



UNIVERSITI PUTRA MALAYSIA

***RECREATION RESOURCES ASSESSMENT FOR FOREST
CAMPGROUND PLANNING AT AYER HITAM FOREST RESERVE,
PUCHONG***

NUR ADELIA BINTI ZAHARI

FH 2016 26

**RECREATION RESOURCES ASSESSMENT FOR FOREST
CAMPGROUND PLANNING AT AYER HITAM FOREST RESERVE,
PUCHONG**



By

NUR ADELIA BINTI ZAHARI

**A Project Report Submitted in Partial Fulfillment of the Requirements
for the Degree of Bachelor of Park and Recreation Science in the
Faculty of Forestry
Universiti Putra Malaysia**

2016

“Success is what happens after you’ve survived all your mistakes”

Brian Johnson

Mak & Ayah

Apy, Arie, Apey, Awo & Awan

Heiqal Hilmi, Ayu Kusen, & Siti Nasuha

Thank you very much for your love and endless support

ABSTRACT

Forest campground is one of the facilities provided in Ayer Hitam Forest Reserve, Puchong. Due to the long-term utilisation of the current forest campground, the issue of campground identity is recognised. A study using Resource Assessment approach was conducted at proposed study site is to assess the characteristics of the existent resources for ideal structures development and layout plan at Ayer Hitam Forest Reserve. Data was collected in 3 different zones using resource inventory form (RRIF) for 12 weeks. The finding proven that zone 2 had the highest mean score which represent high value of resources. The remains zones proposed for structures and facilities development. These finding followed by proposed sketches and layout of forest campground. Thus, this study may provide valuable information regarding to the RPH and management planning for Ayer Hitam Forest Reserve, Puchong.

ABSTRAK

Tapak perkhemahan adalah salah satu kemudahan yang terdapat di Hutan Simpan Ayer Hitam , Puchong. Oleh kerana penggunaan kemudahan ini pada jangka panjang yang panjang, isu berkenaan identiti tapak perkhemahan dikenalpasti. Kajian menggunakan pendekatan Penilaian Sumber telah dijalankan di kawasan kajian bertujuan untuk menilai ciri-ciri sumber yang wujud di kawasan kajian untuk pembangunan struktur yang ideal dan pelan susunatur tapak perkhemahan di Hutan Simpan Ayer Hitam. Data dikumpulkan mengikut zon (tiga zon yang berbeza) menggunakan borang inventori sumber (RRIF) selama 12 minggu. Hasil kajian membuktikan bahawa zon 2 mempunyai skor purata tertinggi yang mewakili nilai sumber yang banyak . Zon yang lain iaitu Zon 1 dan Zon 3 dicadangkan untuk struktur dan kemudahan pembangunan. Cadangan reka bentuk dan pelan tapak perkhemahan disertakan. Oleh itu, kajian ini boleh memberikan maklumat yang berharga mengenai perancangan RPH dan pengurusan di atas Hutan Simpan Ayer Hitam, Puchong.

ACKNOWLEDGEMENT

First and foremost, I am really thankful to Allah S.W.T The Almighty for the blessing that I successfully completed this thesis. The approval from the Creator really appreciated and gratitude. Next, truly from my heart big thankful to my family, Mak, Ayah, brothers and family for keep supporting me either time, money, ideas, concerns and foods as well. You are awesome people that I have eternally. Then, I would like to give huge thankfulness to my dearest supervisor, Mr Sam Shor Nahar bin Yaakob for helping, assisting, advising, and patience in working out from the beginning until the finishing completion of my final year project. I am also very grateful to my examiners, Dr. Syamsul Herman bin Mohammad Afandi and Dr. Shazali bin Johari for the comments and advices of this project.

A special gratefulness to the management of Ayer Hitam Forest Reserve, Mr Mohd Farhan Shahrin and all the staffs for the cooperation to give some information and assist in fieldwork inventory especially Ranger Fazrul Azree. Then, I am really thankful to Dr Mohd Hafizal bin Ismail and Dr Amir Affan bin Abdulazim for helping me to understand my project and guide me until the end.

Last but not least, I would like to give splendid gratitude to Mohamad Heiqal bin Hilmi for the patience and contribution in helping me in any kind of helps that I needed. Lastly, thank you very much to all my classmates “Batch Barbet”, my juniors in BSTR , BSH and BSTK for completing my four years study in Faculty of Forestry, UPM with full of joy, happiness, sad and mysterious moment. May Allah ease you all with bless. Amin.

