International Journal of Tourism and Travel
Indian Institute of Tourism and Travel Management

Role of stakeholders in promoting eco-tourism

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Keywords : Eco-tourism, perceptual study, Kaziranga (Assam), stakeholders, environmental perceptions

Many researchers have focused on perceptions of tourists and found that tourists are indeed sensitive to issues of litter, human waste and vandalism etc. This study tries to understand the perceptual similarities and differences among the three major stakeholders (i.e. service providers, tourists, and community consisting of local people and NGOs) regarding eco-tourism activities at the Kaziranga National Park, Assam, India. Kaziranga, is one of the biologically rich national parks that has been listed in the UNESCO's World Heritage list. Responses from the three stakeholder groups were subjected to factor analysis to understand the critical factors as perceived by the three groups. Each

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Tourism industry is at present a booming industry and all the countries having even the tiniest fraction of natural resources are focussing on utilising it to generate revenue. Eco-tourism, adventure tourism and other non-mass tourism packages are finding prominence as high net worth individuals are open to the idea of something different. The promotion of eco-tourism was a consequence of the ill-effects of mass tourism. Although mass tourism generated revenue, it also led to the destruction of the tourist spots by overcrowding, littering and other activities associated with exceeding carrying capacity. This reduced the charm of the tourist spot, leading to a decline of quality visitors. In a bid to preserve the natural heritage and attraction of the spot, the focus shifted from mass tourism to eco-tourism. Eco-tourism however has been compared to a double-edged sword. When nature's carrying capacity is exceeded and when the community norms are not followed, every tourist and any tourism activity can become destructive (Loukissas, 1978). Mieczkowski (1995) pointed out that without effective planning and management; eco-tourism can be negatively impacting, which eventually diminishes visitor satisfaction, along with economic benefits and resource protection incentives.

This study tried to understand the perceptual similarities and differences among the three major stakeholders (i.e. service providers, tourists and community consisting of local people and NGOs) regarding eco-tourism activities at the Kaziranga National Park, Assam, India. With this objective in mind the research was designed.

Eco-tourism as defined by the International Union for Conservation of Nature and Natural Resources (IUCN) is 'environmentally responsible travel and visitation to relatively undisturbed natural areas to enjoy, to study and appreciate nature (and accompanying cultural features both past and present) that promotes conservation, has lower visitor impact and provides for beneficially active socio-economic involvement of local population'. This definition has wide acceptance and going by this we can see three important stakeholders who can promote eco-tourism they are the tourist, the local people and the service providers. For any tourism activity to be successful, it is imperative that the stakeholders have almost similar perceptions. This will ensure that all the activities take place in the same line of thought, leaving little room for discrepancy or conflict.

Kaziranga, is one of the biologically rich national parks that has been listed in the UNESCO's World Heritage list. Kaziranga National Park, which lies on the flood plains of Brahmaputra is inhabited by the world's largest population of Unicorn Rhino Rhinoceros unicornis (1552 nos. in 1999), is home to more than 70 percent of the world's Asiatic Wild Buffalo (1431 nos. in 2001) , Swamp Deer (468 nos. in 2000), a significant population of Royal Bengal Tiger (86 nos. in 2000), and various other endangered fauna, such as Asian Elephants, Capped Langur, Hoolock Gibbon, Leopard, Sloth Bear, Ganges Dolphin etc. and about five hundred varieties of birds including many Red Data Book species.

Literature review

The importance of perception in tourism industry has been highlighted by many researchers. Kobina Armoo(2005) states that hotel service provider's perception of service quality must be in line with that of guests. Orth and Turekova (2002) state that for many communities, tourism may be a short lived economic dream when understanding of tourists' perceptions and

travel motive is lacking. Studies focused on perceptions of the environment have found that tourists generally have limited perception of wear and tear impacts but are more sensitive to the direct impacts resulting from litter, human waste and vandalism, etc. (Lucas 1979; Marion & Lime 1986:229). Other studies (Hammit, Bixler and Noe 1996:60) showed that tourists were most observant of the direct impacts of other participants (trail use for more than one activity, litter, etc.) but that they may also be growing more aware of other impacts on the environment (like trail erosion). The suggestion of increased awareness and sensitivity to environmental impacts over the past decades (Lucas 1985; Hammit et al 1996) highlights this issue in planning for a sustainable tourism industry in the future. All these reiterate the fact that perceptions of stakeholders indeed differ and only when there is a substantial match among the perception of the three groups, benefits will occur to the three groups.

