

An Analysis of Ecotourism Potency and Its Development in Merapi Mountain Slopes Area (A Study at Deles Indah and Kalitalang Tourism Objects, Kemalang District, Klaten Regency)

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Abstract.

Ecotourism developed in conservation area is "Green and Fair" ecotourism for benefit of the sustainable development and conservation, which is a business activity that is aimed to provide sustainable economic alternatives for the people in conserved areas. The purpose of this research was to analyze the potency of the Natural Resources and Socio-Culture for the development of ecotourism in the southern slope of Mount Merapi, especially in Kemalang District, Klaten Regency. The research method used descriptive and its implementation use case studies at Deles Indah and Kalitalang Tourism Objects. The respondents of this research were the Officials / Heads / Chairpersons of the agencies which are related to this research (Mount Merapi National Park Office, Regional Disaster Management Agency, Youth and Sports Culture Tourism Office, District, Village, and Tourism Awareness Group), and the visitors. The data needed is primary and secondary data, which are collected by Interviews, Observation and Documentation technique. The data analysis used descriptive analysis. The results showed that (1) Natural Resource Potency in the form of a beautiful natural scenery (Merapi volcano, forest, valley) is very interesting to visit and suitable for photo spots; (2). Tourism Awareness Group (*PokDarWis*) has been formed as the manager of Kalitalang and Deles Tourism Objects; (3) Local Cultural Activities are the attractions that they have been done routinely; (4) Facilities, such as Parking Areas, Toilets, prayer room, Homestay and Trash bin, have been built; (5) Food and Beverage Products, Typical Handicrafts were worthy for sale, (6) Guidance from the Mount Merapi National Park Office, Regional Disaster Management Agency, Youth and Sports Culture Tourism Office, District and Village Government has been established; (7) Visitors tend to increase in 2019 through on line promotion, and informatif location; and (8) needed further investigation for its development strategy, because most of the visitors were not satisfied in the facilities, and there are any obstacles and risks.

Keywords: Ecotourism, Potency and Development, Natural Resources, Socio-Cultural, Mount Merapi Slopes

1. Introduction

Ecotourism is a tourist trip to a remote area that aims to enjoy and learn about nature, history and culture in an area, where its tourism patterns help the local economy and support the natural conservation. Mount Merapi slope is one of a tourist area which started to get attention from tourists both domestic and non-domestic. This region has a unique natural resources as a series of products from the activities of Mount Merapi.

Mount Merapi grows above the point of intersection between Ungaran volcanic alignment - Telomoyo - Merbabu - Merapi and Lawu volcanic straightness - Merapi - Sumbing - Sindoro – Slamet. The Ungaran-Merapi volcanic alignment is a concave horizontal fault that reaches to the west, and gradually develops its volcanic activity along the horizontal fault from north to south. Therefore, it mentioned that Mount Merapi located at the intersection of two Quaternary faults, the North-South-oriented Semarang Fault and the East-west-oriented Solo Fault. With this such volcanic conditions make the location around the slopes also danger during the eruption.

Another problem was the result of the eruption raises the capacity of the soil and the stability of the slope on the eruption deposits. The rocks and their constituents consist of lava, pyroclastic rocks and lava deposits make problems such as landslides, limited capacity and the threat of eruptions of Mount Merapi that occur periodically, as well as lava threats. Along with population growth and the progress of the world of tourism, the development of natural tourism areas was needed in order to improve its quality as an interesting attraction. So with such natural conditions the specific development strategy was needed.

The master plan for regional tourism development in Central Java Province according to Governor Regulation Number 10 of 2012, concerning the Central Java Tourism Development Master Plan for 2012-2027. The research area based on the Governor Regulation includes Borobudur - Dieng DPP and its surroundings, which is included in the KSPP Merapi-Gray and surrounding areas (Perda No 6 Tahun 2015)

In Klaten Regency, there are development of two tourism objects namely: Deles Indah, Sidorejo Village area, and Kalitalang in Balerante Village, Kemalang District. Deles Indah is a tourist attraction located on the eastern slope at the foot of Mount Merapi, about 25 km from downtown of Klaten, with elevations between 800 - 1300m. This location located in the form of natural mountain views. Few interesting places can be visited are historical relics and special recreational areas such as: Raja Paku Buwono X Site, Tombs, cave, *Sendang* and Parks. Deles Indah which was cultivated before 2000 was the largest source of regional income from the tourism sector. The problem of it location is at this tourist spot is the water source facilities are difficult. So this location is rather quiet visitors so it make business people reluctant to open the business opportunities in this place. The condition of Deles Indah after the eruption of Merapi tend to untreated and it causes the tourism potency not attractive for the visitors (Dinas Pariwisata Kabupaten Klaten, 2004). Kalitalang tourism object is located on the border of Cangkringan District, Sleman Regency, Yogyakarta Special Region and Klaten Regency, Central Java Province. This new tourism object opened in September 2016. At this tourist location we can enjoy the fresh air, the landscapes and very large rivers, artistic bamboo for photo selfie spots, and provided mountain bike trails (Downhill) (Dinas Pariwisata Kabupaten Klaten, 2004).

