

Full Length Research Paper

Assessing protected areas for ecotourism development: The case of Maze National Park, Ethiopia

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Ecotourism is growing niche market with the potential of being sustainable development tool in protected areas. Ecotourism development needs preliminary assessment of the destination resources. This study was done with the objective of assessing ecotourism potential of Maze National Park for ecotourism development. The study used survey research design. Structured questionnaires and structured key informant interviews were used to collect data. Target population of the study was tourism experts. Samples are selected purposefully to gather genuine information from relevant respondents. The result showed that Maze National Park has high ecotourism potential in terms of its natural features, but it has moderate potential regarding provision of site infrastructure and human resource features. The local community residing in the vicinity of the national park has low potential of tangible cultural features but possesses various intangible cultural features which can attract tourists. Hence, the national park has good potential for ecotourism development.

Key words: Ecotourism, Protected Area, Maze National Park, Ethiopia

INTRODUCTION

Ecotourism is one of the most contested subjects in Tourism literatures. It is an object of intense scrutiny, debate and controversy (Weaver, 1998). The specific origins of "Ecotourism" have been variously traced back to Hetzer in 1965, Miller in 1978 and Ceballos-Lascuráin in 1983 (Page and Dowling, 2002). A study by Fennel (2001), unearthed 85 definitions of the term ecotourism, which premised on the variables of conservation, education, culture, benefits to locals and reference to where ecotourism occurs.

The major drive for the creation of ecotourism concept was the growing concerns about the negative environmental and socio-economic effects of tourism

development (EGA, 2008). It was developed as an alternative to preservationist approaches to park management that had marginalized local communities and fueled conflicts (Honey, 2008). In addition, García-Herrera (2011) stated that the existence of ecotourism derive is originated not only from a tourism demand of approaching nature, but also from its active use as a conservation tool in protected areas, since it implies obtaining certain benefits for the conservation of the protected areas.

The International Ecotourism Society defined ecotourism as a "responsible travel to natural areas that conserves the environment, sustains the well-being of the

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local people, and involves interpretation and education" (TIES, 2015). It is promoted as an alternative, low impact form of tourism to natural areas (Charnley, 2005). It is also considered as a solution for decreasing environmental and socio-economic problems and as a sustainable development tool in ecologically sensitive areas (Neba, 2010).

Ecotourism may not always result in environmental and economic contribution, but it may also result in negative impacts. Studies conducted in protected areas revealed that eco-tourism contributes to the protection of biodiversity, supports the welfare of local people, reduces the negative environmental and cultural effects, promotes minimum use of non-renewable resources, and provides job opportunities for local people (Poiani et al., 1998; Yucel, 2002 and Daniel et al. 2005). This does not mean that, there are no potential threats. If it is not properly managed, it may lead to economic fluctuation, tourism industry instability, environmental degradation, increased control by outsiders, cultural distortions, and diminished visitor experience (Drumm and Moore, 2005).

Ecotourism activities are directly related to natural resources and many of these activities take place in protected areas (Nuva and Shamsudin, 2009). Protected areas are increasingly viewed as a critical component of a life support system, and expected to do more – ecologically, socially and economically – than they ever have before (Ervin et al., 2010). They are primarily set up to prevent the exploitation of wildlife and environment, for the purpose of recreation, and as a means of scientific study (Fennell, 2001). They are also believed to be the major tourism assets for developing countries, because they can provide sustainable benefit to the local communities while funding the safeguarding and rehabilitation of the protected areas (Pananjay et al., 2011).

Africa's natural resources, landscapes, wildlife and protected areas established the very basis of its growing tourism sector. National parks and other protected areas in Africa are iconic places and they are protected because of their importance in conserving biodiversity, attractive scenery, indigenous culture, unspoiled nature and pleasant climate (UNWTO, 2008). Tourism uses these free resources, that when packaged can be used for tourism consumption. Thus, ecotourism creates that opportunity.

East African countries are well known for their protected areas and ecotourism development, which draws global attention of tourists that love to enjoy nature. Ethiopia is among these countries which are endowed with diverse tourism resources. In Ethiopia, protected areas cover a total area of 193, 600 km², which is approximately 16.5% of the total land area of the country (IBC, 2005). With a plan to be one of the top five tourism destinations in Africa, Ethiopia incorporated ecotourism as essential policy issue and tourism development strategy (MoCT, 2009).

