

Tourist perception and preference to the tourism attractions in Ranu Pani Villages, Bromo Tengger Semeru National Park

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Abstract: This paper examines the tourism resources and the tourist perception and preference to the tourism attractions in Ranu Pani Villages, Bromo Tengger Semeru National Park. Field work was conducted at Ranupani villages from March to August 2015. Interviews was conducted with tourist guided by questions on topics, including potentials tourism attraction, accessibility, tourism facility, tourism safety, and environmental management. Result of the study shows that most of the responds has positive perceptions to Ranupani landscapes. Diversity of flora and fauna was high. Tenggerese culture has been preserved by local people in Ranupani. Flora and fauna is crucial tourism object and attraction in Ranupani. This research confirms that accessibility aspect should be improved. In Ranupani area, tourism facility was limited and need to be improved. The safety aspect of tourist in Ranupani was good to excellent. Environmental management should be improved.

Keywords: mountain tourist, destination competitiveness, natural attractions

I. Introduction

Recent literature from the field of rural development in area with high biodiversity has stressed the important value of tourism development. This is especially relevant now that global community develops awareness to sustainable development issues. The positive relationship between tourism and rural development has been reported by numerous authors [1] [2].

Tourism is vital to both national and regional economic earning, community development and environmental conservation. Tourism in Indonesia is considered as a national economic machine. Money from tourism industry was used to fund public facility, conservation programs, and community development. Developing tourism in particular area is an important tool for the alleviation of poverty [3] [4].

It has been pointed out that tourism in many regions in developing countries is not fully developed. One of the challenges facing tourism development in developing countries is that many of the natural and cultural resources are not well managed. The challenges for tourism development in developing countries are how to optimize natural and cultural resources use and management. In some case, tourism may clash and contradictive with biodiversity conservation needs. Tourism development in developing countries poses particular difficulties because lack of comprehensive resources survey, destination planning, development, and monitoring [5] [6].

Bromo Tengger Semeru is one of the important national park in Java Island and is situated on the centre part of East Java province. The national park is considered to be home of biodiversity and land of the Tenggerese. The flora includes a high proportion of endemic and rare species, most of them has been protected by international and national regulations. Tengger community live in villages in Tengger highland [7] [8] [9].

Tourist in Ranupani grows significantly. In 2010, Ranupani area was visited by 3,109 visitors, and in 2011 number of tourist was increase significantly (4,205 people). Ranupani receive around 10,193 visitor in 2012. In 2013, number of visitor was 44,597 persons. By 2014, around 45,899 tourist visited Ranupani. Climbing to Mt. Semeru was the most tourist programs in Ranupani. Of these visitors, the majority visits during the dry season of July to September. The tourists are there mainly involved in photograph the landscape, enjoy lakes, and climb to Mt. Semeru [9]. Key benefits of tourism in Ranupani perceived by local resident include the creation of new opportunity of tourism-based business and jobs generations. Tourism in Ranupani area is expected to grow over the coming years. There is, however, some basic information needed. There has been little study examining the tourist perception in and preference to the tourism attractions in Ranupani.

II. Methods

Field study conducted at Ranupani area between March to August 2015. Ranupani villages is situated at the slope of Mt. Semeru. The villagers in Ranupani Village are part of the local people community in Tengger Highland, called *Wong Tengger*, and are situated in the enclave zones of Bromo Tengger Semeru National Park.

In this study, data were collected through document examination, interviews, and questionnaires. Population of this survey is the entire tourist who visits Ranupani area. Information for this research was obtained through secondary data examination and questionnaires. The tourist perception and preference to landscapes, flora-fauna resources, accessibility, facility, safety, degree of comfort, cleanliness, and service were assessed by questionnaires distribution to 100 tourist in Ranupani. In order to generate comprehensive data and information about biodiversity of the area, some plant species has also been observed. Data was analyzed descriptively

III. Result and Discussion

Ranupani Village

Ranupani Village lies within the Bromo Tengger Semeru National Park, East Java (Fig.1). The village located at approximately 2.200 -2300 m asl. This village was characterized by hills composed of fertile lands. At altitude of 2200 to 2300 m asl, *Casuarina junghuhniana* and *Acacia decurens* dominate the vegetation, known as pioneer species. Hakim and Miyakawa (2013) notes the *Casuarina junghuhniana* is widespread throughout forest and orchards [10].

