Roots of a Green Economy: Enhancing biodiversity conservation and local livelihoods in the Anamalai Corridor



Technical report to the CEPF Large Grant Program funded project undertaken by Wildlife Information Liaison Development society.

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Preferred Citation: Kanagavel, A., S. Parvathy & N. Nirmal (2016). Roots of a Green Economy: Enhancing biodiversity conservation and local livelihoods in the Anamalai Corridor. Technical Report. WILD, Coimbatore, India.

Component 1: Promotion of Theni Conservation Reserve establishment and as a model for collaborative conservation in the Western Ghats of Tamil Nadu

1.1. Report on perceptions and discussions regarding the Theni Conservation Reserve Proposal among the Tamil Nadu Forest Department

1.2. Activity reports and logbooks of the conservation reserve management committees, detailing formulation of site-appropriate management plans and its implementation

1.3. List of project proposals received from the invited stakeholders, reports from successful individuals detailing the undertaking of their proposed project and the main project team's assessment of projects' success with regard to the overall objective of improving grass-root level conservation

1.4. Report of a feasibility study on sustainable funding mechanisms for conservation reserve management

1.1. Report on perceptions and discussions regarding the Theni Conservation Reserve Proposal among the Tamil Nadu Forest Department

Since we had submitted the Theni Conservation Reserve proposal during the previous CEPFsupported project 'Establishing Community Conservation Reserve in the Anamalai Corridor' (2012-2013), we restarted the project by following up the status of the proposal to understand at what phase of declaration it was in. The proposal however had not yet moved into any state of declaration. We therefore immediately re-discussed the proposal with the PCCF & CWW, Chennai of the Tamil Nadu Forest Department who suggested that any such proposal would have to come from the concerned DFO. Discussions were then taken up with the DFO, Theni and fresh proposal copies were provided to him regarding this. The DFO had reacted positively and had stated that after a field visit to the concerned area and further detailed discussion and review of the proposal, he would write to his higher officer proposing the region as a Conservation Reserve. However this was not fruitful as the DFO retired by the next month and was replaced by another. This DFO did not show much interest and we therefore pursued discussions with the Conservator of Forests, Madurai Circle. The Conservator of Forests showed interest and asked us to re-approach the DFO, Theni. The DFO at Theni was then changed again as the previous one again retired. We immediately started discussions with the current DFO and re-submitted the Theni Conservation Reserve Proposal. We received a very positive response from the current DFO who had requested for a day-long discussion towards it. The proposal was slightly revised to account for the new lands that had been acquired from TATA as part of the Theni Forest Division and a fresh submission was made. Meetings were again taken up with the Theni DFO who stated this as an important proposal. He stated that he would definitely help declare the Theni Conservation Reserve as conservation was high on his agenda for Theni Forest Division.

We were unable to get the Theni Conservation Reserve declared during this project period but we will continue to pursue this initiative with the current Theni DFO, who is extremely keen towards this.

1.2. Activity reports and logbooks of the conservation reserve management committees, detailing formulation of site-appropriate management plans and its implementation

This product/deliverable was not initiated and hence not achieved during this project since the proposal for the Theni Conservation Reserve is still pending with the Theni Forest Division and has not yet been declared as a community-managed protected area.

1.3. List of project proposals received from the invited stakeholders, reports from successful individuals detailing the undertaking of their proposed project and the main project team's assessment of projects' success with regard to the overall objective of improving grass-root level conservation

This was the most successful initiative of this project. It helped us identify stakeholders and individuals in the Kottagudi valley (proposed Theni Conservation Reserve) that were interested in conserving nature and natural resources while earning a livelihood responsibly from forest-based sources. We received five tenders from interested individuals in both 2013 and 2014 and we supported three tenders each year as those were the funds earmarked towards this. We supported initiatives to control invasive plants, propagate native trees and setting up information boards in 2013. Of these we felt setting up the information boards was most successful in meeting project objectives to disseminate information to tourists regarding biodiversity and disposing wastes. In 2014, we supported initiatives to setup art installations, interpretation centre and information boards. Of these we felt that the interpretation centre at Kottagudi and setting up art installations featuring the local biodiversity across the Top Station – Kurangini pathway were most successful in meeting project objectives and did so in a creative manner. The interpretation centre is slowly gaining popularity in the region and tourists have appreciated the way the centre has been designed. The art installations whereas literally merge into the surroundings and provide tourists a unique way to learn about the local biodiversity.

List of Project Proposals received in 2013

1. Installation of Information Boards at Top Station

K. Rajan, Abicafe, Topstation Kottagudi, Bodinaickanur, Theni District Tamilnadu

Tender for Information Boards

Top station is a tourist destination in Theni district of Tamilnadu that offers a panoramic view of the Western Ghats (Tamil Nadu and Kerala). Topstation comes under the constituency of Kottagudi village, Bodinaickanur. I am a tourist guide and a café owner in Top Station. Top Station lack basic information boards to help the tourists. Boards informing the tourists of the biodiversity in the area and waste disposal are also inevitable. I have identified the need for Information Boards to inform the tourists of the nearby hills in vision from the 'Viewpoint' in Top Station. This would help develop tourist turn over at Top Station on which my livelihood is dependant. Installation of boards on waste management could be considered a step to improve the waste management initiatives in the area including installation of dustbins.

Hence, I request the tender to be grant to install information boards in Top Station.

Name of the Project	: Installation of Information Boards
Aim	: Improvisation of the waste management initiatives and information for tourists
Project Area	: Top Station, Kottagudi, Theni, Tamilnadu
Stakeholders	: TATA Company, Tamilnadu Forest department, Kottagudi Village Panchayat
Benefits	: Tourism information, waste management
Budget Estimated	: `25000
Duration	: 3 months

Information Board details

1. Map the location, big size detailed board to be fixed near the gateway of Top Station detailing about the Flora and Fauna, topography, history and tourist attractions in Top Station

- 1. World higest tea plantation kolukkumali
- 2. Meesapulimali 2nd highest peak in south india
- 3. Kottakudi valley and Palani hills

2. Information boards on waste management and nature conservation

Budget Estimate

Sl	Pariculars	Amount Estimated
no		
1	Materials	
	2*1=2 length	Rs 1340
	1*1/1/2 length	Rs 1480
	1"*1 length	Rs 1300
	8*4" 18kg sheet*2	Rs 3800
	1*1*4 length	Rs 1980
	1*1/2 * 15 mtr	Rs 1775
2	Labour and transport charge	`10500
3	Cement and others	`1600
4	Printing charges	`1225
	Total Amount	`25000



Photograph 1: Pathway to View Point, Top Station

Photograph 2: Vendors and tourists around the view point area



2. Removal of Invasive exotic plants in Pitchankarai, Kottagudi

Project Title: Preparation of 10-acre area for planting by removal of invasive exotics, and other land-management measures

Project Area Description: The land is contiguous with Bodi North Hills Reserve Forest along the entire eastern boundary. Patti Odai is a seasonal water-flow that borders the land along the western boundary. Patti Odai flows into the Pitchankarai stream, which comprises part of the watershed of the Kotagudi river. The region is immediately south of where the Palani hills meet the Western Ghats, below the scarp of the Vandaravu peak. The land comprises some very steep hill slopes, elevation varying from 600m. To 1100m. above MSL. The vegetation is extremely degraded and much of the lower slopes are over-run by lantana thickets. The forests must have been cut between 1920 and 1940, and the slopes were then planted with silk cotton. Coffee cultivation too, was attempted in the higher reaches. None of the cultivation were successful, apparently, and the land is in a very neglected condition. Erosion could be seen in the area, and there is evidence of recent as well as old land-slips in the area, probably resultin

g from bad management practices on the steep slopes.

Stakeholder – Individual: Siby Thomas, V/259, Anaikkarappatty, Bodi North Hills village

Objectives:

- Eradication of invasive exotics Lantana and Chromolaena from an area of about 10 acres
- Introduction of palatable, native short-grasses in flat open areas suitable for pasture for wild grazers
- Selective removal of primary successional species such as Acacia and coarse grasses, where strong regeneration of secondary successional growth is seen
- Minor interventions for soil and water conservation
- Employment to local people in management operations

Process:

- Set up a work-team of 5 one team-leader with a working knowledge of species and selection criteria, assisted by 4 other workers, to implement objectives as listed above.
- The work-team will complete all above tasks required in an area as they cover ground; it will take the team of 5 approximately 2 days to cover 1 acre

Budget:

Management operations incl. exotics removal:

10 man-days/acre x 10 acres = 100 man-days @ Rs.300/man-day	= Rs.30,000
Purchase of 3 mattocks and 3 bill-hook machetes:	= Rs.4,800
TOTAL	= Rs.34,800

Future Activities

We intend to make the land into a conservation area, and a field laboratory for conservation practices and ecological restoration.



Photograph 1: Seasonal rivulet that drains to the nearby Kottagudi river.

Photograph 2: Earlier clearance activity to make a path.