Therefore, the potential of protected areas for ecotourism development should be assessed before developing and promoting the destination as ecotourism site. Resource assessment for ecotourism development requires preliminary reconnaissance of the potentially relevant resources, and the categorization and weighting of them according to their attractiveness for the purpose of ecotourism (Fagence, 2001). In this study, the ecotourism potential is assessed in terms of site characteristics which include natural features, cultural features, human resource features and site infrastructure needed on the site to support visitor comfort.

MATERIALS AND METHODS

The study used both qualitative and quantitative method. As Onwuegbuzie and Johnson (2006) cited from Onwuegbuzie and Leech (2004), mixed methods help to bridge the schism between quantitative and qualitative research. Spratt et al. (2004) also stated that mixed method provide more comprehensive answers to research questions, going beyond the limitations of a single approach.

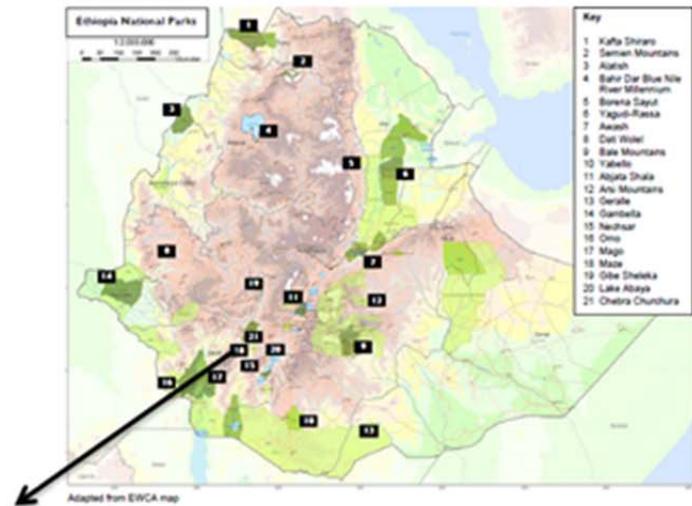
Survey research design was used to assess resource potential of Maze National Park for ecotourism development, because it describes the state of affair as it exists at present (Kothari, 2004). The data were collected from both primary and secondary sources. The primary data were collected from 37 tourism experts while the secondary data were collected from journals, books, web sites and official documents. The respondents were purposefully sampled based on their expertise related to tourism. Structured questionnaires and structured key informant interviews were used to collect data from the respondents. The researcher also made personal observation on tourism resources of the national park. Structured questionnaires were written in Likert scale on the bases of 1 to 5 scales of strongly disagree, disagree, undecided, agree and strongly agree options.

Analyses of quantitative data were made using statistical package for the social sciences (SPSS) version 16 and Microsoft excel 2010. Mean value of each item is provided to show agreement or disagreement of the respondents and the total average mean value of the group is described for a group as a whole to generalize the items. Mean score greater than three describes agreement of the respondents; while, mean value less than three describes disagreement of the respondents. Qualitative data analysis followed steps of data reduction (selecting, focusing, simplifying, abstracting, transforming), data display (organizing, compressing), and conclusion drawing (Miles and Huberman, 1994).

Description of the study area

Maze National Park is located at 06°03'N /37°40'E (SNNPR, 2002). It is found in Gamo Gofa Zone, South Nations Nationalities and Peoples Region (SNNPR), Ethiopia. It is located 460 km south west of Addis Ababa. Formerly the national park was set as controlled hunting area, then transformed to wildlife reserve and finally established as national park in 2005. It is one of the wildlife conservation areas known for its good population of the critically endangered endemic Swayne's Hartebeests. It covers an area of 202 km² (Young, 2012).

