

PUBLIC PERCEPTION ON PROMOTING SUSTAINABLE ECOTOURISM AT GUNUNG RENG AREA, JELI DISTRICT, KELANTAN, MALAYSIA

Nor Fadilah M.A.

Universiti Malaysia Kelantan

Menti Saysia H.

Universiti Malaysia Kelantan

Nur Amalina A.K.

Universiti Malaysia Kelantan

Amal Najihah M.N.

Universiti Malaysia Kelantan

Dony Adriansyah N.

Universiti Malaysia Kelantan

Gunung Reng area is one of interesting places in the state of Kelantan, Malaysia. It is located in Batu Melintang sub-district, along the East-West Expressway in Jeli district in the northwestern corner of Kelantan. Though the local people designated Gunung Reng as a 'gunung' (the Malay word for 'mount'), it is not a mount in the true definition but it is actually a mogote hill towering above the flat alluvial topography. This study is to discuss the public perception on promoting sustainable ecotourism at this area. This study was carried out by distributing 30 questionnaires to different respondents which consist of local government staff, local communities and visitors (foreign and domestic) to see their perception on the attitude, awareness, and the way to conserve this ecotourism sites.

Keyword: *Public perception, sustainable ecotourism, attitude, awareness, conservation, Gunung Reng, Jeli District, Kelantan.*

JEL Classification: *L83, M1, O1*



INTRODUCTION

Tourism has developed greatly to become one of the world's important economic phenomena (Marzuki *et. al.*, 2011). One of the tourism forms which has been growing rapidly over the last decades is ecotourism. There are actually various definitions of ecotourism. The first broadly accepted and valid definition was established by The International Ecotourism Society (TIES, 1990) that defined ecotourism as *“responsible travel to natural areas that conserves the environment and improves the well-being of local people.”*

Ecotourism is a sub-component of the field of sustainable tourism. Ecotourism began as an idea that many hoped could contribute to the conservation of natural resources worldwide. The prime motivation in ecotourism is the observation and appreciation of natural features and related cultural assets (Wood, 2002). Cristina (2004) stated that several objectives of ecotourism are learning, studying or participating in activities that do not bring negative effects to the environment; whilst protecting and empowering the local community socially and economically.

Gunung Reng has been gazetted as a recreational park in Kelantan, Malaysia. It is famous for its beautiful scene and myth. This study is to explain the public perception mainly on the attitude, awareness, and the best way to conserve this ecotourism spot.

ECOTOURISM IN MALAYSIA AND KELANTAN

Malaysia is rich of natural and cultural assets that are beneficial for tourism, especially ecotourism. Malaysia has been listed as one of the twelve mega-biologically diverse countries in the world, which has at least 15,000 species of flowering plants, 286 species of mammals, 150,000 species of invertebrates and 4,000 species of fishes in addition to the countless micro-organisms. Malaysian tropical rainforest is millions of years old and covering 60 per cent of the land mass. Malaysia offer tourists to experience more activities related to the nature such as hiking, jungle tracking, bird and bat watching and caving (Lehan, 2008).

According Marker *et. al.* (2008), Malaysian government has been pursuing ecotourism since the mid-nineties. The development of government policies on ecotourism is set up in the following policies:

1. The National Ecotourism Plan 1995, which identifies 52 potential sites for ecotourism in Malaysia and suggests that Malaysia has a great potential for ecotourism. It further

- identifies a number of policies that the government can undertake to strengthen the industry.
2. Seventh Malaysia Plan 1996-2000, which intends to let the private sector implement the bulk of the National Ecotourism Plan.
 3. Eighth Malaysia Plan 2001-2005, for which the government stepped up its efforts in ecotourism. It wanted to provide policy guidelines for sustainable development, make sure that products offered match the changing demand and by promoting Malaysia as an ecotourism destination.
 4. Ninth Malaysia Plan 2006-2010, under which the government seems to increase its efforts on ecotourism and sustainable travel. The government also plans to upgrade and make more ecotourism activities and facilities available.
 5. Government promotion, by which the government promotes Malaysia as an ecotourism destination.