Photograph 3: Removal of Lantana camara bushes



Image 4: Map of the proposed land



3. Setup of native tree nursery in Pitchankarai, Kottagudi

Project: Establishment of Nursery for propagation of native tree species

Location: Pitchankarai Road, Bodi North Hills

Stakeholder – Individual: Siby Thomas, V/259, Anaikkarappatty, Bodi North Hills village

Objectives:

- Reintroduction of locally extinct tree species native to the region
- Establishment of tree-cover, thus paving the way for return of sub-canopy and undergrowth plant communities associated with tree-forests and secondary/tertiary successional stages.
- Employment of local people in nursery and planting operations

Process:

- Create a basic nursery with 30 to 50 beds for germination and propagation of tree-species seeds.
- Purchase and plant seeds of native species suited to the particular area
- Maintain seedlings in nursery until they can be transplanted with the rains in October

Budget:

Land l	evelling and bed formation:	10 man-days @ Rs.300/man-day	= Rs.3,000
Purcha	ises:		
0	Farmyard manure:	1 load @ Rs.3,000/load	= Rs.3,000
0	Vermicompost:	500kg. @ Rs.8/kg.	= Rs.4,000
0	Wheel-barrow:	1no. @ Rs.5,000/each	= Rs.5,000
0	Seeds	(lump-sum)	= Rs.5,000
0	1000 ltr water-tank & hose:	(lump-sum)	= Rs.8,500
Bed-pr	reparation and seeding: 5 man-	-days @ Rs.300/man-day = Rs.1	,500
Nurser	ry maintenance for 3 months:	30 man-days @ Rs.300/man-day	= Rs.9,000
		TOTAL	= Rs.39,000

Photograph 1: Silk cotton trees in the area



Photograph 2: An overview of the existing vegetation in the area



4. Propagating native trees at Yellapatty, Kottagudi Panchayat

Senthil Kumar,

Foot print, Kottagudi Village, Theni District, Tamil Nadu –

Dear Sir,

Tender for Reforestation

I have been working as a Tour Operator for 15 years in tourism industry. Having one camp site named Foot Print in Kottagudi Village of Theni District in Tamil Nadu I wish to promote this property as Nature Education Center. So I am planning to retain natural vegetation instead of exotic plants (Eucalyptus)

Nature and Natural resources of our country are hereditary wealth of each Indian. Its conservation is a duty of each Indian. Kottagudi Village is becoming an important place as an eco-tourism spot because of its flora and fauna. This village is near to Palani Hills National Park, of Tamil Nadu and boarder to Pambadum Shola National Park of Kerala. In future Kottagudi Village will become destination for Eco tourism Center in Tamil Nadu. Therefore, we need to pay attention to every living thing no matter small or large they are equally important in their own ways for the wellbeing of the ecosystem. It is our duty to give awareness about conservation of nature and natural resources to local communities and students.

Therefore, I would like to use this property for Conservation by improving forest cover through native vegetations, improving water carrying capacity, which would improve the biodiversity in this area.

Name of the Project	:	Reforestation
Aim	:	Conservation by planting native trees
Project Area	:	Kottagudi valley Muttam road, Yellapatty
Owner	:	Senthil Kumar, Tamil Nadu
Benefits	:	Water carrying capacity & Biodiversity
Budget estimated	:	Rs. 25,000/-
Duration	:	Three months

Foot Print's Reforestation Kottagudi Valley, Kottagudi Village, Theni District Tamil Nadu

Introduction

Kottagudi is located at the south-western side of Theni district of Tamil Nadu bordering Kerala. Kottagudi is a green delight of gentle rolling hills, tea estates with panoramic views and high mountains. This idyllic tourist destination was the favored path to Kannan Devan Hills for the Tea Plantation of the erstwhile British rulers in the colonial days.

Kottagudi Aerial Ropeway - 100+ years old Transportation System



Kottagudi hills are also a rich part of world's few bio-hotspots identified so far. Not to mention hundreds of beautiful hills shoals, forest, tea, coffee plantations, introspected by valleys flowing with streams and a variety of rare and endangered wildlife makes it's a true paradise in Tamil Nadu.

Mode of Operation Foot print's Reforestation

Objective

The objective of this scheme is to Conservation by improving forest cover thorough native vegetations improving water carrying capacity which would improve biodiversity in this area.

Location	:	Kottagudi Valley, Muttam Road, Yellapatty
Ownership	:	Senthil Kumar, Tamil Nadu
Duration	:	3 months

Methods

First we will remove all exotic plants from our property and replace some native vegetation from VATTAKANAL CONSERVATION TRUST Kodaikanal and also collect plants from local forest department. We have already cleared eucalyptus trees, lantana and retain it native vegetation of the land. The roots of eucalyptus will also be uprooted. The sourced plants will be planted at the site over a period of two months voluntarily by my friends and our international and national guests.

Plant Transfers	:	10 Days
Planning	:	20 Days
Planting	:	30 days

Future activities

We will try to source tree guards to protect saplings to ensure maximum support from outside.

Budget

Sl.no.	Particulars		Amount
1	Native Plants	Forest Department & Vattakanal conservation Trust	15,000.00
2	Transportation	Kodai to Munnar	5,500.00
3	Equipments for planting		2,000.00
4	Head load	Munnar to Yellapatty	2,500.00
	GRAND TOTAL		<u>25,000.00</u>

Photograph 1: Rest house at the campsite.



Photograph 2: Before clearing invasive species (*Eucalyptus and Lantana*)



Photograph 3: After clearing the invasive species (*Eucalyptus and lantana*)



5. Setup of Nature Education Center at Yellapatty, Kottagudi Panchyat

Senthil Kumar,

Foot print, Nature Education Camp, Kottagudi Village,

Theni District, Tamil Nadu –

Dear Sir,

Tender for Nature Education Center

I have been working as a Tour Operator for 15 years in tourism industry. Having one camp site named Foot Print in Kottagudi Village of Theni District in Tamil Nadu I wish to promote my camp site as Nature Education Center.

Nature and Natural resources of our country are hereditary wealth of each Indian. Its conservation is a duty of each Indian. Kottagudi Village is becoming an important place as an eco-tourism spot because of its flora and fauna. This village is near to Palani Hills National Park, of Tamil Nadu and boarder to Pambadum Shola National Park of Kerala. In future Kottagudi Village will become destination for Eco tourism Center in Tamil Nadu. So we need to pay attention to every living things no matter small or large they are equally important in their own ways for the well being of the ecosystem. It is our duty to give awareness about conservation of nature and natural resources to local communities and students.

So I would like to use my property as Nature Education Center for the future. For initial programme I give proposal for Nature Education Camp for local communities and students. It will make people to keep environment clean and nature conservation. The following are the details for the proposal and kindly arrange assistance for the above.

Name of the Project	Nature Education Camp
Aim	Nature Conservation & Wild Life Protection
Project Area	Kottagudi Village
Location	Foot Print's Nature Education Center
Beneficiaries	Local Communities of Kottagudi& Students
Budget estimated	Rs. 26,000/-
Number of Participants	60
Duration	1 night and two days for a group
Location	Foot Print Camps, Nature Education Camp, Kottagudi Hills

Yours faithfully,

Senthil Kumar

Foot Print's Nature Education Center Kottagudi Valley, Kottagudi Village, Theni District, Tamil Nadu

Introduction

Kottagudi is located at the south-western side of Theni district of Tamil Nadu bordering Kerala. Kottagudi is a green delight of gentle rolling hills, tea estates with panoramic views and high mountains. This idyllic tourist destination was the favored path to Kannan Devan Hills for the Tea Plantation of the erstwhile British rulers in the colonial days.

Kottagudi Aerial Ropeway - 100+ years old Transportation System



Kottagudi hills are also a rich part of world's few bio-hotspots identified so far. Not to mention hundreds of beautiful hills shoals, forest, tea, coffee plantations, introspected by valleys flowing with streams and a variety of rare and endangered wildlife makes it's a true paradise in Tamil Nadu.

The geographical, environmental and social aspects of this area are habituated by various hill tribes throwing an open challenge to anyone who may be tourist, researcher, photographer but all above all in search of true adventure and discovery only. Adventure in trading unexplored areas, discovery forgotten places, used by the ancient people who have lived here and there, pre-historic places, many of them yet to be explored and especially for the present day youth.

In the recent time unemployment is a big problem for the youth of our country especially in the category of local community. Our project aim to improve the skill of self employed youth in the above said categories in tourism as their main source of bread and butter at Kottagudi village.





Objective

The objective of this scheme is to create and foster awareness about nature conservation among the locals and a spirit of risk taking cooperative team work, the capacity of ready and vital response to challenging situations of endurance. This also provides a creative and happy outlet for the abundant energy, enthusiasm and imagination of locals

Program

To standardize Eco tourism destination in Kottagudi.

Duration: 2 night & 3 days

Foot print having highly dedicated professionals trained in varies adventure and Nature activities having years of experience in the tourism industry. Safety is the first priority of Foot print. Eco tourism related activities are major area of concentration. Aim of this camp is to increase nature awareness, cleanliness among the local communities and to impart social interaction among the teen and youths and to give awareness on environment conservation through eco tourism. And we do nature camps, expeditions, adventure, wildlife tours, cycling rope activities and corporate trainings.

Budget estimated

Sl.no.	Particulars	No participants	Amount
1	Accommodation	60 x 100x 2 nights	6,000.00
2	Food	60 x 250	15,000.00
3	Honorarium	2000x2	4,000.00
4	Printing & Stationary	500	500.00
5	Others		500.00
	GRAND TOTAL		<u>27,000.00</u>

List of Project Proposals received in 2015

1. Tourist Interpretation centre at Kottagudi

Project Title: Interpretation centre for nature conservation and local livelihoods at Kottagudi

Project Description: The Kottagudi Pacnhayat is a tourist destination in the Theni district of Tamil Nadu. Kottagudi Panchayat has four villages three in the higher elevation (Middle Station, Top Station and Kolukkumlai) and two in the plains (Kottagudi and Kurangini). Kottagudi is a historically important place; its existence is associated with the epic story, Chilapatikaram. In the story, the protagonist Kannagi, makes a journey to the Cardamom hills (present day Kannan Devan Hills) via Kottagudi. A large number of tourists visit the waterfall, Sambalyar (close to the Kurangani village), during the weekends and use the old corridor to Top Station and Kolukkumlai as trekking routes.

