

## **Community Role in Ecotourism Development to Improve Local Economy**

**Rully Khairul Anwar<sup>1\*</sup>, Mohammad Taufiq Rahman<sup>2</sup>, Yunus Winoto<sup>3</sup>**

<sup>1,3</sup>Universitas Padjajaran, Bandung, Indonesia

<sup>2</sup>UIN Sunan Gunung Djati, Bandung, Indonesia

\*Corresponding Author E-mail: [rully.khairul@unpad.ac.id](mailto:rully.khairul@unpad.ac.id)

### **Abstract**

Situ Cisanti is one of the hundreds of ecotourism objects in Indonesia. The local Government's ecotourism development continues to intensify by involving the surrounding community in Tarumajaya Village. This study focuses on the role of the community around Situ Cisanti in the development of ecotourism to improve the local economy. Using qualitative methods and interviewing some participants, the results of this study found that the community around Situ Cisanti has actively participated in ecotourism development activities. This is evidenced by the high level of community enthusiasm when participating in community role optimization activities organized by the Government and local managers. In addition, in terms of the economic aspect, the community around Situ Cisanti shows an increase. This is demonstrated by the concrete actions of the community who have become economic actors around the Situ Cisanti ecotourism object. The community takes advantage of the existence of tourism in the form of stalls, culinary, coffee, souvenirs and homestays owned by local communities. The most use of ecotourism is in the form of recruitment of casual daily employees, construction workers, shop businesses, coffee businesses, culinary businesses, souvenir businesses, parking businesses and motorcycle taxis. This research contributes mainly to researchers and policy makers about the integration of community participation management in the development of ecotourism in various locations in Indonesia.

Keywords: Ecotourism; Community Role, Situ Cisanti, Local Economy.

### **Abstrak**

Situ Cisanti merupakan satu dari ratusan objek ekowisata yang ada di Indonesia. Pengembangan ekowisata pun terus digencarkan oleh Pemerintah setempat dengan melibatkan masyarakat sekitar Desa Tarumajaya. Penelitian ini memfokuskan pada peran masyarakat di sekitar Situ Cisanti dalam pengembangan ekowisata untuk meningkatkan ekonomi lokal. Dengan menggunakan metode kualitatif dan mewawancarai beberapa narasumber, hasil penelitian ini menemukan bahwa masyarakat di sekitar Situ Cisanti telah berpartisipasi aktif dalam kegiatan pengembangan ekowisata. Hal ini dibuktikan dengan antusiasmenya masyarakat saat mengikuti kegiatan optimalisasi peran masyarakat yang diselenggarakan oleh Pemerintah dan pengelola setempat. Selain itu, ditinjau dari aspek ekonomi masyarakat di sekitar Situ Cisanti menunjukkan peningkatan. Hal ini ditunjukkan dengan tindakan nyata masyarakat yang telah menjadi pelaku ekonomi di sekitar objek ekowisata Situ Cisanti. Masyarakat memanfaatkan keberadaan wisata berupa warung, kuliner, kopi, souvenir dan homestay yang dimiliki oleh masyarakat setempat. Pemanfaatan ekowisata terbanyak berupa perekrutan tenaga kerja harian lepas, buruh bangunan, usaha warung, usaha kopi, usaha kuliner, usaha cinderamata, usaha parkir dan ojek. Penelitian ini memberi kontribusi terutama kepada peneliti dan pengambil kebijakan tentang integrasi pengelolaan partisipasi masyarakat dalam pengembangan ekowisata di berbagai lokasi di Indonesia.

Kata kunci: Ekowisata, Peran Masyarakat, Situ Cisanti, Ekononmi Lokal.

## **INTRODUCTION**

Indonesia is an archipelagic country that stretches from Sabang to Merauke. There are around 16,771 islands scattered throughout the archipelago consisting of tribes, ethnicities, customs, and customs that will produce cultural diversity when combined. Sukandar and Kinseng (2022) also agreed that Indonesia's location, considered very strategic, has made this country known to many as an equatorial emerald with a variety of natural and cultural charms. The natural potential that comes from the diversity of flora and fauna as well as the beauty of this unspoiled landscape, is a source of special attraction for the community. Thanks to these potentials, Indonesia has a high value in the tourism market (Dadi, 2022; Janita Dewi et al., 2022).

