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Do Visitor's Views Matter in Determining Popularity of a National Park? A Case Study of Lochinvar National Park, Zambia

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Abstract

A survey to determine local and international visitors' satisfaction levels in Lochinvar National Park, Zambia, was carried out in 2011 and 2012. The study was intended to promote tourism in the National Park by identifying major attractions and weaknesses reported by visitors. The objective was to identify visitor needs to be considered when rehabilitating National Park infrastructure and resuscitating visitor services. To collect data from local and foreign visitors, questionnaires were used. These were placed at the entrance gate and given to each visitor entering the National Park to complete and leave on exit. Results obtained showed that 69 % of visitors were foreign nationals, mainly visiting the park for game viewing and bird watching (62%), as excursionists (43%) or staying for two days or less (37%). Of the seven tourist sites, three were most visited; Chunga lagoon (31%), Baobab tree (18%) Drum rocks and Gwisho hot springs had 17% each. Visitors also reported illegal activities which were most prevalent in the National Park; cattle grazing (45%), littering (25%) and gun shots (15%). A large number of visitors (54%) rated roads as being poor to very poor. Despite the poor rating of road infrastructure, 72% of all visitors expressed willingness to return for another safari. It was concluded that the current low visitor levels to the National Park was linked to the poor state of park infrastructure and facilities and low animal numbers.

Keywords: Visitor Satisfaction, Tourist Attraction, Facilities, Road Infrastructure, Animals, Rating

1. Introduction

Lochinvar was historically a privately owned ranch, which was purchased by Government in 1966 an acquisition aided by a donation from the World Wildlife Fund (WWF). It was subsequently declared a game management area and eventually gazetted as a National Park in 1972. It is located approximately 250 km from Lusaka the capital city and international airport. It is within four hours reach by four wheel drive vehicle from Lusaka. It has a diversity of cultural and natural attractions, which form the basis for the development of sustainable nature tourism. Among the most important natural attractions is the endemic Kafue lechwe (Kobus leche kafuensis), which is one of the three sub species found in Zambia. Archaeological excavations of human antiquities have been made and some of the finds are displayed at a small museum located at the main entrance gate. Other sites of interest include; the mythical baobab tree and the drum rocks both of which are adjacent to each other. An outstanding phenomenon of interest in Lochinvar National Park is bird life. No less than 400 species of birds (Leonard, 2005; Chomba and M'Simuko 2013a, b) have been recorded. It is for this reason that Lochinvar National Park and the entire Kafue Flats are christened the Bird Watcher's Paradise. Prominent among them include spur winged goose, fulvous and white faced tree ducks, grey purple and goliath herons, reed cormorant, darter, pink backed and white pelicans. Fish eagle and crowned and wattled cranes can be seen in the termitaria zone during high floods. Secretary bird and Denham's bustard may also be seen. In the woodland zone, helmeted guinea fowl, swainson's francolin, and red-billed hornbill are common. From November through March/April, Euro-Asian migrants mingle with resident birds on the flats creating an unrivalled bird watchers' paradise. Lochinvar together with Blue Lagoon National Parks were declared a Ramsar Site (Wetland of International Importance) in 1991 in recognition of their uniqueness as a wetland and habitat for waterfowl.

This brief description is in no way adequate to characterise the aesthetic beauty and biological richness of Lochinvar National Park. Main natural and cultural attractions in general are; birdlife, endemic Kafue lechwe, hot springs, late Stone Age and Iron Age sites and Chunga lagoon. In recognition of this inherent biophysical richness of the area, the old farm house was converted to a lodge and opened in 1970 to promote tourism (ZNTB, 1975). In the mid 1990s a semi luxury tented camp was established near Chunga lagoon. The Local community also established a public campsite in the woodland zone south west of the National Park headquarters. An all weather air strip near the main entrance gate has been maintained to provide air link services.

