Project Title: "Buffer Zone Community perception, attitude and belief towards newly establish protected area: A Case Study from Banke National Park."

Photo Credit: DNPWC/NTNC/WWF Nepal

Submitted by

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Acknowledgement

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I would like to thank my enumerators in Chitwan and Banke National Park for their support in the field. I would not have completed the work without them. I am grateful Promina Shrestha, Pradeep Khanal, Prem Poudel, Kripal Chaudhary for their help in the project and Gokarna Jung Thapa for his crucial help in the complicated GIS work I would also like to thank Dr. Amrita Thapa for her inspiration and moral support.

Preface

This project, entitled "Buffer Zone Community perception, attitude and belief towards the newly established protected areas: A Case Study from Banke National Park" has been funded by Rufford Small Grant Foundation. I have used experienced enumerators from the local buffer zone for conducting the household survey. This project employs the social research methodology to assess perception and attitude of the local people towards the establishment of the protected area.

The first chapter of this report deals with the assessment of the buffer zone community perception, attitude and belief towards the Banke National Park.

The second chapter of this report deals with the conservation awareness campaign "*Forest for Life: Hug the Tree*".

The third chapter includes the photographs taken at the various stages of the project execution.

Citation

Thapa, K (2015). Buffer zone community perception, attitude and belief towards the newly established protected areas: A case study from Banke National Park. Final report submitted to Rufford Small Grant Foundation. Kathmandu, Nepal.

Summary Part I

Creation of the protected areas has been key strategy to conservation biodiversity in Nepal and elsewhere. Banke National Park was established as the country's 10th national park. Perceptions and attitudes of local people to protected areas are the key factors for the success of any protected area. Questionnaire survey was carried out in buffer zone communities with 321 households in BaNP. I also carried out the survey in the Mirga kunja buffer zone communities in CNP across 203 households for comparison. General socioeconomic conduction was similar to that of other protected areas in Terai except the livestock density was found to be high in BaNP. Conservation attitude was less favorable in BaNP than in CNP. Communities in BaNP was found be less satisfied with the buffer zone activities being conducted in their area. It was evident that communities in BaNP were not feel blessed with the establishment of protected areas in their surrounding forest that those of CNP. Alternative energy promotion and livelihood promotion activities should be integrated in the buffer zone community development program to increase cordial relationship between park and buffer zone communities and diverse the dependencies on the natural resources of the protected area.

Summary Part II

1. Forest for Life: Hug the Tree campaign was launched officially on January 8 2014. Hotel business (~100) were targeted in Kohalpur area across the buffer zone area of the Banke National Park.
2. Bagh Bahadur character was used as iconic character depicting conservation message that reads as "*Our identity is blessed with the tree, plant a tree and save the forest*"
3. 500 posters and fliers were distributed among the hotels (~100), schools, national parks and wildlife reserves offices, conservation organization (WWF, NTNC) and buffer zone offices to spread the conservation message with "forest for life: hug the tree" campaign.
4. Face book page "Bagh Bahadur Club" was used as the forum for spreading the conservation message among the wider audience.

Part I

Introduction

Creation of the protected areas has been key strategy to conservation biodiversity in Nepal and elsewhere (Allendorf, 2007). However, the creation and maintenance of the protected areas (PA) in many countries including Nepal has been contentious. The process of PA establishment and management are implemented in centralized and an adhoc principle where local population is excluded which opposes the fundamental objectives of nature conservation (Pimbert and Pretty, 1997). Perceptions and attitudes of local people to PAs are, as identified in numerous studies, thus

the key factor for the success of PAs (Stoll-Kleemann, 2001, Arnberger et al., 2012, Arnberger and Schoissengeier, 2012).

Before the establishment of BaNP, twenty percent of the total land surface of Nepal was under the strict protection by the Government of Nepal (DNPWC 2010). Their establishment often entails resettling and depriving people to access the resources upon which they have depended for generations. If the protected areas are to be conserved over a long-term, the management must address to the needs and concerns of the local residents and integrate them into their management strategies (Ref).

In April 2010, the Government of Nepal declared its 20th protected area and formally endorsed it as country's 10th national park-Banke National Park (DNPWC, 2010). In the same year, government declared 1903 km^2 and 2179 km^2 areas as country 5^{th} (Aphi Nampa) and 6^{th} (Gaurisankhar) conservation area. More recently in 2015, Government of Nepal declared 138 km^2 of extension area as the core area to Parsa Wildlife Reserve. This increase the protection status to 23% (DNPWC 2015). These big wins for conservationist often brings negative attitude between concerned government stakeholders and local communities. During my survey (Rufford's first grant) with the big cats in the Banke National Park (Thapa, 2011), I have seen and experienced lots of grudges, issues and misconceptions towards the establishment of the protected areas in the region. The local residents despised the creation of the park without being alarmed. This was deem necessary to understand the people's beliefs, attitudes and perceptions towards the protected areas to develop successful management strategies to conserve those areas over the long-term.