Through an interpretation centre, the tourists will be provided with a visual guide detailing the history, fauna and flora and threats to the landscape. This would help develop tourist turn over in Kottagudi and provide genuine information to the tourists. I wish to transform my old mud hut into the interpretation centre (Image 1). This hut is made of mud and sticks, painted with a mixture of clay and cow dung. The roof is made with thatch and hay. The hut is therefore eco-friendly as all the materials used to construct it is natural. Through the interpretation center I also intend to market the local produce at Kottagudi Panchayat like cotton, honey, tea and rice. The proceeds from this sale will go to K.G.Vinayaka Ecotourism Society, of which I am a member. The residents of Kottagudi village to facilitate tourism and related livelihood options for the residents established this Ecotourism society.

Aim: Improvement of information to tourists about Kottagudi Panchayat.

Project Area: Kottagudi Village

Stakeholder: Local Community - Manikandan, 1-37, Ward-1, Kottagudi, Bodinaickanur, Theni

Benefits: Improve information to tourists and livelihood for local individuals.

Budget: Rs. 25000

Budget Details

No	Particulars	Amount in rupees
1	Painting illustrations	12000
2	Paints, Brushes and other hardware	5000
3	Printing and framing photographs	7000
4	Food expenses	1000
	Total cost	25000

Image 1. The Mud Hut where the interpretation centre is to be set up.



Image 2. Stakeholder – Manikandan's Identity Card

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Father's Name	
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2. Information board installation and waste management at Kolukkumlai

Project title: Information board installation and waste management at Kolukkumlai

Project Description: Kolukkumlai is the highest tea plantation in the world at a height of 2300m asl. The place attracts tourists for the scenic beauty of sunrise here and the view of the dstant plains of Tamil Nadu. Kolukkumalai has an old tea plantation (which is still in production) and 60 families who work in the factory. Most of the members work in the factories or they work as guides for treks to the plains and up the mountain.

As the transportation here is only possible through a 4 wheel drive vehicle or tractors, most of the plastic/paper wastes generated does not get transported for recycling of proper disposal rather get dumped onto the slopes. In order to facilitate segregation and avoid dumping of wastes in the slopes, different dustbins will be setup to collect the plastic bottles and spoons, mostly used and thrown by visiting tourists.

Towards promoting trekking and waste management in this area and increasing opportunities for the guides in the village, an information board consisting of a map with the trek route, history and biodiversity at Kolukkumala and waste disposal around the village shall be setup in a place that is most accessed by the tourists.

Aim: Promote ecologically sensitive tourism and improve livelihood opportunities of local community in Kolukkumalai

Project Area: Kolukkumlai Village

Stakeholder: Senthil Kumar, Kolukkumalai guest House, Kolukkumlai, Kottagudi, Theni

Benefits: Improve information to tourists, improve local livelihoods and waste management.

Budget: Rs. 25000

No	Particulars	Amount in rupees
1	Information board making and printing	14000
2	Dust bins	5000
3	Transportation	4000
4	Labor costs	2000
	Total cost	25000

Image 1. Stakeholder – Senthil's ID card



3. Organizing a Nature Education Camp at Kottagudi

Marimuttu, Kottagudi Village, Theni District, Tamil Nadu

Dear Sir,

Tender for Nature Education Camp

I am a resident of Kottagudi village in Theni district of Tamilnadu. I wish to promote the potential tourist areas in my village; Top Station and Kottagudi by conducting Nature Education Camps for nature enthusiast and students.

Nature and natural resources of our country are hereditary wealth of each Indian. Its conservation is a duty of each Indian. Kottagudi Village is becoming an important place as an eco-tourism spot because of its flora and fauna. This village is near to Palani Hills National Park, of Tamil Nadu and boarder to Pambadum Shola National Park of Kerala. In future Kottagudi Village will become destination for Eco tourism Center in Tamil Nadu. So we need to pay attention to every living things no matter small or large they are equally important in their own ways for the well being of the ecosystem. It is our duty to give awareness about conservation of nature and natural resources to local communities and students.

So I would like to use my knowledge and resources to promote this place for the future. For initial programme I provide a proposal for Nature Education Camp for nature enthusiasts and students. It will make people to keep environment clean and nature conservation. The following are the details for the proposal and kindly arrange assistance for the above.

Name of the Project	:	Nature Education Camp	
Aim		: Nature Conservation & Local Livelihoods	
Project Area		: Kottagudi Panchayat	
Location		: Top Station, Kottagudi and Kurangani	
Beneficiaries		: Students and nature enthusiasts	
Budget estimated		: Rs. 25,000/-	
Duration		: 1 night and two days for a group	
No: of groups		: 3 groups (2 groups at Kottagudi and Kurangini	
1 group at Top Station)			
No: of attendees	:	8 at Top Station, 8 at Kottagudi and Kurangini	

Objective

The objective of this scheme is to create and foster awareness about nature conservation among the locals and a spirit of risk taking cooperative team work, the capacity of ready and vital response to challenging situations of endurance. This also provides a creative and happy outlet for the abundant energy, enthusiasm and imagination of locals

Program

To promote Eco tourism destination in Kottagudi.

Duration: 1 night & 2 days

Eco tourism related activities are major area of concentration. Aim of this camp is to increase nature awareness, cleanliness among the tourists and to impart social interaction among the youth and to give awareness on environment conservation through eco tourism. We intend to provide 3 camps two at the villages in the foot hills; Kurangani and Kottagudi, and one at a village in the hills; Top Station. Each camp will be conducted during weekends covering a night and two days. Three teams of participants can be accommodated in this initiative, one at Top Station and the others at Kottagudi and Kurangini.

Budget estimated

Sl.no.	Particulars	Amount
1	Accommodation	4500
2	Food	8200
3	Transportation	9500
4	Local guide fee	2800
	GRAND TOTAL	<u>25000</u>

Image 1. Stakeholder- marimuttu's Identity card



4. Restoring grasslands at Top Station

Project title: Removal of exotic shrub *Lantana camara* at Top Station Viewpoint and planting of native grass

Introduction: Top Station is a small village situated at 1700m asl on the mountain top in the Kottagudi Panchayat. It has the greatest tourist inflow in the Kottagudi Panchayat, towards enjoying the view of the entire Kottagudi valley. Top Station is also historically significant from being the start point of the old ropeway system for transporting tea chests, which connected Munnar to the plains of Tamilnadu in 1902. Tourists mostly access the viewpoint at Top Station by foot through a 500 m long mud path, which comprises of the remnants of the old ropeway station functional in the 1900s. This path has abundant thickets of the non-native and invasive shrub *Lantana camara* that obstruct the landscape view and has replaced the native grasses (Image 1). These *Lantana* thickets also obstruct the remnant ropeway structures and erode them further (Image 2). It is also spreading further across the mountain slope (Image 3). This invasive plant if removed could improve the native flora and fauna at Top Station and maintain the aesthetics and historical significance of this tourism destination.

Objectives:

- Selective removal of exotic *lantana camara*.
- Introduction of native grasses in the prepared area.

Stakeholder: Local Researcher, Abhijeet P. Chundakkattil (pursuing MSc Ecology), Kaiyalakkal house, New Colony, Munnar

Methods

- A four-member team would remove the exotic species at Topstation by uprooting and burning it. (7 days)
- The team would then plant native grass species and facilitate regeneration of the grassland. (5days)

Particulars	Amount in rupees
Labour charge for 4 individuals for 12	14400
days(Rs.300 per day)	
Equipments (Bill hook machete, shears and	5000
mattocks, 2 nos each)	
Transportation and fuel	1600
Food expenses	2000
Native grass saplings	2000
Total	25000

Budget

Image 1. Lantana camara thickets on the way to the view point at Top Station.



Image 2. Lantana camara covering the old ropeway structure at Top Station.



Image 3. *Lantana camara* spreading across the slope at Top Station.



Image 4 Stakeholder – Abhijeet's ID card



5. Art installations at Kurangini – Top Station trek path

Project title: Installation of interactive pathway at Kurangani-Top Station trek path (Kottagudi valley) to improve biodiversity awareness

Project Description: Top Station is the largest tourist destination in the Kottagudi valley and occurs on the Northern boundary of the Kottagudi Panchayat in Theni, which can be accessed through motor-able roads via Munnar (Kerala) or by foot from Kurangini (Tamil Nadu). Top Station was one of the first settlements setup by the British planters in the early 1900s. There are numerous families that completely depend on the tourism. Tourists usually trek from Kurangini to Top Station up the mud path for a bird's-eyes view of the distant plains of Tamil Nadu. They are seldom offered a holistic experience that comprises of information regarding the importance of biodiversity of the region. This proposed initiative is to encourage tourists to experience the beauty of the Kottagudi valley by providing information regarding its biodiversity through an art installation. Art installations using natural materials collected shall be setup along the tourist pathway in the region. These installations will also serve as mile stones across the 5km trek route as one installation will be setup at each kilometer. This initiative will provide biodiversity conservation related awareness to tourists while promoting responsible tourism and livelihoods for the local community.