The main access to the park is by gravel road from Monze town for a distance of about forty-eight kilometres. The park is open for tourism in the dry season, May to October. However, since 1999 when the Department of National Parks and Wildlife Service (NPWS) a government department, was transformed to a semi autonomous institution, Zambia Wildlife Authority (ZAWA), government funding waned. Poaching increased depleting many species of animals. Road infrastructure and park facilities were in state of disrepair due to lack of funding from the state. The park subsequently became unattractive to private investments and visitor levels equally declined (ZAWA, 2004). Since then, no studies have been conducted to obtain current visitors' views and recommendations regarding the attraction profile of the National Park and whether it is meeting visitor expectations. Such as an assessment is critical as it will allow ZAWA to prioritise activities that would resuscitate the National Park and restore its lost popularity.

This survey therefore, was conducted to promote tourism in Lochinvar National Park and the main objective was to reveal the needs from the clients and reflect them to the park management for implementation.

2. Materials and Methods

2.1 Location and Description of Study Area

Lochinvar National Park covers an area of about 410 km² in extent, representing approximately 7.9% of the Kafue Flats' total area of 5, 175km². It is located at 15° 40'S - 16° 10' S and 27° 10' E-28° 20'E in Southern Province (Figure 1).

The National Park is part of the Kafue Flats, which is an extensive floodplain of the Kafue River system, situated between the Itezhi-tezhi and Kafue Gorge dams. There are two National Parks on the Kafue Flats; Blue Lagoon National Park on the north bank and Lochinvar National Park in the south bank and the Kafue Flats Game Management Area encloses the two National Parks. The area is home to an endemic subspecies and semi aquatic antelope the Kafue lechwe and several IUCN endangered bird species including wattled crane (*Grus carunculatus*) (Chansa & Kampamba 2009) and endemic Zambian barbet (*Lybius chaplini*) (Leonard, 2005).

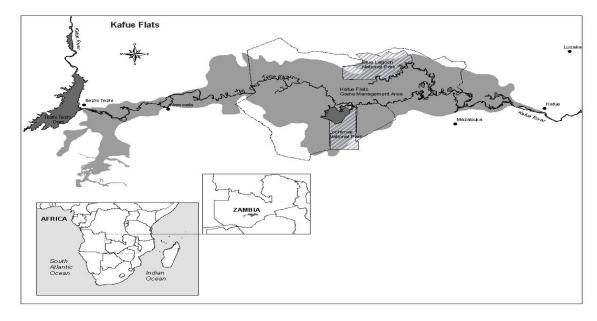


Figure 1 Location of Lochinvar National Park, Kafue flats, Zambia.

2.2 Field methods

Questionnaire survey was used to collect data from local and international visitors. As earlier acknowledged by Nichols (2000) and Aggarwal (2013) this method of data collection is popular, particularly in case of big inquiries. In this study, 100 questionnaires were sent to the main entrance gate at Lochinvar National Park. Visitors were required to answer questions and return the questionnaire. This survey targeted tourists entering Lochinvar National Park during the tourism seasons (April/May-October/November) of 2011/2012. During the research period, revenue collectors stationed at the main gate handed out a copy of the questionnaire to each tourist as they entered the Park. The questionnaires having been dully completed were then handed over to the revenue collectors by the tourists on their way out of the National Park.

The merits of this method were that: i) there was low cost as the questionnaires were delivered through the administering agency, ZAWA, ii) it was free from bias of the interviewer which provided visitors with an opportunity to answer in their own words, iii) respondents had enough time to read through and give good answers. In handing out questionnaires to each visitor entering the National Park, it was assumed that all tourists would read and understand English.

Before applying this method, a pilot study for testing the questionnaire was conducted to detect weaknesses in the questionnaire. The questionnaires were then refined to improve effectiveness in collecting the relevant information.

2.2.1 Questions

The questionnaire had 13 questions focusing on among others the following main areas: i) gender of visitors, ii) nationality, iii) popular recreation activity(ies), iv)length of stay *per* visit, v) sites visited, v) mode of transport used, vi) assessing and rating the quality of; roads, facilities and services, wildlife and tourist sites visited, and ZAWA staff, vii) major illegal activities observed, and viii) visitor's willingness to return on another safari.

2.2.2 Nature of Questions

Closed format questions; respondents selected from sets of predetermined answers which were; .dichotomous, multiple choice, multiple responses, rank/match or likert scale formats.

In dichotomous questions; respondents were to answer yes or no and a provision for don't know was also given. In multiple choice questions there were no restrictions on the number of options given. Respondents were also able to answer 'don't know', 'all' or none. The respondents were allowed to answer 'don't know' in instances where they did not have an answer.

