

## NATURAL ECOTOURISM DEVELOPMENT IN THE KRUENG GEUNIE LHOK KEUTAPANG AREA, PIDIE REGENCY

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**Abstract.** Objects and tourist attractions are one of the important elements in the world of tourism. Where objects and tourist attractions can succeed the government's program in preserving the nation's customs and culture as assets that can be sold to tourists and can improve welfare and community participation in preserving the development of a tourist area. The purpose of this study was to determine the priority factors in the development of ecotourism in the Krueng Geunie area. The benefits of this research are as a support and evaluation material for environmental-based tourism development and can create cooperation between the government and the private sector or managers in developing ecotourism in Pidie Regency. Data collection methods were carried out by means of observation, interviews with expert respondents, document studies and conducting Focus Group Discussions (FGD). The method used in this research is the Analytical Hierarchy Process (AHP) and the data is processed using expert choice software. Based on the results of the study, the weight structure of Krueng Geunie's natural ecotourism development criteria is in the first place, namely the socio-economic aspect criteria with a weighted value of 0.308. Then for the weight of the destination sub-criteria, the first rank is the tourism-aware group sub-criteria with a weighted value of 0.684. Furthermore, the weight of the alternative criteria in the first place is the development of the capacity of community elements with a weight value of 0.373.

**Keywords:** development; analytical hierarchy process; nature ecotourism; Krueng Geunie

### I. INTRODUCTION

The Analytical Hierarchy Process method was developed by Thomas L. Saaty, a mathematician. According to Saaty [1], there are three principles in solving problems with AHP, namely the principle of compiling a hierarchy (Decomposition), the principle of determining priorities (Comparative Judgment), and the principle of logical consistency (Logical Consistency). The hierarchy in question is a hierarchy of problems to be solved to consider the criteria or components that support the achievement of goals. In the process of determining goals and the hierarchy of objectives, it is necessary to consider whether the set of objectives and the relevant criteria are appropriate for the problem at hand. Objects and tourist attractions are one of the important elements in the world of tourism. Where objects and tourist attractions can succeed the government's program in preserving the nation's customs and culture as assets that can be sold to tourists. Tourist objects and attractions can be in the form of nature, culture, way of life and so on which have attractiveness and selling points to be visited or enjoyed by tourists. In a broad sense, anything that has a tourist attraction or attracts tourists can be called a tourist object and attraction.

Ecotourism development with joint management of the surrounding community can improve welfare and community participation in preserving the area (Purnama [2]). an essence, the health of an ecotourism destination and the health of its ecosystem go hand-in-hand since they coalesce to place a higher economic value on natural

landscapes than may be represented through land converted to other uses. This relationship is further emphasized through Boley's [3] recognition of tourism's role in creating market-based incentives that favor conservation rather than land conversion. Kennedy [4] states that true free markets help us "to properly value our natural resources, and it's the undervaluation of those resources that causes us to use them wastefully. It should be noted that this paper specifically labels this responsible travel to natural areas as ecotourism even though ecotourism suffers from a plethora of definitions (Donohoe & Needham [5]; Fennell [6]) and there are a multitude of other similar definitions and concepts to describe the phenomena such as sustainable tourism (e.g. Bramwell & Lane [7]; Hunter [8]), nature-based tourism (e.g. Mehmetoglu [9]), and geotourism (e.g. Boley, Nickerson, & Bosak [3]; Buckley [10]). Production assets in the concept of ecotourism management are natural resources and the environment which are still preserved. One of the natural attractions in Pidie Regency is Krueng Geunie which has a location in Lhok Keutapang Village, Tangse District with a travel time of approximately one hour. This place is one of the tourist destinations that is very often visited by various groups, be it with family on weekends, or with friends to hold meals together. Habits in this place, crowded with families who enjoy the beauty of unspoiled nature. Krueng Geunie is known for its cool weather, this tourist attraction also offers a million beautiful natural panoramas. With a shallow river with small rocks, of course, it is very suitable for bathing with friends or family, the cool water makes the body fresh. This makes Krueng Geunie, which is located at

the foot of Mount Tangse-Lhok Keutapang Pidie, visited by many people, especially before the fasting month.

The purpose of this study is to determine priority factors in the development of Krueng Geunie natural ecotourism because so far the area lacks socialization and approaches implemented by relevant agencies so that the management and regulation of tourist areas has not been maximized, therefore priority criteria factors are needed which later The right decision will be taken to serve as a priority factor in the development of the Krueng Geunie Lhok Keutapang natural tourism area, Pidie Regency.

## II. RESEARCH METHODS

The method used in this study is the Analytical Hierarchy Process (AHP) method, which is done by comparing the criteria in pairs to produce alternative strategies. To get a priority weight in the development of natural ecotourism in the Krueng Geunie area, a Group Discussion (FGD) focus was first carried out.

