Diversification of tourism product in KSPN Ijen

A Purnomo1*, A Wiradimadja1, B Kurniawan1
1 Social Studies Education Study Program, Faculty of Social Sciences, Malang State University, East Java, Indonesia

*E-mail: agus.purnomo.fis@um.ac.id

Abstract. The main tourist product is the key to attract tourists of certain destinations. Product intensification, linkage and diversification of very important for competitiveness and sustainable development. However, various features and services are ignored in the existing research. This paper attempts to examine how tourism products are available at KSPN (National Tourism Strategy Area-National Tourism Strategy Area) Ijen and their linkages with sustainable tourism. The study area includes the Ijen Nature Park and the PTPN (in Indonesia is the sub sub-ministry of forestry-Nusantara Plantation Limited Liability Company) area XII in Banyuwangi and Bondowoso Regencies. Retrieval of data in this study using survey techniques. The research respondents were tourists who came to KSPN Ijen. Determination of respondents is by accidental quota sampling technique of 100 tourists. The collected data was analyzed using descriptive statistics in the form of a single tabulation. The results show tourism products at KSPN Ijen in the form of Panorama and events. The panoramic tourism products in question are the Ijen Crater Blue fire, views of Wurung Crater, Niagara Falls and Blawan waterfalls, as well as natural scenery from the gueshouse and homestay there. Meanwhile, tourism products in the form of events are annual activities called "Ijen Festival" organized by the government of Bondowoso Regency.

1. Introduction

Indonesian government puts effort in boosting non-tax state revenues by proclaiming the National Tourism Strategic Area (KSPN) [1]. This sector is recorded to contribute 9.5% of Indonesia's Gross Domestic Income[2] [3]. In order to encourage this concept, in 2011, the Ministry of Tourism has launched 88 strategic tourist destinations spread throughout Indonesia (Republic of Indonesia Regulation No. 50 of 2011). Those destinations are envisaged to be the center of regional growth from the tourism sector which can boost the local economy.

Out of the 88 strategic destinations, two destinations are located in East Java. The first is the government's development priorities, namely KSPN Bromo-Tengger-Semeru which covers the Greater Malang area (Malang Regency, Malang City, and Batu City), Probolinggo Regency, Pasuruan and Lumajang. The later is KSPN Ijen-Baluran, covering Banyuwangi, Bondowoso, and Situbondo Regencies. The data on tourist visits and the development potential, both domestic tourists and foreign tourists, are the aspects considered for the determination of these two strategic destinations. KSPN Bromo-Tengger-Semeru was announced to be one of the 10 Priority Tourism Destinations in Indonesia, International Geo-Ecoculture Park, with a total of 39,000 domestic tourists visits in 2016 and 4,000 foreign tourists [4]. KSPN Ijen-Baluran tergets European tourists who are interested in climbing and blue fire [5]. In 2016, the total visits reached 23,000[6]. The data shows that the Ijen-Baluran KSPN is a potential tourist destination to be developed.

The government’s support in this case is crucial for the development of tourism in Indonesia. Tourism roles in some sectors, i.e. economic, employment and investment, make it often considered as a catalyst of development [7]. Economy, politics, socio-culture, and environment fields of areas which become international tourist destinations will be greatly affected[8]. It is considered as a powerful way in transferring knowledge and technology[9].

However, for tourism to be developed, it also needs to be supported by several other aspects, which are: (1) Political and social security conditions [10]; (2) Products in the form of facilities and accommodation [11]; (3) the availability of attractions [12] equipped with appropriate facilities, especially accommodation; (4) Elements of the physical environment [13]; (5) disaster resistance, since vulnerability to natural disasters might be an obstacle [14]; and (6) transportation accessibility [15].