The state of Kelantan has a lot to offer for ecotourism as it has many natural resources and features like flora and fauna diversity, hills, caves, waterfalls, and dense jungles. Although ecotourism have some advantages for conservation and development of natural heritages, but lack of the attention on tourism development, lack of the experience on ecotourism planning and finance problem are amongst the significant constraints for ecotourism development in Kelantan (Adriansyah et al, 2013).

MATERIALS AND METHODS

Materials of the research include map, photographs and literatures related to ecotourism and the study area. Methods comprise field observation and questionnaire survey. Field observation has been done several times to see the actual situation and condition of the study area. Questionnaire survey was carried out by distributing 30 questionnaires to different respondents which consist of local government staff, local communities and visitors (foreign and domestic) to see their perception on the attitude, awareness, and the way to conserve this site for the purpose of promoting sustainable ecotourism.

GUNUNG RENG AS AN ECOTOURISM SITE

Gunung Reng (GPS reading of coordinate: 5^o43'0"N, 101^o44'38" E) is located in Batu Melintang sub-district, along the East-West Expressway

in Jeli district in the northwestern corner of Kelantan, Malaysia, or near Kelantan – Perak state border and Malaysia – Thailand international border (Figure 1). Though the local people designated it as a ‘*gunung*’ (the Malay word for ‘mount’), it is not a mount in the true definition but it is actually a mogote hill towering above the flat alluvial topography (Figure 2).

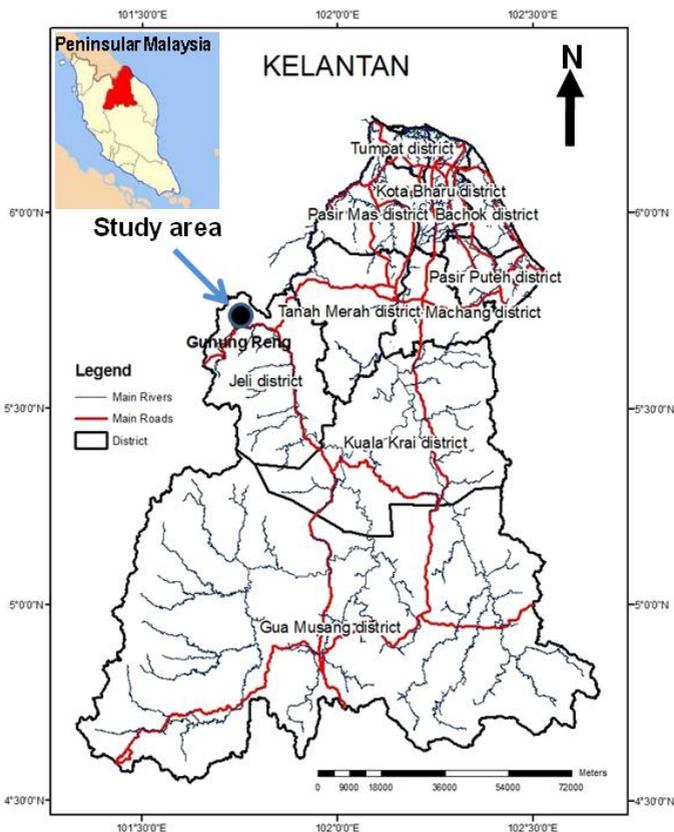


Figure 1. Location map of Gunung Reng area, Jeli District, state of Kelantan, Malaysia.

Its beautiful landscape and some unique features that occur in the area attract visitors to come there. This hill is composed of metamorphosed limestone (marble) sitting on the intrusive body (granitic

rocks) and surrounded by quarternary alluvial deposits. The hill possesses some caves, where the main cave (Figure 3) go through the top of the hill. There are some interesting features inside the cave, such as stalagtite and stalagmite (Figure 4). The caves are the places or habitats for bats and doves. Another attraction of the area is the Pergau River (the main and the largest river in the district of Jeli) flowing through the south of the hill which significantly beautify the area.



Figure 2. Gunung Reng area (camera facing northwest)



Figure 3. The main cave of Gunung Reng (camera facing north)



Figure 4. Some unique features (decorations) inside the cave such as stalagmite and stalagmite (this photograph was taken from inside the main cave facing outside or the mouth of the cave, camera facing south).