Aim: To improve biodiversity awareness trekking experience for tourists trekking through the Kurangini-Top Station route, Kottagudi Panchayat, Theni

Project Area: Top Station – Kurangini trek route

Stakeholder: Praveen M.J., Mundakkal, Kunjithanny, Idukki, Kerala

Benefits:

- Improve information to tourists about biodiversity
- Provide an understanding of the extent of the trek route to tourists
- Improve local livelihoods and awareness

Budget: Rs. 25, 000

No	Particulars	Amount in rupees
1	Art installation	20000
2	Painting materials (paint, brushes)	1500
3	Transportation to Top Station/Kurangini and back	3500
	Total cost	25000

Project reports submitted to WILD from granted tenders (2013)

1. Installation of Information Boards at Top Station

The tender for the installation of information boards was initiated on 25th September 2013. The first installment of funds towards this was received on 4th November, 2013. The amount received was utilized to buy materials for the boards, painting, and printing, and labor to make the board in defined measurements. The printing and making of the boards and poles took a month to complete and was completed in May 2014. The boards and poles were painted, the stickers stuck and poles connected before erecting it in places. The setting up process took a total of one week to finish. One board needed a back support that was made and fixed later.

One board was fixed at the border, which informs the tourists that they have entered into the Tamilnadu state specifically within the boundaries of the Theni Forest Division and Kottagudi Panchayat. A board at the Topstation-Vattavada junction, 2 km away from the initial board shows the direction to Top Station. A map of the routes and tourist places in the Kottagudi Panchayat near the Top Station view point, waste management board and a biodiversity and history board have been setup enroute to the viewpoint. The boards were erected and were cemented in to the ground for increased support. This was completed with the combined effort of the locals, volunteers and the researchers from WILD. Permission was also sought from KDHP Pvt Ltd and Mr. Sundarakumar, District Forest Officer, Tamilnadu Forest department, Theni regarding this. They welcomed the initiative and requested an official written proposal.

With the waste management board set, the tourists are expected to be more cautious on where they put the waste. The biodiversity board and the map would give the tourists a better idea of the landscape and its importance. The boards set up on the highway will lead tourists without any confusion to Top Station, inform them that they are entering the state of Tamilnadu as most of them are unaware and think it being part of Kerala.

Sl	Particulars	Amount
no		
1	Designing and printing	1,000.00
2	Painting equipments	280.00
3	Materials for Boards	15,052.00
4	Labor	8,500.00
5	Hardware for setting up boards (Metal powder)	200.00
		25,032
ТО	TAL COST	



Photo 1. The Biodiversity & History information board

Photo 2. The Top Station Direction and Waste Management information boards



Photo 3. The Top Station Board at the Tamilnadu-Kerala border



Photo 4. The Map information board detailing the routes and tourists points in the Kottagudi Panchayat



Copy of the letter sent to KDHP Pvt Ltd seeking permission to set up the Information boards.

Те, The Group Manager, Known Denny Hils Plantition (I-DUP), Chendauarri Estate From ADUM KANAGAVEL REFERENCE Associate, WLLD (NG), Combutive See Setup of sign-bounds, dust bins and waste management at Topstation Respected Sir, I am the lead co-ordination of a projecte which arises to improve the biodiversity and livelihoods of local communities in Themi and kadnikaral I have been costing in the lookaged valley and surrounding regions since the last 2 years and as a part of the project I aim to improve the eco-tourism element at Top Struction With Vespect to the , we work with the Forest Department, Local Pauchayat and local communities to do so By supporting Mr. K. Rajan Sto 8 knowing , a local at Top Station we would like to improve the existing waste annagement by the setup of dustains and sign bounds. Towards this initiation, we kindly verguest you to participate and premit us in doing so and thereby make Topstation a cleaner and greener place Youve sincerely, ARON KANAGAVEL 94++3510474 (9963430573 avun kanagand @ Jmili com
Fearlunes of Wlaste Management at Topstations! The famens Tourist destinctions Topshitian facing the wask Mangent prablem generate the wasks from the Restaurnit Ten shops Homestay, platform shops, ment shops, Found more them 10 Residented Hanses and Situated around here and they become appreximatly doe to of waste every day departs on tileason. C Biodegradable waste 10 1. Vegetable waste, food waste fronte waste, Agriculture waste 5 cattles which 2. Non-dependentle work : plastickes, bottles etc., especially Tourist worke) the all waster and deposited along the Road side Tourist View points water Source (stream) etc. Collections of wastis :-1. provide the Small moster bits out the shops or Source of waite gevented and consume thing Shend deposite the everyday at Community 2. Fix the none them By 2 Community warte Bins arend Topotetian 3. preview the world recurting and Smooth want ber arend taunist creand once. 4 Bio-unste Compost projent will Set up avoid Topstation

5. Forms the Monitoring Camonithe 6. Nature Conservations and Environment avament Campang at Topstatian 7. England the and Clenny staff. & Stackhelders & lecal Community Contentition for the waste Managent 9. Set up the Signa Beands. 10. Recipe the work and find the Market and sell the wastes (Iran, bittles, plastics

2. Removal of Invasive exotic plants in Pitchankarai, Kottagudi

Project: The project area is of 10 acres which was heavily altered by unscientific agricultural practices for the past century. Agriculture and later monoculture stands like silk cotton totally degraded the quality of the soil which eventually led to the growth of exotics, thorny scrub and unpalatable grasses. So to revive the quality of the land, an experimental 10-acre area was selected for planting indigenous species. The invasive exotic species were uprooted from this area consistently for the past one year. The result is remarkably noticeable, natural species of grasses and tree species started to grow back in this area. So we are planning to spread this to the surrounding area which will ultimately revive and bring back the natural flora and fauna.

Location: Pichankarai-Patti Odai in Bodi North Hills

Stakeholder - Individual: Siby Thomas, Pichankarai, Bodi North Hills village

Objectives:

- Eradication of invasive exotics Lantana and Chromolaena from an area of about 10 acres
- Introduction of palatable, native short-grasses in flat open areas suitable for pasture for wild grazers
- Selective removal of primary successional species such as Acacia and coarse grasses, where strong regeneration of secondary successional growth is seen
- Minor interventions for soil and water conservation
- Employment to local people in management operations

Process:

- A work team of 5 with a team leader with working knowledge of species selected the invasive exotics and manually pulled it out and destroyed the rootstock.
- The area was repeatedly checked for secondary successive growths of these species and eradicated it repeatedly as the surviving capacities of invasive exotics are very high comparing to the indigenous species.

Outcome

The invasives Lantana and Chromolena was removed. Native grasses and sedges started growing back after the rain.

Budget utilization:

Management operations incl. exotics removal:

10 man-days/acre x 10 acres = 100 man-days @ Rs.300/man-da	= Rs.30,000
Purchase of 3 mattocks and 3 bill-hook machetes:	= Rs. 4,800
TOTAL Cost	= Rs.34,800

CEPF Tender Amount= Rs 25,000

Photograph of the land after clearing *lantana* bushes



3. Propagating native trees at Yellapatty, Kottagudi Panchayat

Reforestation of camp site in Yellapatty.

The tender for reforestation at Yellapatty (three acres land) was initiated on 25th October 2014. Towards this, the initial installment of amount was received on 4th November. The land was cleared of the Eucalyptus trees and lantana. The tender amount received was utilized to buy native trees for planting in the cleared area and its transportation to the site. The tree saplings were acquired from Palni Hills Conservation Council, Kodaikanal. 110 saplings of 10 different tree species were bought and planted. The planting process took seven days for completion. Holes were dug in 2m depth, a quarter filled with cow dung (manure) and left for 2 days before planting the saplings.

The planters were from the local community in Yellapatty whose supplementary livelihood is Ecotourism. Apart from them, a group of tourists from United Kingdom also volunteered for planting the saplings. With the help of the local community and the national and international tourists who came for camping, tree guards were also set up to protect the saplings.

After a month of planting, the saplings seem to be growing properly. No chemicals or fertilizers were used. Apart from the problem of mites pest on to the saplings there is nothing else that harm them. We expect the plants to be fully grown in 6-8 years.

Slno	Particulars	Details	Amount		
1	Transportation of plants	From Kodaikanal to yellapatty	7250		
2	Purchase of plants	From PHCC	9000		
3	Labour charge	Digging pits and planting (15* 450)	6750		
4	Fuel	From Kodaikanal	2000		
	TOTAL COST	25000			

Photo 1. Planting undertaken at Yellapatty



Photo 2. One of the planted saplings.



Photo 3. Plants being watered by a local at Yellapatty.



Project reports submitted to WILD from granted tenders (2015)

1. Tourist Interpretation centre at Kottagudi

The tender for the installation of information boards was initiated on 24th November 2014. Firstly alterations were made to the mud hut. One of the windows was blocked while another was set properly. A fresh coating of mud and cow dung was applied inside the house and a shelf was also created in one corner. The mud hut was divided to represent the following themes: Kannagi and the historical relevance of Kottagudi, setup of tea plantation during the British imperial way and the ropeway transportation system, local biodiversity, importance of the Kottagudi valley and the local livelihood. While the Kannagi theme was illustrated using natural colors, the rest were represented as photographs. The biodiversity theme whereas also had an illustration of the Indian coral tree that connected all the biodiversity photographs. The photographs were requested from various nature photographers in south India. Kalyan Varma, Sunil Sachi, Renjith Hadlee, N A Naseer and Dhanuparan supported the initiative by providing their photographs and we are extremely thankful for their contribution. The printing and framing of these photographs and the information boards was undertaken at Ernakulam. A group of artists: Mr. Praveen, Hari Prasad and Kiran Jacob illustrated the center and helped setup the photographs in the mud house. The information boards were stuck and erected on fallen fuelwood pieces. This not only included providing information to the various themes in the interpretation centre but also for each photograph that was setup. Two direction boards were also erected, one at the main road (Munthal - Kurangini roadway) while another was erected at the Kottagudi Government School. Since there was little sunlight in the centre, focus light were setup within the centre. At the entrance, a small board to detail the initiative was set while at the exit point, a note acknowledging the contribution of the various people involvd was setup. All the information boards carried the logos of the contributing organizations. The centre was officially opened by the District Forest Officer of Theni Forest Division and the Wildlife Warden of Meghamalai Wildlife Sanctuary on 15th October 2015.

