

THE SOCIO-ECONOMIC IMPACTS OF TOURISM IN PROTECTED AREAS IN KARNATAKA

Case studies from
Bandipur, Bhadra & Dandeli-Anshi Tiger Reserves



Final project report

submitted to

Karnataka Ecotourism Board

&

Karnataka Forest Department

by

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Background

Tourism is a steadily expanding economic sector worldwide; and is one in which developing nations have a considerable stake in (Pro-poor Tourism Partnership, Eadington and Redman 1991). In India for example, tourism contributed over 8% to Gross Domestic Product (GDP) in 2010; while generating at least one out of ten jobs (World Travel & Tourism Council)¹.

The last couple of decades have been witness to an escalating demand for *nature-based tourism* in the country². Practised largely in rural hinterlands and/or protected areas, this form of tourism is seen as holding the potential to provide for sustainable tourism development³; intertwining the goals of nature conservation and provision of socio-economic benefits to local communities. *Ecotourism*, is a form of sustainable, nature-oriented tourism and is defined as “*responsible travel to natural areas that conserves the environment and improves the well-being of local people*” (TIES 2006). Such tourism must simultaneously: (a) minimise environmental impact and have a small ecological footprint; (b) contribute directly (reforestation, habitat restoration) or indirectly (financial benefits) to conservation and (c) promote local livelihoods through political empowerment and a combination of culturally appropriate social and economic benefits to local people (Blamey 1997).

The major challenge has been to measure and monitor whether ecotourism has delivered on the definitional promise of providing indirect (financial) benefits to local communities. There has been much debate on the conservation benefits from nature-based tourism to either Protected Areas (PAs) or local communities (Lindberg et al 1996, Nash 2009, Sims 2010 and West & Carrier 2004). Some studies suggest that local livelihoods, park management and conservation are improved, through reduced pressure on forest resources (Goodwin 1996, Lindsey et al 2006 and Wilkie & Carpenter 2002) and according to Nagendra et al (2005), some communities close to the park have benefitted as well. On the other hand, other scholars such as Archebald & Naughton-Treves (2001), Bandyopadhyay & Tembo (2010), Chambley (2005), and Stern et al (2003) have found **no** benefits to local communities, no community involvement in PA management decisions about tourism, lack of benefit sharing and question the sustainability of tourism revenues in PA conservation and management in general.

The first step in measuring and monitoring the socio-economic contributions of ecotourism is to understand tourist spending in the protected area during their visit (Fletcher 1989, Frechtling

¹According to the Ministry of Tourism, number of Foreign Tourist Arrivals (FTAs) increased from 2.37 million to 5.08 million over the period 1997 to 2007, while the number of domestic tourist visits increased from 159.88 million to 526.56 million over the same period.

² Tourism involving the experiencing of ‘natural’ places, typically through outdoor activities.

³ The World Trade Organisation (WTO) defines sustainable tourism development as one that, “*meets the needs of present tourists and host regions protecting and enhancing opportunities for the future. It is envisaged as leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems*”.

1994, Hughes 1994, Mescon & Vizikis 1985, Rose 1981). This in turn generates economic activity, directly in the form of output or sales, labour earnings and employment (Fretchling & Horváth 1999). Most of these studies present estimates of the *multiplier* impact of tourism expenditures: the total sales, output or other measures of economic benefits generated once the initial visitor spending (*direct impact*) has worked its way through the economy under study through inter-industry (*indirect impact*) and through employee consumption expenditures (*induced impact*). A significant number of these studies rely on input-output models to explore these total economic effects. However, a common complaint about these economic models is that they are time-consuming, expensive to develop, and have extensive data requirements. (Fretchling 1994:386-87, Walpole & Goodwin, 2000). Moreover, in developing countries, such as India, what is also needed is to analyse the socio-cultural effects of ecotourism, which these models fail to capture adequately.

There are studies that do not utilise input-output models, but utilise an inter-disciplinary nested scale analysis, using in-depth on-the-ground interviews with relevant stakeholders (tourists, businesses & accommodation facilities, communities) to ascertain tourism-induced changes. Assembling data on tourist spending requires estimates of the total number of visitor-days as well as average tourist spending per day (Huhtala 2007, Wells, 1997). In the Pallas-Ounastunturi National Park in Northern Finland, visitor expenditure data was collected by two methods in the summer and winter season - (i) a standard visitor survey which included questions concerning the respondent's visit and opinion about the national park, their socio-economic background and trip related spending; (ii) a visitor expenditure diary to achieve comparable data with the visitor survey. A study by Walpole and Goodwin (2000) in Komodo National Park in Indonesia estimates local impacts, including employment and distributional effects by inventorying tourism related businesses around the park and surveys businesses (supply side) and tourists (demand side) to measure (a) the magnitude of local employment generated by tourism; (b) the magnitude of local revenue generated by tourism. Zambrano et al (2010), conduct on-the-ground interviews with local households to determine the impact of ecotourism on local livelihoods. The socio-economic component of this study seeks to understand differences in income, income stability, distributional patterns of spending of income (housing, food, services, education, recreation, savings, investment), and attitudes and perceptions of ecotourism between households involved in some ecotourism related activity and those that are not.

Study Goal & Research Questions

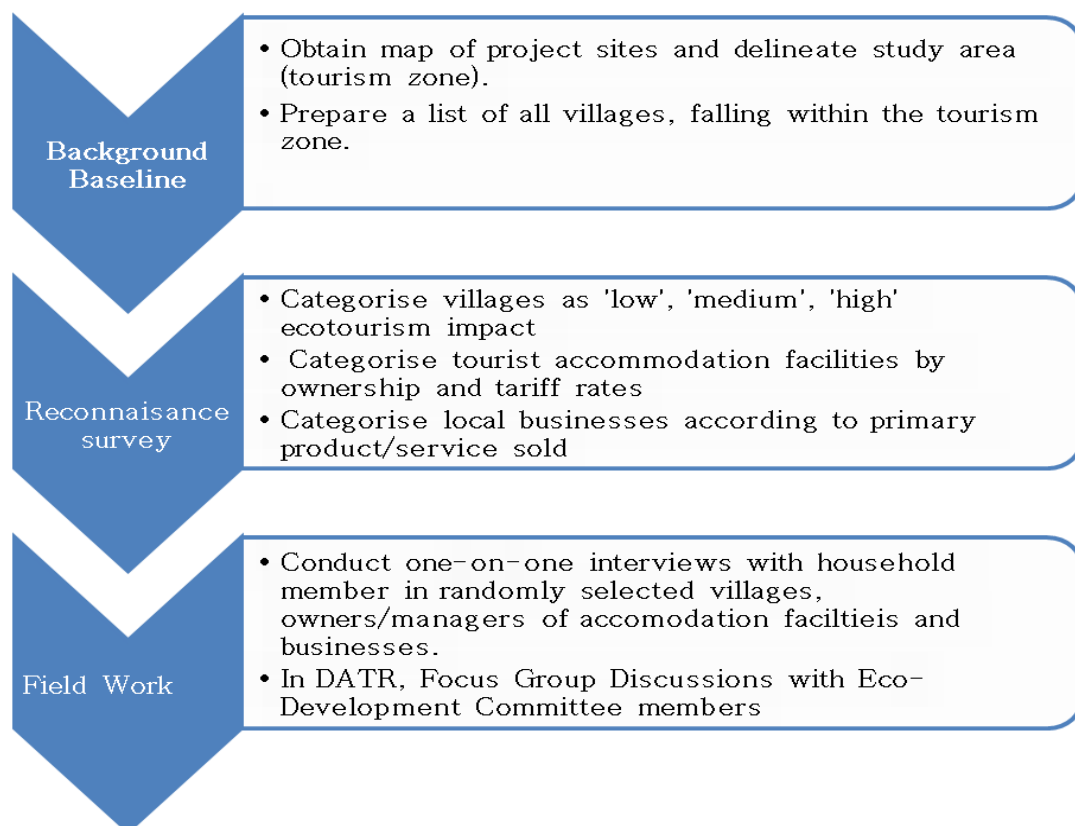
This study seeks to ascertain the socio-economic impacts of ecotourism activities in Bandipur Bhadra and Dandeli-Anshi Tiger Reserves in Karnataka, by examining how tourist-related revenue generation affects tourist accommodation facilities, local businesses and the quality of life of local communities. Additionally, the study also seeks to ascertain any identifiable impact on local environmental awareness, i.e. spread of a conservation ethic among local residents, as a consequence of ecotourism.

At the outset, it is important to note that data on tourist spending under various heads was **not** collected as part of the study. This is because the reconnaissance survey revealed that 95% of all tourist expenditure was spent on food, boarding and lodging and nature-based recreational activities (safaris, nature walks, trekking, adventure sports), which was organised by the local accommodation facilities themselves. The rest 5% was spent on travel to and fro to the site. Travel within the site was also organised by the accommodation facilities or travel and tour companies in the region.

Broadly, the study includes the following research questions:

1. What is the magnitude of distributional effects of tourism-based accommodation facilities on employment and income levels of local households?
2. What are the impacts of ecotourism on local businesses in terms of revenue generation and providing income stability?
3. How does ecotourism affect consumption patterns and income levels of local communities?

Methodology



Themes	Major activities	Sub-activities	Methodology
Establishing background baseline	<i>Literature Review</i>	<ol style="list-style-type: none"> 1. Ecotourism policies at the Central and State level. 2. Case studies, reports, articles on factors affecting biodiversity and habitat health of the region; including but not exclusive to tourism development. 3. Studies on how to conduct Socio-Economic Impact Assessments (SEIA) of ecotourism within India and other countries 4. Studies specific to Bandipur tiger reserve, Bhadra tiger reserve and Bhimeshwari with relation to SEIA and ecotourism 5. Review of initiatives taken for conservation and/or communities' livelihood security by the State govt, NGOs, private players and other stakeholders 	<i>Desk Review</i>
	<i>Identifying study area and development of sampling plan</i>	1. Obtain map of the project sites, and delineate study area (i.e. define areas under buffer zone to be marked for study)	<i>Field Work:</i> Forest Dept office at project sites.
		<ol style="list-style-type: none"> 2. Obtain Census data on socio-economic profile of all households in villages falling within the study area. 3. Categorise households as agricultural (owning and operating land) and non-agricultural. This categorisation is actuated by the assumptions: <ol style="list-style-type: none"> (a) Agricultural households <i>supplement</i> farm income from income derived from tourism-related activities (b) For non-agricultural households, a significant percentage of total income is derived from tourism-related activities. 	<i>Field work:</i> Taluk office located in each site <i>Desk Review</i>
		<ol style="list-style-type: none"> 4. Mapping private stakeholders in study area: businesses and accommodation facilities. 5. To categorise businesses according to type of activity undertaken (grocery, medical, tours and travels etc) and accommodation facilities by ownership (public, private and jointly-owned), size and tariff rates. 	<i>Field Work:</i> Transect walk and one-on-one interviews with tourists and Forest Dept officials

	<i>Development of sampling plan</i>	<ol style="list-style-type: none"> Based on above-garnered data, develop a sampling plan to identify total number of: <ol style="list-style-type: none"> Agricultural and non-agricultural households to be interviewed Businesses in each category Accommodation facilities in each category 	<i>Desk Review</i>
		<ol style="list-style-type: none"> Develop questionnaires to garner information for each stakeholder category for: <ol style="list-style-type: none"> One-on-one interviews Semi-structured interviews Focus Group Discussions (FGDs) <p>Questionnaires must include questions to capture quantitative and qualitative questions.</p> 	<i>Desk Review</i>
		<ol style="list-style-type: none"> To ascertain whether the chosen agricultural and non-agricultural households derive any portion of total income from eco-tourism. If yes, to make a note of these households If adequate numbers are not involved in tourism, to re-visit the sampling strategy 	<i>Field work</i>
Implementation of Sampling Plan	<i>Pilot Survey</i>	<ol style="list-style-type: none"> The questionnaires that have been developed shall be pre-tested at each of the study sites. It is proposed that samples shall be drawn from each category Undertake any changes to the questionnaire as required. 	<i>Field work: one-on-one interviews, FGDs and semi-structured interviews</i>
	<i>Survey</i>	<p><i>A. Households</i></p> <ol style="list-style-type: none"> To administer the questionnaire to households wherein at least one member is employed in a tourism-related activity. The same in-depth questionnaire shall be administered to households that are not associated with tourism activity to provide a control for issues of spatial auto-correlation. To collect data on the following: <ol style="list-style-type: none"> household characteristics, sources and number of days of employment 	<i>Field work: survey</i>

		<p>(c) land use activities (if agrarian household)</p> <p>(d) income: total, distribution across different household & other categories, identification of 'good' and 'bad' years of income over the last 5 years (stability)</p> <p>(e) knowledge on conservation, biodiversity and ecotourism: what does the concept mean, and how important is it</p> <p>(f) perceptions on the impact of tourism: has it increased/decreased/remained the same in recent years; is this good/bad; conventional tourism vs. ecotourism</p> <p><i>B. Businesses</i></p> <p>Data shall be obtained on the following:</p> <p>(a) Time duration of existence of business</p> <p>(b) Major suppliers of product stocked by business (name/location)</p> <p>(c) Major clients to whom they sell (name/location)</p> <p>(d) Income: : total, distribution across different categories, identification of 'good' and 'bad' years of income over the last 5 years (stability)</p> <p>(e) knowledge on conservation, biodiversity and ecotourism: what does the concept mean, and how important is it</p> <p>(f) perceptions on the impact of tourism: has it increased/decreased/remained the same in recent years; is this good/bad; conventional tourism vs. ecotourism</p> <p><i>C. Tourist Accommodation Facilities</i></p> <p>Data shall be obtained on the following:</p> <p>(a) Type of clients and seasonality patterns of visitation</p> <p>(b) Tariffs and other sources of revenue</p> <p>(c) Employment: Direct and Indirect to local residents, contractors and businesses</p> <p>(d) Major suppliers of products used at the facility (perishable and non-perishable) (name/location)</p> <p>(g) Income: total, distribution across various categories, identification of 'good' and</p>	
	Survey		Field work: survey

		<p>'bad' years of income over the last 5 years (stability)</p> <p>(h) knowledge on conservation, biodiversity and ecotourism: what does the concept mean, and how important is it</p> <p>(i) perceptions on the impact of tourism: has it increased/decreased/remained the same in recent years; is this good/bad; conventional tourism vs. ecotourism</p>	
Data Component	Data input and analysis	<ol style="list-style-type: none"> 1. Data collected from survey to be coded. Database to be created on Excel 2. Descriptive statistics 	<i>Desk Review</i>
Final Report		To be presented to the Karnataka Forest Dept. Methods of dissemination of report to be discussed.	

Introduction

Bandipur Tiger Reserve (BTR) was brought under the fold of project Tiger in 1973. Initially spread over an area of 689.52 sq kms, the area of Bandipur National Park (BNP) has been increased to 874.24 sq kms by amalgamating the adjoining 13 Reserve Forest (RF) in 2001. The entire BTR was declared as an *involute* area by the Government of Karnataka in an order dated 20th Dec 2007. Hence the entire existing TR (872.24 sq kms) is treated as the core zone. For management purposes, the park has been divided into different zones. A zone is an area of specific management category distinguishable on account of its objectives. The different zones are as follows:

1. Core Zone of 872.24 sq kms (involute area)

The main objective of constituting this zone is to preserve the natural conditions in its most pristine form. Strict protection against anthropogenic interference such as fire, livestock grazing, NTFP collection is provided. Development activities such as maintenance of water holes, saltlicks, management of older monoculture plantations, trench digging and other maintenance operations are undertaken by the park staff except forest department staff, authorised researchers and people with valid permit, no movement in the core area is allowed

2. Buffer or eco-sensitive zone

To strengthen the core area, it was decided to have a buffer or peripheral area by including some adjoining forest areas (118.27 sq kms) and 32 revenue villages (291.88 sq kms). The purpose of instituting the buffer area is to foster local community participation for safeguarding the integrity of the core. With regards to villages to be included in the buffer zone, detailed deliberations were held with the concerned *Gram Sabhas* and their willingness was obtained. In this zone regulatory grazing is allowed. Developmental activities like afforestation are to be carried out through participatory approach by involving Eco-development committees (EDC's) in these hamlets and villages.