This recreational area is also equipped by the authority with some infrastructures such as mosque, community hall, playground, parking lot, public toilets and food stalls (Figure 5). Because of its spectacular natural beauty and uniqueness, it is proper that Gunung Reng become the icon of tourism in Jeli District.



Figure 5. Some facilities and infrastructures provided by the authority to support the tourism activities in Gunung Reng area, such as mosque, community hall, playground, parking lot and food stalls.

RESULTS AND DISCUSSION

A total of 30 questionnaires were distributed randomly to three different categories of respondents, they are local government staff (5 respondents), local communities (8 respondents) and visitors (17 respondents) in Gunung Reng and its surrounding areas. The questionnaire was designed to study on attitude, awareness and the best way to conserve the site. The results of the survey are presented in the following tables (table 1 to table 9).

Attitude

Table 1. The survey of public attitudes in the ecotourism site of Gunung Reng from the category of local government staff (S).

Question	Frequency	Mean, M	Percentage of Respondents (%)
Littering			
-Yes	0	0	0
-No	5	1	100
-Not sure	0	0	0
Vandalism activity observed			
-Yes	4	0.8	80
-No	1	0.2	20
-Not sure	0	0	0
Clean up the site after doing activity			
-Yes	4	0.8	80
-No	1	0.2	20
-Not sure	0	0	0
Follow the rules			
-Yes	4	0.8	80
-No	0	0	0
-Not sure	1	0.2	20

N (S) = 5, N=Total number of respondents, S=local government staff; Mean, $M = \Sigma (X) / N$

Table 2. The survey of public attitudes in the ecotourism site of Gunung Reng from the category of local community (C).

Question	Frequency	Mean,M	Percentages of Respondents (%)
Littering			
-Yes	1	0.125	12.5
-No	5	0.625	62.5
-Not sure	2	0.25	25
Vandalism activity observed			
-Yes	4	0.50	50
-No	2	0.25	25
-Not sure	2	0.25	25
Clean up the site after doing activity			
-Yes	6	0.75	75
-No	2	0.25	25
-Not sure	0	0	0
Follow the rules			
-Yes	5	0.625	62.5
-No	2	0.25	25
-Not sure	1	0.125	12.5

**N (C) = 8, N=Total number of respondents, C=local community;
 Mean, M = $\Sigma (X) / N$**

Table 3. The survey of public attitudes in the ecotourism site of Gunung Reng from the category of tourist (T).

Question	Frequency	Mean, M	Percentage of Respondents (%)
Littering			
-Yes	2	0.117	11.7
-No	13	0.764	76.4
-Not sure	2	0.117	11.7
Vandalism activity observed			
-Yes	11	0.647	64.7
-No	5	0.294	29.4
-Not sure	1	0.059	5.9
Clean up the site after doing activity			
-Yes	14	0.824	82.4
-No	1	0.059	5.9
-Not sure	2	0.117	11.7
Follow the rules			
-Yes	12	0.705	70.5
-No	2	0.117	11.7
-Not sure	3	0.176	17.6

**N (T) = 17, N=Total number of respondents, T= tourist;
Mean, M = $\Sigma (X) / N$**

The attitude of the local government staff, local community, and tourists at Gunung Reng is considerably good. Based on the questionnaire survey, almost all respondents are tending to show their good attitude in several aspects, for example, they choose not to litter the rubbish everywhere (total 23 out of 30 respondents). For the vandalism activity, most of respondents (total 19 out of 30) observed the vandalism activity at the Gunung Reng, especially at the wall of the hill. There are observable vandalism activities that can be seen clearly and it may affect the tourist perception and affect tourist attraction to the place (Figure 6).

The local staff, local community and tourists tend to clean up the sites after doing the activity at Gunung Reng area (total 24 out of 30). Some activities usually done by the visitors, such as camping and recreation with family and friends. Last but not least, almost all respondents want to follow the rule regulated in the area (total 21 out of 30).



Figure 6. Vandalism observed in the wall of Gunung Reng hill.

Awareness

Table 4. The survey of public awareness in the ecotourism site of Gunung Reng from the category of local government staff (S).