It is undeniable that now the need for tourism is something that has priority value for everyone, even as part of activities to improve the quality of one's lifestyle. Tourism is one of the most complex and dynamic sectors, especially in the country's largest foreign exchange earner (Jamalina & Wardani, 2017). In line with this, Kartikasari (2016) added that tourism is currently growing at a rapid rate of development in various regions in Indonesia. The Government and the private sector are now intensifying the development of tourism in Indonesia in order to maximize the potential of the area to become an attractive tourism destination and even become a major tourism destination. Likewise, planning and This tourism development is carried out on an ongoing basis due to demands for future needs as well as shifts in the tourism market (A. Maulana, 2016).

Broadly speaking, Ismayanti (2010) put forward five kinds of tourism based on the object of tourism; (1) nature tourism, (2) cultural tourism, (3) ethnic tourism, (4) agro-tourism, and (5) ecological tourism. In addition, Afriza, Kartika, & Riyanti (2018) mention seven objectives of tourism development, namely; (1) Unity and unity of the nation, (2) Improving the welfare of society, (3) Sustainable development, (5) Efforts to preserve culture, (6) Meeting the necessities of life, (6) Approach to the economy and industry of a region, (7) Development of technology. Judging from one of the main aspects of tourism development goals, namely, dynamic with the elements that influence it, many people are prioritizing sustainability and environmental preservation issues. It is here that tourism practices are increasingly paying attention to approaches to governance that contain the principles of sustainable tourism development, one of which is ecotourism.

In simple terms, ecotourism connects nature tourism trips with a vision and mission to preserve and love natural resources (Pengestuti, Triyani, Fahrurozi, & Prajoko, 2022). Ecotourism is a tourism activity different from conventional tourism, where it pays great attention to the environmental sustainability of its tourism resources (Y. Maulana, 2016). When viewed more specifically, this ecotourism activity is characterized by several things; (1) prioritizing nature conservation, (2) providing the smallest possible negative impact on the environment, (3) as well as providing the maximum possible economic benefits for the local community (Susilawati, 2016). The Government also supports this through Permendagri No. 33 of 2009, which regulates the principles of developing ecotourism where conservation must occur in the process, involving community participation as a driver of development in the process of planning, utilization and controlling ecotourism, raising public awareness of environmental issues, increasing community satisfaction, and accommodating local wisdom (Pynanjung, 2018). It can be seen that currently, ecotourism activities have developed into a form of tourism that no longer exploits natural resources but conserves them (Lelloltery et al., 2020).

The concept of ecotourism development is now something that is often discussed in the tourism sector in Indonesia. Ecotourism based on conservation must cooperate with the community in the development and development process. The development of tourism potential, which tends to carry the "

back to nature " market, requires close cooperation between people who live around tourism areas (Herman & Supriadi, 2017; Panasenko, 2023). Therefore, it is not surprising that ecotourism activities always involve the community's active role because the community also has knowledge about nature and culture, which is a potential selling point for this tourist attraction (Hakim et al., 2019). Thanks to the collaboration between tourism actors and the local community, ecotourism is now starting to be developed as a conservation program which is also an alternative strategy for economic growth for local communities (Ahmad & Balisany, 2023; Priambodo et al., 2023; Suryanti & Indrayasa, 2021).

Active community involvement in the ecotourism management process is a crucial part that must always be present (Oktami et al., 2018). This is none other than because the impact that will be felt is not only for the interests of tourism stakeholders but also for the people in the local area, especially in the economic sector. As stated, the development of an ecotourism object can increase the economic growth of the community in an area. In other words, economic development in an area through ecotourism activities is a dynamic collaboration between utilizing existing natural resources, the community, and the Government.

Hermawan (2016) mentions in more detail the impact of ecotourism development on economic conditions, which is divided into several categories; (1) foreign exchange earnings, (2) people's income, (3) employment opportunities, (4) ownership and control of the community's economy. It is undeniable that the practice of ecotourism and its development has provided many benefits, such as foreign exchange contributions for the country and economic improvement for the community. Communities not only get the opportunity to work but create new jobs to support ecotourism activities (Pookhao Sonjai et al., 2018). Thus, it can be drawn that the existence of ecotourism activities can be used as an alternative to improve the economic life of the surrounding community because it is considered to provide employment and business opportunities and increase the development of business abilities (Safuridar & Andiny, 2019).