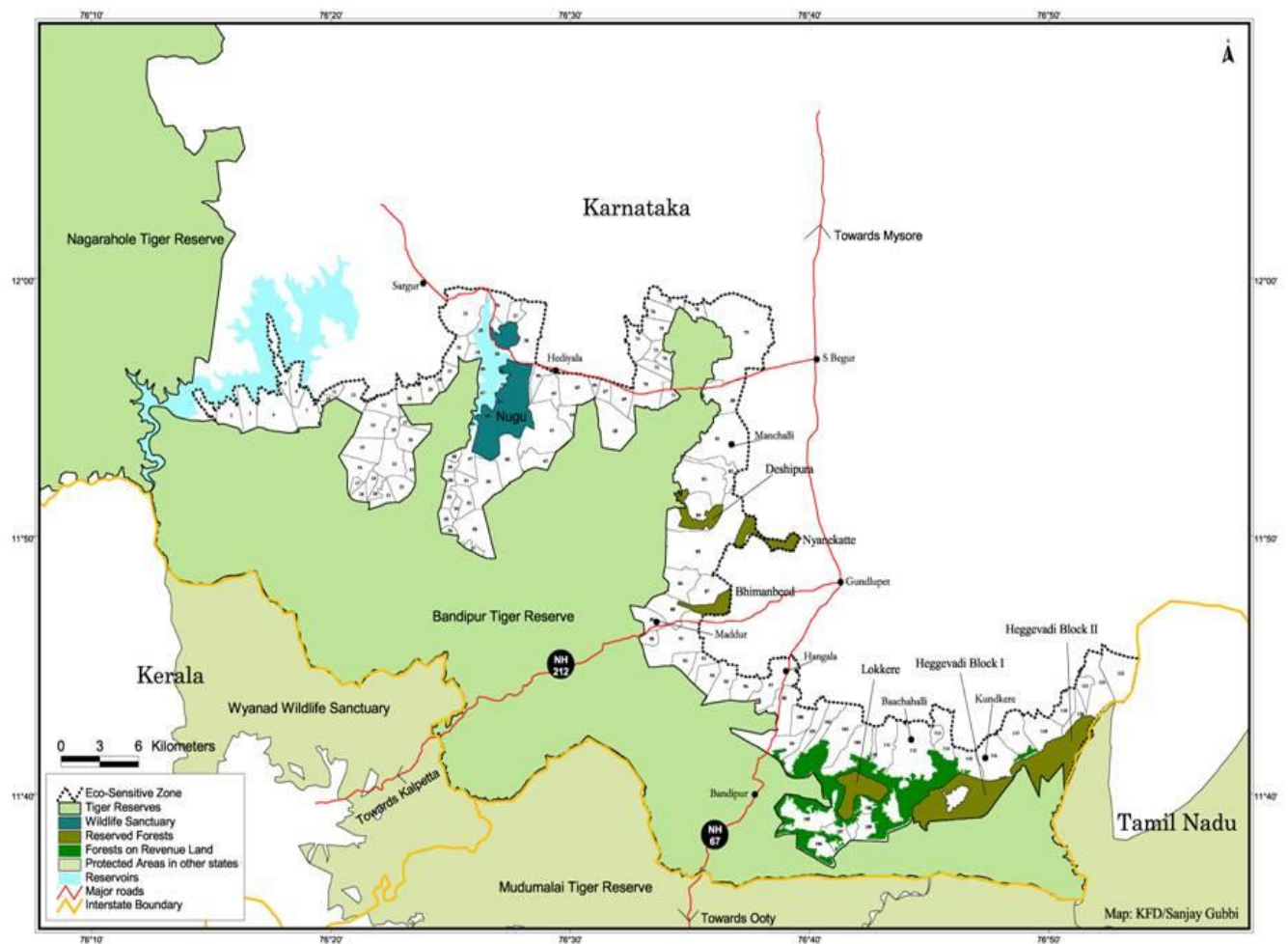
3. Tourism Zone

There is one tourism zone at BTR covering an area of 82 sq kms. This zone included part of Bandipur and Kaniyanapura RF's as per the mandate of the National Tiger Conservation Authority (NTCA) and the provisions of the Wildlife (Protection) Act 1972 all tourism activity has to be shifted to the buffer zone (Melukamanahalli village) by 2015. Until then present activities should be allowed to continue.

4. Administrative Zone

This area covers 2.90 sq kms and includes the forest Department campuses at Bandipur H.G.Hills, Kalkere, Mollehole, Moleyur and Gundre. Forest rest houses, administrative offices and staff residences are located within this campus.

Figure 1: Map of BTR



Methodology

Reconnaissance visit

IDENTIFICATION OF RESORTS

In the first week of February 2013, the research team visited Bandipur for conducting meetings with tourist accommodation facilities' owners and management staff. The meeting, which took place at the Jungle Lodges & Resort (JLR) premises, was attended by representatives from six resorts, viz., JLR, Serai, MC Resorts, Country Club, Tusker Trails and Dhole's Den. The team through the meeting garnered information on the number of accommodation facilities operating in the eco-sensitive zone and tourism zone.

Table 3: List of accommodation facilities

Sn	Name of Resort	Type & Location	Number of rooms	Number of beds
1	JLR	Government owned, Resort, Melukamanahally,	22	44
2	MC Resorts	Private, Resort, Melukamanahally	23	52
3	Nilgiri Resorts	Private, Hotel, Melukamanahally	12	24
4	Van Vihar	Not functional. Under a court case		
5	Bandipur Plaza	Private, Cottages & lodges, Melukamanahally	10	27
6	Himagiri Resorts			
7	Karnataka Forest Dept Accommodation	Government owned, Cottages & dormitories, Bandipura	27	91
8	Tiger Ranch	Private, Camps, Mangala	14	28
9	Ambuja Farms	Homestay, Managala	4	8
10	Windflower Tusker Trails	Private, Resort, Mangala	25	50
11	Country Club	Private, Resort, Mangala	48	96
12	Deer Valley	No information available		
13	Dhole's Den	Private, Homestay, Kaniyanpura	5	12
14	AAJR Inn	Not functional		
15	Serai	Private, Resort, Kaniyanapura	24	48

The resort owners' and management at the meeting expressed their dissatisfaction with the fact that there was no clear ecotourism policy which is contextually defined, also keeping in mind the type of facility. This translates into haphazard adoption of ecotourism guidelines based on a facility's perception and initiative. It was also felt that information in the form of a common briefing to all guests on BTR (history, flora and fauna, code on conduct etc) before taking the safari was crucial.

The team was also apprised that these facilities were undertaking alternative activities, apart from the safari, to keep their guests occupied. These include nature trails, bird watching, butterfly spotting etc. This is a direct consequence of the ban that was imposed on safaris across all TRs in Karnataka for the period June – November 2012. Following this ban, an association of all resorts in Bandipur was also set up. The management felt that the Forest Department should arrange for training workshops for naturalists to make them proficient in conducting nature

trails, bird watching and fortify their knowledge with regards to wildlife in Bandipur. This would ensure an enhanced experience for tourists. An interesting debate on the nexus between resorts in Mudumalai and Bandipur took place. There are several tourists who stay in Mudumalai and take safaris (government and JLR operated) in Bandipur.

IDENTIFICATION OF VILLAGES AND LOCAL BUSINESSES

Based on the map provided by the Forest Department outlining the core and eco-sensitive zones, and deliberations with officials, a list of villages proximate to the TR was drawn up. The hypothesis was that the local economy of these villages would be affected by tourism activities being undertaken. The research team undertook a reconnaissance of these villages, and spoke with locals to determine whether there were:

- a. Local businesses (shops, restaurants, hotels etc) which were engaged in selling products and services to tourists and/or accommodation facilities
- b. Households where at least, one member of the household was engaged in any tourism-related activity (i.e. working in an accommodation facility)

The sampling framework was so designed to take into account villages that had **no** involvement in tourism activities, **moderate** involvement and **high** involvement. Once this was determined, the team randomly selected the following five villages (marked in bold).

A note on why Hangala was **not** included in the sample is warranted here. Hangala, is a small town, with a population of about 5000 persons, located approximately 10 kms from the safari reception centre. Given its size and that local businesses here are stocked with supplies from Gundlupet and hence caters to a large population, it was decided to not include it in the sample.

Table 4: List of villages identified and finally chosen as part of sample

Sl	Name of village	Part of sample	Involvement in tourism activities	Presence of local businesses
1	Hangala	N		
2	Maguvinahalli	Y	Low	
3	Melukamanahalli	Y	Moderate	Yes
4	Kaligowdanahalli	N		
5	Karemala	Y	Low	
6	Aadinakanive	N		
7	Mangala	Y	Moderate	Yes
8	Kaniyanpura	N		
9	Kaniyanpura Colony	Y	High	
10	Jakkahalli	N		
11	Yelchetti	N		

Results

TOURIST ACCOMMODATION FACILITIES

A questionnaire was administered to the manager of the accommodation facility, garnering information on activities undertaken by the facility, tourist type and occupancy rates across seasons, room tariffs, details on persons employed, annual revenues earned, location where supplies were purchased, costs of operation and net profit and loss. The below mentioned list does not include some of the facilities mentioned in Table 3. This is either because some of the resorts are not functional, or their management refused to share data with us. The first step of data analysis involved categorising the accommodation facilities based on type of rooms offered, ownership status and tariff rates per night. All prices are in relation to domestic tourists, as they make up the overwhelming majority of visitors to BTR.

Table 5 : List of accommodation facilities where data was collected

Sn	Name of Resort	Type	Ownership status	Price range of room (per night, INR)	Availability of JLR safari
1	JLR	Resort	Government owned and managed	10,000-11,000 for double occupancy. Rate increases during peak season to 12000-13200	The price includes safari (morning & evening) and all meals
2	Karnataka Forest Dept Accommodation	Cottages & dormitories	Government owned and managed	Cottages range from 1000-2000 INR per person. A bed in the dormitory is charged at INR 75	A one time entrance fee of INR 200/person is charged. Safari fees are INR 300/person, charged every time a safari is taken. Food costs are additional
3	MC Resorts	Resort	Private	3000- 4000 for a double occupancy	JLR safari is available.
4	Nilgiri Resorts	Hotel	Private	1040 for a double occupancy	Food is additional. No safari available.
5	Bandipur Plaza	Cottages & lodges	Private	1500-2500 per person depending on type of room	Food is additional. No safari available
6	Windflower	Resort	Private	8400-10550 for	JLR safaris are

	Tusker Trails			a double occupancy.	available. INR 1150 is charged, of which INR 250 is retained by the hotel as drop-pick up charges. Food is included as part of the package.
7	Country Club	Resort	Private, part of a chain	6000 for a double occupancy. For Country Club members it is 4000 for a double occupancy	JLR safaris are available. INR 1150 is charged, of which INR 250 is retained by the hotel as drop-pick up charges. Food is included as part of the package
8	Dhole's Den	Homestay	Homestay, owned by a family	10,000-13000 for double occupancy.	JLR safaris are available. INR 1500 is charged. Food is included as part of the package
9	Serai	Resort	Private, part of a chain	18000-25000 for double occupancy	JLR safaris are available. INR 1250 is charged. Food is included as part of the package

The following categories were employed:

A. Government owned and managed

1. KFD accommodation

The research team had a one-on-one interview with Mr. Kantharaju, CF, BTR about the functioning of the accommodation facility.

Table 6: Details of KFD guest houses

Name of guest house	Number of Rooms	Number of beds (total)	Price (INR)/person/day*
Gajendra (I, II, III, IV)	4	8	1600 for I&II and 1000 for III and IV
Vanashri (I, II, III, IV, V)	5	12	1000 for I-IV and 2000 for V
Chithal (I & II)	2	4	1000

Harini (I&II)	2	4	1000
Kokila (I&II)	2	4	1000
Papiha (I&II)	2	4	1000
Mayura (I&II)	2	4	1000
Dormitory 1, 2, 3, 4	4	43	75
Vanaranjini (I&II)	2	4	1000
Vanasuma	1	2	1000
Kuteera	1	2	1000
TOTAL	27	91	

*: Meals are charged separately. Breakfast @INR 50 and lunch and dinner @INR 75 per meal.

The peak visitation times are during April and May, followed by October-November (Dussehra and Diwali holidays) and during the Christmas holidays (December 25-January 1st week). It is difficult to provide details on occupancy rates across the year, as in Bandipur, occupancy rates vary more across weekends and weekdays, given its proximity to Bangalore, Mysore and Ooty. Weekends are usually full and during the weekdays about 2-5 rooms are booked. Over 90% of guests are domestic and foreign tourists are seen only over the Christmas holidays.

There are a total of 32 full-time employees working at the Bandipur Field Office. Seven of these are from the local area. There are also 38 temporary daily wage employees. 90% of these are from Bandipur and the remaining 10% from Hangala or Gundlupet. Per annum INR 3,17, 722 is spent as wages on permanent staff and about INR 3 lakhs on temporary employees. The latter are paid in accordance with the Daily Wage Act. The table below provides details on their remuneration.

2. *Jungle Lodges and Resorts*

The research team interviewed the manager of JLR. Apart from providing jeep safaris to guests, the facility also offers nature walks, bird watching tours and a local temple visit. The facility is located in the tourism zone, in Melkammanahalli village. The facility was established in 2003 and has 22 rooms, with 44 beds. In the year 2012-2013 JLR had a 50% occupancy rate, with the highest occupancy recorded over April and May. The weekend runs at 100% occupancy. While 75% of clientele are domestic, couples and families are predominant. Two types of rooms are available: the special cottage and cottage. Tariffs vary across the seasons and across domestic and foreign guests – the lean season rates for domestic tourists are INR 5500/person/day (special cottage) and INR 5000/person/day (cottage). For foreign tourists this is INR 7500 and INR 7000 respectively. For the peak season, domestic tourists are charged INR 6600/person/day for both types of rooms, while foreign tourists are charged INR 9000/person/day for the special cottage and INR 8400/person/day for the cottage.

Table 7: Remuneration details of all employees working at the Bandipur Forest Office*.

Permanent	Number of staff	Price Range/month
RFO + DRFO	5	12500-24000
Forest guard	6	11600-21000

Driver	1	NA
Elephant camp	9	NA
Forest watchers	2	NA
Caretaker (rooms)	5 (all from Bandipur)	11000-19000
Vehicle cleaner	1 (Chamarajnagar)	
Dhobi	2 (Mangala, Gopalapura)	10400-16400
Sweeper	1 (Bandipur)	9600-14550
Temporary		
Computer assistants	2	
Library Assistant	1	
Information Service	1	
Peon	1	
Drivers	8	
Pump operator	1	
Wireless operator	2	
Night watchman	1	
Kitchen assistant	2	
Scavengers	5	
Room attendant	4	

*: Those relating to the accommodation facility are marked in bold.

All provisions are purchased from Gundlupet. Unfortunately revenue from tariffs and expenditures on provisions, diesel etc could not be collected.

A total of 44 persons are employed full time. Of these 42 are from the local area. Only two persons, i.e. the Manager and the person working at the reception are from other parts of Karnataka. There are 12 persons who are employed for cooking, 10 for cleaning, 16 for O&M of property and 2 drivers. Salary for management staff is INR 25000/month, for the reception staff, INR 10000/month, while kitchen and cleaning personnel and maintenance staff get paid INR 7000/month. About 3 lakhs/month are spent on wages and salaries.

Table 8: Revenue and Expenditure details for JLR for 2012-2013 (April-March)

Income	INR (annum)
Bar receipts, beverage receipts, restaurant receipts, sale of SP Materials, SPA receipts, wildlife income, miscellaneous (Note: All purchases come in from Metro, Bangalore)	42, 359, 159
Expenditure	
Operating Expenditure (bar/beverage purchases, electricity charges, forest entry fees, fuel & lighting, camp maintenance, housekeeping, kitchen purchases, SPA share, vehicle maintenance, vehicle/generator repair, wild life activity, generator maintenance)	16, 247,000
Administrative Expenses	4,933,259
Total expenses	21, 180, 259
Total profit	21,17,8900

B. Privately owned, lower tariff range, no safari available

Both Nilgiri Resorts and Bandipur Plaza are located in Melkammanahalli village, and both have rooms, a restaurant, and shops (selling cool drinks and snacks). Both are located about 5 kms from Hangala and lie in the tourism zone.

1. Nilgiri Resorts

Nilgiri resort was established in 2009, when the current establishment took over the property from the owners who are originally from Gudalur. There are 12 rooms, and double occupancy room is charged at INR 1040/day. There are no other types of rooms available. According to the manager, during the week about 8 rooms get booked (66% occupancy over 5 days), and during the weekend about 10 rooms (83%). He could not provide any information on variations in occupancy across peak and lean seasons. A total of 12 persons were employed, six of them full time and from Mangalore and the rest from Hangala (cleaning and maintenance). Full time staff get a salary of INR 6000/month (cooking) and part-time staff about INR 2500 per month. All purchases were made in Gundlupet. The manager refused to provide information on revenue.

2. Bandipur Plaza

Bandipur Plaza was established in 2007 and is a leased property, the leased being renewed every year. There are 2 rooms with 2 beds each and 4 cottages – two with 2-3 beds, one with 4 beds and the other with 5 beds. Through the year only about 2-3 rooms get booked per week (20-30% occupancy). Over the weekends this increases to about 60-70%. Entire clientele is domestic and predominantly families with children. Tariff rates range from INR 1500/person for a double occupancy room to INR 2000- 2500/person for the cottage. 15 persons are employed, of which 5 are full time. These persons work in management/accounts and reception. The head chef and his assistants are also a full time employee. While the manager, who joined only in January 2013, is from Kerala, the other full time employees are from Shivapura and Begur. While the manager and person manning the reception get paid INR 15,000 a month, the head chef and assistants get paid between INR 10,500-12,000. The part-time daily wage workers are from Melkamannahalli and Hangala and work as cleaners and maintain the property. Daily wages are fixed at INR 150 which, is lower than what is prescribed by the Daily Wages Act. Bonuses are provided during festival times.

As the manager took over recently, he was not able to furnish other details. He stated that about INR 60,000 a month was spent on salaries, and about one lakh a month on provisions and diesel. All purchases were made at Gundlupet. Revenues varied between INR 2.5-3 lakhs/month during the peak season and INR 1 lakh per month during the lean season.

