The Community-Based Ecotourism Development Strategy of The Mataram Cultural Tourism Area of Mangunan Forest Management Resort

Nur Wahidatul Muflihah¹, Sucihatiningisih Dian Wisika Prajanti²

¹Economics Study Program, Postgraduate, Universitas Negeri Semarang, Indonesia
²Economics Development Department, Faculty of Economics, Universitas Negeri Semarang, Indonesia

Received: December 30, 2022; Accepted: February 5, 2023; Published: March 30, 2023

Abstract
This study aims to develop Community Based Ecotourism Development Strategies for the Mataram Cultural Tourism Area of Mangunan Forest Management Resort. The analytical methods used in this study include Fishbone diagrams, qualitative data analysis, and analytical Hierarchy Process (AHP). The result shows that the Mataram Cultural Tourism still has several obstacles in some aspects, which include human resource aspects, institutional aspects, marketing aspects, infrastructure aspects, attractions, and competitiveness. Even though there are still various obstacles and problems, the Mataram Cultural Tourism also has a lot of cultural-based potentials such as the Cultural Show of Mataram Cultural Tourism with a series of kenduri activities, cultural carnivals, dance performances, and dance performances that tell about the history and myths of the Mangunan people. The supporting variables for the development of the Mataram Cultural Tourism Area include supporting facilities and attractions including parking lots, food stalls, photo spots, prayer rooms, bathrooms, and camping areas. The criteria that are most prioritized in the community-based ecotourism development strategy of Mataram cultural tourism area of Mangunan Forest Management Resort are infrastructure criteria with a weight value of 43.9%. Meanwhile, the most prioritized alternative is the addition of supporting facilities for tourism objects in the form of tourist shopping places (restaurants and gift shops) by the community with a weight value of 21.2%. A suggestion that can be conveyed in this research is the government in this case the local tourism office must continue to assist optimally and sustainably so that Mataram Cultural Tourism Area can continue to grow and is increasingly in demand by the public. This research still has limitations on the focus of the object, which is still limited so further research can expand the tourism object to be more comprehensive.

Keywords
tourism; mataram cultural tourism area; community based ecotourism; development strategy

INTRODUCTION
Indonesia has great potential in the field of tourism from the islands, which are known to have natural wealth and beautiful natural scenery. People who are diverse in culture, ethnicity, language, and customs attract a lot of interest, both the Indonesian people to get to know their country, and the world community to get to know Indonesia. The government has targeted the tourism industry to become a foreign exchange earner of US$24 billion in 2019, surpassing the oil...
and gas, mining, and palm oil sectors (Fafurida et al. 2020).

Tourism development is directed at efforts to increase the number of tourist visits since it is a significant source of income. With the increasing number of tourists visiting the area, it positively affects, among others, the level of need for new investments to support tourist needs such as accommodation, travel agents, restaurants, and other tourist shopping places. The existence of tourism support will create employment and business opportunities and can affect the level of community productivity in economic activities, especially in the tourism industry.

Efforts to develop tourism as one of the efforts to empower the community’s economy and increase Regional Original Revenue (PAD) have been initiated and implemented in various regions in Indonesia, as an example is Batu City, which is located in East Java. The development of tourism in Batu City is starting with the improvement of tourism-supporting facilities and infrastructure, the improvement of access to tourist sites, and massive tourism promotion making Batu City become one of the main tourist destinations in East Java. Batu City as a tourist city is very dependent on the tourism sector. The tourism sector is then used as a support for the community’s economy in addition to agriculture, even today the agricultural sector is also developed towards tourism (Katarina and Fithriana 2017). Likewise, Bali which is a major tourist destination in Indonesia, the tourism sector continues to be developed because it is the highest source of PAD (Ricky et al. n.d.), in addition to being a foreign exchange earner and increasing the economic growth of local communities. High tourism activity in addition to increasing Bali’s PAD also creates a high demand for investment in Bali, thus encouraging increased absorption of labor (Arisutha and Darsana 2019).

The impact of tourism is not only seen as positive but there are also negative impacts, such as environmental damage, economic disparities between tourists and local residents, as well as cultural shifts (Airlanga 2012). One of the tourism concepts that is developing in the world, including in Indonesia, is the development of Community Based Tourism (CBT), which is by involving local communities in planning, implementing, and monitoring tourism programs. This type of tourism is considered to offer many advantages such as reduced external dependence, less investment, less training, use of shared resources, and respect for the environment. The existence of tourism, particularly in rural areas, can support local development and population maintenance because its existence invites residents from other places to live as well as indigenous people who have left the village to return because of activities from tourism activities both socially and economically (Cáceres-Feria, Hernández-Ramírez, and Ruiz-Ballesteros 2021).