To make East Java one of the Priority Travel Destinations, a synergy between the government, the community and tourism managers are needed, since without government control (neoliberal capitalism), the development of tourism will only have an impact on the commodification of natural and cultural heritage [16]. This article endeavors to describe potential tourism products at KSPN Ijen which can be used as a mainstay product.
2. Methods
This study seeks to describe potential tourism products that exist in the KSPN Ijen region. Data collection uses survey techniques, this technique is very appropriate because it is able to explain social issues by using observation sheets to obtain reliable responses or data [17]. Data sources from tourist subjects are intended for gathering tourist destinations. Determination of tourist subjects using accidental quota sampling to collect data on tourist typology of visitors to Ijen-Baluran KSPN with a minimum amount that has been determined [18], which is 100 tourists. The collected data was analyzed using descriptive statistics in the form of a single tabulation. The aim is to see how the data patterns exist. From the pattern that appears, it can be explained about the pattern of visits, the availability of attractions and supporting facilities. Note figure 1 to find out the location of KSPN Ijen.

![Map of Regional Strategic Areas of East Java National Tourism](image)

**Figure 1. Map of East Java KSPN Area**

Ijen Crater is included in the category of Conservation Area with type nature parks (TWA) based on the Decree of the Governor of the Netherlands East Indies No.46 dated October 9, 1920 Stbl No.736 with an area of 2,560 ha and renewed with SK.725 / Menlhk / Setjen / PLA.0 / 9/2016. In total there are 11 types of conservation areas with their respective objectives. The core of the activity is to carry out sustainable management and utilization. Based on PP No. 48 of 2010 concerning Nature Tourism Entrepreneurs in Wildlife Reserve, National Parks, Community Forest Parks, and nature parks article 9 states that exploitation of natural tourism is given in the form of a Natural Tourism Exploitation Business Permit (IUPJWA) and / or Nature Facilities Business Permit (IUPSWA) in areas that have been utilized by local people.

Refer to PP No. 32 of 1990 concerning protected areas need to be limited in its management in order to preserve the ecosystem. The intended boundary is an element of protection that depends on the ability of the land to support all tourism activities in nature parks. Limits can be constraints on development or the number of tourist visits.
Data on tourist visits to the Kawah Ijen nature parks in August 2017 reached 16,913 foreign tourists and 104,394 domestic tourists [19] which averaged 412 tourists if averaged. The area of the peak area that can be used by tourists to enjoy the beauty of the crater safely reaches + 0.5 ha (Figure 2). In a simple calculation each tourist has + 12 m². But the consideration is the number of visits on weekends can reach 1000 tourists. Although the peak area can still be accommodated, the other consideration is that production waste from irresponsible visitors can have fatal consequences for the preservation of the nature of Ijen Crater.

![Figure 2. Area for tourists to enjoy the beauty of Ijen Crater](image)

It was recorded that the Semeru climb was closed to restore the ecosystem condition that was heavily polluted by waste in 2016. Now the Great Hall of Bromo Tengger Semeru National Park opens from April 2018 with a limit of 600 climbers per day made through online reservations at https://bookingsemeru.bromotenggersemur.org/ and check the goods and documents on each climber. In the case of Ijen Crater, restrictions were imposed in the form of visiting hours. Climbing can only be done after 00.00 a.m and the last ascent at 12.00 p.m. All climbing activities can only be done up to 04.00 p.m. There is no checking of goods carried by tourists because of the assumption that there is no camping ground in the upper and upper slope areas, so that the goods carried are also less and do not cause much waste. The time limit for climbing is done after there are victims of the solfatara eruption at the end of March 2018.

As a Conservation Area with Type nature parks, Ijen Crater seeks to maximize the services provided to tourists. The plan of the East Java BKSDA to build a skytrain (cable car) affects conflict in nature lovers. Many parties reject the plan because it is considered to have an environmental impact. The Regent of Banyuwangi (Anas) is among those who reject the development plan[20]. However, the plan has been approved by the Ministry of Environment and Forestry. It was scheduled that in October 2018 the construction of an electrical installation for the construction of the cable car from Bondowoso to Paltuding (Ijen Crater Climbing Post) was completed (Figure 3).
The involvement of the community with the empowerment approach is important because the community has lived around or inside the conservation area before the area was established. Therefore negating the existence of the community in the management of conservation areas is very unlikely given the high interaction, understanding and dependence of the community on the area. Society is an asset whose existence can support the realization of effective regional management. The space for cooperation in the management of conservation areas that has been given by the State should be the basis for building partnerships between equal parties in the management framework, sustainable conservation areas and welfare of the community.

