Estimation of optimal conservation fees for international park visitors in the Kgalagadi Transfrontier Park

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ERSA working paper 393

November 2013

Economic Research Southern Africa (ERSA) is a research programme funded by the National Treasury of South Africa.

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November 19, 2013

Abstract

This paper estimates the visitation demand function for Kgalagadi Transfrontier Park (KTP) in order to determine the conservation fee to charge international tourists to maximise park revenue. International tourists account for approximately 20 percent of total number of visitors to South African national parks, with domestic visitors making-up the remaining portion. Though small, the South African international tourism market is mature, and accounts for a disproportionately large share of net revenue. The random effects Tobit model is used to estimate visitation demand at the KTP and three other national parks. Using the estimated elasticities, the revenue-maximizing daily conservation fees are computed to be R1 131.94 (US$144.20) for KTP, R575.67 (US$73.33) for Kruger National Park (KNP), R722.95 (US$92.10) for Augrabies Falls National Park (AFNP) and R634.11 (US$80.78) for Pilanesberg National Park (PNP). Our findings therefore imply that the conservation fees of R180 (US$22.93) for KTP and KNP, R100 (US$12.74) for AFNP, and R45 (US$5.73) for PNP currently charged to international visitors are significantly lower. This indicates that international park fees could be raised.

Keywords: conservation fee, demand, land claim, national park.

1 Introduction

South Africa has experienced a significant increase in international visitors over the years, due in large part to the uniqueness and attractiveness of its national parks. This was achieved despite incremental increases in conservation fees[1] over

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[1]The term 'conservation fee' was officially adopted effective 2 April 2003 in place of 'admission/ entrance fee' because the former better describes the park agency's mission more appropriately (McKinsey, 2005).

the years. Unlike many other African countries that boast of a relatively more significant international tourism market, South Africa has a relatively larger domestic market. As such, the domestic tourism market is South African National Parks' (SANParks[2]) core market. South African residents account for approximately 80 percent of total number of visitors to national parks, with international visitors making-up the remaining portion (SANParks, 2010). Though small, the South African international tourism market is mature, and accounts for a disproportionately large share of net revenue. According to Stevens (2013), a breakdown of the SANParks 2009/10 total conservation fee net revenue indicates that conservation fees generated from SADC and international tourists conservation fees accounted for 0.42 percent and 36.49 percent respectfully.

The imposition of conservation fees at national parks was introduced when the first national park, Kruger National Park, was proclaimed in 1926.[3] Although conservation fees were introduced that long ago, it is only as recent as 2 April 2003 that SANParks adopted a new pricing structure (Pienaar, 1990).

Following the implementation of the revised pricing policy, conservation fees now distinguish between South African residents, SADC residents and residents of the rest of the world; and vary between parks. One of the motivations for a nationality-based price discriminatory strategy in favour of domestic nationals was that domestic residents contribute towards taxes from which SANParks receives state funding. With the revised pricing policy, price is no longer only a function of the preferences of these tourists for the park itself, but also a function of prices for other parks. The variation in fees between parks seems to have been rationalised mostly by appealing to a combination of both differences in their physical size and popularity.

A point to note is that conservation fees are now payable daily even though, for easier administration, they are actually paid for every night spent inside the park. Nonetheless, it is unclear what criterion is used to determine conservation fees. Despite a few price increases at South African national parks, there seem to be few or no formal criteria with regard to determination of conservation fees.

Because the park agency seems to be ploughing all conservation fees currently generated back into conservation (SANParks, 2010), it would need to be able to generate additional revenues for any benefit-sharing with local communities to be possible. In this spirit, the main objective of our research is to estimate international optimal[4] conservation fees which should be charged at KTP to maximise revenue. This is done with the help of the contingent behaviour methodology. Therefore, this is a valuation study, asking tourists who come to the park what they would do with varying prices.

[2] SANParks (formerly known as the National Parks Board prior to 1997) is the overarching government agency pertaining to national conservation in South Africa (Kruger Park Times, 2009).

[3] The records from the park show that the three cars that visited the park in 1927 were the first to be charged conservation fees of £1 (equivalent to R2 at the time) each.

[4] In the discussions of other monopolistic behaviour we normally assume that the socially optimal price, at least for domestic consumers, is one where the price is equal to the marginal cost. In the literature on park fees, revenue (or rather profit) maximization is seen as a goal for fees facing international tourists, but usually not the domestic tourists.