Tourism activities in rural or semi-rural areas have been seen by government agencies and some social groups as an instrument of sustainable development that contributes to overcoming the economic and cultural disparities emphasized by the dominant economic model. Community-based tourism, emerging as a response to environmental, economic, and social challenges, is also a vehicle for social change in terms of quality of life, especially in rural communities, where neither the market nor the state is able or willing to meet their basic needs (Mendoza-Moheno, Cruz-Coria, and González-Cruz 2021).

Various studies have identified community-based tourism as a suitable development model to maximize the socio-economic benefits of tourism and minimize the negative impact of tourism on the environment (Tolkach and King 2015). Community involvement in tourism management provides room for movement to maintain the environment and apply the concept of ecotourism. In this context, tourism is an integral part of conservation efforts, empowering the local economy, and encouraging higher respect for cultural differences. The tourism development model that emphasizes more on income and growth often makes local communities marginalized in tou-
rism management. Ecotourism was born as a form of protest against the model of mass tourism development with an emphasis on environmental conservation, cultural preservation, community participation, economic benefits, and empowerment of vulnerable groups (Cobbina 2015). With this approach model, the community benefits economically without leaving the environmental aspect which also partially supports the community’s economic activities in addition to tourism.

Daerah Istimewa Yogyakarta (DIY)/Special Region of Yogyakarta is one of the provinces in Indonesia, which is known as the second tourist destination in Indonesia after Bali. DIY offers a variety of tourism activities ranging from nature tourism, cultural tourism, shopping tourism, to culinary tourism. Various developments of tourist areas continue to be carried out from time to time so that the number of tourist objects is increasing. The role of the community as a tourism driver to develop tourism potential areas that cannot be fully carried out by the government plays an important role in the development of tourism in DIY. For DIY, the tourism sector provides the second largest contribution to GRDP after the industrial sector. Yogyakarta as a tourist and cultural area is well known both at home and abroad. The number of DIY tourist visits in 2018 was 25,716,261 tourists, and increased by 6.37% in 2019 to 27,365,291, then dropped drastically in 2020 to 9,961,315 people, and further decreased in 2021 to 3,673,943 (Bappeda DIY, 2021)

Mangunan Forest Management Resort (RPH) is designated as a tourism development area through Perbup DIY No 84/2016 with a community-based tourism development model (Purnomo 2018). Sustainable forest management must pay attention to 3 aspects, including ecological, economic, and social aspects. Ecologically, it can be seen from the absence of natural disasters caused by forest damage such as floods and landslides as well as ensuring the availability of water. Economically, it can be seen from the increase in regional income and the income of the community around the tourism object. Socially, with the existence of new jobs related to the management of tourism objects, the number of unemployed residents around is reduced.

The Mataram Cultural Tourism Area was initiated by KPH Yogyakarta Offivr at the end of 2014 as a form of utilization of environmental services. Mangunan natural tourism area covers an area of approximately 25 hectares. The location is in the Protected Forest area, RPH Mangunan BDH Bantul-Kulonprogo, KPH Yogyakarta. In accordance with applicable regulations, nature tourism activities in protected forests can collaborate with communities sheltered in legal entities at least in the form of cooperatives (Permenhut No. 22 of 2012). The DIY Forestry and Plantation Service made a cooperation agreement in managing Mangunan natural tourism as stated in the cooperation agreement document No. 525/00909 with a gross revenue sharing scheme of 25% paid as regional development attention in the form of PAD to the Province of DIY, the remaining 75% is managed by the community (Nurizwan and Dewi 2018) with the details of 70% used for community empowerment through tourism operators and sub-operators, 5% is managed by cooperatives. 70% of the income managed by the community is used for tourism operations, manager wages, and the development of tourist attractions.

