

Strategies for Developing Nature-based Tourism Destination in the Dieng Plateau as a Sustainable Tourism

Ayu Setya Kemalasari^{1*}, Malidya Puspita Ayu², and Meisa Sofia³

¹Department of Tourism Planning, Institut Teknologi Bandung

²Department of Tourism Planning, Institut Teknologi Bandung

³Department of Tourism Planning, Institut Teknologi Bandung

ayuskemalasari@students.itb.ac.id, malidya@students.itb.ac.id and meisa.sofia@students.itb.ac.id

*Corresponding Author

Abstract: The Dieng Plateau has a beautiful nature-based tourism destination including Kawah Sikidang, Telaga Merdada, Kawah Sileri, Sumur Jalatunda, Kawah Candradimuka, Telaga Warna Telaga Pengilon, and Curug Pitu, which visited both by domestic and foreign tourists. Along with the tourism development, the Dieng Plateau experienced environmental degradation due to a large number of potato farms that took clean water sources from telaga coupled with the lack of consideration of the carrying capacity. This is not in accordance with the vision that realizes the Dieng Plateau and its surroundings as a quality and sustainable tourism. This qualitative-descriptive study aims to formulate a strategy for developing nature-based tourism in the Dieng Plateau to achieve tourism sustainability through several stages, namely (1) identify the current development of nature-based tourism, (2) formulate the problems and constraints using SWOT analysis, and (3) develop strategies and activities with phasing strategies that are divided into short and long-term. The results show the tourism development in the area is still on the developing stage relate to public facilities, tourism facilities, and accessibilities. It means to be a sustainable nature-based tourism destination, the Dieng Plateau needs collaboration for both region on developing the potential tourism resource and optimize local participation.

Keywords: Dieng Plateau; Development; Nature-based Tourism Destination; Sustainable Tourism

1. Introduction

Dieng is derived from the Sanskrit, namely from the word "Di" which means pointing to a place and "Hyang" which means heaven or gods. So the word Dieng itself has the meaning of a mountainous place where the gods and goddesses reside. Geographically, Dieng is located at an altitude of 2,000 - 2,500 meters above sea level. With the beauty of the landscape and its natural formations, there are various tourist attractions both developed and resources or potential. Surrounded by hills, potato and carica plantations, protected areas and because of Dieng is an area formed by an ancient volcanic eruption, therefore many craters and lakes are found. In addition, based on its history, Dieng has a historical heritage site in the form of a temple that has existed since the era of the glory Hindu kingdom. Nevertheless, these temples are not as grand as Prambanan and Borobudur Temple. However, when viewed from its age, the temples in Dieng are said to be older or even the oldest temples in Java.

Nature-based tourism in Dieng Plateau has a greater impact on society and the environment when compared to its culture-based tourism. This is because nature-based tourism in Dieng does not face seasonality, while cultural-based tourism in Dieng is currently limited to peak season only when the annual event of Dieng Culture Festival is held for almost 10 consecutive years. Therefore, the discussion in this study will focus more on developing natural-based tourism in Dieng Plateau. The natural attractions in Dieng Plateau include (1) Kawah Sikidang, (2) Telaga Merdada, (3) Kawah Sileri, (4) Sumur Jalatunda, (5) Kawah Candradimuka, (6) Curug Pitu, (7) Telaga Warna and Telaga

Pengilon. Dieng Plateau as a tourist destination is not only visited by domestic tourists, but also by foreign tourists. Based on the tourism development potential of Dieng, tourism development is expected to contribute to local communities and the government. Because of Dieng is located between two administrative districts, namely Banjarnegara Regency and Wonosobo Regency, it is hoped that the development of tourism in Dieng Plateau can contribute to improving the economic structure of the two regions. Dieng Plateau with the development of nature-based tourism requires public awareness as a tourism business actor to be able to have sensitivity for the surrounding environment. To create sustainable tourism, environmental sustainability is an important aspect prioritized in development so that people who depend on the use of natural resources can continue to benefit.