Factors contributing to the positive belief, attitude can be measured and compared with the communities which have a long history of experience in the protected areas management in Nepal. The Chitwan National Park is the first national park of Nepal and the communities living around the Chitwan National have 50 years of experience with the protected area management. Their experience and knowledge will be helpful in evaluating the belief and attitude of the people living in the Banke National Park (which has no experience on the management of the protected areas and the communities have just tasted the protected area management approach). This would also help to evaluate the effect of the protected area management in bringing a positive belief and attitude among the buffer zone communities. The main objective of this study has been to assess the community perception, attitude and belief toward the establishment of the Banke National Park and their comparison with best buffer zone communities in CNP. Our hypothesis was that positive attitudes toward protected areas and conservation in particular among residents in Banke National Park would be lower and less favorable than that of Chitwan National Park. Household survey conducted in and around buffer zone communities and interviews with the key informants clustered around the buffer zone communities are key to gain insight into the problems and issues.

Study Area

Banke National Park

This study was conducted across the buffer zone communities of Banke National Park (BNP, here after referred as BaNP, Map 1). The forest connectivity is contiguous to Level 1 Tiger Conservation Landscape {Dinerstein, 2007 #63} across the Bardia National Park located in the western part of the BaNP. Administratively, BaNP lies in Banke, Bardia, Dang and Salyan districts located in the mid-western region of Nepal.

The land cover is the matrix of Sal forest, deciduous forest and riverine forest interspersed with agriculture areas and river banks cascading down from churia hills covering a core area of 549 km^2 and buffer zone area of 344.13 km^2 respectively {DNPWC, 2010 #394}. This landscape supports the estimated 43 thousand people (CBS 2001) and daily household activities are characterized by agriculture, livestock grazing, fuel wood collection and other agri-business. Tiger (*Panthera tigris*), leopard (*Panthera pardus*) and hyena (*Hyena hyena*) are the top carnivores found in the BaNP. *Shorea robusta, Terminalia tomentosa, Buchanania latifolia, Anogeisus latifolia, Dalbergia sisso, Acacia catechu, Ficus glomerata, Mallotus philippinensis,* and *Sugenia jambolana* are the dominant species recorded across BaNP.

Chitwan National Park

Chitwan National Park (CNP, Map 2) is the first national park in Nepal and was established in 1973 and granted the status of World Heritage Site in 1984 {Bhuju, 2007 #1195}. It covers an area of 932 km^2 and is located in the subtropical Inner Terai lowlands of south-central Nepal in the Chitwan district. Adjacent to the east of CNP is the Parsa Wildlife Reserve, and contiguous in the south is the Valmiki Tiger Reserve. In 1996, a 750-km^2 buffer zone was delineated; 55% - agricultural and settlement areas and 45% -community forests {DNPWC, 2000 #1194}. The major land use of Chitwan National Park comprised of forest (88%), grassland (5%) and other major landuse types (11%) {Nagendra, 2005 #1206}. The typical vegetation of the Inner Terai is Himalayan subtropical broadleaf forests with predominantly sal trees covering about 70% of the national park area. Purest stands of sal occur on well-drained lowland ground in the center. CNP is home to 43 species of mammals {Baral, 2008 #984}. Tiger (*Panthera tigris tigris*), leopard (*Panthera pardus fusca*) and dhole (*Cuon alpinus*) are the top carnivores {Thapa, 2014 #967}.

Method

The main data collection tool used for this study was a questionnaire developed specifically for the study. Household (hh) was the basic sampling unit for the questionnaire survey. I conducted a questionnaire survey in 524 hh across the buffer zone communities in CNP (~203) and BaNP (~321). In BaNP, three buffer zone user committees (Duerali, Dhakeri and Hattidamar) were officially registered with the Buffer zone Management Council of BaNP. I randomly chose the representative households (n~321) from three user committees. The questionnaire survey included the semi structured questionnaire focusing on the respondent's attitude, perception and level of satisfaction towards the protected areas and management, protected area policy and biodiversity values. Questions were open ended to the responder to have their answer related with perception rather than ours perception related questions. I used the likert scale in measuring the people's attitude (likes or dislikes) in two point scale, level of satisfaction (satisfied or dissatisfied) in two point scale and lastly the perception in 5 point scale (where 1 - Strongly disagree, 2 -Disagree, 3- Neutral, 4 -Agree, and 5 - Strongly agree.). Questionnaires were pretested before conducting the actual survey. I used the conservation statements to measure the attitude of the respondent based on the published paper conducted in BNP and SWR {Baral, 2007 #874}. This also provided an opportunity to compare this dataset with it. I also asked the reasoning questions to get their views/perception on buffer zone management related activities.

