

# Modeling of Ecotourism Development in Tasikmalaya District, West Java

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**Abstract**—The Tourism Sector in Tasikmalaya Regency has excellent potential to be developed towards ecotourism-based tourism areas. Mount Galunggung Tourism Area, Jasper Park Area and Kampung Naga Region are the three tourism areas that are most likely to be used as ecotourism area modeling. The objectives of this study are: identify the level of fulfillment of ecotourism criteria in the Galunggung Mountain Tourism Area, Jasper Park, and Kampung Naga; and formulate the development and modeling of ecotourism in the tourism areas of Mount Galunggung, Jasper Park, and Kampung Naga. The research method used is a qualitative research method with a field survey. Analysis of the potential of the three tourism areas is used by SWOT analysis. Jasper Park has the potential to be used as a National Geopark area, the direction of regional development includes special interest tourism, agrotourism, and Jasper conservation. Mount Galunggung can be used as a superior ecotourism area in Tasikmalaya Regency, and Kampung Naga can be used as an Education-based Cultural Tourism Area. The results of this study are expected to provide important information about tourism potential that can be developed and can be an input for local governments in tourism development policies in Tasikmalaya District.

**Keywords**—*modeling; ecotourism; development*

## I. INTRODUCTION

The tourism industry is currently used as an important contributor to the economy of several countries, because it has a high chance of developing the country [1]. The development of the industrial sector is currently developing also in Indonesia, the development of local potential for tourism activities continues to be developed.

Tasikmalaya Regency has the potential to be developed in the tourism sector. The tourism sector has an important role in building tourism in West Java and in the development of the Tasikmalaya Regency. The variety of tourism potential possessed by Tasikmalaya Regency consists of historical, cultural, culinary, natural tourism and various other tourism potentials.

Tasikmalaya Regency is known for its natural and cultural wealth. This potential can be used by the community to be used as a source of livelihood. By utilizing the existing natural and cultural wealth, the community and the government can work

together to optimize the potential for one of them in the tourism sector.

Based on the development of the Tasikmalaya Regency, tourism is one of the sectors favored for regional development. The tourism sector contributed 24.9% [2]. This makes development priorities in addition to the agricultural sector.

The tourism objects in Tasikmalaya Regency which are used as the leading tourism areas are: Galunggung Tourism Area, Naga Village, and Jasper Park. The three areas that are experiencing development are Mount Galunggung for natural tourism and Kampung Naga as a cultural tourism destination. Jasper Park in the southern Tasikmalaya regency is not yet optimal in its development. Because the development of facilities and facilities and infrastructure for transportation is not optimal.

Efforts that can be made to support the tourism development policy of Tasikmalaya Regency can be done in various ways. Some things that can be done are arranging potential tourist attractions and developing superior tourism areas. Planning and design of tourism in Tasikmalaya Regency which has a dualism function, namely (1) as a cultivation area with tourism as its main sector, and (2) as a protected area for the area under it. One alternative in developing tourism activities in Tasikmalaya Regency is by applying the concept of ecotourism because this concept has the concept of environmental development and the welfare of local communities.

## II. RESEARCH METHODS

The method in this study is a qualitative research method with a field survey approach. The location of the study was carried out in the Three Tourism Areas, namely: Mount Galunggung Tourism Area, Kampung Naga Tourism Area, and Jasper Park Tourism Area. Data collection techniques used were: a) Field Study, b) Interview, c) Documentation Study, d) Literature Study, and e) Questionnaire. Analysis technique to study ecotourism area modeling using SWOT analysis. The analysis was carried out by examining the physical conditions of the three regions and then carried out qualitative generalizations.

III. RESULTS AND DISCUSSION

A. Mountain Galunggung Ecotourism Area

Mount Galunggung is a volcano that has a height of 2,167 meters above sea level. The distance from the center of Tasikmalaya City is around 17 km. Mount Galunggung tourism area has an area of approximately 120 hectares [3]. Mount Galunggung has Montane Forest 1,200 - 1,500 meters and Ericaceous Forest > 1,500 meters. Location Galunggung Volcano is located in Tasikmalaya Regency, West Java Province, Coordinates 7.25 ° LS-7 ° 15'0 "LS; 108.058 ° BT-108 ° 3'30" BT [4].