Nature-based tourism development in Dieng Plateau is an alternative way for local people who depend on potato farming as their main commodity. About 77.36% of the people work as farmers with relatively low productivity, namely 16.6 tons/hectare of potatoes, 22.1 tons/hectare of cabbage and 8.8 tons/hectare of carrots (Pradana, et al., 2015). The existence of environmental degradation due to the process of farming that is too economically oriented and less attention to the carrying capacity of the physical environment of the soil for potato farming results in a decrease in productivity from year to year. Therefore, tourism in Dieng began to be intensively developed with its natural potential. Not a few people started the initiative by opening businesses in the tourism sector, ranging from restaurant owners, stalls around tourist attractions, souvenir shops, tour guides, transportation services, to accommodation providers in the form of homestays. The rise of tourism businesses in Dieng Plateau has not been followed by policies that regulate and limit the extent to which the development of these businesses can be carried out.

Notably, around tourist attractions, there can be found a lot of people selling food, drinks, and souvenirs. This case can be seen in Kawah Sikidang where the lack of organized tourism facilities can give an impression that is less comfortable for visitors because the view of the crater that should be enjoyed as far as the eye can be is blocked by a row of community-owned stalls that are too close to the crater. Because of the tourism is relied on nature, it is important for the government and community to be sensitive to potential disasters or hazard. The importance of regulation tourism facilities services in nature-based tourism is aiming to anticipate natural disasters in the form of crater eruptions such as that occurred in Kawah Sileri in 2017. Based on the background described above, the discussion of this research aims to identify internal factors and external factors owned by Dieng Plateau with the nature-based tourism development and to formularize proper development strategies in order to optimize potential without endangering the environment.

In discussing the strategies for developing nature-based tourism in Dieng Plateau, specifically, tourism products will be the focus of this research which includes the elements of tourist attraction, accessibility and amenities. Identification regarding tourism products is seen both in Banjarnegara Regency (Dieng Kulon Village and Karangtengah Village) and Wonosobo Regency (Dieng Wetan Village and Jojogan Village). This research aimed to identify the current development of nature-based tourism destination in Dieng Plateau, identify the problems and constraints, and develop the strategy and relevant actions to optimize sustainable nature-based tourism development of Dieng Plateau.

2. Related Works/Literature Review

The literature used in this study serves to strengthen the urgency to formulate strategies for developing natural-based tourism destinations in realizing sustainable tourism in the Dieng Plateau, comprised of the concept of nature-based tourism destination, sustainable tourism, developing the tourism destination, and precedent of existing research related to this study.

2.1 Nature-based Tourism Destination

Warpani (2007) states that a tourist destination called tourism area which is located in one or more administrative areas related to tourist attraction, public facilities, tourism facilities, accessibility, and communities that are interrelated and complement the realization tourism. Tourist attraction is anything that is unique, beauty, and value in the form of diversity that is the target or destination of tourist visits. Tourist attractions are divided into 3 types, namely:

- Nature-based tourism, including mountain scenery, nature reserves, lakes, beaches, volcanic craters, hot springs, flora and fauna;

- Recreational tourism, including slides, swimming pools, reservoirs and recreational parks; and
- Cultural tourism, including ancient fortifications, ancient mosques, ancient churches, museums, monuments, temples, regional arts, traditional houses, and traditional ceremonies.

Nature-based tourism is the focus to be discussed, which is a form of recreational and tourism activities that utilize natural resource potential, both in natural conditions and after cultivation, allowing tourists to obtain physical and spiritual freshness, gain knowledge and experience and foster inspiration and love for nature. Nature-based tourism is a recreational and tourism activity that utilizes the potential of nature to enjoy natural beauty both unspoiled and already cultivated, so that there is a tourist attraction to the place. It is used as a life balance after a very active activity solid, and city atmosphere. So that by doing nature-based tourism our bodies and minds become refreshed. Nature-based tourism allows tourists to obtain physical and spiritual pleasure. In doing nature-based tourism, stakeholders must preserve the area still natural, provide economic benefits and maintain the integrity of the local culture so that it can become a tourist village, so that the village has tourism potential equipped with supporting facilities such as transportation or lodging.