APPROVAL SHEET

I certify that this research project report entitled “ **Recreation Resource Assessment for Forest Campground Planning in Ayer Hitam Forest Reserve, Puchong**” by Nur Adelia binti Zahari had been examined and approved as a partial fulfilment of the requirements for the Degree, Bachelor of Park and Recreation Science, Faculty of Forestry, Universiti Putra Malaysia, Serdang.

Sam Shor Nahar bin Yaakob
Department of Recreation and Ecotourism
Faculty of Forestry
Universiti Putra Malaysia

Prof. Dr. Mohamed Zakaria bin Husin
Dean
Faculty of Forestry
Universiti Putra Malaysia

Date: June 2016

TABLE OF CONTENTS

	Page
Dedication	ii
Abstract	iii
Abstrak	iv
Acknowledgements	v
Approval Sheet	vi
Table of Contents	vii
List of Tables	viii
List of Figures	ix
List of Glossary	x
CHAPTER	
1 Introduction	
1.1 Introduction	1
1.2 Recreation Development and Planning	2
1.3 Problem Statement	3
1.4 Objective	4
2 Literature Review	
2.1 Importance of Recreation Planning	5
2.2 Process of Recreation Planning	6
2.3 Recreation Resources	8
2.4 Recreation Resource Assessment	10
2.5 Campground Planning and Design	14
3 METHODOLOGY	
3.1 Introduction	18
3.2 Study Area	18
3.3 Selection of Camp Area	20
3.4 Data Collection	21
3.4.1 Pre-fieldwork Preparation	21
3.4.2 On-Site Inventory Procedures	22
3.5 Data Analysis	24
3.6 Research Limitation	25
4 RESULTS	26
5 DISCUSSIONS	28
6 CONCLUSION	
6.1 Conclusion	39
6.2 Recommendations	40
References	41
Appendices	
Appendix A: Existence Campground	44
Appendix B: Proposed Campground Site	45
Appendix C: Sample RRIF	46
Publication of the project-undertaking sheet	48

LIST OF TABLES

Table		Page
1	Attributes for Forest Campground Planning	15
2	Descriptions SWOT Analysis	24
3	Distribution Mean Score	26
4	SWOT Analysis of Each Zone	27



LIST OF FIGURES

Figures		Page
1	Frameworks of Park Planning	7
2	Basic Strategic Planning Frameworks	7
3	Flowchart of Recreation Resource Assessment Process	11
4	Suggested Data Analysis Procedure	14
5	Example of Addo Elephant National Park Layout Plan	16
6	Example of Delagoon Master Plan	16
7	Example of Designated Registration Office of KOA, America	17
8	Example of Designated Craft Lodge of Prince William Forest Park	17
9	Location Map of Ayer Hitam Forest Reserve, Puchong	19
10	Location Map of Proposed Study Site	20
11	Zoning of Assessment Area	23
12	Framework of Campground Planning in AHFR	29
13	Functional of Proposed Activities at campground area in AHFR	30
14	Flowchart of Proposed Structures and Facilities Development at AHFR	31
15	Functional Diagram of Proposed Layout Plan at Forest Campground AHFR	32
16	Master Plan View	33
17	Elevation View	34
18	Justification of Master Plan	35

LIST OF GLOSSARY

Visual Quality Assessment – An aesthetical judgement of individual emotional, cognitive and perceptual based.

Quality Index – A total mean score of the values of the resources.

Likert Scale - A psychometric response scale primarily used in questionnaires to obtain participant's preferences or degree of agreement with a statement or set of statements.

RFI – Recreation Feature Inventories: developed by the Ministry of Forestry, British Columbia, Canada, Inventory Procedure Manual



CHAPTER 1

INTRODUCTION

1.1 Introduction

Recreation is a part of human being where people always looking for something to reduce their stress or escapade from their daily routine. It cannot be separated from human being due to the significant recreational activities created as hobbies or interest. Mostly, outdoor recreational activities are carried out in the forest such as amenity forest and forest reserve.

Camping activity is very common with forest which people mostly preferred forest as suitable area for the activity. This is because the forests provide great ambient to the campers while camping and bring the authentic experiences to the campers as well. Campground is an essential facility for the campers to enjoy the beauty of the nature as well as other positive purposes. Ayer Hitam Forest Reserve, Puchong in which under management of Universiti Putra Malaysia is one of the reserve forests offered outdoor recreational activities such as camping in Malaysia.

The Ayer Hitam Forest Reserve is recognized and acknowledged by citizens of UPM, particularly the Faculty of Forestry, as an area designated for the purpose of education, research, and extension that plays important role as a place of reference for our staff and students (Paiman & Amat Ramsa, 2007). This forest reserve has management policies that established by the authorities which are SISFEC, UPM and Selangor State Forestry.