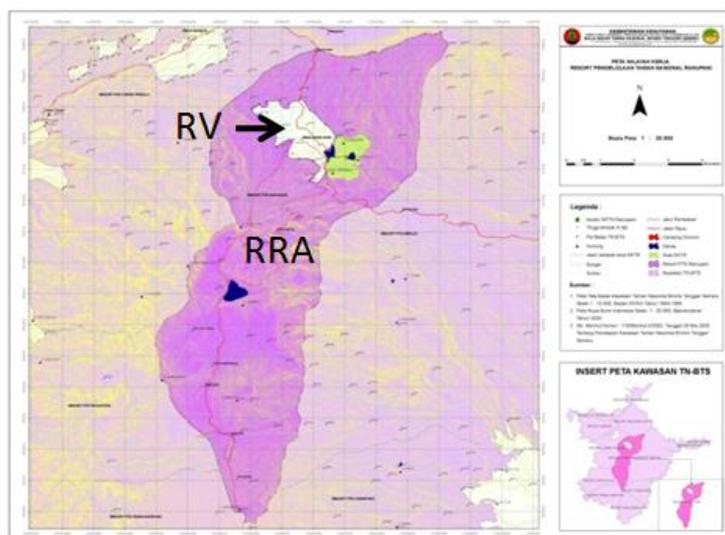


Fig.1. Geographic position of Ranupani village (RV) and the Ranupani resort area (RRA) management of Bromo Tengger Semeru National Park (Sources :Resort Ranu Pani, 2015)

Ranupani Village is a remote village in the northern slope of Mt. Semeru, with a total area of 50 ha. Mean rainfall ranges from 927 mm - 5498 mm per annum with averages of rainy days about 136 days/year. Mean monthly temperatures range between 15°C - 21°C. The natural vegetation of the regions consists of tropical moist forest [9]. Such forest support high number of plants and animals species. Ranupani forest is of particular significance for eastern Java endemic flora, including *Hebenaria tosariensis*. Forest in Ranupani area supports a considerable diversity of birds, reptiles and mammals [10].

Ranupani Village is home to a small number of Tenggerese since 1950. Agriculture in highland is a major source of revenue for major local people in Tengger Highland, including Ranupani. Recently, however, some village residents in Ranupani do obtain revenue from tourism. The settlement and sloping upland farming area in Ranupani are part of the Mt. Semeru mountain ecosystems and considered to be one of the highest villages in east Java.

Potential attractions

1) Landscapes

Landscapes of Ranupani Village have major influence on how the perception of tourism is constructed. Ranupani's landscapes have a number of unique features that poses potentiality to develop in tourism planning (Fig.2). There are three famous highland lakes, namely Ranu Pani, Ranu Regulo and Ranu Kumbolo. Ecologically, these lakes have high conservation value. Ranu Regulo and Ranu Kumbolo probably remained

relatively undisturbed. Tourist trek from Ranupani to Mt Semeru provides habitat for birds, *Panthera pardus*, and endemic flora such as *Anaphalis* spp.

Lakes in Ranupani area has become one of the main attractions for visitors to Bromo Tengger Semeru National Park. Lakes and its surrounding forest support enormous ranges of flora. Lakes are a major sources of fresh water for wildlife. Lakes provide a good place for photograph.

Mt. Semeru is a key tourist attraction in Ranupani area. The trekking area within Ranupani-peak of Mt. Semeru offers guided tours to mountain forest, Pine forest, Lake Kumbolo, savanna, alps forest and peak of Mt. Semeru. Numerous attributes of landscapes instrument introduces new challenges for ecotourism development in Ranupani [9].

2) Vegetation and flora diversity

Vegetation in the Ranupani area are includes heterogeneous mountain forest and alpine forest. There are about 49 orchids species found in forest area in Ranupani Village. In small patch forest in Ranu Regulo area, the primary tropical forest dominated by *Acer laurinum*, *Acmena acuminatissima*, *Macropanax dispermum*, *Engelhardia spicata*, *Astronia spectabilis*, and *Turpinia sphaerocarpa* [10]. Common emergent in the secondary forest of Ranupani include *Casuarina junghuhniana*. The second major species is *Acacia decurens*.

A number of species considered to be particularly endemic, including *Anaphalis longifolia* and *Anaphalis viscida*. The endemic and vulnerable orchids *Hebenaria tosariensis* is widespread in the disturbed forest and shrubs lands in Ranupani area. The *Acacia decurens* and *Eupatorium inulifolium* are considered to be a highly invasive plant species in Ranupani forest. Hakim and Miyakawa (2015) noted that some invasive species is widespread throughout of Ranupani [11].

