Educational Tourism Potentials of Argapura Village, Bogor Regency towards Pongkor UNESCO Global Geopark

A A Setianata, M N Aidi and A Gunawan

1 Study Program Natural Resources and Environmental Management Science, Graduate School IPB University
2 Department of Statistics, IPB University
3 Department of Landscape Architecture, IPB University
E-mail: setianata_andi@apps.ipb.ac.id

Abstract. Argapura is one of the village areas in Cigudeg Subdistrict which has potential unique characteristics for a tourist destination, namely Geopark. Argapura Village is one of the Pongkor National Geopark development villages covering 15 sub-districts in Bogor Regency. Pongkor National Geopark is a unitary space with geodiversity, culturediversity and biodiversity which aims to preserve and protect the wealth of natural resources. The geopark is located very close to tourism activities, but the existing tour has not specifically touched the educational aspect (educational tourism). Educational tourism is a tourism packaging program that is loaded with educational values in each of its activities. Argapura Village needs to be developed educational tourism aimed at all visitors. The objectives of this study were to identify and analyze the potential of educational tourism objects in Argapura Village, and to arrange educational tourism program in Argapura Village.

Data collection through literature studies, field surveys and interviews with stakeholders. Data analysis using tables and described based on the criteria of educational values and geopark elements.

The results of study showed that Argapura Village has two main potential attractions/educational tourism objects, namely Angklung Gubrag and Gudawang Caves. Angklung Gubrag is an educational tourism attraction that has high cultural, historical and religious values. Gudawang Cave is an educational tourism object in the form of karst ecosystem.

In addition to the both of tourism objects, there are several other potential tourism objects and characteristics of the Geopark. The Argapura Village educational tourism was compiled includes two main programs, namely the half-day and the full-day visiting programs.

Keywords: Argapura Village, Educational Tourism, Geopark Pongkor, Tourism Potency, Angklung Gubrag, Gudawang Cave, Descriptive Method

1. Introduction

Argapura is one of the villages in Cigudeg Subdistrict which has unique potential characteristics for a tourist destination. This village is included in the Pongkor National Geopark development area which covers 15 sub-districts in Bogor Regency. Pongkor National Geopark is a unified geodiversity, culture diversity and biodiversity that aims to preserve and protect the wealth of natural resources. Some previous researchers have the same view that with the diversity of geological and cultural phenomena, the geopark area is suitable to be an earth science-based tourist destination with educational value [1-7]. In this geosite, it is necessary to have appropriate packaging to attract visitors while still preserving the diversity of the earth and the cultural values of its people. The geopark area is very close to tourism activities, but in Argapura Village, tourism does not specifically touch the educational aspect (educational tourism). Educational tourism is a tourism packaging program that is loaded with educational values in each of its activities [8-13]. Then it is necessary to develop educational
tourism for visitors based on the potential of this village. Based on the previous discussion, the purpose of this study are: 1) identify and analyze the potential of educational tourism objects in the Argapura Village, and 2) arrange an educational tourism program in Argapura Village.

2. Methods
The research location is in Argapura Village, Cigudeg District, Bogor Regency, West Java Province, Indonesia. The survey was conducted from June 2018 to September 2019. Location of the study based on coordinates 06°27'08.9" - 06°27.58.0" SL dan 106°30'18.4" - 106°30'44.7" EL is in the northwest region of Bogor City with the distance to the location 32 km from the City of Bogor [14].

![Figure 1 Map of Research Location](image)

The method used in this study was qualitative descriptive method through literature studies, field surveys, and interviews. The research was carried out with simple stages, i.e. preparation, field implementation, and data analysis. Literature study is carried out through secondary data and information search in the form of Agrapura Village in Figures, maps, books and reports, as well as other references that are closely related to attractions and aspects of education, especially in the Argapura village Bogor. Field surveys included primary data and information gathering activities at the study site through measurements, photoshoots, and audio recording. The data and information referred to include the physical condition of Argapura village, tourist objects and attractions that exist and that are potential to be developed, as well as the socio-economic conditions of the community. The analysis was carried out qualitatively on existing and potential tourism objects in the Argapura village. Attractions are analyzed based on three geopark elements (geodiversity, biodiversity, and culture diversity) and also educational values.
with some parameters (learning, enriching, rewarding about objects, and strengthening local values) [11]. Then the data is showed on the table and described descriptively.