C. Privately owned, medium price range, safari available

Only MC Resorts, located in Melkammanahalli village falls under this category. The manager Manju was interviewed by the team. The resort was established in 1999 and apart from offering the guest the option of taking the JLR safari, no other nature activities are undertaken. There are 23 rooms and 52 beds. Over the year, the occupancy ranges between 40-50%. Tariffs are INR 4000 for a double occupancy and for the cottage suite it is INR 3000/head/day. 20 persons are employed full-time and 15 of them are from the local area (Melkamanahally). There are 5

kitchen staff who get paid INR 7000/month, 2 cleaners employed at INR 4000/month and room attendants and those taking care of the property at INR 4000 and INR 5000/month respectively. Similar to other facilities, the manager at MC Resorts was also reluctant to provide details on revenues and expenditures and provided only broad figures. For example, the team was informed that INR 1 lakh was spent on wages and salaries each month, 1 lakh on groceries and INR 40000-55000 per month on vegetables, meat and milk products. During the peak season, i.e. across three months of April-June, 9 lakhs was revenue from accommodation tariffs.

D. Privately owned, higher price range, safari available

1. Country Club

Country Club was established more than 20 years ago, in Mangala, under the name Bushbetta. It was taken over by Mr. Reddy and is part of the Country Club chain. Apart from safaris, the facility also provides bird watching tours, nature walks, shows wildlife movies and has sports facilities. The Country Club chain is affiliated with Resort Condominiums International (RCI) and Dial and Exchange. Post the recent expansion, this is the largest hotel in the area with 48 rooms. While the overall occupancy rate is about 70%, during the weekend and peak season, the hotel operates at 100%. Largely only those who are members of the Country Club chain stay at the hotel. For members the rate is INR 2000/person/day including meals, while non-members pay INR 3000/person/day. 64 employees work at Country Club and all are on the rolls. 12 members are not from the local area and these include staff working in management, reception, accounts, chefs and restaurant manager. The rest of the staff are from Mangala. 4 lakhs per month are spent on wages and salaries. The manager refused to provide further revenue details!

2. Windflower Tusker Trails

Windflower Tusker Trails charges a higher tariff rate at INR 8400 double occupancy for the studio rooms (3 in number) and INR 10554 double occupancy for the 22 suites. This is inclusive of food and taxes. It is part of the Windflower group which has properties in Mysore, Coorg, Vaitryi, Pondicherry and Kasargod. Windflower is a member of the TOFT Tiger Travel club. Here too, leaving aside the management staff (8 persons) and supervisors (8 persons), the rest of the employees (43) are from Mangala, Karemala and Chinnikatte. **Please note that during the FGDs in Karemala, the team was informed that there were no residents working in nearby resorts⁴.** Most of the provisions were obtained from Mysore.

E. Homestay, higher price range, safari available

Dhole's Den falls under this category. It is located about 30 kms from Gundlupet and close to Mangala village. Apart from providing the guests an opportunity to take the JLR safari, bird watching tours and nature walks are also arranged. The facility established in 2009 is a small homestay offering four spacious living units – 2 delux rooms and 2 bungalows. Facilities to pitch a tent on their campus are also provided. The deluxe room is charged at INR 10,000 for double occupancy and the bungalow at INR 12000 for a double occupancy. This rate is inclusive of one

⁴ Please see last section

nature walk. During the peak season, occupancy is about 20% while during the peak season stands at about 70%. Overall occupation rates are very low at 15%. The homestay attracts a lot of foreign clientele who make up 65% of the total tourists.

There are 12 full time employees and aside from the manager and a person manning the reception, all the employees are from the local area. There are three kitchen staff, three cleaners, two security and one naturalist/driver. The management staff get paid INR 40,000 per month and the kitchen staff at INR 24000/month, cleaners INR 12000/month and naturalist/driver and security at INR 18000/month. Total spent on salaries per month is INR 95,000/month. During the lean seasons only INR 50,000 is made as revenue and during the peak season this increases to INR 1.5-2 lakhs/month. On an average INR 6 lakhs is the annual revenue.

Dhole's Den makes purchases from Mangala. While most of their vegetables are obtained from the in-house garden, this is supplemented by vegetables bought at Mangala. Meat products are obtained from Mangala and if not available here, then from Gundlupet. Diesel and other groceries are purchased at Kumar Stores in Mangala. Only toiletries and medicines and handicrafts and furnishings are purchased from Mysore .

F. Privately owned, part of chain, luxury hotel, safari available

The Serai, Bandipur, located in Kaniyanpura falls under this category. The resort is part of the Serai chain, which has other properties at Kabini and Chikmagalur. In 2013, the chain initiated the process of being part of the Small and Luxury Hotel (SLH) club. The team interviewed both the Accounts &HR Manager and Head of Operations. The facility was established in 2008 when Tiger Ramesh took over the property from Cicada. For renovation the hotel was closed from 2010-2012, and reopened only in April 2012. It is important to note here that Tiger Ramesh had a commitment to running a resort with local community participation and this has informed all recruitment decisions of the management. Given this, Kaniyanpura Colony has been adopted by Serai in some sense!

Serai has 24 rooms. Three types of suites are available: the courtyard at INR 18000 (double occupancy), the log hut at 21000 (double occupancy) and the residence at INR 25000 (double occupancy). This is inclusive of meals and tax (19.42%). During April and May and over weekends more than 10 rooms are booked. Overall occupancy rate for the period April 2012-March 2013 was 20-25%.

There are 84 employees in total. Of these, 90% are from the local area – Mangala, Kaniyanpura Colony and Chikkalchetti. Preference is also given to ladies from these villages. Those who are not from the local area include: General Manager (Kerala), Operations Manager, Accounts/HR Manager (Chamrajnagar), Executive Chef (Tamil Nadu), and Assistant Chef (close to Chikmagalur). It is important to note here that the assistant to the Accounts/HR manager and the other assistant chefs are from the local area. The process followed is that persons from villages are recruited and are trained on the job – starting from guest management to computer skills. The OR manager stated that albeit this takes time, and it is easier to recruit a person already

familiar with hotel management, as he/she has a degree, as a policy, Serai recruits local persons. **However, a certain degree of education, atleast completion of secondary school is desired.** Over time, this person then can join the upper management ranks. For example, one of the assistant chefs is from Kaniyanpura Colony and he joined as a helper in 2010! Out of the INR 7.5 lakhs/annum which is paid out per month as wages and salaries, INR 6 lakhs goes to employees from local areas.

Unfortunately, most groceries are not purchased from the local area. Sometimes, local vegetables such as tomatoes and beans are bought from Mangala, but usually groceries, meat and milk products are bought at Gundlupet. Some of the provisions are also brought in from Mysore.

Although reluctant to divulge revenue details, the Accounts manager revealed that during the peak season, the resort manages to break even. December 2012 he said was a good month, with a profit of INR 18 lakhs! But in March 2013, a loss of INR 4 lakhs was incurred.

LOCAL BUSINESSES

The reconnaissance survey revealed that local businesses were found in two of the sample villages, viz., Melukamanahalli and Mangala.

In the case of the former, these were found on the main Bangalore-Ooty highway and comprised of small stores selling products such as cigarettes, biscuits, toiletries etc, tea shops, a barber store, and a hotel. In Mangala, similar stores were seen on the main road⁵.

The following stores were visited and interviews were conducted:

1. *Melukamanahalli*:
 - (a) General store – no name
 - (b) Krishna hotel
 - (c) Anusuya store – general store
2. *Mangala*:
 - (a) General store also selling diesel and petrol;
 - (b) Nandini dairy
 - (c) Petty shop

Melukamanahalli

Two general stores, which stocked basic household items, were visited. Anusuya stores also provided mobile recharge services. One had been in existence for six years and the other for a year and a half. In both cases, the owner, who resides in the village is the sole person working in the store. Hence details on wages and salaries are redundant. Krishna hotel is a tea stall (where meals are also provided) which has been operating for the last two years. Apart from the owner, one person was employed at INR 8000 per month. In all three cases, the shop belonged to the

⁵ Please see village maps for more details.

owner (sole proprietorship) and hence details on rent paid for the enterprise was not applicable.

There was no electricity available to the stores, and they managed with lamps/lanterns. Also, given its small size, there was no need for 24*7 water supply and a toilet on the premises. Drinking water was collected from a nearby handpump and stored. Hence details on electricity and water bills were not applicable. No vehicle was owned or rented and O&M expenses were also not applicable. No waste management practices were seen – there was no door-to-door collection of waste and plastics and other wastes not reused were burnt in a pit which was specially dug out for this purpose.

With regards to where items/services stocked in the store were purchased from, in case of the general stores it was Gundlupet. While items such as cigarettes and mobile recharge were obtained daily, household items and toiletries were obtained from Gundlupet about once a month and once in two months respectively. Krishna hotel obtained vegetables and milk products from Melukamanahalli, while groceries, egg and meat products were obtained from Gundlupet. Milk and vegetables were purchased daily (INR 100 was spent), while egg and meat was purchased twice a week (INR 380 and 400 respectively was spent on the same). Groceries were bought as and when needed and about INR 1000 a month was spent on the same.

The peak season according to the owners was April-July/August, where they cater to a maximum of fifty tourists per month. During the rest of the year, they cater to ten-fifteen tourists a month. Revenues earned general store was correlated with the tourist season and in the peak season ranged from INR 700-1500 per month, while during the lean season it averaged at approximately INR 500 a month. According to the hotel owner, his business was not affected by tourism, and he made on an average more than INR 20,000 per year. One plausible reason for this could be that the hotel was a stop for truck drivers, whose travel patterns are not associated with the tourist season. However, this did not stop him from saying that tourism in general ushered positive impacts, as the peak season brought in additional income for his fellow villagers.

Both general store owners felt that tourism had brought in positive impacts, primarily because the revenues that they earned during the peak season, helped them tide over the lean season. The major benefit of this was that they did not have to engage in secondary occupation. The secondary benefit was that it allowed them to spend more on education, health and better housing facilities for their families.

Mangala

The general store, owned, managed and run by a couple who belong to Mangala village has been in operation for the last eight years. The petty shop has been in Mangala for four years. Commodities sold range from all household items to diesel and petrol for use for generators and vehicles. For example, diesel for vehicles owned and run by the resort Country Club is bought from here. In both cases, the owner works in the shop and no helpers are employed. All commodities sold are purchased from Gundlupet either on a daily (cold drinks, cigarettes) or a weekly basis (toiletries, groceries and diesel in the case of the petty shop). Electricity is available for a few hours each day and in its absence lamps and lanterns are used. Piped water supply (municipal) is also available a few hours a day and if deficient, it is collected from a

nearby handpump and stored. As is the case with Melukamanahalli, there is no waste management being undertaken, with a pit being constructed and all wastes including plastics being burnt.

According to the owners, the peak season for tourists is March – July and sales are correlated with this. While the petty shop owner did not provide details on the same and on revenue, according to the general store owner, sales increase over this period by about 25%. On an average the store makes about INR 20,000 a year, and during the peak season this amount crosses INR 2000 a month. However, both owners felt that the impact of tourism has been positive, as it creates additional income over certain months, which helps in smoothing income fluctuations.

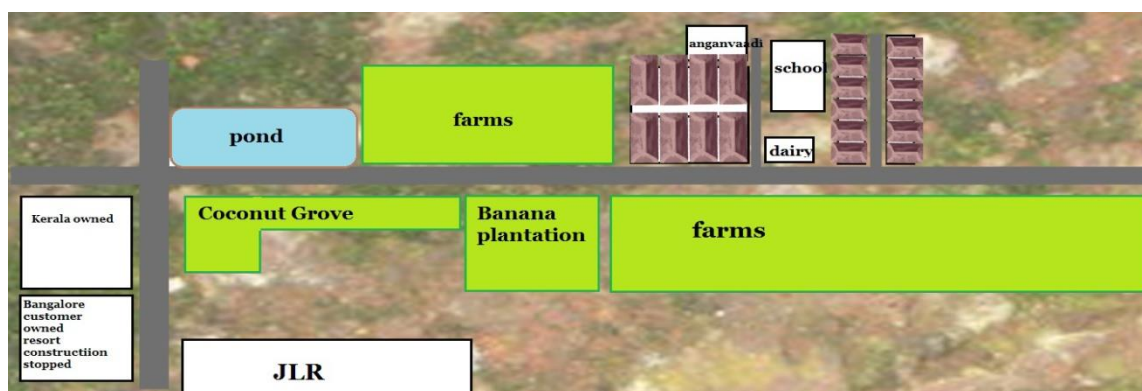
Nandini Dairy, is a part of a franchise of KMF Agency, the head office of which is located in Mysore. A couple work as permanent staff here, the secondary occupation being that of land ownership and leasing. Milk and milk products are obtained on daily basis from Mysore, to the tune of INR 10,000 (or INR 3 lakhs per month). Persons to whom the dairy caters to is hence not limited to merely the residents of Mangala, but to surrounding villages and resorts as well, which include Serai, Dholes Den and Country Club. Income earned is approximately INR 3000 per month. Last year the dairy made INR 36000. Income from secondary occupation earned the owner INR 60,000 last year. Sales to resorts increase over the April-May period, but the increase depends on the number of guests in the resorts. Interestingly, the owner said that tourism has both positive and negative impacts, the latter being the degradation of natural resources.

HOUSEHOLD SURVEYS

Maguvinahalli

Village layout

A village located off the main Bangalore-Ooty highway, Maguvinahalli has approximately 60 households. The main source of income for residents is agriculture – either cultivation of their own lands, being tenant farmers or engaging in agricultural labour. The reconnaissance visit indicated that the village was not involved in tourism related activities. For example, surveys were undertaken with eight households, of which only one household was involved in tourism. As the above-illustrated map shows, the village has a dairy, *anganwadi* and a primary school. Houses are clustered around these three structures. Farm land is largely owned by residents of the village, except for the coconut grove and banana & mango plantation, both owned by persons from Tamil Nadu. On entry into the village, there are two homestays that are present. One of these is owned by a person from Bangalore, and construction has been abated. The other is owned by a family from Kerala.



Data Analysis

Table 9. Descriptive statistics for Maguvinahalli (n= 8 households)

Parameter	Data	Additional details
Number of households engaged in tourism	1	Head of the household is employed in the restaurant in a nearby resort. Income earned from tourism is greater right after the peak season, and is used largely to purchase household necessities, on children's education and money is set aside for medicines/hospital visits.
Number of households engaged in cultivation &/or agricultural labour	6	Only two households owned and cultivated land Cultivators stated that during lean months, they obtained additional income through sharecropping and agricultural labour wages
Number of households engaged in service	1	Head of household is supply incharge in LPG agency
Respondents who are head of households	8	
Education		
1. Illiterate	3	
2. High School	3	
3. Secondary	2	
Number of households owning livestock	7	All these engaged in free grazing of livestock. Household engaged in service (LPG agency) did not own livestock
Number of household using LPG	8	No firewood was utilised by any of the households
Variability in income		
1. Yes	6	Households engaged in tourism and service did not report income variability.
2. No	2	Households engaged in cultivation and agricultural labour activities stated that income was higher during the monsoon or period after the monsoon season (June-September) when cultivation was

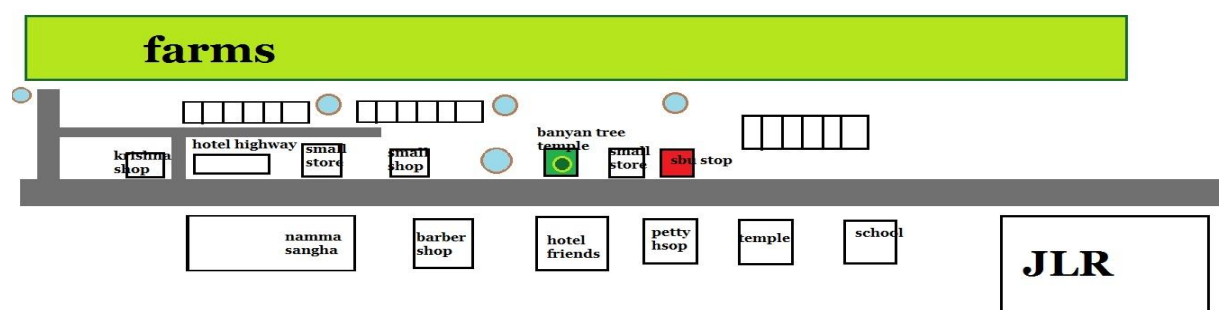
		the highest
Annual Income 1. 10,000-25,000 2. 25,000-50,000	4 4	Households engaged in agricultural labour reported lower incomes Those engaged in cultivation, tourism and service reported higher incomes
Impact of tourism 1. Positive 2. Negative 3. Both positive and negative	5 1 2	Even households who were not involved in tourist activities, stated that it brings in additional and a more stable income for the household. One cultivator household felt that the impact was negative, as it required felling of trees The second cultivator household felt that although it brought in income, it resulted in depletion of resources. The household engaged in service (LPG agency) felt the same
Access to Tiger Reserve 1. Yes 2. No	0 8	None of the household had access to the TR.
Purpose of buffer zone 1. None 2. Grazing livestock	6 2	When asked the reason why they could not access the buffer zone, even if they wanted to, 6 households said fear of animals and 2 said they had no interest.
Problems faced by community 1. Limited agricultural land 2. Limited access to PA for resources 3. Limited access to grazing land 4. Wild animals damage crop & livestock	1 2 2 3	The numbers encapsulate the number of households who answered yes to the option. Several households did not answer the question Damage to crop and livestock was a major concern
Compensation provided for damaged crops by wild animals 1. Yes 2. No	3 1	The households were not satisfied with the compensation provided
Uses of tourism fund, if set up		Most households said that urgent need was for building houses and setting up a Primary Health Centre

Melukammanahalli

Village Layout

This village, part of Mangala Panchayat, is located on the main Bangalore-Ooty highway, and starts a little after JLR on the opposite side of the road. There are a few shops and small hotels/restaurants in the village (Hotel Highway and Mr. Krishna's small tea stall-hotel). The shops here sell household necessities, cigarettes and one even offers mobile recharge facilities. These shops and eating places cater to tourists (driving to Bandipur, Mudumalai, Ooty etc) and

also to truck and bus drivers. Hence, even though several houses are not dependent directly on tourism, the fact that these businesses cater to tourism, makes the village moderately dependent on tourism. The houses are set behind these shops, beyond which there is farmland. The village has four operational water tanks.