Home garden in settlement complex is the habitat of numerous floras. The ornamental plant species observed at home gardens in Ranupai Village are *Aglaonema* spp., *Caladium* spp., *Diefenbachia* spp., *Begonia* spp., *Rosa* spp., *Pachystachys lutea*, *Canna* pp., *Chrysanthemum* spp., *Crassula ovata*, *Codiaeum variegatum*, and *Gladiolus grandiflorus* [12].

3) Fauna of Ranupani

Two primates, *Trachypithecus auratus* and *Macaca fascicularis*, are among the most important primates in Ranupani forest. About 68 bird species was found in mountain forest around Ranupani village on the northern part of Mt. Semeru. Eight species of mammals occurs in the Ranupani forest area [9]. Fauna diversity is especially relevant for ecotourist. In such a case, spots where birds can be viewed in the wild are the potential tourist track, especially for birding.

The tropical forest in Ranupani is important habitat for a variety of birds. The number of birds in Ranupani area is low compared to other comparable areas, such as the lowland mountain forest. Climates probably have a greater effect on number of birds.

4) Agriculture

Sloping uplands is an important resources in Ranupani, and a lot of people are depend on the sloping upland for their livelihoods. In Ranupani, a majority of the sloping upland is used for growing vegetables [8]. In sloping lands, local people cultivate a wide range of vegetables, including cabbage (*Brassica oleraceae* cv. *green coronet*), potatoes (*Solanumtuberosum*), leek (*Allium porrum*), corn (*Zea mays*), velvet beans (*Mucuna pruriens*), pea (*Pisum sativum*), common bean (*Phaseolus vulgaris*) and indigenous chili pepper. By far, the most preferred species of vegetables cultivate through villages in Tengger highland, including Ranupani, is potatoes. The economic value of the potatoes in local and regional market is high.

Recently, however, the Tenggerese agriculture productivity was decrease. Tenggerese make intensive use of agricultural lands, including introduce superior seeds and applying chemical fertilizer and pesticides. In Ranupani area, massive chemical fertilizer and pesticides application to increase crops productivity led to the land and soils degradation [8]. Another aspects affecting the unsustainability of farming was the erosion in the local knowledge in farming systems. Under such situation, the discussion of sustainable agriculture practices in Ranupani is arising. Clearly, the sustainability of farming is at a critical point.