Currently revisions to Law No. 5 of 1990 concerning Conservation of Biological Resources and their Ecosystem, which has been a reference for conservation efforts. This is done because the provisions for the management of conservation areas exist, some of which are less relevant to the changes and social development of the community. This includes the need to adapt to international conventions that can support the goals of biodiversity conservation in Indonesia.

The results of 2017 Natural Resources Conservation (PIKA) Modeling and Information performance report in 2017 indicate that Ijen Crater is recommended for: a) restoration of ecosystems, b) settlement of agricultural problems, c) clarification of road use and completion of road management cooperation, d) management plan documents need to be prepared immediately.

The intended ecosystem recovery is to restore the ecology affected by fires in 2014 and 2017. Fires occur on the upper slopes so that reforestation is not possible because of the slope constraints. For recommendations for solving agricultural problems is to clarify the boundaries of the management area of the nature park Crater Ijen with PTPN XII. On recommendation c and d refer to the planning of the construction of the cable car from the Paltuding Post to Ijen Crater carried out with partners PT. Sura Perama Setia (SPS).

3. Results and Discussion
The research at KSPN Ijen conducted by Suryandari stated that the nature tourism of IPN KSPN has a diversity that can be a tourist attraction so that it can be used as a big capital in ecotourism development [21]. She added that to develop ecotourism it is necessary to collaborate with various elements, including the management of national parks, local governments and private entrepreneurs.
Researchers divide this private entrepreneur into two, namely large capital entrepreneurs and small capital entrepreneurs.

The researcher argues that if private entrepreneurs who have large capital participate in the development of ecotourism, there should be some restrictions, such as on stock quotas, management, and the building constructions. This is done so that the income from tourism sector will benefit the government more. In addition, the reason of this restriction is that the KSPN Ijen is a conservation area that must be preserved. For small capital entrepreneurs, special space is available, which is limited at one point to open souvenir shops and food stalls. Following the advice given by Fitroh et. Al [22], the development of tourism at KSPN Ijen is focused on improving the quality of facilities and infrastructure. There should also be additional facilities for supporting tourism atmosphere.

The researcher believes that there is one more important element that can help the development and management of ecotourism, namely the local community. The involvement of the community in managing tourism is also important. In tourism development, the government does not only think of state income, but also has to have a positive impact on the local community which, in this case, is the improvement of the economy of the citizens. By itself the local community can help produce tourism products.

Tourism products can be in the form of panoramas, annual routine events, cultural, culinary, and / or local community arts. Tourism products are a mainstay tourism product which is the main attraction of tourist visits. At KSPN Ijen its flagship tourism products are in the form of natural beauty and annual events organized by Bondowoso Regency. Measurement of tourist attractions includes optimal visit time and event schedule.

Optimal visit time is the most optimal time for tourists to enjoy the natural beauty of KSPN Ijen without any disruption from weather constraints and time to attend annual activities organized by Bondowoso District. The optimal visit time in one year is between April-September, and the visit time to the blue fire before 01.00 WIB.

Travelers who cannot visit at optimal times can still enjoy other tourist destinations around Ijen which are managed by Perhutani PTPN XII. Overall, look at Figure 4 to observe the distribution of visiting patterns from tourists to Ijen KSPN.

![Figure 4. Diagram of Visit Time and Regional Tourist Visits Pattern at KSPN Ijen](image)

| Table 1. Description of Figure 4: |
|----------------------------------|
| Ijen crater                      |
| Ijen Crater / Wurung Crater      |
| Ijen Crater / Wurung Crater / Jampit Guest House / Blawan Homestay / Arabica Homestay / Niagara Falls |
| Kawah Wurung / Jampit Guest House / Blawan Homestay / Arabica Homestay / Niagara Falls |
| Ijen Crater / Jampit Guest House / Blawan Homestay / Arabica Homestay / Niagara Falls |
The visiting pattern obtained from observations for 10 days in the peak season of visits showed that domestic tourists visited more on weekends (Saturday-Sunday), while foreign tourists visited according to the schedule provided by the travel service provider. The estimated number of visits on effective days reached 174 tourists and holidays reached > 800 tourists (Figure 5).