No	Particulars	Amount in rupees
1	Painting illustrations	12500
2	Paints, Brushes and other hardware	1059
3	Printing and framing photographs	2400
4	Food expenses	2278
5	Fuel	500
6	Stationary	33
7	Lights	5200
8	Sticker	1000
9	Carpentry & Electric Charges	500
	Total cost	25470

Photographs used for interpretation centre.

- History
 - 1. Rope way 1
 - 2. Ropeway 2
 - 3. Old mono-rail
- Landscape
 - 4. Dry evergreen scrub
 - 5. Shola-grasslands
- Flora/Fauna at Kurangini/Kottagudi
 - 6. Gaur
 - 7. White-bellied drongo,
 - 8. Jerdon's Chloropsis
 - 9. Little scaly bellied green woodpecker
 - 10. Black-headed Oriole
- Flora/Fauna at Top Station & Middle station
 - 11. Black and Orange Flycatcher
 - 12. Nilgiri Wood pigeon
 - 13. Malabar Giant Squirrel
 - 14. Nilgiri Marten
 - 15. Nilgiri langur

(Painting of Indian coral tree in the background)

- Landuse
 - 16. Paddy fields
 - 17. Silkcotton & Mango plantations
 - 18. Coffee
 - 19. Mudhuvakudi
- Importance
 - 20. Kottagudi hills
 - 21. Grassland
 - 22. Water

Image 1. Section detailing the Kannagi story and the historical importance of Kottagudi



Image 2. Section detailing the historical significance in terms of tea plantations and rope-way transportation system in the region



Image 3. The biodiversity section



Image 4. Section detailing the importance of the Kottagudi valley and the local livelihoods



Image 5. The traditional motifs drawn around the interpretation centre



Image 6. Inauguration of the interpretation centre and setup of direction boards by the DFO: Theni Forest Division and Wildlife Warden: Meghamalai Wildlife Sanctuary



2. Information board installation and waste management at Kolukkumlai

The money received was used to buy metal sheets and pipes to build the information boards. After calculating the realistic costs, we realized that we either had to choose between installing information boards or setting up dustbins. We chose setting up information boards over that of setting up dustbins since there were numerous dustbins already at the estate. Three information boards were constructed (6*4 ft = 1 no, 2*2 ft = 2 nos) for the purpose of disseminating information regarding the biodiversity at Kolukkulamalai and the organic factory. This information was highlighted since tourists largely did not have an understanding of the biodiversity of the region and the significance of the manner in which tea was cultivated and process by the organic factory. The other two boards detailed information that requested tourists to dispose waste responsibly in the dustbins provided in the estate or carry it along with them. The radials for the boards were printed at Ernakulam and transported to Ernakulam. The information boards were made at Munnar and along with the radials were transported to Kolukkumala via jeep. An additional laborer was hired to help fix the boards at Kolukkumalai. The poles of the boards were stuck 2 feet under the ground so as to provide additional support since the region is known to face heavy winds and rain.

No	Items	Cost in INR
1	Information board making	11000
2	Information board prinitng	5000
3	Transportation	4000
4	Labor costs	5000
	Total cost	25000

Actual Budget

Image 1. Information boards (2*2 ft = 2 no) requesting tourists to dispose waste responsibly



3. Art installations at Kurangini – Top Station trek path

The tender for the installation of information boards was initiated on 24th September 2015. This project was also co-financed by the Theni Forest Division. We selected from the local biodiversity 15 different species belonging to mammals, birds, reptiles, amphibians, invertebrates and flora. The amount received was utilized to buy materials to design and make the relief sculptures and natural pillars (cement, sand, white cement and iron mesh), food and accommodation at Top Station and Central Station and labour for constructing the pillars. A mason, four daily-wage laborers, and ponies (for transporation) were employed to build the pillars. Each pillar was of a separate design and size composed of rocks and branches that were collected with support from the Forest Department. The rocks were set in place with cement and were supported by setting the pillars at least 1 ft from within the soil. A total of 15 pillars were constructed, however two were completely dismantled by unknown local individuals. Ten other pillars were also slightly damaged and we re-did these pillars. We therefore completed 13 pillars in total each placed at a distance of roughly 500m to one another across the Topstation-Kurangini pathway. The areas were they were setup belonged to Theni Forest Division. A small description of each of the art installation along with the estimated distance from Top Station / Kurangini was also mentioned so as to provide trekkers and tourists information regarding the local biodiversity of the Kottagudi Valley.

No	Particulars	Cost (Rs)
1	Art installation	20000
2	Hardware	1500
3	Food & Accommodation	1000
3	Transportation to Top Station/Kurangini and back	2500
	Total cost	25000

Image 1. Nilgiri langur



Image 2. Blue mormon



Image 3. Oriental white-eye



Image 4. Giant wood spider







Image 6. Malabar giant squirrel



Image 7. Nilgiri flycatcher



Image 8. Indian coral tree inflorescence



Image 9. Large scaled pit viper



Image 10. Black and orange flycatcher



Image 11. Sambar deer



Image 12. Malabar Whistling Thrush



Image 13. Ghat tree frog (*Ghatixalus asterops*)



1.4. Report of a feasibility study on sustainable funding mechanisms for conservation reserve management

Funding to support and continue the project activities after the end of CEPF funding was constantly explored with local stakeholders. Towards this we approached the Theni Forest Division, Theni Government, Tourism Department, Pudhu-Vazhlu Thittam, Kottagudi Panchyat and KDHP Pvt Ltd. We identified the Theni Forest Division as a potential funding mechanism for conservation reserve management and KDHP Pvt Ltd for small-scale support towards biodiversity conservation in the region.

The Theni Forest Department is a major funding source and has recently received Rs 98,00,000/- from the Tourism. Culture and Religious Endowments Department of the Tamil Nadu Forest Department to initiate responsible ecotourism at Topstation. We have been collaborating and providing them with the information/proposals that has led to them receiving the funding for ecotourism that were the resultant of the surveys through CEPF financial support. They also received funding from the Tamil Nadu Forest Department towards shola forest regeneration and related research in Theni. We supported them by undertaking some of this research and also provided them with previous documentation that were the results of CEPF financial support. The Theni Forest Division also co-financed one of the tenders (Setup of art installations at Top Station – Kuragini trek path) on the CEPF supported project. The Theni Forest Division could be a suitable sustainable funding body for the conservation reserve management. This is also since the moment the trek path is active and managed by the Forest Department, funds will be generated which would be used towards reserve management and conducting ecotourism in the region.

The Kannan Devan Hill Plantations Pvt Ltd are interested in restoration within the degraded portions of their property including Top Station (Kottagudi Panchayat). We are currently in discussion with them towards this. They have co-financed one of the tenders (Setup of information boards at Top Station) undertaken during the CEPF project and have supported our waste management initiatives in their land at Top Station. They have also adopted our idea of converting a part of their land at Top Station into a historical site that would highlight the ropeway transportation system. This along with a sales outlet at Top Station would generate economy that would also support responsible ecotourism in the region.

Finally, small funding and expertise support from two enterprises namely Kestrel Adventures Pvt Ltd and The Daily Wild were also identified who have supported minor financial support towards printing brochures and branding and packaging for non-timber forest produce, providing contacts to support responsible ecotourism in the region, designing outreach materials and providing support with transportation and labour. **Component 2:** Enhancing the capacity of indigenous NTFP collectors and their market chain of sustainably collected produce in Theni and Kodaikanal Forest Division of Tamil Nadu

2.1. Report summarizing the meetings with the indigenous communities, list of individuals with respect to produce collected, seasonal variation of supply and prices including that of transportation charges and other incidentals incurred by the collectors

2.2. A workshop report including the workshop material, list of individuals in the collectors network and discussions regarding the collection protocols and their practicality

2.3. A report of market surveys detailing the prices, their distribution and stability of NTFP produce

2.4. A report on the value addition initiatives undertaken in order to improve the returns from NTFP produce and its success

2.5. A report on the development of the market chain through the supply of value-added produce by the collectors network to identified markets

2.1. Report summarizing the meetings with indigenous communities, list of individuals with respect to produce collected and seasonal variation of supply and prices

A total of 30 settlements (15 in Theni and 15 in Kodaikanal) were identified based on the information from Forest Department officials and indigenous communities. In-depth surveys were undertaken at 18 settlements (eight in Theni and ten in Kodaikanal). This involved two types of surveys: focus group discussions and questionnaire surveys. A total of 95 non-timber forest products were used for sustenance (n=46), trade (n=16) or both (n=33). *Phoenix humilis*, Honey, *Phyllanthus emblica*, *Terminalia chebula*, Lichens, *Smilax aspera*, *Valli kelangu (Dioscorea* sp), *Mulluvalli kelangu (Dioscorea* sp), *Molakuthakalikeerai, Indankeerai, theembulikeerai, Paluvikeerai* and *Karanthakeerai* were collected more frequently amongst the communities.