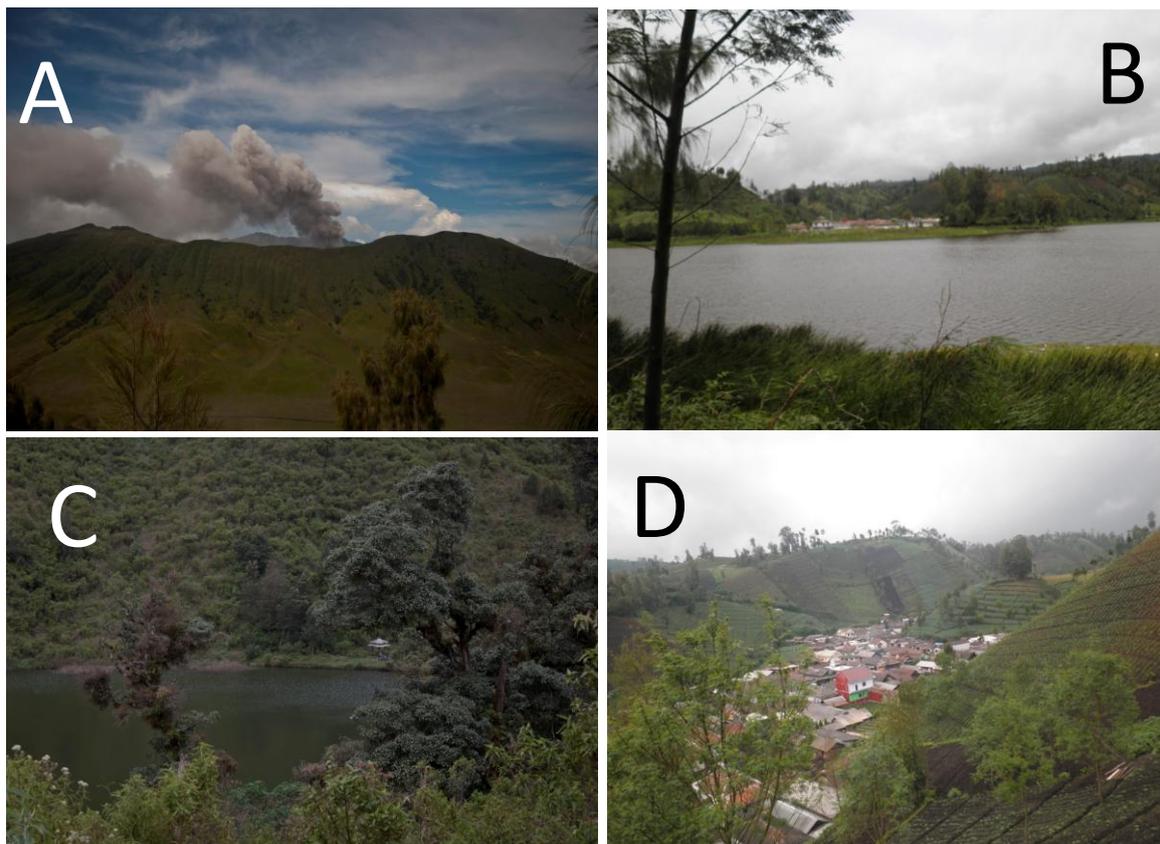


Fig. 2. The landscapes of Ranupani village. A. The eruption of Mt. Bromo viewed from Jemplang, (B) Lake Pani (*Ranu Pani*), (C) Lake Regulo (*Ranu Regulo*), and (D) upland agriculture and settlement of local people in Ranupani Village.

5) Culture

The Tenggerese are considered to be the indigenous inhabitants of the villages in Tengger highlands, including Ranupani [7][8]. Cultural preservation is an important component of tourism destination planning [13]. The most important cultural celebration in Ranupani encompasses *Yadnya Kasada*, *Karo*, and *Unan-Unan*. *Yadnya Kasada* takes place every 9 months in the Tenggerese calendar and is considered a huge ceremony. Other non-Tenggerese culture and traditions, such as Reading Sholawat (*shawat Di'ba*) and The Prophet Muhammad's birthday celebration (*Maulids*) are also found in Ranupani. Compared to other groups in the Tengger highland, however, Ranupani is a heterogeneous group, comprising native Tenggerese with Hindu-Tengger belief, Javanese Muslim, and Christian. Local people in Ranupani Village are practicing indigenous knowledge which is important to support biodiversity conservation.

Tourism perception and preferences

The tourist perception and preference to several aspects of tourism was given in Table 1 to Table 9. Most of the respondents have positive perceptions of Ranupani landscapes (Table 1). The recognition of landscapes is an integral component of attraction development and destination management. In articulating this finding, in the perspective of tourism, landscape management should be promoted to maximize the economic benefits to local people. Scholars point out that landscape panorama is important in destination. Panorama is functionally related to the tourist's visual satisfaction [14].

Table 1. Tourist perception to panorama of Ranupani

No	Satisfaction	Frequency	Percentages (%)
1	Extremely interesting	36	36
2	Very Interesting	40	40
3	Somewhat interesting	19	19
4	Mostly boring	5	5
5	Totally boring	-	-

Flora and fauna is crucial tourism object and attraction [15]. Flora-fauna as tourist attraction was considered crucial in Ranupani (Table 2). By far the most popular flora within the park area is edelweiss, the *Anaphalis longifolia*. Ranupani forest is home of numerous flora-fauna that attract tourist to visit this area. Different tourist group has different perception and preferences, reflecting their different motives and background. Flora and fauna is one of the tourism objects in nature-based tourism activity that is highly subjective [5]. The reason for positive perception to flora and fauna is to contribute in biodiversity conservation and to enjoy part of the Indonesian natural heritages.