For comparison, I conducted a similar questionnaire survey across the households in one of the best buffer zone user committee in CNP. CNP is one of the best managed park in the country with more than 50 years of experiences {Heinen, 2006 #877}. I selected Mirgakunja buffer zone user committee for the purpose. This user committee was selected based on their experience and

relationship with the management council and user groups within it. Thus upon the recommendation from the National Park, buffer zone management council and local conservation organization (TAL office, BCC-NTNC). In the past, Mirgakunja was awarded and acknowledged with Abrahim Conservation Award, highest conservation award in Nepal, by WWF Nepal for their outstanding contribution in biodiversity conservation. All questionnaire survey were conducted and completed in 50 days in 523 households in the period between December and September 2015.

All the statistical analysis were carried out in SPSS version 20 (SPSS Inc., Chicago, IL, USA). I used the descriptive statistics for measuring the general socio economic condition of the sampled population from two study sites in Chitwan and Banke National Park. In order to explore and detect any patterns in the data, I first analyzed data through simple descriptive statistics including the cross tabulation tables. Given the nature of the survey, I ran correlation analysis to ascertain relationship between the variables. I also performed Chi square tests to ascertain whether the distribution of the variables differ from one another {Zar, 2009 #872}. For the Likert scale data, I used the mode or the most frequent response as the best measure of the central tendencies. I used t- test to compare the views among the independent groups (categories: Banke and Chitwan National Parks and) of sampled data.

Results

General Socioeconomic Condition

We (me and enumerators) spent total of 1000 hrs in 321 hh in total of three buffer zone user committee of BaNP representing four district (Banke, Bardia, Salyan and Dang) in western part

of Nepal. Similarly, we spent a total of 200 hrs in 201 hh of Mirakunja user committee in Chitwan National Park. Average age of the respondent was 41.5±20 (Table 1). In BaNP, 75% were male respondent, while 60% were female in Chitwan National Park. I did not segregate the characteristics of respondent by ethnicity. Level of education (literate to college education, Fig 1) was similar (~78%) between respondent in two protected areas. Landholding size was similar in two protected areas. Landholding size is positively correlated with livestock size in Banke National Park ($r=0.24$, $p<0.01$).

Resource Use Pattern

Resource use pattern were similar between the protected areas. Respondent uses (84%) all three types (fuelwood, fodder, thatch) of common forest products from their nearby forest. 50% of resources are fulfilled from the nearby community forest while rest from the buffer zone community forest. While 100% of the forest product are supplied by the buffer zone community forest alone. Fuelwood is the main source of energy for majority (~100%) of hh in the sampled hh in Banke and Chitwan National Park. 15% of hh in CNP fulfill their demand from the private forest as well.

Conservation Attitude

Perception of the respondents differ between the two protected areas significantly regarding the statement pertaining to forest status, problems with access, custodianship of resources, socioeconomic upliftment and resource use conflicts, anthropocentric views, poaching status, inter and intra-generational equity, willingness to contribute to conservation, responsibility to manage conflict (Table 5). Surprisingly perception of the respondent didn't differ between the two protected areas with regard to wildlife population trend. Majority of the respondent in CNP

(72%) and BaNP (82%) agreed that wildlife population has increased in their respective protected areas in the last ten years.

Majority of the respondent in BaNP (90%) in agreed that people and livestock are more important than the wildlife, opposite to that in CNP (32%, Table 5), where they disagree to that statement. Majority of the respondent agreed in BaNP (89%) that their living condition has not changed ever-since the establishment of the protected areas. However, Chitwan National Park agreed overwhelmingly agreed to that statement (66%). Majority of the respondents (89%) in BaNP agreed that they want to contribute to the conservation cause in their respective protected areas. Overall conservation attitude score (Fig 2) showed that respondent attitude toward the conservation was found to be relatively low in Banke National park (Score: 5) in comparison to Chitwan National Park (score: 8).

Level of Satisfaction

There was mixed responses among the communities toward the level of satisfaction to different activities conducted in the buffer zone communities. Overwhelmingly, communities are satisfied with the anti-poaching work being implemented in the buffer zone to safeguard their forest from illegal activities. Majority of the BaNP (34%) buffer zone communities remain neutral and maximum respondent (34%) were highly unsatisfied with the livelihood opportunities being implemented in the buffer zone (Table 3). We found similar result with an alternative energy activities in the BaNP buffer zone communities. Overall level of satisfaction (Fig 3 & 4) shows that respondent in buffer zone communities of CNP (weighted average score: 3.02) were more satisfied than the respondent in BaNP (weighted average score: 1.81) buffer zone communities.

Protected Area Establishment

Happiness index toward the protected areas establishment differed between the buffer zone respondents in two protected areas (χ^2=102.75, p=0.00). Majority of the respondent in BaNP (64.5% & happiness index: 0.84) were not happy with the establishment of Banke National Park, where as majority (84% & happiness index: 0.35) felt that they were happy with the establishment in Chitwan National Park (Fig 5).