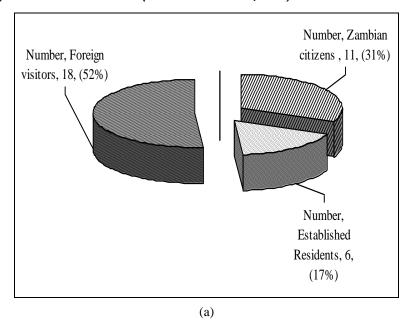
In ranking format questions; choices were ranked in order of importance, with the least important coming last. In likert questions; visitors had the choice to respond and indicate the level of agreement such as; strongly agree, disagree, strongly disagree or neither. In rating questions visitors were able to rate based on some attribute from poor to excellent as earlier described by Gosh (2013) and Kothari (2009).

3. Results

Of the total 100 questionnaires provided, 50 were returned by tourists. Of the 50 collected, 15 were incomplete and therefore rejected and discarded giving a balance of 35. Detailed results are shown below:

3.1 Nationalities Visiting the National Park

There was a significantly larger number of foreign nationals (69 %) visiting the National Park from nine different countries than citizens (31%) ($\chi^2 = 6.08$, DF = 2, $\alpha = 0.05$, P < 0.05). Most international clients were from European countries such as Netherlands, Germany, and the United Kingdom (Figure 2a &b).



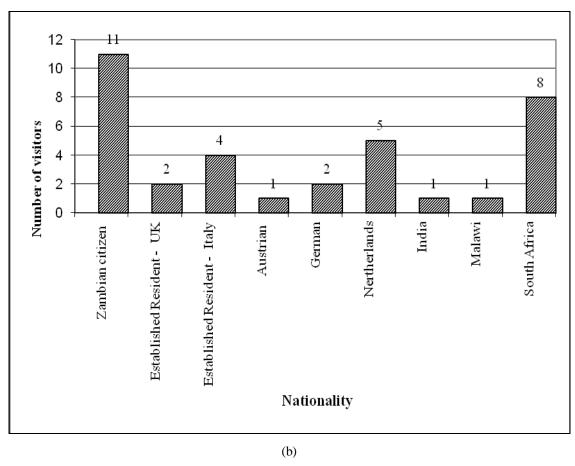


Figure 2 a) Proportional representation of nationalities, b) details of nationalities of visitors to Lochinvar National Park, Zambia.

3.2 Purpose of Visit

Game viewing (32%) and Bird watching (30%) were the major purposes of visiting the Park for both local and international clients. Camping, visit to hot springs and historic sites were the next most important, while the remaining ones had significantly very low rating (Figure 3), ($\chi^2 = 22.82$, DF = 5, $\alpha = 0.05$, P < 0.05).

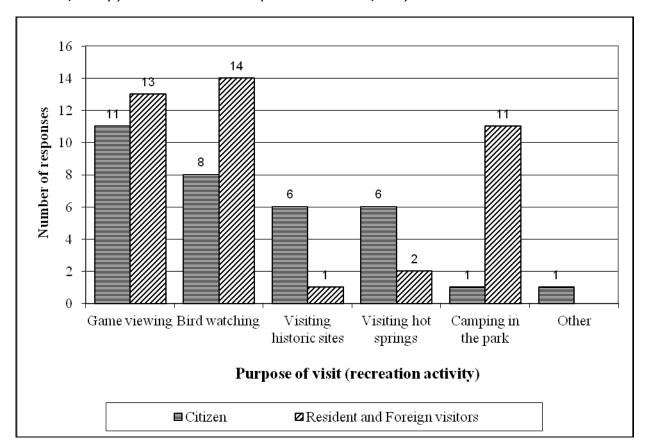


Figure 3 Visitors' purpose of visit to Lochinvar National Park, Zambia

3.2 Sites Visited as Indication of Popularity

The most visited sites were Chunga lagoon (31%), baobab tree (18%), Gwisho hot spring (17%) and drum rocks (14%) ($\chi^2 = 33.5$, DF = 6, $\alpha = 0.05$, P < 0.05). These four sites were the most visited and accounted for 80% of all site specific visits (Figure 4).