Furthermore, Suwanto (2004) mentioned that nature-based tourism is a form of activity that utilizes the potential of natural resources and environmental management. Nature-based tourism uses the environmental planning approach especially about environmental conservation but takes into account the needs of visitors for facilities and needs in carrying out their activities. Nature-based tourism can be in the form of beaches, mountains, natural scenery, marine tourism or water tourism. Related to the characteristics of the Dieng Plateau, there are several types of tourism including agricultural tourism and wildlife sanctuary tourism. From the standpoint of conservation, nature-based tourism provides incentives for local communities and landowners to conserve wildlife habitats upon which the industry depends – it promotes conservation by placing an increased value on remaining natural areas. As nature-based tourism becomes more important to the local economy (Marpaung, 2002), communities have additional incentive to conserve their remaining natural areas for wildlife and wildlife enthusiasts. The nature-based tourism will continue to focus on achieving habitat conservation by providing information and assistance to private landowners, communities, businesses, and local community leaders wishing to make nature-based tourism an integral part of their business and community. By empowering people at the local level, we hope to build and provide guidance to a growing industry that holds great promise for sustainable economic development and conservation of wildlife habitat.

Forms of tourism which maintain a dependent, enhance or incidental relationship with the natural environment, or some aspect thereof, in terms of their utilized attractions and/or settings. The following is the specific types of nature-based tourism listed in Review of Nature Based Tourism (2007).

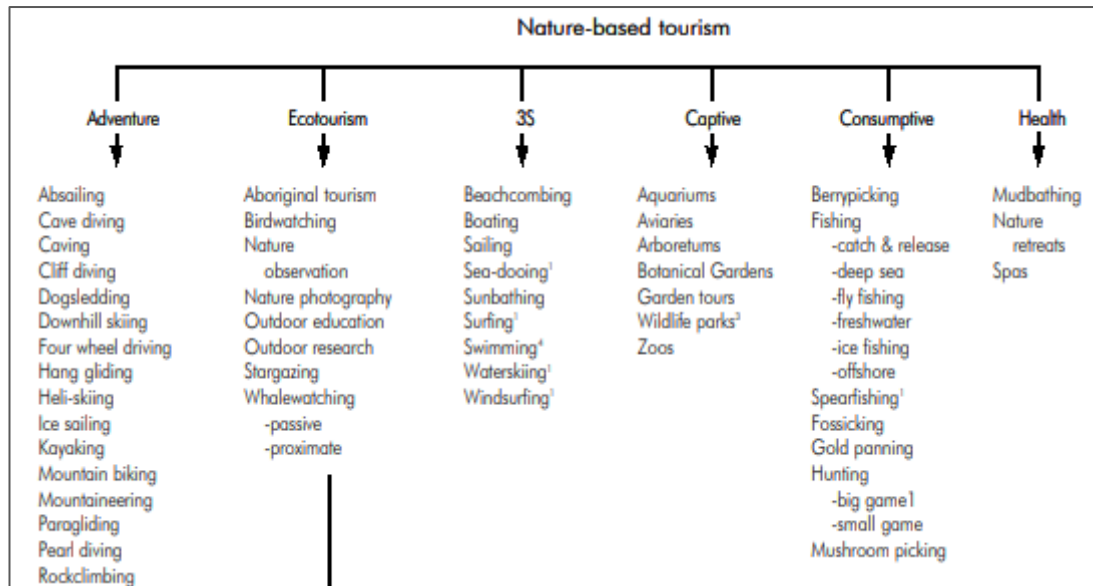


Figure 1. Specific Types of Nature-based Tourism

2.2 Developing the Tourism Destination

Gunn (2002) mentioned that tourism is a temporary movement of people to a place outside their usual residence and work. While tourism is the whole relationship and the symptoms that arise from the journey of people with the intention of staying live and there is no connection with activities to make a living. Destination development is a way to advance aspects of consideration of tourism destinations, which are then called tourism products. The development of tourism products includes:

- Type of tourists based on their characteristics;
- Transportation provided and can be used by tourists in the region;
- Tourist attractions in the form of something to see, something to do, and something to buy;
- Tourism facilities such as restaurants or eating places, banks, money changers, tourist information, public security facilities, guard posts;
- Tourist information and promotions are usually in the form of advertisements and pamphlets; and
- Institutional role.