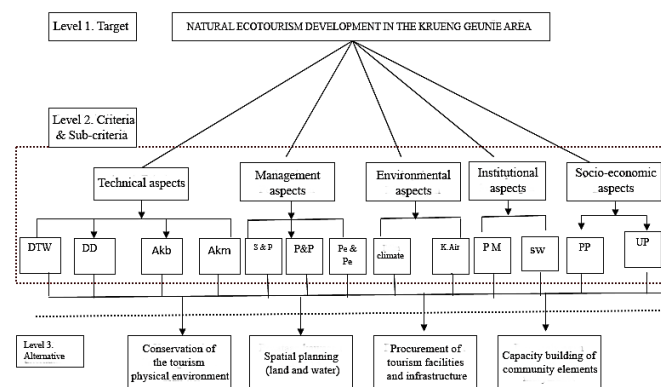


Figure 2. Hierarchical Structure

- Notes:  
 DTW : Tourist attraction  
 DD : Ecotourism carrying capacity  
 Akb : Accessibility  
 Akm : Accommodation  
 S&P : Facilities and Infrastructure  
 P&P : Management and service  
 Pe&Pe : Visitor Arrangement  
 K. water: Availability of clean water  
 PM : Community participation  
 SW : Travel awareness group  
 PP : Marketing (Promotion)  
 UP : Productive business

The population of this research are all stakeholders involved in the tourism area. The researcher used purposive sampling technique. According to Sugiyono [11], the purposive sampling technique is a carefully selected sample by taking people or research objects that are selective and have specific characteristics. The information selected in this research is people who are considered by the researcher to have adequate knowledge or experience regarding the topic of this research (purposive). The basic considerations for determining informants in this study are: 1. They know the depth of information in relation to the problem being studied. 2. They are accepted by various groups with policy

determination. 3. Those who have knowledge about the problem under study. Respondents in this study consisted of expert respondents from tourism awareness groups, community leaders and representatives of the Department of Culture, Tourism, Youth and Sports, Pidie Regency. The results of data processing Process Hierarchy Analysis (AHP) were analyzed using Expert Choice Software. Furthermore, the working principles of AHP are (1) Hierarchical Arrangement; (2). (3). Priority Determination For each criterion and alternative, (4). Logical Consistency [12].

Graphically, the AHP decision problem can be constructed as a multilevel diagram, starting with the goal/target, then the first-level criteria, sub-criteria, and finally alternatives. AHP allows users to intuitively assign a relative weight value of a multiple criteria (multiple alternatives to a criterion), by performing pairwise comparisons. Dr. Thomas L. Saaty [1], the author of AHP then determined a consistent way to convert pairwise comparisons, into a set of numbers that represent the relative priority of each criterion and alternative.

## III. RESULTS AND DISCUSSION

Based on data analysis for the stage of natural ecotourism criteria consisting of technical aspects, management aspects, environmental aspects, institutional aspects and socio-economic aspects using the AHP method with Software Expert Choice. The following table shows the weight of the criteria for the Krueng Geunie area.

Table 1. Weights on the structure of criteria for natural ecotourism in the Krueng Geunie area

No	Criteria	Values Rating	Criteria
1	Technical aspects	0.103	5
2	Management aspects	0.129	3
3	Environmental aspects	0.218	4
4	Institutional aspects	0.242	2
5	Socio-economic aspects	0.308	1

Based on table 1, it can be concluded that the weight on the structure of the socio-economic aspect criteria with a value of 0.308 becomes the main priority for the development of the Krueng Geunie Lhok Keutapang natural ecotourism area. Socio-economic aspects are closely related in managing a tourist area because if the management of a tourist area is very good, the socio-economic level will also increase and of course there must be local community participation in the area. and the technical aspect criteria with a value of 0.103 became the last priority in developing ecotourism areas.

Based on Table 2, the weights on the sub-criteria structure are that the tourism-aware group sub-criteria is the main priority for the development of Krueng Geunie Lhok Keutapang natural ecotourism, while the attractiveness sub-criteria is the last priority in developing ecotourism in the Krueng Geunie area.