2 The Kgalagadi Transfrontier Park

The KTP is located in the Kgalagadi District on the south-western border of Botswana and the Northern-Cape border of South Africa. It can be accessed through five gates in three different countries, namely South Africa, Botswana and Namibia (SANParks, 2010). The park boasts an area of 3.8 million hectares and this makes it one of the biggest conservation areas in the world (SANParks, 2006). KTP is classified as a category 2 park according to the IUCN classification of protected areas (IUCN, 1994a; Sandwith et al., 2001).

KTP encompasses part of the ancestral site of the Khomani San "bushmen" community. As part of South Africa's land restitution programme, the Khomani San community, together with the adjacent Mier community, was awarded land inside and outside KTP in May 2002. SANParks was tasked with co-managing the transferred land inside the park on behalf of the local communities as contractual parks.

The household income for the Khomani San is very low, with high unemployment rates. They have not really benefitted from the land restitution (Dikgang and Muchapondwa, 2013) and are heavily dependent on natural resources (Dikgang and Muchapondwa, 2012). Therefore they can become a threat to conservation in their area by overexploitation of natural resources. To discourage overexploitation, the park agency urgently needs to generate benefits to share with the Khomani San. In addition, charging appropriate conservation fees at KTP could mitigate the adverse effects of the dwindling tax-based government funding for conservation.

Furthermore, appropriate park pricing takes into account the correct economic value of park visitation because conservation fees are a proxy of the valuation placed on recreation by park visitors (Lee and Han, 2002). We implicitly assume that revenue maximizing fee level is the optimal one. In the literature on park fees, revenue (or rather profit) maximization is seen as a goal for fees facing international tourists, but usually not the domestic tourists.

3 Related Literature

There are generally four pricing objectives that are evident in protected areas such as national parks. Charging at parks aims to impute value to visitation, manage parks at economically efficient levels, operate within ecological carrying capacity limits and achieve social equity.

Most of the studies that have being undertaken with regard to setting park fees reveal that the actual conservation fees that are currently being charged to park visitors are significantly below what visitors are willing to pay, as well as what is required to cover operational costs (e.g. Laarman and Gragersen, 1996; Schultz et al., 1998; Scarpa et al., 2000; Naidoo and Adamowicz, 2005). This implies that most parks visits are under-priced. Such a perverse outcome suggests that relatively poor countries are subsidizing visits of people from developed nations, who make up for the majority of visitors at national parks in

most developing countries.

Although many studies have been undertaken on visitors' preferences for national parks, most have focused on estimating visitors' willingness to pay for the recreational experience in an attempt to measure the value assigned to national parks. However, in order to determine the "optimal" conservation fees to be charged at any national park, one needs to know the preferences of the visitors to that park and other substitute and complementary parks. This information can be extracted from the visitation demand functions of national parks. Visitation demand functions can be estimated based on historical or experimental data.

To the best of our knowledge, it is only the study by Alpizar (2006) that used historical data to compute the "optimal" entrance fees, for national parks in Costa Rica. Similarly, there have not been many studies attempting to estimate optimal conservation fees using experimental data (see Chase et al., 1998; Naidoo and Adamowicz, 2005).

There is a growing number of studies in recreational demand models that use the Contingent Behaviour (CB) trip data for predicting quantity under hypothetical scenarios (Grijalva et al., 2002). A CB method asks those who come to the park what they would do under hypothetical circumstances (with varying prices). The technique makes it possible to generate variation in conservation fees by asking respondents, park visitors in our case, how they would vary their visitation rates (e.g. the number of days spent visiting a specific park in a year) if the conservation fees were to be increased by any specified amount at this or another park.

Chase et al. (1998) used the CB approach to investigate the optimal entrance fees at the time Costa Rican national parks had introduced differentiated fees. Using a similar approach, a study by Naidoo and Adamowicz (2005) simulated fee increases and estimated entrance fees that maximized tourism revenue to Mabira Forest Reserve in Uganda. Determination of optimal fees using experimental data adds value to research on park pricing as it can be designed to mimic the real market. Furthermore, introducing substitutes embraces micro theory in a richer fashion.

Price discrimination has the potential to increase revenue as compared to imposing a single conservation fee, in addition to satisfying equity issues from the social point of view, and bringing about local community stability. Price discrimination among users can enable resource use in different sites, among different time periods and among different user profiles (South African residents and international tourists).