One of the provinces in Indonesia that are intensively developing ecotourism in its area is West Java Province. Afriza, Kartika, and Riyanti (2018) argue that the province of West Java has diverse and very broad tourism potential in terms of its nature, history, and culture. So it's no wonder that this province is known as the home of 300 tourist destinations that are cultural centers on Java (Dadi, 2022). One of the ecotourism objects that has recently been in the spotlight is Situ Cisanti, located in the Bandung Regency area.

Situ Cisanti, part of the Citarum River, is now one of the favorite tourism objects in the Upper Citarum River. Its location in a mountainous area makes it a special attraction for tourists. Situ Cisanti is also a special tourism site because many government figures visit there to carry out various conservation activities. Not only Joko Widodo, the Governor of West Java, also often comes to Situ Cisanti. He even mentioned that Situ Cisanti was a manifestation of the restoration of the Citarum River. The beautiful atmosphere with the polish of natural tourism wrapped in contemporary tourism trends makes Situ Cisanti a local and foreign tourist destination to spend their time.

Several studies have been conducted for example by (Hadian et al., 2021; Pratama et al., 2020; Rozak et al., 2021; Ariyani et al., 2020; Idris et al., 2019; Utami, 2020) However, their main research focuses more on the role of the government in the development of geo-tourism, and solutions to the pollution and management of the Citarum River. Research or studies on ecotourism development and its socio-cultural impacts on local communities remain unexplored.

However, several studies have examined the effect of tourism development on improving the economy of the surrounding community. One of them is a study conducted by Hermawan (2016), who studied the impact of developing a tourist village as a type of tourism on the economic level of local

communities. This study, which was conducted in the Special Region of Yogyakarta, showed quite satisfactory results where tourism village practice activities in the area turned out to have a positive impact on the economic growth of the local community, such as increasing people's income, increase employment and business opportunities; increasing local community ownership and control; and succeeded in increasing government revenues through tourist fees.

Similar research was conducted by Utami & Mardiana (2017). This research is oriented towards the people on Pahawang Island, and the results show that most of the surrounding community is able to fulfill their economic needs through the businesses they have founded. Such as small stalls selling snacks and renting their homes for lodging for tourists who come to Pahawang Island.

Subsequent research revealed results that were somewhat different from other studies. The investigation carried out by Wati, Ismail, and Lestari (2016) analyzed the influence of ecotourism on the economic endeavors of indigenous inhabitants in Benan Island and Riau Archipelago. The findings of this examination reveal that the proportion of economic activities associated with ecotourism remains constrained. Nevertheless, with adequate attention and assistance from the government, this sector possesses the capacity to significantly influence the economic welfare of local communities. Research with comparable results was conducted by Sukuryadi, Narahab, and Primyastanto (2021), who studied the impact of mangrove ecotourism development on the economic conditions of people in Lembar village, West Lombok. Based on the results of the qualitative analysis, this research shows that most of the coastal communities in Sheet village, West Lombok, are classified as moderately economic and prosperous. Thus, the development of the area has no impact on the economic changes and wealth levels of local communities.

Judging from previous studies that have been carried out, few studies still examine the effect of ecotourism development in Situ Cisanti on improving the local community's economy, even though the location has considerable potential. In addition, the results of previous studies are still quite diverse, making this research important to examine in order to become a study that enriches the literature on the effect of ecotourism development on the local economic level in Situ Cisanti. The author asks research questions about the role of the community around Situ Cisanti in the development of ecotourism to improve the community's economy.

