



Response of Visitors on the Management of Animal Conservation in Taman Rusa Park of Aceh Besar, Indonesia

Abdullah and Fahmy Armanda

Study Program of Biological Teaching, Syiah Kuala University, Darussalam, Banda Aceh, Indonesia
Email for correspondence: doel_biologi@yahoo.com

Abstract

This study was done to investigate feedback of visitors on the raise of animals as conservation effort in Taman Rusa Park located at Lamtanjong Village of Aceh Besar, Indonesia. This qualitative research was performed from December 2013 up to March 2014. Respondents were 100 visitors visited the park during the study. Visitors' responses were recorded using structured, closed questionnaire and analyzed using Chi-square. The results showed that visitors had given positive responses on the maintenance of animals in the Taman Park.

Key words : Response of visitors, Animal maintenance, Taman Rusa zoo

Background

As a country has the third largest natural diversities in the world, Indonesia has been attributed as the world "mega-biodiversity". Data from the Indonesian National Planning Agency (BAPPENAS, 2003) showed that there are more than 510 mammalian species (the largest in the world), 1530 bird species (the fourth largest), 270 amphibian species (the fifth largest), 600 reptilian species (the third largest), 1600 butterfly species (the largest) and 20,000 plant species (the seventh largest) inhabited the mainland and marine ecosystems of this world largest archipelago.

In current thirty years, however, the numbers of Indonesian native animals listed in both the "endangered list" of IUCN (International Union for Conservation of Nature) and the Appendices of CITES (Convention on International Trade in Endangered Species) have been increased. Potential extinction of some species has been realized by the Government of Republic Indonesia since Dutch colonization from the given protection status of the animals (Mardiastuti, 2008).

Breeding, raising and protecting of these endangered or potentially endangered animal species outside their natural habitats (*ex situ* conservation) are among efforts

considered to be important to delay and decrease the extinction rate of the Indonesian wild plants and animal biodiversities. Zoo and safari park have been assigned as facilities performed *ex situ* conservation programs so that play important roles in assisting efforts for conserving endangered animals (Seftiawan, 2011).

According to the Decree of Ministry of Forestry of the Republic of Indonesia No. 479/Kpts-II/1994, the main objective for the establishment of a Zoo is to provide a facility to raise and breed wild animals outside of their original, natural habitat in order to protect them from extinction. Zoo is also a recreational place for people to reduce boring and tiredness as well as to kept visitors' stability by recovering their physical and mental fitness. Zoo could widen the understanding and appreciation of people about function of animal parks, improve animal welfare and create connection between *ex-situ* and *in-situ* conservations (Abdullah, 2010).

Taman Rusa that is located in the Lamtanjong village of Suka Makmur Subdistrict, Aceh Besar, Indonesia is a family recreational and playing park. The existence of a mini zoo has 7 captive deer (*Cervus unicolor*) is an icon of this park. Taman Rusa Park is also provided with a

number of playing and culinary facilities. As one of popular recreational sites in Aceh, the park is visited by many people per year. There is no study however, to evaluate animal breeding, raising and management in the park. The aims of this study were, therefore, to explore visitors' responses regarding to the raise of animal and mechanism of animal raising activity provided by Taman Rusa Park of Lamtanjong Village of Aceh Besar.

Materials and Methods

This study was done in Taman Rusa Zoo of Lamtanjong Village of Suka Makmur Subdistrict of Aceh Besar from January 7 upto January 21, 2014. Data collection was done by survey, direct observation, and interview using a validated questioner form. This was a closed questioner focused on the aspect of animal raising and treatment, facilities of the Park, and behavior of visitors. Each question was equipped with four alternative answers as the following: A = very good, B = good, C = below average and D = bad.

Mechanism of animal raising was accessed by doing direct observation to animals kept in Taman Rusa Zoo. The animals observed were mammals (3 types) and avian (1 type). The mammals observed were deer (*Cervus unicolor*), honey bear (*Helarctos malayanus*), and monkey (*Macaca fascicularis*) whereas avian observed was cassowary (*Casuarius casuarius*). Parameter recorded were feeding schedule, type of ransom given, treatment schedules (shower and health check) for 14 consecutive days. Data collected was analyzed using Chi-square test with probability of 5% considered significant (Arikunto, 2006).