Every tourist has the potential to damage the environment no matter how environmentally sympathetic they may be (Butler, 1990). Thus, minimising environmental impacts requires a more holistic, multi purpose, integrated approach to planning, management and regulation, as well as incentives to encourage particular activities to exclusion of others and education both on-site and elsewhere (Buckley and Pannel, 1990). This holistic approach can be possible only when all involved parties think along similar line.

Some other researchers as, Ceballos - Lascurain (1996), have also documented the impact of tourism on vegetation, animal and ecosystem. We are also aware that excessive tourism can lead to fleeing and hiding of animals to undisturbed areas of the park. In addition other resources such as soil gets disturbed due to intensive use by both man and animals (Kuss et al., 1990, CeballosLascurain, 1996). Compaction of soil in Gunung Gede Pangrango National Park of Indonesia has lowered the rate of regeneration of trees and shrubs along the tourist trails (Supriadi and Darusman 1992 in Ceballos and Lascurain 1997), which in turn resulted in changes in vegetation composition (Liddle 1975) and microbial composition (Kuss et al. 1990). The intensive driving on tourist tracts of Maasai Mara reserve in Kenya also had resulted in loss of vegetation cover on the trails (Muthee 1992 in Ceballos & Lascurain, 1996).

Tourism activities now also have started to damage the cave environments. People are yet to understand the caves as a fragile ecosystem that has taken hundreds, perhaps thousands, of years to perfect and now exists in a very delicate balance. Even a small change like soil compaction within a cave can have long lasting impact (from Jones, 1996). Infrastructural developments too have deleterious impacts on the environment. Environmental degradation caused by facility development and visitations are some important internal threats in case of protected areas (Machlis & Tichnell, 1985). Vehicular traffic can even result in mortality of young ones, or bond disruption between ungulate doe and the fawn (Lent 1974).

There are environmental aspects to every major component of tourism business (e.g., products and markets, management, money and people). These environmental aspects are heightened when the locations in which tourism is occurring happens to be protected areas (Buckley, 1994).

Like any other industry, tourism also has contributed to and has had negative as well as beneficial impacts on the environment. Positive impact of tourism is about generating employment, revenue, awareness and interest among local public. According to Roe, Leader-William & Dalal-Clayton, 1997 negative impacts are of two types: Direct & Indirect. Direct impacts include effect on the environment (including the flora and fauna). Large-scale visitation every year to natural environments leads inevitably to some disturbance and damage these sites. While such damage is attributable directly or indirectly to tourists and their activities, it is often unclear whether their actual behaviour is responsible for the major negative impacts on nature or whether it is due to activities of the service providers (e.g. construction and development of infrastructure and facilities). Whatever be the case, it is tourists who are usually identified as causing destruction, particularly in developing countries (Deng et al, 2002). Lea, 1988 and Olindo, 1991 have indicated how large volume and demanding access to game and to relatively luxurious travel and accommodation facilities have caused problems such as overcrowding, animal disturbance, vegetation degradation and soil compaction, and waste production within Kenya's game parks (France 1997:13).

Tourism has long been considered a

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stakeholder group was found to have its own set of critical factors. Further analysis was done on the variables to see if there was any difference between the three groups. Some points of common perception emerged. All the three groups agreed that elephant safari, feeding wildlife, soil trampling, pedestrian and vehicular traffic, souvenir collection from the park premises, patrolling by power boats, waste water, and littering were detrimental to biodiversity. Hence any policy changes will have to keep in mind that these are the areas where changes will be met with least resistance.