## **RESEARCH METHOD**

This research is qualitative and a case study. Gunawan (2013) explains that qualitative research seeks to comprehend and interpret meaning from researchers' perspectives in acceptable conditions. This qualitative study looks for an authentic understanding of a sequence of events rather than static facts. This research uses a case study technique to gather social environment data. According to the description above, qualitative research is the best approach for meeting research requirements. The method focuses on the motivations underlying actual social phenomena. This research involved several sources, including the village head of Tarumajaya, the village secretary, and several residents of Situ Cisanti. These sources can provide background and knowledge of the current situation regarding the matter being researched, ensuring that the data is original and reliable. Additionally, all informants are heavily involved in Situ Cisanti ecotourism development. The researcher collects data using two sustainable methods. Qualitative research included interviews and observation. Sidiq, Choiri, and Mujahidin (2019) describe observation as the first step of a planned action that involves directly witnessing and documenting an occurrence. The researcher went to the field to view and describe Situ Cisanti for two months in August and September 2021. The researcher then interviewed predefined informants. This interview clarified and validated early

observational phenomena. At this point, the researcher asked various questions about Situ Cisanti's growth and economy. Semi-structured interviews promote a relaxed setting for interviewees and researchers. After gathering enough raw data, the researcher descriptively examined it in three steps: data reduction, data presentation, and conclusion. Researchers will arrange and classify them using data analysis.

Miles and Huberman (2013), The selection process simplifies, abstracts, and transforms the raw data from field recordings. At this step, the researcher will sort out the important items, summarize them, and concentrate on relevant things to develop theme-related patterns. After that, matrices, graphs, networks, and charts display the reduced data. All designs mix structured information in a complete manner. This last step draws a linear conclusion for all the data analyzed in the preceding two phases. If substantial evidence does not justify data gathering, the original findings will alter. Thus, qualitative research outcomes may address the initial issue formulation, but not always. The goal of qualitative research is to discover new information. At this step, data compatibility is also re-verified. Based on the description above, Miles and Huberman's (2013) analysis approach is best for research flow. This study will create a lot of various data, but this analytic approach helps researchers substantively choose the needed data, which will form a thorough discourse.

## **RESULTS AND DISCUSSION**

Situ Cisanti is in Tarumajaya Village, Kertasari District, Bandung Regency, West Java. This 5-hectare lake sits on seven hectares of land in Perhutani, at the foot of Mount Wayang, 1,500-1,700 meters above sea level. Mount Wayang, the source of Situ Cisanti's springs, Mount Rakutak, Malabar Mountains, Bedil Hill, and Mount Kendang, the natural boundary between Bandung and Garut Regencies, as well as several Pangalengan tea plantations, surround it. Arrowroot The 10-hectare Situ Cisanti region features seven springs: Pangsiraman, Cikoleberes, Cikawedukan, Cikahuripan, Cisadane, Cihaniwung, and Cisanti Springs. Situ Cisanti is a family-friendly tourist attraction. It has vast space, a cool temperature, is close to Bandung, and has an incredible landscape.



**Figure 1. The main gate of Situ Cisanti**

Source: personal documentation, 2021

Nowadays, Situ Cisanti is a popular tourist attraction on the upper Citarum River. Its hilly position attracts travelers. Many government officials visit Situ Cisanti for conservation work, making it a notable tourist spot. Situ Cisanti attracts local and international tourists with its attractive environment, natural tourism, and modern tourism trends.



**Figure 2. View of Situ Cisanti**

Source: personal documentation, 2021

Appreciate Situ Cisanti's existence and prosperity. The government's involvement in development is crucial. However, knowing all the factors that maximize site growth is crucial. As with the government, the local community—especially those in Tarumajaya Village, Kertasari District, Bandung Regency—is crucial to Situ Cisanti's success. Situ Cisanti tourism attraction development may fail without local backing. Ecotourism development also benefits Situ Cisanti's residents, notably economically.

In general, Tarumajaya Village residents depend on the area's natural resources. Because of its irrigation potential, the Citarum River makes farming simpler. One farmer commented that the river flow aids irrigation, expressing gratitude to the locals. "During droughts or water shortages, the Citarum river flow will enable agricultural operations to continue."

Besides providing everyday necessities, the Citarum River has become Situ Cisanti, a tourist attraction. The Government and local community must work together for this development. Community engagement must be active, not merely mental, and include planning, implementation, and evaluation.

### **Community Participation Planning in Situ Cisanti Ecotourism**

Participation in planning starts with discussion. All ecotourism stakeholders participate in this discourse. This debate will set material and non-material ecotourism development goals. Decisions in the early forum are transient since the decision-making stage will make the ultimate implementation decisions. After setting goals and discourse, NGOs, environmental foundations, and the government are actively involved.