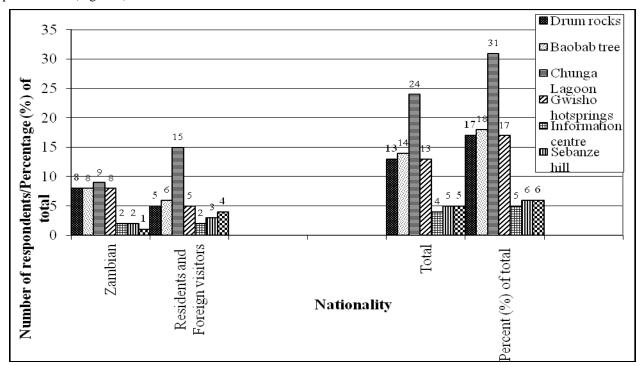


Figure 4 Sites most visited by tourists in Lochinvar National Park

3.4 Length of Stay

The length of stay was short with 80 % of all visitors staying for two days and less; 43% going on day trips and 37 % for two days. Visitors staying for two days and more were all foreign nationals (Figure 5).

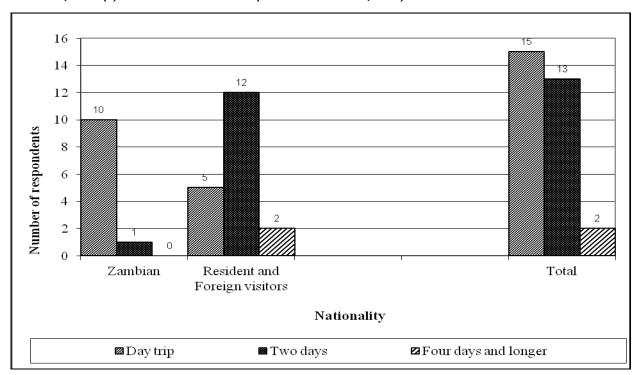


Figure 5 Number of days spent in the National Park by local and international visitors.

3.5 Respondents' History of Previous Visitation(s)

There were low levels of return visits to Lochinvar National Park. Most foreign nationals (84 %) and citizens (64 %) visited Lochinvar National Park for the first time (Figure 6a&b).

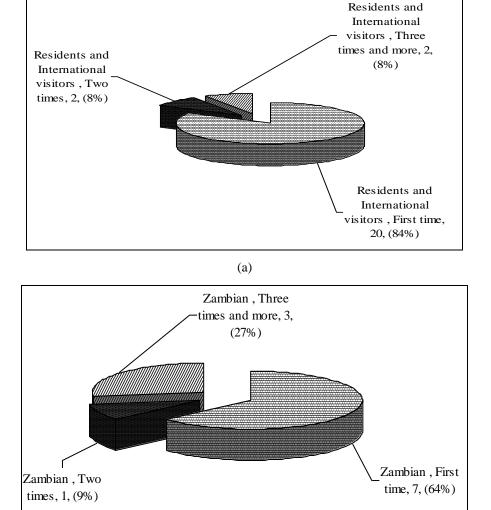


Figure 6 Number of visits to the National Park by a) established residents and international visitors and b) citizens/ local visitors.

(b)

3.6 Means of Transportation

Most visitors (60 %) used private four wheels drive vehicles and 26% used hired vehicles. Private non four wheels drive vehicles were not popular and were the least (14 %) (Figure 7).

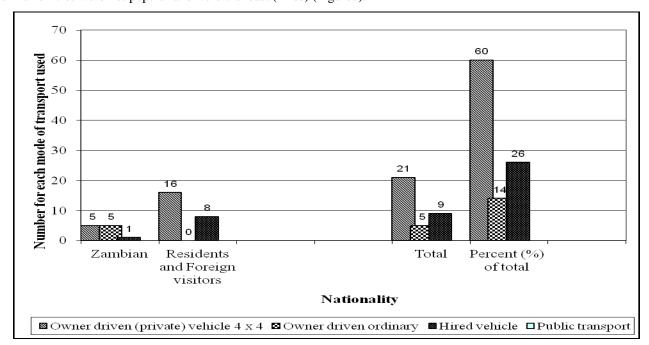


Figure 7 Means of transport used to Lochinvar National Park

3.7 Other National Parks Visited

Mosi oa Tunya, Kafue and Lower Zambezi National Parks were the most visited alternative destinations, account ting for 83% of respondents; Mosi oa Tunya 40%, Kafue 23 % and lower Zambezi 20% (Figure 8). This could be attributed to their relative proximity to Lochinvar National Park.