Conservation areas, both natural conservation areas and conservation forest areas, are interesting destinations for the tourists. They have a diversity of flora and fauna, beautiful natural phenomena, cultural and historical objects and unique local community life. The whole tourist attraction object is a resource that has high economic value educated and environmental preservation. Utilization of natural resources and the environment as concern of community in conservation areas is in line with the vision of development of ecotourism, namely the conservation of biodiversity, its ecosystem, and the empowerment of local communities (Fandelli, 2000).

In order to prevent forest destruction getting worse, many countries use many ways to preserve their forests. One of the efforts is developing ecotourism as a source of livelihood to reduce forests damage.

Based on the previous description, the purpose of this study was to analyze the potential of Natural Resources and Socio-Cultural Resources for the development of ecotourism of the southern slopes of Mount Merapi, especially in Kemalang District, Klaten Regency.

2. Research Methods

The basic research method used descriptive and its implementation used case study. Respondents in this study were Officials / Heads / Chairpersons of agencies related to this research (Mount Merapi National Park Office, Regional Disaster Management Agency, Youth and Sports Culture Tourism Office, District, Village, and Tourism Awareness Group). Other respondents were visitors at Kalitalang and Deles Indah Tourism Objects who meeting and willing to be interviewed for the past two months. The data were primary and secondary data, collected by interviews, observations, and documentation technique. Data analysis used descriptive analysis.

3. Results And Discussion

3.1. Ecotourism Potency and Conditions

Based on the data collected, an analysis was carried out. Description of the potency and conditions of the Kemalang District ecotourism obtained and can be seen in Table 1.

Table 1. Ecotourism Potency and Conditions in Kemalang District Klaten Regency in 2019

No.	Aspects	Deles Indah	Kalitalang
1.	Ecotourism Location	Hamlet Deles and Hamlet Mbangon Sidorejo Village, Kemalang District and part of TNGM (Gunung Merapi National Park) in the utilization zone	Hamlet Kalitalang Balerante Village Kemalang District, residents' land and part of the TNGM Non-utilization Zone.
2.	Tourism Management Group / Managers	Counselor : Village Head Person in charge: Village Secretary Chairperson, Public Relations Section, Culture Section, Outbound Section, Horticulture Section, Facilitator Section (Tracking, Hiking and Camping) 28 people Meeting: Routine every Monday	Counselor: Village Head Person in charge: Head of Planning Chairperson, Secretary, Treasurer, Sections 20 people: Meeting: Routine on the 1st of every month

		Wage at the place of the leader Tourism Management Group	
3.	Destinations	<p>1. Beautiful view of Mount Merapi and the Valley</p> <p>2. Facilitator / guide (10 people): -Outbond -Tracking</p> <p>3. Camping 4 location points; 2 locations at the pesanggrahan, 2 points at the TNGM location</p> <p>4. Japanese Cave</p> <p>5. Kalireno Spring</p> <p>6. Mountain Bike Path (Downhill)</p> <p>7. Resting on Paku Buwono X</p> <p>8. Culture: Karawitan, Ketoprak, Jatilan (Kuda lumping)</p> <p>9. Grave of Kyai Mloyopati</p> <p>10. Horticulture: Short distance guide and horticultural plant education</p> <p>10. Education of Disaster Mitigation Services</p> <p>11 Food Stalls: Deles Coffee (Petruk coffee), <i>Wedang</i> herbs, chips, <i>otokowok</i>, <i>jambal</i>, pondoh corn</p>	<p>1. Beautiful view of Mount Merapi and the Valley</p> <p>2. Special Interest Sports: -Camping, Mountain Bike Path (Downhill)</p> <p>3. Tomb of Kyai Ageng Kalitalang</p> <p>4. Typical Merapi Plants (Anggrek)</p> <p>5. Museum and House of Balerante Batik</p> <p>6. Food stalls: Balerante Robusta Coffee, Lempur</p>
4.	Visitor Services	Every day	Saturday - Sunday And National Holiday
5.	Entrance ticket	Monday-Friday: IDR 6,000 (Insurance IDR 1,000) Saturday-Sunday and National Holidays: IDR 8,500 (Insurance IDR 1,000)	(Monday-Friday): TNGM IRD 6,000 (Insurance IRD 1,000) and Pokdarwis IDR 2,000 Saturday-Sunday and National Holidays: TNGM IDR .8,000 (Insurance IDR 1,000) and Pokdarwis IDR 2,000
6.	Fauna	Partridges, deer, long-tailed macaques, pleci birds, starlings, finches, pentet, curls, derkuku, betet, trotokan, Javanese eagle	Partridges and, long-tailed macaques,
7.	Flora	Pine, Bintari pine, acacia dekuren, roso molo, puspa, bamboo	Acacia, Bamboo, Aren, Kaspo (just starting to plant)
8.	Culture as an attraction (once a year)	a. Mertideso / cultural parade / ogoh-ogoh every 14 Ruwah (Sya'ban) b. Clean Hamlet (<i>Bersih Dusun</i>) c. Grooming times (<i>Dandan Kali</i>)	Mertideso
9.	Facilities	1. Parking Bike: IDR 2,000. Car: IDR 5,000 2. Toilets (6 pieces): 2 pieces each in Nature Tourism, Pesanggrahan and Circuit 3. Musholla 4. Trash Can 5. Lodging / Homestay	1. Parking: Locations of residents' land -Bike: IDR 5,000 - Car: IDR 10,000 2. Toilets (2 pieces) near the parking lot and food stalls 3. Musholla 4. Trash Can 5. Lodging / Homestay
10.	Activity of Chairperson	Volunteer	Teacher
11.	Others	- Directions are quite informative - Road conditions are not good - The risk of an eruption is large	Directions are informative - Road is in good condition - The risk of an eruption is large