In managing tourism objects, the Notowono Cooperative as the manager of the Mataram Cultural Tourism Area at RPH Mangunan involves the local community as a tourist attraction manager, and invites residents to invest in tourist areas by establishing stalls and homestays. Communities who are members of the management of ecotourism are families related to the existence of Mangunan forests, namely forest farmers, pine tappers, farmers managing honey bees, seasonal farmers, as well as people outside of that but is required to be from prosperous or disabled families. All of them are under the Notowono cooperative as the operator of the tourist area. Members of forest farmer groups previously worked as sap tappers and relied on intercropping. Now,
they get new income from the tourism sector such as managers at tourist attractions, parking attendants, selling, opening homestays, and others. The low level of public knowledge about tourism development is a separate homework for managers because based on the main purpose of opening Tourism Area for the welfare of the community, the surrounding community must be involved in the management.

Mangunan Cultural Tourism Area is a tourism concept that was initiated and developed by KPH Yogyakarta by combining the concepts of environment, culture, art, and history of Java Mataram (booklet). At the beginning of its pioneering, it took the selfie trend as the main tourist attraction with tourism marketing through social media. As time goes by, there are increasingly more similar tourist attractions that offer natural beauty along with interesting photo spots, both located in and outside Yogyakarta. Private investors also manage similar tourist attractions with various attractions ranging from photo spots of natural scenery, restaurants, and inns, causing boredom. As a form of affirmation of the concept of cultural tourism as well as tourist attractions, the manager of the Mataram Cultural Tourism Area activates culture-based activities such as the Cultural Shows of the Mataram Cultural Tourism Area with a series of kenduri activities, cultural carnival, dance performances, and dance performances that tell about the history and myths of the Mangunan society.

In addition to cultural tourism performances that involve all tour operators, sourced from the official account of the Mataram Cultural Tourism operator, each operator also organizes cultural-themed activities such as Merti Dusun, Parade 1000 Kenthogan, Keroncong Plesiran, and other music concerts. However in general, if we search through search engines or the hashtag Instagram, Wana Wisata Budaya Mata-ram is better known as a nature tour with interesting selfie spots.

Based on tourist visit data obtained from the Notowono Cooperative, among the 10 attractions in the Mataram Cultural Tourism Area, in the last five years (2017-2021), Pinussari and Puncak Pengger are the two tourist attractions with the highest PAD contribution, followed by Puncak Becici and Seribu Batu Songgo Langit. Due to restrictions on movement between regions and the closure of tourist attractions due to the Covid-19 pandemic, three tourist attractions, namely Bukit Panguk, Bukit Mojo, and Alas Literasi Lembah Dahromo were unable to survive and temporarily closed the tourist attraction in 2021 for improvement and bounce back to compete with seven other attractions.

According to the authors’ observations, one of the obstacles for the Mangunan Tourism Area is the problem of access due to the absence of public transportation modes to tourist sites. Tourists who will visit the tourist area of RPH Pine Mangunan must use private transportation or rent. The condition of the highway leading to the tourist area is much better than before the development of the Tourism Area, but the narrow, uphill, and winding road makes it difficult for large vehicles and triggers congestion if the volume of vehicles increases during the holiday season.

Previous research related to tourism development strategies still produces varied and different concepts. Research conducted by Ginanjar et al (2021) explains that tourism development needs to focus on visitor services. Meanwhile, research conducted by Efendi and Anwar (2020) explains that tourism development efforts can raise local wisdom around them. Then, there are many other studies related to tourism development that provide varied concepts. Tourism development needs to focus on infrastructure and transportation (Ummah, 2021; Dangi & Jamal, 2016; Mayaka et al., 2018; Mtapuri & Giampiccoli, 2016; Dodds e al., 2018; Kaikara, 2020; Ramadhani et al., 2021; Liu&Suk, 2021; Nainggolan et al., 2020), increased community involvement (Muliarta, 2020; Giampiccoli & Saayman, 2018; Curcija, 2019; Abadi et al., 2018; Tung, 2020; Stetic & Nedelcu, 2019), location and promotion (Jamalina & Wardani, 2017; Zielinski et al., 2020; Lee & Jan, 2019; Yanes et al., 2019; Duglio et al., 2019; Lasso & Dahles, 2018; Asmit...
et al., 2020.). The various findings related to tourism development strategies provide an opportunity to conduct further research related to tourism development strategies. This study aims to develop Community Based Ecotourism Development Strategies for Mataram Cultural Tourism Area of Mangunan Forest Management Resort.

**METHODS**

The design of this research is a descriptive quantitative and qualitative study. Quantitative descriptive research is a study that consists of formulating a problem, compiling a model, collecting data, analyzing the results, and implementing it. The data were obtained from the results of distributing questionnaires, which were then described systematically and factually (Sugiyono 2016). This research attempts to provide a systematic and accurate description of the implementation and development strategy of the Community Based Ecotourism of Mataram Cultural Tourism Area of Mangunan Forest Management Resort.