Results and Discussion

Visitors' Response on Animal Raising

Data obtained from questioners distributed and direct interviews to visitors suggested that the majority of visitors considered that animal raising performed by the staff of Taman Rusa Park was maximum. Taman Rusa Park implemented its own mechanism for maintaining animals,

cleaning cage, feeding, varying feeds, giving vitamin, and doing medical check up.

Tabel 1. Visitors' answer and expected frequencies

Parameter	Answer Category	f_0	f_h	$f_0 - f_h$	$(f_0 - f_h)^2$	$f_0 \cdot f_h$	
Animal raising and treatment	A	358.00	445.20	-87.2	7603.84	17.08	
	B	367.00	288.00	79.0	6241.00	21.67	
	C	216.00	209.20	6.8	46.24	0.22	
	D	59.00	57.60	1.4	1.96	0.03	
Σ		1000	1000	0	13893.04	39.004	
Park Facilities	A	354.00	445.20	-91.2	8317.44	18.68	
	B	278.00	288.00	-10	100.00	0.35	
	C	292.00	209.20	82.8	6855.84	32.77	
	D	76.00	57.60	18.4	338.56	5.88	
Σ		1000.00	1000.00	0.00	15611.84	57.68	
Visitors' behaviors	A	401.00	222.60	178.40	31825.60	140.53	
	B	75.00	144.00	-69.00	4761.00	33.06	
	C	15.00	104.60	-89.60	8028.16	76.75	
	D	9.00	28.80	-19.80	392.04	13.61	
Σ		500.00	500.00	0.00	44463.76	263.96	
ΣX^2							360.64

The X^2 score of 360.64 was higher than X^2_{tabel} at the probability rate of 5% (12.6). This indicated that visitors' responses on animal raising and maintenance at the Taman Rusa Park of Lamtanjong, Aceh Besar was good (responses were positive).

According to Rakhmat, (2007), peoples' perceptions or responses to a particular matter could be influenced by both internal and external factors. Internal factors influenced visitors' responses were educational background and visitation intensity. The majorities of visitors were high school graduates and visit the park for the first time. External factors influenced visitors' response were good physical condition of animals, comfortable cage, and regular maintenance provide by the staffs of the park.

Mechanism of Animal Raising

In order to know mechanism of animal treatment at Taman Rusa Park, routine observations were done for 14 days on the only 4 types animals raised in the Park (Table 2).

Animal	Mechanism of Raising							
	Cage Cleaning		Type of Food		Feeding Schedule		Treatment schedule	
	Morning	Noon	Morning	Noon	Morning	Noon	Vitamin	Health check
Deer	10.45	17.30	Kangkung, Papaya	Kangkung	07.15	17.45	2x/ Month	1x/ Month
Honey Bear	09.50	16.45	Steamed Rice + Honey	Papaya	09.20	16.30	1x/ Month	1x/ Month
Monkey	08.30	17.45	Cucumber, Banana	Corn, Banana	08.50	17.50	1x/ Month	ND
Cassowary	10.05	16.20	Cucumber, Banana	Cucumber, Banana	10.20	16.35	1x/ Month	1x/ Month

Close observation indicated that Taman Rusa Park implemented unique mechanism to raise, breed and treat animals captivated in the park. As one of ex situ conservation facilities Taman Rusa Park should monitor the raising and treatment of its animal collections. This is in agreement with the decree of Ministry of Forestry and Farming No. 479/Kpts-II/1994 stated that zoo is a place of facility has the main function as *ex situ* conservation agency held treatment and captivation of a large variety of animals.

Conclusion

Visitors had given positive (good) responses on the management of animals' raising implemented in the of Taman Rusa Park of Lamtanjong Village, Aceh Besar.

Recommendation

Management of Taman Rusa Park need to do renovation and upgrading to all facilities of the park in order to provide better treatment, breeding and raising to the captivated animals kept there. The park

required to improve the perception and responses of visitors on animal conservation by providing adequate educational information in and around the park.

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