Data Analysis

Table. 10. Descriptive statistics for Melukammanahalli (n=11 households)

Parameter	Data	Additional details
Number of households engaged in tourism	3	In one household, tourist activities (working in the kitchen and housekeeping dept of a nearby resort) is supplements cultivation income. For the other two households, only tourism as an occupation is undertaken. While the head of one household works in a restaurant, the other does all sorts of odd jobs in the resort. Income earned from tourism is greater right after the peak season, and is used largely to purchase household necessities, on children's education and money is set aside for medicines/hospital visits.
Number of households engaged in cultivation &/or agricultural labour	7	Four households owned and cultivated land During the lean months, households did sharecropping to smooth income.
Number of households engaged in business	1	The household runs a small tea-stall/hotel in the village
Respondents who are head of households 1. Yes 2. No	5 6	
Education 1. Illiterate 2. Primary 3. Secondary	6 3 2	
Number of households owning livestock	10	All households except the one running the small hotel owned livestock. All engaged

		in free grazing in the fringes of the forest.
Number of household using LPG	6	5 households used a combination of firewood and LPG, while the small hotel used only firewood.
Variability in income 1. Yes 2. No	6 2	2 Households engaged in tourism and service did not report income variability. One household stated that income was greater after the peak season, when more guests came in. The small hotel owner also did not report variability in income. Households engaged in cultivation and agricultural labour activities stated that income was higher during the monsoon or period after the monsoon season (June-September) when cultivation was the highest
Annual Income 1. 10,000-25,000 2. 25,000-50,000 3. 50,000-100,000	1 4 6	Those engaged in agricultural labour reported lower incomes. The exception was one household where apart from agricultural wages, the household also made an income by selling cowdung as fertiliser.
Impact of tourism 1. Positive 2. Negative 3. Both positive and negative	8 1 2	Even households who were not involved in tourist activities, stated that it brings in additional and a more stable income for the household. Those who felt that tourism brought in negative impacts said that it depleted natural resources, especially water and led to economic imbalance and quarrels with neighbours.
Access to Tiger Reserve 1. Yes 2. No	0 11	None of the household had access to the TR.
Purpose of buffer zone 1. None 2. Grazing livestock 3. NTFP 4. Collection of firewood	7 1 4	When asked the reason why they could not access the buffer zone, even if they wanted to, households said fear of animals, no time and no interest.
Problems faced by community 5. Limited agricultural land 6. Limited access to PA for resources 7. Limited access to grazing land 8. Wild animals damage crop & livestock	4 4 5 7	The numbers encapsulate the number of households who answered yes to the option. Several households did not answer the question Damage to crop and livestock was a major concern
Uses of tourism fund, if set up		Most households said that urgent need was for building houses and setting up a Primary Health Centre.

		Two household said that the fund should provide cash to the households every month. One said that fund can be used to improve water provision in the village.
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Karemala

At the outset, it is important to mention, that not much information could be garnered from this village. There are about 60-70 households in Karemala. Although a FGD was conducted with a few residents, they were extremely reluctant to share any information with the team. The first thing that catches your eye about the village is the huge piles of garbage thrown across the street from the settlements. When questioned about whether this did not worry the villagers, they did not seem concerned about it. Some felt that it was the duty of the government to send a garbage collection van to the village to clear the mess. When asked why they could not at least collect the garbage at a common place, i.e. in a garbage bin, the team was told that nobody was interested in keeping the village clean. One man stated, *"I may throw the garbage into the bin, but my neighbours will not. What is the point of only me doing my bit, if nobody else does?"*. The team then informed the FGD participants about composting – collecting kitchen waste and using it later for manure. Interestingly what was revealed is that albeit many of the households own plots of land, they do not cultivate. The reason for this was the fear of wild animals damaging their crops and the lack of water. Hence, there was no incentive for them to compost waste either. Their lands are leased out to others for cultivation.

This argument seemed a bit dubious to the team, as cultivation takes place in all neighbouring villages, which have the same problems with wildlife marauding their crops and the lands being rainfed. The team tried to probe into the occupational patterns of residents, but with little success. None of them worked in the near by resorts, and hence income from tourism was non-existent. Most of them are daily wage labour, doing agriculture labour work and/or coolie work. Some of them sell firewood to other local villages. When asked where they collected firewood from, they said, *"fringe of the forest"*. Although residents did not own much livestock, poultry was owned and some households got an income from selling eggs and their chicken for meat.



Mangala

Mangala village has a more or less equal proportion of persons employed in cultivation, agricultural labour and running petty businesses and those working in resorts. The team hence spoke to an equal number of households working in agriculture and those employed in resorts.

All households that owned agricultural land also owned livestock, which were grazed at the fringes of the forest. Annual income ranged mostly between INR 50,000 and 100,000.

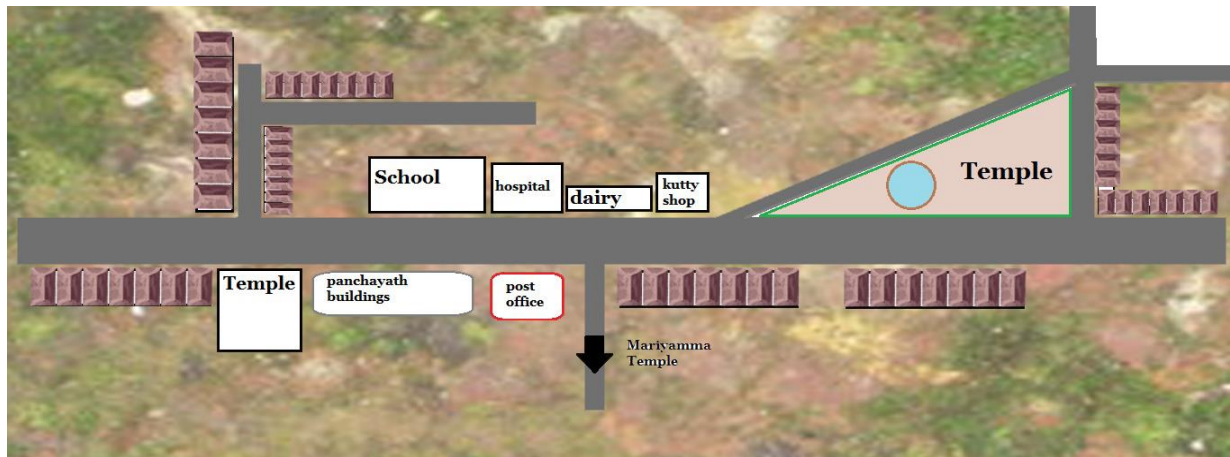
Households dependent on agricultural labour made between INR 25000-50,000. Usually only one crop was grown, which was harvested pre-monsoon. June-August hence were months with higher income.

A major problem according to the villagers was the destroying of crops by wildlife and the lag time in getting compensation. These households also complained that they were not invited by Forest Department officials to discussions on tiger reserve management.

This was important they felt because 'officially' they did not have access to the forest for grazing their cattle, but since there was no other option, most of them did! *"There is always a fear of getting caught, and the consequences will be dire"*.

If invited to these meetings, such issues could be cleared and official permission could be given to graze their cattle. When the team stated that this was detrimental to the health of the park, they said that they did not have the money to stall feed their cattle!

When asked what the urgent need of the community was, many felt that income from cultivation was insufficient and moving away from the land was the only option, and hence local authorities should provide opportunities for cheaply financing business projects.



Kaniyanpura Colony

Village Layout



The team decided to spend more time at Kaniyanpura Colony, given that several households in the colony work at Serai, and hence the impact of eco-tourism on the village is high. The colony is part of Mangala Panchayat and has about 100-150 households. A total of 15 household members were interviewed and some FGDs were also conducted. A total of 12 men and 3 women were interviewed. To get a sense of the impact of tourism, some households with no member working in tourism activities were also interviewed. All households felt that the urgent need for the community was a Primary Health Centre.

Table below provides basic details on the households visited

Table 11. Descriptive Statistics of households in Kaniyanpura Colony

Parameter	Data	Additional Details
<i>No income from tourism:</i>		
<i>Low education levels, effect of tourism is negative as it creates economic imbalance</i>		
	6 households	
Main source of income	Cultivation: 3 Agricultural Labour: 3	
<i>Cultivator households</i>		
All three households owned land and had livestock, which were grazed on the fringes of the forest. Two households had an annual income of INR 60,000, and the other stood at INR 15,000. Being in cultivation, there was variation in income with the harvest season being in April (before the monsoons) and in October, having highest income. Interestingly according to all three households, the impact of tourism in their opinion was negative, as it makes some families rich and causes disharmony in the village. The major complaint was the damage of crops by wildlife and the slow response by the government authorities in providing compensation for the same.		
<i>Agricultural Labour households</i>		
All three households owned livestock. Average monthly incomes were low at INR 1500-2500, with higher incomes obtained during the harvest times of April and October/November. Here again, the households felt that the effects of tourism were negative.		
<i>Income from tourism</i>		
<i>Other income source apart from tourism</i>		
Three households fell into this category, wherein income was also obtained from cultivation activities. Education level was slightly higher than in the category solely dependent on cultivation or agricultural labour income. Atleast one member of the household had completed secondary school. All persons who obtained an income from tourism worked at Serai, and were in their 20s. Three worked in the restaurant, while one worked as a watchman. Monthly incomes were higher ranging from INR 9000 to INR 12000, but income from tourism was in the range of INR 4000-4500. For all three households, working at Serai had resulted in income-smoothing. Cultivation incomes are not dependable and when a steady cash flow comes into the household, basic necessities (medicines, education) can be purchased un-interrupted. In some cases, when cultivation income was higher, there was also the potential to save.		
<i>No other income apart from tourism</i>		
Persons in these households worked in the restaurant at Serai, and made a monthly income of INR 7000. All three were educated upto SSLC level.		
<i>Women headed households</i>		
Three women respondents who were head of the household were interviewed. While one worked as an agricultural labourer, one had a small business and the other was a nurse. All three felt that households in the colony with atleast one member working at Serai were better off to cope with emergencies, because often times loans could be taken from staff at the hotel. Also these households got better benefits – medical, insurance etc.		

Summary

- Bandipur often viewed as a ‘weekend getaway’, given close proximity to cities such as Mysore and Bangalore. Hence, the concept of a traditional ‘peak’ and ‘lean’ season is not strictly applicable here.

- Overwhelming majority of tourists are domestic and are families with children.
- Apart from weekends, greater tourist footfalls seen during the months of April & May (summer holidays), October (Dussehra holidays), November (Diwali holidays) and from December 25th to the 1st week of January.

ACCOMMODATION FACILITIES

- Wide spectrum of accommodation facilities available which are either government owned or privately owned.
- On an average, managerial positions reserved for employees **not from the local area**. This is because specific education qualifications and/or work experience in the particular area is needed.
- In the lower and medium price range of accommodation facilities, temporary workers are **not** paid according to Daily Wages Act
- Purchases for use in accommodation facilities are made from Gundlupet.
 - The exception in this case is Dhole's Den, which buys a substantial portion of its groceries, vegetables, fruit, milk and meat products and diesel from Mangala.

LOCAL BUSINESSES

- Environmental consciousness along with provision of government infrastructure needs to be created. For example, the burning of plastics is a result of a lack of awareness coupled with no system of door-to-door collection of waste.
- Local businesses cater to either resorts (e.g. Mangala) or tourists (e.g. Melukamanahally), and hence experience an increase in revenues during the peak season. This results in income smoothing, and helps tide over the lean season.
 - This is not the case with small local restaurants catering to truck drivers who enjoy a constant clientele through the year.

LOCAL COMMUNITIES

- A stable monthly income from working in accommodation facilities is seen as an important income smoothing strategy.

Introduction

Dandeli Wildlife Sanctuary (DWS) covering an area of 206.75 sq kms was first notified as a Game Sanctuary in 1956 and was finally notified as a Wildlife Sanctuary in March 1998. DWS along with Anshi National Park, covering an area of 339.86 sq kms, was declared as a Tiger Reserve in January 2007. This along with the Mahaveer Wildlife Sanctuary in the adjoining State of Goa along with other protected areas in Goa and Maharashtra forms an almost uninterrupted protected forest area of over 2200 sq km. DATR covers the hill ranges of northern Uttara Kannada district and the taluks of Joida and Haliyal. The western side of the tiger reserve, receives heavy rainfall from the South West Monsoon (3000-6000 mm annually) and abounds with tropical evergreen forests. Rainfall decreases to the eastern of the reserve and it merges with the Deccan Plateau in the rainfall region, giving rise to moist and dry deciduous forests. There are five ranges in DATR – Anshi, Gund, Kulgi, Kumbarwada and Phansoli.

Following a reconnaissance survey in February 2013, the research team decided to focus only on Dandeli Wildlife Sanctuary (DWS). It is limited in the east, south-east and south by the Kali river, in the south-west by Anshi National Park, in the east by the state of Goa and in the north by vast reserved forests. For administration purposes, DWS is subdivided into two taluks, Supa and Haliyal. Dandeli is the closest city, located approximately 7 kms from the protected area. It is important to note here that Dandeli has a history of industrial settlements, largely plywood, paper and pulp (given access to wood, perennial availability of water from Kali river, assured power supply and vicinity of rail and road linkages).

Within this study site, Focus Group Discussions (FGDs) and interviews were conducted with the following stakeholders:

1. Local accommodation facilities, which are largely homestays in Dandeli
2. Local businesses in Dandeli and proximate towns
3. Households in proximate villages
4. Eco-Development Committees in;
 - a. Phansoli that handle jeep safaris into the reserve and;
 - b. Avarli Village that handle tourist visitation to Syntheri Rocks.

Results

TOURIST ACCOMMODATION FACILITIES

Tourism is flourishing in the area, given the large number of nature-based activities that a tourist can engage in. Primarily these include river-based activities (rafting, rapelling, kayaking, canoeing), safaris, bird watching and nature walks and visiting Syntheri Rocks. During the

reconnaissance survey, a meeting was arranged with owners and managers of accommodation facilities, and Travel and Tours (T&T) operators at Jungle Lodges and Resorts (JLR), Dandeli. A total of 27 persons attended the meeting. They are part of the Dandeli Tourism Association. These tourism providers can be categorised as follows:

- A. Accommodation facilities (resorts and homestays) that arrange for nature-based activities for guests staying with them.
- B. Travel and Tours (T&T) operators that offer nature-based packages

Table 1 provides a list of local tourism providers interviewed during the team's field visit in May 2013. A total of 26 tourism providers were represented during the meeting. Of these, 1-18 numbers listed below were interviewed. The rest of those represented, were not available for interviews when the team visited Dandeli. Three homestays namely Vimal, Madhuvana and Nisargadhama, were not represented at the meeting, but the team interviewed their owners/managers.