This study used a qualitative research approach, where the researchers used interview, observation, and document techniques to solve the formulation of problems 1, 2, and 3. The researchers used fishbone analysis method to solve problem 1, descriptive qualitative method to solve problem 2, and analytical method Hierarchy Process (AHP) to solve problem 3.

The data used were primary and secondary data. The primary data were obtained from key person interviews who are involved in the management of Community-Based Tourism at RPH Mangunan. Key Persons of this research came from the Academy, Businessman, Government, and Community (AGBC). Meanwhile, the secondary data were obtained from BPS data, as well as data obtained from the Notowono Cooperative.

The first analytical method used is fishbone analysis. A Fishbone diagram is a method for finding the cause and effect of a problem that helps find out the reasons for the occurrence of problems in a business process. In simple terms, we can interpret this as an analytical method to help solve a problem in the business process at every stage. Thus, the company can find the cause root of the problem accurately.

The second analysis method is qualitative data analysis. Qualitative data analysis is an effort made by collecting data and working with data, organizing data, sorting data into manageable units, systematizing it, looking for and finding patterns, and formulating what can be described to others.

Analytical Hierarchy Process (AHP) method is a comprehensive decision-making model that considers both qualitative and quantitative aspects. The AHP method can help set priorities and goals from various options using several criteria. To determine the priority of the elements in a decision problem is to make a pairwise comparison, that is, each element is compared in pairs against a specified criterion. The form of pairwise comparison is a matrix. The filling in the pairwise comparison matrix is using numbers that describe the relative importance of one element over the other.

In solving problems with the Analytical Hierarchy Process (AHP), several principles must be understood as follows:

1. **Decomposition** (creating a hierarchy)
   In compiling the hierarchy, the objectives must be determined through the criteria used to assess the existing alternatives. Each criterion sometimes has sub-criteria below, which have their own intensity values.

2. **Comparative judgment** (criteria and alternatives assessment)
   Criteria and alternatives are carried out by pairwise comparisons. According to Saaty (1988), for various problems, a scale of 1 to 9 is the scale used in the assessment.

3. **Synthesis of priority** (setting priorities)
   Determining the priority of each criterion is used as the weight of the criteria in decision-making. The Analytical Hierarchy Process (AHP) method performs a priority analysis of each criterion with a pairwise
comparison method between two elements so that all existing elements will be included in the comparison.

4. Logical Consistency
Consistency has two meanings. The first is that similar objects can be grouped according to their type. The second concerns the level of relationship between objects based on certain criteria.

There are several ways to check the validity of the data findings. The techniques include: (Moleong, 2017):
1) Credibility
2) Transferability
3) Dependency
4) Conformability

RESULTS AND DISCUSSIONS
The analysis of potentials and problems in the Community Based Ecotourism Development Strategy for Mataram Cultural Tourism Area of Mangunan Forest Management Resort

Mataram Cultural Tourism Area of Mangunan Forest Management Resort has the potential for tourism development. Some sub-sectors are still experiencing obstacles and are only able to develop in the industrial 4.0 era as it is today. Based on the result of the FGD with stakeholders, several obstacles are obtained in tourism development. Some of the obstacles that are still being faced include various aspects, both internal and external. Some of these obstacles can be described in a fishbone diagram as follows:

Figure 1. Fishbone Diagram of the Community-Based Ecotourism Development Strategies of the Mataram Cultural Tourism Area of Mangunan Forest Management Resort
Figure 1 explains that there are still various obstacles in the effort to develop Community Based Ecotourism of Mataram Cultural Tourism Area of Mangunan Forest Management Resort. The obstacles faced are spread across several aspects, which include human resource aspects, institutional aspects, marketing aspects, infrastructure aspects, attractions, and competitiveness. The obstacles faced in human resource aspects include low motivation and work ethic, undeveloped skills and competencies, undeveloped insight and mindset, and lack of literacy about tourism. Furthermore, the obstacles faced in the marketing aspects include not optimal promotion, marketing innovation not yet developed, and the marketing network is still limited. The obstacles of infrastructure aspects include road infrastructure that has not been supported because the width of the road is still narrow and up and down, lack of creative space, and fewer supporting facilities.