'clean industry or smokeless industry' that has a pro environmental prospective. Unfortunately this image is changing now and it became apparent that tourism industry is not as benign as first thought; even most parties are also aware of the possible negative impacts and realize the need for action (UNEP, 2000; Berno & Bricker, 2001). Concern over ecological effects of tourism started to mount during the 1960s and 1970s (Pearce, 1985). The International Union of Official Travel Organization (IUOTO), the predecessor of the WTO was one of the first organizations to come to the defence of environmental protection as early as in the year 1950, having one of its main objectives as the study and development of natural tourist resources.

Research methodology

A study was conducted at Kaziranga National Park (India) to find out if there existed any perceptual differences among the stakeholders regarding the impact of tourism on the environment, specifically biodiversity. Perusing through the literature 14 statements were selected and the respondents were asked to mark their preferences on a five point Likert scale. [Annexure IV]

The survey was conducted during October 2002 to March 2003 and October 2003 to April 2004 among tourists, service providers of the tourism industry and the local public of in and around Kaziranga including the members & representatives of NGOs concerned with Kaziranga National Park. October to March happens to be the tourist season. The park remains closed to visitors from April to September. As mentioned earlier, the basic objective of the survey was to evaluate people's perception on probable impacts of certain tourism induced elements on biodiversity. Besides, the assessment would also give an idea of the level of awareness among the stakeholders. The total sample size was 505.

To study the perception of the stakeholders of tourism [i.e. tourists, service providers (both government & -non-government) and locals] a questionnaire was designed based on the framework suggested by Tisdell (1999). The questionnaire basically tried to assess the agreeability of the respondents on issues relating to environment and tourism. The respondents were asked to rank their opinion on a 5 point ordinal scale.

Responses from the three stakeholder groups were subjected to factor analysis to understand what are the critical factors as perceived by the three groups. The Principal Component Analysis with Varimax rotation was used. In each case the KMO was >0.6 indicating sampling adequacy , the Bartletts Test of Sphericity had significance level of .000 indicating that the data was suitable for factor analysis . Analysis was done using the SPSS software.

Profile of the respondents

Tables 1 to 6 in the Annexure I provide the sample breakup.

Kaziranga is a witness to both domestic and international tourists who is seen to spend a couple of days at the national park and experience wildlife. Most of the infrastructural services for the tourists as accommodation, transport and sightseeing are organized by the government in conjunction with the local people and NGO's operating in that area. All these people comprised the population of this study.

Tourists comprised almost 57%, local people / NGOs were the second largest respondent group in this study i.e.24.2% and the smallest group of respondents was the service providers i.e.19%.

Majority of the respondents were male tourists, belonging to the age group of less than 40 years, had graduate or post-graduate degrees, were either self-employed or service holders. Of the tourist group, majority had come beyond the state of Assam and had a daily budget of less than Rs.300/- (approx 6 to 7 USD)

Factor analysis

The detailed results obtained for the three groups can be seen in Annexure II, Tables 7a to 9b.

The results from the factor analysis can be summarised as follows:

Each stakeholder group has its own set of critical factors. Further analysis was done on the statements to see if there was any difference between the three groups. The details of the Annova test is given in Annexsure III, Table 11.

The ANNOVA test showed that out of 14 statements, there was difference among the

Table 10: Summary of factor analysis for the three groups

	TOURIST	SERVICE PROVIDER	LOCAL / NGO
FACTORS	**Introducing unwanted elements** (soil trampling + fuel wood + haphazard development + trekking)	**Hurting nature** (picnic + traffic + waste + littering)	**Disturbing nature** (photography + souvenir + fuel wood)
	Hurting nature (picnic + feeding wildlife + waste water + littering)	**Traffic** (motor safari + power boat)	**Hurting nature** (waste water + haphazard development + littering)
	Tourist activities (elephant safari + photography)	**Disturbing ecological balance** (feeding wildlife + souvenir + fuel wood + haphazard development)	**Tourist activities** (elephant safari + feeding wildlife + soil trampling)
	Traffic (motor safari + pedestrian & vehicular traffic)	**Tourist activities** (elephant safari + photography + soil trampling)	**Traffic** (motor safari + picnic + pedestrian & ehicular traffic)
	Disturbing ecological balance (souvenir + power boats)		**Disturbing ecology** (power boats + trekking)

groups with respect to the following six variables.