Question	Frequency	Mean, M	Percentage of respondent
Importance of ethics			
-Yes	5	1	100
-No	0	0	0
-Not sure	0	0	0
Implemented activities will rise awareness			
-Yes	5	1	100
-No	0	0	0
-Not sure	0	0	0
The most appropriate way to implement public awareness*			
-Newspaper	2	0.4	40
-Advertisement	4	0.8	80
-Internet / webpage	0	0	0
-Social media	3	0.6	60

*Multiple responses permitted

**N (S) = 5, N=Total number of respondents, S=local government staff;
Mean, M = $\Sigma (X) / N$**

Table 5. The survey of public awareness in the ecotourism site of Gunung Reng from the category of local community (C).

Question	Frequency	Mean, M	Percentage of respondent
Importance of ethics			
-Yes	7	0.875	87.5
-No	1	0.125	12.5
-Not sure	0	0	0
Implemented activities will rise awareness			
-Yes	8	1	100
-No	0	0	0
-Not sure	0	0	0
The most appropriate way to implement public awareness*			
-Newspaper	4	0.5	50
-Advertisement	6	0.75	75
-Internet / webpage	6	0.75	75
-Social media	3	0.375	37.5

**Multiple responses permitted*

**N (C) = 8, N=Total number of respondents, C=local community;
 Mean, M = $\Sigma (X) / N$**

Table 6. The survey of public awareness in the ecotourism site of Gunung Reng from the category of tourist (T).

Question	Frequency	Mean, M	Percentage of respondent
Importance of ethics			
-Yes	16	0.941	94.1
-No	1	0.059	5.9
-Not sure	0	0	0
Implemented activities will rise awareness			
-Yes	11	0.647	64.7
-No	3	0.176	17.6
-Not sure	3	0.176	17.6
The most appropriate way to implement public awareness*			
-Newspaper	6	0.353	35.3
-Advertisement	8	0.471	47.1
-Internet / webpage	5	0.294	29.4
-Social media	5	0.294	29.4

*Multiple responses permitted

N (T) = 17, N=Total number of respondents, T= tourist;

Mean, M = $\Sigma (X) / N$

The level of awareness among local staf, local community and tourists are high respectively. This is because majority of respondents (total 28 out of 30) assumed that ethics are important when they visit a tourism site.

Almost all respondents (total 24 out of 30) believe that activities carried out at Gunung Reng area are able to encourage the awareness how they should behave in the area. From the survey, we can also know that majority of respondents (total 18 out of 30) believe that the most appropriate way to promote the public awareness to conserve the Gunung Reng area is by advertisement. This is because most people think that media such as television and radio are accessible for all people. Alternative media as the effective ways to implement public awareness are

newspaper (total 12 out of 30), internet/website (total 11 out of 30) and social media (total also 11 out of 30).

Conservation efforts

Table 7. The survey of conservation efforts in the ecotourism site of Gunung Reng from the category of local government staff (S).

Question	Frequency	Mean, M	Percentage of Respondents (%)
This place needs conservation			
-Yes	4	0.8	80
-No	0	0	0
-Not sure	1	0.2	20
The authority cares and concerns the effects of tourism on an environment			
-Yes	2	0.4	40
-No	3	0.6	60
-Not sure	0	0	0
The most suitable way to conserve this place			
-Monitoring program by the authority	2	0.4	40
-Campaign for clean	2	0.4	40
-Educational program for local community	1	0.2	20
The kind of attraction that invite you to the site			
-Historical Value	3	0.6	60
-Nature Landscape	2	0.4	40
-Sports Events	0	0	0
The improvement in the future			
-Price	0	0	0

-Accommodation	2	0.4	40
-Activity	2	0.4	40
-Buffer Zones	0	0	0
-Policy and Act	1	0.2	20

**N (S) = 5, N=Total number of respondents, S=local government staff;
Mean, $M = \Sigma (X) / N$**

Table 8. The survey of conservation efforts in the ecotourism site of Gunung Reng from the category of local community (C).