Even though the Mataram Cultural Tourism Area of Mangunan Forest Management Resort still has a lot of potentials. The Mataram Cultural Tourism Area is a tourism concept that was initiated and developed by KPH Yogyakarta by combining the concepts of environment, culture, art, and history of Java Mataram (booklet). At the beginning of its pioneering, it took the selfie trend as the main tourist attraction by marketing tourism through social media. As time goes by, there are increasingly more similar tourist attractions that offer natural beauty along with interesting photo spots, both located in Yogyakarta and outside Yogyakarta. Private investors also manage similar tourist attractions with various attractions ranging from photo spots of natural scenery, restaurants, and inns, causing boredom. As a form of affirmation of the concept of cultural tourism as well as tourist attractions, the manager of the Mataram Cultural Tourism Area activates culture-based activities such as the Cultural Performances of Mataram Cultural Tourism with a series of kenduri activities, cultural carnival, dance performances, and dance performances that tell about the history and myths of the Mangunan society. In addition to cultural tourism performances that involve all tour operators, sourced from the official account of the Mataram Cultural Tourism Area operator, each operator also organizes cultural-themed activities such as Merti Dusun, Parade 1000 Kenthogon, Kerconcong Plesiran, and other music concerts. However, in general, if we search through search engines or the hashtag Instagram, Wana Wisata Budaya Mataram is better known as a nature tour with interesting selfie spots.

The analysis of supporting variables in the Community-Based Ecotourism Development Strategy of the Mataram Cultural Tourism Area of Mangunan Forest Management Resort
Wana Wisata Budaya Mataram/Mataram Cultural Tourism Area is located in Mangunan Forest Management Resort (RPH), and administratively located in Mangunan Village, Terong Village, and Munthuk Village, Dlingo Subdistrict, Bantul Regency. The management of the RPH Mangunan is under the coordination of the Yogyakarta Forest Management Unit (KPH) which is the Technical Implementation Unit (UPT) of the Department of Environment and Forestry (DLHK) of the Special Region of Yogyakarta. The Office of KHP Yogyakarta houses 5 Forest Area Sections (BDH) with 25 Forest Management Resorts (RPH). BDH Kulon Progo-Bantul is divided into RPH Candi, Gelaran, Kenet, Nglipar, and Semanu; BDH Paliyan is divided into RPH Giring, Grogl, Kedungwungu, Menggoro, Mulo, and Karangduwet; BDH Panggang divided into RPH Bibal, Blimbing, Gebang, and Pucangan; BDH Playen divided into RPH Kemuning, Gubugrubuh, Kepek, Menggoran, Wonolagi, and Wanagama; and BDH Kulon Progo-Bantul divided into RPH Mangunan, Dlingo, Kokap, and Sermo. Based on the Decree of the Minister of Forestry Number: SK.439/Menhut-II/2007, it has been established a forest area covering an area of ±16,358.60 H in the Special Region of Yogyakarta Province as a Yogyakarta Forest Management Unit (KPH) area with details (i) Pro-
duction Forest covering an area of 13,411.70 Ha, (2) Protected Forest covering an area of 2,312.80 Ha, and (3) Conservation Forest (Tahura) covering an area of 634.10 Ha.

In accordance with applicable regulations, nature tourism activities in protected forests can collaborate with communities sheltered in legal entities at least in the form of cooperatives (Permenhut No. 22 of 2012), so that in the management scheme of forest areas that function as tourist areas, Community groups are represented by the Notowono Cooperative as the parent organization as well as the legal entity responsible for cooperation with the forestry office. Until 2021, the Notowono Cooperative coordinates 10 tourism management groups in the Mataram Cultural Tourism Area, which are called tourism operators and sub-operators, namely (1) Puncak Pengger, (2) Puncak Becici, (3) Lintang 1000, (4) Pinus Asri, (5) Pinus Sari, (6) 1000 Batu Songolangit, (7) Bukit Panguk, (8) Bukit Mojo, (9) Pintoe Langit, and (10) Lembah Dahromo. The tourist area is located in three villages, namely Mangunan Village, Munthuk Village, and Terong Village. Among the 10 tourist attraction points, Puncak Pengger, Puncak Becici, and Pinus Sari are the top 3 locations with the most visitors and income. Puncak Pengger is a tourist attraction in the Mataram Cultural Tourism Area which is closest via Wonosari Street so it is easy to access. Puncak Becici received special attention because it had received a visit from the former president of America, Barrack Obbama, while Pinus Sari, better known as the Pinus Mangunan Forest, was the first tourist point known by the public.