Development is a strategy that is used to advance, improve the conditions of tourism an object and tourist attraction so that tourists can visit it and be able to provide benefits to the community around tourist objects and attractions as well as the government. Besides that, tourism development aims to provide benefits for tourists and the host community. With the existence of tourism development, it is expected to be able to improve the living standards of the people through profits economy brought to the region. In other words, tourism development through the provision of infrastructure facilities, tourists and local residents will benefit from each other (Paturusi, 2001).

The development should pay close attention to various aspects of nature-based tourism includes a system of these 7 (seven) components, consist of:

- Institutional aspects include the utilization and improvement of institutional capacity, as a mechanism that can regulate various interests, operationally an organization with appropriate HR and regulations and has high efficiency;
- Facilities and infrastructure aspects that have two sides of interest, namely (1) tools to meet the needs of natural tourism, (2) as controls in order to maintain environmental balance, construction of facilities and infrastructure can increase carrying capacity so that utilization efforts can be carried out optimally;
- Management aspects, namely by developing professionalism and management patterns of natural tourism objects that are ready to support natural tourism activities and are able to utilize the potential of sustainable natural attractions;

- Business aspects that provide opportunities and regulate the use of natural tourism objects for commercial tourism purposes to third parties and open employment opportunities for the local community;
- Marketing aspects by using high technology and working with various parties both domestically and abroad;
- Aspects of community participation through business opportunities that help to improve community welfare; and
- Research and development aspects covering the physical aspects of the environment, and social, economic aspects of natural attractions. It is hoped that later it will be able to provide information for regional development and development, wisdom and direction for the use of natural attractions.

Development of natural tourism objects is very closely related to increasing the productivity of natural resources in the context of economic development, so that it is always faced with conditions of interaction of various interests involving local government, society, and the private sector in a regional spatial system (Pendit, 1990).

2.3 Precedent: The Tourism Development Impact on the Life of Local Communities. Case Study: Dieng Tourism Area, Wonosobo Regency

Tourism potential in the Dieng Plateau includes mountainous nature, beautiful rural nuances, arts, food and non-food handicrafts, children's or traditional games that can be packaged as popular tourism assets. The Dieng Plateau is not only having potential, but also faces complex problems. The complexity of the problems faced by the Dieng Plateau is not limited to tourism development but also related to conservation, culture, and agriculture (Paramitasari, 2010). Preservation of the environment and culture involves many parties who then the issue of coordination and cooperation is a challenge. The need to understand that tourism is not limited by administrative boundaries for both regions to be able to identify well the needs of sectors that work together and overcome problems related to poor tourism management. Because there are several tourist attractions whose management is not under the authority of the regional government but rather the authority of the Natural Resources Conservation Agency (BKSDA).

Based on the concept mentioned above, in utilizing the existing tourism potential, opportunities for developing supporting activities can also be identified for each tourism potential in the Dieng Plateau. The activities that can be carried out to support the potential of natural tourist attractions include tracking, outbound, water tourism, tour guides, and borrowing fishing gear. Besides, nature-based tourism is expressed through various forms or tourism including ecotourism, geotourism, cycle tourism, adventure tourism, and wildlife tourism which relies on experiences directly related to natural attractions. Ismayanti (2009) concluded that potential nature-based tourism have several objectives including (a) obtain benefits both in terms of the economy in the form of economic growth and from a social perspective in the form of increasing people's welfare, b) eliminating poverty by opening employment and overcoming unemployment, (c) fulfilling the recreational needs of the community, as well as raising the image nation and strengthen national identity, foster a sense of love for the homeland through the exploitation of domestic attraction, (d) preserve nature, environment and resources, as well as promote culture through tourism marketing, (e) strengthen friendship between Banjarnegara dan Wonosobo Regency with understand religious values, customs and people's lives.