### 3. Results and Discussion

#### 3.1 Identification of Tourist Attractions in Argapura Village.

The results of the identification of potential tourist attractions based on the uniqueness, authenticity, scarcity, and affordability obtained from field surveys and literature studies produce the following information [22]:

**Table 1. Potential Tourist Attractions in Argapura Village**

| No | Potential Attractions          | Variety          | Descriptions                                                                 |
|----|--------------------------------|------------------|------------------------------------------------------------------------------|
| 1  | Gudawang Cave                  | Special interest | Cave or karst area is one of the Pongkor Geopark Geological sites & an area to geological conservation. |
| 2  | Landscape of paddy field       | Agro-tourism     | As part of one of the people’s livelihoods, rice fields are still used by Argapura peoples. |
| 3  | Angklung Gubrag                | Cultural and     | One of the art and cultural heritage that has a high value and there is a sacred burial area of village elders |
|    |                                | religious tourism|                                                                               |
| 4  | Pesantren (Darunnajah 2 Cipining) | Religious        | Islamic based education institutions                                           |
|    |                                | tourism          |                                                                               |
| 5  | Tirta Alam Gunung Leutik       | Water Park       | The attraction in the form of a swimming pool and a hill which is currently a mass tourist attraction in the Argapura Village |

#### 3.2 Analysis of Educational Tourism Potential in Argapura Village

In this analysis an assessment of the five potential tourist attractions in Argapura village based on the values of education in the form of learning, enriching, rewarding, and strengthening. Then after knowing the educational value contained, the object is categorized according to the suitability of the three geopark elements namely geodiversity, biodiversity, and cultural diversity.

**Table 2. Analysis of Educational Tourism Potential in Argapura Village**

| No | Tourist Attractions          | Edu-Tourism Values | Geopark Element | Information                      |
|----|------------------------------|--------------------|-----------------|----------------------------------|
|    |                              | have have have have | Geo Bio Culture |                                  |
| 1  | Gudawang Cave                | 0                  | HE              | 0 0 0 Very supportive            |
| 2  | Landscape of paddy field     | 0                  | E               | 0 Support cultural diversity     |
| 3  | Angklung Gubrag              | 0                  | HE              | 0 Support cultural diversity     |
| 4  | Pesantren (Darunnajah 2 Cipining) | 0                  | LE              | Not yet                          |
| 5  | Tirta Alam Gunung Leutik     | O                  | NE              | 0 Support geodiversity            |
Table 3. Classification Edu-Tourism Values

| No | Values   | Classification | Description | Symbol |
|----|----------|----------------|-------------|--------|
| 1  | Learning | Have 4 values  | High        | HE     |
| 2  | Enriching| Have 3 Values  | Have 3 Values| E      |
| 3  | Rewarding| Have 2 values  | Have 2 values| LE     |
| 4  | Strengthening | Have 1 values  | Not Eligible | NE     |

From the results of the analysis then continued to determine the potential that will be utilized as an educational tourism destination that is two very decent potential or high eligible. That is Angklung Gubrag and Gudawang Cave.

3.2.1 Angklung Gubrag

The Historical Educational Values. Angklung Gubrag has long been used by the people of Cipining Village in Argapura Village as a ritual media in the seren-taun ceremony in order give thanks to God and offerings to Dewi Sri Pohaci [15]. According to the heirs of Angklung Gubrag (Interview 18-06-2018), a long time ago in the area of Kampung Cipining where the majority of the population were rice farmers, there was a long drought. Even the rice fields are drought and failed to harvest. Mr. Kolot Mukhtar as the elders of the region received spiritual guidance to make a kind of art tool whose raw materials were taken from angklung sand (a hill located in another village around Argapura). After the angklung was made, a traditional ceremony or ritual was carried out to surround the village and rice fields while reciting prayers to God so that it would rain in the village. Finally after that, this village returned to fertile with sufficient crops. As one of the old angklung, the existence of Angklung Gubrag in Cipining Village Argapura Village is inseparable from the role of village elders who at that time served in matters of religion and governance of the region (Kawalian & Karadenan). Until now the successor of Angklung Gubrag, Mr. Mudyani, is the ninth generation from Mr. Kolot Mukhtar. So that the existence of Angklung Gubrag heirloom which is still maintained in this place is believed to have been around 400 years old.

The Cultural Educational Values. Of the various types of Angklung in West Java and even Indonesia, Angklung Gubrag has a distinctive form of performance that is combined with the reading of poetry (song) with the title Song of Sri Lima.
This is the value of local wisdom which shows that in the past its use was related to community ethics in managing the environment. Angklung governor is also one of the angklung which is quite old, which is around 400 years according to public trust.