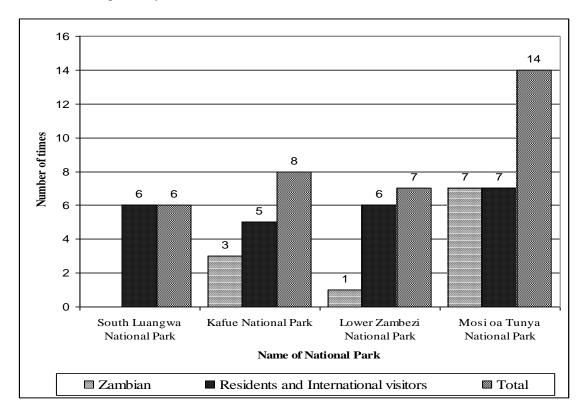


Figure 8 Other National parks visited

3.8 Evaluations of Roads, Facilities, Wildlife, and ZAWA Staff

Roads were the most poorly rated infrastructure by both local and international visitors. A total of 11 (45 %) of established residents and International visitors rated roads between poor – very poor; while 72 % of citizens rated roads between poor-very poor. Park facilities were the second most poorly rated with 42 % established and international

visitors rating them as very poor, 29% poor and 25% fair. Citizens rated facilities 27% very poor, 27% poor and 46 % fair. Wildlife was the third most poorly rated accounting for 33 % and 38% established residents and international visitors rating between fair – poor respectively. Citizens rated wildlife fair (36%) and poor (27%) which is indicative of a general poor state of the National Park in terms of diversity and abundance of animal species except birdlife. Staff performance was the only highly rated parametre by both citizens and international visitors. A total of 15 (63 %) of established residents and international visitors rated staff at between good - excellent, 91 % of citizens rated between good-excellent (Table 1).

Table 1 Rating of National Park roads, facilities, wildlife and Zambia Wildlife Staff, Lochinvar National Park, Zambia

Parametre	Citizen Established residents and		Total		
Rating			International visitors		
Wildlife	Number	Percent (%)	Number	Percent (%)	
Excellent	1		1		2
Good	3		6		9
Fair	4		9		13
Poor	3		8		11
Very poor	0		0		0
Sub total	11		24		35

Roads	Number	Percent (%)	Number	Percent (%)	Total
Excellent	0	0	0	0	0
Good	0	0	3	13	3
Fair	3	27	10	42	13
Poor	5	46	6	25	11
Very poor	3	27	5	20	8
Sub total	11	100	24	100	35

Park facilities	Number	Percent (%)	Number	Percent (%)	Total
Excellent	0	0	0	0	0
Good	1	10	1	4	2
Fair	4	36	6	25	10
Poor	3	27	7	29	10
Very poor	3	27	10	42	13
Sub total	11	100	24	100	35

National Park	Number	Percent (%)	Number	Percent (%)	Total
Staff					
Excellent	3	27	3	12.5	6
Good	7	64	12	50	19
Fair	1	9	3	12.5	4
Poor	0	0	3	12.5	3
Very poor	0	0	3	12.5	3
Sub total	11	100	24	100	35

3.9 Information Sources about Lochinvar National Park

Majority of visitors (49 %) obtained information about Lochinvar National Park though guide books, and 17 % through internet, family and friends and others. No visitor reported having used signposts, signifying their virtual absence.

3.10 Illegal Activities Observed by Respondents

Cattle grazing and littering were the leading illegal activities observed by the respondents accounting for 69 % of all incidences ($\chi^2 = 26.41$, DF = 5, $\alpha = 0.05$, P < 0.05). Five respondents (15 %) reported hearing gunshots, which is categorized as serious offence (Figure 9).