Realizing sustainable tourism through utilize tourism resources, namely the economic, social, environmental and institutional aspects that exist so that they can meet the needs of present and future generations. Fadlina (2015) also explained some dimensions that are considered as sustainable tourism including:

- Ecological and environmental sustainability, referring to the basic physical development process that continues to preserve tourism resources;
- Economic sustainability refers to the efficiency of managing current and future financial and investment sources;

- Socio-cultural sustainability refers to the maintenance of cultural characteristics and social integration where traditional values are maintained; and
- Institutional sustainability refers to increasing participation and strengthening institutional collaboration. The tourism institution is generally known as Penta Helix, namely ABCGM - Academician, Business, Community, Government, Media, which shows that the community is an important element in tourism development

3. Material & Methodology

3.1. Data

The data was collected based on literature studies, observations and semi-structured interviews with key stakeholders in Dieng Plateau (*Kelompok Sadar Wisata Dieng Pandawa* and *Unit Pelaksana Teknis Daerah Kawasan Wisata Dataran Tinggi Dieng*). Overall the research process consisted of three phases comprised of data collection through literature review obtained from documents and publications and direct observation, analysis and discussion where researchers process empirical data through analysis of content, assessment and verification of findings, formulation of conclusions and recommendations as to the final stage.

3.2. Method

This research implemented a qualitative research design based on the data collected from three different ways (literature, observation and interview). The methodology added to this study is a primary survey updated in February 2019 to provide the latest description of tourist attractions in Dieng Plateau. Conducting interviews with community leaders and governmental staffs in planning and tourism office to find out how people use, manage and conserve the nature-based as tourism products. As well as the addition of ancillary components that were not discussed in the existing literature review. To get the right and applicative strategy, SWOT (Strength, Weakness, Opportunity, Threat) analysis is used to support the research. SWOT analysis is essentially as a brainstorming session about the key variables that affect the sector's performance (Henricks, 1999). The SWOT analysis technique was used in order to explain current constraints and future possibilities from internal and external factors that influencing the development of nature-based tourism in Dieng Plateau.

4. Results and Discussion

4.1. Identification of the Nature-based Tourism Attractions

The Dieng Plateau is a mountainous region that has a distinctive highland beauty with temperatures ranging from 12°-20° during the day and 6°-10° at night being its main attraction. That fact makes Dieng known as a destination based on natural resources. There are nature-based tourist attractions in Dieng Plateau which are obtained from direct field observations.

Kawah Sikidang

Kawah Sikidang is one of the main tourist attractions that must be visited by tourists when they visit. The main attraction of Sikidang is the steamy sulfur crater which is the largest active crater in Dieng Plateau. There are artificial tourist attractions that are managed by local people such as rental motorbikes, photo spaces, taking pictures with animals (owl), flying fox and boiling eggs with water from the crater. Although there are a lot of tourist attractions, the conditions of the facilities are not managed well.

Telaga Merdada

Telaga Merdada is a lake formed from a rainwater reservoir on the surface of a sunken plain, so that when the dry season the water volume will decrease and even dry out. Apart from being managed as a tourist attraction, the water is a source of irrigation for the surrounding agriculture. The tourists usually come to see sunset and tracking to the Pongan Hill and Semurup Hill to enjoy the surrounding scenery. Tourism facilities and accessibility are complete enough but these are not managed well because of the decrease in tourist number.

Kawah Sileri

It is the widest crater on the Dieng Plateau with a water surface that continues to emit volcanic symptoms with white smoke. In 2017 and 2019 Sileri Crater erupts that makes the location is closed for tourism activities. Compared to the other craters Kawah Sileri has beautiful green views and it still rarely visited by tourists because of its location and threat of the eruption. There is gardu pandang to see all the crater areas from the higher.

