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Artamevia Salsabila Rizaldi *, Augustina Asih Rumanti * and Luciana Andrawina

Department of Industrial Engineering, Telkom University, Bandung 40257, Indonesia

* Correspondence: artameviasalsabila@gmail.com (A.S.R.); augustinaar.rumanti@gmail.com (A.A.R.)

Abstract: Natural tourist destinations stand out as the most preferred choice in Rembang Regency compared to cultural and artificial tourist destinations. However, until now, there have been no standard indicators established to assess the potential for natural tourism in Rembang Regency, which could assist the Culture and Tourism Office in determining potential tourist locations. In this research, the grouping of natural tourism potential indicators will be carried out based on six main aspects, namely Attractions, Amenities, Accommodation, Activities, Accessibility and Ancillary Services, together with environmental aspects and Human Resources. The procedure for determining natural tourism potential will be developed from the results of this grouping using a taxonomic model. Indicators and the weight of each indicator will be determined using the hierarchical analysis method. The results of this research will produce a taxonomy model that can overcome challenges in managing and utilizing information and knowledge, which in turn will facilitate the process of sharing and utilizing information. Furthermore, the procedures developed will enable accurate and efficient determination of natural tourism potential in accordance with established procedures. This research method will also enable the development of a comprehensive knowledge management system at the Rembang Regency Culture and Tourism Service, through the next stages in the designed taxonomy model. This research is expected to contribute to the sustainable management of natural tourism, which can contribute to the preservation of nature while improving the tourist experience.

Keywords: natural tourism; sustainable tourism; taxonomy

1. Introduction

Until September 2023, the contribution of tourism's foreign exchange value will reach 10.46 billion US dollars, while the contribution of tourism GDP is estimated to reach 3.8 percent. Apart from that, the added value of the creative economy reached IDR 1,050 trillion, with a creative export value of 17.38 billion US dollars. In addition, the number of domestic tourist trips has reached 688.78 million trips by October 2023. This research shows that the movement of domestic tourists has exceeded the figure in 2019 before the pandemic, indicating that the Indonesian tourism industry has recovered very strongly [1]. Economic income derived from tourist activities is determined mainly by the management of tourist attractions, tourism accessibility, public infrastructure, public facilities and tourism facilities. The better the management of attractions, facilities and accessibility, the more it affects the time tourists are in tourist destinations and the income they get from tourists [2,3]. According to [2] There are six components of tourism namely Attraction, Amenities, Accommodation, Activity, Accessibilities, and Ancillary Services (6A). 6A is a component of tourism development, which consists of 1) Attraction, all elements that can attract visitors to come to the tourism area. Attraction is the first aspect that makes tourists interested in visiting the attraction. 2) Amenities refer to all the facilities and infrastructure visitors need while at the tourist destination they visit. 3) Accessibilities, elements related to the availability of various means of transportation and security aspects have a significant role in ensuring that tourists' trips run smoothly. 4) Accommodation, Places to stay that are often known as hotels with various facilities. 5) Activity,

activities related to activities at the destination that provide experiences for visitors. 6) Ancillary Services, this component is assistance provided by organizations, governments, destination managers or local governments in carrying out tourism activities [2,4].

The tourism component in each natural destination must meet the 6A standard to increase consumer satisfaction. These impacts increasing consumer satisfaction if the tourism component is fulfilled. Therefore, tourist destinations must increase and maintain consumer satisfaction so that they want to revisit the tourist attraction [5]. In determining the potential for natural tourism in Rembang Regency, environmental factors and human resources have an important role. The tourist environment must be maintained and not damaged [6]. Apart from that, tourism development requires competent human resources [7].

Based on the statement of the Culture and Tourism Office of Rembang Regency, the selection of potential natural tourism sites in Rembang Regency is currently only based on the attractiveness of tourist sites. Indicators are critical in determining natural tourism potential because they can assist the Rembang Culture and Tourism Office in evaluating and develop existing potential. If indicators are appropriately used, they can become essential management tools or performance measures that can provide important information for managers and other stakeholders in the tourism sector. Good indicators can provide timely information to address urgent problems and help guide the sustainable development of a destination [8].

In line with the strategy pursued by the Department of Culture and Tourism in the 2019 – 2025 period, namely achieving the vision that has been set, including improving the quality of tourism attractions and attractions or events, developing leading tourism destination objects and developing potential new tourism objects, and creating Local culture becomes a tourist attraction. In the current condition of developing natural tourism potential in Rembang Regency, there are difficulties in placing and disseminating knowledge regarding determining indicators, seen from the difficulty of obtaining information regarding indicators in determining natural tourism potential in Rembang Regency and currently, it has not been documented. There is a continuous renewal of information and knowledge in the scope of deciding natural tourism potential so that missing knowledge often occurs or does not have or loses access to the knowledge needed to solve problems or achieve specific goals. According to the Department of Culture and Tourism of Rembang Regency, currently, there are no documented procedures for assessing tourism potential. The selection of potential sites has been primarily based on available resources and land ownership, which are general criteria. Therefore, this study aims to identify indicators for assessing natural tourism potential and develop a detailed procedure for proper selection. However, there hasn't been a classification mapping of these indicators using a taxonomic model in previous research.

The taxonomic model classifies hierarchical principles and uses basic facet categories adapted to the conditions and needs of the company, especially users [9]. Mapping the indicators is done by applying the taxonomic model introduced by Lambe, namely Enterprise Taxonomies. According to [10], Taxonomies are maps that find helpful things and Enterprise Taxonomies, namely creating a consistent way for employees to use and complete information and knowledge. The Enterprise Taxonomy creates a consistent way for employees to create and use information shared within the organizational environment [10]. In this study, the taxonomy will be used to facilitate sharing and access to information, especially in the Culture and Tourism Office of Rembang Regency.

The taxonomy applied in the Organizational Innovation Taxonomy Model Research by [9] aims to develop a taxonomy model as part of a knowledge management system, based on business activities carried out by SMEs to handle management problems and utilization of technical competency information and knowledge in SMEs. The method applied in this research uses a taxonomy model, which is expected to provide a consistent framework for employees in creating and using information and knowledge, to facilitate sharing and access in the SME environment. This research will help in grouping indicators for determining natural tourism potential, such as Attraction, Amenities, Accommodation, Activities, Accessibility, Support Services, Environment and Human Resources, to facilitate the use of knowledge. Meanwhile, the Key Performance Indicator (KPI) approach explained by [11] aims to increase understanding of the potential for development in the field of nature-based health tourism with the support of medical evidence, thereby helping

regions exploit this potential. In this research, taxonomy is used as an indicator mapping tool, and not only mapping indicators but also weighting each indicator using the Analytical Hierarchy Process (AHP) method. in research [12] regarding the use of AHP-based weighted analysis to assess the impact of tourism on socio-economic development in coastal areas using the nine selected criteria, the results will be a guide in planning and monitoring tourism activities for sustainable development in similar areas.

The classification and weighting will aid in the development of tourism, especially within the Sustainable Development Goals framework, specifically addressing point nine concerning tourism development reliant on good public and private infrastructure. This is pivotal in the research as it can facilitate the development of quality infrastructure and enhance access to industry and small-scale enterprises, particularly in natural tourism within the Rembang District. The eleventh point in this study aims to create an environmentally friendly and sustainable environment, ensuring that nature-based tourism can be developed while maintaining environmental sustainability [13].

This research highlights the importance of proper management of Attractions, Amenities, Accommodation, Activities, Accessibility and Ancillary Services, together with environmental aspects and Human Resources which directly influence tourist satisfaction and economic outcomes. By identifying and classifying indicators for natural tourism potential, this research aims to provide a comprehensive framework for evaluating and improving tourism destinations, especially in Rembang Regency. In addition, the research introduces innovative methodologies, such as taxonomic modeling to effectively map and weigh tourism indicators which will later be used as a procedure. This approach provides valuable insights for policy makers and practitioners in the decision-making process regarding tourism development and management. Overall, the research fills an important gap in the current understanding of tourism potential assessment and management practices in Indonesia, particularly in Rembang Regency. Apart from that, standardized procedures also help preserve the local environment and culture, maintaining the sustainability of natural tourism development [14–16].

2. Materials and Methods

This research uses a mixed methods approach, combining both qualitative and quantitative methods. Qualitative research involves investigating in natural environments, applying inductive data analysis, and prioritizing meaning over generalizations [17]. The unit of analysis is focused on the organizational unit responsible for tourism management in Rembang Regency, namely the Culture and Tourism Office. Qualitative data will be collected from primary sources through participant observation, in-depth interviews with the Rembang Regency Culture and Tourism Office, and documentation. Quantitative methods will be used to calculate the weight of each indicator using the Analytical Hierarchy process. A mixed methods approach requires meaningful integration of techniques in data collection, assessment, and interpretation. The term "mixed" is very important in mixing methodologies to properly assimilate data in research methodology. One study may use mixed methods to understand relationships and inconsistencies between qualitative and quantitative data [18].

Figure 1 displays the steps in solving problems in classifying indicators. At the start of the research, data was collected through meetings with project sponsors and stakeholders, project objectives were determined, a determination approach was designed, a communication plan was prepared, governance was planned, then continued with data processing using exit management principles and analysis of taxonomic aspects. After classification using taxonomy, weighting is carried out using Analytical Hierarchy Process (AHP), and finally analysis is carried out.
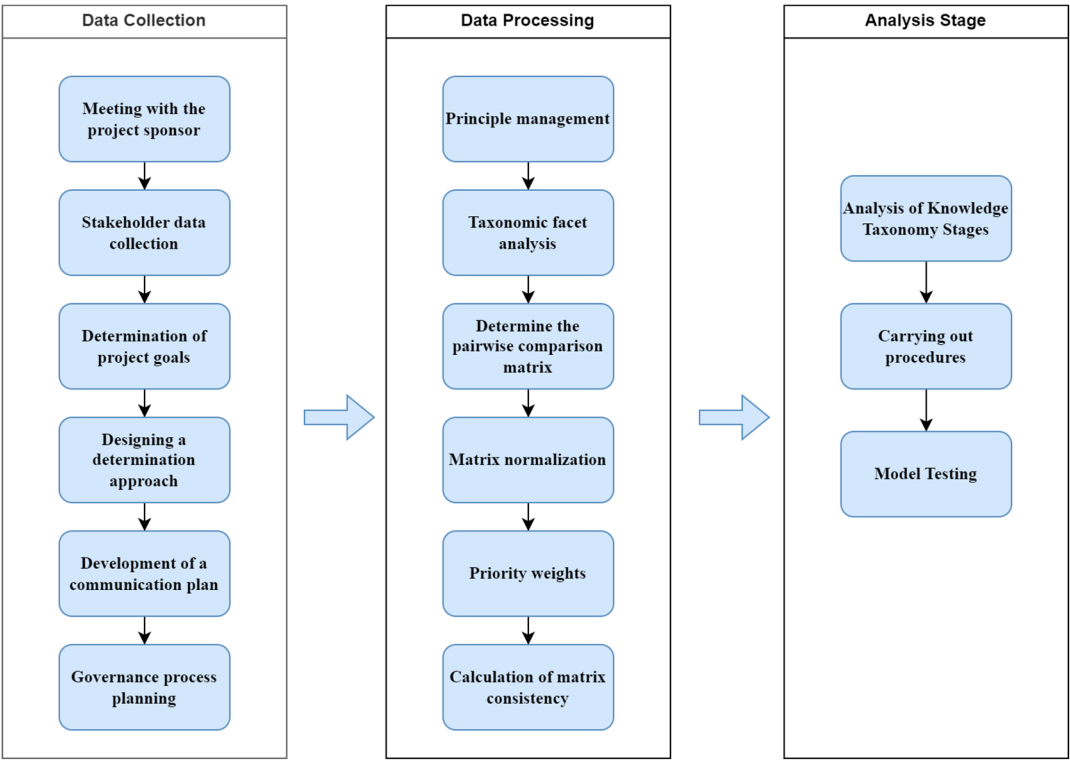
Figure 1. Problem Solving Steps**.**

2.1. Data Collection

Data collection in this study was conducted by interviews with related parties from the Rembang Regency Culture and Tourism Office. The data used in this study are primary and secondary. Preliminary data were obtained in this study through interviews and discussions to obtain the required data. The data obtained is from knowledge of organizations and problems in the Culture and Tourism Office of Rembang Regency. The secondary data received is a brief organizational description, organizational structure and indicators of natural tourism potential in determining tourist locations.