The community that manages the tourist attraction is 100% of the residents around the tourist attraction, the majority of whom are related to the existence of the forest, namely forest farmers, pine tappers, honey bee farmers, and seasonal farmers. Before opening as a tourist destination, Forest Farmer Groups, Youth Organizations, and other community elements are gathered and together make plans for tourism objects in their area. In addition, the management that is 100% carried out by the local community minimizes conflicts caused by tourism objects. People who are not absorbed in becoming tourism managers also feel the multiplier effect of tourism activities by becoming traders around the tourist objects.

In the management of tourism objects, the Notowono Cooperative plays a role in setting operational standards in all tourist sites under its shelter. Entrance and parking ticket prices are set the same for all tourist attractions, including Rp. 5000.00 for visitors, Rp. 200,000 for special pre-wedding tickets, Rp. 15,000.00 for visitors who are going camping, and Rp. 250,000.00 for renting a place/hall. Some tourist sites also have open-air performance stages that can be rented for both commercial and non-commercial activities. Several tourist sites such as Bukit Pengger and Pinus Sari provide photography services for visitors who need both printed and soft file documentation.

The facilities provided by each object in the tourism area vary according to their potential, but on average, they have main facilities such as parking lots, food stalls, photo spots, prayer rooms, bathrooms, and camping areas. The development between one object and another cannot be equal because one of the development funds comes from the management of 70% of the tourism object income, so the greater the income of one object, the more flexibility for managers to use it. The income intended is income from tickets and parking. When viewed from the data on revenue acquisition divided by the number of tourist visitors, in 2021, the average tourist spending will increase because tourists who come also carry out activities such as camping or renting an area.

The potential that is seen as not being fully used as an effect of tourism activities is the potential of the community that has a lot of potential as bamboo craftsmen and special food traders. There is no special gift shop that sells souvenirs and special foods. Bamboo craftsmen still sell their products through the old distribution channels, which fulfill orders from both the local Yogyakarta market and even imports, and have
not become a typical product of the Mangunan forest tourism area. Likewise with foods, both food stalls are located inside and outside tourist attractions, the majority sell food that can be found anywhere, such as meatballs, soto, instant noodles, and fried foods, as well as beverages such as tea, oranges, coffee, and packaged drinks. The typical food shop found around the tourist attraction is the Tiwul Ayu Mbok Sum shop, which is located in Mangunan Village. Other typical culinary can be found in Pasar Kaki Langit or Pasar Semi tourism which provide Yogyakarta special foods, but this culinary event can only be enjoyed on Saturdays and Sundays.

According to the Chairman of the Notowono Cooperative, Mr. Purwoharsono, in terms of empowering traditional artists around tourist attractions, traditional artists (cokekan, macapat, etc.) as tourist attractions, the segment is still small and has to be careful whether it is worthy to be displayed as cultural attractions or not. In addition to the obstacles of the market segment, in performing traditional arts, certain standards must be maintained because they are relics of their ancestors. The effort made is to modify new works to suit the times, but the spirit of the movement is to preserve the culture of the people.

The Strategic Priority in the effort to Develop Community-Based Ecotourism of the Mataram Cultural Tourism Area

Based on the calculation of the Analytical Hierarchy Process on all the criteria for the Community Based Ecotourism Development Strategy of Mataram Cultural Tourism Area of Mangunan Forest Management Resort with the expert choice program.

Based on Figure 2, it can be explained that the most prioritized criteria in the community-based ecotourism development strategy of Mataram cultural tourism area of Mangunan forest management resort, is infrastructure criteria with a weight value of 43.9%. Then, it is followed by the attraction criteria in the second position with a weight value of 26.5%. Meanwhile, the last priority criteria are human resources with a weight value of 11%. From the result of the Analytical Hierarchy Process (AHP) calculation with the expert choice program, an inconsistency ratio of 0.02 is obtained, which

<table>
<thead>
<tr>
<th>Year</th>
<th>Visitors</th>
<th>Gross Income</th>
<th>Average Tourist Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>2,289,559</td>
<td>Rp 7,851,324,500</td>
<td>Rp 3,429</td>
</tr>
<tr>
<td>2018</td>
<td>2,710,757</td>
<td>Rp 9,042,413,000</td>
<td>Rp 3,335</td>
</tr>
<tr>
<td>2019</td>
<td>2,459,089</td>
<td>Rp 9,644,539,000</td>
<td>Rp 3,922</td>
</tr>
<tr>
<td>2020</td>
<td>988,233</td>
<td>Rp 1,615,670,500</td>
<td>Rp 1,635</td>
</tr>
<tr>
<td>2021</td>
<td>739,369</td>
<td>Rp 4,151,164,000</td>
<td>Rp 5,614</td>
</tr>
</tbody>
</table>

Figure 2. The AHP Output of All Criteria for the Development of Community-Based Ecotourism of Mataram Cultural Tourism Area of Mangunan Forest Management Resort

Source: Primary data processed, 2022.
means that the answers given by key persons are consistent.