Question	Frequency	Mean, M	Percentage of Respondents (%)
This place needs conservation			
-Yes	8	1	100
-No	0	0	0
-Not sure	0	0	0
The authority cares and concerns the effects of tourism on an environment			
-Yes	3	0.375	37.5
-No	2	0.25	25
-Not sure	3	0.375	37.5
The most suitable way to conserve this place			
-Monitoring program by the authority	3	0.375	37.5
-Campaign for clean	4	0.5	50
-Educational program for local community	1	0.125	12.5
The kind of attraction that invite you to the site			
-Historical Value	4	0.5	50
-Nature Landscape	3	0.375	37.5
-Sports Events	1	0.125	12.5

The improvement in the future			
-Price	0	0	0
-Accommodation	3	0.375	37.5
-Activity	3	0.375	37.5
-Buffer Zones	1	0.125	12.5
-Policy and Act	1	0.125	12.5

**N (C) = 8, N=Total number of respondents, C=local community;
 Mean, M = $\Sigma (X) / N$**

Table 9. The survey of conservation efforts in the ecotourism site of Gunung Reng from the category of tourist (T).

Question	Frequency	Mean, M	Percentage of Respondents (%)
This place needs conservation			
-Yes	14	0.823	82.3
-No	0	0	0
-Not sure	3	0.176	17.6
The authority cares and concerns the effects of tourism on an environment			
-Yes	6	0.35	35
-No	6	0.35	35
-Not sure	5	0.30	30
The most suitable way to conserve this place			
-Monitoring program by the authority	3	0.176	17.6
-Campaign for clean	8	0.47	47
-Educational program for local community	6	0.353	35.3
The kind of attraction that invite you to the site			
-Historical Value	9	0.53	53
-Nature Landscape	8	0.47	47
-Sports Events	0	0	0

The improvement in the future			
-Price	1	0.059	5.9
-Accommodation	5	0.30	30
-Activity	3	0.176	17.6
-Buffer Zones	2	0.118	11.8
-Policy and Act	6	0.35	35

**N (T) = 17, N=Total number of respondents, T= tourist;
Mean, $M = \Sigma (X) / N$**

From the survey conducted, it shows that most respondents (total 26 out of 30 respondents) agreed that this site needs conservation. They think that because of its natural features, flora and fauna, so this site should be conserved for sustainable development. Some respondents (total 11 out of 30) agreed that the authority cares and concerns about the effect of tourism on an environment. Some others (also total 11 out of 30) are disagree and the rest said that they are not sure with the situation.

The most suitable way to conserve the site according to the survey is by the campaign for the clean (total 14 out of 30). This campaign is important to protect the site and all its features from dirtiness and destruction, so it will conserve the site as the sustainable tourism destination. Other alternative ways for conservation of the area which were suggested by other respondents are through monitoring programmes by the authority (total 8 out of 30) and educational programmes for the local community (also total 8 out of 30).

There are some reasons why people want to come to the area. Based on the survey to the respondents, the first reason is its historical value (total 16 out of 30). The second reason is that people want to enjoy its nature landscape (total 13 out of 30). Another reason why this area is so attractive is the potential for sport activity here such as swimming and rafting (total only 1 out of 30).

Some efforts are needed to be done for the improvement of this area in the future. From the survey, we can know that the first choice of improvement is 'accommodation' (chosen by total 10 out of 30 respondents). It is followed by the improvement in term of 'activity' (total 8 respondents), 'policy and act' (total 8 respondents), 'buffer zones' (total 3 respondents), and 'price' (total only 1 respondent).

CONCLUSION

In general, we can conclude that public's attitude and awareness on Gunung Reng area are considerably good. Most of people whom we surveyed (consist of local government staff, local community and tourists) show their support to conserve this place for the future benefits. Only few respondents show the negative response in conserving this area. This is probably due to lack of information on the importance of ecotourism site.

This site needs conservation efforts by promoting sustainable ecotourism such as the campaign for cleaning the site, monitoring programmes by the authority and educational programmes for the local community.

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REFEREED ANONYMOUSLY

Nor Fadilah M.A., Faculty of Earth Science, Universiti Malaysia Kelantan (UMK) Jeli Campus, Locked Bag No. 100, 17600 Jeli, Kelantan, Malaysia.

Menti Saysa H., Faculty of Earth Science, Universiti Malaysia Kelantan (UMK) Jeli Campus, Locked Bag No. 100, 17600 Jeli, Kelantan, Malaysia.

Nur Amalina A.K., Faculty of Earth Science, Universiti Malaysia Kelantan (UMK) Jeli Campus, Locked Bag No. 100, 17600 Jeli, Kelantan, Malaysia.