Table 1: Local tourism providers

Sn	Name of provider	Sn	Name of provider
1	Bison River Resort	11	Nisargadhama Homestay
2	Whitewater Resort	12	River Kali Lodge, JLR
3	Jungle Hill Mist	13	Old Magazine House, JLR
4	Vimal Homestay	14	Kulgi Nature Camp
5	Milind's Homestay	15	Kamath Tours & Travels
5	Madhuvana Homestay	16	Wild River Adventures (T&T)
6	Amara Homestay	17	www.dandeli.com (T&T)
7	Dandeli Jungle Camp	18	Kali Group, Joida
8	Vimal Garden Homestay		
9	Stanley's Homestay		
10	Dandeli Jungle Stay		

Note: those highlighted in yellow are resorts, green are homestays, blue govt owned and managed and grey are Travel and Tours

Table 2: List of accommodation facilities⁶

Name of facility, year established	Location	Type	Room details	Price details (INR)	Nature activities undertaken
Kulgi Nature Camp, 1997 (KFD took over)	Near Kulgi (Dandeli 10 km)	KFD owned and managed	10 log huts, 12 tents and 1 dorm (62 beds)	Log huts: 1200/person/day, Tents: 1000/person/day. Dormitory: 1875/person/day. Meals are additional.	Safari, Nature Walk, Bird watching.
Old Magazine House, 2003 (JLR took over)	Ganeshgudi (Dandeli 23 km)	JLR, government owned and managed, Resort	5 cottages, 1 dormitory (35 beds in total)	1300- 2000/person/day domestic and 2500-4000/person/day for foreign tourists. Seasonal tariffs apply. All meals, jeep safari, nature walks/village tours, bird watching included. Coracle ride only for guests residing in the cottage.	Safari, Rafting, Hiking, trekking, nature walk, bird watching, village tours, trip to Kali backwaters
Kali Adventure Camp, 1996	Dandeli	JLR, government owned and managed, resort	11 rooms, 4 special rooms, 7 river view tents, 4 tented cottages, 1 dormitory (72)	2500-4000/person/day for domestic and 4000-7500/person/day for foreign tourists. Seasonal tariffs apply. All meals, jeep safari, coracle ride included. White water rafting/adventure sports extra	Safari, White water rafting, adventure sports, coracle ride, bird watching, nature walk, village tours.
Amara, Madhuvana, Jungle Hill Mist, Nisargadhama, Vimal, Dandeli Jungle Stay, Stanley's Farm, Milind's Homestay	In and around Dandeli	Homestays, privately owned	Ranges from 3 rooms (Milind's, Vimal) to 12 (Jungle Hill Mist)	Ranges from 300/person/day to 1100/person/day. All meals are separate except in Milinds, which is 1100/person/day meals inclusive	Water adventure sports, camping, trekking, mountain biking, coracle ride, sightseeing, village tours
Bison River Resort, Dandeli Jungle Camp, White Water Resort	In and around Dandeli	Resort, privately owned, some part of a chain	Ranges from	Ranges from INR 300 per person per day in Dandeli Jungle Camp to 2000 per person per day in White Water Resort, and INR 2300 per person per day at Bison River Resort	Safari, coracle ride, nature walk, water adventure sports, other adventure sports

⁶ Safari is through EDC vehicles in Phansoli. Peak season is April-June, October-December and 1st week of January.

A. Government-owned and –managed facilities

There are three government-owned and managed resorts. One is owned and managed by the Karnataka Forest Department – Kulgi Nature Camp, Kulgi. The other two are owned and managed under the Jungle Lodges and Resorts (JLR) banner; one at Ganeshgudi (Old Magazine House) and Kali River Lodge (Dandeli). The remaining facilities are primarily small homestays.

Kulgi Nature Camp

The camp was taken over by the Forest Dept in 1997 and temporary tents were put up. These were dismantled and put aside during the rainy season. In 2005 permanent tents were installed and in 2008 log huts were constructed (with the help of KSTDC). The main purpose of the camp is to provide environmental education to the masses, and for this awareness camps and programmes are held for school children. During these times, the camp is closed for visitors. The camp provides rudimentary facilities and since there is no campsite, liquor, vehicle and internet facility, and protection from wildlife it is only for avid wildlife lovers! Over the period 2001-02 to March 2013, a total of 170311 tourists stayed at the camp. Earlier foreign tourists used to visit, but since elephant safaris have been stopped, their numbers have considerably reduced. During the peak season, i.e. April-June, October-December and first week of January, there is almost 100% occupancy which falls to half during the lean season. There are 10 staff working in the Camp. While the deputy range officer, MK and watchers (total of three) are full time employees, the rest of the staff (total 7) are daily wage employees. These persons are paid as per the minimum wages act (for example, drivers are paid INR 236 per day, watchmen and cleaners at INR 226 per day). All temporary staff are from Kulgi itself, while the permanent staff are not (assigned as per rotation policy).

An interesting fact is that the provision of meals in the camp has been outsourced to a woman's Self Help Group (SHG) which is Kulgi based. From 1997, there was a woman from Kulgi who was cooking at the camp, and she part of a SHG. Over time it was decided to vest this responsibility with the SHG itself. While the kitchen area and utensils are provided, the SHG purchases groceries and takes care of the cooking. Income made (meals at INR 50 and breakfast as ordered), goes straight to the SHG. Quality control is done by the KFD. It would be worthwhile to see if such a model is feasible in other Forest Dept run guest houses as well.

Jungle Lodges and Resorts

Two properties – (1) Old Magazine house in Ganeshgudi and (2) Kali Adventure Camp near Dandeli town are managed by JLR.

OLD MAGAZINE HOUSE — During the peak season, the does 280 bed nights/month, while during the lean season this falls to about 50-60 bed nights/month. 60% of clientele are domestic, and these are usually groups of travellers. 20% of guests are also recommended by travel agencies.

10 persons are employed, all on the rolls (full time). These include: one chef, assistant chef, cleaner, driver, naturalist/guide, management staff, accounts department, boatman, and two room boys. Aside from the management and account department staff, all the rest of the staff is from the local region, largely Dandeli town. Being on the rolls, incentives and bonuses are provided to the staff, as per head office instructions. A total of about INR 60,000-70,000 is spent per month on salaries to employees. Only laundry facilities are outsourced, and about INR 5000 are spent per month on the same. The facility does not suffer from power outages, and hence expenses on diesel are kept to a minimum. As is the case with JLR properties across Karnataka, all groceries are brought in from Bangalore (Metro), while vegetables, fruits and milk products are purchased at Dandeli. Diesel is also purchased from Dandeli, and about INR 2700 is spent on vehicles and INR 1890 on gensets. Annually, expenses are to the tune of: INR 8.4 lakhs for wages and salaries, INR 4.8 lakhs for operating costs, INR 3.6 lakhs for vehicle hiring. Revenues are to the tune of INR 17 lakhs (room tariffs and rafting). The property is able to break even.

KALI ADVENTURE CAMP — About 90% of tourists are domestic, and occupancy rates during the peak season are about 80-90%. There is a very large number of staff (for a small establishment) - 43 full time employees. There are four chefs (three main and one assistant) and three helpers in the kitchen. The salaries paid are INR 17200 per month for the chefs, INR 12500 per month for assistant chefs and INR 5500 per month for helpers in the kitchen. There are 8 persons who clean the facility with salaries ranging between INR 5500-9600 per month. There are five drivers and five naturalists, the former getting paid INR 5000 and the latter between INR 9500 - 16500. Management personnel is paid INR 23000 a month, while the receptionist and accounts personnel get paid INR 5500 and INR 5000 respectively. All perishables are purchased from Dandeli, to the tune of about INR 40,000 per month. Alcohol is purchased from Sirsi Depot (INR 40,000/month), while groceries are obtained from Bangalore (Metro). The team was informed that the resort does not make a profit and barely manages to break even. Based on 'back-of-the-envelope' calculations, it is not hard to see, that the main reason for this *is excess staff*.

B. Homestays

Even within the homestay category, three broad categories can be created on the basis of price.

Homestays that charge less than INR 500 per person per day

Only Stanley' Farm falls into this category. It is located in Gobral Village, Dandeli. The homestay has 5 rooms (10 beds), and occupancy rate during the peak season is about 70%. Over the year, the owner stated that atleast two rooms are occupied at any given time. During the rainy season, a 10-15% discount is given on the tariff. Accommodation rates are INR 300 per person, with food and all other leisure activities charged separately. Two persons are employed full time – the chef, paid INR 3000 and one cleaner paid INR 4000. Temporary employees are recruited depending on the occupancy rates and are paid at INR 200 per day. ***Please note that this is closer to the amount under the Minimum Wages Act.*** Bonuses and incentives are given during festival times. No information on revenues and expenditure could be collected.

Homestays charging between INR 500-1000 per person per day.

These include: (a) Nisargadhama (b) Amara and (c) Madhuvana Home Stay

(A) NISARGADHAMA HOMESTAY — is located in Phansoli village and was established in 2008. It has 5 rooms (10 beds) and because of its location (close to safari point), occupancy rates during the peak season are 100% and overall occupancy is 50%. INR 500 is charged per person per day and food is INR 60 per day. Safari is made available through the EDC and other leisure activities are also arranged. During the peak season INR 75000 a month is made and during the lean season about INR 30,000. Four persons are employed, all from Phansoli. These include two cooks (INR 6000 per month), and two cleaners. All of them are full time employees. Accounts and management is handled by the proprietor. Purchases are made at Dandeli.

(B) AMARA HOMESTAY — is located in Chinchakanda village about 20 kms from Joida and 35 kms from Dandeli town. It is a small property with 3 rooms and one bigger tent is made available whenever needed. Tariffs stand at INR 940 per person per day. During the peak season about 300 guests stay at Amara and during the lean season about 100 persons. Total income from room tariffs and food and beverage is hence about INR 3 lakhs and during the lean season INR 1 lakh. It is a family run property and persons are employed only in times of need. About INR 250 is paid per day in these cases. ***It is interesting to note that as exposure to local culture, the homestay arranges for cultural performances by the Kulabi tribe and pays them INR 10,000 yearly for the same.*** Vegetables and other perishables are purchased at Gund, while meat products, groceries and diesel is obtained from Dandeli. A total of about INR 12000 a month is spent on this. According to the owner, the homestay was profitable as revenues exceeded expenditure!

(C) MADHUVANA HOMESTAY — is a larger outfit with three rooms and one dormitory. The former is charged at INR 900 per person per day and the latter INR 300. Overall occupation rate is 60% and total revenues from room tariffs during the peak season is INR 37000 including safari and adventure activities and during the lean season is INR 19000. Four persons are employed, and all are from Vernoli village. Payment is made to these persons depending on the number of guests, except for the security guard who is paid INR 4000 a month. Purchases are made from Vernoli, Phansoli and Dandeli. As with the case of Amara, the owner stated that a profit was being made!

Homestays charging over INR 1000 per person per day

These include Milind's Homestay, Vimal Homestay, Dandeli Jungle Stay and Jungle Hill Mist.

- a. Milind's and Vimal Homestay are the smallest with just 3 rooms, Dandeli Jungle Stay has 6 rooms, and Jungle Hill Mist is the largest with 12 rooms (this includes tented accommodation as well). However, in both Milind and Vimal's homestay, each room has 6 and 7-10 beds respectively.
- b. The overall occupancy rate for this category ranges from 30% (Milind's Homestay), 40% (Dandeli Jungle Stay) to 55% (Jungle Hill Mist, Vimal Homestay). Travel and Tours (T&T)
- c. Tariffs per person/day are as follows: Milind: 1100 including meal, Vimal: 850 (veg option), 1050 (non veg option), Dandeli Jungle Stay: 1000-1200, Jungle Hill Mist: 1200-1500 (for students, 950). These are exclusive of leisure activities undertaken by tourists.
- d. Employment details: **two are family run, while two employ workers.**

- i. In Milind's Homestay family members are involved in running the business. Two other persons are employed if and only if there is full occupancy. Both these are cleaners and from Dandeli. Likewise Vimal Homestay, is taken care of by family members.
- ii. Dandeli Jungle Stay employs four persons from IPM area, Dandeli. This includes a chef (INR 6000/month), a helper in cooking (INR 3000/month), two cleaners (INR 3000/month). Likewise in Jungle Hill Mist, where 5 persons are employed from Dandeli. The chef gets paid INR 7500/month, while the cleaners get lower amounts at INR 2500/month. ***Please note that this amount is lower than the Minimum Wage Act.***
- e. All purchases are made in Dandeli
- f. Total revenues:
 - i. For Milind and Vimal Homestay revenues from room tariffs is between INR 20,000-30,000 per month (approximately between INR 2-3 lakhs per year). No information on expenses could be collected, as it is part of 'home accounts'
 - ii. Dandeli Jungle stay stated that INR 15000 is spent per month on wages and INR 9000 on food and other expenses. Total = 24000 per month. During the peak season, total revenues earned are INR 31000 per month and during the lean season this drops to INR 18000 per month. The homestay is breaking even
 - iii. While Jungle Hill Mist spent INR 13000 per month on wages, they did not share any other information with the team.

C. Resorts

Three resorts include Bison River Resort, White Water Resort and Dandeli Jungle Camp.

Bison River Resort

is part of a chain – Indian Adventures, which has properties across India (Kanha, Bandhavgarh, Pench, Ranthambor). It is the largest of the three resorts, located in Ilava village, Post-Ganeshgudi district, and has 33 rooms. Differential rates apply for foreign and domestic guests. For the latter room tariffs range from INR 2300-3050/person/day, while a Jungle Plan (jeep safari, coracle ride and nature walk included) is INR 4650 per person/day⁷. All other charges (nature walk, trekking, adventure sports) are additional. The overall occupancy rates is only 35%. A large number of persons are employed here – 33 in total (full time) and apart from the main chef, naturalist and accounts personnel who are from Bihar, the rest are from within Karnataka. These persons are from Ramanagara, Ganeshgudi and Dandeli. That is about 50% of the staff are from the local area.

White water Resort

has 4 rooms, 1 dormitory and 20 tents, and tariffs are lower at INR 2000 per person/day inclusive of food, rafting and nature walk. During the peak season, the resort makes INR 37000 a month, while during the lean season this falls to INR 15000. All ten persons working here are from Ilava.

⁷ For foreign guests it ranges from INR 3200-3800 and the Jungle Plan at INR 6600 per person/day.

Dandeli Jungle Camp

rates are very low at INR 300 per person per day and so are the revenues at 1 lakh for the peak season and INR 40000-45000 for the lean season. Adventure activities during the peak and lean season are INR 50,000 and INR 20,000 respectively. About INR 30,000 a month is spent on wages and salaries of 10 full time and 2 part-time staff. All of them are from the local village, Pradhani. Annual revenues are 15 lakhs and expenditures about 9 lakhs, giving the resort a profit of INR 6 lakhs.

D. Travel and Tours (T&T)

There are several T&T companies in Dandeli, through which tourists can undertake rafting, kayaking, rappelling activities and overnight camping. Three of such T&Ts were visited by the team – Wild River Adventures, Kamath Tours and Travels and www.dandeli.com. All of these are located in Dandeli town. Wild River Adventures, was established in 2005, Kamath Tours and Travels in 2010, and www.dandeli.com in 2009. During the peak season, April-May and November-December, water based adventure activities are most in demand. During the rest of the year, water activities are not advised, as the water levels in Kali are high given the heavy monsoon the region experiences. Wild River Adventures caters to a large number of tourists (about 10,000 in the peak season), while www.dandeli.com and Kamath T&T cater to about 600 tourists over the same period. Revenues for the former range from INR 6 lakhs in the peak season and INR 2 lakhs in the lean season, while for www.dandeli.com and Kamath T&T, average revenues are INR 1-2 lakhs annually. All the staff employed at the T&T are permanent, and get monthly salaries ranging between INR 6000-10,000. Apart from salaries these T&Ts also rent out office space and hire and pay for diesel costs for vehicles. Advertising costs are minimum for www.dandeli.com and Wild River Adventures as they use the internet. Kamath T&T on the other hand can spend upto INR 15000 annually.

One of the important responsibilities of T&T companies is to sensitise their customers about eco-friendly practices and adopt these practices themselves. All these T&T companies provides information to their guests on code on conduct in a tiger reserve – not to litter (especially throwing things into the river), not playing loud music, or throwing cigarette butts in the forest. However when it came to their own practices, as is seen in the rest of Dandeli, no proper waste management is followed. Plastics are collected and dumped in a pit behind the store, while cardboard boxes are reused. Owners of all three T&Ts in fact stated that this was a big problem and should be tackled by the municipality. Given that Dandeli gets a lot of tourists, it is important that the streets are kept clean and this can be done only if there is proper waste management. Additionally, they stated that the condition of the roads must improve.

Apart from this, the team also met with members of the Kali Group (Joida), which is an eco-awareness club. This group, apart from providing leisure activities for tourists, actively instructs tourists and local populace on how to be environmentally conscious. Members of the group also do volunteer work in preventing forest fires. Interestingly, the group also takes action against

local accommodation facilities, travel agents and taxi drivers when they overcharge customers and/or engage in environmentally destructive activities by informing the relevant authorities.

LOCAL COMMUNITIES

In order to determine the impact of tourism on local communities, the team interviewed a few households in villages around Dandeli; viz., Ilava, Kulgi, and Vernoli⁸.

Table 3: List of villages chosen as part of sample

Village/Town	Involvement in Tourism Activities
Ilava	Low
Kulgi	Medium
Vernoli	Low
Phansoli	High (EDC)
Avarli	High (EDC)
Dandeli	High
Joida	High

A few general points are worth mentioning:

1. Villages have access to the tiger reserve at all times, and collect firewood and graze their cattle at the fringes of the forest.
2. There is greater interaction with the Forest Department here. The team was informed that Department officials are proactive and take the time to arrange meetings with community members on issues relating to protected area access, damage to crops by wildlife, and conservation and management issues. Overall there is the belief that the Forest department is doing enough for conservation.
3. Households across all villages stated that compensation for crop loss was provided without fail by the Forest Department.
4. Urgent needs of the community was building of PHCs in the village (ASHA worker), roads, secondary schools and providing funding of projects by community members (in order of priority).

Ilava, Aweda Panchayat

The team interviewed four respondents, all male, only one being head of the household. Family size ranged from three to five members. All of the respondents had at least a primary school education. In terms of occupation profile:

1. *One household was solely reliant on income earned from working in resorts.*

One of the respondents, aged 30, worked as a driver in Bison Resorts for the past ten years. No other members in the house worked (wife and children). Given that he is salaried, there is **no** income variation across months or seasons (peak and lean). Annual household income is

⁸ Please note that FGDs were conducted in Phansoli. Safaris into Dandeli Tiger Reserve is by taking EDC owned vehicles only. About 10 families in the village, own such vehicles and obtain a monthly income from the same. This is explained later in the document.

approximately INR 50,000. According to the respondent, tourism is extremely beneficial for poorer sections, as it provides a stable source of employment and income. This stability has brought about an increase in buying household assets and an increase in expenditure on basic household necessities (toiletries, food, milk, meat). The respondent had attended meetings arranged by the Forest Department.