The Calculation Result of AHP Analysis on Human Resource Criteria

Based on the calculation of the analytical hierarchy process on the criteria for human resources with the expert choice 11 program. Based on the calculation result from the Analytical Hierarchy Process (AHP) in Figure 2, it can be explained that the most prioritized alternative in the human resource criteria is the improvement of tourism management capabilities through training in tourism management with a weight value of 34.3%. Meanwhile, the last priority alternative is capacity building in financial management with a weight value of 17.2%. From the calculation result of the Analytical Hierarchy Process (AHP) with the expert choice 11 program, the inconsistency ratio result is 0.05, which means that the answers given by the key persons are consistent.

The Calculation Result of AHP Analysis on Infrastructure Criteria

Based on the calculation of the analytical hierarchy process on the infrastructure criteria with the expert choice 11 program. Based on the calculation result of the Analytical Hierarchy Process (AHP) in Figure 4, it can be explained that the most prioritized alternative in the infrastructure criteria is the addition of supporting facilities for tourism objects in the form of tourist shopping places (restaurants and gift shops) by the community with a weight value of 31.1%. Meanwhile, the last priority alternative is the addition of facilities in the form of transportation modes for tourist shuttles by utilizing public transportation means with a weight value of 13.2%.
rism objects in the form of tourist shopping places (restaurants and gift shops) by the community with a weight value of 54%. Meanwhile, the last priority alternative is the addition of facilities in the form of transportation modes for tourist shuttle by utilizing the means of transportation belonging to the community with a weight value of 16.3%. From the calculation result of the Analytical Hierarchy Process (AHP) with the expert choice 11 program, an inconsistency ratio of 0.008 is obtained, which means that the answers given by key persons are consistent.

The Calculation Result of AHP Analysis on Promotion and Marketing Criteria

Based on the calculation of the analytical hierarchy process on the promotion and marketing criteria with the expert choice 11 program. Figure 5 explains that the most prioritized alternative in the promotion and marketing criteria is Marketing through interesting events, both routine and incidental with a weight value of 40.9%. Meanwhile, the last priority alternative is marketing innovation through collaboration with communities with a weight value of 9.6%. From the calculation result of the Analytical Hierarchy Process (AHP) with the expert choice 11 program, an inconsistency ratio of 0.05 is obtained, which means that the answers given by key persons are consistent.

The Calculation Result of AHP Analysis on Attraction Criteria

Based on the calculation of the analytical hierarchy process on the attraction criteria

![Figure 5. AHP Output of Promotion and Marketing Criteria](source: Primary data processed, 2022.)

Explanation:
C1: Digital-based marketing strategy innovation through community-owned social media
C2: Marketing through interesting events, both routine and incidental
C3: Marketing through tour packages in collaboration with tourist villages and tour and travel agents
C4: Marketing innovation through collaboration with communities

![Figure 6. AHP Output of Attraction Criteria](source: Primary data processed, 2022.)

Explanation:
D1: The addition of tourist attractions in the form of cultural events that involve the community
D2: The addition of tourist attractions in the form of agricultural and livestock tourism
D3: The addition of tourist attractions in the form of glamping
D4: Maintenance of existing tourist attractions
with the expert choice 11 program. Based on the calculation result of the Analytical Hierarchy Process (AHP) in Figure 6, it can be explained that the most prioritized alternative in the attraction criteria is the addition of tourist attractions in the form of cultural events involving the community with a weight value of 55.3%. Meanwhile, the last priority alternative is the maintenance of existing tourist attractions with a weight value of 7.1%. From the calculation result of the Analytical Hierarchy Process (AHP) with the expert choice 11 program, an inconsistency ratio of 0.03 is obtained, which means that the answers given by key persons are consistent.