The first step is to meet a sponsor. Sponsors at this stage are parties with an interest or stakeholders related to the problem being discussed or faced. The following positions apply as project sponsor, head of the Culture and Tourism Office of Rembang Regency and representative for the Tourism Destination Sector. The position mentioned is the party with authority in decision-making. These parties helped in creating the taxonomy by providing suggestions and input. Determining the number of parties above to become project sponsors for the following reasons occupies a decision-making position in determining natural tourism potential and understanding the conditions of problems in the field. What is done in the preparatory stage of designing a taxonomy is to determine the objectives of the research being carried out. The limitation or difficulty in the preparation process for making this taxonomy model is that the Rembang Regency Culture and Tourism Office needs to study classification using the taxonomy model in terms of its usefulness and benefits for the organization.

The second step is to engage stakeholders by identifying the relevant stakeholders. Stakeholders are parties who are authorized to make decisions on the problems faced. At this stage, engagement will also be carried out with stakeholders in the company; the map made in the first stage will be checked by holding meetings with stakeholders. Meetings with project sponsors are parties who directly assist in this research. The party sponsoring the project is the head of the agency and several coordinators in the field of Tourism Destinations. In this stage, an explanation is made to the project sponsor about the benefits, opportunities, threats, obstacles and efforts required by the organization. The results obtained at this stage are the collection of business activities, the elaboration of the job descriptions of each field, and the explanation of the main actions of each area.

The third step is refining purpose. This stage describes the size and completeness of the common issues and themes from the taxonomy, which will be made based on the map for determining natural tourism potential. The map illustrates the reason and purpose for creating a taxonomy and the recommended taxonomy type. Clear objectives regarding the company's taxonomy will be identified at this stage. Screening is done is the determination of the purpose of conducting research. The goal in designing the taxonomy model is to create a knowledge taxonomy model as an activity in knowledge management to increase effectiveness and efficiency at the Culture and Tourism Office of Rembang Regency. It is hoped that this research will further develop knowledge management activities within the company are essential.

The fourth step is designing the approach. The approach used in designing a taxonomic model for determining natural tourism potential is described by Patrick Lambe, (2007) in 8 stages of 12 stages. In developing the approach, it is determined what approach will be used for the taxonomy strategy to be built. The taxonomy to be made will use a common-ground taxonomy approach. This selection is based on the results of interviews, direct observation of field conditions with signs and indications such as 1) There are difficulties in placing and disseminating knowledge in determining natural tourism potential as seen from the problem of obtaining information about any indicators to determine natural tourism potential in Rembang Regency, especially this is not documented. 2) At the Culture and Tourism Office of Rembang Regency, there is already some information and knowledge regarding indicators for determining natural tourism potential, but it needs to be structured. 3) Everyone has individual knowledge and information.

The fifth step is to build a communication plan. Taxonomy mode is something that takes time and effort. The design process has many stages, so good, clear, and consistent communication is needed. A communication plan is built in designing this taxonomy model, detailed by defining the communication structure. At this stage, the results are obtained for the communication structure defined in the Department of Culture and Tourism taxonomy model design. The communication structure is audiences and channels using face-to-face discussions and meetings with individuals from written documents.

The sixth step is the governance process. The governance process referred to here is how to control the design of this taxonomy. Determination of control holders or special committees that will act as supervisors and control holders of this taxonomy draft. The governance process stage is the stage for determining how to control and control this taxonomy design. At this stage, a controller who will act as a supervisor and a controller who will serve as a holder of the taxonomic design that has been made will be selected. The design carried out is only a general concept for sections that play an essential role in determining natural tourism potential in the Rembang Regency Culture and Tourism Office, such as the head of the service and the head of the tourism destination section.

2.2. Data Processing

The first step in doing data processing is organizing principles. The taxonomy design will collect as much data as possible to obtain knowledge and information in determining natural tourism potential. There are activities carried out to contain taxonomic material as follows, the second step is to conduct an input-output map of knowledge assets at the Rembang Culture and Tourism Office. This map is built in tabular form in the form of knowledge assets at the Culture and Tourism Office of Rembang Regency. This map is expected to provide an overview of what knowledge assets are involved and support the process of determining natural tourism potential from the start to production output. The third step is to perform an expert and competency map. Expert and competency maps are maps of knowledge sources at the Department of Culture and Tourism based on positions and titles. This map is made based on observations and discussions that are expected to facilitate model design.

The fourth step is to conduct a map of indicators for natural tourism potential. The indicator map is a map of knowledge sources for determining natural tourism potential. This map was created based on observations and discussions with the Culture and Tourism Office of Rembang Regency. This map is expected to make it easier to design a model of what knowledge is needed and can review

the initial sources of information and knowledge. The last step is to perform a facet analysis. Facet analysis is the core stage in the grouping of designed information and Knowledge. Group is done by placing data into classes according to the category and content. The analysis carried out in this stage is carried out based on determining the group that is carried out. The resulting facet concept is expected to be by the actual conditions of the company and provide convenience for its users. The categories and subcategories within each facet must lead to the desired goal. Common facets are people and groups, things and parts, activities and processes, location, time, and subject discipline. In designing this taxonomic model, the basis for the facet analysis used as a reference in this study is the concept put forward by Straits Knowledge because it is considered the most representative of the existing conditions.

2.2.1. Weight Calculation

Calculating indicator weights will use the Analytical Hierarchy Process [19] with the first step, namely determining a pairwise comparison matrix. After creating the hierarchical model, a pairwise comparison matrix will be selected from the given weights. This stage compares each paired element with the criteria obtained from the taxonomic model. The second step is to normalize by calculating the sum of the values for each column and dividing the importance of the columns, which will later get the results of the normalized matrix from the sum of the columns. The third step is to look for priority weights by doing calculations to get the priority weight results obtained from the sum of all rows for each criterion divided by the number of criteria. The fourth step is to check consistency, at this stage consistency will be calculated by calculating the Consistency Index, Consistency Ratio which will then obtain a CR value whether ≤ 0.1 is said to be consistent if CR > 0.1 then it is not consistent [20].

2.3. Analysis Stage

At this stage, taxonomic analysis and data processing will be carried out with the aims and objectives of the steps made. The second step involves creating procedures to classify Attraction, Amenities, Accommodation, Activity, Accessibilities, Ancillary Services, Environment and Human Resources indicators. The third stage is testing, including verification and validation of the model, involving internal stakeholders, namely representatives from the tourism destination sector (Rembang Culture and Tourism Office), and external stakeholders, namely an expert in the field of natural tourism.

3. Results

Facet analysis is the most critical phase of data taxonomy because this phase is the essence of the information and grouping of information planned in the design model. The Grouping Process is carried out by grouping information based on categories and content. The analysis in this phase focuses on determining the basis for the group to be carried out. The resulting facet concept is expected to be by the actual conditions of the company and provide convenience for its users. The categories and subcategories within each facet must lead to the desired goal. This taxonomy aims to build a taxonomic model of common-ground types so that determining facets underlies structuring and creating a joint base of information and knowledge. According to Lambe (2007), there are several ways to perform facet analysis and determine the basis of facets. In designing this taxonomic model, the concept put forward by Straits Knowledge is used as the basis for the facet analysis, which is used as a reference in this study because it is considered the most representative of the existing conditions but does not rule out the possibility of using a combination with other concepts.

3.1. Preliminary Facet Analysis

In Figure 2 is an indicator of tourism potential which is the initial facet analysis material at the Department of Culture and Tourism.
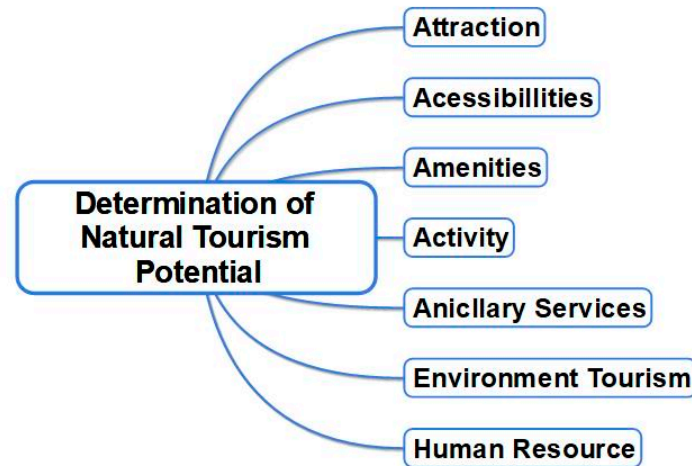
Figure 2. Initial Facet Analysis of Natural Tourism Potential Indicators.

In this section, we will focus on and detail the flow of facet analysis carried out in designing a taxonomy model.
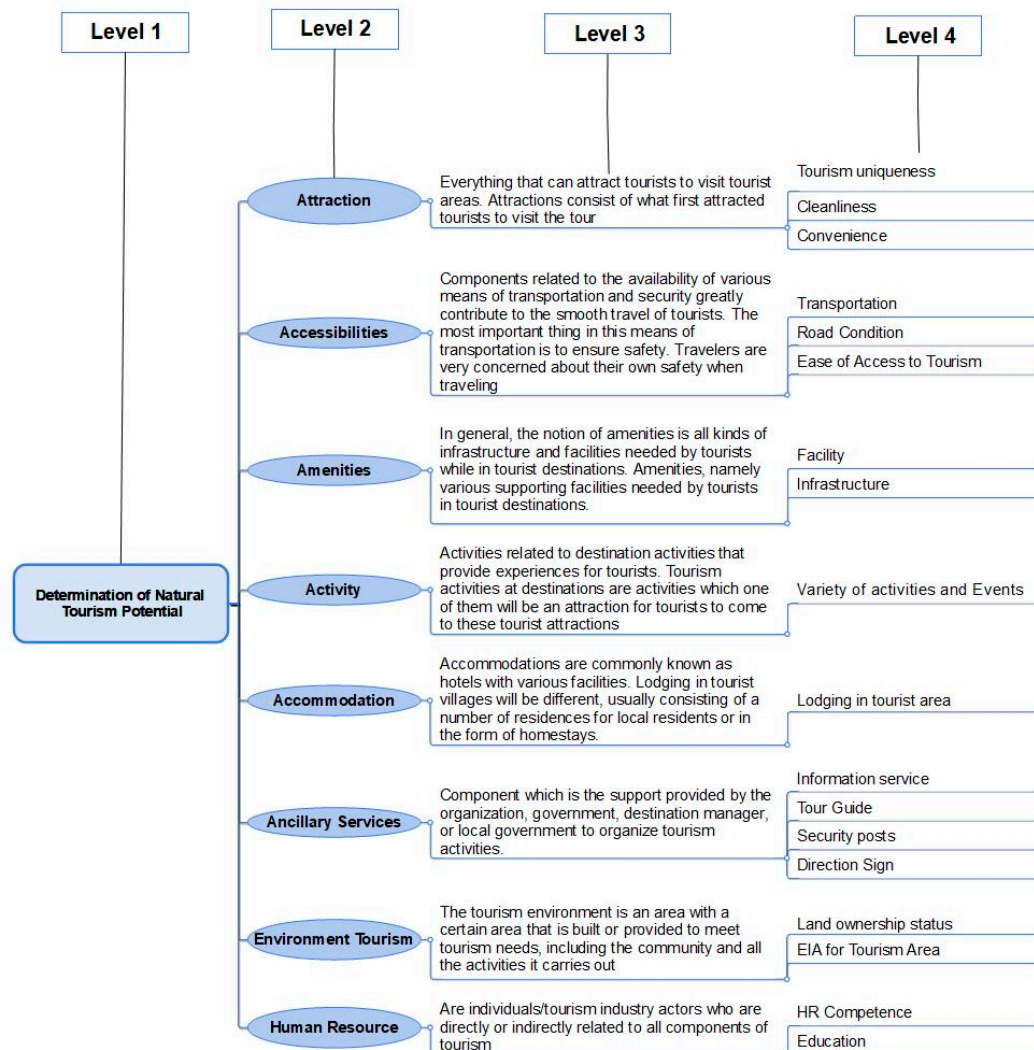

Figure 3. Knowledge Taxonomy of Indicators for Determining Nature Tourism Potential.

To simplify the explanation of eating, it will be described in the form of a basic table. Facet analysis was carried out by the Culture and Tourism Office of Rembang Regency. The basis for determining facets in the process of determining indicators is in Table 1.