enough
- Promotion has been carried out online

enough
- Promotion has been carried out online

Based on Table 1, it can be concluded that the potency of ecotourism in the Merapi Mountain Slope area, especially on the south and east (Kemalang District) is quite large, in the form of Natural Tourism supported by Natural, Social and Cultural Resources to be developed. These supported by the formation of the Tourism Awareness Group (Pokdarwis) as a manager of Tourism Objects, Guidance from the Mount Merapi National Park Office, Regional Disaster Management Agency, Department of Culture Tourism Youth and Sports, District and Village Governments. In the development, Deles Indah was initiated earlier, Pokdarwis was more active, compact and experienced. The location in the utilization zone, more diverse destinations, and more complete facilities cause it better known and visited by more tourists. In August and September 2019 Deles Indah was visited by tourists from Japan. In 2019 the number of tourists in both tourism objects tend to increase (Table 2).

Kalitalang Tourism Object visitors only open every Saturday and Sunday and the number of visitors range between 25-75 people which less than Deles Indah.

Table 2. Development of Deles Indah Visitors, Kemalang District in May - August 2019

Month	Number of Visitors (people)		
	Domestic Tourist	Foreign Tourist	Amount
May	73	-	73
June	888	-	888
July	280	-	280
August	37*)	20	57
	1,278	20	1,298

Source: Deles Indah Administration, 2019

*) only date of 1-4 August 2019

3.2. Tourist Satisfaction and Expectations

In general, visitors in Deles Indah and Kalitalang are young people who has adventurous spirit, like challenges and always want to capture all the conditions and the atmosphere they see. Foreign tourists, especially from Japan interested in the beauty of mountains and the valleys on the slopes of Merapi. Both domestic and foreign tourists interested to visit again and hope that there were improvements on the facilities.

Table 3. Deles Indah Tourist Satisfaction, Kemalang District, Klaten Regency

No	Aspect	Score Average	Score Maximum	%
1	Natural Resources	3.10	4	77.50
2	Infrastructure	2.54	4	63.46
3	Accessibility	1.60	4	40.00
4	Hospitality and Cultural Resources	2.87	4	71.75
5	Marketing Mix	2.63	4	65.83

6	Enchanting Seven/Sapta Pesona	3.50	4	87.50
7	Education	3.00	4	75.00
8	Principal Tourism	3.25	4	81.25
Total		22.49	32	
Average		2.81	4	70.29

Score : 1 = Not Satisfied; 2 = Not Satisfied; 3 = Satisfied; 4 = Very Satisfied
Please make some prolog sentences to the next Table

In general, tourists were not satisfied with the accessibility in Deles Indah. It caused by poor condition the road, from the Klaten Yogya highway about 10 km. While tourists are satisfied with Sapta Pesona, the principle of ecotourism and natural resources.