With regards to projects that were required urgently by community members, the respondent stated that livelihood diversification was a need. For this, some process whereby funding for businesses/local enterprises that households can embark on should be organised.

2. *Three households were engaged in other activities, apart from one member in each household being salaried.*

- a. One household had a member who worked in Bison Resort as well, for the last three years. He worked in the house keeping department and earned an income of INR 7500 per month. Apart from this one member in the household (aged 45) worked as agricultural labour. Total household annual income ranged between INR 50,000- 100,000. While there was no income variation for the respondent who worked in Bison resort, agricultural labour income varied with seasons. While some months there was no income, sowing and harvesting seasons brought some income. The main advantage for the household therefore was procuring a steady income of INR 7500 per month, to smooth fluctuations. This allowed for basic needs to be met without a problem. Along with providing funding for starting businesses, the respondent felt that a Primary Health Centre (PHC) should be made available in the village, as long distances need to be travelled for the same.
- b. In the other two households, cultivation activities were undertaken. Apart from this, one member in each household was also employed in restaurants, with an income of INR 8000 and INR 12000 respectively. Hence total household income ranged between INR 50,000-INR 100,000 per year. It is interesting to note that in both these households, the respondents stated that the steady income obtained from working in the restaurants allowed for money to be ploughed back into agriculture to buy better inputs. In both cases, respondents stated that roads need to be built in the village

Kulgi, Ambikanagar Panchayat

The team interviewed respondents who worked at Kulgi Nature Camp, owned and managed by the Forest Department. These respondents did not own either land or livestock and their sole income was wages earned.

- a. One respondent aged 42, is a daily wage earner, working at the Camp since 2006. He takes care of laundry, and cleaning of the facility. There are four members in his household and he is the sole income earner. For a month, on an average he gets paid INR 5000. The income is contingent upon the occupancy in the Camp, and hence there are some days when work is not available. Hence, income earned was not sufficient to meet even consumption needs in some months. The main problem in Kulgi village according

to him, was the lack of medical facilities, as there is no PHC or ASHA worker in the village.

- b. The second respondent aged 29, is a full-time employee who gets INR 5500 per month as salary. He has been working at the Camp since 2005. He works as a watcher and guide and also takes care of maintenance and managerial works as and when needed. There are three members in his household (wife and a child who is studying in Class 8). There is no variation in his income.
- c. Aged 22, the third respondent has been working at the nature camp from 2009, as a tourist guide. There are six members in his household and three of them work, and together household income is about INR 19000 per month (over 1 lakh per annum). His income is INR 5500 per month and he is a permanent employee. The advantage of not depending on cultivation is that there is no income fluctuation, and basic household necessities and assets can be bought as and when required. Also, loans are then taken only during emergencies. According to him, there is a need for building a school in the village with classes from 6th to 10th std

Vernoli village

The team interviewed four households, two dependent on tourism and two on agricultural labour for their livelihoods.

1. Households dependent on tourism

- a. One female respondent, aged 39 was interviewed. She worked in a homestay, from 2011, as a cook and received a salary of INR 4500 per month. Her husband was a farmer and they owned a small plot of land. Total household income per annum fell between INR 25000-50,000. According to her, income from cultivation is unreliable, as the land is rain-fed and there are other factors which affect crop output (pest attack, crop loss by wildlife etc). Given this, her income provides stability and allows the family to meet its basic consumption needs (food, education, medicines etc). She too has attended meetings organised by the Forest Dept and has expressed her views on conservation and management of the tiger reserve. A concern for her is the lack of a PHC in Vernoli. Also, being a woman she felt that a ASHA worker is needed to take care of pre-natal and post-natal care.
- b. The second respondent, is a male, aged 44 years, who worked in a nearby homestay as a watchman. His income is INR 4000 per month. Apart from livestock income, the family has no other source of income. Total family income is between INR 25000-50,000 per year. He too felt that a PHC was needed.

2. Households dependent on agricultural labour

These households had a much lower annual income of around INR 25000 per year, as income obtained was seasonal.

Phansoli Village, Phansoli Panchayat, Eco-Development Committee (EDC)

Phansoli, is a village with about 280 households, and a population of approximately 600 persons, who are predominantly Scheduled Caste (SC). There is a school in the village, upto 5th standard, after which children go to Vernoli, and for class 9 and above to either Dandeli or Joida. While girls and boys both go to school upto Class 10, it is the boys who continue. There is no hospital in the village and the closest hospital is in Dandeli about 12 kms away. A vehicle is hired by the villagers or 108 is dialled for an ambulance pick up. There is no ASHA worker in the village either. It is important to note that the EDC constructed the Anganwadi centre in the village, along with a cooking room in 2007-08. Most households depend on firewood for cooking purposes, and this is collected from the fringes of the forest. Also, water supply to each home is a problem. There is a bowri, where water is collected each day. The primary occupation is agriculture, with majority of farmers falling within the small category (1-2 acres). Rice is the major crop grown, and only one crop is grown annually. Often times the crop is destroyed by animals (even though there is a trench surrounding the village). Compensation is made available to the tune of 10% of crop output (measured in quintals). However, it takes anywhere between 6-8 months for the farmers to receive the compensation. While agriculture is undertaken for 4 months in a year, for rest of the 6 months, men of the village undertake 'coolie' work either in Dandeli (daily migration), or even in Goa or Maharashtra (seasonal migration).



When asked what the urgent needs of the community were, three priority areas were outlined:

- a. **Toilets:** When asked about the sanitation situation in the village, the team was informed that while 70% of the houses had individual toilets, the rest resorted to open defecation. Hence, a priority is to utilise EDC funds to construct toilets. As there are not enough funds to build one toilet per house, it is proposed that one toilet be constructed for use by 4-5 families. This decision was taken by the EDC and the community together, as it was a common felt need that this is an important issue, especially for women. A toilet for use by tourists was constructed using EDC money in 2011-12.

b. Plastic disposal: Currently, there is no system in place. Household waste (kitchen) is composted in small plots behind each house.

c. Gutters alongside all roads in the village: The EDC chairperson showed the team roads within the village that had been constructed earlier with EDC money, with gutters running alongside. It is proposed that over the next few years, all roads in the village will be made pucca, with gutters.

The EDC was constituted in 2006. There are eleven members in the Management Committee (MC), including the president. By law, there are 5 ladies in the MC, two each from SC and ST caste categories. Albeit there are elections for the post (held once in every 5 years), villagers elect those who are interested in working for the village. At the beginning of every month meetings are held. The secretary from the Forest Dept, who works as a liaison between the EDC and the forest dept informs all MC members of the meeting. In case members are not able to make it for the meeting, it is postponed to a convenient date. All residents, belonging to Phansoli range, above the age of 18 are eligible to be members of the EDC. By showing ID proof and paying INR 1, membership is complete. General Body (GB) meetings are held once a year, where all members are briefed on what activities have been undertaken. From discussions with women MC members, it was clear to the team that they do not take decisions per se, but are kept informed of the decisions taken by the men folk.

Safaris are conducted both in the mornings (6-8 am) and in the evenings (4-6 pm). INR 400 is charged as safari and entrance fees for domestic tourists and INR 1200 for foreign tourists. During the peak season about 30-40 persons/day take the safari and during the lean seasons this is about 2-3 persons/day. Families own the vehicles used for the safari. Currently, 10 vehicles are being used. The team met with two persons who own these vehicles. One owned a camper and the other a commander jeep, both purchased second hand. According to these persons, during the peak season, 15 trips are undertaken per month by each vehicle and during the lean season this is 4 per month. INR 800 is paid to the owner for each trip. They also mentioned that 10 vehicles can enter the forest at the same time as they have different routes. Also, there is a rotation, number wise of which vehicle will be taken on a particular day and time. Drivers of these vehicles also play the role of naturalists. A joint bank account is held with the forest department. Revenues which are earned are divided equally between the FD and EDC. Of the EDC earnings, 25% is ploughed into Foundation Tiger and the remaining is kept as EDC corpus.

Avarli Village, Nandigadde Panchayat, Syntheri Rocks Eco-Development Committee

Avalri village, part of Nandigadde Panchayat, has 51 households with a population of 265 persons. Several castes are found in the village – Kunube, Bhats, Desai and Marathas. Main source of occupation is cultivation, with paddy, banana and pulses being the main crops. All cultivation is rainfed. Agriculture is undertaken usually, throughout the year, and during the off-seasons, some supplement farm income with labour income. During the FGDs, the team was apprised that work was provided to the village members by the FD through the secretary who

acts as a liaison between the FD and the EDC. Activities undertaken include fire protection, plantation, patrolling and anti-poaching. This according to the villagers is extremely useful, as they have to commute a long distance to the nearest city (Dandeli or Joida) for coolie work.

For drinking water purposes, the Panchayat has constructed a bund in the village. There is a primary school in the village upto Class 7, after which children go to Nandigadde (Class 10) and for college to Joida. The younger generation in the village are all enrolled in school. While there is no difference in attendance rates between girls and boys upto Class 10, it is rare to see girls go on for higher education. There is no health centre, and the closest facility is a government clinic in Nandigadde. If a hospital visit is required, a person has to go to Dandeli or Joida. As is the case in Phansoli, either a vehicle is hired or an ambulance is called for. However, there is a ASHA worker who resides in the village, and hence urgent needs of women are largely met through this. It is important to note that different from Phansoli, majority of houses have attached toilets. These toilets were built under a scheme promoted by the Panchayat (for BPL families). There are only 8-10 households who resort to open defecation.

The EDC was formed in 2005-06. There are 10 members in the Management Committee (MC), of which five male and five female. There have been two elections so far, since the formation of the EDC, with 2012 being the latest. Although elections are held, this is merely a formality, as only those interested are voted in. As opposed to Phansoli, women members play an active role, with atleast 3 out of the four members attending MC meetings on a regular basis. All 51 households are represented in the General Body (GB) of the EDC, and any individual above the age of 18 can become a member. No membership fee is charged. The MC members look at the Panchayat list to reconfirm whether the individual is part of the village and above the age of 18 before allowing him/her to join the EDC. GB meetings take place once a year, where members are updated on work undertaken by the EDC, and deliberations on future course of action take place.

An entrance fees of INR 10 per person is charged for visiting Syntheri Rocks and separate entrance fees is charged for vehicle parking (depending on the vehicle). The EDC maintains a joint account with the FD. During the peak month INR 25000 and lean month INR 8000 is earned. 25% of revenues are put into the tiger fund, the remaining is retained with the EDC. When asked how the EDC revenue is utilised, one of the MC members stated that importance was given to undertake activities and provide for services that is not being provided for by the Panchayat. Decisions are taken by the MC members, who meet once a month, with inputs from community members. Usually there is not much of a saving in the corpus, as the money is constantly being used to meet the needs of the community. Some of the include provision of solar lighting, tailoring units for women (about 20-25 households), village improvement works, refurbishing the community hall (purchasing utensils, furniture etc). The EDC also owns a cutter which is rented out at INR 300/hour.

When asked what the urgent needs of the community were, those present at the FGD stated that a health clinic in the village is urgently needed, as the distance to the nearest hospital is far (Dandeli or Joida). When asked whether they could pay doctors from the EDC money, who can be stationed in the village, MC members stated that the money in the corpus was insufficient.

Second, the women highlighted the need for teachers to train them to use the tailoring machines, as this would be a source of livelihood for them. Currently, although they own machines, they are not being used.

Summary

- Peak season between April-June and December 25th to 1st week of January
- Large spectrum of accommodation facilities – ranging from the lower priced government owned Kulgi Nature Camp to higher priced JLR accommodation (Kali Adventure Camp and Old Magazine House); private homestays and resorts
- Apart from employees holding managerial positions in JLR properties, all other employees recruited from the local area.
- In private homestays, Daily Wages Act not followed when paying daily wage workers.
- Purchases made largely from Dandeli. Kulgi Nature Camp and homestays purchase basic items from villages (Kulgi, Vernoli, Phansoli)
- Travel and Tours companies and Kali Group (Joida) have taken up the responsibility of sensitising customers about being eco-friendly.

Introduction

Bhadra tiger reserve is a protected area located in the midst of the Western Ghats in *Chikmagalur* and *Shimoga* districts of Karnataka. It is about 38 km northwest of Chikmagalur town and Bhadravathi, Tarikere and Channagiri are cities close to the reserve. It is surrounded by the hills of *Mullaianagiri*, *Hebbegiri*, *Gangegiri* and *Bababudanagiri*⁹. The area was declared as *Jagara Wildlife Sanctuary* by the Government of Mysore via a notification on 21st February 1951, with area coverage of approximately 77 square km. The sanctuary was extended bringing in more adjacent areas to cover about 492 square kms and renamed as Bhadra Wildlife Sanctuary in 1974. The sanctuary was declared as a Project Tiger Reserve in 1998. One of the unique aspects about Bhadra, is that it is the first tiger reserve in the country to complete a successful village relocation programme. The relocation plan, initiated in 1974, was completed by 2002, whereby 26 villages within the sanctuary were relocated to MC Halli, about 50 km from the Sanctuary (Karanth 2005)¹⁰.

The region is watered by the Bhadra River and its tributaries (*Somavahini*, *Thadabehalla* and *Odirayanahalla*)¹¹. The reserve consists of two main adjacent sections. The first is the main western section of *Lakkavalli* and *Muthodi*. The second, is the smaller eastern *Bababudangiri* section (Karnataka Forest Dept, communication with research team, March 2013)¹². In terms of ecology, the sanctuary is a 'hotspot', with myriad species of endemic flora and fauna. Vegetation ranges from dry deciduous, moist deciduous and semi-evergreen forests. Given the surrounding hills, shola forests and mountain grasslands are seen in patches which are higher than 4600 feet (Karnataka State Wildlife Board 2011)¹³.

The map below outlines the Bhadra Tiger Reserve. The research team visited the site in May 2013 to undertake one-on-one interviews with resort owners and managers and households in villages surrounding the reserve. A few key points to be noted here:

1. **The sites considered for the study are *Lakavalli* and *Muthodi*** – the main section of the reserve. This decision is based on discussions with Forest Dept officials, who noted since the current study focuses on studying the impacts on tourism – primarily forest and Bhadra river safaris, these two sites are the key. Please note from the map that these are Forest Range Head quarters and have forest rest houses as well.
2. ***Chikmagalur* is not considered as a site under the study.** The team interviewed a number of accommodation facilities¹⁴ located in and around *Chikmagalur* personally and

⁹ At 6330 feet above sea level, Mullaianagiri is the highest peak in the sanctuary.

¹⁰ Karanth, K. 2005. "Addressing Relocation and Livelihoods Concerns". *Economic and Political Weekly*. November 12, 2005.

¹¹ A dam has been constructed across the Bhadra river, near Lakkavalli.

¹² There are four main forest reserves in the tiger reserve: Lakavalli, Muthodi, Tanikecoil and Hebbe.

¹³ Karnataka State Wildlife Board. 2011. About the Sanctuary. *Sanctuaries – Bhadra Wildlife Sanctuary*.

¹⁴ This list was provided to the team by the manager of JLR, Lakavalli. The team was informed that very rarely some guests staying these resorts would take the JLR evening safari. Facilities include Serai, Taj

over the telephone to ascertain whether any of their guests took the safaris at *Lakavalli* and/or *Muthodi*. Information garnered from these facilities revealed that guests predominantly took trekking/hiking tours in nearby *Bababudangiri* and *Muliyyanagiri* hills. This was because of the distance of both sites from Chikamagalur. Also, the resorts noted that government jeep safaris in Muthodi currently were not operational and in the past operation of these safaris has also been intermittent.



Source: Wildlife Protection Society of India

Gateway Hotel, River Woods, Woodways, Good Earth, Beanstalk Bagmane, Tanmai, Denten and Rangers Camp.

- The peak season for visitation is April-June. After this, the monsoon sets in and visitation picks up again during the Christmas/New Year break in December and January.
- An overwhelming majority of tourists (80-90%) are domestic, and are either families with children or groups of travellers (package tours).
- Overall occupancy rate is between 40-50%. During the peak season it is between 70-80% and lean season does not exceed 30%.
- On the basis of number of rooms available, facilities can be classified as 'small'. Also, except Jungle Green Homestay, all facilities have dormitories, catering to tourists who are on package tours.
- There is only one facility that has been classified as a resort, i.e. Giri Resorts, part of Rashi Ecotourism Pvt. Ltd. Tariffs are significantly higher than the other facilities at INR 4750 for a double occupancy per night.
- Tariffs for homestays range between INR 700 per person per night (Holiday Homestay) to INR 2400 per person per night (Nature Nirvana Homestay). While in the case of the latter, meals are included, it is not so in the case of the former.
- **Nature based activities:** Given their location, all these facilities offer trekking and nature walks with guides either to Mullayangiri or Bababudangiri. Only when a guest specifically asks for a safari are they informed about safaris in Muthodi. This is according to the managers, very rare.