Table 1. Determining Facets in the Process of Determining Natural Tourism Potential.

Level	Basic Determination of Facets
1	Tourism is the object of research
2	The main components in tourism development
3	The definition of the principal component
4	Components in determining the potential of nature tourism

Level 1: At this level is the main object of research. The basic levels are then divided into more detailed components.

Level 2: Dividing the main components in determining the potential for natural tourism, this mapping is done by direct interviews with the Department of Tourism and Culture.

Level 3: At this level is the definition of each component of tourism development.

Level 4: Division and classification are carried out based on the type of main components that work in the Culture and Tourism Office of Rembang Regency. The division is based on existing categories so that it becomes the focus of the activities carried out by each component of tourism development.

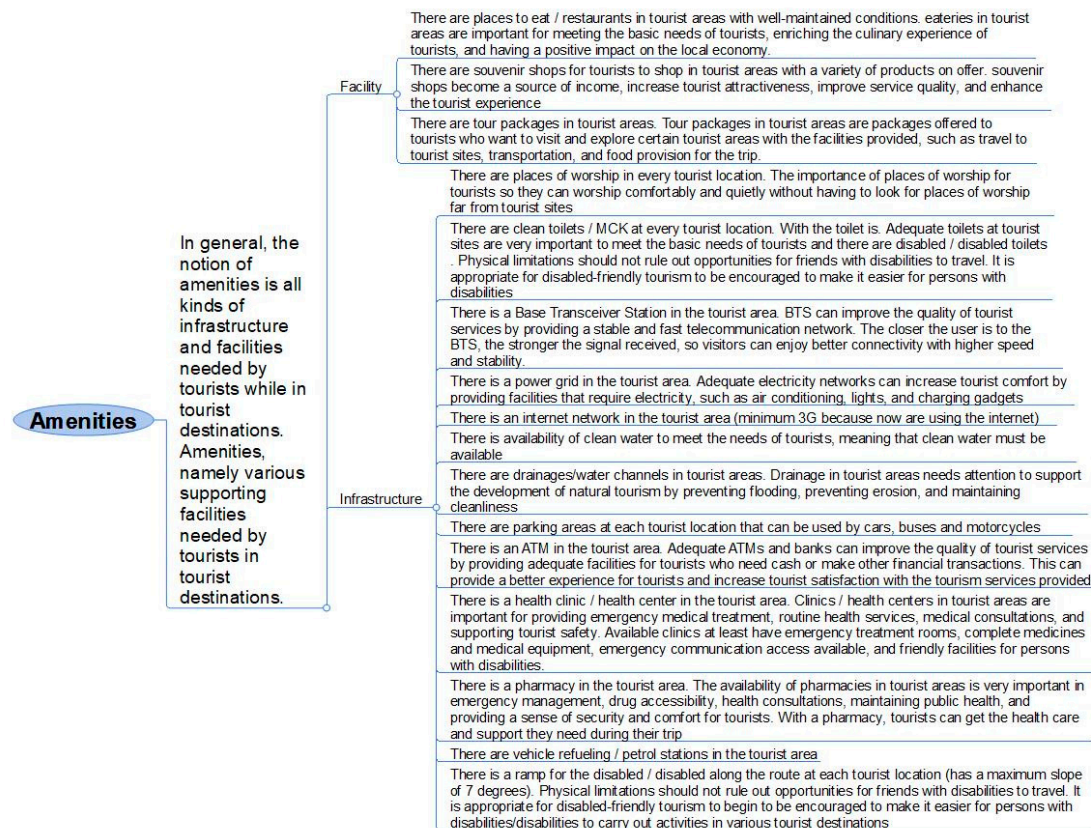In Figure 4 is an example of facet analysis of amenities indicators.

Figure 4. Knowledge Taxonomy of Amenities Indicators.

3.2. Taxonomic Mapping

In Figure 5, the overall mapping result based on 8 indicators, namely Attraction, Amenities, Accommodation, Activity, Accessibilities, Ancillary Services, Environment Tourism and Human Resource. Taxonomic mapping that will later be implemented using procedures by including all components of tourism development so that it can be easily used by the Rembang Regency Culture and Tourism Office. Classification of determining natural tourism potential with 8 indicators as follows:

Attraction is anything that can attract tourists to visit tourist areas. Attractions consist of what first makes tourists interested in visiting a tourist attraction. It has sub-indicators or component activities in the attraction, namely, the uniqueness of the tour, namely the presence of a national park/wildlife reserve/beach/sea/mountain/forest/waterfall/lake/river in the tourist area. Cleanliness: 1) The presence of trash cans to reduce rubbish scattered in each location, 2) Sorting of organic and inorganic waste, 3) The presence of vandalism in tourist areas (scribbling, illegal graffiti, vandalism, destruction, and environmental pollution). Comfort: 1) Clean air conditions in the tourist area, 2) The tourist area is noise-free.
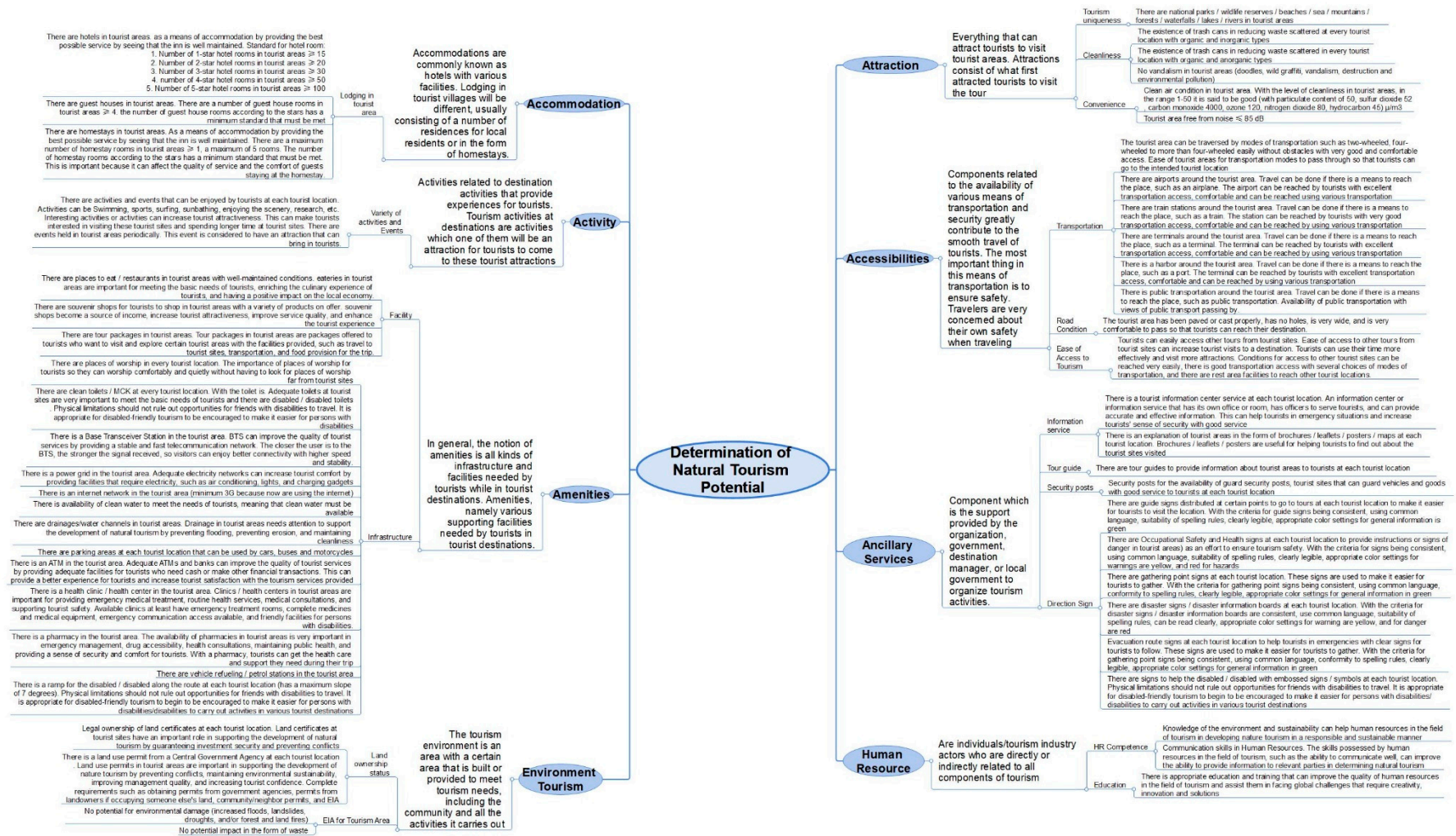
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Figure 5. Taxonomy Mapping of Knowledge for Determining Natural Tourism Indicators in Rembang Regency.

Accessibility is a component related to the availability of various means of transportation and security, which greatly contributes to the smooth travel of tourists. The most important thing in this means of transportation is ensuring safety. Tourists pay attention to tourist safety when traveling. Having sub-indicators or component activities in accessibilities, namely, transportation; 1) The tourist area can be traversed using transportation such as two wheels, four wheels, or more than four wheels easily without obstacles, 2) There is an airport around the tourist area, 3) There is a train station around the tourist area, 4) There is a terminal around tourist area, 5) There is a port around the tourist area, 6) There is public transportation to the tourist area. The condition of the road to the tourist area is well paved or paved. There are no holes, and it is very wide and comfortable for tourists to pass on. Ease of tourist access with tourists being able to access other tourist attractions from tourist locations easily. Ease of access to other tourist attractions from tourist locations can increase tourist visits to a destination.

Accommodation is accommodation commonly known as a hotel with various facilities. Accommodation in tourist villages will be different, usually consisting of several places where residents live or in the form of homestays. It has sub-indicators or component activities in accommodation, namely various accommodations in tourist areas such as hotels, homestays, and guest houses.

Activities are activities related to destination activities that provide experiences for tourists. Tourist activities at a destination are activities that will attract tourists to come to that tourist spot. It has sub-indicators or activity components in the activity, namely the variety of activities and events.

In general, the definition of amenities is all kinds of infrastructure and facilities tourists need while in a tourist destination. Amenities are various supporting facilities needed by tourists at tourist destinations. It has sub-indicators or activity components in the activity, namely, Facilities: 1) There is a place to eat/restaurant in the tourist area, 2) There is a souvenir shop for tourists to shop in the tourist area. 3) Tour packages are in tourist areas (Suwena & Widyatmaja, 2017). Infrastructure: 1) There is a prayer room/place of worship at each tourist location, 2) There is a clean toilet at each tourist location, 3) There is a Base Transceiver Station in the tourist area, 4) There is an electricity network in the tourist area, 5) There is an internet network in the tourist area, 6) There is the availability of clean water to meet the needs of tourists, 7) There is drainage/water channels in the tourist area, 8) There is a parking area at each tourist location that can be used by cars, buses, and motorbikes, 9) There are ATMs in the area tourism, 10) There is a health clinic/health center in the tourist area, 11) There is a pharmacy in the tourist area, 12) There is a vehicle refueling/gas station in the tourist area 13) There is a ramp for the disabled along the route at each tourist location (has maximum slope of 7 degrees.

The Ancillary Services component is supporting organizations, governments, destination managers, or local governments provide to organize tourism activities. It has sub-indicators or component activities in ancillary services, namely information services: 1) There is a tourist information centre service at each tourist location, 2) There is an explanation of the tourist area in the form of brochures/leaflets/posters/maps at each tourist location. Tour Guides with tour guides to provide information about tourist areas to tourists at each tourist location, Security Posts with security guard posts available, and tourist locations that can guard vehicles and goods. Directional Signs: 1) There is a direction area to get to the tour at each tourist location, 2) There are Occupational Safety and Health signs at each tourist location, 3) There are gathering point signs at each tourist location, 4) There are disaster signs/disaster information boards at every tourist location, 5) There are evacuation route signs at every tourist location. Evacuation route signs at each tourist location, 6) There are signs to help people with disabilities/disabilities with signs/symbols appearing at each tourist location.