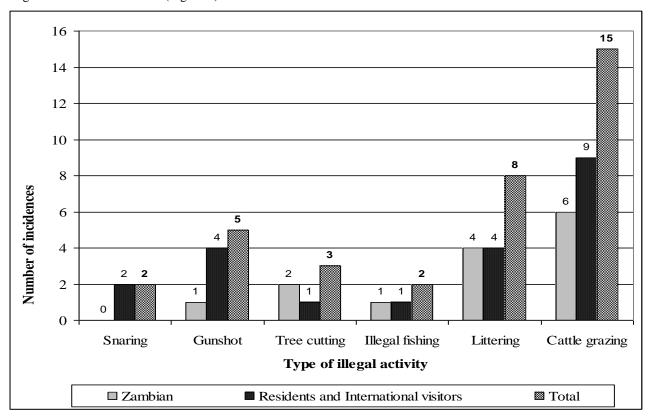


Figure 9 Illegal activities observed in Lochinvar National Park by local and international visitors

3.9 Willingness to Return for another Visit

Despite the poor rating of roads, 72 % of all respondents were willing to return for another visit. The number was slightly higher among citizens, where 73% were willing to return and only 23 % were unwilling. Of all established and international visitors 71 % were willing to return and only 29 % were unwilling (Figure 10) suggesting that the park still had potential to attract local and foreign tourists.

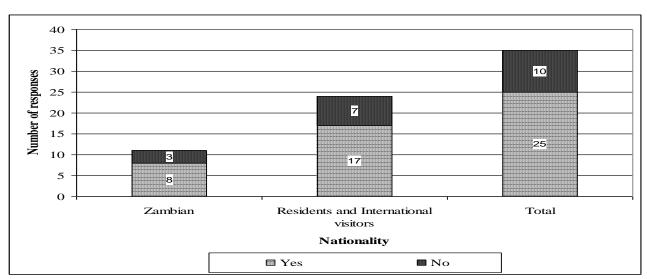


Figure 10 Visitors' willingness to return for another safari to Lochinvar National Park

4 Discussion

Describing characteristics that define a destination is complex. However, Holloway *et al.*, (2009) showed that all visitors expect certain standards, cleanliness, accurate marketing, decipherable road signs, and so on. But they also want 'special something' which makes a destination unlike anywhere else. In discussing any destination therefore, two important considerations cannot be ignored; i) the physical and psychological elements of a destination, and ii) image of a destination. These two considerations are critical in maintaining the destination's popularity which also influences the number of visitors that would be attracted.

The image of a destination relates to a number of physical attributes; attractions and amenities, buildings, landscapes together with perceptions allied to the destination, the atmosphere generated by being there, sense of awe, alienation, or other emotions stimulated by being at that place.

Based on the nature and capacity to attract and retain tourists, Holloway *et al.* (2009) categorised destinations in five general groups; i) *centred destination*, where tourists travel to a destination to spend the majority of their time, with perhaps excursions to visit near by attractions, ii) *base destination*, where the surrounding region can be explored, iii) *multi centre holiday*, where two or more destinations are of equal importance in the itinerary, and most visits to National Parks fit under this category, iv) *touring destination*, which is part of a linear itinerary, including stops at a number of points, and v) *transit destination* which merely provide an overnight stop en route to the final destination. The poor road net work and lack of facilities in Lochinvar National Park, has at least based on the findings from this study transformed it from being a multicentre holiday or base destination to a transit destination for tourists en route to the Victoria Falls or Lusaka and *vice versa*, which explains why the length of stay in the park is short and largely day tripping.

4.1 Inherent Biophysical and Cultural Attributes (Tourist Considerations in Maintaining Park Popularity)

Benefits inherent in the destination rather than purpose built facility specifically designed to appeal to tourists is usually the key factor in attracting visitors. However, for a destination to be attractive there are other attributes to be considered.

Mackinnon *et al.* (1986) provided a checklist of ten factors which we found to be relevant to Lochinvar National Park. Below we examine Lochinvar National Park on the basis of the ten parameters as follows:

Is Lochinvar National Park close to an international airport, major tourist centre, or moderately close? The park is only about 250km from the capital city Lusaka and international airport. The distance is relatively short enough and therefore not an obstacle.