Discussion

This is the first study of its kind to measure the perception, attitude, level of satisfaction and happiness of the local communities in the buffer zone of newly established protected area (i.e. Banke National Park) towards conservation in general and establishment of protected areas in particular. This serves as the baseline for the further study. The main findings of the study have been: 1) livestock density was relatively high in BaNP than in CNP; 2) other socio economic indicator (landholding size, level of education, family size) were similar beside significant dissimilarities in other indicators; 3) resource use pattern was usual with the fuel wood was the main source of energy, however on the positive note there was high prospect of private forestry program; 4) conservation attitude were less favorable in BaNP than in CNP; 5) communities in BaNP was less satisfied with the buffer zone activities in comparison to buffer zone communities in CNP and lastly, BaNP were not feel blessed with the establishment of protected areas in their surrounding forest that those of CNP.

It was obvious that the buffer zone communities in BaNP were not happy and less favorable with the establishment of protected areas thus supporting my apriori. Primarily, there traditional rights/ access to forest resource were blocked with the protected area establishment. Secondly, majority have a fear of potential damage from the growing wildlife in the future. This was also found in other buffer zone communities in Terai protected areas like in Bardia and Suklaphanta

(ref). Different indicators used here suggest that BaNP is likely to develop more social challenges to the PA management in the future.

Majority were not satisfied with the work of buffer zone communities, however establishment of the buffer zone council has been recent and more time and activities need to be focus to meet the ardent need of the buffer zone. Demand for the fuel wood and fodder is high thus creation of buffer zone community forest would help to reduce and diversify the forest dependencies on the forest in BaNP. Majority of communities were not satisfied with the buffer zone community work like in promotion of alternative energy and livelihood forest. Thus protected area, buffer zone management council and NGO's can play important role to increase benefits on these aspects as to increase the confidence of the buffer zone communities.

My comparison of the data with best buffer zone user committee in CNP helped to show relative significance buffer zone communities in gaining the benefits from the PA management. CNP communities are most benefitted and least likely to have negative impact of the protected areas management. Experience sharing mechanism between the buffer zone user committees would help the bridge the gap between newly established BaNP and buffer zone committees. However nature of relationship is different in both the areas (BaNP and CNP). Site level planning is essential for better planning and coordination among community, national park and council. Increasing some degree of ownership would also help to increase the conservation effort (Ref). Thus more number of buffer zone user group should be established in the newly established buffer zone management committee in the coming days.

Allendrof (2007) advocated for promoting the non-economic benefits (cultural, spiritual and esthetic values) and would directly strengthen the relationship between residents and protected areas. Banke National Park has a lots of potential to benefit the local with the importance of

BaNP's aesthetic values. The majority of respondent felt a lots of potential (identity of Banke district, environmental conservation) in BaNP which can be explored to build the secure stewardship with the buffer zone communities. BaNP lies in partly in the Churia and Bhabhar region and environmental services can be used to protect the buffer zone communities from the environmental degradation in the future. Thus protected area establishment like in BaNP can be boom (non-economic benefit) to buffer zone communities in the long run.

Part II: Conservation Awareness

During my first rufford grant survey, among the many ecological issues in the Banke National Park, water availability and forest degradation was the most limiting factors {Thapa, 2011 #747}. Majority of the buffer zone community's lies within the Churia region (geologically fragile ecosystem) hence water is scarce most of the time. So I wanted to make people aware of

the major role the forest plays in recharging the water system in the region. Kohalpur (nearest city) attracts people for collecting illegal fuel wood and the Banke National park is one of the hubs for illegal sources of the fuel wood. Ecologically, "Water and Forest" are interlinked. I want to target these hotspots to conduct the "Forest for life: Hug the Tree" campaign.

I focused on these two issue to spread the conservation awareness around the communities in Banke National Park. So, what really make the people excited toward the conservation? Lots of the brainstorming has been done taking help of the conservation experts, conservation education experts and my friends. I wanted to draw the people attention on conservation education message. I used the similar approach that I did in 2010 with use of animated character "Bagh Bahadur" to raise these pertinent issues. I reviewed most of the education activities in Nepal. Poster, fliers, book marks were key relevant material for the spreading the conservation related message to the wider audience in Nepal. I have used the same approach to fulfill my purpose to have education campaign with the help of the posters and fliers. Taking upon these two key issues and "Bagh Bahadur" popularity, I conducted awareness campaign, "***Forest for life: hug the tree***" focusing on the hotel business and forest dependent communities in and around Banke National Park.

Bagh Bahadur Character

Instead of real life portrait of the tiger itself, I have designed the character named as " Bagh Bahadur" in the form of cartoon character (Thapa 2011). The reason for the development of the character was to grab a young people including the children. Bagh Bahadur meaning "Male Tiger" in local Nepali dialect.