The ingredients for making angklung gubrag are made from the type of Andong bamboo or Awi Gombong (Gigantochloa pseudoarundinacea) which is obtained from the hill area which by the community is called angklung sand. The form of angklung gubrag is different from Angklung which is currently popular, but this angklung is displayed in the form of 'helaran', or walking around the village in the context of rice ritual or thanksgiving ceremony, circumcision, marriage and even long ago when there was one community that was sick angklung was played [16]. The shape of this angklung gubrag is very unique, from the small one to the big one which reaches two meters high.

The Religious Educational Values. In terms of religion, in the past, the existence of angklung gubrag was related to the community's trust in the rice goddess (Sri Pohaci) who according to the elders said he would provide an abundance of crops and fertility for their land. Ki Kolot Mukhtar made angklung gubrag by aligning the belief in the goddess of rice with Islamic religious values. Finally, angklung gubrag was used in religious rituals that smelled of Islam, namely in the month of Shuro or Muharram related to the Islamic new year. In that month Angklung is usually cleansed and prayed based on Islamic Sharia whose purpose is to give thanks and ask for salvation both for the people of this village and for ancestors who are gone and later for their descendants [14,15]. Because of social changes in terms of livelihoods, some from agricultural sector has changed to multi-sectoral. So that the annual ceremonial conditions such as the seren-tahun and ‘ider lembur’ overtime have not been carried out, but only the heirloom cleansing ceremony conducted at the beginning of the month. For this reason, the appointment of tourism activities is considered important to re-strengthen the values in this village as the potential of Argapura Village, especially in the preservation of values that are full of education. The existence of the tomb of the late Ki Kolot Mukhtar as a charismatic figure, or a figure in the field of religion and government (kokolot) at the time in Argapura Village. Today pilgrims are always visited both from within the village area and even outside the Bogor area for various purposes. Ki Kolot Mukhtar is trusted by the community that he is a figure who spreads the religion of Islam to this region. The existence of an art which has been passed down from generation to generation and is part of the people's trust in the history of the region will certainly become a social capital in the Argapura region. In the Argapura Village community, that belief is in the existence of Angklung Gubrag culture. The existence of this belief can be one of the things that makes the community involved in tourism development [14].

In line with that, in developing the Pongkor geopark area, the existence of Angklung Gubrag here is certainly a part of cultural diversity that needs to be known by visitors and needs to be utilized as an attraction, because the existence of the values above can be used as a source of education for visitors to recognize one of cultural diversity that exists in Bogor.

3.2.2 Gudawang Cave
The Ecosystem Karst Educational Values. Karst Gudawang area has an area of 2.7 hectares consisting of 24 caves, divided into dry and wet caves. From a total of 15 watery caves, 2 have been developed for mass tourism, 8 caves can be developed as special interest tours, 2 caves cannot be studied and 3 other caves cannot be found [17]. Related to cave biota, in previous research conducted by Hasibuan on five caves, this research found seven types of bats that all came from the Microchirptera sub-order and did not meet the type of the Megachirptera sub-order. The types of bats that belong to the Megachiroptera sub-order are more likely to choose the location of the perch outside the cave [18]. Based on the sustainability of its utilization, the utilization of the Gudawang Cave karst area can be divided into two groups. First, the use of the Gudawang Cave as quarry and site for development which is single use and can damage the
area. Second, the use of the cave as a tourist attraction, water source, and animal habitat is utilization that can take place sustainably through proper management and utilization [19].

![Figure 3 Entrance to Gudawang Cave Tourism Object](image)

Then the use of the second group is what needs to be supported and developed so that no person makes use of the first group. Because sustainable use is expected to function to maintain the potential of bats as pest control, bat manure as fertilizer, caves as water sources and tourist attractions. So that according to the program that utilizes in educating the public and visitors. Each cave has unique ornaments such as stalactites, stalagmites, gourdam, or pillars. In addition, the use of gudawang caves for tourism needs to be in line with efforts to conserve the ecological functions of the caves [20].