Table 2. Weights on the structure of natural ecotourism destinations Krueng Geunie

No	sub-criteria	Sub-criteria Value	Rank
1	Tourist attraction	0.130	13
2	Carrying capacity	0.170	11
3	Accessibility	0.300	9
4	Accommodations	0.400	5
5	Facilities and infrastructure	0.169	12
6	Management and services	0.281	10
7	Setting visitors	0.550	4
8	Climate	0.333	7
9	Availability of clean water	0.667	2
10	Community participation	0.316	8
11	Travel awareness group	0.684	1
12	Marketing	0.398	6
13	Productive business	0.602	3

Table 3. Weights on the alternative structure of natural ecotourism Krueng Geunie

No	Alternative	Alternative Value	Rank
1	Conservation of the tourism physical environment	0.128	4
2	Spatial planning (land and water)	0.207	3
3	Procurement of tourism facilities and infrastructure	0.292	2
4	Capacity building of community elements	0,373	1

Based on Table 3, it can be seen that the alternative weight from the aspect of developing the capacity of the community element with a value of 0.373 is the main priority for ecotourism development, while for the alternative of conservation of the physical tourism environment with a value of 0.128, it is the last alternative in developing the Krueng Geunie ecotourism area.

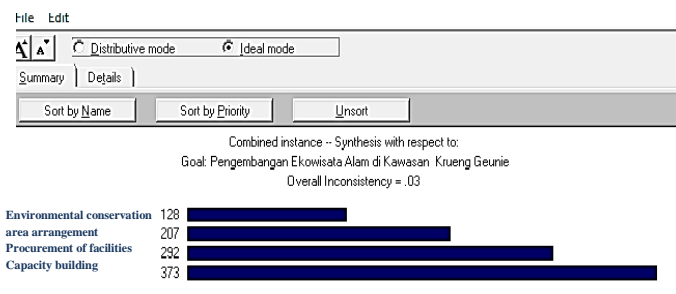


Figure 1. Priority level criteria

Based on Figure 3, overall from the results of the analysis of all respondents, the inconsistency value is 0.03 which means this research is consistent, the sources compare between elements and do not need to be evaluated or re-interviewed. This is the same as explained by Gunawan [13] that if the inconsistency value is below 10%, it can be ascertained that the answers of the informants do not change in comparing elements so that research does not need to be repeated.

#### IV. CONCLUSION

The priority for Krueng Geunie's natural ecotourism development which is the priority to be developed is the

weight of the socio-economic aspect criteria with the sub-criteria for the purpose of the ecotourism structure being tourism awareness groups and alternatively developing the capacity of community elements. the inconsistency value is 0.03 which means that this research has been consistent by the sources in comparing between elements and does not need to be evaluated or re-interviewed.

#### REFERENCES

- [1] Saaty, Thomas L. Decision making With The Analytic Hierarchy Process. University of Pittsburgh. USA. 2008.
- [2] Purnama Alam Syah, Doni. Metode Analytical Hierarchy Process: Sistem Rekomender Database Software. Jurnal Informatika Vo.1 No 2. 2014.
- [3] Boley, B., & Nickerson, N. Profiling geotravelers: An a priori segmentation identifying and defining sustainable travelers using the Geotraveler Tendency Scale (GTS). Journal of Sustainable Tourism. 21(2): 314-330. 2013.
- [4] Kennedy, R. F. (2005, September 10). Robert F. Kennedy, Jr.'s speech at the Sierra Summit. 2005 Retrieved January 21, 2014, from [http://www.virginiaforestwatch.org/docs/kennedy\\_speech9102005.pdf](http://www.virginiaforestwatch.org/docs/kennedy_speech9102005.pdf)
- [5] Donohoe, H. M., & Needham, R. D. Ecotourism: The evolving contemporary definition. Journal of Ecotourism, 5(3), 192-210. 2006.
- [6] Fennell, D. A. A content analysis of ecotourism definitions. Current Issues in Tourism, 4(5), 403-421. 2001.
- [7] Bramwell, B., & Lane, B. Sustainable tourism: An evolving global approach. Journal of Sustainable Tourism, 1(1), 1-5. 2003
- [8] Hunter, C. Sustainable tourism as an adaptive paradigm. Annals of tourism research, 24(4), 850-867. 2007.
- [9] Mehmetoglu, M. Nature-based tourism: A contrast to everyday life. Journal of Ecotourism, 6(2), 111-126. 2007
- [10] Buckley, R. Environmental inputs and outputs in ecotourism: Geotourism with a positive triple bottom line? Journal of Ecotourism, 2(1), 76-82. 2003a.
- [11] Sugiyono. Metode Penelitian Kualitatif Kuantitatif dan R & D. Bandung: Alfabeta. 2001.
- [12] Lilik Sutiarso, Sumiyati, dkk. Aplikasi Analytical Hierarchy Process (AHP) Untuk Penentuan Strategi Pengembangan Subak. Agritech Vol. 3 No. 2. 2011.
- [13] Purnomo, H., Sulistyantara, B., dan Gunawan, A. Peluang Usaha Ekowisata di Kawasan Cagar Alam Pulau Sempu, Jawa Timur. Jurnal Penelitian Sosial Dan Ekonomi Kehutanan. 10 (4) : 247-263. 2013.