Design of the Poster

I have taken help of the cartoon illustrator (Promina Shrestha) for the design of the poster for the

campaign. After the series of discussion on the character, purpose, and the target audience, i have designed the two theme in a single poster showing "good and bad" scenario. My purpose was to show what happen if we do not care about our environment and consequences it will bring as result of our own wrong deeds. In the good scenario it shows that if we protect our forest and use it in the sustainable manner and then everyone will be happy. So "Forest for life: hug the tree" around your surroundings and save the environment from degrading. In the nutshell, save the tree and plant a tree for the future generation. In the poster: "bagh bahadur is urging the people not to cut the trees and hug the tree to bring peace and greenery to the society where we live". So poster was designed combining the bagh bahadur character and conservation message texts. The conservation text in the poster read as ***"Our identity is blessed with the tree, plant a tree and save the forest".*** Texts (message in the poster) were finalized and in consultation with Mr. Gokarna Jung Thapa (WWF Nepal), Mr. Pradeep Khanal (WWF Nepal), Mr. Prem Poudel (TAL), Mr Babu ram Lamichanne (BCC/ NTNC) and Dr Amrita Thapa (Tiger Enthusiast). I have used the same designed for the fliers (Thapa 2011) in the form of bookmark as I did in my 1st Rufford Small Grant (2011). I have used the same character "bagh bahadur" in the front and few facts sheets on tigers at the backside.

"Forest for Life: Hug the Tree" Campaign

I have started the campaign focusing on the hotelier in the Kohalpur area across the Dhakeri Buffer Zone User Committee of Banke National Park. Firstly, each of the owners were aware about how they can help to save the environment with the help of our campaign material. Secondly, we distributed our campaign material to each and every hotelier in Kohalpur area (~ 100 small and medium hotels). Since objective was also to focus toward the youth, I have distributed the campaign material to the three schools in the same buffer zone area.

At the annual buffer zone management council meeting at the park headquarter-Ovari, all the representative of the buffer zone representing all four district were presented our hug the tree campaign material. Apart from the project area, I have distributed the campaign material to all four buffer zones in Chitwan National Park, Parsa Wildlife Reserve, Bardia National Park, and Suklaphanta Wildlife Reserve respectively. Few schools in the Capital City were also the part of

the “Forest for life: hug the tree” campaign. The total of 500 copies of the posters and fliers were used and distributed during the campaign.