Results

MUTHODI

Local Accommodation Facilities

Muthodi Forest Reserve is about 38 kms from Chikmagalur. While there is one government owned and managed accommodation facility, Muthodi Nature Camp, adjacent to the Range Headquarters, there are no other facilities in the vicinity. However, during the reconnaissance survey, the team identified facilities located:

- **Before Muthodi Nature Camp:** On the Muthodi Road (Mallandur Post). These consisted of homestays, located on coffee plantations. However, when the team went to these homestays to conduct interviews, managers/owners of these plantations were not available. Most of them were based either in Chikmagalur or Bangalore, and the property was in the charge of a few caretakers. Hence, interviews could not be conducted here.
- **Beyond Muthodi Nature Camp:** Most of the accommodation facilities were located in and around Athigundi village, on the Dattapeeta/Bababudangiri Road. The village itself is about 30 kms from the Muthodi Forest Camp.

Table 1: List of accommodation facilities, Muthodi

Name of facility (year est)	Location	Type	Room details	Price details (INR)	Nature activities undertaken
Muthodi Nature Camp	Muthodi	KFD owned and managed	1 Cottage, 2 tents, 2 dorms	INR 1000/room for tent and cottage. INR 600/room for dormitory. Meals separate (Tiffin = 25, Meals = 50)	Safaris, INR 200/person/trip. Safaris stopped Jan-June, fire season
Vismaya Homestay	No owner/manager.				
Mugila Mane (2009)	Athigundi, (Chikmagalur, 22 kms)	Homestay	4 rooms. 2 dormitories	INR 1500/person/room. INR 1500/person/dormitory. Includes all meals and trekking to nearby falls.	Trekking to Dhab Dhabe falls, Bababudangiri, Hebbe falls, Kemmengudi Peak. Coffee plantation visits
Giri Resort (6 months ago took over from Jhari Ecostay)	Athigundi Village, (Chikmagalur 26 kms)	Resort, Private, Part of Rashi Ecotourism Pvt. Ltd. Group	16 rooms. 1 dormitory	Deluxe Suite INR 4750/couple, Deluxe INR 4250/couple, Dormitory (min 5 members): INR 1500/person, extra bed INR 1000. Includes all meals.	Trekking (Bababudangiri), rock climbing, water falls visit, nature walk
Nature Nirvana Homestay (2000)	Close to Kemannagudi peak (Athigundi 7 kms, Chikmagalur, 35 kms)	Homestay, Coffee Plantation type	5 rooms. 1 Dormitory cottage	INR 2400/person/room. INR 2000/person/dormitory cottage. Includes all meals, nature walks, coffee plantation walks.	Nature walk, bird watching
Holiday Homestay	Close to Athigundi (Chikmagalur 25 kms)	Homestay, Private	10 rooms with double occupancy. One deluxe cottage with 4 beds. One dormitory with 15	INR 700 for double occupancy. INR 200 for extra bed. Dormitory INR 6000 for 15 persons (i.e.	Trekking (Bababudangiri), Nature walk

			person capacity.	INR 400 per person). No food provided	
Jungle Green Homestay	Mallandur Post (Chikmagalur 21 kms)	Homestay, Private	5 rooms	INR 1500 per person/day	Trekking (Mullayangiri)
Apna Sapna Homestay	Close to Athigundi (Bababudangiri 8 kms)	Homestay, Coffee Plantation type. Part of Apna Sapna Group	10 cottages	INR 2500 weekday/cottage. INR 3000 weekend, INR 3250 for festive season or long weekend. Includes all meals	Trekking (Bababudangiri), Adventure activities, bird watching, nature walk, visit to sunset point.
Silver Mist	Muthodi Road, Mallandur Post (Chikmagalur 30 kms)	Homestay, Farm with plantation		No owner/manager	
Texwood Resort	Adjacent to Muthodi Forest Reserve	Homestay, Coffee Plantation type		No owner/manager	

Table 2: Employment and revenue details of accommodation facilities

(It is important to note that in several cases, expenditure and revenue details could not be collected, as owner/manager refused to divulge information once the team informed them that they were doing a project under the Karnataka Forest Dept! Where available, these details are not accurate, as they portray a picture of the facility running into a loss.)

Name of facility, Location	Total number employees	Place of origin employees	Details of employees and wages/month (INR) ¹⁵	Place of purchase of essentials ¹⁶ & expenditure (INR)	Revenue details ¹⁷
Muthodi Nature Camp	Permanent=2 Temporary = 3	Chef (Mandya) DRFO (Kadur), Watcher (MC Halli) (NOT LOCAL) Temporary cleaners: Muthodi & Shiravase (ONE LOCAL)	Main chef (1)= 5000 Cleaning (2) = 5000*2 = 10,000 DRFO (1) = 25000 Watcher (1) = 12000	Groceries from Chikmagalur. Perishables from Mallandur and Shirvase. Diesel from Chikmagalur. Diesel 1000/month. Expenditure details NA.	RFO not available at the camp.
Mugila Mane, Athigundi	Permanent = 6	All six from Shimoga (NOT LOCAL)	Main chef (1) = 10,000 Helpers in cooking (1)= 7000 Cleaning (3)= 5000*3 = 15000 Mgt (owner)	Perishables, meat, groceries and diesel all purchased from Chikmagalur. Diesel expenditure is 1000 INR per month while the rest is INR 40,000 per month. Laundry facility in Chikmagalur, 1000 in 15 days.	Peak season (Apr-June, Dec-Jan)= 1 lakh/month *5 = 5lakhs Lean season= 50,000 *7 = 3.5 lakhs TOTAL = 8.5 lakhs Payment of wages/year = 3.84 lakhs Recurring expenses/year = 4.92 lakhs TOTAL = 8.76 lakhs

¹⁵ All income expressed in gross (pre tax) rates

¹⁶ Perishables include vegetables, fruits and flowers.

¹⁷ All income expressed in gross (pre tax) rates

Establishment running at a loss, at most is breaking even!

Giri Resort	Permanent = 13	Bangalore, Mangalore, Kadur, Athigundi, UP (LOCAL & NON LOCAL)	Chef (1), Blr= 12000 Helpers (2), UP= 8000*2 = 16000 Cleaners(6), Athigundi = 6000*6= 36000 Reception (1), Puthur = 12000 Accounts(1), Kadur= 11000 Security(1), Athigundi = 6000 Driver(1), Athigundi = 6000	Perishables, meat, groceries and diesel all purchased from Chikmagalur. Diesel INR 6360/month and perishables & groceries INR 25000 per month. Laundry outsourced to Chikmagalur, 15000/month	Peak season (Apr-June, Dec-Jan): 60,000*5 = 3 lakhs Lean season: 40,000*7 = 2.8 lakhs TOTAL = 5.8 lakhs Payment of wages/year = 61000*12 = 7.32 lakhs Recurring expenses = 46360*12 = 5.56 lakhs TOTAL = 12.88 Establishment running at major loss!
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Nature Nirvana Homestay	Permanent = 6	All six from Dandubedara, near Athigundi (LOCAL)	Refused to share expenditure and revenue details		
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Holiday Homestay	Permanent = 5	5 from Athigundi (LOCAL)	Family run homestay. Salaries not paid	Only expense is diesel. 1000 per month	Peak season (Apr-June, Dec-Jan): 30000*5=1.5 lakhs Lean season: 5000*7 = 35000 Total = 1.85 lakhs Expenses = 12000 (diesel) Establishment making a profit
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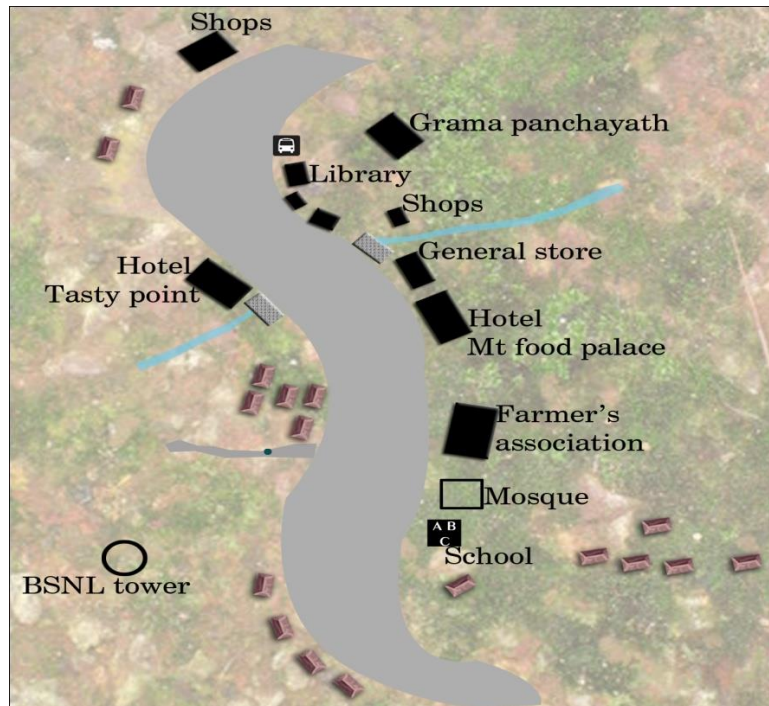
Jungle Green Homestay, Mallandur Post	Temporary= 4	All four from Malandur (LOCAL)	Main chef(1)= 1000/day Cleaning(1)= 500/day Suppliers(2)= 500/day	Perishables, meat, groceries and diesel all purchased from Chikmagalur. 90 litres of diesel purchased/month. Other expenses not given.	Peak season(60% occupancy): 3 beds*3000*5 months = 45000 Lean season (40%occupancy)= 2 beds*3000* 7 months = 42000 TOTAL = 87000 Wages per day so not calculated
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Apna Sapna Homestay	Permanent= 5	Main chef and helper (wife) and cleaners (2) from North India (NON LOCAL). One helper LOCAL
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No information provided

Local businesses

Map of Athigundi village



Two hotels in the village, Mount Food Palace and Tasty Point (both marked on the map) were visited. Both were individual proprietorships and served tea/coffee, snacks and meals and sold soft drinks and cigarettes. Both had 5 employees – apart from the owner who worked in the hotel, four full-time employees, local to Athigundi. They were employed on a daily wage basis at INR 200-250/day. Supplies (perishables, soft drinks, cigarettes, groceries) were brought from Chikmagalur, and the owner spent between INR 3000-5000/week for this. A jeep at the rate of INR 700/day was hired to and fro to Chikmagalur. The owner of Tasty Point stated that he paid an electricity and water bill of INR 1500/month, while this was not the case in Mt. Food Palace. LPG was used for cooking and firewood from the nearby plantation was used to supplement this as and when needed.

Grid electricity was available 12 hours a day and in its absence Mt. Food Palace had an inverter, while Tasty Point resorted to gas lamps. Water was available 24 hours, 7 days a week, but had to be collected from a nearby water source and stored (i.e. not running water). Both hotels were connected to the Underground Drainage Network. What is

worrying to note is that plastics were being burnt by both these properties, in a nearby pit. This was because *kabaddiwalas* stated that there was no use for them in Chikmagalur, as the latter already had a large amount of plastics that were reused. One owner stated that dustbins ought to be placed to collect different types of waste and frequency in collection ought to be ensured. The other said that the drainage system ought to be improved. Both hotels catered to local tourists, and, hence revenues exhibited variations over peak and lean seasons. For e.g. Mt. Food Palace stated that over the peak months (Mar-Jun, Nov-Dec), they between 5000-10000/day, while in the lean seasons this was between INR 800-2000/day. For Tasty Point, the amount ranged from INR 8000/day during peak and INR 4000/day during lean seasons. Both owners declared that tourism had positive impacts as it had provided them with a relatively stable source of income.

Household Surveys

Table 3: List of villages chosen as part of sample

Village	Involvement in Tourism Activities
Athigundi	High
Lakkavally	High
M.N. Camp	Medium
B.R.Project	Medium
Garage Camp (adjacent to M.N. Camp)	Low

Athigundi village

As aforementioned most of the accommodation facilities considered for the study were based in and around Athigundi, and based on deliberations with owners/managers, it was indicated that most of their employees were residents of Athigundi. Hence, we decided to conduct one-on-one interviews with households here.

Table 3: Household information (n= 10)

Parameter	Information	Remarks
Education level	Illiterate = 3, Primary = 3, Secondary = 1 High School =3	
Number of households engaged in tourism	4	Two males were employed as room boys and one male and one female were cleaning helpers in resorts in Athigundi
Occupational profile of households not engaged in tourism	Daily wage worker in hotel (2) Salaried worker in hotel (2) Agriculture labour (2)	What is interesting to note is that even though not in a resort, four persons derive their income from road-side hotel/restaurant in Athigundi. Since these hotels are affected by tourism, as discussed in the box above, these workers too are impacted by tourism. However for the sake of analysis have been placed separately
Livestock	None of the households had livestock except one	Although households claimed that they had access to the reserve, none of them except one said that they had any use for it. One respondent said that the buffer area was used for grazing livestock.
Source of fuel and use of Non-Timber Forest Product (NTFP)	Combination of firewood and LPG. None of the households collected any NTFP.	Firewood was used for boiling and heating water and occasionally for cooking. These were collected from nearby forests. One household collected it from a nearby coffee plantation. Note that these forests as per the map are not part of the reserve. That is, Bababudangiri does not fall within the jurisdiction of Bhadra Tiger Reserve.
Monthly and yearly	*Room boys in a resort (2) =	All these members were salaried and

income of households engaged in tourism activity (INR)	6000/month, 72000/year **Cleaning helper(1) = 5000/month, 60000/year ***Cleaning helper, supplemental income agriculture labour (1) = 6000 from resort + 3000 from agricultural wages = 9000/month, 108000/year	not daily wage. They exhibited no variation in income across peak and lean seasons. They worked throughout the year For household **, while the female member of the household worked as a cleaning help, her husband worked as agricultural labour, the income of which varies according to sowing, cultivating and harvesting seasons.
Monthly and yearly income of households not engaged in tourism activity (INR)	*Daily wage worker in hotel (2) = 9000/month, 108000/year and 7000/month, 94000/year **Salaried worker in hotel (2) = 8000/month, 96000/year and 6000/month, 72000/year ***Agricultural labour (2): 8000/month, 96000/year and 6000/month, 72000/year	*For daily wage workers, variation in income present during the peak season, i.e. April-May and Dec-Jan, when tourist visitations are higher. **For salaried households, no such variation in income reported ***For agricultural labour households, variation contingent upon agricultural seasons – higher income during harvesting March-May and Nov-Dec.
Impact of tourism	All households except the two agricultural labour households felt that it was positive	Positive impacts attributed to stable employment. All these households said that because of stability of income, they were able to spend more mostly on basic household necessities. This was followed by medicines and education
If there was a tourism fund generated what projects would you want funded in your village	Houses & Roads = 3, Houses& Public Health Centre (PHC) = 4, Schools & PHC =2, PHC = 1	As the village was outside the reserve, none of the community members except one had any interaction with the Forest Dept about the reserve.
Extent of collaboration between community and protected area authorities	Highest scores or people did not agree with the following statements: *Govt and other relevant authorities are doing enough to involve the community in decision making regarding conservation *Same as above with regard to tourism	Higher scores imply disagree or strongly disagree

Key points:

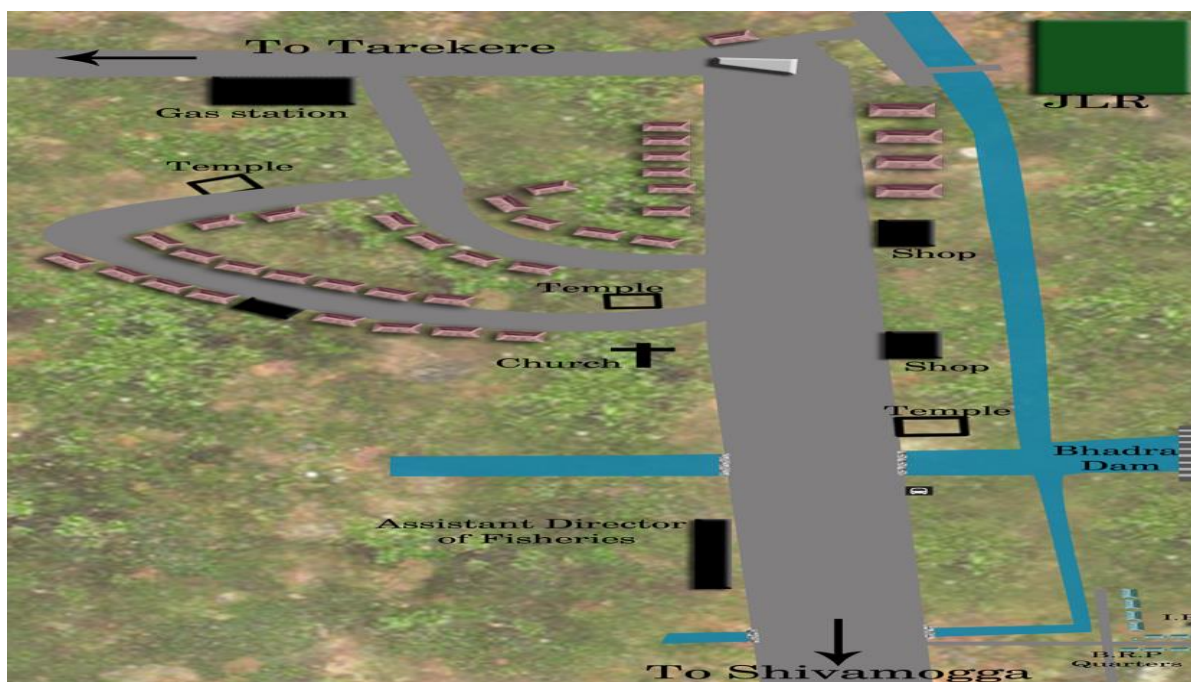
- ***No significant difference in total amount of income earned by households*** engaged directly in tourism (employment in resort), indirectly in tourism (employment in small hotels) and agricultural labour).
- ***Significant difference in variation of income across month, not dependent on tourism,*** but varies between salaried (permanent) workers and daily wage workers.
- Income smoothing seen in the case of salaried employees, resulting in higher consumption expenditure on basic household necessities
- No dependence on tiger reserve seen, given that Athigundi lies outside the boundary of the reserve. Firewood collected from nearby forests and/or from coffee plantations. None of the households except one had livestock, which were fed through open grazing.