These differences are reflected by the difference in individual visitors' visitation demand functions and demand elasticities. Own- and-cross price elasticity are critical components for national park pricing policy. Optimal park pricing is dependent on the reliability of the demand elasticities (Chase et al., 1998). The park agency is able to engage in price discrimination because the market can fairly easily be segmented – which enables visitors with varying elasticities of demand to be identified and subsequently treated differently.

The estimation of optimal conservation fees at the KTP is important as

it may contribute toward developing effective pricing strategies in the context of South Africa's national park system. It is for this reason that this study is critical as it unravels ways in which conservation fees can be set at optimal levels to the benefit of the local communities surrounding parks, who often incur the highest cost of conservation and yet experience the least benefit (Mendes, 2003). In contrast, international tourists do not incur the cost of conservation and yet experience the most benefit, hence it is vital that they are charged optimal fees.

4 The Contingent Behavior Method

For the purposes of this study, the CB approach is considered to be the most appropriate method due to its ability to take substitution effects into consideration when generating experimental data for estimating visitation demand functions. This paper adopts the CB formulation by Chase et al. (1998) to estimate the international optimal conservation fees at KTP as well as three other parks within a South African park system framework.

In a CB setting, the park visitor is assumed to maximize a utility function $u = U(X, Q)$, subject to $P_x X + P_Q Q = M$ where X is an n-vector of private goods, Q are the recreational goods (i.e. visits to parks), P_x is an n-vector of market prices of private goods, P_Q is the vector of virtual prices of recreational goods (i.e. conservation fees), and M is the individual's disposable income (for example, see Freeman (1993)). Solving the maximization problem gives a set of Marshallian demand functions and aggregation of these demand functions yields a market demand function for $Q : Q = Q(M, P_x, P_Q)$. The symmetrical demand functions for each of the, say, four parks can be written as follows:

$$Q_i = f(P_1, P_2, P_3, P_4; M; Z) \qquad i = 1, \ldots, 4 \; parks \tag{1}$$

Where Q_i is the park visitation rate (e.g. days per year) by international tourists at park i; P_i is the conservation fee at park i; M is the tourists' disposable income and Z captures the socio-economic and trip-related characteristics (Chase et al., 1998).[5] The visitation demand functions for the parks will be estimated using experimental data generated from the CB survey conducted on visitors at KTP as well as Kruger, Augrabies Fall and Pilanesberg national parks which were considered to be substitutes and/or complements for KTP.

Table 1 shows a chart similar to the one used to capture data regarding visitors' responses to actual and hypothetical own-price and cross-price scenarios at the parks.

The respondents were shown the chart, with a blank piece of paper covering all but the first block of three columns. The respondents were asked, "During your current trip, for how many days will you visit KTP at the current daily entrance fee of R180 per person per day?" The question was repeated for Kruger National Park, Augrabies National Park, and Pilanesberg National Park.

[5] The demand function represented by equation (1) assumes that individuals allocate their disposable income between recreational goods and a composite commodity with a numeraire price.

After filling out the relevant column with the appropriate number of "days visited" for each park, the interviewer explained that there would be a set of hypothetical questions next, in which the fee would be raised at only one park. The first hypothetical question raises the entrance fee at KTP only. The interviewer therefore asked, "If the fee were increased to Rw_j only at KTP, how would that affect your plans to visit KTP and the other parks (Kruger, Augrabies and Pilanesberg)?" The second hypothetical question raises the entrance fee at Kruger National Park only. The interviewer therefore asked, "If the fee were instead increased to Rx_j only at Kruger, how would that affect your plans to visit Kruger and the other parks (KTP, Augrabies and Pilanesberg)?" The third hypothetical question raises the entrance fee at Augrabies National Park only.

The interviewer therefore asked, "If the fee were instead increased to Ry_j only at Augrabies, how would that affect your plans to visit Augrabies and the other parks (KTP, Kruger and Pilanesberg)?" The fourth hypothetical question raises the entrance fee at Pilanesberg National Park only. The interviewer therefore asks, "If the fee were instead increased to Rz_j only at Pilanesberg, how would that affect your plans to visit Pilanesberg and the other parks (KTP, Kruger and Augrabies)?" Even though each respondent answers visitation questions about five entrance fee plans (actual fee, hypothetical fee 1, hypothetical fee 2, hypothetical fee 3, hypothetical fee 4), there would have to be a variation in the hypothetical price plans across respondents in order to generate sufficient variability for estimable demand functions i.e. k groups of the respondents should answer hypothetical price plan questions about the k fee levels $(w_j, x_j, y_j, z_j; j = 1, \ldots, k)$.