रुखसँग गाँसियो हाम्रो अस्तित्व,
रुख रोपौं बन जोगाऊँ । -बाघ बहादुर

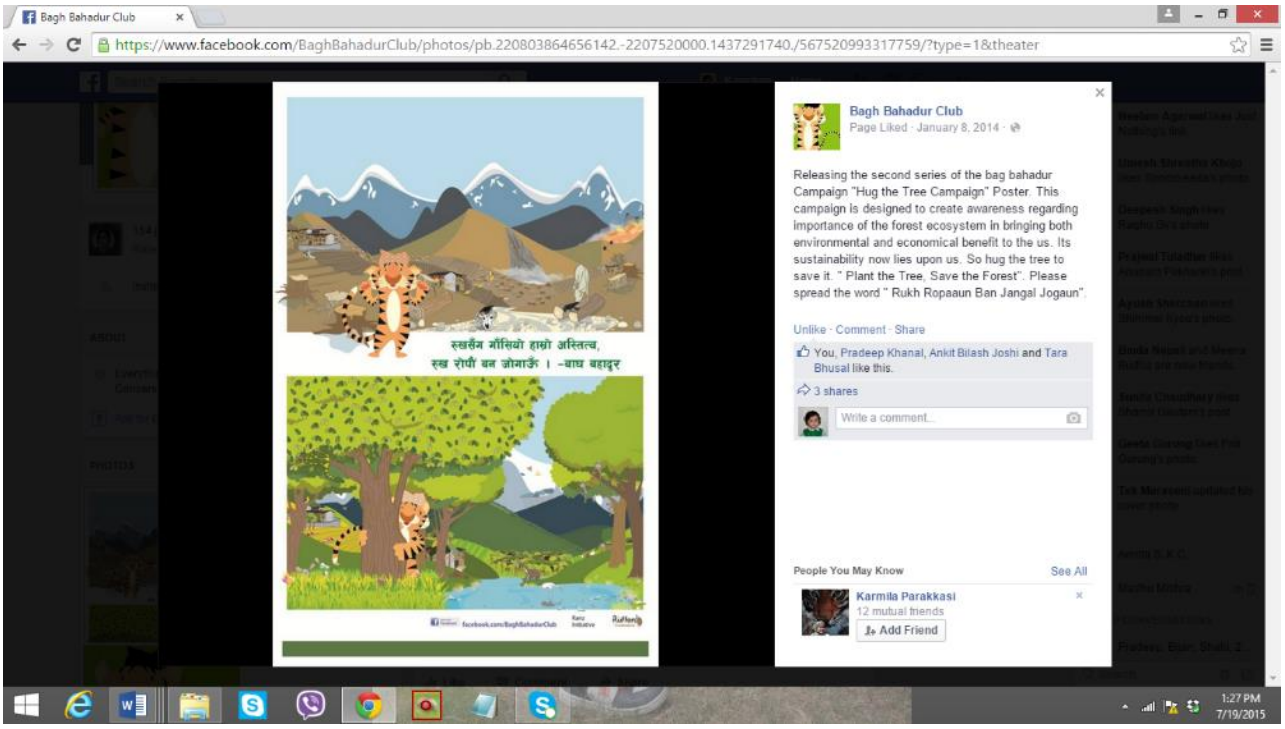
facebook.com/BaghBahadurClub

Kanz Initiative

Rufford

Campaign at the wider conservation arena through "Bagh Bahadur Club".

I used the social networking site: Facebook, to spread my conservation message. My poster was official launched on January 8, 2014 in the "Bagh Bahadur Club" facebook page. Anyone can become the member to the club. The member will receive the recent news and events in the field of biodiversity conservation. I would request all the viewers and readers to become member to the club and spread the conservation message. The bagh bahadur club page can be assessed by clicking on the following link: http://www.facebook.com/baghbahadurclub. Bagh Bahadur is exclusive to my campaign. Character will be used in the future campaign as well.



Part III: **Photographs**

	Participants in the Hug the Tree Campaign in Banke National Park
	Household survey in buffer Zone of Chitwan National Park
	Household survey in buffer zone of Chitwan National Park

	Household survey in buffer zone of Chitwan National Park
	Female respondent in Chitwan National Park
	Poster Campaign with the Chief Warden.

Campaign with the member of hotel owners in Kohalpur.

One day training workshop with the enumerators for the survey on the field methods.

	Field assistants conducting the questionnaire survey at the household level in the buffer zone in Banke National Park
	Illegal fuel wood collection is one of the problem in and around the Banke National Park
	People waiting to sell the illegally collected fuel wood

	Illegal clear felling of the trees inside the national park (Photo Credit: Banke National Park)
	Community participation in clearing the fire line inside the buffer zone community forest (Photo Credit: Banke National Park)
	Principal Investigator in discussion with the official (Assistant Warden, Mr Lal Bahadur Bhandari) of Banke National Park. Field visit was conducted in and around the Banke National Park

Appendix: List of Tables

Table 1: General characteristics of the sampled household in two protected areas in Terai.

Name of Protected Areas		Age	Number of Livestock	Family Size	Landholding Size
CNP	**Mean**	39.2	3.9	5.5	11.3
	Std. Deviation	16.3	2.5	2.2	13.2
BaNP	**Mean**	43.7	14.0	6.6	10.3
	Std. Deviation	22.8	18.1	3.3	8.3
Total	**Mean**	41.5	9.2	6.1	10.8
	Std. Deviation	20.00	14.1	2.9	10.8

CNP: Chitwan National Park ; BaNP: Banke National Park

Table 2: Percentage (%) of respondents in CNP (n~202) and BaNP (~321) agreeing or disagreeing with conservation statements (identified as positive and negative). Chi square "*p*" =level of statistical significance.

Statements	CNP		BaNP		*p*
	Agree	Disagree	Agree	Disagree	
Negative Statement					
Forests around your village have decreased in recent years	37%	63%	54%	46%	0.01
If there is unlimited access to forests for fuel wood and fodder, forests will be disappeared soon	98%	2%	91%	9%	0.003
What people and their livestock need are more important than saving plants and wild animals	32%	66%	90%	10%	0.000
Human wildlife mitigation is only the duty of the government	18%	83%	32%	68%	0.00
Poaching has increased in the recent years	20%	75%	35%	64%	0.001
Positive Statement					
It is responsibility of local people to protect natural resources	100%	0%	92%	8%	0.00
There are more wild animals now than ten years ago	72%	25%	82%	18%	0.052
My living condition improved since the protected area's creation	66%	34%	11%	89%	0.000
After the establishment of buffer zone forests/reserve you don't have problem of access to resources	74%	26%	41%	59%	0.000
It is important to protect the animals and plants so that our children may know and use them	99%	1%	95%	5%	0.022

There is an equitable distribution of common pool resources and benefits	30%	66%	14%	86%	0.000
You are willing to contribute for conservation cause	99%	1%	89%	10%	0.000

CNP: Chitwan National Park ; BaNP: Banke National Park

Table 3: Percentage (%) of respondents in CNP (n~202) and BaNP (~321) showing the level of satisfaction with respect to conservation activities.

