Zoo management for animal welfare through sustainable tourism principles

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ABSTRACT: This article aims to describe manager and stakeholder behavior in managing zoo using sustainable tourism principles for animal welfare. This study enriches previous research concerning zoo management and sustainable tourism principles. This case study design employed typology analysis to interpret written data, interview, and observation on manager and stakeholder behavior of Surakarta Zoo with Parsons' structural functionalism theory. The result shows that management applies sustainable tourism principles and The Five Freedoms less optimally. Problems such as budget, organization, supervision and control obstacles in managing zoos existed. The findings of this study shed light on putting zoo as a conservation institution and suggest the importance of education, environmental enrichment, and regulation for sustainable tourism and animal welfare.

Keywords: zoo, management, animal, tourism

1 INTRODUCTION

At least there are three functions of zoo: conservation, education and research. But not all people realize those functions, moreover they only know zoo as tourism place where we can see wild animals more closely than watching them on television (Patrick & Tunnicliffe 2013). Zoos' function as conservation indicates how tourism sustainable existence is important to management (Dávid 2011; Hosey et al. 2013; Iswandono et al. 2016). Sustainable tourism existence in zoo management suggests that sustainable ecology is the most significant point except economic value. Therefore, it must be vital step to take animal welfare aspect as first priority, yet the fact indicates differently, because it has not been understood by all zoo managers in Indonesia.

World Society for the Protection of Animals (WSPA) and Pro Fauna explains that the condition of animals in 10 zoos all around Indonesia generally are in less good and satisfied condition. Various events become the proof, like in July of 2013 there were 105 animal deaths in Surabaya Zoo and recently a 3 year old komodo dragon died and was found by a keeper in its cage on Saturday the 1st of January, 2014 in the morning (Indonesia 2014) and other cases happened in Surakarta Zoo or Taman Satwa Taru Jurug (TSTJ) and in Bandung Zoo. Those realities were getting worse with zoo visitor impacting adversely the fauna survival, such as throwing any kinds of food for animals.

The sustainability concept starts to develop as a new perspective in development in 90's. Reaching highest, in 1992 on UN Conference on the Environment and Development (UNCED) in Rio de Janeiro and sounding loudest in effecting development model until sustainable development paradigm born. Sustainable tourism is the part of sustainable development implementation in the tourism sector, therefore needing huge attention (Sharpley 2002; Jayawardena et al. 2008; Demartoto 2009; Hanna 2013). Sustainable tourism is an effort to develop tourism by noticing and integrating economy, social (participation and society interest) and ecology aspects equally (Crouch 2002; Dávid 2011; Davies 2012). Moreover, zoo contexts of all biological resources are part of

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interesting tourism attraction for visitors to come (Patrick et al. 2007; Tyrrell & Johnston 2008). As the expression of moral, animal welfare concept has been developed sufficiently in activist and international animal lover circle. All humans are responsible for pets and wild animals (Webster 2007; Davies 2012). Animal welfare theory contains human care and treatment to animal and how society can increase animal living quality. Every kind of wild faunas and animal must live freely in nature (Röcklinsberg et al. 2014; Cudworth 2015).

In Indonesia, the animal welfare concept is neither popular nor applicable. Indonesian people are less familiar with that, because generally the welfare term is identical with human matters. Nevertheless, Non-Governmental Organization activists who are concerned for animal welfare try to socialize society to understand that the welfare concept is not only for human matters, but also for animals (Eccleston & KE 2009). Animal welfare was revealed firstly by Major C. W. Hume known not only as “father” of animal welfare movement but also as the founder of University of London Animal Welfare Society (ULAWS) in 1926. Human attempts to convince the scientific community to be more humane in treating animal and animals have personalities like people, have emotion, enjoy playing, and have other behaviors similar to humans (Haynes 2008). In animal welfare principle, all people are motivated to be empathic and to appreciate animal (Davies 2012; Mellor 2016).

To gain animal welfare, an international method is needed with particular indicators, such as The Five Freedoms. The Five Freedom Principles are: freedom from hunger and thirst by giving enough food and beverage to guarantee animal health; freedom from discomfort by giving proper care and a gratifying environment for the animal; freedom from pain, injury and disease by preventing illness possibilities and suffering wounds as much as possible, and if the animals still get ill they must be examined by a veterinarian and cured; freedom to behave normally by giving the animals a large environment, which makes them act naturally and gather with other animals and freedom from fear and distress by guaranteeing animal conditions and treatment in order to prevent boredom, stress, fear and worry about threats (Ohl & van der Staay 2012) (McCulloch 2013).