![Figure 5](image)

**Figure 5.** Average number of visits in peak tourist season (April-September)

The tourism product that is a mainstay at KSPN Ijen is a blue fire panorama. This panorama is formed from the eruption of high-temperature sulfur gas which is oxidized to produce a blue incandescent in the Ijen crater (Figure 6). This phenomenon is only two in the world, namely in Iceland and Indonesia. This phenomenon can actually occur in certain conditions throughout the world, the conditions are, geothermal and sulfur minerals. It is noted that this phenomenon appears in erupting volcanoes, as fibers or feathers from volcanic eruptions, when ash explosions occur [23]. In addition, historical records of ancient times wrote of the blue fire on the southern slopes of Mount Vesuvius, Italy, the volcano that destroyed the city of Pompei, and the blue fire on Vulcano Island which is off the coast of Sicily. Another note mentions, in Yellowstone National Park, United States, the phenomenon of blue fires has occurred during forest fires. Heat from a fire melts sulfur around a hydrothermal vent, a fracture path that connects the surface of the earth and the core of the earth, and creates a blue flame.

Now the blue fire phenomenon can only be found in Indonesia and is very popular with French tourists. The reason is due to publication factors both from the results of research and documentation. Maurice and Katia Krafft in his book À l'assaut des volcans, Islande, Indonésie, for the first time introduced the beauty of the Ijen Crater to European society widely [23]. In early 1999, a TV program called Ushuaïa Nature that was very popular in France and French-speaking countries such as Switzerland, Belgium and Quebec, and Canada, featuring natural explorer Nicholas Hulot, and volcanologist Jacques-Marie Bardintzef, they were active in the Ijen crater, including boating on the acidic lake of Kawah Ijen.

In 2010, one of the Reality Show about the world tour titled "Peking Express" which was very popular in French-speaking countries, also filmed in Ijen Crater. In 2008, Olivier Grunewald and Etienne Régis, President of the SVG (Volcanology Society of Geneva) heard about the existence of a blue fire natural phenomenon Ijen Crater Banyuwangi, then they came for the first time to Ijen Crater. In 2013, Olivier Grunewald and Etienne Régis came back to Kawah Ijen with the team. They spent 30 nights in this volcanic crater, active in the midst of highly corrosive gas, to record images of unique volcanic events and activities of sulfur miners, to be produced into documentaries. The 52-minute documentary was titled "Ijen Crater - Le Mystère des Flammes Bleues ", in the English version of "Ijen Volcano Crater and the Mystery of the Blue Flames ". The premiere of the teaser the film was released on January 7th, 2014, at Ushuaia TV, France. For this reason, many tourists from France come to visit Ijen Crater.
Figure 6. Phenomenon of the Blue Fire of Ijen Crater

Blue fire and sulfur miners are one package visit. One reason tourists visit the Ijen Crater is to see sulfur mining activities (Figure 7). This mining activity is still carried out traditionally aimed at cosmetic and pharmaceutical production activities.

In sulfur mining activities, the basic tasks are divided into three, namely (1) the miners in the crater are tasked to take sulfur chunks from the sulfur pipe, (2) sulfur carriers from the crater to the summit of Ijen, and (3) sulfur transport from the top of Ijen down. Each task has a different division of working hours. Miners in the crater that have the most dangerous tasks have the highest wages and fewer working hours. The nature of the corrosive sulfur has resulted in miners working under the highest risk so that the wage is Rp. 200,000 to mine as much as three times the freight (rit). Whereas for sulfur carriers depending on their ability to carry sulfur from top to bottom, for a kilo is valued at Rp. 1,000.