Protected Areas	**CNP**					**BaNP**				
Level of Satisfaction	Highly Satisfied	Moderately Satisfied	Satisfied	Not Satisfied at all	Neutral	Highly Satisfied	Moderately Satisfied	Satisfied	Not Satisfied at all	Neutral
User group Mobilization	18	**29**	19	9	26	11	17	**34**	15	23
Grazing Management	10	19	**34**	27	9	**34**	24	16	12	13
Alternative Energy	14	**32**	18	14	22	2	2	4	22	**70**
Anti-poaching Operation	**38**	29	6	7	19	**49**	10	26	12	2
Community Development	8	**30**	23	26	14	11	19	22	19	**28**
Livelihood Oppurtunities	5	**24**	22	24	26	1	2	5	**34**	57

CNP: Chitwan National Park ; BaNP: Banke National Park

List of Figures

Fig 1: Level of education among the respondent in two protected areas in Terai.

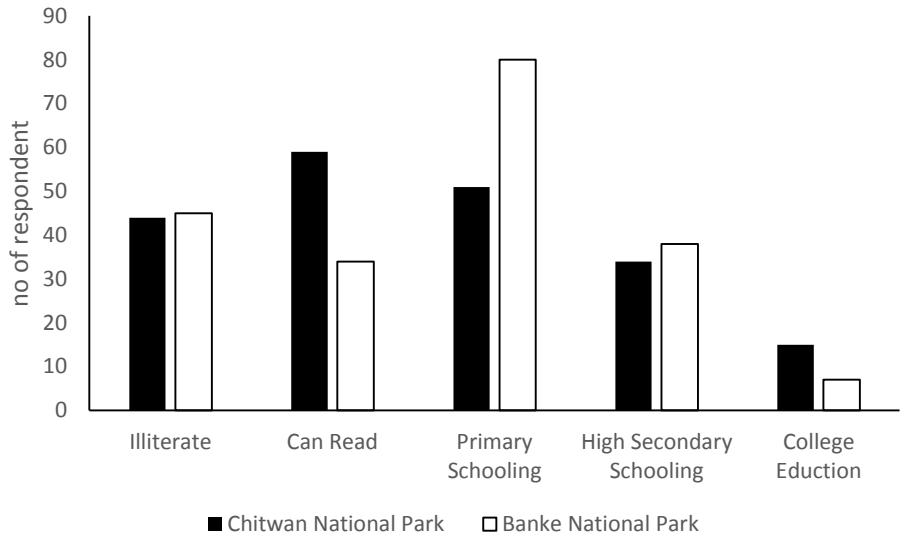


Fig 2: Conservation Attitude Score in Banke (n=321) and Chitwan National Park (n=202)

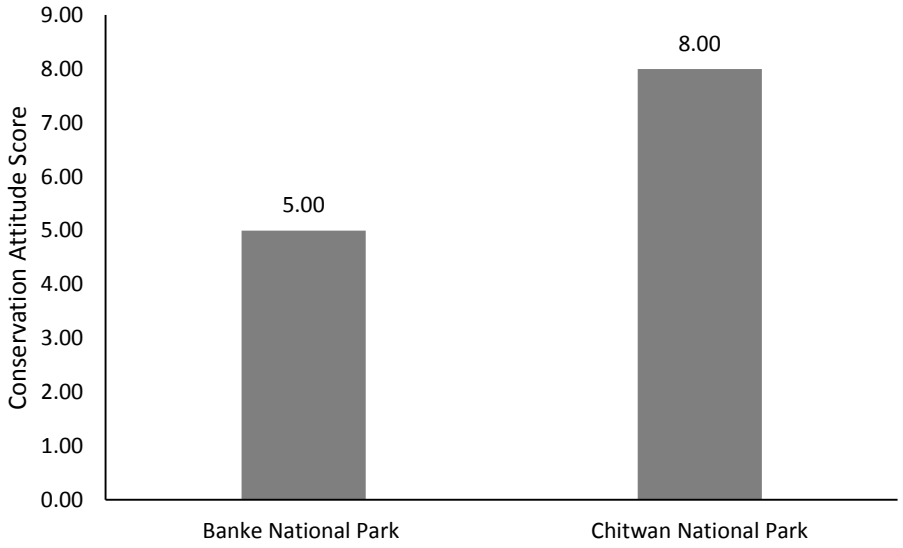


Fig 3: Level of Satisfaction among the communities in Banke (n=321) and Chitwan National Park (n=202) toward the various activities conducted in the buffer zone communities by the national park, buffer zone user committee, buffer zone management council. 1: highly dissatisfied, 2: dissatisfied, 3: Neutral, 4; Moderately satisfied, 5: Highly satisfied.