Sumur Jalatunda

Located 6 km from Dieng Plateau, Sumur Jalatunda generally looks like the pond and famous for the appeal of its myth that relates with puppet stories. To reach the viewing post for seeing the beautiful landscape and enjoy Sumur Jalatunda from above, tourists have to pass 257 steps.

Kawah Candradimuka

Kawah Candradimuka is one of the crater in Dieng located 7 km from Dieng Plateau. Three active craters are found with different temperatures. These craters are formed because of the land crack removing the sulfur. Kawah Candradimuka is still not visited by many tourists, both local and foreign because of the distance that is far from Dieng Plateau, tourism facilities which are not complete yet and minim road access.

Telaga Warna and Telaga Pengilon

Telaga Warna is the second largest lake in the Dieng Plateau besides Telaga Menjer. The Telaga Warna panorama can be seen well from the top of the hill known as Batu Pandang Ratapan Angin. The special things of Telaga Warna are because the water can be changing every time, depending on the weather, viewpoint, and visibility. The color consists of green, navy blue, yellowish white, and sometimes colorful like a rainbow. Right next to Telaga Warna there is the second lake called Telaga Pengilon, whose water surface remains clear and does not change because it has a very low sulfur content. The water is usually used as irrigation for agriculture. The other attractiveness, there are natural caves namely Gua Sumur Eyang Kumulasari, Gua Pengantin, Gua Jaran Resi Kendaliseto, and the most famous Cave Semar. Activities that can be done in Telaga Warna and Telaga Pengilon are to see the beauty of the lake from close range.

Curug Pitu

Located in Kemiri Village, Sigaluh Subdistrict, Banjarnegara Regency is a tourist place with the beauty of a waterfall that has seven levels around 30 meters with a large pond below. Tourists can enjoy the natural atmosphere by playing water, swimming, and tracking to the peak of the waterfall. Curug Pitu can be reached for one hour from the Dieng Plateau. Although it is quite far from Dieng Plateau, Curug Pitu is one of Banjarnegara priority tourism destination. So that the development Dieng Banjarnegara and Dieng Pitu are the concern of the government.

The Dieng Plateau is still on the developing stage, it can be seen on the quality and quantity of public and tourism facilities, accessibilities and the number of tourists visits so that to reach a sustainable tourism destination professional improvement and management are needed.

Table 2. The Number of Tourist in Dieng Plateau

Years	Domestic Tourists	Foreign Tourists	Total
2008	80,613	3,812	84,425
2009	109,458	5,235	114,693
2010	106,083	5,360	111,443
2011	104,911	5,175	110,086
2012	159,048	7,373	166,421
2013	176,659	7,433	184,092
2014	290,290	7,360	297,650
2015	340,892	7,875	348,767
2016	385,665	5,804	391,469
2017	354,418	4,180	358,598
2018	330,780	2,986	333,766

Source: Unit Pelaksana Teknis Daerah Kawasan Wisata Dataran Tinggi Dieng, 2019

It can be seen that tourist visits are dominated by domestic tourists until 2018. However, there has been a significant decline of foreign tourists from 2016 to 2018 and domestic tourists starting in 2017.

4.2. Discussion

Nature-based tourism planning and development should be based on the potentials, capabilities, and capacities of each tourist attraction. In general, because of Dieng Plateau is located in two areas administrative so Dieng Plateau facing the coordination problems of both governments. To assess the internal and external factors that affect the nature-based tourism development process of Dieng Plateau, the index of those factors have to be determined first. The determination of the index in both internal and external factors are some of the most important factors that affect nature-based tourism development. Those indexes include not only tourism with the attractions, accessibilities, amenities, accommodation but also environmental, socio-cultural, economical, ancillary and regulation factors. The internal factor include strengths and weaknesses and the external factor include opportunities and threats are given in Table 3 as follow.