Mount Galunggung Tourism Object has a tourist attraction: Mount Galunggung Crater, Cipanas Galunggung Water baths, campsites, and family tours. The purpose of tourists who come to Mount Galunggung tourism objects are very diverse, some of the tourist destinations are observations including destinations for education, camping, bicycle sports, hiking, soaking in hot water, family tours.

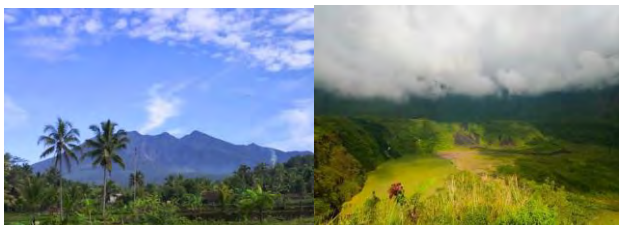
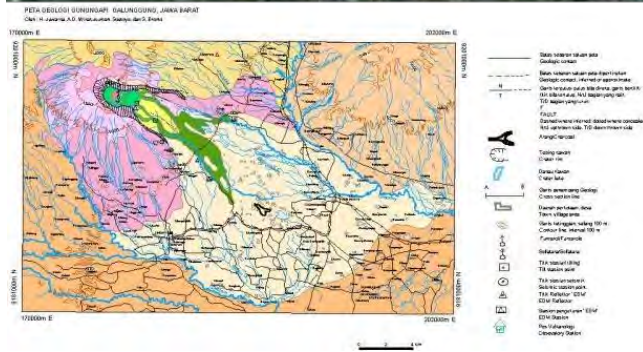


Fig. 1. Satellite imagery, photo and geological map.

B. Ecotourism Area Jasper Cibuniasih Park, Tasikmalaya

Cibuniasih Village, Tasikmalaya has enormous natural resource potential to be developed. One of the potential possessed by Cibuniasih Village is Jasper Stone which is

currently located in Jasper Rock Garden. Judging from the process of rock formation is very complex and is related to plate tectonics and volcanoes. This type of rock is not found in all hemispheres. So jasper has a very high educational and economic value.

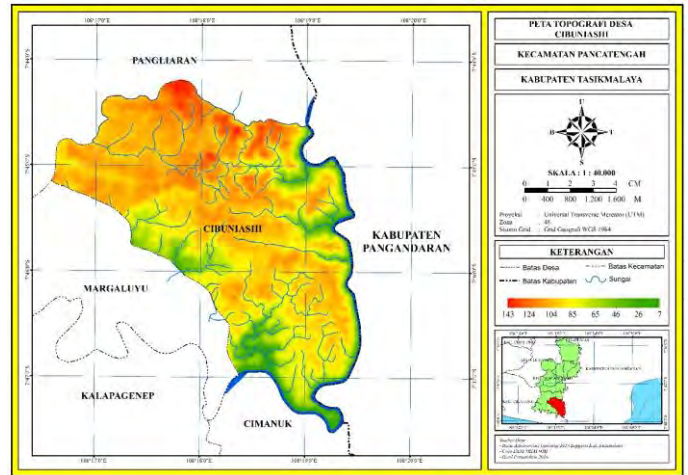


Fig. 2. Topographic map of Cibuniasih village, Tasikmalaya and jasper rock outcrops.

In 2000 Jasper stones were exploited. About 3,000 tons of Jasper stones are exported by Japanese businessmen. In accordance with the data collected by the Bandung Basin Research Group (KRCB) in 2009, currently there are only approximately 120 pieces of chunks left [5].

Geodiversity jasper is unique, rare, and exotic. Not in all places found jasper, this can be known from the process of its formation. The occurrence of jasper is closely related to the process of volcanic activity in the past, jasper is a record of the southern geological conditions of Tasikmalaya. Around 25 to 30 million years ago, around South Tasikmalaya, ranging from Karangnunggal, Cipatujah and Pancatengah were active shallow volcanic complexes.

Jasper rock outcrops in Cibuniasih Tasikmalaya provides a very beautiful natural panorama that can be used as an attraction for tourists. For that we need conservation so that this jasper stone is not exploited. Jasper rock conservation can be done by developing Jasper Park area for Educational Tourism and developed towards the National Geopark [6].