Amal Najihah M.N., Faculty of Earth Science, Universiti Malaysia Kelantan (UMK) Jeli Campus, Locked Bag No. 100, 17600 Jeli, Kelantan, Malaysia.

Dony Adriansyah N. (dony@ukm.edu.my) Faculty of Earth Science, Universiti Malaysia Kelantan (UMK) Jeli Campus, Locked Bag No. 100, 17600 Jeli, Kelantan, Malaysia.

APPENDIX

Table A-1. Type of respondents based on gender on survey of public perception on promoting sustainable ecotourism in Gunung Reng area, Jeli, Kelantan, Malaysia.

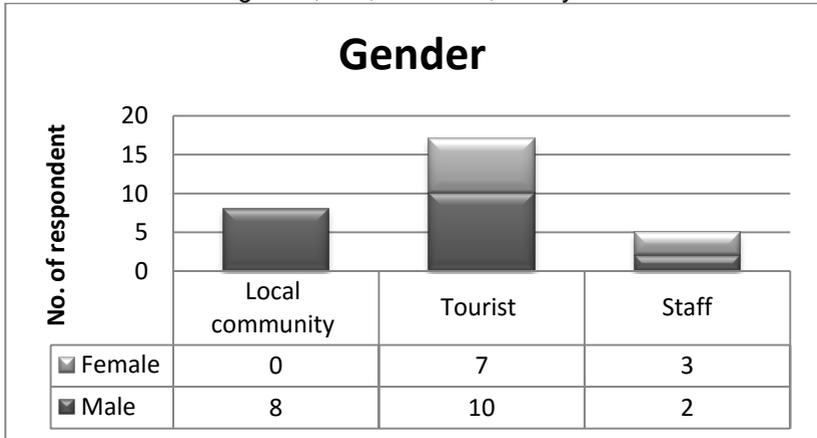


Table A-2. Type of respondents based on ages.