Is the journey to Lochinvar National Park easy and comfortable? Requires a bit of effort or is arduous or dangerous? The 50km stretch from Monze to Lochinvar National Park is arduous usually requiring four wheels drive vehicles only. In side the National Park, the road network is poor and strenuous. This is a major obstacle and could be one of the major factors contributing to the low numbers of visitors.

Does Lochinvar National Park offer star species attraction? Other interesting wildlife? With about 400 species of birds recorded, the park offers the best waterfowl watching in the country. It is for this reason that Lochinvar National Park and the entire Kafue Flats are christened the Bird Watcher's Paradise which enthrals ornithologists and amateur bird watchers alike. On this front, the park is highly rated which is the main reason that most visitors indicated that bird viewing was their main attraction.

Is successful viewing guaranteed, usual or only with luck or highly seasonal? Despite the low animal numbers, game viewing on the Kafue flats is guaranteed, as it combines bird watching with game viewing by walking, driving and by boat. High visibility on the flats guarantees successful viewing.

Does Lochinvar offer several distinct features of interest? More than one features of interest? The area is a Wetland of International Importance (Ramsar 1971) which gives an enhanced global profile for all bird watchers. It is also one of the few areas in Zambia where more than 20 species of raptors are known to breed (Chomba & M'simuko, 2013;

Chomba et al, 2013) and many others.

Does the area have additional high cultural interest? Excavations at Sebanze hill reveal late Stone Age and Iron Age settlements which have an anthropologic importance and an attraction to visitors.

Is the area unique in appeal? The National Park is of outstanding aesthetic beauty; endemic species of lechwe, more than 400 species of birds, openness and others all make it a germ for out door recreation and appreciation of open space.

Does the area have a beach or lake site recreation? Chunga lagoon is a popular open water body and all year round home to many species of waterfowl.

Is the area close enough to other sites of tourist interest, or part of the circuit? Lochinvar National Park is within the Lusaka-Victoria Falls-Kafue National Park circuit. No wonder, most of the respondents had been to Livingstone as it is easy to branch off from the Lusaka-Livingstone road to Lochinvar National Park and back to the main road en route to the Victoria Falls or Kafue National Park.

Is the surrounding area of high scenic beauty or intrinsic interest? The entire Kafue flats in which Lochinvar National Park is situated, is an area of exceptional beauty, and this explains why many visitors (72%) indicated willingness to come back even when the roads were rated as being poor – very poor.

It is apparent from the above assessments that the area is naturally endowed with favourable biophysical attributes to attract large numbers of tourists. It can be assumed that poor road infrastructure, lack of visitor facilities, low animal numbers, high incidences of illegal activities and lack of marketing are the factors responsible for low tourist numbers in recent times.

4.2 Visitor Needs

Game viewing and bird watching were the major purpose of visits. The openness of the Kafue flats offered optimum visibility which favoured game viewing and bird watching. Even when animal numbers are low such as at the moment, visitors are able to see them even at long distances which would not have been the case in forested habitats. On the aspect of bird watching in particular, Chunga lagoon which retains water all year round is an important habitat for water fowl for which the area was listed under the Wetlands of international importance. In the late dry season/beginning of the rainy season when Palaearctic migrants start arriving, bird species diversity soars to about 400 species and bird watching becomes an exceptional recreational activity to all visitors. Additionally, waterscapes are inherently popular among tourists as they offer opportunities for a myriad of water based activities. This explains why Chunga lagoon was the most important site visited in the whole Lochinvar National Park.

Game viewing in general is relatively easy owing to the flatness and openness of the area. Viewing of large game is therefore an interesting and rewarding exercise as it is easier to access all areas of interest even in places where the roads have not been repaired in years. This is assumed to be one of the major factors responsible for the visitors' willingness to return even when roads were rated as poor-very poor. The closeness of major sites of interest, such as baobab tree, drum rocks, hot springs, Sebanze hill, Chunga lagoon, which can all be reached within four hours time makes the National Park popular, because a visitor is able to visit many sites even in a day's trip. This enriches the tourist's experience. On the other hand however, this could as well be a disadvantage as visitors may be unwilling to stay longer than a day when they have visited all spots of interest. The only ones that may wish to stay longer are those with exploratory interests including camping to enjoy natural land and soundscapes. In larger and forested National Parks, this is not possible because most areas/sites of interest are usually further apart requiring a full day's travel to reach them and visitors tend to stay longer.