**The Historical and Religion Values.** The history of gudawang cave based on people's beliefs in the use of the name 'Gudawang' which is derived from the word 'kuda lawang' which means braided horse tail or can also be 'gugudawang' which means 'empty'. In addition, ‘gudawang’ can also mean cave ‘lawang’ which means gate. It is said that it has a connection with the toponymy of Argapura Village. According to hereditary messages, long ago in this place there was a kingdom led by Prabu Darmasuci known as Ki Pandita Argapura, he had a daughter named Dewi Rengganis who was famous for her beauty throughout the country. This area is called Argapura Village and has a hill called Mount Rengganis. And the existence of the ‘kuda lawang’ is related to the existence of the kingdom. The Gudawang Cave karst area has been managed as a tourist area, the area has an area of 2.7 ha. Management is carried out by the Department of Culture and Tourism in Bogor Regency and the area has been designated as a cultural and scientific heritage area based on West Java Provincial Regulation No.20 of 2003 concerning West Java Regional Spatial Planning and based on West Java Provincial Regional Regulation No.2 Year 2006 About Protected Areas. Gudawang Cave has a mystical value that can be a special attraction for the development of religion or spiritual tourism. This is because, for some people the cave is considered to have something that has a spiritual value such as a place to meditate.

In supporting the Geopark Pongkor towards UNESCO Global Geopark of course, the use of the region with educational tourism packaging is in line with the supporting aspects of geopark, including geological heritage, earth conservation activities, sustainable tourism, the existence of educational value, empowerment of local communities and strengthening local culture [2]. Furthermore, UNESCO Global Geopark needs to be professionally built in a multidisciplinary manner with the target aimed at schools, local communities and the general
public and at the development site also needs educational activities, conservation and sustainable use [6].

3.3 Educational Tourism Program in Argapura Village

3.3.1 Educational Activities of Gudawang Cave
In the form of knowing the history or folklore related to Gudawang Cave, recognizing the function of the cave, searching for recognizing cave ornaments and zones (speleology) through explanations by interpreters or guides.

3.3.2 Educational Activity of Angklung Gubrag
In the form of activities to know the history of Angklung Gubrag, pilgrimage to the tomb of Mr. Kolot Mukhtar, watching the performance of Angklung gubrag, learning to play and learning to make angklung gubrag.

Of the two attractions and educational tourism activities that have been identified, certainly in getting to know one of the geopark development sites, it is necessary to have an activity option that can be done as noted above [21]. In the use of both objects that have educational value as geopark characters. Of course the options for activities that can be carried out above need to be packaged as well as possible so that the tourism program will have an impact on village development as one of the Pongkor Geopark areas.

For example a half-day activity, visitors can make a visit directly to two objects, namely to Gudawang Cave with a maximum visit duration of three hours and continued to Padepokan Angklung Gubrag to see cultural arts activities and to know the condition of the surrounding community. Then another option is a full-day visit in other words visitors will spend the night at a location by camping in the Gudawang cave area to enjoy the sensation of the night in the cave, or overnight in a residential area or the area of the Angklung Gubrag to get closer and enjoy the sensation of staying overnight with the surrounding community (homestay). So by staying longer in argapura village, visitors can get more educational activities. Therefore the choice of visit duration in the educational tourism program that can be done can be divided into two programs, namely half-day visit and full-day visit. From the programs description, visitors need to choose a program based on the options provided by the tour agent. Then also based on requests from visitors themselves. especially the recommended visitors are groups of visitors with the aim of learning from study groups, schools, campuses or other visitors.

4. Conclusions
The results of the study show that Argapura Village has two potential attractions for educational tourism, namely Angklung Gubrag and Gudawang Caves. Angklung Gubrag is an educational tourism attraction that has high cultural, historical and religious value. Gudawang Cave as an educational tourism attraction that has educational value in the form of karst ecosystem, history and religious values. The Argapura Geopark educational tourism program that was compiled includes two main programs, namely the half-day visit program and the full-day visit which can be adjusted by each program manager or organizer as well as visitors.

5. References
[1] Koh YK, Oh KH, Youn ST, Kim HG 2014 Geodiversity and geotourism utilization of islands: Gwanmae Island of South Korea Journal of Marine and Island Culture, 2014, issue 3, pp. 106-112
[2] Ginting N, Rahman NV, Sembiring G 2017 Tourism Development Based on Geopark in Bakkara Caldera Toba, Indonesia IOP Conf. Ser.: Mater. Sci, En 180 012086
[3] Fornaro A, Fernande AM 2018 Geoparks: from conception to the teaching of Geosciences Terrae Didatica, Vol 14, No.3, pp. 330-338
[4] Ruban DA 2018 Karst as Important Resource for Geopark-Based Tourism: Current State and Biases Resources, Vol 82, No.7, doi:10.3390/resources7040082
[5] Guimaraes ES, Artur, Gabriel R, Moreira H, Guimaraes JRS, Bandeira PFR, Silva JMFL, Soares RC, Melo JPP 2018 Matrix of Priorities for the Management of Visitation Impacts on the Geosites of Araripe UNESCO Global Geopark (NE Brazil) Geosciences, Vol 199, No.8, doi:10.3390/geosciences8060199
[6] Jusctice S C 2018 UNESCO Global Geoparks, Geotourism and Communication of the Earth Sciences: A Case Study in the Chablais UNESCO Global Geopark, France Geosciences, Vol 149, No.8