An Environment Tourism is an area with a certain area that is built or provided to meet tourism needs, including the community and all the activities they carry out. It has sub-indicators or component activities in the environment, namely, Land Ownership Status: 1) Ownership of a valid land certificate for each tourist location, 2) There is a land use permit from the Central Government Agency at each tourist location. Tourism Area AMDAL: 1) Has no potential for environmental

damage (increased flooding, landslides, drought, and/or forest and land fires), 2) Has no potential to cause impacts in the form of waste.

Human Resources are individuals/actors in the tourism industry who are directly or indirectly related to all components of tourism. It has sub-indicators or component activities in HR, namely, HR Competencies: 1) Knowledge about the environment and sustainability can help human resources in the tourism sector in developing natural tourism responsibly and sustainably, and 2) Communication skills in Human Resources. Education level with appropriate education and training can improve the quality of human resources in the tourism sector and help face global challenges that require creativity, innovation, and solutions.

3.3. Weighting Calculation Results

In this phase, pairwise comparisons are made based on the results of filling out the interest questionnaire using the AHP method. Table 2 reflects the pairwise comparison matrix for each indicator based on the knowledge of tourism sector practitioners, while Table 3 reflects the comparison matrix based on the knowledge of the Rembang Regency Culture and Tourism Office.

Table 2. Pairwise Comparison Matrix by Respondent 1.

Indicator	Attraction	Accessibilities	Amenities	Activity	Accommodation	Ancillary Services	Environment Tourism	Human Resource
Attraction	1.00	0.14	0.33	0.33	0.33	0.33	0.11	0.11
Accessibilities	7.00	1.00	5.00	3.00	3.00	5.00	0.33	0.20
Amenities	3.00	0.20	1.00	0.33	0.20	3.00	0.14	0.11
Activity	3.00	0.33	3.00	1.00	3.00	3.00	0.14	0.20
Accommodation	3.00	0.33	5.00	0.33	1.00	3.00	0.14	0.14
Ancillary Services	3.00	0.20	0.33	0.33	0.33	1.00	0.11	0.11
Environment Tourism	9.00	3.00	7.00	7.00	7.00	9.00	1.00	0.33
Human Resource	9.00	5.00	9.00	5.00	7.00	9.00	3.00	1.00
Total	38.00	10.21	30.67	17.33	21.87	33.33	4.98	2.21

Table 3. Pairwise Comparison Matrix by Respondent 2.

Indicator	Attraction	Accessibilities	Amenities	Activity	Accommodation	Ancillary Services	Environment Tourism	Human Resource
Attraction	1.00	0.14	0.33	0.33	0.33	0.33	0.14	0.11
Accessibilities	7.00	1.00	5.00	3.00	3.00	7.00	0.33	0.33
Amenities	3.00	0.20	1.00	0.20	0.20	3.00	0.14	0.11
Activity	3.00	0.33	5.00	1.00	3.00	3.00	0.33	0.11
Accommodation	3.00	0.33	5.00	0.33	1.00	3.00	0.20	0.11
Ancillary Services	3.00	0.14	0.33	0.33	0.33	1.00	0.11	0.11
Environment Tourism	7.00	3.00	7.00	3.00	5.00	9.00	1.00	0.33
Human Resource	9.00	3.00	9.00	9.00	9.00	9.00	3.00	1.00
Total	36.00	8.15	32.67	17.20	21.87	35.33	5.26	2.22

The examples in Table 2 can be used to calculate pairwise comparisons in matrix calculations:

$$\bar{\alpha}_{jk} = \frac{\alpha_{jk}}{\sum_{l=1}^{m} \alpha_{lk}}$$

Indicator $A11 = \frac{1.00}{38.00} = 0.03$.

In Table 4 is the result of priority weight values obtained from respondents, one namely tourism expert and two, namely the Culture and Tourism Office of Rembang Regency.

Table 4. Weight Calculation.

Indicator	Respondent	
	1	2
Attraction	0.02	0.02
Accessibilities	0.13	0.15
Amenities	0.04	0.04
Activity	0.08	0.08
Accommodation	0.07	0.06
Ancillary Services	0.03	0.03
Environment Tourism	0.26	0.22
Human Resource	0.37	0.39

To calculate the priority vector, it can be calculated with an example for respondent 1 as follows:

$$w_j = \frac{\sum_{l=1}^{n} \bar{\alpha}_{jk}}{n}$$

Indicator $A11 = \frac{0,17}{8} = 0.02$.

In Table 5 is the result of the consistency value of the two responses and In Table 6 is the result of overall consistency based on respondents 1 and 2.

Table 5. Calculating Consistency.

Indicator	Respondent 1		Respondent 2	
	Matrix x priority	Consistency	Matrix x priority	Consistency
Attraction	0.02	0.18	0.19	8.66
Accessibilities	0.13	1.23	1.37	9.17
Amenities	0.04	0.34	0.33	8.28
Activity	0.08	0.71	0.80	9.57
Accommodation	0.07	0.59	0.59	9.14
Ancillary Services	0.03	0.25	0.25	8.12
Environment Tourism	0.26	2.53	2.08	9.39
Human Resource	0.37	3.50	3.67	9.46

Table 6. Consistency Value.

Value	Respondent 1	Respondent 2
λmax	8.95	8.97
Consistency Index (CI)	0.14	0.14
Random Index (RI)	1.41	1.41
Consistency Ratio (CR)	0.10	0.10

After determining the model for determining indicators of natural tourism potential in Rembang Regency, the next step is to weight the two calculations. The first calculation aims to assess the possibility of tourism potential that already exists in Rembang, while the second calculation is used to determine indicators of tourism potential that is not yet available in Rembang Regency or as new tourism potential. This weighting indicator uses the Analytical Hierarchy Process (AHP) method which is based on the knowledge of tourism sector activists as respondent one and the Rembang Regency Culture and Tourism Office as respondent two. The results of indicator weighting using AHP can be seen in Table 7.

Table 7. Weight Results for Each Indicator.

Indicator	Weight of Indicators for Determining Tourism Potential in Current Conditions	Weight of Indicator for Determining New Tourism Potential
Attraction	0.022	0.205
Accessibilities	0.141	0.100
Amenities	0.041	0.031
Activity	0.080	0.063
Accomodation	0.065	0.054
Ancillary Services	0.031	0.022
Envitonment Tourism	0.242	0.149
Human Resource	0.379	0.376

3.4. Procedure for Determining Natural Tourism Potential

After the taxonomy modelling of knowledge regarding indicators for determining natural tourism potential along with the weighting of each indicator, procedures will be made to determine natural tourism potential based on existing tourism and procedures for deciding tourism that does not yet exist but has the potential to become new tourism. The procedure step for determining tourism potential will be made as a procedure which is a series of rules that can assist in determining the potential for natural tourism in detail so that there is the standardization of the tourism component in each location that can be developed. Based on the results of interviews and discussions with the Rembang Regency Culture and Tourism Office and Tourism Experts regarding procedures. The results obtained for determining natural tourism potential for natural tourism that already exists in Rembang Regency are as follows:

1. The first step is to consider the Human Resources (HR) indicator, which is an infrastructure driver for tourism development readiness. Human Resources (HR) is an important resource in the tourism sector. HR has a role as a factor of success in achieving performance [21,22]. Tourism HR is a government institution, namely the Culture and Tourism Office of Rembang Regency around the tourism area.
2. The second step is to consider tourism environmental indicators. After preparing human resources who are ready to deal with tourism sustainability, it is necessary to see the conditions or environmental conditions of tourism in terms of land ownership, development permits and environmental impacts so that this does not cause conflicts and risks that affect tourism [6,23].
3. The third step is to consider accessibilities indicators as tourist access to the destination to be addressed. If there is no access, tourists will not be able to visit destinations which will have an impact on decreasing the number of tourists, reducing income, and reducing tourism potential in the area [24–26].

4. The fourth step is to consider activity indicators. This indicator is considered as a form to attract tourists, increase tourist attractiveness, improve tourist experience, and improve the local economy [27].

5. The fifth step is to consider accommodation indicators. This indicator is considered because the availability of adequate lodging can affect the length of time tourists visit. If the available lodging is limited, tourists may find it difficult to find accommodation that suits their needs and decide to leave the destination sooner [24,28].

6. The sixth step is to consider the amenities indicator. This indicator is considered because adequate facilities and infrastructure can support tourism services and improve the quality of services provided to tourists [29].

7. The seventh step is to consider ancillary services indicators. This indicator is considered after amenities because they support services that can increase comfort, safety, service quality, tourist attraction, and sustainable tourism development [30].

8. The eighth step is to consider the attraction indicator. Attractions can be based on natural resources with physical characteristics of nature and beauty. Almost every tourist destination has unique attractions different from every other [31].

The results for the steps for determining natural tourism potential for natural tourism that do not yet exist but have the potential to become tourism in Rembang Regency are as follows:

1. The first step is to consider the Human Resources (HR) indicator because it is an infrastructure driver for tourism development readiness. Human Resources (HR) is an important resource in the tourism sector. HR has a role as a factor of success in achieving performance [21,22]. Tourism HR is a government institution, namely the Culture and Tourism Office of Rembang Regency around the tourism area.

2. The second step is to consider the attraction indicator. Attractions can be based on natural resources with physical characteristics of nature and beauty. Attractions need to be determined in determining tourism that has yet to be available, which is a new tourism potential. Tourist attractions are also often considered key drivers for tourism systems where they can stimulate interest in travelling to a destination and increase visitor satisfaction [31].

3. The third step is to consider tourism environmental indicators. This indicator is to see the state or environmental conditions of tourism in terms of land ownership, development permits and environmental impacts so that this does not cause conflicts and risks that affect tourism [6].

4. The fourth step is to consider accessibilities indicators as tourist access to the destination to be addressed. Based on the results of discussions with tourism experts, if there is no availability of access, tourists will not be able to visit destinations that have an impact on decreasing the number of tourists, reducing income, and reducing tourism potential in the area [26].

5. The fifth step is to consider activity indicators. Activities arise because of tourist attractions and the emergence of tourist service facilities. This indicator is regarded as a form to attract tourists, increase tourist attractiveness, improve tourist experience, and improve the local economy [27].

6. The sixth step is to consider accommodation indicators. This indicator is considered because the availability of adequate lodging can affect the length of time tourists visit. If the available lodging is limited, tourists may find it difficult to find accommodation that suits their needs and decide to leave the destination sooner [28].

7. The seventh step is to consider the amenities indicators. This indicator is considered because adequate facilities and infrastructure can support tourism services and improve the quality of services provided to tourists [29].

8. The eighth step is to consider ancillary services indicators. This indicator is considered after amenities because they are supporting services that can increase comfort, safety, service quality, tourist attraction, and support sustainable tourism development [30].

4. Discussion

From the indicator mapping process using 8 taxonomic stages, namely through determination with project stakeholders, stakeholder data collection, project goal determination, approach design, communication plan development, governance process planning, principal management, and taxonomic facet analysis then, the indicators are obtained and then continued with weighting with AHP. The use of AHP is carried out because, in this research, it only weights each indicator, so in the following section, we will explain the use of procedures from the results of the discussion that has been explained.

4.1. Use of Procedures

The usage procedure will be carried out by classifying based on scores 1 to 4 [30]. The grouping of categories based on superior, mainstay, development and potential types, as well as assessment, is carried out in two parts: the evaluation of human resources and indicators of the tourism environment, attractions, amenities, accessibilities, activity, accommodation, and ancillary services. The indicator rating table can be seen in the Appendix A. The classification for determining tourism potential is as follows:

1. In the superior category, nature tourism is a tourism object with a main attraction and has been widely recognized. It is usually well-developed and has complete facilities, good infrastructure, quality accommodation, complete supporting facilities, and various activities. The value range for HR is $3-12$, and the score for the combined indicators of the tourism environment, attractions, amenities, accessibilities, activity, accommodation, and ancillary services is $145-192$.
2. Nature tourism in the mainstay category is tourism that has less good or comprehensive facilities than superior tourism and still needs improvement. The value range for HR is $3-12$, and the score for the combined indicators of the tourism environment, attractions, amenities, accessibilities, activity, accommodation, and ancillary services is $97-144$.
3. Nature tourism in the development category is planned to be developed into a mainstay tourist object. Still, it requires investment and efforts to build infrastructure, accessibility, and supporting facilities because they are still limited. The value range for HR is $3-12$, and the score for the combined indicators of the tourism environment, attractions, amenities, accessibilities, activity, accommodation, and ancillary services is $49-96$.
4. Nature tourism is in the category of tourism that has the potential to be developed as a tourist object. This tourism object can be said to be a new tourist object, so it is not yet well known by the public, and as a component of tourism, it is still minimal. The value range for HR is $3-12$, and the score for the combined indicators of the tourism environment, attractions, amenities, accessibilities, activity, accommodation, and ancillary services is 48.