**The Calculation Result of AHP Analysis on All Alternatives in the Community Based Ecotourism Development Strategy of Mataram Cultural Tourism Area of Mangunan Forest Management Resort**

Based on the calculation of the analytical hierarchy process for the overall alternative Development Strategy for Community Based Ecotourism of Mataram Cultural Tourism Area of Mangunan Forest Management Resort with the expert choice 11 program. Based on the calculation result of the Analytical Hierarchy Process (AHP) in Figure 7, it shows that the most prioritized alternative in the Community Based Ecotourism Development Strategy for Mataram Cultural Tourism Area of Mangunan Forest Management Resort is the addition of supporting facilities for tourism objects in the form of tourist shopping places (restaurants and souvenir shops) by the community with a weight value of 21.2%. Then, it is followed by the alternative of the Addition of tourist attractions in the form of cultural events involving the community as the second priority with a weight value of 12.8%. Meanwhile, the last priority alternative is the maintenance of existing tourist attractions with a weight value of 1.6%. From the calculation result of the Analytical Hierarchy Process (AHP) with the expert choice 11 program, an inconsistency ratio of 0.03 is obtained, which means that the answers given by key persons are consistent.

**The Sensitivity Analysis of the Calculation Result of AHP Analysis on Community-Based Ecotourism Development Strategy of Mataram Cultural Tourism Area of Mangunan Forest Management Resort**

Sensitivity analysis aims to analyze the stability of alternative priorities by varying the simulation on the criteria priority of the...
strategy. Sensitivity analysis can be performed for both criteria and sub-criteria. Sensitivity analysis is concerned with the question of whether the final result will always be stable if there is a change in the input either assessment or priority. This analysis will also see whether the change will change the alternative or not. From the sensitivity analysis, the following results are obtained:

Based on Figure 8, it can be seen that the initial result of the AHP calculation on the Development Strategy of Community-Based Ecotourism of Mataram Cultural Tourism Area of Mangunan Forest Management Resort obtained that the most prioritized alternative is the Addition of supporting facilities for tourism objects in the form of tourist shopping places (restaurants and gift shops) by the community with a weight value of 21.2% as shown in Figure A. Then after the simulation was carried out by increasing the input of the human resource aspect from 11% to 25%, the priority policy alternative is the same as shown in Figure B. The result indicates that the assessment is stable.

**CONCLUSIONS**

Based on the result and discussion of the research, it can be explained that the Mata-
ram Cultural Tourism Area still has several obstacles in some aspects which include human resource aspects, institutional aspects, marketing aspects, infrastructure aspects, attractions, and competitiveness. Although there are still various obstacles and problems, the Mataram Cultural Tourism Area also has a lot of cultural-based potentials such as the Cultural Shows of the Mataram Cultural Tourism Area with a series of kenduri activities, cultural carnival, dance performances, and dance performances that tells about the history and myths of the Mangunan community. In addition to cultural tourism shows that involve all tour operators, sourced from the tourism operator’s official account of the Mataram Cultural Tourism Area, each operator also organizes cultural-themed activities such as Merti Dusun. The supporting variables for the development of the Mataram Cultural Tourism Area include supporting facilities and attractions such as parking lots, food stalls, photo spots, prayer rooms, bathrooms, and camping areas. The development between one object and another cannot be equal because one of the development funds comes from the management of 70% of the tourism object income, so the greater the income of one object, the more flexibility for managers to use it. To develop strategies for community-based ecotourism of Mataram cultural tourism Area of Mangunan forest management resort is infrastructure criteria with a weight value of 43.9%. Then, it is followed by the attraction criteria in the second position with a weight value of 26.5%. Meanwhile, the last priority criteria are human resources with a weight value of 11%. Meanwhile, the most prioritized alternative is the addition of supporting facilities for tourism objects in the form of tourist shopping places (restaurants and gift shops) by the community with a weight value of 21.2%. Then, it is followed by the alternative of adding supporting facilities and attractions in the form of cultural events involving the community as the second priority with a weight value of 12.8%. Meanwhile, the last priority alternative is the maintenance of existing tourist attractions with a weight value of 1.6%. The suggestion that can be conveyed in this study is the government, in this case, the local tourism office must continue to assist optimally and sustainably so that the Mataram Cultural Tourism Area can continue to develop and be increasingly in demand by the community. Tourism managers must improve their skills and capabilities, especially creativity, to be able to increase tourist attraction. This research still has limitations on the focus of the object which is still limited so further research can expand the tourism object so that it is more comprehensive.

REFERENCES