[7] Paskova M 2018 Can Indigenous Knowledge Contribute to the Sustainability Management of the Aspiring Rio Coco Geopark, Nicaragua? Geosciences, Vol 277, No.8, doi:10.3390/geosciences8080277

[8] Malihah E R & Setyorini H P D 2014 Tourism Education and Edu-Tourism Development: Sustainable Tourism Development Perspective in Education Proceeding – 1st ISOT Eco-Resort and Destination Sustainability : Planning, Impact, and Development, 2018, issue 1

[9] Sharma A 2015 Educational Tourism: Strategy for Sustainable Tourism Development with reference of Hadauti and Shekhawati Regions of Rajasthan, India Journal of Business Economics and Information Technology, Vol 2, No.4

[10] Petroman I, Varga M, Constantin E C, Petroman C, Momir B, Turc B, Merce I 2016 Agritourism: An Educational Tools for the Students with Agro-Food Profile Procedia Economics and Finance, Vol 39, 2016, pp. 83-87, doi:10.1016/S2212-5671(16)30244-1

[11] Ruhimat M, Eridiana W, Setianata AA 2018 Eligibility of Traditional Village as the Object of Educational Tourism IOP Conf. Ser.: Earth Environ. Sci., 145 012073. doi:10.1088/1755-1315/145/1/012073

[12] Kamdi N, Jamal S A, Anuar F I 2018 A Preliminary Study of Edu-tourist Perceived Values in Edu-Tourism Packages International Journal of Academic Research in Business and Social Sciences, Vol 16, No.8, pp.153-162

[13] Maryani E, Sugito N T 2018 Development Attractoriness Zone of UPI as Education Tourism (Edutourism) and Viewtime Tourist in Each Zone (The Attractoriness Mapping use 3 Dimensional Mapping Techniques) IOP Conf. Ser.: Earth Environ. Sci., 145 012033

[14] Rahayuningsih T, Muntasib E.K.S.H, Muthiah J 2016 Kepercayaan Masyarakat Desa Argapura terhadap Budaya Angklung Gubrak sebagai salah satu Bentuk Modal Sosial dalam Pengembangan Ekowisata Journal of Tourism Destination and Attraction, Vol 4, No.1, pp. 33-38

[15] Novandini A & Santosa A B 2017 Perkembangan Angklung Gubrag: Dari Tradisi Ritual Hingga Hiburan (1983-2013) FACTUM, Vol 6, No.2, pp. 155-166

[16] Hermawan D 2013 Angklung Sunda Sebagai Wahana Industri Kreatif dan Pembentukan Karakter Bangsa

[17] Mulyati T 2007 Kajian Kondisi Gua untuk Pengembangan Wisata Minat Khusus di Kawasan Karst Gudawang, Kabupaten Bogor [Skripsi] Fakultas Kehutanan, IPB University

[18] Hasibuan MM 2018 Karakteristik Suara Beberapa Jenis Kelelawar di Kawasan Karst Gua Gudawang [Skripsi] Fakultas Kehutanan, IPB University

[19] Mijiarto J, Basuni S, Sunarnimoto T 2014 Nilai ekonomi Jasa Lingkungan Kawasan Karst Gua Gudawang Media Konservasi Vol 19, No 3, pp. 154-160

[20] Kusumoarto A, Rejoni R, Mijiarto J 2017 Site Planning for Gudawang Karst Caves, Bogor, Indonesia JTHCA Vol 9, No.2, pp. 97-112

[21] Indrawati, Soetomo S, Setioko B, Murtini TW, Nurhasan 2016 Edu-religious tourism based on Islamic architecture approach, a preliminary research in Majasto Cemetery – Sukoharjo Regency Central Java Procedia – Social and Behavioral Sciences, Vol 227, 2016, pp. 656-663

[22] Musanef 1995 Manajemen Usaha Pariwisata di Indonesia. Jakarta : Gunung Agung.