C. Kampung Naga Ecotourism Area, Tasikmalaya

Kampung Naga is located in Neglasari Village, Salawu District, Tasikmalaya. The area of Neglasari Village is ± 326 Ha and is located at an altitude of ± 584 m above sea level. The distance from the city of Tasikmalaya to Kampung Naga is approximately 30 kilometers, while from the city of Garut is around 26 kilometers. Administratively, Kampung Naga borders on other villages / sub-districts, as follows. North of Cigalontang District, east of Karangmukti Village, south of Sundawenang Village, and west of Tanjungsari Village.

The total area of Kampung Naga is + 4 ha, 1.5 ha is used for housing, yards, ponds, and agricultural land, the rest is forest. Judging from its location, Kampung Naga is a village located in a hilly valley with very fertile soil productivity and is located along the Ciwulan River sourced from Mount Cikuray, Garut Regency. In accordance with geographical conditions, Rural with this tropical climate relies on agricultural life.

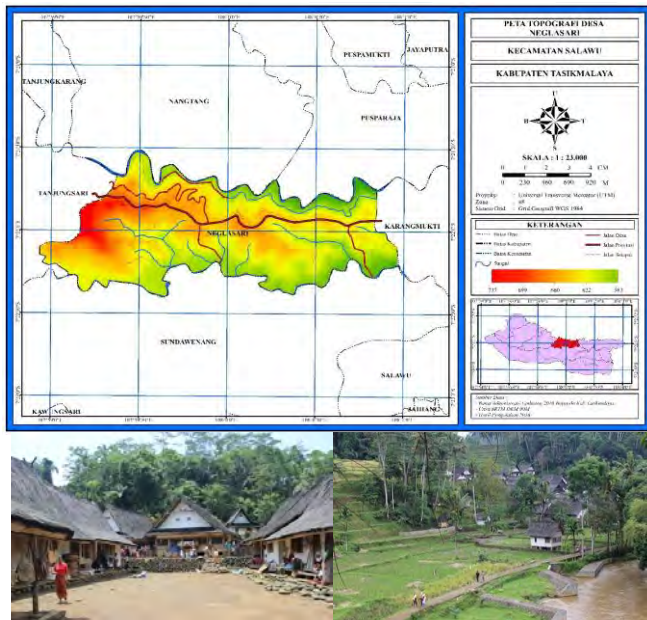


Fig. 3. Map and photo of Kampung Naga, Tasikmalaya.

The lifestyle of the indigenous people of Kampung Naga is closely related to its geographical conditions [7]. This is reflected in the way the Kampung Naga community manages the area very well. The Kampung Naga area is divided into several regions that have their respective functions. Spatial planning is very well arranged and has a sustainable planning principle. In general, Kampung Naga is divided into three main areas as follows.

- Sacred area, which is an area that means that this area should not be visited carelessly by people and must be preserved.
- Clean area, which is an area that consists of residents' houses and other buildings located in the Kampung Naga community settlement.
- Kotor area, is an area located in the valley area and is outside the clean area adjacent to the Ciwulan River. This area functions for activities such as bathrooms, livestock pens and others.

Sustainability is much influenced or caused by customary rules which, although quite compromised, are strictly implemented [8]. Some of these customary rules are very unique and unique so that they shape the character of the people in them [9]. The peculiarities of this character will make them rather difficult to adapt if they live outside the area and feel most comfortable living in the village.

The wisdom of the Kampung Naga community in life about humans, nature, and human relations with humans and humans with nature provides a picture of people who have ecological awareness in environmental management, so that the values contained in the local wisdom possessed by the Kampung Naga community can be lived, practiced, taught and passed on from one generation to the next, which at the same time shapes the patterns of everyday human behavior both towards fellow humans and towards nature and God.

TABLE I. SWOT ANALYSIS MATRIX

<b>Internal factors</b>	<b>Strength (S)</b>	<b>Weaknesses (W)</b>
<b>External Factors</b>	<ol style="list-style-type: none"> <li>1. Special interest tourism and agrotourism</li> <li>2. Jasper conservation</li> <li>3. Having Cultural Diversity</li> <li>4. Having Biodiversity</li> <li>5. Natural panorama</li> <li>6. Has a beautiful environment and cool air</li> <li>7. Crafts of floating stones / fractions</li> <li>8. Jasper Stone Park as an alternative tour</li> <li>9. Having a History of Galung Volcano Eruption</li> <li>10. Having a typical Mount Galunggung Crater</li> <li>11. Has a unique culture</li> </ol>	<ol style="list-style-type: none"> <li>1. Inadequate tourism facilities and infrastructure facilities,</li> <li>2. Access the road to poor,</li> <li>3. Transportation is difficult</li> <li>4. The tourist market is not yet clear</li> <li>5. The quality of human resources is still relatively low,</li> <li>6. Lack of attention from the government</li> <li>7. There is no good management</li> <li>8. There is no typical souvenir</li> </ol>

Table 1. Cont.