Report summarizing the meetings with indigenous communities

Forests, considered as suppliers of timber are also sources of several other minor produces of varied uses like medicine, food, fuel etc (Prasad, 2006, Chopra, 1997). These Minor Forest Products currently known as Non-Timber Forest Products (NTFPs) or Non-Wood Forest Products (NWFP's) came into prominence in the last two decade due to preference for natural product based medicines, cosmetics, dyes and chemicals, pesticides, food, fiber etc (Prasad, 2006). NTFPs are defined by Food and Agriculture organization (FAO) of the United Nations as "the market or subsistence goods for human and industrial consumption derived from renewable forest resources and biomass" (FAO, 1991). It includes all biological materials except timber extracted for human use like food, beverages, forage, fuel and medicine; animals, birds and fishes for food, fur, feathers, and their products such as honey, lac and silk and; the services of land for conservation and recreation (Narendran *et. al.*, 2001, Johnson *et. al.*, 2013).

According to the World Bank report (2001), about 60 million indigenous people and 350 million near forest resident communities are almost wholly dependent on forests to varying degrees for subsistence and income. Their collection is favored by the indigenous communities as they are freely available and few initial requirements in terms of skills and capital. But due to their low returns this has now become a last resort option for the individuals (Angelsen and Wunder, 2003). Free access to forest produce is vital for the economic survival of social groups like hunter-gatherers, shifting cultivators and pastoral nomads (Gadgil and Guha, 1994). For some, NTFP collection serves as a vital safety net in times of hardship, since they can live with lower amount of cash than if they had to buy from the market what they could obtain for free from the forests (Shaanker et. al., 2004, Delang, 2006). It is estimated that several thousand of species of forest products are collected worldwide. Two-thirds of the tree species of the Amazonian forests are harvested by surrounding indigenous communities for livelihood (Hiremath, 2014). In central Brazil, the flower stalks and stems of Syngonanthus nitens (Family: Eriocaulaceae) is used to make handicrafts providing approximately US\$1,800/artisan per year (Schmidt et. al., 2007). In the humid forest zones of Cameroon, Dacryodes edulis, Irvingia spp., Cola acuminate, Ricinodendra heudelotii and Gnetum spp., were the NTFP's marketed amounting to US\$1.75 million (Ndoye et. al., 1998, Peach and Lassoie, 2010). NTFP collection gained attention in the late 1980's and early 1990's in accordance with increasing global concern about environmental issues especially deforestation (Belcher et. al., 2005). With a view to ensure participation of the rural population in the conservation and utilization of the forest resources the National forest policy (1988) and Joint Forest Management (1990) resolutions were passed (Mahapatra et. al., 2005). Later to safeguard the rights of the forest dwelling and forest dependent communities the Forest Rights Act was enacted in the year 2006 (Bose and Nine, 2010). India has more than 500 tribal communities and the tribal population consists of 8.2% of the total population of the country of which Tamil Nadu contributes 0.77% of the total tribal population with 36 tribes (Ayyanar, 2013). According to the Census of India (2001), Theni and Dindigul districts of Tamil Nadu

have 0.25% and 0.9% ST population respectively of which Paliyars constitute a large number along with one Mudhuvar community (Jeyaprakash *et. al.*, 2011).

The Paliyar inhabit the slopes of hill ranges (Ashambhu, Varsunadu, Anamalai-Palni, Elamalai) that form a boundary between the Tamil Nadu and Kerala states (Iyer 1939, Gardner 1982). They are relatively lesser in number when compared to the other tribal groups of Tamil Nadu (Ayyanar *et. al.*, 2006, Ayyanar *et. al.*, 2010). The Paliyar indulge in seasonal labor in agricultural lands like ploughing, weeding, harvesting and herding cattle. Apart from this, the Paliyars are also involved in the collection and sale of NTFPs like Gooseberries, Lichen and Dwarf fan palm (*Phoenix humilis*) (Kanagavel & Pandya 2013). Being hunter-gatherers, they completely depend on forests (Gardner 2000) and the basis of their subsistence foraging is extraction of wild *Dioscorea* yams and honey collection (Gardner, 1993). *et. al.*,

The Paliyars along the Theni district depend on plant species for economic (making mats, nets, ropes), sustenance (food, shelter, medicine) and, cultural purposes (worship, beliefs, to ward off evil spirits) (Ayyanar *et. al.*, 2010). Over 500 plants have been recorded as being significantly used by the community along the Palni hills for food, dyes, tanning, drugs, narcotics, drinks, housing instruments, weapons, fibers and medicines (Kennedy, 2006). The knowledge about medicinal plants is restricted to a few members of both the Paliyar and Mudhuvar community called *Vaidyar* (Jeyaprakash *et. al.*, 2011). There are two types of healers within the community-herbalists who diagnose the disease based on the symptoms and treat the patients using plant resources and ritualists who believe diseases are caused by specific spirits (Ayyanar *et. al.*, 2008). Leaves are found to be the most preferred plant part for medicines followed by roots, tubers, stems, fruits, whole plant parts, latex, seeds, root bark/stem bark and flowers. The method of preparation can be classified as: plant parts prepared as a paste, juice extracted from fresh plant parts, plant parts used to prepare decoction with water and powder obtained from fresh or dried material (Jeyaprakash *et. al.*, 2011).

Research papers pertaining to the medicinal knowledge of the Paliyar communities have been published while the same is not very much available for NTFP's collection and sale. Through this study the NTFP's collected by the Paliyar communities of Theni and Kodaikanal for household consumption and sale was documented with an aim to understand the extent of dependence on Forest products for sustenance and the income derived from the same. This would further lead to understanding the major NTFP's in trade and steps for increasing their market value through various value addition processes could be determined which would in return improve the livelihood of the communities.

Methodology

The survey was undertaken over a period of nine months (July 2013 to March 2014) amongst the Paliyar communities at Theni and Kodaikanal Forest Divisions in the state of Tamil Nadu.

The Theni Forest Division (10° 37' N, 77° 20 E), consists of Theni, Bodi, Cumbum, Gudalur and Highwavy divisions (Bhaskaran *et. al.*, 2006) with tropical evergreen forests, dry and moist deciduous forests, and scrub forests (Ignacimuthu *et. al.*, 2008). The population is mainly dependent on cultivation of cotton, maize, rice, sugarcane, mango and grapes (Kanagavel *et. al.*, 2013).

Kodaikanal (10° 14' 0" N, 77° 29' 0" E), known as "the princess" of hill stations, is located in the Dindigul district, on a plateau above the southern escarpment of the upper Palni Hills at 2,133 m ASL with subtropical climate (Sivasankaran *et. al.*, 2011) which provides for a wide variety of flora and fauna (Kumaraguru *et. al.*, 2010). The people of this region are dependent on tourism and farming for their sustenance (Kanagavel *et. al.*, 2013).

A total of 30 settlements (15 in Theni and 15 in Kodaikanal) were identified based on the information from Forest Department officials and indigenous communities. These settlements were initially visited to develop an interaction with the community and understand whether their livelihood involved NTFP collection. Based on this, three settlements in Theni (Chellam colony, Munthal, Solaiyur) and five settlements in Kodaikanal (Kaduguthadi, Moolayar, Bharathianna nagar, Sembramkulam, Colonymedu) were omitted from the in-depth surveys as they were not involved in NTFP collection and depended mostly on work in the surrounding estates. Additionally, four settlements in Theni (Karumparai, Pattur, Kuruvanguli, and Arasaradi) and one in Kodaikanal (Seth colony) were not included in the survey due to accessibility issues.

In-depth surveys were undertaken at 18 settlements (eight in Theni and ten in Kodaikanal). This involved two types of surveys. Firstly, focus group discussions were held at each settlement to understand the community level dependence, harvest and use of NTFPs and the problems faced in the process of collection. A community mapping exercise was also undertaken during every focus group discussion to gain an insight about the location of the settlements, surrounding plantations and forests and their resources including NTFPs. Each focus group consisted of four to nine individuals who collected NTFPs and always included the *moopan* i.e. the leader of the settlement. The focus group discussion along with the mapping exercise took from 40 to 90 minutes to complete.

Then, questionnaire surveys were undertaken on an individual basis to comprehend the nature of NTFPs collected, their trade and income at the individual level. The questionnaire was administered face-to-face in the local language (Tamil) after the consent of the individual. The sampling strategy was opportunistic with the criteria that the respondent was above the age of

18 and collected NTFPs and only one such individual from each household was interviewed. The time taken to complete a questionnaire varied from 10 to 30 minutes.

Results

Focus group discussions in the 18 settlements yielded a list of 95 products used for sustenance (n=46), trade (n=16) or both (n=33). *Phoenix humilis*, Honey, *Phyllanthus emblica*, *Terminalia chebula*, Lichens, *Smilax aspera*, *Valli kelangu (Dioscorea sp)*, *Mulluvalli kelangu (Dioscorea sp)*, *Molakuthakalikeerai, Indankeerai, theembulikeerai, Paluvikeerai* and *Karanthakeerai* were collected more frequently amongst the communities. (Refer table document).

Questionnaires were conducted with 131 respondents, 39 from Theni and the rest from Dindigul. Majority of the respondents were males (n=87) and in the age group of 18 to 40 years (n=81). Of the entire study sample, only 33 respondents had some formal education and earned an average monthly income of Rs. 5083.00 ± 367.62 . Most respondents (n=106), earned their livelihood through daily wage labour, cultivation and NTFP collection. Only 21 respondents completely depended on NTFP for income.

Majority of the respondents (n=69) stated that their livelihood could be improved if there was unity amongst the individuals and if they could get higher rate by marketing the products themselves.