Use of motor vehicle
Picnicking
Photography
Collection of fuel wood
Haphazard developmental activities
Trekking and camping

It meant that there was common perception among the remaining eight variables.

For indepth analysis of the differences a multiple comparison was done for these six statements using LSD technique. Please refer to Annexure III, Table 11. The test revealed the following.

Statement	Difference in perception between	Similar perception among
Motor Safari	Tourist & Service provider Tourist & local people	Local people & Service provider
Photography	Tourist & Service provider Tourist & Local people	Local people & Service provider
Picnicking	Tourist & Service provider Tourist & Local people	Local people & Service provider
Collection of fuel wood	Tourist & Local people	Tourist & Service provider Local people & Service provider
Ha phazard development	Tourist & Service provider Tourist & Local people	Local people & Service provider
Trekking & Camping	Tourist & Local people Service provider & Local people	Tourist & Service provider

Conclusion

From the ANNOVA and Multiple Comparison it can be concluded that leaving aside the last statement, in all the other thirteen statements the commonality is that local people and service providers think alike. And in the following eight statements there is no difference in the perception of the three groups.

1.Elephant safari
2.Wildlife feeding
3.Soil trampling during elephant ride
4.Pedestrian and vehicular traffic
5.Souvenir collection
6.Patrolling by power boats
7.Waste water
8.Littering

Thus any holistic planning will have to take this into consideration. All the three groups have common perception that the above activities are detrimental to biodiversity. Hence any policy changes will have to keep in mind that these are the areas where changes will be met with least

resistance. So focused efforts can be made to adopt the following steps.

1. Donot permit pedestrian and vehicular traffic within the park.
2. Have a fixed route of the shortest distance so as to minimize the ecological damage done by elephant safari
3. Discourage tourists from collecting sapling of wild, exotic plants
4. Not permit carrying of any food items (canned, bottled or packed or otherwise) into the park
5. Stringent checking at entry and exit points of the park.
6. Plan alternative patrolling measures so that power boats can be done away with.
7. Ensure that no waste water from resorts, restaurants and hotels flow into the park.

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ANNEXURE I

Table 1:Stakeholder group * Gender Crosstabulation

		Gender		Total
		Male	Female	
Stakeholder group	Tourist	**157**	130	287
	Service Provider	72	24	96
	Local People / NGO	87	35	122
Total		316	189	505

Table 2:Stakeholder group * Age group Crosstabulation

		Age group below 25yrs.	25 -40 yrs	41- 60 yrs	above 60 yrs	Total
Stakeholder group	Tourist	114	111	52	10	287
	Service Provider	26	56	14		96
	Local People / NGO	30	60	32		122
Total		170	227	98	10	505

Table 3:Stakeholder group * Educational qualification Crosstabulation

		Educational qualification			Total
		Undergraduate	Graduate	Post Graduate	
Stakeholder group	Tourist	84	**118**	85	287
	Service Provider	40	37	19	96
	Local People / NGO	41	60	21	122
Total		165	215	125	505

Table 4:Stakeholder group * Occupation / profession Crosstabulation

		Occupation / Profession			Total
		Service Holder	Self employed	Student employed	
Stakeholder group	Tourist	**105**	**52**	10	287
	Service Provider	43	34	19	96
	Local People / NGO	44	43	35	122
Total		192	129	184	505

Table 5:Stakeholder group * Daily budget Crosstabulation

		Daily Budget				Total
		Below Rs. 300	Rs.300-Rs.500	Rs.500-Rs.700	Abobe Rs. 700	
Stakeholder group	Tourist	**153**	84	23	27	287

Table 6: Stakeholder group * Place of origin Crosstabulation

		Place of origin			Total
		within the state	outside the state	outside the country	
Stakeholder group	Tourist	**121**	**116**	50	287

ANNEXURE II

Table 7a:KMO and Bartlett's Test

Kaise-Meyer-Olkin Measure of Sampling			.711
Adequacy.		Approx. Chi-Square	850.798
Bartlett's Test of Sphericity		df	91
		Sig.	.000

a Only cases for which stakeholder group = Tourist are used in the analysis phase.