Table 2. Tourist perception to Flora and Fauna

No	Satisfaction	Frequency	Percentages (%)
1	Extremely interesting	9	9
2	Very Interesting	44	44
3	Somewhat interesting	35	35
4	Mostly boring	12	12
5	Totally boring		

Accessibility is important aspect in tourism destination competitiveness [16]. Nature-based tourism destinations are directly dependent on infrastructure and transportation to reach point of attractions. Scholars point out that one of the consequences of inadequate infrastructure for tourist is poor tourist perceptions to tourist destination. This research confirms that accessibility aspect should be improved (Table 3). In Ranupani, most of the tourist objects are only accessible by four wild drive (4WD) vehicles. In Ranupani, forest road was routinely maintained by the Bromo Tengger Semeru National Park, local government of Malang, Lumajang, Pasuruhan and Probolinggo Regencies, and people from Ranupani and Ngadas villages. However, there are limited budget and equipment to maintain forest roads.

Table 3. The perception of tourist to accessibility

No	Satisfaction level	Frequency	Percentage (%)
1	Excellent	-	-
2	Very Good	-	-
3	Good	26	26
4	Fair	56	56
5	Poor	18	18

Facility can cause impact on tourist satisfaction. Facility is viewed as a component of destination and complex attractions that can increase tourist satisfactions [5] [6]. In Ranupani area, tourism facility was limited and need to be improved (Table 4). Inadequate toilets is one of the important issues in Ranupani. The difficulties to meet standard facility in Ranupani are the result of the high cost in providing basic facility. Accommodation in Ranupani ranges from permanent accommodation to temporary accommodation.

Table 4. Tourist perception to facility

No	Satisfaction level	Frequency	Percentage (%)
1	Excellent	-	-
2	Very Good	16	16
3	Good	36	36
4	Fair	37	37
5	Poor	11	11

The safety aspect of tourist in Ranupani was good to excellent (Table 5). Nature-based tourism is a rapidly growing industry. Consequently, concern to the tourist safety in natural environment is growing significantly. The improvements of safety aspect may also provides significant positive images of destination leading to tourist's positive perceptions.

Table 5. Tourist perception to safety

No	Satisfaction level	Frequency	Percentage (%)
1	Excellent	11	11
2	Very Good	54	54
3	Good	32	32
4	Fair	3	3
5	Poor	-	-

Tourist comfort is important aspect among destinations [17]. The level of comfort is a subjective and may vary according to tourist individuals. In Ranupani, tourist perception to comfort level was varying (Table 6).

Table 6. Tourist perceptions to comfort aspect

No	Satisfaction level	Frequency	Percentage (%)
1	Excellent	16	16
2	Very Good	46	46
3	Good	26	26
4	Fair	12	12
5	Poor	-	-

There is growing concern that environmental management and cleanliness may have significant impact on the tourist satisfaction [18]. In Ranupani area, the major obstacle was management of waste and place to process waste. Ecosystems in Ranupani are at particular risk from waste and pollutant. Tourist can drop litter and pollutant on land and into water bodies in lakes.

Table 7. Tourist perceptions to cleanliness

No	Satisfaction level	Frequency	Percentage (%)
1	Excellent	-	-
2	Very Good	18	18
3	Good	49	49
4	Fair	25	25
5	Poor	8	8

Services levels have been identified as crucial aspect in destination competitiveness [18] [19]. As an important aspect in tourism, good to excellent services are only occurs if destination provides skilled human resources. Professional and qualified staff may have large effect on destination images. Therefore, tourism destinations have to increase and ensure that human resources are capable and professionals to serve tourist.

Table 8. Tourist preference to service

No	Satisfaction level	Frequency	Percentage (%)
1	Excellent	28	28
2	Very Good	62	62
3	Good	10	10

Tourism facility is the basic elements of tourism destination development. In Ranupani area, services and facility in Ranupani includes café, small store, home stay and restaurant. Scholars point out that facility and infrastructure improvements provides significant impact for tourism development.

Table 9. Tourism preference to facility

No	Satisfaction level	Frequency	Percentage (%)
1	Very Good	22	22
2	Good	49	49
3	Fair	25	25
4	Poor	4	4

Ranupani provides numerous natural tourist attractions. These are the basic on which tourism in Ranupani will developed. Flora and fauna diversity could be considered into destination planning. In such a case, the conservation of biodiversity becomes important. These aspect will determine the main programs of sustainable development, especially in rural area. These are likely to be of most management significance in tourism destination management. In developing countries, the issues of sustainable development are often simplified and neglected [20] [21].

IV. Conclusion

Ranupani Village support an enormous range of natural-cultural resources, which contributes an important sources for tourism development. Agriculture is dominant use of sloping uplands. It is important to note that risk management is an important aspect. As tourism activity in Ranupani continue to increase, an accurate destination planning and development is needed.

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