A total of 156 NTFPs were collected of which, 66 were sold and while the rest were used only for subsistence (Appendix A1). Honey, *Phyllanthus emblica*, *Terminalia chebula*, *Phoenix humilis* and Lichens were the most traded NTFPs, while *Valli kelangu* (*Dioscorea* sp), *Mulluvalli kelangu* (*Dioscorea* sp) and *Molagathakali keerai* were the most used for subsistence. Few of the NTFPs traded were also used in small quantities for household purposes.

Honey was collected mostly during April to July by 86 respondents. Small quantities (1.31lts \pm 0.24) were used for household consumption while 39.09 lt \pm 9.8 was traded. *Phyllanthus emblica* and *Terminalia chebula* were collected from November to March by 90 and 81 respondents respectively. 0.71kg \pm 0.18 of *Phyllanthus emblica* and 0.35 kg \pm 0.15 of *Terminalia chebula* were used for household consumption while 313.3 kg \pm 162.73 and 694.5 kg \pm 339.37 respectively were traded. *Phoenix humilis* was collected throughout the year by 68 respondents. 1.24 bunches \pm 0.10 were used for household consumption while 939.09 bunches \pm 340.78 was traded. Lichens were also harvested throughout the year by 63 respondents. They were not used for household consumption and the entire harvest (82.83 kg \pm 30.15) was traded. All the top traded NTFPs except honey did not have a stable harvest and faced steep declines in 2013 (Fig. 3).

				Quantity					
No	Product	Season	Collection	per year	Parts used	Harvest Method	Household use	Market use	Ν
		All year,	Men and women						
		except	(3 settlements only			Cut the grass using sickle			
1	Phoenix humilis	monsoon	men collect)	4.1	Grass	above the thorny region	Broom, roofing	Broom	16
						The hive is smoked to drive			
		January-				the bees away. The honey-			
		July and				filled combs are cut into a		Consumption,	
		October-				vessel. It is then squeezed	Consumption,	medicine,	
2	Honey	November	Men	3.5	Honey, wax	and filtered to extract honey.	medicine	candle	18
			Men climb the						
			trees and women			Shaking or cutting the fruit-			
		November-	collect the fruits			laden branches and	Consumption,	Consumption,	
3	Phyllanthus emblica	May	from the ground	3.2	Fruit	collecting the fallen fruits	pickle	pickle, juice	18
								Tooth	
			Men climb the					powder,	
			trees and the					mixed with	
			women collect the			shaking or cutting the fruit-		cement,	
		November-	fruits from the			laden branches and	Toothpowder,	leather	
4	Terminalia chebula	May	ground	2.7	Fruit	collecting the fallen fruits	medicine	industry	17
		All year	men and women				Not used (except		
		except	(2 settlements only			The lichen is scraped using a	in 1 village as a		
5	Lichens	summer	men collect)	3.6	Lichen	knife from rocks	spice)	Spice	9
								Sherbath,	
								coffee	
						The soil is dug upto 1-2 ft		powder,	
6	Smilax aspera	All year	Men and women	2	Root	and the tuber is collected	Coffee, medicine	medicine	7
		November-							
		July,							
	Valli kelangu	preferably	Men and women			The soil is dug upto 3-15 ft			
7	(Dioscorea sp)	monsoon	collect as required	4.2	Tuber	and the tuber is collected	Consumption	Not sold	13
		November-							
		July,							
	Mulluvalli kelangu	preferably	Men and women			The soil is dug upto 5-10 ft			
8	(Dioscorea sp)	monsoon	collect as required	3.5	Tuber	and the tuber is collected	Consumption	Not sold	7
		All year,	Men and women			Young, tender leaves are			
9	Molakuthakalikeerai	preferably	collect as required	4	Leaf	plucked	Consumption	Not sold	6

Table 1: Details of non-timber forest products collected

				1					
		after							
		monsoon							
		All year,							
		preferably				X7 . 1 1			
10		after	Men and women	4.0	T C	Young, tender leaves are		NY . 11	-
10	Indankeerai	monsoon	collect as required	4.8	Leaf	plucked	Consumption	Not sold	7
		All year,							
		preferably				**			
1.1		after	Men and women	2.0	T C	Young, tender leaves are		NY . 11	_
11	Theembulikeerai	monsoon	collect as required	3.8	Leaf	plucked	Consumption	Not sold	5
		All year,							
		preferably							
1.0		after	Men and women		x	Young, tender leaves are		XX . 11	_
12	Paluvikeerai	monsoon	collect as required	4.5	Leaf	plucked	Consumption	Not sold	5
		All year,							
		preferably							
1.0	.	after	Men and women		T	Young, tender leaves are		XX . 11	-
13	Karanthakeerai	monsoon	collect as required	4.5	Leaf	plucked	Consumption	Not sold	6
		All year,						Medicinal,	
		preferably	Men and Women		~		Fruits are	use not	
	N 1 1 1	November-	(only men collect		Climber,	The climbers are cut, fruits	consumed by 1	known to 2	-
14	Paepadalakodi	April	in two settlement)	1.4	Fruit	are plucked	settlement	settlement	5
15	Muringakola	All year	Men and women	2	Leaf	Leafy twigs plucked	Consumption	Medicinal	1
							Consumption,		
16	Sundakai	May	Men	1	Fruit	Fruits plucked	medicine (piles)	Not sold	1
		March-				The soil is dug and tuber	Consumption,		
17	Karnaikelangu	April	Men	1	Tuber	collected	medicine (piles)	Not sold	2
						Fruits plucked by climbing			
18	Aathumanga	August	Men	3	Fruit	the tree	Consumption	Pickle	1
							Medicinal		
			Men and Women			The soil is dug and tuber	(stomach ache,		
19	Kerudaveru	All year	collect as required	5	Root	collected	removes poison)	Not sold	3
							Consumption,		
							medicine		
			Men and Women				(accelerates wound		
20	Kaliammanchedi	All year	collect as required	5	Leaf	Leaves plucked	healing)	Not sold	1
		March-				Fruits collected and skin is			
21	Kaluthuvettankai	April	Men and Women	5	Fruit peel	peeled off	Not used	Glue	1

		March-				Bark is scraped off using			
22	Karumpurvalipattai	April	Men and Women	5	Bark	knife	Not used	Glue	1
		March-		_		Pod is plucked and fruit			
23	Tellika	April	Men and Women	5	Fruit	separated	Not used	Medicinal	1
				_	5.1	Bark is scraped off and	Hair treatment,	5.11	
24	Thalainaaru	All year	Men and Women	5	Bark	fibres collected	reduces body heat	Don't know	1
		All year							
25	7 17	preferably		-	D 1	Thorns removed and bark		D	2
25	Indhampatta	March	Men and Women	5	Bark	scraped-off	Not used	Dye	3
						Entire plant is suit lassing a	Consumption	Medicinal	
26	The section of a start of the	A 11	Men and Women	2	E-11 aloat	Entire plant is cut, leaving a	(fruit), medicinal	(diabetes,	2
26	Thattupootukodi	All year	Men and women	2	Full plant	bit to regrow	(cold)	cold), Dye Medicinal	2
27	Daanouatti	A 11 yraan	Men and Women	5	Empit loof	Leaves and fruits plucked	Consumption	(diabetes)	1
27	Paeporatti	All year	Women collect as	5	Fruit, leaf	Leaves and fruits plucked	Consumption	(diabetes)	1
28	Ponnankannikeerai	All year	required	5	Leaf	Leaves plucked	Consumption	Not sold	1
20	Ponnankannikeerai	All year	Men and women	5	Leai		Consumption	Not sold	1
29	Peranda	All year	collect as required	5	Leaf	Leaves plucked	Consumption	Not sold	1
29	reranaa	All year	Men and women	5	Leai		Consumption	Not solu	1
30	Kovankeerai	November	collect as required	5	Leaf	Leaves plucked	Consumption	Not sold	1
50	Kovunkeerui	November	Men and women	5	Ltai		Consumption	Not sold	1
31	Mayilkeerai	All year	collect as required	5	Leaf	Leaves plucked	Consumption	Not sold	1
51	maytikeerai		Men and women	5	Leai		Consumption	Ttot sold	
32	Thandankeerai	All year	collect as required	5	Leaf	Leaves plucked	Consumption	Not sold	2
52	1 nanaanneerai	7 m your	Men and women	5	Leui		Consumption	Ttot sold	
33	Mullukeerai	All year	collect as required	5	Leaf	Leaves plucked	Consumption	Not sold	1
55			Men and women	5	Young		Consumption	1 tot sold	
34	Kodupakeerai	Monsoon	collect as required	5	shoots	Young shoots plucked	Consumption	Not sold	1
		August-	Men and women				F		
35	Kelakai	October	collect as required	5	Ripe fruit	Ripe fruits plucked	Consumption	Consumption	2
			^		*		^	1	
36	Thadichampazham	July	Men and Women	5	Fruit	Fruits plucked	Consumption	Not sold	1
37	Kambukaalu	All year	Men and Women	5	Leaf	Leaves cut using knife	Roofing	Not sold	1
							Medicinal (snake		
38	Naagathalipullu	January	Men and Women	5	Grass	uprooted using knife	bite)	Not sold	1
								Use not	
39	Mayilkaalpullu	All year	Men and Women	1	Grass	uprooted using knife	Not used	known	1
						The soil is dug and root			
40	Kodivelli	All year	Men and Women	3	Root	collected	Not used	Medicinal	1