<b>Opportunities (O)</b>	<b>SO</b>	<b>WO</b>
<ol style="list-style-type: none"> <li>1. Can be a top tourist attraction (Geopark)</li> <li>2. Potential attractions,</li> <li>3. Potential travelers,</li> <li>4. Improve the economy of the community,</li> <li>5. Can increase Regional Income</li> </ol>	<ol style="list-style-type: none"> <li>1. Development efforts must be with appropriate tourism priority choices and adapted to the existing potential to capture potential tourist markets</li> <li>2. Improve road access</li> <li>3. Making tourist attractions in Jasper Park, Kampung Naga and Mount Galunggung as tourist destinations in Tasikmalaya.</li> <li>4. Develop Tourism and Ecotourism Tourism Models</li> </ol>	<ol style="list-style-type: none"> <li>1. Facilities and infrastructure for tourism facilities built,</li> <li>2. Expanding road access and repairing unfavorable roads to the tourist attraction area,</li> <li>3. Improve transportation transportation,</li> <li>4. Promotions are needed in various regions,</li> <li>5. Community empowerment or involving the community in development,</li> <li>6. There must be cooperation with the government and other agencies.</li> </ol>
<b>Threat (T)</b>	<b>ST</b>	<b>WT</b>
<ol style="list-style-type: none"> <li>1. Narrowing the farmland,</li> <li>2. Weak competitiveness against other tourism objects,</li> <li>3. Prone to landslides and floods</li> <li>4. The decline of religious values and norms that exist in the area of tourism,</li> <li>5. Unstable political and economic conditions of the community</li> </ol>	<ol style="list-style-type: none"> <li>1. In an effort to develop tourism objects, there is conservation of agricultural land and does not conflict with environmental principles,</li> <li>2. Business arrangement and development of tourist attraction that gives khasan. For example, emphasizing education, conservation, and agrotourism,</li> <li>3. Development of agriculture, sports facilities that blend with nature such as rapids and outbound,</li> <li>4. Maintain the cultural value of local wisdom and religion.</li> </ol>	<ol style="list-style-type: none"> <li>1. Facilities that support visitor activities are provided</li> <li>2. Seek the development of the tourism sector as an alternative business space to increase people's income</li> <li>3. Guidance or understanding to the community, managers in the effort to develop tourist attractions</li> </ol>

Indicators are needed for the development of tourism areas with the concept of ecotourism. Sustainable ecotourism indicators are expected to provide information for the government for policy making and improving the welfare of the community [10]. Clear ecotourism principles are needed and widely promoted, including environmental and educational preservation, cultural preservation and experience, and economic benefits [11].

Ecotourism is a tourist trip to an environment both natural and artificial and the culture that is informative and participatory which aims to ensure the preservation of nature and socio-culture. Ecotourism focuses on three main things, namely; natural or ecological sustainability, providing economic benefits, and psychologically acceptable in the social life of the community [12]. So, the three regions of Mount Galunggung, Jasper Park and Kampung Naga can be directed to become a superior tourism area based on Ecotourism. Thus ecotourism activities directly give access to all people to see, know, and enjoy the natural, intellectual and cultural experiences of local communities.

**IV. CONCLUSIONS**

Jasper Park has the potential to be used as a National Geopark area, the direction of regional development includes special interest tourism, agro tourism, and jasper conservation. Mount Galunggung can be used as a superior ecotourism area in Tasikmalaya Regency, and Kampung Naga can be used as an Education-based Cultural Tourism Area. The results of this study are expected to provide important information about tourism potential that can be developed and can be an input for local governments in tourism development policies in Tasikmalaya District.

The development model for ecotourism in Tasikmalaya Regency can be carried out on three areas of Kampung Naga, Jasper Park, and Mount Galunggung. The development of

ecotourism areas is carried out with a community-based approach. Optimizing local human resources and by building environmental sustainability.

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