Table7b: Rotated Component Matrix

Component	1	2	3	4	5
Use of Elephant	.105	-.241	**.771**	9.188E-02	1.937E-02
Motor Vehicle	.270	.106	.137	**.742**	-7.921E-02
Photography	2.578E-02	.217	**.744**	.125	.181
Picnicking around the park	7.827E-02	**.611**	-5.638E-02	.473	-8.761E-02
Feeding of wildlife by visitors	.360	**.635**	5.998E-02	-5.283E-02	.185
Trampling of soil during elephant ride	**.619**	.221	.410	-3.510E-02	-9.779E-02
Pedestrian & Vehicular traffic	-.159	7.175E-02	.106	**.795**	.184
Souvenir collection form the park premises	8.635E-02	.198	3.889E-02	4.307E-02	**.803**
Collection of fuel wood	**.549**	.182	-.262	1.066E-02	.476
Running of motor boats	.244	-.139	.220	2.884E-02	**.700**
Waste water disposal from the resorts restaurants	-.192	**.751**	.104	8.079E-03	6.759E-02 /
Haphazard development activities	**.701**	-3.416E-04	-.130	.132	.206
Trekking & camping	**.731**	-4.724E-02	.249	2.577E-02	.179
Littering & dumping in & around the park	.175	**.629**	-.290	.357	-1.021E-02

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 8 iterations.
b Only cases for which stakeholder group = Tourist are used in the analysis phase.

Table 8a:KMO and Bartlett's Test

Kaise-Meyer-Olkin Measure of Sampling			.667
Adequacy.		Approx. Chi-Square	427.035
Bartlett's Test of Sphericity		df	91
		Sig.	.000

a Only cases for which stakeholder group = Service Provider are used in the analysis phase.

Table 8b:Rotated Component Matrix

Component	1	2	3	4
Use of Elephant	-.176	-.128	2.899E-02	**.868**
Motor Vehicle	.134	**.663**	5.160E-02	-2.523E-02
Photography	-1.110E-02	.302	.118	**.589**
Picnicking around the park	**.812**	.239	9.413E-04	8.965E-02
Feeding of wildlife by visitors	.133	-.217	**.812**	.219
Trampling of soil during elephant ride	.194	.495	-3.852E-02	**.618**
Pedestrian & Vehicular traffic	**.730**	.361	5.924E-03	-.214
Souvenir collection form the park premises	9.160E-02	.411	**.704**	1.475E-02
Collection of fuel wood	.144	.469	**.498**	.412
Running of motor boats	-1.442E-02	**.665**	.123	.333
Waste water disposal from the resorts / restaurants	**.718**	-.115	-9.594E-02	6.658E-02
Haphazard development activities	-.116	.119	**.562**	-6.345E-02
Trekking & camping	-.297	**.517**	.458	.210
Littering & dumping in & around the park	**.667**	-.306	.426	-.197

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 6 iterations.
b Only cases for which stakeholder group = Service Provider are used in the analysis phase.

Table 9a:KMO and Bartlett's Test

Kaise-Meyer-Olkin Measure of Sampling Adequacy.		.674
Bartlett's Test of Sphericity	Approx. Chi-Square	519.449
	df	91
	Sig.	.000

a Only cases for which stakeholder group = Local People / NGO are used in the analysis phase.

Table 9b:Rotated Component Matrix

Component	1	2	3	4	5
Use of Elephant	.161	.175	**.508**	.171	.478
Motor Vehicle	-6.915E-02	.164	8.445E-02	**.778**	.228
Photography	**.821**	1.243E-02	3.813E-03	.152	8.352E-02
Picnicking around the park	4.044E-02	4.389E-02	-3.827E-02	**.821**	-9.402E-02
Feeding of wildlife by visitors	.377	.271	**.597**	-.110	.164
Trampling of soil during elephant ride	.384	-.113	**.557**	.333	.259
Pedestrian & Vehicular traffic	.274	3.403E-02	-.473	**.505**	-.299
Souvenir collection form the park premises	**.831**	8.844E-02	.130	3.561E-02	.151
Collection of fuel wood	**.723**	.234	7.706E-02	-.141	.174
Running of motor boats	.261	-.344	.228	.102	**.687**
Waste water disposal from the resorts / restaurants	9.919E-02	**.352**	-.711	.116	.308
Haphazard development activities	.201	**.783**	.166	6.449E-02	.186
Trekking & camping	.199	.284	-8.126E-02	-8.916E-02	**.804**
Littering & dumping in & around the park	7.412E-02	**.838**	-.188	.163	-8.078E-02

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 22 iterations.
b Only cases for which stakeholder group = Local People / NGO are used in the analysis phase.