4.3 Low Visitor Numbers (Accessibility)

Lochinvar National Park is located just about 50 km from the Lusaka – Livingstone highway. It is convenient for visitors to and from the Victoria Falls in Livingstone to branch off and enjoy bird watching which is not offered at the Victoria Falls. The area also has an endemic species of lechwe and visitors interested in seeing Kafue lechwe would only do so by coming to the Kafue flats and Lochinvar National Park in particular, which despite having poor roads is in fact

more accessible than the Blue lagoon National Park in the North Bank. Visitors therefore, have no option but to come to Lochinvar National Park, which has more variety of sites than the Blue Lagoon National Park.

The low visitor numbers and short retention period, day trips at most, could be attributed and otherwise exacerbated by poor road infrastructure and lack of accommodation facilities. The lack of visitor accommodation facilities for sleeping and other forms of hospitality is a major constraint on the number and length of stay. This restricted the number of visitors to a smaller market segmentation of campers. Even the excursionists or day-trippers did not have pic nic sites for take-aways and refreshments which explains why there were few local tourists and long-haul road bound tourists. One would have expected, at least going by the increase in private car ownership, which provides families with a new freedom of movement that the number of local visitors and day trippers should have by now reached saturation point. Poor roads which tend to accentuate depreciation, wear and tear of vehicles prevented most local tourists from using their personal cars to access the park.

On the side of marketing, interpretation and information services, the park has been relegated to self discovery. There is no strategy to advertise the park and highlight its major attractions to local and international tourists. Information about the National Park is inert and out of reach with little and often outdated bits of it in old, obsolescent and out of print guide books. The websites for Zambia Wildlife Authority and Zambia National Tourist Board which are supposed to be major custodians of contemporary information for tourists are all moribund and hardly updated. This may in a way lead to accidental discovery rather than active persuasion through vigorous marketing. It is likely that the low numbers registered may not only be as a result of poor road infrastructure but lack of marketing as well. Marketing is an important and powerful tool in attracting visitors (Holloway *et al.* 2009), the lack of it affects the sector negatively giving advantage to those that are on the readers' screens. It is also likely that Lochinvar may have been overshadowed by other areas with more vigorous marketing strategies. The absence of a resident operator has also contributed to the absence of marketing. In National Parks such as South Luangwa, Lower Zambezi and Mosi oa Tunya, most of the marketing is done by tour operators.

4.4 Recommendations

All tourist destinations require adequate attractions, amenities and accessibility if they are to appeal to large numbers of tourists. The better the destination is managed the easier it becomes to market that destination to visitors. Although National Parks are supposed to be left in their natural beauty as far as possible, but nevertheless for Lochinvar and other National Parks, management in terms of provision of access, accommodation, parking facilities, signage, litter bins and others are critical if they are to attract and retain visitors. Broadly we outline recommendations which would help to restore Lochinvar National Park back to its former glory as follows:

- i) Provide accommodation facilities including camp and pic nic sites: Both local and international clients recommended the need for accommodation facilities, and the international clients complained about the poor facilities at the community campsite particularly toilet facilities. Provision of such facilities will enhance the clients' satisfaction and also increase the length of stay. One client proposed establishing a new camping site near Chunga Lagoon, to provide access to open water where blinds can be provided for watching birds and timid mammals and reptiles.
- ii) Provide and maintain good quality road access to and within the park: Clients regarded accessibility to and movement within the park arduous. Improving road quality will enable visitors to use any type of vehicle, unlike now when only four wheel drive vehicles are recommended.
- iii) Regular updating of ZAWA and ZTB websites: Information available on ZAWA and ZTB websites is often limited and at times obsolete. These web sites should among others include access and accommodation information. In addition to websites, would be quality signage, brochures of good design and format and provision of trained guides to interpret to visitors and make their safari more rewarding.
- iv) Law Enforcement Activity(ies): Game viewing and bird watching are the major recreation activities, thus it is essential to focus efforts on protecting this resource base. The incidences of the illegal activities recorded during this

research, especially gunshots, may make the tourist uncomfortable and less secure and discourage those who may wish to return.

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