After strengthening support, the preliminary research begins. This primary research frequently includes university or ecotourism experts. This step is optional since the local community knows the ecotourism's qualities. Drake and Garrod also differentiate ecotourism engagement by this.

In the following step, all stakeholders make decisions. This step is vital since ecotourism development must include all factors and agree on pros and cons. This phase contains written administrative procedures, primarily financial and agreement-related ones. Meetings and talks bring together willing parties to agree on critical issues.

Last is creating an action plan with thorough efforts and task allocation to accomplish the ecotourism development agreed upon in the preceding decision-making phase. This action development phase also sets process timelines. The goal is that ecotourism growth would follow the timeline.

All inhabitants believe that visitors visit Cisanti and other attractions when they visit this region since they may enjoy the well-maintained and organized village beauty before reaching Cisanti. Thus, the local indigenous population in Cisanti inspires locals constantly. Tourists usually appreciate how people can enhance unoccupied buildings. Some neighbors were eager to develop residences for visitors and help Tarumajaya's tourism despite getting land leveling (Maulida, Personal Communication, September 25, 2021).

## **Implementation of Community Participation in Situ Cisanti Ecotourism**

### ***Implementation in Environmental Conservation***

In the context of environmental implementation, the local community of Tarumajaya Village assists the management, government, military, and forestry department in cleaning up Situ Cisanti from the existing waste. Situ Cisanti was previously dirty and filled with garbage before it was managed. This was due to a significant amount of waste, especially livestock waste, flowing into Situ Cisanti. Another reason for the initial pollution of this area was the litter left behind by visitors.

According to the Perhutani District of Bandung, Sujana, the condition of Situ Cisanti was very polluted due to various factors, including natural factors and those caused by humans. Scattered garbage resulting from tourism activities and waste from farming and livestock are evidence that Situ Cisanti used to be dirty. This changed as Situ Cisanti was managed and cleaned collectively. Therefore, the initial goal of developing Situ Cisanti was to clean it and turn it into a natural reserve.

Additionally, reforestation efforts were carried out by planting trees in the Situ Cisanti area. In addition to cleaning the area, the residents of Tarumajaya Village also collaborated with the military, police, and forestry department to plant trees in the Situ Cisanti area. This simultaneously adhered to the recommendations made by the government and experts to replant trees in deforested areas around Situ Cisanti, especially in Mount Wayang, to prevent landslides and reduce the loss of natural springs.

### ***Implementation in the Economic Sector***

Participation is especially important in the economic sector, ensuring Cisanti ecotourism generates economic value. Economic involvement is how tourist management creates jobs and companies for community people. Small stores, restaurants, coffee shops, souvenir shops, and community-owned homestays use tourism. Ecotourism mostly employs daily laborers, construction workers, retailers, coffee sellers, culinary companies, souvenir stores, parking services, and motorbike taxis. As of 2021, 95 community members managed ecotourism, including jobs and businesses.

Tourism managers are government-employed and have building and maintenance expertise.

Situ Cisanti ecotourism also empowers women economically. Local food sellers in Situ Cisanti demonstrate women's responsibilities. Cisanti was formerly popular for fishing and swimming. Visitors increased as knowledge of Cisanti spread. Community meetings, traditional cooking, and eating were first possible on the lakefront. Difficulty enabled people to put up food and beverage kiosks in Cisanti, serving travelers water, food, or fried snacks (Siti, Personal Communication, Oktober 20, 2021)

The Mount Wayang region produces "Kopi Sapoci," a distinctive coffee, along with food merchants. When Cisanti introduced Kopi Sapoci as a memento, the government supported and financially assisted Cisanti coffee companies.



**Figure 3. Kopi Sapoci from Tarumajaya Village: A Souvenir for Visitors**

Source: personal documentation, 2021

According to Asep Sutisna, selling shadow puppets (wayang kulit) as dolls is another business endeavour. Besides making money, it boosts Situ Cisanti's ecotourism. Ecotourism in Cisanti includes selling native goodies such opak, rengginang, cassava chips, sweet potato chips, and more. Village-Owned Enterprises (BUMDES) markets these snacks in Situ Cisanti. Tarumajaya people source materials, prepare, and package this effort. This boosts the local economy.