The park is covered by savannah grassland with scattered deciduous broad leaf trees as well as riverine forests along the main watercourses. It has large savannah habitat which supports a



Map of Maze National Park and the surrounding woredas

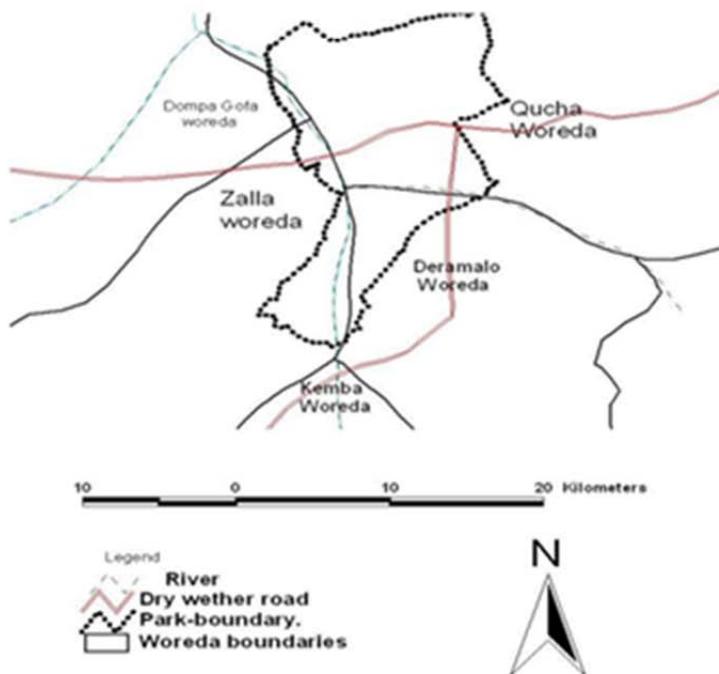


Figure 1. Location of Maze National Park (Source: Young (2012) & www.southtourism.gov.et (2010)).

wide range of wild animals. 39 larger and medium sized mammals and 196 bird species have been recorded. It is one of the three sites in the world where good population of the endemic Swayne's Hartebeest's population still survive (EWCA, 2012).

The park possesses rivers and streams named Domba, Zage, Daho and Lemase which drains to Omo River. The landscape of Maze National Park is surrounded by attractive high rugged mountain ranges, escarpment, and small hills. The national park has topography that ranges between the altitude of 900 and 1400 meters above sea level. Mountain Guge, the highest mountain peak in South West Ethiopia with altitude of 4200 meters is found 40 km away from the national park (Figure 1).

RESULTS AND DISCUSSION

Assessment of ecotourism potential of Maze National Park (MzNP) was made on the basis of natural features, cultural features, site infrastructure and human resource features.

Natural features

Ecotourism often involves travel to natural areas which

Table 1. Attractiveness of natural features of MzNP for ecotourism development.

Resource	C	M	SD
Natural features	37	4.12	0.52

Source: Survey, 2012; C = Count, M = mean, SD = standard deviation.

Table 2. Attractiveness of cultural features of local communities for ecotourism development.

Item	C	M	SD
Cultural features	37	3.17	0.75

Source: Survey, 2012; C = count, M = mean, SD = standard deviation.

are undisturbed, and provide the visitor with attractive set of scenery and observation of wildlife. Spectacular topography, existence of diverse flora, abundance of fauna, quality of ecosystem and wilderness of the national park are major natural features of Maze National Park for ecotourism development. Maze National Park is endowed with high biodiversity concentration and attractive scenery (Table 1).

All of the respondents agreed that Maze National Park has attractive natural features that can attract ecotourists ($M = 4.12$, $SD = 0.52$). In order to qualify any particular site for ecotourism, the natural landscape must give opportunity to enjoy and admire the scenery, wild animals and plants in their natural state and the ecosystem must be relatively undisturbed (Osunsina et al., 2008). The current status of Maze National Park shows that the park is rich in biodiversity. Ecotourism destinations represent national parks with perceived natural characteristics and rich biodiversity, where the intensity of development is very low and where tourism is not developed at the expense of fundamental natural resources (Stankov et al., 2011). Açıksöz et al. (2010) point that topographical diversity, unique beauty, forest assets and wildlife diversity as the major natural ecotourism potential criteria for ecotourism development and Maze National Park fulfills the criteria of topographic diversity, unique beauty, forest asset and wildlife diversity.

Mammalian diversity, large predators and mega-herbivores constitute the component of protected areas that are most important to tourists of all nationalities, budgets and experience (Goodwin and Williams, 2000; Kerley et al., 2003; Walpole and Williams, 2002). Maze National Park hosts 39 species of large and medium mammals and 196 bird species (EWCA, 2012). The national park is also known for its good population of the critically endangered endemic Swayne's hartebeest. The existence of these types of resources gives great opportunity for Maze National Park to develop ecotourism.