In the above cases, total variance explained was 63%, 62% and 69% respectively.
[**The figures in bold indicate the ones that have been selected for the factor.**]

ANNEXURE III

Table 11:ANOVA RESULTS

		Sum of Squares	df	Mean Square	F	Sig.
Use of Elephant	Between Groups	.943	2	.471	.139	.871
	Within Groups	1708.613	502	3.404		
	Total	1709.556	504			
Motor Vehicle	Between Groups	132.413	2	66.206	21.757	.000
	Within Groups	1527.599	502	3.043		
	Total	1660.012	504			
Photography	Between Groups	24.332	2	12.166	4.233	.015
	Within Groups	1442.670	502	2.874		
	Total	1467.002	504			
Picknicking around the park	Between Groups	58.892	2	29.446	8.725	.000
	Within Groups	1694.145	502	3.375		
	Total	1753.038	504			
Feeding of wildlife by visitors	Between Groups	1.212	2	.606	.154	.857
	Within Groups	1972.776	502	3.930		
	Total	1973.988	504			
Trampling of soil during elephant ride	Between Groups	15.654	2	7.827	2.339	.098
	Within Groups	1680.129	502	3.347		
	Total	1695.782	504			
Pedestrian & Vehicular traffic	Between Groups	11.408	2	5.704	1.807	.165
	Within Groups	1584.742	502	3.157		
	Total	1596.150	504			
Souvenir collection form the park	Between Groups	18.342	2	9.171	2.478	.085
premises	Within Groups	1858.260	502	3.702		
	Total	1876.602	504			
Collection of fuel wood	Between Groups	70.250	2	35.125	9.786	.000
	Within Groups	1801.798	502	3.589		
	Total	1872.048	504			
Running of motor boats	Between Groups	8.522	2	4.261	.949	.388
	Within Groups	2253.518	502	4.489		
	Total	2262.040	504			
Waste water disposal from the resorts	Between Groups	10.020	2	5.010	1.610.201	
/ restaurantsWithin Groups	1562.348	502	3.112			
	Total	1572.368	504			
Haphazard development activities	Between Groups	90.629	2	45.314	15.467	.000
	Within Groups	1470.710	502	2.930		
	Total	1561.339	504			
Trekking & camping	Between Groups	71.178	2	35.589	9.787	.000
	Within Groups	1825.404	502	3.636		
	Total	1896.582	504			
Littering & dumping in & around the	Between Groups	5.882	2	2.941	.896	.409
park	Within Groups	1647.155	502	3.281		
	Total	1653.038	504			