Additional economic involvement includes parking attendants and ticket booth operators. This implies Tarumajaya Village residents participate as Situ Cisanti parking attendants and ticket booth operators. There are eight parking attendants for motorbike and automobile parking. Two people run the ticket counter. All of these laborers are Tarumajaya Village natives and permanent. The community can survive on their little incomes (Fajri, Personal Communication, September 25, 2021).

Even though there are no official lodgings, some people rent out their houses to visitors. Visitors have enough accommodations by staying in local homeowners' homes and unoccupied houses. This empowers the local people via Cisanti tourism. Since resorts will directly affect local inhabitants, their preferences should be addressed (Maulida, Personal Communication, September 25, 2021).

Santi has transformed her home into accommodation. After experiencing the passion of Cisanti visitors, she rented her Tarumajaya Village cottage.



Yes, since I noticed numerous Jakartans and Javanese arriving. And they remain. Not everyone enjoys camping, so I rent my home. The findings are excellent. We earned 300,000–400,000 rupiah last night. A nice wage " (Santi, Personal Communication, September 25, 2021).

### **Implementation in Culture**

Implementation as a form of community participation in the field of culture involves organizing activities related to local cultural heritage. In terms of social and cultural aspects, Tarumajaya Village is an area where Sundanese arts have been preserved for generations. The region is particularly famous for being a producer of wayang kulit (shadow puppetry) in Bandung District. Additionally, the area frequently hosts wayang kulit performances in the Kertasari sub-district, often commemorating Indonesia's Independence Day on August 17th.

The presence of extensive space in the Cisanti area has encouraged residents to initiate wayang golek (wooden puppetry) performances at Situ Cisanti. While these performances are traditionally held in village halls or village squares, to make them more appealing to tourists, they are now conducted at Situ Cisanti. This was pre-planned and communicated to other stakeholders, including the military and forestry department.

These cultural activities have shown that ecotourism concepts are not limited to showcasing natural beauty but can be combined with local culture. This unique approach combines natural and cultural tourism, offering tourists the opportunity to not only enjoy the natural beauty of Cisanti but also experience local traditional art during certain times of the year, such as the wayang golek and wayang kulit performances during Indonesia's Independence Day celebrations at Situ Cisanti.

### **Implementation in History**



**Figure 3. Sites of Historical Significance: Dipatiukur Site and Springs in Cisanti**

Source: personal documentation, 2021

In addition to combining ecotourism and culture as discussed earlier, the participation of the Tarumajaya Village community also includes the implementation of the preservation of historical sites in Situ Cisanti. Situ Cisanti is known for its historical sites, including the Dipati Ukur historical site and seven natural springs that have numerous myths associated with them.

These two images provide evidence of the historical sites within Situ Cisanti. The area is home to historical sites that have been well-preserved. Historically, these sites were frequently visited by tourists seeking various desires, such as wealth, success, and more. The presence of these natural springs and

sacred graves is closely related to the existence of Mount Wayang, which stands adjacent to Situ Cisanti. Mount Wayang is considered sacred by the local community and has a unique history associated with it. There are rocks on the mountain that can be struck to produce a loud sound, similar to a drum, which is used to accompany wayang performances. During other natural events, these rocks can also be heard resonating loudly by passersby.



**Figure 4. Appearance of Mount Wayang**

Source: personal documentation, 2021

The presence of Mount Wayang allowed the local community to participate in the management of Cisanti by allowing them to oversee its tourism activities. The government handed over complete responsibility for its management to the local community, with the condition that they ensure its preservation and cleanliness. Even the guardian of Mount Wayang confirmed participating in programs by the West Java government to educate and raise awareness about historical sites. This educational program aimed to ensure the preservation of historical sites by providing in-depth insights into their importance from both historical and environmental perspectives. This program emphasized the involvement of site guardians in preserving these historical sites (Kokom, Personal Communication, September 25, 2021).

The involvement of the local community in the management of Cisanti, especially in its historical aspects, was confirmed by the head of Tarumajaya Village. The government granted substantial opportunities to the local community to handle the historical heritage of Situ Cisanti. This decision was made based on the excellent preservation efforts demonstrated by the local community surrounding the lake.

### ***Implementation in Social Media***

Another form of participation is in the realm of social media. This approach was adopted to align with the social media trends of tourists. Interestingly, this implementation was carried out by young individuals affiliated with the Tarumajaya Village Youth Group (Karang Taruna). They leveraged the permission granted by the village government to manage the village-level media.