The national park has attractive high rugged mountain ranges, escarpment and small hills (EWCA, 2012). This can give Maze National Park an opportunity to attract ecotourists who like to trek through savanna land. Maze National Park is also fortunate in possessing bilbo hot spring and wenja stone cave. Wild animals are the major natural attractions for ecotourism development (Bahmanpour et al., 2012). Wild animals like Orbi, Bohor red buck, Buffalo, Warthog, Bushbuck, Waterbuck, Greater kudu, Lesser kudu, Bush pig, Anubus baboon, Vervet monkey, Lion, Leopard, Wild cats, and Serval cats are among common species in Maze National Park (EWCA, 2012).

Cultural features

Ecotourism also involves visiting cultural features of local communities (Hillstrom and Hillstrom, 2003). Cultural features of the local community living in the vicinity of Maze National Park are evaluated based on the availability and proximity of architectural and archeological features, existence of interesting cultural processes, attractive intangible cultural features, existence of unique conservation mechanisms and availability of other cultural features of interest that are considered to be great interest either to specialists or more general visitors (Table 2).

Just more than half of the respondents agreed that maze national park has attractive cultural feature ($M = 3.17$, $SD = 0.75$). The major cultural attractions located in Maze National Park are Wonja Stone cave and Kaouwo wello. Wenja Stone Cave is a natural rock cave that can hold up to 300 people. According to legends, in the past, the site was used to punish unlawful member of the community (EWCA, 2012). Kaouwo welloe also called Yeniguse Warka (literal meaning - King's tree) is located in Chosho Market. There are two old big trees in this site. It is under these trees, the traditional justice system has been practiced (EWCA, 2012).

The local communities residing near the national park also possess some unique architectural values and the site is close to important cultural features of south omo tribes and fossil deposits of lower omo valley. The local community possesses attractive intangible cultural practices such as dance, music, wedding ceremonies, folklore, traditional legend, rituals and gastronomy.

Physical infrastructure

Physical infrastructure is one of the basic development catalysts in tourism industry (Ray et al., 2015). It is also an important aspect of ecotourism development in destinations because it determines accessibility and quality of a site. Physical infrastructure of Maze National Park was assessed based on availability of electricity, available sufficient potable water, availability of sewage

Table 3. Provision of physical infrastructures for ecotourism development.

Item	C	M	SD
Site infrastructure	37	3.22	0.73

Source: Survey, 2012; C = count, M = mean, SD = standard deviation.

Table 4. Local labor resource for ecotourism development.

Item	C	Mean	SD
Human resource features	37	3.14	0.67

Source: Survey, 2012; C = count, M = mean, SD = standard deviation.

treatment facilities, existence of sufficient roads, pathways and parking facilities, and availability of local construction materials (Table 3).

Respondents rated provision of physical infrastructures of Maze National Park and its surrounding as medium (M = 3.22, SD = 0.73). Maze National park has site infrastructures such as electricity, roads, pathways, and local construction materials to build accommodation and recreational facilities. But, the site lacks infrastructures such as sewage treatment facilities and sufficient potable water. Maze National Park also lacks tourist facilities and services such as quality accommodation, catering establishments, tourist information centers, money exchange and other financial services, adequate medical facilities and services, shopping and personal services, tour and travel operation, postal service and other entertainment facilities. Infrastructure development is essential for the successful development of tourism and can be a particular critical factor in less developed countries which often have limited infrastructure (Herarty, 1989). A destination may possess a great quantity of resources and attractors, but the support of other elements like infrastructure is critical to attract tourists (Gunn, 2002). The areas where ecotourism activities will be held, need to be accessible and able to meet the basic needs of the visitors (Erduran et al., 2012). The result shows that Maze National Park has moderate provision of physical infrastructures.

Human resource features

Tourism is labor intensive and a significant source of employment (ILO, 2010). Tourism is labor intensive because it is service industry, intangible and delivered by people. It is also an important element in developing ecotourism venture in a destination. Availability of human resource features in a destination is considered as one of the key elements in ecotourism development. The

availability of young and skilled labor; ability of community to supply or hire appropriately skilled labor; ability of community members to develop tourism business and management skills; the ability of staffs and the community to effectively interpret resource features and the time demands of other routine or seasonal activities of the community are important factors (Table 4).