Animal welfare should get attention and be applied to zoos, being one of tourism objects and attractions to run conservation (Catibog-Sinha 2008; Wardhani 2008; Appleby et al. 2011). Flora and fauna conservation in Indonesia has been confirmed with establishment of the conservation institution under various rules and constitutions, for example, part I, first paragraph number 3 of Republic of Indonesia's Minister of Forestry's regulation number P.53/Menhut-II/2006 about conservation institutions. Animal welfare is organized under Indonesian Government Regulation Number 95 in 2012 about Veterinary Society Health and Animal Welfare.

A zoo, in its management system, needs to be supported by a subsystem including actors or managers and stakeholders related to the government, non-government or private sector and society (visitors), goals, situations and conditions as well as normative standards. Structural functionalism theory from Talcott Parsons is a sociological and anthropological perspective defining society as a structure belongs to many related parts and addressed to particular fulfilling need directions and systems. There are four absolute rules to have in order to turn on society function: Adaptation, Goal Attainment, Integration and Latency (AGIL) (Sciortino 2015). Action in zoo conservation indirectly and absolutely must gain animal welfare. More than that, animal welfare needs to be proposed to support various zoo function itself and assure sustainable tourism's role as development model. This research attempts seriously to investigate TSTJ management as an object and tourism attraction and also as conservation place and enrich study about sustainable tourism, especially animal welfare.

2 METHOD

This study used qualitative research with case study being research strategy (Yin 2003). Primary data was obtained directly from the sources including TSTJ manager and stakeholders (tourist or visitor, seller vendor around the zoo, Tourism and Culture Department, Education and Sport Department, Agriculture and Animal Husbandry Department in Surakarta, private sector and academician). Secondary data was obtained from books, the internet, files and documentation related to this

tourism object. The data obtained such as written documents or in-depth interview records and observations were analyzed using a typology analysis technique (Yin 2003; Jenner et al. 2004). To avoid or to minimize possibility bias, the author must crosscheck the interview result from an interviewee with that from another and from TSTJ documents manager (Miles et al. 2014).

3 RESULT AND DISCUSSIONS

3.1 *Narration of management and tourism potential*

TSTJ is one of the main tourism places in Surakarta and famous enough. Historically, this zoo is called Sriwedari Zoo is a part of Sriwedari Park located in Sriwedari administrative village Laweyan Surakarta. TSTJ was built in Sri Susuhunan Paku Buwono X era on 17th July 1901 and developed as public recreation place, as well as announced officially as tourism place in 1976. In addition, there was a park in other place, Jurug Park. The construction of Sriwedari Stadium made fauna collection in Sriwedari Zoo moved to Jurug Park. Since 1983 it called as TSTJ and managed by Bengawan Permai Company as deposit site of Regency Government of Surakarta before then returned to government through Bina Satwa Taru Jurug foundation in 1986-1997, but the management has not been done professionally and the funding was less for developing and building. Briefly, based on Regional Government's Regulation Number 6 of 2010 about Taman Satwa Taru Jurug Regional Building Company, the government built TSTJ Regional Company to support regional economy growth until now. Since that time TSTJ is an object and tourism attraction for society, moreover after it fixed and developed many facilities. TSTJ is not only tourism place but also conservation and research place. It has about 263 animas in its collection coming from local and foreign locations such as Sumatran Tigers, Lions, orangutans, komodo dragons, camels, elephants, snakes, and various plants such as casuarinas, Poinciana, acacia and other trees.

3.2 *Representation of conservation insitutions*

TSTJ, as a recreation, conservation and research place, shows more specialty than other tourism places. TSTJ aims to be committed to flora and fauna conservation, education, rescue and development in social, cultural, entertainment aspects, as well as upgrading regional income. TSTJ conservation department cooperates with the Conservation of Natural Resources House in Semarang and also the Indonesia Forestry Minister. TSTJ puts forward its tourism potential to attract tourist to visit. TSTJ operational management carry out structured coordination related to Conservation Institution. The result of observation shows many improper, rusty and broken cages in TSTJ. Additionally, many faunas have no buddy or partner in the cage, despite the fact that such companionship functions significantly to carry out reproduction and to prevent the animal from being stressed. A way to fulfill the animal welfare principle is to provide partners for breeding fauna, so the conservation department creates a network with the Surakarta government, private sector, personal, community and institution like as the Zoos Association in Indonesia. To carry out cleaning the cages and environment, it cooperates with Sebelas Maret University students, except daily cage cleaning done by the cleanliness department.