Table 4. Kalitalang Tourist Satisfaction, Kemalang District, Klaten Regency

No	Aspect	Score Average	Score Maximum	%
1	Natural Resources	3.50	4	87.50
2	Infrastructure	2.75	4	68.75
3	Accessibility	2.25	4	56.25
4	Hospitality and Cultural Resources	2.50	4	62.50
5	Marketing Mix	2.63	4	65.83
6	Enchanting Sapta/Sapta Pesona	3.25	4	81.25
7	Education	2.00	4	75.00
8	Principal Ecotourism	3.05	4	76.25
Total		21.93	32	
Average		2.74	4	68.53

Score : 1 = Not Satisfied; 2 = Not Satisfied; 3 = Satisfied; 4 = Very Satisfied

Tourists both who visit Kalitalang and who visit Deles Indah satisfied with beautiful scenery, enchantments and the principle of ecotourism. , But, they less satisfied with the existing education.

3.3. Expectations of Management and Stakeholders

Mentoring and supporting of stakeholders to the management is shown by several activities, including:

- a. In August, 2019 mentoring was held by the Mount Merapi National Park Office (BTNGM) to the Management of Kalitalang tourism object and the Balerante Village Community.
- b. At the end of August, 2019 a Focus Group Discussion (FGD) was held with the theme "Ecotourism Development Strategy in Kemalang District, Klaten Regency". As the speakers were Klaten Regency Youth and Sports Culture and Tourism Office (*Disbudpora*), the Regional Disaster Management Agency (BPBD) of Klaten Regency and BTNGM. Participants consisted of the management / Pokdarwis, Community Leaders, Kemalang District Head, Sidorejo and Balerante Village Officials, Kemalang District Extension Officers, Sub-District and Village Supporters, and Research Teams from UPN "Veteran" Yogyakarta.

- c. In September 2019, the Klaten District Tour Guide Training was held by the Youth and Sports Culture Office.

The results of the Management and Stakeholder assessment of both tourism objects in Kemalang District were presented in Table 5 and Table 6.

The assessment of managers and stakeholders on the tourism objects of Deles Indah and Kalitalang werethe same, which they lackof management. Therefore management training is needed to fix it, and do comparative studies with the similar tourist objects that have been advanced.

To develop ecotourism in Kemalang District, intensive mentoring from stakeholders and open communication between the tourism object management and stakeholders were needed.

Table 5. Assessment of Managers and Stakeholders of Deles Indah Tourism Object

No	Aspect	Score Average	Score Maximum	%
1	Natural Resources	3.03	4	75.75
2	Infrastructure	2.32	4	58.10
3	Accessibility	2.28	4	55.88
4	Hospitality and Cultural Resources	2.71	4	67.68
5	Tourist Services	2.68	4	67.10
6	Marketing Mix	2.54	4	63.54
7	Ecotourism Management Institution	2.63	4	65.79
8	The involvement of parties outside the ecotourism management organization	2.85	4	70.38
9	Management of Ecotourism	1.33	4	33.33
	Total	22.37	36	
	Average	2.48	4	62.00

Score: 1 = Bad; 2 = Less; 3 = good; 4 = Very Good

Table 6. Assessment of Managers and Stakeholders of Kalitalang Tourism Object

No	Aspect	Score Average	Score Maximum	%
1	Natural Resources	2.99	4	74.82
2	Infrastructure	2.37	4	59.31
3	Accessibility	2.92	4	73.00
4	Hospitality and Cultural Resources	2.67	4	66.71
5	Tourist Services	2.51	4	62.9
6	Marketing Mix	2.85	4	71.25
7	Ecotourism Management Institution	2.08	4	52.00
8	The involvement of parties outside the ecotourism management organization	2.11	4	52.75
9	Management of Ecotourism	1.26	4	31.15
	Total	2.,76	36	
	Average	2.41	4	60.25

Score: 1 = Bad; 2 = Less; 3 = good; 4 = Very Good

4. Conclusions And Suggestions

4.1. Conclusions

Based on data analysis and the discussion, it can be concluded as follows:

- 1) Natural Resource Potency in the form of a beautiful natural scenery (Merapi volcano, forest, valley) was very interesting to visit and a subject of photo spots;
- 2) (2). Tourism Awareness Group (*PokDarWis*) has been formed as the management of Kalitalang and Deles Indah Tourism Objects;
- 3) Local Cultural Activities were the attractions and what they have been routinely carried out; (4) Facilities, such as Parking Areas, Toilets, *Mushollas*, Homestay and Trash, have been built;
- 4) (5) Food and Beverage Products, Typical Handicrafts are worthy of sale,
- 5) (6) Guidance from the Mount Merapi National Park Office, Regional Disaster Management Agency, Youth and Sports Culture Tourism Office, District and Village Government has been established;
- 6) (7) Visitors tend to increase in 2019 because they on line promotion, and the location directions are quite informative.

4.2. Suggestion

Need further investigation for the development strategy that must be carried out in developing both of tourism objects. It caused by most of visitors have not satisfied and want to management improve their facilities, and there were many obstacles and risks.

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