4.2. Model Testing

Verification will be carried out by checking the suitability of the model and the needs that have been defined at the beginning. The beginning of development defined the requirements and whether the existing models within those needs were met. This research has fulfilled the availability of stakeholder map designs and business activities, documentation and writing of information on indicators of determining natural tourism potential, input-output maps, taxonomic models with a structured classification basis, and literature studies for each indicator in the procedure.

The validation carried out is validation with internal parties carried out by meeting with stakeholders in the field of tourism destinations representing the Cultural and Tourism Office of Rembang Regency, which states that the proposed model can be used in determining the potential of natural tourism in the future and accordance with the circumstances. In addition to internal party validation, validation is carried out with external parties with a tourism expert who is considered well-acquainted with tourism in Rembang Regency in general and specifically. The validation process with external parties by looking at the results of knowledge classification modeling indicators

determining the potential of natural tourism to assist the Rembang Regency Culture and Tourism Office.

4.3. The Role of Facet Analysis

Facet analysis plays a key role in the development of a knowledge taxonomy because it is the stage that defines a structured grouping of information and knowledge in a design model. These aspects form a classification of indicators for determining natural tourism potential, taking reference points from each of the 6A indicators such as Attractions, Amenities, Accommodation, Activities, Accessibility and Ancillary Services, environment and human resources. By carrying out this classification, it is hoped that the taxonomy model can be applied effectively to facilitate the search for and access to relevant knowledge in disseminating natural tourism potential. Facet analysis is carried out by breaking down knowledge into certain classes, which are organized in four sequential levels, forming a strong framework for navigation and information retrieval in the context of determining natural tourism potential.

4.4. Taxonomic Role

By using taxonomic mapping in determining indicators of natural tourism potential, taxonomy has a helpful role in mapping indicators for determining natural tourism, namely, providing a clear and structured structure in organizing indicators, being able to carry out in-depth classification and having levels to organize indicators or being able to group indicators based on certain criteria, making it easier for data management to organize and store information regarding indicators for determining natural tourism potential.

4.5. Benefits That Can Be Obtained by the Organization

The benefits obtained by the organization are. First, Knowledge Sharing with this model can improve the quality of organizational knowledge management. With knowledge sharing, employees can share Knowledge to facilitate work later, especially in determining tourism potential, which will increase understanding and convenience for employees. Sharing Knowledge is an alternative to prevent the loss of information and Knowledge within the organization. This design is hoped to facilitate sharing and increase awareness of information and knowledge assets. This design can also assist in making thoughts or ideas into information that can be disseminated to other employees. Second, improve the quality of decision-making in solving problems regarding needs in determining the natural tourism potential that the organization will face, so this design can help provide solutions in the form of indicators made in procedures with the help of taxonomic models. Third, by increasing productivity, organizations can increase the effectiveness in determining natural tourism potential because information and Knowledge regarding the indicators needed are better documented and structured to be easy to use in supporting activities for determining natural tourism potential. In addition, there is an increase in work efficiency due to savings in time and effort in using and accessing information and Knowledge regarding the determination of natural tourism potential, which indirectly increases productivity because it is effective and efficient. The four contributions, the contribution to this research is to avoid mistakes in determining natural tourism potential because there are indicators that will indirectly improve the quality for decision making with the support of information and Knowledge that is relevant and easy to obtain and indirectly helps increase tourism in Rembang Regency in line with its objectives, namely increasing the quality of tourism attractions and attractions or events and developing leading tourism destination objects and developing potential new tourist objects.

4.6. Implications of Research Results

The theoretical implication of this research is to contribute to the tourism sector to assist in determining natural tourism potential through indicator mapping based on the 6A indicators, namely Attraction, Amenities, Accommodation, Activity, Accessibility, and Ancillary Services, as

well as Tourism Environment and Human Resources. This research produces a procedure, a series of structured and organized steps or actions designed to achieve certain goals. In determining tourism potential, the procedure has several benefits. It can assist in the decision-making process and development of tourist destinations that will be used as a procedure for determining natural tourism potential.

The managerial implication of this research is that based on the results of indicators that are mapped and become a procedure based on assessment categories; if tourism is included in the superior category, the government can maintain the quality of facilities, infrastructure, hotels and other supporting facilities to be able to provide satisfaction to tourist visitors, if tourism is included in the Mainstay category, make improvements to facilities that do not comply with standards, if tourism is included in the development category, the government requires more effort in developing infrastructure, accessibility and facilities so that visitors can feel comfortable visiting the tourist location, if tourism has the potential to be developed into a tourist attraction. Then the government needs to carry out development for accessibility and infrastructure and promote it because, in this category, tourist locations are still not yet known to visitors. If tourism has the potential to be developed into a tourist attraction, then the government needs to develop accessibility, and infrastructure and promote it because in this category, tourist locations are still not yet known for attracting visitors.

Involving stakeholders in making indicators for determining tourism potential into a procedure enables a collaboration process with parties responsible for tourism development by implementing open innovation dynamics such as open collaboration, introduction, knowledge exchange, cooperation, use of technology, adaptation, community involvement and improved services that can strengthen the determination of natural tourism potential and spur the sustainability and competitiveness of tourism destinations.

5. Conclusions

A taxonomic model has been designed to classify indicators for determining natural tourism potential: Attraction, Amenities, Accommodation, Activity, Accessibility, and Ancillary Services, as well as Environment and Human Resources. Classification of indicators of natural tourism potential is needed to carry out a taxonomy regarding determining natural tourism potential. After the model classification, weighting will be done using an analytical hierarchy process to see which indicators have the most correct weights. In this research, procedures were designed to determine areas that have the potential for natural tourism so that they have standardization tailored to the needs of tourist locations. The results obtained are in the form of procedures.

Suggestions for future researchers are that before using this design model, the organization should communicate the benefits and importance of knowledge management and knowledge taxonomy for each employee and for the departments involved and for further research, they can use the model that has been designed to be able to enter the next taxonomy stage of system development. Complete knowledge management for the Culture and Tourism Office of Rembang Regency and procedural assessments can be carried out based on the needs of secondary and primary facilities for each tourist location. It can categorize tourism as having no potential.

Appendix A

Procedure for Determining Natural Tourism Potential Human Resources Indicators

Indicator	Criteria	Description	Score
HR Competency	Knowledge	Knowledge of the environment and sustainability can help human resources in the field of tourism in developing nature tourism in a responsible and sustainable manner [6,23,32].	4: HR has in-depth and broad knowledge about the environment and sustainability and can become a leader in the development of responsible and sustainable nature tourism with various innovations and the latest solutions 3: Human resources have good knowledge about the environment and sustainability and can adequately implement responsible and sustainable natural tourism development practices 2: HR has a sufficient understanding of the environment and sustainability but still requires improvement in implementing responsible and sustainable natural tourism development practices 1: HR has limited or minimal knowledge about the environment and sustainability in the context of responsible and sustainable nature tourism development
	Communication skills	Communication skills in Human Resources [33]. The skills possessed by human resources in the field of tourism, such as the ability to communicate well, can improve the ability to provide information to relevant parties in determining natural tourism.	4: Human resources in the field of tourism have adequate skills in communicating and providing information to relevant parties in determining nature tourism. They have excellent communication skills and can provide precise information to related parties. 3: Human resources in the field of tourism have adequate skills in communicating and providing information to relevant parties in determining nature tourism. They can communicate well and provide clear information to related parties 2: Human resources in the field of tourism have adequate skills in communicating and providing information to relevant parties in determining nature tourism. However, there are still deficiencies in the ability to communicate and provide appropriate information to related parties 1: Human resources in the field of tourism need to improve their skills in communicating and providing information to related parties in determining nature tourism. Poor communication skills, difficulty in providing clear and precise information to related parties
Education	Education and training	There is appropriate education and training that can improve the quality of human resources in the field of tourism and assist them in facing global challenges	4: There is adequate education and training to improve the quality of human resources in the tourism sector. There is a strong focus on meeting global challenges by developing creativity, innovation, and practical solutions

	that require creativity, innovation, and solutions [34]		3: There is adequate education and training to improve the quality of human resources in the tourism sector. Efforts are made to help them face global challenges by encouraging creativity, innovation, and solutions
			2: The education and training provided are limited and only cover some aspects needed to improve the quality of human resources in the tourism sector. There needs to be a clear focus on facing global challenges that require creativity, innovation, and solutions.
			1: No education and training are organized to improve the quality of human resources in the tourism sector. There is no effort to help them face global challenges that require creativity, innovation, and solutions

Procedure for Determining Natural Tourism Potential Environmental Indicators

Indicator	Criteria	Description	Score
Land Ownership Status	Legal ownership of land certificates at each tourist location	Legal ownership of land certificates at each tourist location [35]. Land certificates at tourist sites have an important role in supporting the development of natural tourism by guaranteeing investment security and preventing conflicts	4: There is an excellent legal title to the land for tourism. Land use certificates cover all used land as well as unused land
			3: There is legal ownership of land certificates for tourism. Land use certificates cover land that is used only, but land that has yet to be used as a tourism expansion can be processed by fulfilling certain conditions.
			2: Several valid land certificates exist, but only for the land used.
			1: There needs to be a legal land title for tourism. No land use certificate covers land that is used or land that has not been used
	There is a land use permit	There is a land use permit from a Central Government Agency at each tourist location [36]. Land use permits in tourist areas are essential in supporting the development of nature tourism by preventing conflicts, maintaining environmental sustainability, improving management quality, and increasing tourist confidence. Complete requirements such as obtaining permits from government agencies, permits from landowners if occupying someone else's land, community/neighbor permits, and EIA	4: There is a complete and eligible land use permit for tourism. Permits include all necessary permits, including permits from government agencies, permits from land owners, community/neighbor permits, and EIA
			3: There is a land use permit, but one needs to be added to qualify for tourism.
			2: There are limited complete and eligible land use permits for tourism. Permissions do not cover all required permissions
			1: There needs to be a complete and eligible land use permit for tourism. Permits do not include licenses from government agencies, permits from landowners, community/neighbor permits, and EIA
EIA for Tourism Area	No potential for environmental damage	No potential for environmental damage (increased floods, landslides, droughts, and/or forest and land fires) [37].	4: The tourism area has no potential for significant environmental damage. No, or very rarely, damage in tourist areas. There is an effective and proactive management system for dealing with these risks.
			3: The risk of damage to tourism areas can be adequately controlled. There are preventive and

mitigation measures taken to reduce environmental damage.