Table 11:Multiple Comparison using LSD technique

Dependent Variable	(I) Stakeholder group	(J) Stakeholder group	Mean Difference (I.J.)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Motor Vehicle	Tourist	Service Provider	.95	.206	.000	.55	1.35
		Local People / NGO	1.09	.189	.000	.72	1.46
	Service Provider	Tourist	-.95	.206	.000	-1.35	-.55
		Local People / NGO	.14	.238	.551	-.33	.61
	Local People / NGO	Tourist	-1.09	.189	.000	-1.46	-.72
		Service Provider	-.14	.238	.551	-.61	.33
Photography	Tourist	Service Provider	.48	.200	.016	.09	.88
		Local People / NGO	.40	.183	.028	.04	.76
	Service Provider	Tourist	-.48	.200	.016	-.88	-.09
		Local People / NGO	-.08	.231	.730	-.53	.37
	Local People / NGO	Tourist	-.40	.183	.028	-.76	-.04
		Service Provider	.08	.231	.730	-.37	.53
Picknicking around the park	Tourist	Service Provider	.76	.217	.000	.33	1.19
		Local People / NGO	.62	.199	.002	.23	1.01
	Service Provider	Tourist	-.76	.217	.000	-1.19	-.33
		Local People / NGO	-.14	.251	.584	-.63	.35
	Local People / NGO	Tourist	-.62	.199	.002	-1.01	-.23
		Service Provider	.14	.251	.584	-.35	.63
Collection of fuel wood	Tourist	Service Provider	.42	.223	.064	-.02	.85
		Local People / NGO	.89	.205	.000	.49	1.30
	Service Provider	Tourist	-.42	.223	.064	-.85	.02
		Local People / NGO	.48	.258	.064	-.03	.99
	Local People / NGO	Tourist	-.89	.205	.000	-1.30	-.49
		Service Provider	-.48	.258	.064	-.99	.03
Haphazard development activities	Tourist	Service Provider	.86	.202	.000	.46	1.26
		Local People / NGO	.85	.185	.000	.49	1.22
	Service Provider	Tourist	-.86	.202	.000	-1.26	-.46
		Local People / NGO	-.01	.234	.980	-.46	.45
	Local People / NGO	Tourist	-.85	.185	.000	-1.22	-.49
		Service Provider	.01	.234	.980	-.45	.46
Trekking & camping	Tourist	Service Provider	-.03	.225	.907	-.47	.42
		Local People / NGO	.87	.206	.000	.47	1.28
	Service Provider	Tourist	.03	.225	.907	-.42	.47
		Local People / NGO	.90	.260	.001	.39	1.41
	Local People / NGO	Tourist	-.87	.206	.000	-1.28	-.47
		Service Provider	-.90	.260	.001	-1.41	-.39

* The mean difference is significant at the .05 level.

ANNEXURE IV

Questionnaire

In your opinion to what extent do the following factors NEGATIVELY affect the biodiversity of an "ecologically rich tourist destination" like Kaziranga National Park:

Please use '**X**' mark wherever required	1	2	3	4	5	6	7
(1 indicates 'no effect', while 7 indicates 'maximum effect')							
1. Use of Elephant for moving within the Park (Elephant ride)	o	o	o	o	o	o	o
2. Use of motor vehicles (for Animal safari) within the Park	o	o	o	o	o	o	o
3. Photography from close quarters	o	o	o	o	o	o	o
4. Picnicking around the national park	o	o	o	o	o	o	o
5. Feeding of wildlife by the visitors in & around the park	o	o	o	o	o	o	o
6. Trampling (compressing) of soil & flora during Elephant ride	o	o	o	o	o	o	o
7. Pedestrian & vehicular traffic around the Park	o	o	o	o	o	o	o
8. Collection of souvenirs like flowers, fungi, etc. from the premises.	o	o	o	o	o	o	o
9. Collection of fuel wood	o	o	o	o	o	o	o
10 .Running of power boats for patrolling purpose	o	o	o	o	o	o	o
11. Wastewater from the resorts / hotels around the Park	o	o	o	o	o	o	o
12. Haphazard developmental activities (especially construction of building, roads) in & around Kaziranga NP	o	o	o	o	o	o	o
13. Trekking / camping activities (camp fire) around the Park	o	o	o	o	o	o	o
14. Littering / dumping of garbage in & around Kaziranga NP	o	o	o	o	o	o	o

Demographic profile:

Category of Stakeholder: ( ) Tourist ( ) Service provider ( ) Local people / NGO

Gender: ( ) Male ( ) Female

Age Group: ( ) Below 25 yrs. ( ) 25 yrs 40 yrs. ( ) 41yrs 60 yrs. ( ) Above 60 yrs.

Education: ( ) Undergraduate ( ) Graduate ( ) Post Graduate

Occupation: ( ) Service holder ( ) Self employed ( ) Student / Unemployed

Daily Budget: ( ) Below Rs 300 ( ) Rs 300 - Rs 500 ( ) Rs 500 - Rs 700 ( ) Above Rs 700

Place of origin: .....