One of the management policies of Ayer Hitam Forest Reserve (AHFR) is to promote the use of forest resources by providing a multi-purpose outdoor recreational facilities and learning environment to the society (RPH 2006-2015). Based on the stated policy, this study (Recreation Resource Assessment for Forest Campground Development) will aid the authorities to develop outdoor recreational facilities (forest campground) in Ayer Hitam Forest Reserve, Puchong.

1.2 Recreation Development and Planning

Development is one of the processes involved in recreation resource planning. It is an essential process to create a final product that achieves the goal and objectives of the planning. Merriam's Webster Dictionary defines "development" as "the act or process of creating something over a period of time." Though, understanding of recreation resource planning is the major important in this research. It drives to minimize the cost of performance and eliminate unproductive efforts (Singh, 2011).

Basically, the recreation planning monitors "the types and amount of resources needed, where and how they are disseminated, and the timing of the allocations" (Marriot, 2010). Moreover, recreation planning can be defined as a wisely endeavour of recreation resources to give best satisfaction to all parties which are the authorities, the resources and the users as it encounters the current and upcoming desires. Thus, this is a practical approach that can be used to develop a good forest campground in AHFR.

For the forest campground planning, the study case act as an advantage to AHFR because this area has a unique biodiversity stages which are ecosystems (inland forest ecosystem and freshwater swamp forest ecosystem), species and genetic that advantage for forest campground development (Paiman & Amat Ramsa, 2007).

Recreation opportunities effectiveness and efficiency can be achieved through the maximum utilization of natural resources as it use in proper ways. Thus, the method of this study is focus on the activity of collecting information through assessment of existing resources that will be used for the planning of forest campground development in AHFR.

1.3 Problem Statement

Currently, Ayer Hitam Forest Reserve has basic recreation infrastructures. It is being used for education and, research purposes and development. One of the infrastructures in AHFR is forest campground. The current campground has its own facilities such as multi-purpose hall, kitchen, campsites, toilets, open green space and hut. The Faculty of Forestry was appointed to manage Ayer Hitam Forest Reserve as a research and education platform, by providing relevant infrastructures and facilities. However, from the perspective of recreation opportunities in AHFR, there is less emphasis in designing and developing the ideal forest campground.

Among the significant deficiencies is planning elements such as the use of building structures, design campground and supporting facilities, allocation of

supporting facilities and quantity of facilities. Until today, an existing campground layout is still at traditional style and not multifunctional and show unclear philosophy; where it supposedly represents a whole visual of the management and operation of the good campground. These deficiencies may cause by short term planning, lack of knowledge in recreation planning or limited budget for development.

According professional and expert in the field of park planning and camp management, Mohd Hafizal (pers.comm.2016) mentioned that the identity of existing campground in Ayer Hitam Forest Reserve is not clear and more on providing facilities and space of accommodation. It is an ideal setting of a forest campground. Based on the highlighted issue, it can be concluded that the recreation resource planning of forest campground in AHFR must encompasses planning attributes of forest campground in order to enhance the standard of AHFR as an international research and development centre.

1.4 Objective

The objective of the study is to assess the characteristics of existent resource that to be used for ideal structures development and layout plan of forest new campground in Ayer Hitam Forest Reserve.

Planning attributes of forest campground is one of the major attentions of this research. The objective will answer the question “What is the best attributes that need to be taken into consideration in planning for campground in Ayer Hitam Forest Reserve?”