In conservation efforts, TSTJ also cooperates with all stakeholders to add fauna collection through grants, such as for orangutans. A veterinarian said there are 34 single (with no partner) animals out of 263 in TSTJ. The existence of a partner becomes an indicator in raising animal welfare. Internal environments inside also contribute to TSTJ management. In previous management, there were many problems related to the management's less optimal and minimal commitment to showing how TSTJ can be interesting to visitors. Human resource utilization, which belongs to TSTJ, has not been run optimally. In the work environment nowadays, there is a good shift in manager and stakeholder commitment in TSTJ development. One of each department starts to innovate by extending outside network to provide education packages through social media, such as through Facebook, Twitter, Instagram and the plazatamanjurug.com website. TSTJ also cooperates with a third party to fix animal parks, because it has little budget only to repair tools and infrastructure. But human resource development has been run poorly due to no promotion or reward system for

staff, but only punishment for the staff breaking the rules. It results in non-maximal staff performance. There are changes in financial resources from tax, rides, and government capital and funds from marketing cooperation. Now, the director of TSTJ regional company is trying to ask tax cutting from Surakarta Government. Therefore, there are efforts in TSTJ management to abide by the sustainable tourism principle for animal welfare. Integration from all parts comes from actor, tool and infrastructure; situation, condition and budget caused TSTJ developed. Instead of it tends to be dynamic but the change not always run well, despite stopped in the certain pattern.

3.3 *Challenges of synergy animal welfare and sustainable tourism*

The management system of TSTJ is in less optimal rank and eventually will be unable to gain sustainable tourism and maintain animal welfare standards. Therefore, a new TSTJ management is needed with sustainable tourism principle and animal welfare being its foundation, meaning that sustainable tourism will smooth the achievement of (Jahja 2016). TSTJ has chosen its direction and tried to gain the fixed goals. The actors of TSTJ management with sustainable principle of animal welfare consist of personal or a group, manager and worker in the zoo, visitor or tourist, seller around the zoo and those related. Society participation is very vital in planning work program. Periodically monitoring and evaluation have been implemented but less optimal. Animal welfare in the zoo will be gained if sustainable tourism principle becomes the foundation of its management. The first step to achieve this is to repair tourism potential aspect, natural resources, human resources and financial resources in TSTJ management system. Those aspects become the key to consider comprehensive management system and expected outcome based on sustainable tourism principle for animal welfare (Talcott & Turner 2013; Ingenbleek et al. 2012). The improvement of human resource aspect can be done by giving education about sustainable tourism principle and animal welfare for TSTJ workers and visitors. It can also be done using an environmental enrichment method which is a method to create conditions and particular treatment based on natural animal life, including (1) structural enrichment; (2) object enrichment; (3) social enrichment; and (4) food enrichment (Beaver 2010; Appleby et al. 2011). In addition, transparency is also important in the term of money, water, land uses and others. Balance should be created between tourist need and society (Mojo et al. 2015). TSTJ must be capable of creating quality of life local society, giving quality of opportunity to service providers in tourism industry and the point is creating quality of experience from tourists. TSTJ can grow because of its difference, uniqueness, and locality in the term of nature, flora, fauna or even culture as creativity, credibility, taste and man's mind.

4 CONCLUSION

TSTJ, as a system, has limitation viewed from the created subsystems, such as actor, tool and infrastructure, situation and condition as well as budget subsystems. Some efforts need to be made to create systemic and comprehensive zoo management: (1) human resource capacity improvement by giving education about sustainable tourism principle and animal welfare for the staff and visitors; (2) using enrichment methods (tool and infrastructure); (3) making regulations related to animal welfare, such as tightening accompanied with straight sanctions implementation for visitor who feed the animals improperly, disturb composure and make stress to animal and pollute or litter in the TSTJ area.

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