5 Descriptive Statistics

A face-to-face questionnaire survey was conducted with randomly picked park visitors (only park goers, and those who already paid to get to the park) at the four parks. The survey was conducted during the week and over weekends during the months of March and April in 2011. Due to the vast size of the four parks, the surveys were mainly carried out at the gates, accommodation facilities and designated resting sites inside the park. A total of 78 international overnight visitors were surveyed.[6] Our sample composition is in line with the visitor profile at national parks in South Africa, where international visitors account for a small share of total visits. The data gathered from the CB approach consists of five observations for each of the respondents. This corresponds to the visitation versus fee answer pairs from questions that were posed about the five entrance fee plans (i.e. actual fee, hypothetical fee 1, hypothetical fee 2,

[6] Although SANParks distinguishes between three categories of visitors, our sample only consists of domestic (i.e. South African) and international visitors. We did not get any respondents from the SADC region. This is expected since visits from SADC residents make up a very small proportion of total visits. Furthermore, South African national parks cater to both day and overnight visitors, and charge the same conservation fees for both categories.

hypothetical fee 3, and hypothetical fee 4).

Although our sample size for international tourists is small, given their significant revenue contribution there are valuable lessons that could be learnt from their elasticity of demand, price and time.

On average, respondents interviewed visit national parks about 1.67 times. Our data show that majority of international respondents (59.44 percent) are first-time tourists. The data indicate that majority of international visitors to national parks do not make use of travel agency services, with the exception of visitors at Pilanesberg national park. A slight majority, about 51.1 percent, of international visitors were visiting other recreational sites during their holiday trip.

International visitors earned an average annual income of around R271 633.58, with total trip costs accounting for 5.63 percent of their disposable income. This was expected for two reasons, firstly they incur high travel costs, and secondly in our case given their lower income levels relative to domestic visitors. Given their already higher conservation fees, it is not surprising that international visitor's total daily conservation fees are much higher at R515.54 (which includes 40 wildcard members). The total daily fee expenditure excluding wildcard holders is significantly lower at R325.29. International visitors' total expenditure on conservation fees accounted for 8.26 percent of their total trip costs. The constant terms absorb the things held the same like lodging and travel.

It seems that park visitors feel strongly about the institution that manage the revenues with international visitors of the view that the park agency is well placed to manage this scheme better with raised fee mechanism being their favoured mechanism, with the exception of visitors to Kruger Park. On average, domestic visitors stayed longer at the parks (6.37 nights) compared to 4.22 nights by international visitors. The average international visitor who enjoys national parks around South Africa is approximately 51 years old and has an average household size of about 2.93. About 63.91 percent of the respondents are male and 36.09 percent are female.

Furthermore, we carried out statistical two-tailed tests assuming unequal variances and a 5 percent significance level to assess the magnitudes of the stated mean WTP preferences between the two hypothetical scenarios. We conclude from these tests that the difference between "raised fee" and "voluntary donation" WTP is statistically significant only for local visitors in Kruger and Augrabies.

6 Empirical Results

The data gathered on park demand preferences resulted in a dataset consisting of five observations for each of the 78 respondents. The international visitor's estimates make use of random effects Tobit regression with a log-linear model. Table 6.1 presents the results of the random effects Tobit model estimation

to analyse factors[7] that determine visitation demand by international tourists, based on the CB generated experimental data at the four parks. The regression output for all the parks is presented below:

Economic theory (law of demand) predicts that there is an inverse relationship between price and quantity demanded; this is indeed the case as the own-price estimates at all the four parks are negatively signed. However, the own-price estimate in Kruger and Augrabies are not statistically significant. The visitation demand at the Kgalagadi is sensitive to fee changes in Kruger. The positive Kruger coefficient implies that it is a substitute. It is perhaps not surprising given that international visitors have already incurred high travel expenses that income levels do not influence visitation demand at any of the four parks.

A closer look at socio-economic characteristics shows that the multi-trip variable is both negative and significant at Kgalagadi and Augrabies. The fact the latter is the closest park to the former makes this result logical. The education coefficient is positive and significant only at the Kgalagadi. Gender (male dummy) is negative and significant only at the KNP. Neither of the regions that the tourists are from is of any importance in influencing visitation demand in any of the parks. This is perhaps not surprising given the popularity of South African national parks internationally.