While village-level media is not expected to compete with mainstream media outlets, it serves as a vital tool for villagers due to the cost-effectiveness of this approach. This is crucial for village communities, as many community-driven media initiatives have previously failed due to a lack of maintenance and dedicated funding. Hence, seeking affordable media solutions is critical for village communities. This led to the idea of utilizing social media platforms. Besides serving as a means of communication and news dissemination, social media platforms can also be used for promotional purposes.

Community participation in promoting and reporting on Tarumajaya Village's tourism activities is evident in the establishment of KIM Cerdas Tarumajaya. KIM (Kelompok Informasi Masyarakat or Community Information Group) is under the guidance of the Communication and Information Agency (Kominfo) of Bandung District. Specifically, the residents of Tarumajaya Village refer to their KIM as "KIM Cerdas Tarumajaya." Through this KIM, there is clear community involvement, extending beyond mental participation to also include reporting and promotional activities.

KIM is a centralized program, meaning it is a Community Information Group supervised by Kominfo. KIM Cerdas Tarumajaya, in particular, was established by the head of Tarumajaya Village with the aim of promoting the village's potential and strengths. Additionally, KIM Cerdas Tarumajaya was created to serve as an information source for community activities and other village government affairs. The efforts made by the KIM Cerdas Tarumajaya social media team in promoting Situ Cisanti are particularly notable, utilizing platforms such as Instagram, YouTube, and Facebook to campaign for Situ Cisanti tourism, whether during specific events or in between (Deden, Personal Communication, September 25, 2021).

The social media team at KIM Cerdas Tarumajaya has also conducted training sessions for local youth on framing Situ Cisanti as a tourism attraction that can be widely disseminated to the public.

### ***Evaluation of Local Community Participation in Situ Cisanti Ecotourism***

Evaluation in ecotourism is the process of collecting and observing various evidence to measure the impact and effectiveness of a tourism destination. In this context, the ecotourism site is Situ Cisanti. This evaluation phase is crucial because community participation at this stage is seen as feedback that can provide input for planned improvements and further implementation. Factors influencing community participation include internal factors within the community, such as the ability and willingness to participate, and external factors, such as the role of existing institutions and formal systems.

#### **Basis of the Evaluation Process:**

The basis for the evaluation process in the community participation phase of Situ Cisanti ecotourism development is the response from Situ Cisanti visitors. Specifically, the evaluation is based on the dissatisfaction of tourists with the shortcomings at Situ Cisanti. One important aspect of evaluation is the impressions of visitors. Interviews with visitors have indicated very positive impressions.

According to one visitor, "I think it's really great, very beautiful, especially now that it's well-maintained. There's a TNI presence and other community members helping to preserve the lake. So, it's really good now, the water is clean, and the place is very comfortable. The only thing is that we're not entirely free when visiting there because swimming is restricted, and using boats is also limited. So, my impression of Cisanti is good. Therefore, I believe that places like Cisanti should be preserved, and maybe there could be similar places in other areas." (R. Maulana, 2021).

Such responses provide evidence that Situ Cisanti is a comfortable and beneficial ecotourism destination. Visitors also experience a significant impact from the presence of Cisanti ecotourism.

### **Evaluation Meetings**

Evaluation is carried out through two methods: internal evaluation meetings held within Tarumajaya Village and external evaluation meetings involving various stakeholders such as Perhutani, TNI (Indonesian National Army), and BBWS Citarum (Citarum River Basin Management).

Internal evaluation meetings in Tarumajaya Village are conducted to assess and propose issues to be discussed at external evaluation meetings. These internal meetings involve local community representatives, including RT (neighborhood association) and RW (community unit) leaders, village officials, community leaders, and youth groups. These meetings are held approximately every three months. Another goal of these internal evaluation meetings is to increase community participation in ecotourism within Tarumajaya Village. It has been noted that many residents have not yet participated in Cisanti ecotourism, despite various opportunities, such as the potential for marketing agricultural products like sweet corn and legumes to tourists.