Figure 7. Activity of Miners Transporting Sulfur from Craters to be brought down

Other Ijen crater tourism products are annual events organized by the Government of Bondowoso Regency namely Repoebliek Kopi. This agenda is named the Ijen Festival activity held in April-October every year and in 2018 has entered its 3rd year (Figure 8).

The activity of this festival focuses on selling the main products from the potential of Bondowoso Regency in the Ijen area, namely coffee. The main activity is the Nusantara Coffee Festival and is
followed by adventure-based activities at Ijen such as: paragliding, athletics and bicycles. Other art activities that become the flagship product are Jazz Gunung (mountain jazz) or Jazz Ijen.

![Figure 8. Poster of the Ijen Festival Activities from 2016-2018](source: bondowoso.go.id)

The implementation of the Ijen Festival worked with PTPN XII because the implementation was in the area managed by Perhutani. This festival has succeeded in attracting tourists from various regions in Indonesia, especially coffee lovers and Jazz music. From the data in the tourism agency of Bondowoso Regency, it was recorded that up to February 2018 the number of tourist visits increased to 170% from the previous year [24].

So there are 2 excellent tourism products at the Ijen KSPN and its surroundings, namely the panorama of the KSPN Ijen and the Ijen Festival routine agenda (note table 1). The two leading tourism products have optimal visiting times in April-October each year. Each tourism product has tourist characteristics that vary according to their interests.

Both tourist products, which are diverse, becomes tourism attractions for different types of tourists. Fitroh et al. in his research stated that the attraction presented by the KSPN Ijen gave a significant influence on the decisions of tourists to visit KSPN Ijen [22].

| Table 2. Schedule of optimal visiting time of tourist destinations in IPN KSPN |
|---------------------------------|-------------|-----------------|-----------------|-----------------|
| Type               | Location            | Tourism Products                  | Manager          | Optimal Visit Time                  |
| Panorama           |                      | Blue Fire and Sulfur Mine         | East Java BKSDA  | 00.00 a.m to 10:00 a.m              |
| Wurung Crater      |                      | Educational Tourism and Sights    | PTPN XII         | 7.00 a.m to 4.00 p.m                |
| Jampit Guest House | Blawan Homestay      | Family Tourism                    | PTPN XII         | Every time                          |
| Jampit Guest House | Blawan Homestay      | Family Tourism                    | PTPN XII         | Every time                          |
| Arabica Homestay   | Blawan Waterfall     | Family Tourism                    | PTPN XII         | Every time                          |
| Arabica Homestay   | Niagara waterfall    | View                             | PTPN XII         | 7.00 a.m. to 4.00 p.m.              |
| Arabica Homestay   | Kali Pait            | View                             | East Java BKSDA  | 7.00 a.m. to 4.00 p.m.              |
| Event              | Ijen Festival        | Culinary, Music and Sports        | Bondowoso Regency| April to September                  |
Tourism products are the key to attracting tourist visits [11], diverse tourism products will also provide opportunities for longer / longer survival [25]. Although diversity is one of the superior values, what is important about diversity is consistency [26].

KSPN Ijen already has 2 distinctive superior products, namely Ijen Crater and Dutch Guest House. Additional events in the form of annual festivals will facilitate tourists to determine the optimal visit time throughout the year. This means that with the addition of the festival agenda it is possible to have 2 peak tourist visits [25].

4. Conclusion
Tourism products are the main attraction of a tourist destination. Its diversity will impact more and more market segments. At KSPN Ijen the diversity of tourism products includes Panorama and Event. The diversity of these products exists naturally because of the wealth of tourism potential in the region. This potential needs to be managed carefully in order to facilitate tourists with diverse interests, meaning that diversity information must be easily accessed by potential tourists. In addition to the need to convey information to prospective tourists, cross-manager coordination is an important issue to be addressed. KSPN Ijen tourism products are managed by various management, whether professional or not, such as Ijen BKSDA, Perhutani Kebun XII, and local communities.

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