Using the elasticities estimated in the random effects Tobit model, we solved for the revenue-maximizing daily conservation fees reported in Table 6.2 (see Owen (2012) for a fuller exposition of the computations).

The results above indicate that the fees would have to be hiked[8] at the four parks. Our optimal fee estimates are significantly more than the current fees charged to international visitors at these four parks. Given that the Kgalagadi had 5 496 international visits (which excludes 1 514 Wild Card Free Guests), our proposed scheme would raise R5 231 862.24 (R951.94 per visit). This is significantly higher than the San total income.

A conversion of our estimates to US Dollar's as an international currency would appear to yield reasonable conservation fees which are comparable to those of similar recreational sites in Africa. For example, international visitors pay up to US$50 per night at some recreational sites in Botswana and Zimbabwe.

7 Conclusion

Our analysis regarding international visitors shows that there is a wide variation in the elasticities of demand among the four national parks. Interestingly, our results suggest that revenue could be maximized by increasing conservation fees for domestic tourist's at all four parks. Furthermore, our findings imply that the conservation fees charged to international visitors are significantly lower than

[7] Our analyses confirm that the attitudinal variables do not add significant explanatory power, hence there are excluded from the contingent behaviour model.

[8] A point to note is that Pilanesberg charges a weekly rate; hence our estimate reflects the optimal weekly fee. In the case of other parks, we estimate daily optimal conservation fees.

optimal. As expected, the optimal fees for international visitors are significantly higher than for local visitors. This indicates that both local and international park fees could be raised.

Given that international visitors are likely to be accustomed to contributing donations in their respective countries at recreational sites (such as museums), the introduction of voluntary donations has the potential to contribute significantly.

Acknowledgements. We are grateful to Louise Swemmer, Wendy Annecke and Joep Stevens of SANParks (South African National Parks) for assistance with data and materials. The Funding from ERSA (Economic Research Southern Africa), FORMAS and Sida (Swedish International Development Cooperation Agency) is gratefully acknowledged.

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Table 1: Sample of contingent behaviour chart visitation questions posed to international tourists

Name of Park	**Actual**		**Hypothetical Increases**							
	***Fee*[1]**	***Days***	***Fee***	***Days***	***Fee***	***Days***	***Fee***	***Days***	***Fee***	***Days***
Kgalagadi Transfrontier Park	R180		R225		R180		R180		R180	
Kruger National Park	R180		R180		R225		R180		R180	
Augrabies Fall National Park	R100		R100		R100		R125		R100	
Pilanesberg[2] Game Reserve	R45		R45		R45		R45		R56.25	

Table 2: A selection of descriptive statistics of international overnight visitors interviewed

Variable	**Kgalagadi Park**	**Kruger Park**	**Augrabies Fall Park**	**Pilanesberg Park**
	International (n=19)	*International (n=32)*	*International (n=21)*	*International (n=6)*
Visit Frequency to Parks	1.79 (1.48)	1.69 (1.26)	1.86 (1.56)	1.33 (0.76)
First Visit	52.63% (50.20%)	37.50% (48.56%)	80.95% (39.46%)	66.67% (47.95)
Travel Agent	26.32% (44.27%)	21.88% (41.47%)	47.62% (50.18%)	0% (0)
Multi-trip	36.84% (48.49%)	43.75% (49.76%)	90.48% (29.50%)	33.33% (47.95%)
Household Size	2.47 (0.76)	3.34 (2.40)	3.24 (1.91)	2.67 (0.76)
Actual Fee Paid	R180.00 (0)	R180.00 (0)	R100.00 (0)	R45.00 (0)
Daily Fees (Excluding Wild Card)	R753.95 (R768.90)	R682.97 (R667.82)	R580.24 (R802.49)	R50.37 (R32.52)
Total Fee Expenses	R1 718.95 (R1011.59)	R2 331.25 (R1 865.34)	R804.05 (R937.44)	R 196.67 (R108.90)
Fair Fee	R171.58 (R80.84)	R170.63 (R75.60)	R93.81 (R26.76)	R 80.83 (R57.79)
WTP Over and Above Actual Fee Paid:				
Raised Fee	R88.16 (R112.51)	R81.25 (R147.57)	R45.24 (R44.28)	R60 (R97.63)
Voluntary Donation	R76.32 (R101.35)	R89.84 (R153.68)	R41.67 (R46.73)	R35 (R34.61)
No Visit Fee	R286.32 (R 121.61)	R322.42 (R153.44)	R274.29 (R159.12)	R158.33 (R77.11)
Accommodation costs	R1 726.05 (R1 790.26)	R4 835.78 (R4 242.48)	R2352.95 (R2 279.30)	R 2 774.33 (R3 009.46)
Total Trip Costs	R17 404.00 (R19 626.94)	R21 780.00 (R15 234.33)	R11 885.24 (R7 144.41)	R 10 056.67 (R9 738.09)
Household Annual Income	R281 578.90 (R217 132.30)	R325 312.50 (R240 985.10)	R197 142.90 (R197 170.90)	R282 500.00 (R139 850.60)
Actual Number of Nights	3.79 (1.80)	6.06 (6.07)	1.71 (1.04)	5.33 (2.67)
Number of Nights at no fee	4.79 (2.85)	6.88 (7.27)	1.95 (1.53)	6 (1.86)
Number of Nights at Increased Fee	3.94 (1.93)	5.23 (5.91)	1.6 (0.94)	5.13 (2.76)
Age (years)	49.42 (12.12)	48.03 (16.68)	52.62 (15.62)	54.33 (14.61)
Male-Respondents	68.42% (46.73%)	56.25% (49.76)	47.62% (50.18)	83.33% (37.90)