LAKKAVALLY

The reconnaissance survey revealed that there was only one accommodation facility at Lakkavally – River Tern Lodge, run by Jungle Lodges and Resorts (JLR), a government owned and managed enterprise, about 2 kms from Lakavally town. Hence, tourist visitation (including safaris into the forest and boat safaris) to Lakkavally is limited to this one facility. Discussions with shop owners and vendors in Lakkavally and nearby B.R. Project town revealed the following:

- Small businesses (restaurants, tea shops, Xerox shops) and grocery stores and medical stores **do not** supply to JLR and/or to tourists directly and hence are unaffected by tourism.
- Vegetable, meat and dairy product vendors sell directly to JLR.
 - Sales vary across peak and lean seasons.
- Diesel is purchased from the HP and/or Indian Oil petrol bunks at Lakkavally.
 - Sales vary across peak and lean seasons.

With regard to households dependent on tourism, interviews with staff at JLR highlighted that most of them came from the following proximate villages: Lakkavally, M.N Camp, B.R. Project and Garage Camp (adjacent to M.N Camp). However, a large majority came from Lakkavally village. The latter is a Panchayat village, with a population of atleast 5000. However, only about 12 persons are employed at JLR. The team also interviewed a small tea shop owner in B.R. Project. The town has around 600-700 households out which 300 households are those working in the Public Works Department. The owner stated that very few persons worked at JLR and most of the remaining 300 households obtained income through a combination of agriculture and non-agriculture labour. Hence, according to the local residents, **dependence on tourism per se in these villages is miniscule.**



Local accommodation facilities

River Tern Lodge

Established in 2005, RTL (a JLR property) is situated adjacent to the Bhadra River. The facility offers several nature based activities – safaris both by jeep and boat, water sports (kayaking, canoeing), nature walks, bird watching and some adventure sports. 24 rooms are offered – all double occupancy with a diwan cot (which doubles up as a bed). Peak seasons are April-May and October (Dussehra and Diwali) and December 25th-January 1st. According to the manager, occupancy rates are about 75-80% over the peak season and 35% during the lean season, and average occupancy being about 50-55%. Room tariffs vary according to the season. While INR 5000 is charged per person per room during this time, tariffs are about 30% lower in the lean season. Moreover foreign guests are charged at a higher rate - INR 7500 per person per day during the peak season. These rates are inclusive of lodging, food, safaris, nature walks and boat rides. Water sports are charged at extra cost. About 90% of the clientele is domestic, and 50% of these are families with children (30% are package tours and 20% are couples). Total revenues are calculated as follows:

- Peak season 80% occupancy of 24 rooms = approximately 20 rooms*10,000INR per room/day = 2,00,000 INR. 2 lakhs *30 days/month = 60 lakhs/month *5 months = 3 crores
- Lean season 30% occupancy of 24 rooms = approximately 7 rooms*10,000 INR per room/day = 70,000 INR. 70,000*30 days/month* 7 months = 14.70 lakhs

Net revenue is approximately = INR 3crores and 15 lakhs

Employment records reveal that 26 persons are employed at River Tern Lodge and all of these permanent staff on the rolls, i.e. they are eligible for PF, medical insurance, leave

encashment etc. They are also eligible for a Diwali bonus. Of the 26, a minimum of 24 are from the local area. The details are as follows:

- Main chef: 3 persons: Lakkavally, BRP and Dandeli: 2 LOCAL: 8-10,000 INR/month salary
- Assistant chefs: 2 persons: M.N. Camp: 2 LOCAL: 6-7000 INR/month salary
- Helper in cooking: 1 person: M.N. Camp: LOCAL: 6-7000 INR/month salary
- Cleaning of facility: 6 persons: 5 LOCAL: 5-6000 INR/month salary
- Management staff and accounts: 4 persons: 3 BRP, 1 Shimoga: 3 LOCAL: 9-15000 INR/month salary
- Manager: 1 person: Chikmagalur: NOT LOCAL: INR 24000/month salary
- Security: 2 persons: 1 LOCAL: INR 5-6000/month salary
- Drivers: 5 persons: 3 LOCAL: 6-17000 INR/month salary
- Naturalists: 2 persons: 1 LOCAL: INR 7000/month salary

What is important to note that apart from the manager, who is a management graduate, higher positions in management and account are held by local persons. The manager informed the team that approximately 3 lakhs per month is spent on salaries. In terms of recurring expenditure, an average of INR 2 lakhs per month is spent on perishables (vegetables, fruits, milk and milk products) and alcohol. While the former is purchased either in Lakkavally or BRP, the latter is purchased in Shimoga. About 1000 litres of diesel is purchased each month, at Lakkavally, at INR 55 per litre, i.e. INR 55000 per month. Groceries are obtained from Bangalore (centralised system through Metro) at a cost of INR 2 lakhs per month. Some perishables are obtained from Chikmagalur. ***Total expenses are approximately 55 lakhs per annum. Given the revenues at approximately 3 crores, the facility is making a huge profit!***

Household surveys

Based on deliberations with staff at JLR, interviews were carried out with residents of the following villages: Lakkavally, M.N. Camp (Hunsenahalli), BRP and Garage Camp. As a majority came from Lakkavally, followed by M.N. Camp, more interviews were conducted there. At the outset, please note because of field difficulties encountered by the team, the field work had to be cut short¹⁸. Hence a detailed comparative analysis between households engaged vs. not engaged in tourism could not be done.

Lakkavally village

Lakkavally is a large town with 600-700 households and is a Panchayat village. The town has both a primary and high school, a Samudaaya Bhavan, a vet clinic, farmers' trust, police station

and the Forest Department Headquarters. There is also a Primary Health Care (PHC), but is relatively rudimentary. The main source of occupation for residents is agriculture, with rice and *supari* being the primary crops. Consequently agricultural labour is also an important source of income. This is followed by non-agricultural labour, largely daily wage *coolie* work

¹⁸ Lack of accommodation facilities for field assistants.

(construction etc). There is some extent of daily migration to Chikmagalur as well. A small portion of the population obtains an income from non-agricultural salaried work, i.e. running businesses, shops, working in tourism enterprises etc. In fact, when the staff at River Tern Lodge was questioned about the same, they said that 12 persons in the entire village were engaged in tourism in Lakkavally, i.e. at JLR. There were some persons in the village who worked in homestays in and around Chikmagalur. The team spoke to five persons employed at River Tern Lodge.

Map of Lakkavally



Table 4: Information from household surveys in Lakkavally

Parameter	Data
Education level	High School (SSLC): 4 Secondary School: 1
Job profile within JLR	Ayurvedic Centre, Driver, Housekeeping, Assistant steward, Chef
Income from various sources (individual data) INR/month	<ol style="list-style-type: none"> 1. 8000. No other income source 2. 5000. Used to work in Bangalore for 15 years, making a lot more money, but decided to move back to be close to his parents 3. 6950 from JLR. His parents are engaged in agricultural labour activities for about 15 days in a month making INR 200 (father) and INR 100 (mother) per day. Total household income is hence 11450. 4. 7000. Makes about 1500 per month from sale of milk. Total household income is 12500 5. 10000. Makes about 10000 per month from cultivation. Has 1.5 acres of land and cultivates rice and supari. Total household income is 20000
Livestock ownership	3 persons own livestock. While two of them engage in stall feeding, one allows his cattle to graze along the side of his field
Firewood use	This aspect presents a very interesting case. Earlier there used to be access to the forest for collecting firewood, but this has been banned. Hence firewood is being bought by households. In addition to this, coconut husks are being used. Residents buy coconut shells from sellers, dry these and use it. Firewood and husks are used for heating water for bathing purposes. Cooking is done using LPG. This was distributed through a NGO once access to the reserve stopped.
Variation in income	No variation in income with regards to salaries obtained from JLR. There is variation only in income derived from cultivation or agricultural labour depending on the season.
Impact of tourism	Positive. As the chef stated, <i>"earlier I was a Pani Puri seller. There was much tension, as it was my own business and income was unstable. This income is stable and has allowed me to do something I am familiar with – cooking"</i> . Likewise the assistant steward said that since he was a permanent staff and eligible for medical insurance, it was much easier to treat his father in a good hospital.
Views on conservation and collaboration with Forest Dept	None of the employees had any idea on the tiger reserve, conservation or collaboration. One plausible reason for this could be the fact that they have no access and no use (not dependent) on the reserve.
If there was a tourism fund generated what projects would you want funded in your village	Three out of five employees (driver, assistant steward and person employed in housekeeping) said that money from the fund can be used to finance projects started by community members. This was because it was very difficult to get loans with collateral. Hence, if 'soft' loans could be provided for entrepreneurship this would be very useful.

M.N. Camp (Hunsenahalli)

One employee in JLR from BR Camp and one from Garage Camp (near M.N. Camp) were also interviewed. The former works as an accountant and the latter as a kitchen helper. The accountant made a monthly income of INR 11200, and joined JLR in 2005. According to him, this income is a bit low which does not leave him with much savings. The lady kitchen helper (working from November 2012) stated that apart from her monthly income of INR 4500, the household also got some income from agricultural labour (between 150-250 INR per day) and livestock (sale of milk). The total income annually was over a lakh. While there was no variation in her income from JLR, there was variation in income from agricultural wages. She said that the biggest advantage of her income was that she was able to provide proper medical treatment to her husband who suffered an injury a few years ago. She is also part of a chit fund scheme open to JLR employees.

Table 5: Information from household surveys in M.N. Camp

<i>Parameter</i>	<i>Data</i>
Education level	Illiterate = 1, Primary=1, Secondary = 3.
Job profile within JLR	Cleaner (1), Assistant chef (2)
Income from various sources (individual data)	
INR/month for JLR employees	
1. Cleaner	1. 5000/month. No other income source
2. Assistant chef (1)	2. 7000/month. Family members engaged in agricultural labour activities. Total household income is 12000
3. Assistant chef (1)	3. 7000/month. Father works as a mason (non-agricultural labour) and mother as agricultural labour. Father gets paid about 250 a day and mother 100 a day. They work about 15 days. Total household income is 10250.
Households not engaged in tourism	Daily wages (2). Monthly income 7500 and 9000 respectively. No other source of income.
Livestock ownership	None of the households own livestock
Firewood use	Same as Lakkavally. One household mentioned that it obtained a free stove from the Forest Dept.
Variation in income	No variation in income with regards to salaries obtained from JLR. There is variation only in income derived from agricultural or non-agricultural labour depending on the season.
Impact of tourism	Positive. Those engaged in tourism stated that one of the main advantages was being in a government job with PF and medical insurance. The existence of a bank account as being critical was also mentioned.
Views on conservation and collaboration with Forest Dept	Same as Lakkavally
If there was a tourism fund generated what projects would you want funded in your village	Building of roads as the condition is very bad.

Summary

- Two sites considered for study include Lakavalli and Muthodi.
 - In the area in and around Lakavalli, the only accommodation facility is Jungle Lodges & Resorts
 - While at Muthodi, the Forest Department is the sole accommodation provider (Muthodi Nature Camp), there are a few homestays in coffee plantations before the Muthodi Nature Camp and a few located in Athigundi, about 30 kms after the Camp.
- The peak season is April-June and from December 25th to January 1st week.
- Domestic tourists form the majority, with a package tours being a preferred option.

ACCOMMODATION FACILITIES

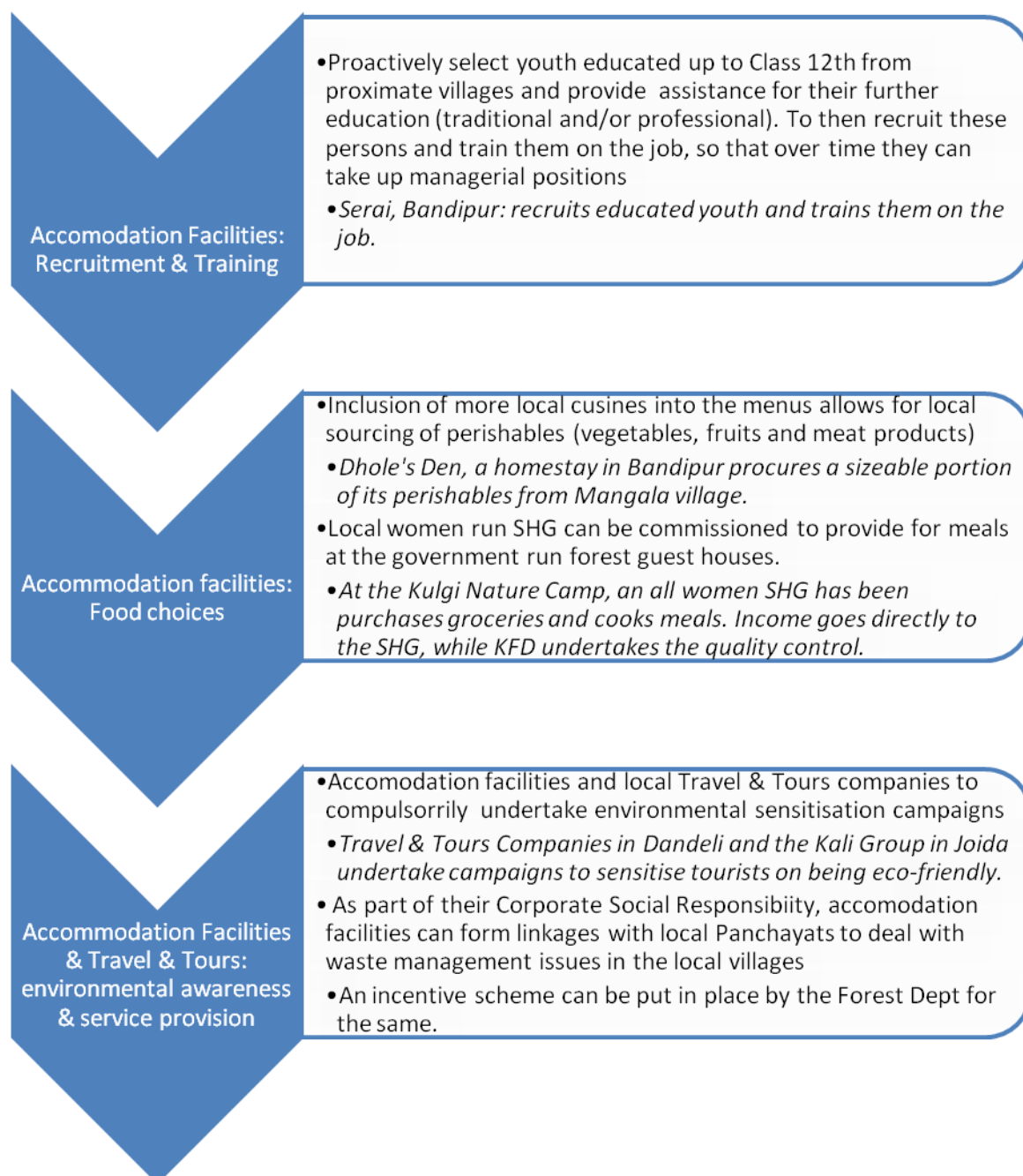
- Not a wide spectrum of accommodation options, with most of the facilities being small homestays. Most of these have dormitories, catering to tourists on package tours.
- Overall occupancy rates range between 40-50%.
- Nature based activities (trekking, nature walks to Mullayangiri or Bababudangiri) offered by most accommodation facilities.
- Employees mostly drawn from the local area. Workers recruited during the peak season. All temporary workers paid according to the Daily Wages Act.
- Purchases made from Chikmagalur. Smaller villages do not stock groceries.

LOCAL BUSINESSES

- Local businesses (small restaurants) in Athigundi were considered. In Lakavalli, small businesses do not supply to JLR and/or tourists directly and hence are unaffected by tourism.
- Restaurants cater to tourists, and hence experience variation across peak and lean seasons.
- Akin to Bandipur, environmental consciousness and provision of infrastructure needs to be built, with regards to waste management practices.

LOCAL COMMUNITIES

- Income from tourism (working in a resort or in small restaurants) has income smoothing properties only in the case of salaried employees (i.e. not temporary wage workers).
- In the case of Athigundi, no dependence on the tiger reserve was seen, given that it lies outside the boundary of the reserve. In Lakavalli, residents complained about the inability to access the reserve, to collect firewood and/or graze livestock.



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