2: There were several incidents of damage in the tourist area. Despite efforts to reduce the damage, there are still significant risks

1: The level of environmental damage is very high. There is regular and severe damage in the tourist area. No attempt was made to prevent or mitigate the damage

No potential impact in the form of waste	No potential impact in the form of waste [36].	4: The tourist area has a minimal waste impact. There is an effective and innovative waste management system, such as waste reduction policies, recycling programs, and active community participation in keeping the environment clean	
		3: Waste management in tourist areas has been carried out quite well. There are adequate waste management facilities and systems, such as trash cans available in various locations, waste segregation, and waste reduction programs	
		2: There are several problems related to waste handling in tourist areas. Despite efforts to manage waste, there still needs to be adequate landfills or a lack of effective waste management facilities.	
		1: The tourism area needs help with waste handling. There is an uncontrolled accumulation of waste and no effective waste management system. Trash is scattered around the tourist area and has the potential to pollute the environment	

Procedure for Determining Natural Tourism Potential Accessibilities Indicators

Indicator	Criteria	Description	Score
Transportation	The tourist area can be traversed by various modes of transportation.	The tourist area can be traversed by modes of transportation such as two-wheeled, four-wheeled, to more than four-wheeled easily without obstacles with excellent and comfortable access. Ease of tourist areas for transportation modes to pass through so that tourists can go to the intended tourist location [38].	4: The tourist area is effortless to pass by this mode of transportation with excellent access and is convenient for vehicle users.
			3: Tourist areas can be adequately traversed using modes of transportation with smooth access and minimal obstacles
			2: The tourist area can be traversed by any mode of transportation, but access is limited. There are certain obstacles obstacles
			1: The tourist area is impassable by any mode of transportation, or access is very limited and difficult
	There are airports around the tourist area	There are airports around the tourist area. Travel can be done if there is a means to reach the place, such as an airplane [38]. Tourists with excellent transportation access can reach the airport, is comfortable, and can be achieved using various transportation.	4: There is excellent and convenient transportation access to airports in tourist areas so tourists can easily reach them. It can be achieved using local public transportation such as buses or by using a taxi or private vehicle with a short travel time
			3: There is adequate transportation access to airports in tourist areas so that tourists can easily reach them. Public transportation such as bus, tram, or train connecting may be required to achieve the location. This distance may require a slightly longer travel time
			2: There is transportation access to the airport in tourist areas, but there are still obstacles or difficulties. With limited transportation access in

		the use of public transportation such as connecting trains, express buses, or taxi services
		1: There must be adequate transportation access to airports in tourist areas, making it difficult for tourists to reach them.
There are train stations around the tourist area	There are train stations around the tourist area. Travel can be done if there is a means to reach the place, such as a train [38]. Tourists with excellent transportation access can reach the station, which is comfortable, and can be achieved using various transportation.	4: There is excellent and convenient transportation access to train stations in tourist areas so tourists can quickly reach them. It can be achieved using local public transportation such as buses or by using a taxi or private vehicle with a short travel time
		3: There is adequate transportation access to train stations in tourist areas so tourists can easily reach them. Public transportation such as bus, tram, or train connecting may be required to achieve the location. This distance may require a slightly longer travel time
		2: There is transportation access to the train station in the tourist area, but there are still obstacles or difficulties in reaching it. With limited transportation access in the use of public transportation such as connecting trains, express buses, or taxi services
		1: There must be adequate transportation access to train stations in tourist areas, making it difficult for tourists to reach them.
There are terminals around the tourist area	There are terminals around the tourist area. Travel can be done if there is a means to reach the place, such as a terminal [38]. The terminal can be reached by tourists with excellent transportation access, comfortable and can be reached by using various transportation	4: There is excellent and convenient transportation access to terminals in tourist areas so tourists can easily reach them. It can be achieved using local public transportation such as buses or by using a taxi or private vehicle with a short travel time
		3: There is adequate transportation access to terminals in tourist areas so that tourists can easily reach them. Public transportation such as bus, tram, or train connecting may be required to achieve the location. This distance may require a slightly longer travel time
		2: There is transportation access to the terminal in the tourist area, but there are still obstacles or difficulties in reaching it. With limited transportation access in the use of public transportation such as connecting trains, express buses, or taxi services
		1: There needs to be adequate transportation access to terminals in tourist areas, making it difficult for tourists to reach them.
There are sea ports around the tourist area	There is a harbor around the tourist area. Travel can be done if there is a means to reach the place, such as a port [38]. The terminal can be reached by tourists with excellent transportation access, comfortable and can be reached by using various transportation	4: There is excellent and convenient transportation access to ports in tourist areas so tourists can easily reach them. It can be achieved using local public transportation such as buses or by using a taxi or private vehicle with a short travel time
		3: There is adequate transportation access to ports in tourist areas so that tourists can easily reach them. Public transportation such as bus, tram, or train connecting may be required to achieve the location. This distance may require a slightly longer travel time
		2: There is transportation access to the port in the tourist area, but there are still obstacles or

			difficulties in reaching it. With limited transportation access in the use of public transportation such as connecting trains, express buses, or taxi services
			1: There is no adequate transportation access to ports in tourist areas, making it difficult for tourists to reach them.
	There is public transportation to the tourist area	There is public transportation around the tourist area. Travel can be done if there is a means to reach the place, such as public transportation [38]. Availability of public transportation with views of public transport passing by.	4: There are many public transports available, and they pass frequently 3: Sufficiently available public transport and frequent pass 2: Public transportation is limited and rarely passes 1: There is no public transport
Road Conditions	Ease of Road Access	The tourist area has been paved or cast properly, has no holes, is very wide, and is very comfortable to pass so that tourists can reach their destination [24,26].	4: The road to the tourist location is in excellent condition, has been paved or appropriately cast, has no potholes, is very wide, and is very comfortable to travel at high speed. 3: The road to the tourist location is in good condition, has been paved or cast, has no potholes, and is wide enough so that it can be passed comfortably and relatively quickly 2: The road to the tourist location needs to be in better condition. Some parts may not be asphalted or have potholes, but they can still be traversed even with a few obstacles. 1: The road to the tourist site needs to be in better condition, unpaved, potholed, narrow, or inadequate, making it difficult to pass and taking a long time.
Ease of tourist access	Tourists can easily access other tours from tourist sites	Tourists can easily access other tours from tourist sites. Ease of access to other tours from tourist sites can increase tourist visits to a destination. Tourists can use their time more effectively and visit more attractions [39]. Conditions for access to other tourist sites can be reached very easily, there is good transportation access with several choices of modes of transportation, and there are rest area facilities to reach other tourist locations.	4: Tourists can very easily access other tours from tourist sites. There is excellent transport access, with various options and short travel times. There is also an adequate and comfortable rest area as a place to rest on the way to tourist sites. 3: Tourists can easily access other tours from tourist sites. Excellent and adequate transportation access enables a comfortable and efficient trip. Several rest areas are also available to rest on the way to tourist sites. 2: Tourists need help accessing other tours from tourist sites. Although it is still possible to reach other tourist locations, there are some obstacles or limitations in the available transportation access. There are several public rest areas, but not sufficient 1: Tourists need help accessing other tours from tourist sites. Adequate transportation access is not available, and significant obstacles exist to reach other tourist sites. There is no rest area open for rest

Procedure for Determining Natural Tourism Potential Activity Indicators

Indicator	Criteria	Description	Score
Variety of activities and events	Activities and events that can be enjoyed by tourists at each tourist location	There are activities and events that can be enjoyed by tourists at each tourist location. Activities can be Swimming, sports, surfing, sunbathing, enjoying the scenery, research, etc [40]. Interesting activities or activities can increase tourist attractiveness [41]. This can make tourists interested in visiting these tourist sites and spending longer time at tourist sites. There are events held in tourist areas periodically. This event is considered to have an attraction that can bring in tourist [42].	4: There are > 4 activities and events that can be enjoyed by tourists at each tourist location (Such as swimming, sports, surfing, sunbathing, enjoying the scenery, research, etc.) 3: There are activities 3 - 4 and events that can be enjoyed by tourists at each tourist location (Such as swimming, sports, surfing, sunbathing, enjoying the scenery, research, etc.) 2: There are two activities and events that can be enjoyed by tourists at each tourist location (such as swimming, sports, surfing, sunbathing, enjoying the scenery, research, etc.) 1: There is one activity that can be enjoyed by tourists in each tourist location (such as swimming, sports, surfing, sunbathing, enjoying the scenery, research, etc.)

Procedure for Determining Natural Tourism Potential of Accommodation Indicators

Indicator	Criteria	Description	Score
Lodging	Hotels in tourist areas	There are hotels in tourist areas. as a means of accommodation by providing the best possible service by seeing that the inn is well maintained. Standard for hotel rooms [43]: 1. Number of 1-star hotel rooms in tourist areas ≥ 15 2. Number of 2-star hotel rooms in tourist areas ≥ 20 3. Number of 3-star hotel rooms in tourist areas ≥ 30 4. number of 4-star hotel rooms in tourist areas ≥ 50 5. Number of 5-star hotel rooms in tourist areas ≥ 100	4: There are many choices of hotels in the tourist area, with sufficient rooms to meet star hotel standards. Travelers have many options in choosing hotels according to their preferences and quality standards, with adequate variation in the number of rooms available. 3: There are several hotel options in the tourist area, with sufficient rooms to meet hotel star standards. Tourists have several options in terms of hotel choices and an adequate number of rooms to meet the needs of tourists 2: There are several hotel options in the tourist area, but the number of available rooms still needs to be increased and meet hotel star standards. Travelers have limited options and may have to accommodate the needs of travelers with limited availability. 1: There are no or very few hotel options in the tourist area, with the number of rooms far below star hotel standards. Travelers have few or no options to choose a hotel according to their preferences and quality standards to their preferences and quality standards
	Guest house in tourist area	There are guest houses in tourist areas. There are a number of guest house rooms in tourist areas ≥ 4. the number of guest house rooms according to the stars has a minimum standard that must be met [44].	4: There are many choices of guest houses in the tourist area, with a sufficient number of rooms for guest house standards. Tourists have many options in choosing a guest house that suits their preferences and quality standards, with adequate variation in terms of the number of rooms available 3: There are several choices of guest houses in the tourist area, with sufficient rooms to meet guest house standards. Tourists have several options in terms of the selection of guest houses and an adequate number of rooms to meet the needs of tourists 2: There are several choices of guest houses in the tourist area, but the number of rooms available still

needs to be increased and meet guest house standards. Tourists have limited options and may have to accommodate the needs of tourists with limited availability

1: There are no or very few guest house options in the tourist area, with the number of rooms far below guest house standards. Travelers have little or no options to choose a guest house according to their preferences and quality standards

| | Homestay in a tourist area | There are homestays in tourist areas. As a means of accommodation by providing the best possible service by seeing that the inn is well maintained. There are a maximum number of homestay rooms in tourist areas ≥ 1, a maximum of 5 rooms. The number of homestay rooms according to the stars has a minimum standard that must be met. This is important because it can affect the quality of service and the comfort of guests staying at the homestay [45]. | 4: There are many homestay options in the tourist area, with sufficient rooms for homestay standards. Travelers have many options in choosing homestays that suit their preferences and quality standards, with adequate variation in terms of the number of rooms available

3: There are several homestay options in the tourist area, with enough rooms to meet homestay standards. Tourists have several options in terms of homestay choices and an adequate number of rooms to meet the needs of tourists

2: There are several homestay options in the tourist area, but the number of rooms available still needs to be increased and meet homestay standards. Travelers have limited options and may have to accommodate the needs of travelers with limited availability.

1: There are no or very few homestay options in the tourist area, with the number of rooms far below homestay standards. Travelers have few or no options to choose a homestay that suits their preferences and quality standards. |

Procedure for Determining Natural Tourism Potential Amenities Indicators

Indicator	Criteria	Description	Score
Facility	Places to eat / restaurants in tourist areas	There are places to eat / restaurants in tourist areas with well-maintained conditions [46]. eateries in tourist areas are important for meeting the basic needs of tourists, enriching the culinary experience of tourists, and having a positive impact on the local economy.	4: There are many choices of places to eat/restaurants in tourist areas. Tourists can choose a place to eat that suits their tastes and needs. The variety of the menu and the quality of the food offered is quite adequate. 3: There are many dining options/restaurants in tourist areas. Tourists have various menu choices and types of food, making it possible to choose according to tourist preferences. 2: There are several choices of places to eat/restaurants in tourist areas, but the number still needs to be increased. Travelers may have to overcome limitations in the variety of menus or the quality of food offered 1: No or very few dining options/restaurants in tourist areas. Tourists need help finding places to eat that suit their preferences and needs.
Facility	Souvenir shop in tourist area	There are souvenir shops for tourists to shop in tourist areas with a variety of products on offer [46]. souvenir shops become a source of income, increase tourist attractiveness, improve	4: Many souvenir shops in tourist areas have a wide selection of products. Tourists have many options for choosing souvenirs according to their tastes and needs. 3: There are a fair number of souvenir shops in tourist areas. Tourists have several choices of