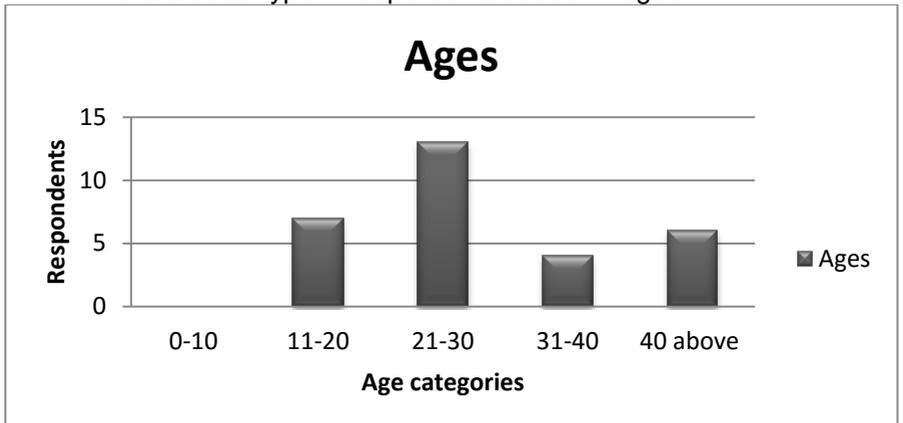


Table A-3. Type of transportation used by respondents to visit the site

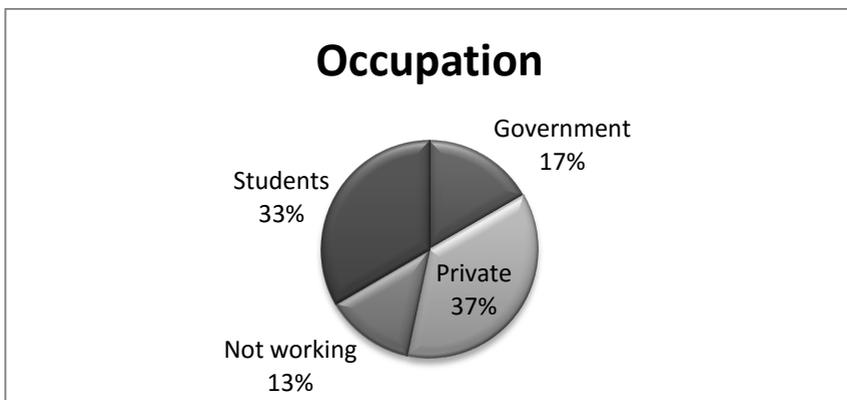
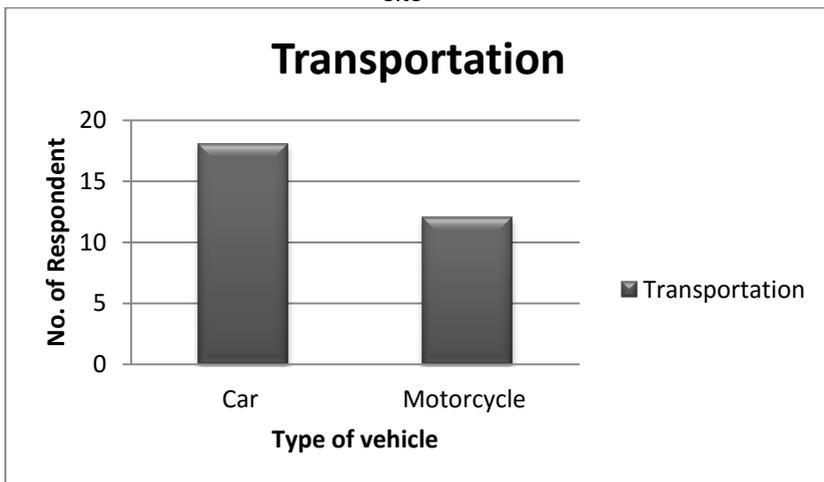


Figure A-1. Pie chart of respondents' occupations.



Figure A-2. Accommodation that provided at the site based on respondents' votes.

Questionnaire



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Title: Public Perception on Promoting Sustainable Ecotourism in Gunung Reng Area, Jeli District, Kelantan, Malaysia.

Survey for mini project of subject of Tourism and Natural Resources Management (ENT 3174). All results are confidential.

Objective: To study the impact of public's attitudes and awareness for promoting sustainable ecotourism in Gunung Reng area from the perception of local government staff, local community and tourists in conservation of the area.

Part A: General Information

1. Gender: <input type="checkbox"/> M <input type="checkbox"/> F	2. Age: _____	3. Nationality / State: _____
4. Occupation: <input type="checkbox"/> Government <input type="checkbox"/> Private <input type="checkbox"/> Not working <input type="checkbox"/> Student		
5. Purpose of visitation: <input type="checkbox"/> Hiking <input type="checkbox"/> Jungle Trekking <input type="checkbox"/> Nature/Wildlife Observation <input type="checkbox"/> Educational Trip <input type="checkbox"/> Research/Work <input type="checkbox"/> Leisure/Holiday <input type="checkbox"/> Business <input type="checkbox"/>		
6. How many times have you visited before? _____ Will you visit again? <input type="checkbox"/> Yes <input type="checkbox"/> No * If no, why? _____	7. How do you know about this place? <input type="checkbox"/> Brochure/Magazine/Newspaper <input type="checkbox"/> Media (TV, radio, etc) <input type="checkbox"/> Internet <input type="checkbox"/> Friends	
8. Duration of visitation: _____ (hour/day/week/month/year)		
9. Types of accommodation during visitation: <input type="checkbox"/> Chalet <input type="checkbox"/> Campsite <input type="checkbox"/> Others: _____		
10. Number of people during visitation: _____ With: <input type="checkbox"/> Family <input type="checkbox"/> Friends <input type="checkbox"/> Others: _____		
11. Transportation used: <input type="checkbox"/> Car <input type="checkbox"/> Motorcycle <input type="checkbox"/> Taxi <input type="checkbox"/> Buses <input type="checkbox"/> Others: _____		

12. What kind of attraction that invite you to this site?
- Historical Value
 - Nature Landscape
 - Sporting events
 - Nightlife
 - Mountain Climate
13. Improvement in the future:
- Price
 - Accommodation
 - Activity
 - Promotion
 - Buffer Zones
 - Cleanliness
 - Policy and Act