foreign and Domestic Tourist Arrivals in Tomohon for Year 2008 – 2012

Table 3. Approximate Analysis of Foreign and Domestic Tourist Arrivals to Tomohon in 10 Years Ahead (2013 – 2022)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Foreign Tourists</td>
<td>5749</td>
<td>6337</td>
<td>6925</td>
<td>7513</td>
<td>8101</td>
<td>8689</td>
<td>9277</td>
<td>9865</td>
<td>10453</td>
<td>11041</td>
</tr>
<tr>
<td>2</td>
<td>Domestic Tourists</td>
<td>28140</td>
<td>31140</td>
<td>34140</td>
<td>37140</td>
<td>40140</td>
<td>43140</td>
<td>46140</td>
<td>49140</td>
<td>52140</td>
<td>55140</td>
</tr>
</tbody>
</table>

Sources: Data Processed

Figure 3. Approximate Analysis Diagram Foreign and Domestic Tourist Arrivals to Tomohon for Year 2013 – 2022

Table 4. Travelers Visit to Lake Linow on January – December 2012

<table>
<thead>
<tr>
<th>In 2012</th>
<th>Tourist</th>
<th>Total of Tourist per Month</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foreign</td>
<td>Domestic</td>
</tr>
<tr>
<td>January</td>
<td>140</td>
<td>118</td>
</tr>
<tr>
<td>February</td>
<td>98</td>
<td>182</td>
</tr>
<tr>
<td>march</td>
<td>145</td>
<td>130</td>
</tr>
<tr>
<td>April</td>
<td>160</td>
<td>206</td>
</tr>
<tr>
<td>May</td>
<td>155</td>
<td>215</td>
</tr>
<tr>
<td>June</td>
<td>120</td>
<td>183</td>
</tr>
<tr>
<td>July</td>
<td>101</td>
<td>212</td>
</tr>
<tr>
<td>August</td>
<td>272</td>
<td>220</td>
</tr>
<tr>
<td>September</td>
<td>128</td>
<td>201</td>
</tr>
<tr>
<td>October</td>
<td>179</td>
<td>180</td>
</tr>
<tr>
<td>November</td>
<td>181</td>
<td>213</td>
</tr>
<tr>
<td>December</td>
<td>219</td>
<td>320</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1898</strong></td>
<td><strong>2380</strong></td>
</tr>
</tbody>
</table>

Data Processed in 2012
3.6. Gaps in Tourism Development

Associated with the policy of sustainable development of tourism sites, it seems that the administration was trying to complete all the required aspects of sustainable tourism approach. Developed an incentive system is also projected to create sustainable tourism, where tourism development will not only boost local government revenue, but also for those who live around the lake contribute to the conservation of natural and cultural preservation.

The system also created incentives developed in line with the objectives of sustainable tourism, where the growth of the tourism sector will not only increase government revenue, but also contribute to the Minahasa culture and conservation of the environment around the lake. Incentive systems are designed by local authorities is not optimal for a number of factors, such as policy-related issues and weakness, low human resource capacity, allocation of funding imbalance, and several other factors. There is no comprehensive system and policies related to the management of tourism in the Lake Linow. There are no regulations set by the local government that can be recognized legal basis for the lake to be tourist sites and ticket level. Scholar shows that involving all stakeholders is very important [23].

The lack of human resource capacity, both government staff and the local community, is the cause of low participation [24] [25]. This community really need to be introduced to the skills and technology used in the management of tourism. Tomohon local governments need continuous training to the teaching staff and the local community about the importance of skills and technology required. This is particularly relevant because of the role of information technology has become so dominant market competition to win today, tomorrow and in the days to come.

Physical development in the area have done, but there is still lack of infrastructure and facilities, especially those needed to ensure the comfort and safety of the tourists. Those responsible for the management of tourism in this region can develop basic infrastructure, such as paved the way, shelter, security stations, tourist guides, as well as placing attributes as a sign of warning.

IV. Conclusion

Linow Lake is one of the natural attractions in Tomohon which has the potential to be developed further, especially if observed from the increasing tourist visits. Tomohon local government has implemented an incentive system to support the sustainable development of the lake so that it can generate higher revenues for...
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the government and improve the welfare of local communities. The system is running well, but the quality still needs to be revised and improved. Local people think that the non-physical aspects, such as management, need to be managed more professionally. In addition, intensive training and training (education) related to the management of tourism should be done continuously and periodically.

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