Table 3. SWOT Analysis

Strength		Weakness	
1	Having a variety of tourist attraction with very interesting and diverse nature-based tourism potential	1	Preservation of some nature-based as tourism is uncontrolled
2	Foreign tourist markets started to increase	2	There is so much poor condition road
3	The availability of souvenir shops and the number of restaurants in the area of tourist attractions	3	There is no particular transportation heading to Dieng Plateau so it is difficult for tourists to use travel services to tourist attractions
4	The availability of the Tourist Information Center (TIC)	4	Public facilities not in a good standard of availability
5	Dieng Culture Festival as one of the main promotion of Dieng Plateau as a tourist destination	5	ATM facilities are only in a certain location
6	The cold weather supports nature-based tourism	6	Low public awareness of potato farming unsustainable development
7	Potato farming in an ideal development can support agri-tourism	7	There is no proper visitor management
8	The hospitality of indigenous people can attract tourists	8	There is no regulation for developing each tourist attraction
9	The strength of the local's lifestyle		
Opportunity		Threat	
1	The number of tourists supports the local economic	1	Lack of promotion
2	Technology and information development	2	Land ownership of the outside investor
3	Chances for greater development in both of regencies as one	3	The policy between Banjarnegara Regency and Wonosobo Regency are not in line yet for the tourism development
4	The existence of similar attractions in the province area		

As mentioned before, nature-based tourism development is one of the approaches to the principles of sustainability. Having lots of nature-based potentials or resources as tourism products presents a good opportunity for the implementation of nature-based tourism in Dieng Plateau. The cold weather, the hospitality of indigenous and the strength of the local's lifestyle is three of the strengths in the development. Dieng Plateau which located in two administratives area of Wonosobo and Banjarnegara get a chance for a greater development in both area with the number of tourists and as the highest nature-based tourism location in Central Java Province. However, the distance from the capital and hardness of accessibility such as poor condition road, there is no particular transportation heading to Dieng Plateau and unavailability of good standard public facilities being the reasons for its slow development.

Regulation is needed for nature-based tourism development, the absence of regulation that can control the development is the weakness of Dieng Plateau. This is because the policies both of Banjarnegara Regency and Wonosobo Regency do not have the same interest in developing

sustainable tourism. However, if the two regions could collaborate in the tourism development of Dieng Plateau, it will give a positive impact on tourism development because Dieng has a great potential to be developed as a nature-based tourism destination. Dieng Plateau is also the only tourist attraction that serves cool weather in Central Java Province so that also gives the advantage to support the Dieng Plateau tourism development and attract tourist. The availability of regulation is also can control the growth of potato farming that threatens the water quantity and quality in Dieng Plateau.

The table below shows several patterns of strategies along with supporting activities used in the development of nature-based tourism in the Dieng Plateau, comprised of S-O (increase the strengths by optimizing opportunities), S-T (increase the strengths to minimize the threats), W-O (reduce weaknesses by optimizing opportunities), and W-T (reduce weaknesses to minimize the threats). The strategies and activities are then grouped into short-term and long-term phase to make it easier for tourism stakeholders to prioritize which are more urgent to be implemented with the resources available in the Dieng Plateau.

Table 3. Strategy Phasing

Strategy	Activities	Short-term Phase	Long-term Phase
S-O	Community-based tourism development for sustainability	√	
	A wiser of land use for farming		√
	Collaboration both of Banjarnegara Regency and Wonosobo Regency in tourism development in Dieng Plateau	√	
	The development of Dieng Plateau tour packages		√
	Developing agri-tourism	√	
	Increasing small enterprises		√
S-T	Tourism promotion through various media		√
	The policy which regulate the land ownership in Dieng Plateau	√	
W-O	Tourism development based on the carrying capacity of each tourist attractions		√
	Improvement and development in accessibility for ease and accessible from any direction to tourist attractions	√	
	Tourism facilities services improvement	√	
	Increasing the roles of Provincial Government for a regional tourism development	√	
W-T	Collaborative visitor management in Dieng Plateau	√	
	A strict conservation regulation	√	
	Local training for a professional tourism actor/personnel	√	

5. Conclusion

Based on the research objectives and the results of the identification discussion on the Dieng Plateau, it can be concluded that:

1. As the result of the identification on the nature-based tourism attraction in Dieng Pandawa, it can be concluded the tourism development in the area is still on the developing stage relate on

- public facilities, tourism facilities and accessibilities. It means, to be a sustainable tourism destination, professional action is needed.
2. Because of the location Dieng Pandawa in two administrative areas (Wonosobo and Banjarnegara), it faces coordination problems. Starting from internal problems such as preservation of some nature-based as tourism is uncontrolled, no visitor management, low quality of accessibilities, transportation and facilities. The other problem is caused by external such as there is no regulation that could make effective coordination happened between Wonosobo and Banjarnegara. So that the answer to make Dieng Plateau as a sustainable tourism destination are a collaboration for both regions, developing the potential tourism resource and optimize community-based tourism.

References

Journal Papers

- Henricks, M. (1999). Augmented title: Strength-weakness-opportunity-threat analysis. *Entrepreneur*, 27(72), 199-210.
- Ngabekti, S., Setryowati, D.L, & Sugiyanto, R. (2007). Tingkat Kerusakan Lingkungan di Dataaran Tinggi Dieng sebagai Database Guna Upaya Konservasi. *Jurnal Manusia dan Lingkungan*, 14(2), 93-102.
- Pradana, A., Sara, F.H., & Wahdaningrum, W. (2015). The analysis of Environmental Degradation and Carica Agroforestry System as an Attempt of Environmental Restoration in Dieng Plateau. *International Journal of Environmental Science and Development*, 6(11), 861-867.
- Rahadjana, D.T. (2012). Membangun Pariwisata Bersama Rakyat: Kajian Partisipaso Lokal dalam Membangun Desa Wisata di Dieng Plateau. *KAWISTARA*, 2(3), 225-328.

Book

- Badan Rehabilitasi Lahan dan Konservasi Tanah Jawa Tengah. (2004). *Pengkajian Reboisasi Lahan dan Konservasi Tanah di Jawa Tengah*. Semarang, Indonesia: BRLKT Jawa Tengah.
- Bruntland, G. H. (1987). *Our Common Future*. Oxford: Oxford University Press.
- Gunn, C. A. (2002). *Tourism Planning: Basics, Concepts, Cases*. New York: Routledge.
- Marpaung, H. (2002). *Pengetahuan Kepariwisataaan*. Bandung: Alfabeta.
- Nature Based Tourism Advisory Committee. (2009). *Review of Nature Based Tourism: Report to the Minister for the Environment and the Minister for Tourism*. Australia: Author.
- Paturusi, S. A. (2001). *Perencanaan Tata Ruang Kawasan Pariwisata, Materi Kuliah Perencanaan Kawasan Pariwisata, Program Pasca Sarjana Universitas Udayana*. Denpasar: Universitas Udayana.
- Pendit, Nyoman S. (1990). *Ilmu Pariwisata Sebuah Pengantar Perdana*. Jakarta: Pradnya Paramita.
- Suwantoro, Gamal. (2004). *Dasar-dasar Pariwisata*. Yogyakarta: Penerbit Andi.
- Warpani, Suwardjoko P. (2007). *Pariwisata Dalam Tata Ruang Wilayah*. Bandung: ITB Press.

Thesis

- Paramitasari, I. D. (2010). *Dampak Pengembangan Pariwisata terhadap Kehidupan Masyarakat Lokal: Studi Kasus Kawasan Wisata Dieng Kabupaten Wonosobo (Proyek Akhir)*, Universitas Sebelas Maret, Indonesia.
- Fadlina, S. (2015). *Strategi Pengembangan Kawasan Calon Geopark Tasikmalaya Selatan-Pangandaran sebagai Daya Tarik Wisata di Provinsi Jawa Barat (Proyek Akhir)*, Institut Teknologi Bandung, Indonesia.
- Wahyudi. (2010). *Kajian Kerja Sama Daerah dalam Pengelolaan dan Pengembangan Kawasan Wisata Dataran Tinggi Dieng (Tesis)*, Universitas Diponegoro, Indonesia.