Standard deviation in parentheses

[1] US$ 1 = South African Rand (R) 7.85 at the time the paper was written.
[2] In addition to the gate fee shown above, Pilanesberg charges R20 for each car that goes inside the reserve.

Table 3: Random Effects Tobit model for demand for visits to the park by international visitors[3]

Variable:	*Estimates: Coefficient*			
	Kgalagadi Transfrontier Park	**Kruger National Park**	**Augrabies Falls National Park**	**Pilanesberg National Park**
Price – Kgalagadi (R/night)	-.568 *** (.186)	-.332 (.223)	-.113 (.141)	-.155 (.132)
Price – Kruger (R/night)	.711 *** (.127)	-.217 (.152)	-.636 *** (.097)	-.022 (.091)
Price – Augrabies (R/night)	.218 (.184)	-1.566 *** (.220)	-.043 (.140)	.029 (.130)
Price – Pilanesberg (R/night)	.235 (.166)	-.092 (.199)	-.123 (.126)	-.348 *** (.118)
Income (R)	-.076 (.089)	.111 (.096)	.024 (.095)	.163 (.162)
Age (years)	-.236 (.330)	-.023 (.354)	-.496 (.352)	-.670 (.598)
No of H/H members on trip	-.221 (.187)	-.111 (.200)	-.202 (.199)	.372 (.339)
Multi-trip	-.716 *** (.218)	-.181 (.234)	-.871 *** (.232)	-.183 (.395)
Male dummy	-.211 (.202)	-.435 ** (.217)	-.113 (.215)	.042 (.367)
Education (years)	.165 ** (.083)	-.064 (.089)	.135 (.088)	.219 (.150)
Asia	.335 (.261)	.175 (.280)	.171 (.278)	-.025 (.474)
American	-.182 (.323)	-.179 (.347)	-.271 (.345)	-.180 (.587)
Oceania	-.110 (.353)	-.612 (.379)	.1304 (.376)	-.261 (.639)
Constant	.204 (3.054)	12.110 *** (3.508)	6.35 ** (2.717)	1.819 (3.820)
Log-Likelihood	-506.555	-569.557	-424.955	-443.914
Wald chi2(10)	84.85	68.58	71.19	25.13
No. Of. Observations	390	390	390	390

Source: Field Survey, 2011

legend: * p<0.1; ** p<0.05; *** p<0.01; SE in parenthesis

Table 4: Various conservation fee options for international park visitors (in 2011 South African Rand)

	Kgalagadi Transfrontier Park	Kruger National Park	Augrabies Falls National Park	Pilanesberg National Park
Revenue-Maximising Fee (ZAR)				
Revenue-Maximising Fee (USD)	1131.94 (144.20)	575.67 (73.33)	722.95 (92.10)	634.11 (80.78)
Current Conservation Fee (ZAR)				
Current Conservation Fee (USD)	180.00 (22.93)	180.00 (22.93)	100.00 (12.74)	45.00 (5.73)

Source: Field survey (2011) & own computation

[3] It is not surprising that for international visitor's random effects tobit model that dummy variables of regions are not significant because of too few observations. Thus, we should be cautious in interpreting these results given the small sample sizes.