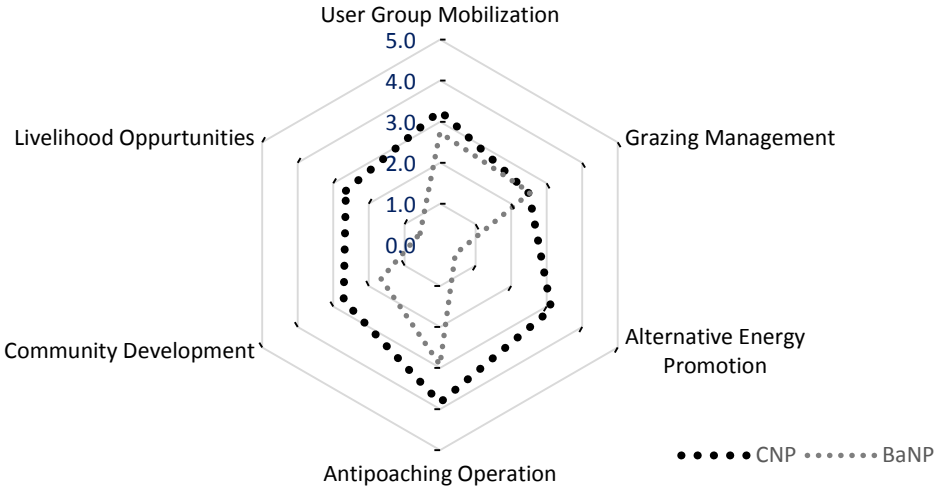


Fig 4: Conservation attitude score among the communities in Banke (n=321) and Chitwan National Park (n=202) toward the various activities conducted in the buffer zone communities by the national park, buffer zone user committee, buffer zone management council. 1: highly dissatisfied, 2: dissatisfied, 3: Neutral, 4; Moderately satisfied, 5: Highly satisfied.

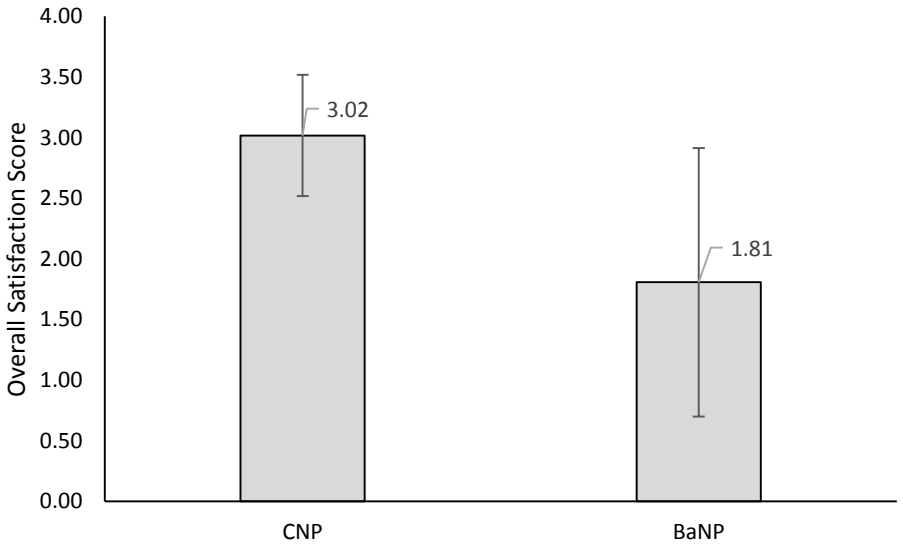
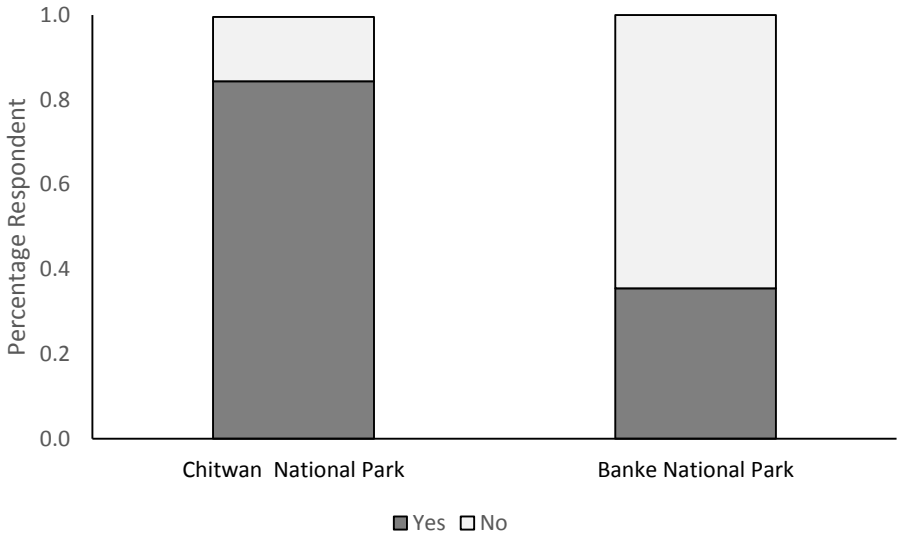


Fig 5: Happy respondents in Banke (n=321) and Chitwan National Park (n=202) toward the establishment of protected areas in their surroundings.



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