Travel and Tourism employs a higher proportion of women and young people (WTTC, 2014). However, the area has large number of young work force, professional workers in the field of tourism and hospitality are few (M = 3.14, SD = 0.67). Although tourism require well-trained professional, it also employ many unskilled or low-skilled individuals (Libreros, 2008). There is sufficient level of young labor for development of ecotourism in Maze national park, which can work on low level operations and provide supplies such as meat, egg, vegetable, milk and others for catering establishments. Routine or seasonal activities in the park are unlikely to interfere, or can smoothly be combined with efficient operation of ecotourism ventures. Ability of community to supply appropriately skilled labor is low and ability of local community to develop tourism business and management skills is subject to preparing training opportunities.

Human resource is an important aspect in tourism because tourism is service industry and large part of its success depends on human resource and the quality of personnel working in tourism (Inskeep, 1991). Study by Lee et al. (2011), also point's human resource as key success factors in ecotourism industry. Local communities near the Maze National Park have great potential of young labor that can be skilled through formal education and short term trainings (Figure 2).

Maze National Park has abundant natural tourism resources. The natural tourism resources of Maze National Park includes different plant, animal and avian species. These tourism resources are distributed on different ecological zones of the national park. The national park has four ecological zones named savanna grass land, grassland with scattered broad leaved short trees, bush land and riverine forest. The national park has also scenic sites, spectacular landscape, attractive hot spring and beautiful mountain chains. In addition to its natural tourism resources, the national park is endowed with cultural tourism resources which include wenja stone cave, life style of the local community, Kaouwoweloa and chosho religious site.

The savanna grassland ecology of Maze National Park is fertile, attractive and open to watch pry-predator conflicts. This ecology supports 39 mammal species and offers frequent observation of wildlife. In addition to these, 75% of wildlife resource of Maze National Park can be observed in the savanna grassland ecological zone, which is accessible by car, motorcycle and on foot. Besides the savanna grass land ecological zone, the other ecological zone that offers pristine natural environment of Maze National Park is riverine forest

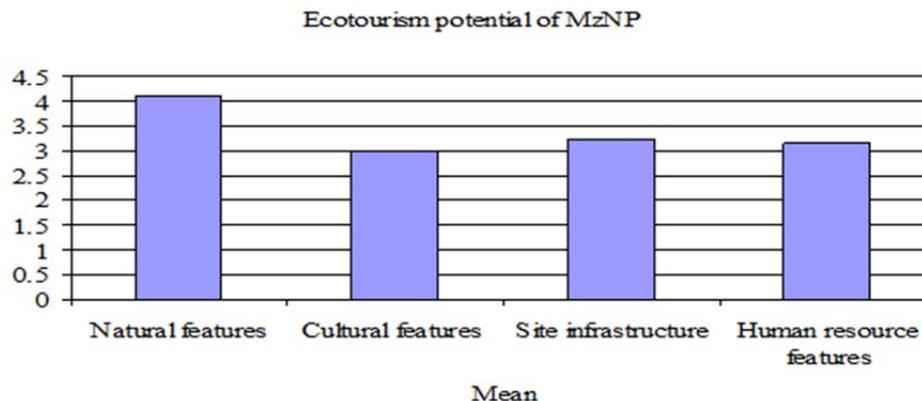


Figure 2. Ecotourism potential of Maze National Park; Source: Survey, 2012.

ecological zone. These riverine forests grow on the shore of rivers passing through the national park which include Lemase, Daho, Zage, Domba, Masta and Maze rivers.

Conclusion

Ecotourism potential of Maze National Park is assessed based on natural resource features, cultural features, physical infrastructure and human resource features. The findings point that Maze National Park has very high potential for ecotourism development in terms of its natural features. The national park has also moderate potential for ecotourism development in terms of site infrastructure and human resource features. Both site infrastructure and human resource features of a destination can be developed by joint efforts of government and local communities. In terms of cultural features, Maze National Park has relatively low ecotourism potential than other potential assessment criteria; however, the local communities living in the vicinity of Maze National Park have their own cultural values and possess some unique features.

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Conflicts of interest

The author has none to declare.

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