		service quality, and enhance the tourist experience [47]	souvenir products that are pretty diverse, although there are still some limitations
			2: There are several souvenir shops in tourist areas, but the number still needs to be increased. The choice of souvenir products is limited and needs to be more diverse.
			1: There are very few or no souvenir shops in tourist areas. The choice of souvenir products is minimal and does not meet tourist expectations
	Provider of tour packages in tourist areas	There are tour packages in tourist areas [38]. Tour packages in tourist areas are packages offered to tourists who want to visit and explore certain tourist areas with the facilities provided, such as travel to tourist sites, transportation, and the provision of food for travel.	4: There are many choices of attractive and varied tour packages in tourist areas, which include trips to several tourist sites, transportation to visit destinations, and food provision during the trip
			3: Several tour package options include trips to several tourist sites, transportation to visit destinations, and food provision during the trip
			2: There are few or limited tour packages available in tourist areas which include trips to several tourist sites, transportation to visit destinations or provision of food during the trip
			1: There are no tour packages available in tourist areas that include trips to several tourist sites, transportation to visit destinations or provision of food during the trip
Infrastructure	Places of worship in every tourist location	There are places of worship in every tourist location. The importance of places of worship for tourists so they can worship comfortably and quietly without having to look for places of worship that are far from tourist sites [48].	4: There are adequate places of worship at each tourist location. Tourists have easy access and proper facilities for worship
			3: There are several places of worship in tourist sites that are sufficient to meet the needs of tourists. Facilities for places of worship are adequate, although there are still some limitations
			2: There are several prayer rooms at tourist sites, but the number of facilities is limited. Tourists may experience difficulties in finding a suitable and comfortable prayer room
			1: There are several prayer rooms at tourist sites, but the number of facilities is limited. Tourists may experience difficulties in finding a suitable and comfortable prayer room
	Toilets / MCK at every tourist location	There are clean toilets / MCK at every tourist location. With the toilet is [49]. Adequate toilets at tourist sites are very important to meet the basic needs of tourists and there are disabled / disabled toilets. Physical limitations should not rule out opportunities for friends with disabilities to travel. It is appropriate for disabled-friendly tourism to begin to be encouraged to make it easier for persons with disabilities/disabilities to carry out activities in	4: Each tourist location has clean and adequate toilets/MCK. Toilet/MCK facilities are well maintained, equipped with clean water, soap, toilet paper, and other supporting facilities. In addition to public toilets, there are toilets for the disabled/disabled.
			3: There are several toilets/MCK at tourist sites that are clean and sufficient to meet the needs of tourists. However, there is still room for improvement and improvement of facilities
			2: There are several toilets/MCK at tourist sites, but the conditions must be cleaner and adequate.
			1: There are no toilets/MCK at tourist sites, and the conditions could be cleaner and more adequate. Tourists experience difficulties in finding proper toilet/MCK facilities

	various tourist destinations [50].	
Base Transceiver Station in tourist area	There is a Base Transceiver Station in the tourist area (Forestry Department, 2003). BTS can improve the quality of tourist services by providing a stable and fast telecommunication network. The closer the user is to the BTS, the stronger the signal received, so visitors can enjoy better connectivity with higher speed and stability.	4: There is a Base Transceiver Station in the tourist area (with a permit distance of 50 meters from the location) 3: There is a Base Transceiver Station in the area (with a permit distance of 100 meters from the location)) 2: There is a Base Transceiver Station in a tourist area (with a permit distance >= 100 meters from the location) 1: There is a Base Transceiver Station in the tourist area (with a distance >= 200 meters)
Electrical network in tourist areas	There is a power grid in the tourist area [51]. Adequate electricity networks can increase tourist comfort by providing facilities that require electricity, such as air conditioning, lights, and charging gadget.	4: There is a highly available power grid in tourist areas. All tourist areas are connected to the electricity grid, and complete and safe electrical facilities are available throughout the area 3: There is an adequate power grid in tourist areas. The majority of tourist areas have been connected to the electricity network so that sufficient electricity facilities are available for the needs of visitors and tour managers 2: There is a limited power grid in tourist areas. Only a tiny part of the area is connected to the electricity network, so there are very few facilities or electricity points available 1: There is no electricity network available in the tourist area. There is no electricity supply connected to the site, and there are no electricity facilities that can be used by visitors or tour operators
Internet network in tourist areas	There is an internet network in the tourist area (minimum 3G because now you are using the internet) (Forestry Department, 2003)	4: There is an internet network in tourist areas (with a 4G network with a speed of 100 Mbps) 3: There is an internet network in tourist areas (with a 4G/3G network with a speed (of 2 Mbps – 100 Mbps) 2: There is an internet network in the tourist area (with a 3G network with a speed of 2 Mbps) 1: There is an internet network in the tourist area (with a 3G network with a speed of 65 Kbps – 2 Mbps)
Availability of clean water in tourist areas in tourist areas	There is availability of clean water to meet the needs of tourists, meaning that clean water must be available [23].	4: There is availability of clean water in tourist areas (can be used directly) 3: There is availability of clean water in tourist areas (requires simple treatment) 2: There is availability of clean water in tourist areas (requires chemicals) 1: water availability is not feasible
Drainage/water channels in tourist areas	There are drainages/water channels in tourist areas (Forestry Department, 2003). Drainage in tourist areas needs attention to	4: The tourism area has an excellent drainage/drainage system. Drainage is well-designed and combined with regular maintenance efforts. There are no significant waterlogging or disposal problems

28

	support the development of natural tourism by preventing flooding, preventing erosion, and maintaining cleanliness	3: There is adequate drainage/drainage in most tourist areas. Some areas still have a waterlogging problem, but the drainage/drains are in good condition overall.
		2: There are several drainages/waterways in the tourist area, but there are still some areas that are prone to waterlogging or sub-optimal discharge, and an increase in the maintenance and repair of channels is required
		1: There needs to be more drainage/drainage in the tourism area. This can lead to stagnant water or irregular discharge, inconveniencing visitors, and potential hygiene problems.
Parking area at each tourist location	There are parking areas at each tourist location that can be used by cars, buses and motorbikes [52]	4: There are parking areas at each tourist location (cars, buses, motorcycles can be parked)
		3: There is a parking area at each tourist location (only cars and motorbikes)
		2: There are parking areas at each tourist location, quite narrow but easy to park (only motorbikes or two wheels)
		1: Not available
ATM in tourist area	There is an ATM in the tourist area. Adequate ATMs and banks can improve the quality of tourist services by providing adequate facilities for tourists who need cash or make other financial transactions. This can provide a better experience for tourists and increase tourist satisfaction with the tourism services provided [46]	4: There are many choices of ATMs available around the tourist area. Visitors have easy access to various ATMs with a complete range of services
		3: There are several ATM options available around the tourist area. Visitors can easily find several ATMs to carry out financial transactions
		2: Several ATMs are available around the tourist area, but the number is limited. There are only one or two ATMs that visitors around the tourist area can access
		1: no ATM available in the tourist area. Visitors cannot find ATMs around tourist areas to make financial transactions
health clinics/puskesmas in tourist areas	There is a health clinic / health center in the tourist area. Clinics / health centers in tourist areas are important to provide emergency medical treatment, routine health services, medical consultations, and support tourist safety [53]. Available clinics at least have emergency treatment rooms, complete medicines and medical equipment, emergency communication access available, and friendly facilities for persons with disabilities.	4: A health clinic or health center around the tourist area provides a complete range of health services. There is an emergency treatment room, adequate medicines and medical equipment, fast access to emergency communications, and friendly facilities for persons with disabilities.
		3: A helth clinic or health center around the tourist area provides a relatively complete range of health services. There is an emergency treatment room, adequate medicines, and medical equipment, access to emergency communications is available, and access for persons with disabilities has been well cared for.
		2: There is a health clinic or health center around the tourist area, but the health services are limited. Some services may be incomplete, medicines and medical equipment are limited, and accessibility for persons with disabilities is limited
		1: There are no health clinics or puskesmas around the tourist area. Travelers experience difficulties in obtaining necessary health services, and access to emergency care is limited or non-existent

Pharmacy in tourist area	There is a pharmacy in the tourist area [38]. The availability of pharmacies in tourist areas is very important in emergency management, drug accessibility, health consultations, maintaining public health, and providing a sense of security and comfort for tourists. With a pharmacy, tourists can get the health care and support they need during their trip	4: There are pharmacies available around the tourist area with effortless access. Visitors can easily find a pharmacy with a complete and varied stock of medicines, including drugs that are commonly used and particular medicines that may be needed 3: Several pharmacies around the tourist area can be accessed relatively quickly. The drug stock provided is quite complete and varied, although there may be some limitations in certain types of drugs. 2: There are several pharmacies around the tourist area, but access is limited. Visitors may face difficulties in finding available pharmacies, and complete drug stocks may not always be guaranteed 1: There are no pharmacies around the tourist area. Visitors experience difficulties in obtaining necessary medicines, and access to nearby pharmacies is limited or non-existent
There are vehicle refueling / petrol stations in the tourist area	There are vehicle refueling / petrol stations in the tourist area. Adequate gas stations can improve the quality of tourist services by providing adequate fuel for tourist vehicles [54]	4: There are many choices of petrol stations available around the tourist area. Visitors have easy access to various fueling stations which have sufficient fuel stocks and adequate facilities 3: There are several gas station options available around the tourist area. Visitors can easily find several gas stations to fill up their vehicles 2: There are vehicle refueling facilities around the tourist area, but the number is limited. There are only one or two gas stations that visitors around the tourist area can access 1: There are no vehicle refueling facilities in tourist areas. Visitors must leave the tourist area to find the nearest fueling station
Ramps for the disabled / disabled along the path at each tourist location	There is a ramp for the disabled / disabled along the route at each tourist location (has a maximum slope of 7 degrees). Physical limitations should not rule out opportunities for friends with disabilities to travel. It is appropriate for disabled-friendly tourism to begin to be encouraged to make it easier for persons with disabilities/disabilities to carry out activities in various tourist destinations [50].	4: There is a special ramp for the disabled/disabled on all routes at the tourist location, meeting the standard of a maximum slope of 7 degrees for optimal accessibility 3: There are special ramps for the disabled/disabled on most of the trails at the tourist site, covering the main areas visited by visitors 2: There are several special ramps for the disabled/disabled on the route at the tourist location, but they do not cover the entire route 1: There is no special ramp for the disabled/disabled on the route at the tourist location

Procedure for Determining Natural Tourism Potential of Ancillary Services Indicators

Indicator	Criteria	Description	Score
Information Services	Tourist information center services at each tourist location	There is a tourist information center service at each tourist location. An information center or information service that has its own office or room, has officers to serve tourists, and can provide accurate and effective information. This can help tourists in emergency situations and increase tourists' sense of security with good service (Tyas & Damayanti, 2018)	4: There is an excellent information center service at the tourist location, with adequate offices or rooms and professional and friendly staff to serve tourists. The information provided is very accurate and effective, with a fast response and helps in meeting the needs of tourists 3: There is an information center service at the tourist site, with adequate rooms or offices and sufficient staff to serve tourists. The information provided tends to be accurate and effective, but there may be some limitations in terms of availability and speed of service 2: There is an information center service at the tourist location, but with limited space or offices and only a few officers serving tourists. The information provided may not always be accurate and effective due to limited resources available 1: There is no information center service in the tourist area. Travelers cannot access accurate and effective information through dedicated offices or rooms and no staff is available to provide assistance
	explanation of tourist sites in the form of brochures / leaflets / posters / maps at each tourist location	There is an explanation of tourist areas in the form of brochures / leaflets / posters / maps at each tourist location. Brochures / leaflets / posters are useful for helping tourists to find out about the tourist sites visited [38]	4: There is an explanation of tourist areas in the form of brochures, leaflets, posters, or maps at each tourist location, providing complete and detailed information about tourist sites, including attractions, facilities, and routes that can be followed 3: There is an explanation of tourist areas in the form of brochures, leaflets, posters, or maps at most tourist sites, including basic information about the tourist sites 2: There are several explanations of tourist areas in the form of brochures, leaflets, posters, or maps at several tourist sites, but they do not cover all tourist sites 1: There is no explanation of the tourist area in the form of brochures, leaflets, posters, or maps at the tourist location
Tour guide	Tour guide at each tourist location	There are tour guides to provide information about tourist areas to tourists at each tourist location [38]	4: There are tour guides available at each tourist location, which provide tourists with comprehensive information about the tourist area, including history, culture, and attractions 3: There are tour guides available at each tourist location, which provide tourists with basic information about the tourist area 2: There are tour guides, but they are not always available at the tourist sites 1: There is no tour guide available at the tour location
Security posts	Security posts at tourist sites	Security posts for the availability of guard security posts, tourist sites that can guard vehicles and goods with good service to tourists at each tourist location [15]	4: There is an excellent guard security post at the tourist site. Guarding tourists' vehicles and belongings is carried out effectively and proactively, giving tourists a sense of security and confidence in the safety of their luggage 3: There are adequate and consistently available guard security posts at tourist sites. Safeguarding of vehicles and goods can be carried out well, although there are still some deficiencies in terms of monitoring and security