REFERENCES

- Abdullah Mohd, Amat Ramsa Yaman, Tan Choon Keat and Yip Hin Wai, 2005. (n.d.). camper's character.pdf. *Journal of Applied Science*,5.
- Ak, M. K. (2013). Visual Quality Assessment Methods in Landscape Architecture Studies. *Advances in Landscape Architecture*, 297–290. <http://doi.org/http://dx.doi.org/10.5772/55769>
- American Forests | *American Forests*. (n.d.). Retrieved December 17, 2015, from <http://www.americanforests.org/>
- Bawon, P., & Yaman, A. (2007). *Ayer Hitam Forest Reserve: Multimedia, Super Corridor, Community Heritage*. Serdang: Faculty of Forestry, Universiti Putra Malaysia.
- Bertram, D. (2007). Likert Scales... are the meaning of life : *University of Calagary, Department of Computer Science*, pages.cpsc.ucalgary.ca/~saul/wiki/uploads/CPSC681/.
- Boone, H. N. J., & Boone, D. A. (2012). Analyzing Likert Data. *Journal of Extension*, 50(2), 30. <http://doi.org/10.1111/j.1365-2929.2004.02012.x>
- Camping Reservations, Campgrounds and Campsites| KOA. (n.d.). Retrieved December 17, 2015, from <http://koa.com/campgrounds/mount-pleasant-charleston/>
- Canadian Institute of Planners*. (n.d.). Retrieved December 17, 2015, from <http://cip-icu.ca/Becoming-a-Planner>
- Dam, D. (2015). *Introduction: Renovation of Park Shop Activities available include General Information*, from <http://www.sanparks.org/parks/addo/>
- Dictionary and Thesaurus | *Merriam-Webster*. (n.d.). Retrieved December 17, 2015, from <http://beta.merriam-webster.com/>
- Douglass, R. (2000). *Forest recreation* (Fifth ed.). Waveland Pr.
- Faculty of Forestry*, (2013). Retrieved December 17, 2015, from http://upm.academia.edu/Departments/Faculty_of_Forestry
- Fakulti Perhutanan, (2005). *Rancangan Pengurusan Hutan* , Hutan Simpan Ayer Hitam, Puchong 2006- 2015.

Faculty of Forestry. (2007). Standards & Procedures. *Recreation Resource Inventory*.

Gorman, T. (2007). *Execution create the vision, implement the plan, get the job done*. Avon, MA: Adams Media.

Hora, S. C., "Expert Judgement in Risk Analysis" (2009). *Non-published Research Reports*. Paper 120, from http://research.create.usc.edu/nonpublished_reports/120

LaGro, J. (2013). *Site analysis: Informing context-sensitive and sustainable site planning and design* (Third ed.). Hoboken: Wiley.

Maciej Janusz Golaszewski. (2014). *Adapting the Energy-Camp Renewable Energy Program to the Conservation Authority Campground Context*.

Manning, R., & Freimund, W. A. (2004). Use of visual research methods to measure standards of quality for parks and outdoor recreation. *Journal of Leisure Research*.
https://www.uvm.edu/parkstudieslaboratory/publications/use_of_visual_research.pdf

Marc, J. (2008). Visual Quality Effectiveness Evaluation - British Columbia. *Forest and Range Evaluation Program*.
<https://www.for.gov.bc.ca/ftp/hfp/external/publish/frep/indicators/Indicators-VisualQuality-Protocol-Nov2008.pdf>

Marcouiller, D., & Mace, T. (2005). (n.d.). *Forests and regional development: Economic impacts of woodland use for recreation and timber in Wisconsin*.

Marriot, K. (2010). *Planning for the provision of leisure and recreation in Australia*.
http://www.dpac.tas.gov.au/__data/assets/pdf_file/0004/228694/Recreation_Planning_Manual.pdf

M. H. Ismail, 2015. *Personal interview with expert in Park Planning and Camp Management*.

Neupane, A., Boxall, P. C., McFarlane, B. L., & Pelletier, R. T. (2007). Using expert judgments to understand spatial patterns of forest-based camping: A values-at-risk application. *Journal of Environmental Management*, 85(2), 471–482.

Pigram, J. J., & Jenkins, J. M. (2006). *Outdoor Recreation Management (Second Edition)*.

Planning for Camp. (n.d.). Retrieved December 17, 2015, from <http://www.acacamps.org/campers-families/planning-camp>

Practicing Architecture Architect's Knowledge Resource. (n.d.). Retrieved December 17, 2015, from <http://aia.org/practicing/akr/AIAB089194>

Rahman, A. A. (2009). *The Value of Outdoor Recreation Facilities and Services at Forest Recreational Area in Malaysia* (pp. 1–8).

Recreation | *American Forests.* (2015). Retrieved December 18, 2015, from <https://www.americanforests.org/discover-forests/forest-facts/recreation/>

Ronald B. Uleck. (2008). *The Challenge Of Recreation Planning : Methodology And Factors To Consider.*

Schoenbauer, J., & Schoenbauer, K. (2014). *Delagoon Campground Master Plan. October.*

Singh, K. J. (2011, November 16). *What is the purpose of Planning?* Retrieved April 26, 2016, from <http://www.mbaofficial.com/mba-courses/principles-of-management/what-is-the-purpose-of-planning/>

Stein, T. V. (2013). *Planning for the Many Benefits of Nature-Based The Need for a Plan*, (March 2010), 1–5.

United States Department of the Interior - *National Park Service, US.* (n.d.). Retrieved December 17, 2015, from <http://www.odmp.org/agency/2690-united-states-department-of-the-interior-national-park-service-us-government>