External evaluation meetings, on the other hand, are typically held in the village hall or directly at Situ Cisanti. These meetings involve village officials and representatives from Perhutani, TNI, BBWS, the district administration, and other relevant authorities. During these meetings, stakeholders provide guidance to the village administration on ecosystem and ecotourism preservation efforts. One area of focus has been improving the access road, which has been overgrown with vegetation on the sides. As a result of this evaluation, the village administration and local community organized manual clean-up efforts and road maintenance.

### **Expanding to New Ecotourism Locations**

The municipality was also involved in the development of new ecotourism sites near Situ Cisanti. This was done because the municipality believed that Situ Cisanti was already a successful and well-developed tourist destination. However, since Situ Cisanti alone could not satisfy all the needs of tourists, the Tarumajaya village community proposed to create new tourist destinations. Building up the area around Situ Cisanti as a tourist destination should attract more visitors.

Bukit Paesan (Paesan Hill) is one such creation that resulted from cooperation between the village government and the local populace. It was necessary to work with PTPN VIII to make this happen because Bukit Paesan is in the HGU (Hak Guna Usaha) region of PTPN VIII.



**Figure 5. Appearance of Hill Paesan**

Source: personal documentation, 2021

The development of Bukit Paesan was spurred by the increasing number of visitors to Situ Cisanti. The goal was to develop a new tourist spot that would appeal particularly to those who appreciate

expansive and beautiful natural settings. Bukit Paesan was created to provide special photo opportunities as well, which is why it is so well-liked on social media. Visitors to Cisanti can also explore Bukit Paesan as an alternative destination. The panoramic view from Bukit Paesan is particularly breathtaking.



**Figure 6. Paragliding at Pasir Panjang**

Source: personal documentation, 2021

Pasir Panjang, another place, has become a popular destination for mountain bikers and paragliders. Located on the slopes of Bukit Paesan, the site is designed to provide alternative recreational opportunities for travelers visiting Situ Cisanti. Pasir Panjang offers favorable conditions for those interested in mountain biking and paragliding. The success of this development is evident in the influx of tourists visiting Situ Cisanti and actively participating in Pasir Panjang activities.

Another captivating concept was to highlight the splendor of Curug Lodaya, a cascade adorned with natural rock formations and carefully arranged stones. This cascade has a special quality that distinguishes it from other cascades because of its pristine environment. The path to the cascade winds through tea plantations and offers a picturesque sight. Curug Lodaya is very close to Situ Cisanti, making it a good choice for excursionists. The gentle current of Curug Lodaya is especially fascinating for those who cannot swim in Situ Cisanti, where swimming is prohibited, and provides a safe destination for all visitors. Its easy accessibility and convenient location near Cisanti have made it a very popular choice.



**Figure. 7 Curug Lodaya Kolot**

Source: personal documentation, 2021

These developments and initiatives demonstrate the importance of community participation and feedback in evaluating and improving ecotourism destinations such as Situ Cisanti. Collaboration between the local community, authorities and other stakeholders has contributed to the sustainability and diversification of the tourism offer in the region.

## CONCLUSION

In 2017 active internet users worldwide have reached 51%, which indicates that half of the world's population can access the internet network easily. Industry 4.0 makes it easier to surf in cyberspace (cyberspace) more freely but brings the other side, namely the negative impacts such as cybercrime resulting from the facilities available. Transnational crimes such as acts of terrorism can now be carried out using electronic media because they are the result of the convergence of original crimes with technological sophistication (cyber terrorism). The management of cyber-terrorism will bring certainty to the legal basis governing the course of countering cyber terrorism in Indonesia. The arrangement will also provide a strong justification to encourage bilateral dialogue, exchange of personnel and/or information, and the implementation of activities that are expected to be cooperative. The WannarCry Ransomware attack in 2017 which attacked almost 150 countries and 200,000 computers in the world, including Indonesia, made security cooperation in the cyber sphere more concerned. Cyber security for a country in the 21st century carries an urgency that is as important as the security of its maritime, air and land territorial areas. The collaboration between Indonesia through BSSN and its counterparts provides a dynamic space for cybersecurity. Indonesia realizes that the increased potential for cyber development will result in stronger threats, so a binding cyber collaboration is needed. The direction that needs to be generated from the implementation of cyber terrorism management is the increase in cyber security human resources in Indonesia, the formation of the development of ideas and research, and the implementation of literacy campaigns on cyber security.

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