31

			2: There are guard security posts at tourist sites, but with a limited number and only sometimes available. Security of vehicles and belongings can become less than optimal, leaving room for security risks
			1: There is no guard security post at the tourist location. There is no one to guard tourists' vehicles and belongings, increasing the risk of loss or theft
Direction Sign	Direction Sign	There are guide signs distributed at certain points to go to tours at each tourist location to make it easier for tourists to visit the location [15]. With the criteria for guide signs being consistent, using common language, suitability of spelling rules, clearly legible, appropriate color settings for general information is green	4: There are many signs at the tourist site that meet all the criteria. Signs are consistent, use common language, follow spelling rules, are easy to read, and have appropriate color settings. These directional signs provide clear and adequate guidance for tourists
			3: There are a number of signs at the tourist site that meet most of the criteria. Signs tend to be consistent, use common language, conform to spelling rules, be legible, and have appropriate color settings
			2: There are several guide signs at tourist sites, but only a small number meet the criteria. Some signs may be consistent and use common language, but there are still deficiencies in spelling rules, clarity of writing, and color settings.
			1: There are no signposts at the tourist site or the signs do not meet the criteria. Inconsistent signs, using language that is not common, spelling is not according to the rules, difficult to read, and there is no appropriate color setting.
	Occupational Safety and Health signs at each tourist location	There are Occupational Safety and Health signs at each tourist location to provide instructions or signs of danger in tourist areas) as an effort to ensure tourism safety [55]. With the criteria for signs being consistent, using common language, suitability of spelling rules, clearly legible, appropriate color settings for warnings are yellow, and red for hazards [56].	4: Many Occupational Safety and Health signs at tourist sites meet all the criteria. Signs are consistent, use everyday language, follow spelling rules, are easy to read, and have appropriate color settings. This sign provides clear and adequate information regarding occupational safety and health in tourist areas.
			3: There are several Occupational Safety and Health signs at tourist sites that meet most of the criteria. Signs tend to be consistent, use everyday language, conform to spelling rules, be legible, and have appropriate color settings
			2: There are several Occupational Safety and Health signs at tourist sites, but only a few meet the criteria. Some signs may be consistent and use everyday language, but there still needs to be improvement in spelling rules, clarity of writing, and color settings for warnings.
			1: No Occupational Safety and Health signs at tourist sites or signs that do not meet the criteria. Inconsistent signs, using language that is not common, spelling not according to the rules, challenging to read, and no appropriate color setting.
	Gathering point signs at each tourist location	There are gathering point signs at each tourist location [35]. These signs are used to make it easier for tourists to gather. With the criteria for gathering point signs being consistent, using common language, conformity to spelling rules, clearly legible, appropriate color settings for general information in green [56].	4: There are lots of assembly point signs at tourist sites that meet all the criteria. Signs are consistent, use everyday language, follow spelling rules, are easy to read, and have appropriate color settings. These assembly point signs provide clear and adequate information regarding assembly points in tourist areas
			3: There are several assembly point signs at the tourist site that meet most of the criteria. Signs tend to be consistent, use common language, conform to spelling rules, be legible, and have appropriate color settings.

2: There are several gathering point signs at tourist sites, but only a small number meet the criteria. Some signs may be consistent and use everyday language, but there still needs to be improvement in spelling rules, clarity of writing, and color settings.

1: No assembly point signs at the tourist site exist, or the existing signs need to comply. Inconsistent signs, using rare language, spelling not according to the rules, challenging to read, and no appropriate color setting.

Disaster signs / disaster information boards at each tourist location	There are disaster signs / disaster information boards at each tourist locatio [35]. With the criteria for disaster signs / disaster information boards are consistent, use common language, suitability of spelling rules, can be read clearly, appropriate color settings for warning are yellow, and for danger are red [56].	4: Many disaster signs/disaster information boards at tourist sites meet all the criteria. Signs are consistent, use everyday language, follow spelling rules, are easy to read, and have appropriate color settings. These signs provide clear and adequate information regarding disaster information. 3: There are several disaster signs/disaster information boards) at the tourist site that meets most of the criteria. Signs tend to be consistent, use everyday language, conform to spelling rules, be legible, and have appropriate color settings 2: There are several disaster signs/disaster information boards at tourist sites, but only a few meet the criteria. Some signs may be consistent and use everyday language, but there are still deficiencies in spelling rules, clarity of writing, and color settings for warnings. 1: No disaster signs/disaster information boards at the tourist site or the existing signs need to meet the criteria. Inconsistent signs, using language that is not common, spelling not according to the rules, challenging to read, and no appropriate color setting.
Evacuation route signs at each tourist location	Evacuation route signs at each tourist location to help tourists in emergencies with clear signs for tourists to follow [35]. These signs are used to make it easier for tourists to gather. With the criteria for gathering point signs being consistent, using common language, conformity to spelling rules, clearly legible, appropriate color settings for general information in green [56].	4: Many evacuation route signs at tourist sites meet all the criteria. Signs are consistent, use everyday language, follow spelling rules, are easy to read, and have appropriate color settings. These evacuation route signs provide clear and adequate information regarding gathering points in tourist areas 3: Several evacuation route signs at tourist sites meet most criteria. Signs are consistent, use everyday language, conform to spelling rules, be legible, and have appropriate color settings. 2: There are several evacuation route signs at tourist sites, but only a few meet the criteria. Some signs may be consistent and use everyday language, but there are still deficiencies in spelling rules, clarity of writing, and color settings. 1: No evacuation route signs at tourist sites or the existing signs do not comply. Inconsistent signs, using language that is not common, spelling not according to the rules, challenging to read, and there needs to be an appropriate color setting.
Signs to help the disabled / disabled with embossed signs / symbols at each tourist location	There are signs to help the disabled / disabled with embossed signs / symbols at each tourist location. Physical limitations should not rule out opportunities for friends with disabilities to travel. It is appropriate for disabled-	4: There are complete and clear embossed signs or symbols in all tourist areas, covering all areas that require visual assistance for persons with disabilities/disabilities and facilitating accessibility and navigation

friendly tourism to begin to be encouraged to make it easier for persons with disabilities/disabilities to carry out activities in various tourist destinations [50].	3: Signs or symbols are embossed in most tourist areas, providing clear and easy-to-read visual aids for persons with disabilities/disabilities
	2: There is one embossed sign or symbol provided, but it does not cover all areas that require visual aids for the disabled/disabled
	1: There are no embossed signs or symbols provided to assist persons with disabilities/disabilities at tourist sites

Procedure for Determining Natural Tourism Potential Attraction Indicators

Indicator	Criteria	Description	Score
Tourism Uniqueness	Tourist areas have tourism potential such as national park/ wildlife/ reserbes/ beaches/ sea/ mountains/ caves/ waterfalls/ lakes/ rivers	There is a national park in a tourist area with a wide enough area coverage so that it can support ecological processes with the uniqueness that exists - There is a diversity of wildlife - There is a unique diversity of plants - Has unique ecosystems such as rainforests, grasslands, savannas, or waters - There is cultural and historical uniqueness, there are historical relics, archaeological sites, or cultural heritage associated with the wildlife reserve	4: There are > 3 uniqueness 3: There are 3 uniqueness 2: There are 2 uniqueness 1: There is 1 unique
		There is a wildlife reserve in a tourist area that has - There is a diversity of wildlife which includes rare or endangered species - There is a unique diversity of plants - Has unique ecosystems such as rainforests, grasslands, savannas, or waters - There is cultural and historical uniqueness, there are historical relics, archaeological sites, or cultural heritage associated with the wildlife reserve	4: There are > 3 uniqueness 3: There are 3 uniqueness 2: There are 2 uniqueness 1: There is 1 unique
		There is a beach in the tourist area with own - The type and color of the sand seems to have the uniqueness of white sand - There are mangrove forests - There are plants that are unique to tourism such as the many pine trees - There is historical or cultural value	4: There are > 3 uniqueness 3: There are 3 uniqueness 2: There are 2 uniqueness 1: There is 1 unique
		There is a sea in the tourist area with natural beauty such as the diversity of flora and fauna - With a variety of fish - variety of sea coral	4: There are > 3 uniqueness 3: There are 3 uniqueness

- There are sea plants, - There is historical and cultural value	2: There are 2 uniqueness 1: There is 1 unique
There is a mountain in the tourist area with its own - There are landscapes that surround it such as rivers, waterfalls, craters - There are plant species that live in mountainous environments - There are animal species that live in the mountainous environment - There is historical or cultural value	4: There are > 3 uniqueness 3: There are 3 uniqueness 2: There are 2 uniqueness 1: There is 1 unique
There is a cave in the tourist area that has - There are lots of stalactites - There's a lot of salagnite - There is a clear travetine - There is historical value	4: There are > 3 uniqueness 3: There are 3 uniqueness 2: There are 2 uniqueness 1: There is 1 unique
There is a waterfall in the tourist area with its own - There is a uniqueness in the shape and size of the waterfalls as Some waterfalls are tall and steep, while others are wider and flow calmly - There is stunning natural beauty around, such as green and fresh forests, unique and natural rocks, and clear river water - there is a diversity of plants, animals and organisms that inhabit the environment. This includes epiphytic plants that grow on rocks or cliffs, fish that swim in waterfalls, birds that nest near them, and insects that live in the moist environment around waterfalls. - There is historical or cultural value	4: There are > 3 uniqueness 3: There are 3 uniqueness 2: There are 2 uniqueness 1: There is 1 unique
There is a lake in the tourist area with has - unique water color such as clear blue / green / red water - There are views that surround it such as hills, mountains, forests, - Each lake has a unique ecosystem with distinctive plant and animal life. Some lakes even have endemic species that are not found elsewhere. Tourists can explore and learn about the ecosystem of the lake, such as coastal vegetation, wildlife and ecological interactions that occur around the lake.	4: There are > 3 uniqueness 3: There are 3 uniqueness 2: There are 2 uniqueness 1: There is 1 unique

		- There is historical or cultural value	
		There is a river in the tourist area with has - clear river water - There are landscapes that surround it such as hills, mountains, forests, - There are aquatic plants, fish, water birds, reptiles, insects and small mammals can be found around the river - There is historical or cultural value	4: There are > 3 uniqueness 3: There are 3 uniqueness 2: There are 2 uniqueness 1: There is 1 unique
Cleanliness	Availability of trash cans at each tourist location	The existence of trash cans in reducing waste scattered in every tourist location with organic and anorganic types [49].	4: There are trash bins at every tourist point, segregated organic and anorganic 3: There are organic and anorganic waste bins, but not at all location points 2: There is a trash can but not separated between organic and anorganic 1: There are trash cans, but only 1 or 2 small amounts and not separated between organic and anorganic
	Vandalism in tourist areas	Vandalism in tourist areas (doodles, wild graffiti, vandalism, destruction and environmental pollution) [40]. if there is vandalism there are actions taken such as education or socialization, prevention in the form of supervision, and restoration actions to restore damaged tourist objects [57]	4: There is vandalism but socialization, prevention, and restoration actions will be carried out 3: There is vandalism but socialization and restoration will only be carried out

2: There is vandalism, but only restoration will be carried out

1: There is vandalism but socialization, prevention, and restoration are not carried out

Convenience	Clean air condition in tourist area.	Clean air condition in tourist area. With the level of cleanliness in tourist areas, in the range 1-50 it is said to be good (with particulate content of 50, sulfur dioxide 52, carbon monoxide 4000, ozone 120, nitrogen dioxide 80, hydrocarbon 45) µ/m3 [58].	4: There is no influence of industrial pollution in tourist areas; in the ISPU range 1-25, it is said to be good (Excellent air quality level, does not have a negative effect on humans, animals, or plants)

3: There is no influence of industrial pollution in tourist areas; in the ISPU range of 26-50, it is said to be good (Excellent air quality level, does not have a negative effect on humans, animals, or plants)

2: There is no influence of industrial pollution in tourist areas; in the ISPU range of 51-75, it is said to be moderate (The level of air quality is still acceptable for human, animal, and plant health)

1: There is no influence of industrial pollution in tourist areas; in the ISPU range of 76-100, it is said to be good (Air quality

		level is still acceptable for human, animal, and plant health)
The tourist area is free from noise	Tourist area free from noise ≤ 85 dB [59]. Noise needs to be considered at the location so as not to cause inconvenience or interfere with communication [60].	4: The tourist area is free from noise with a value of 50 – 70 dB
		3: Noise in tourist areas from 71 - 90 dB
		2: Noise in tourist areas from > 90 dB
		1: Noise in tourist areas from >= 100 dB

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