		November-				Fruits are plucked. A cloth is tied on to the hand to prevent the thorns from		Use not	
41	Nerinjimullu	March	Women	3	Fruit	pricking	Not used	known	1
42	Valampirikai	January- April	Men and women collect as required (in 1 settlement only women collect)	5	Seeds	Seeds are plucked	Preparation of oil to improve hair growth (not used in 1 settlement)	Use not known	2
43	Sambrani	All year	Men and Women	3	Latex	An incission is made on the bark. The dripping latex is collected using a cup placed below the incission or by spreading a platic sheet below the tree	Worship	Sambrani	2
			Men and women						
44	Minnakola	All year	collect as required	5	Leaf	Leaves plucked	Consumption	Not sold	1
		All year, preferably	Men (in one settlement men and women			The soil is dug upto 1 - 20ft	Consumption (Pickle), Not sold	Consumption, Medicinal, Not sold in one	
45	Mahalikelangu	January	collect)	3.6	Tuber	and the tuber is collected	in one settlement	settlement	3
46	Paechankelangu	All year, preferably January	Men and Women	3	Fruit, Infloresence	Fruits plucked, infloresence cut using knife	Consumption, Not used in one settlement	Infloresence is used for decoration	2
47	Panamkelangu	All year	Men and Women	5	Tuber, infloresence	Soil is dug and tubers collected, infloresence are cut using knife	Fruits for consumption, infloresence for decoration	Infloresence is used for decoration, fruits not sold	1
48	Paavankeerai	All year, preferably November	Men and women collect as required	5	Leaf, flower	Leaves and flowers plucked	Consumption	Not sold	2
49	Thottachinungi	All year	Elder Men	5	Leaflets	Each Leaflet is plucked individualy	Medicinal (Love potion)	Not sold	1
50	Manjumootakola	All year	Elder Men	5	Full plant	Entire plant is uprooted	Worship (believed to bring good rains)	Not sold	1
51	Gunduthangikelangu	All year	Elder Men	5	Fruits	Fruits plucked	Medicine (Maternity)	Not sold	1

							believed to bring		
							peace (people who		
							come towards us		
							with the intention		
							of fighting would		
							smile and go their		
						Tubers (usually above the	way without any		
52	Mogarasikelangu	All year	Elder Men	5	Tuber	ground) are plucked	fight)	Not sold	1
52	mogarasiketanga	7 m you		5	1 4001	ground) are pracked	Medicine	1101 5014	1
54	Kathimadakikola	All year	Elder Men	5	Leaf	Leaves plucked	(Maternity)	Not sold	1
54	Киттициккоти	All year		5	Leai		used as a love	1101 3010	1
							potion (a small		
							quantity of the leaf		
							is mixed with		
							savouries and		
							given to the		
							opposite sex. This		
							would make them		
							fall in love with		
54	Athaporati	All year	Elder Men	5	Leaf	Leaves plucked	the person giving it to them)	Not sold	1
54	Аширогии	Ali yeai		5	LCai			Medicinal	1
		All year,						(Snake bite),	
		preferably				entire plant is uprooted and	Medicinal (Snake	use not	
		October-				cut into smaller pieces and	bite), not used in 2	known to one	
55	Siriyanangai	December	Men and Women	3.6	Full plant	dried	settlements	settlement	3
55	Siriyanangai	December		5.0	Tun pian	Pods are collected, dried,	settiements	Use not	5
56	Kaanapayaru	January	Men and Women	4	Seeds	opened and seeds removed	Not used	known	2
50	Киинириуиги	January		4	Secus	opened and seeds removed	Not used	Sharbath, Use	2
						The soil is dug upto 1ft and		not known to	
57	Sarnathiveru	All year	Men and Women	2	Root	the roots are collected	Not used	2 settlements	3
51	Sumuniveru			2	KOUL			Consumption	5
								(sold in case	
								coleection is	
58	Paluvakai	Monsoon	Men and Women	1	Fruit	Fruits plucked	Consumption	more)	1
				-		^	*	ĺ ĺ	
59	Marulkai	All year	Men and Women	5	Leaf	Leaves plucked	Worship	Not sold	1
		March-	Mar Cara						
<i>c</i> 0		April,	Men, (in one	2	En 14	Fruits plucked using a hook	C	C	
60	Navaapalam	June-July	settlement men	3	Fruit	or by climbing the tree	Consumption	Consumption	2

			and women						
			collect)						
			Men, (in one						
			settlement men						
		March,	and women			Fruits plucked using a hook			
61	Kotlapazham	August	collect)	3	Fruit	or by climbing the tree	Consumption	Not sold	2
					Young				
					shoots,	Young shoots and flowers		Use not	
62	Eechankeerai	September	Men and Women	5	flower	plucked	Consumption	known	1
			Men and Women				Consumption,		
			(only men collect				medicinal (chest		
63	Eechankelangu	All year	in one settlement)	5	Fruit	Fruits are chopped	infection)	Not sold	2
						The soil is dug and the roots			
64	Kaatumanjal	January	Men and Women	5	Root	are collected	Medicinal	Not sold	1
								Use not	
65	Koonthapazham	All year	Men and Women	5	Fruit	Fruits are plucked	Decoration	known	1
66	Moongilarasi	January	Men and Women	5	Seeds	Seeds are plucked	Consumption	Consumption	1
						Fruits are plucked, Bark is		Use not	
67	Paeinjakai	January	Men and Women	5	Fruit, bark	scraped off using knife	Not used	known	2
		All year,	Women, (in one						
		preferably	settlement men						
		January-	and women					Use not	
68	Gundumuthu	April	collect)	5	Seeds	Seeds are plucked	Not used	known	3
								Medicinal,	
		January-	Men and Women					use not	
		February,	(only men collect					known to 2	
69	Paalkola	October	in one settlement)	3	Leaf	Leaves plucked	Not used	settlements	4
						Leaves are plucked, Bark is			
70	Lavangapattai	All year	Men	5	Leaf, bark	scraped off using knife	Not used	Masala	1
						Fruits are plucked using a		Use not	
71	Kalipaaku	February	Men	1	Fruit	hook	Not used	known	1
		All year,							
		preferably	Men and Women						
72	Kuppakeerai	monsoon	collect as required	1	Leaf	Leaves are plucked	Consumption	Not sold	3
								Use not	
73	Edavala	All year	Men and Women	5	Leaf	Leaves are plucked	Not used	known	1
			Men and Women	_	— 1	The soil is dug and the			
74	Chenakelangu	January	collect as required	5	Tuber	tubers are collected	Consumption	Not sold	1

							Medicinal (Hair	Use not	
75	Seevakai	January	Men and Women	2	Fruit	Fallen fruits are picked up	treatment)	known	1
		December-				Bark is scraped and latex	Medicinal	Use not	
76	Vengakai	January	Men and Women	5	Latex	collected	(swelling, wounds)	known	1
				No harvest for the past			Consumption,		
77	Kaatumelagu	January	Men and Women	10 yrs	Fruit	Ripe fruits plucked	medicine (cold)	Masala	1
11	Kaatametaga	January		10 918	Tult	Ripe fruits plucked	Medicine (body	Iviasaia	
						Entire plant is uprooted and	pain, post-partum		
78	Sitiratai	All year	Men and Women	3	Root	roots separated	care)	Medicinal	1
70	Siiraiai			5	Root			Use not	
79	Aavarampoo	January	Men and Women	1	Flower	Flowers are plucked	Not used	known	1
80	Sembagapoo	April-May	Men and Women	3	Flower	Inflorescence are plucked	Decoration	Decoration	1
		January-				*			
		July,	Men and Women						
		October-	(only men collect						
81	Kaatumalli	November	in one settlement)	3	Inflorescence	Inflorescence are plucked	Consumption	Not sold	3
			Men and Women						
82	Naayurinjikeerai	Monsoon	collect as required	5	Leaf	Leaves are plucked	Consumption	Not sold	1
			Men and Women						
83	Poovalikeerai	Monsoon	collect as required	5	Leaf	Leaves are plucked	Consumption	Not sold	1
			Men and Women	_					
84	Thanikodapankeerai	Monsoon	collect as required	5	Leaf	Leaves are plucked	Consumption	Not sold	1
85	Kumutikeerai	Monsoon	Women	5	Leaf	Leaves are plucked	Consumption	Not sold	1
			Men and Women		Young				
86	Chembankeerai	All year	collect as required	5	shoots	Young shoots are plucked	Consumption	Not sold	1
		January-				The soil is dug upto 5ft and			
87	Vethlavallikelangu	April	Men and Women	2	Tuber	the tubers are collected	Consumption	Not sold	2
							Considered as	Not sold in	
							poisonous and	one	
							hence not	settlement.	
		December-					consumed in one	Sold as	
		January,					settlement. Used	poison in	
88	Kannuvallikelangu	March-	Men and Women	5	Tuber	The soil is dug and the tubers are collected	for consumption in another settlement	another settlement	2
00	Kannuvanikelangu	April January-		3	1 ubei	The soil is dug upto 20m		settiement	2
89	Sevallikelangu	October	Men and Women	2	Tuber	and the tubers are collected	Consumption	Not sold	2
09	sevunikeungu			2	10001	The soil is dug and the		1101 3010	
90	Puchikadikelangu	All year	Men and Women	5	Tuber	tubers are collected	Consumption	Not sold	1

						The soil is dug upto 2 - 3ft			
91	Vayathuvalikelangu	All year	Men and Women	5	Tuber	and the tubers are collected	Consumption	Not sold	1
								Medicinal,	
		All year,						use not	
		preferably				The soil is dug upto 1 - 3ft		known to 1	
92	Bhoomisakkarakelangu	January	Men and Women	1.3	Tuber	and the tubers are collected	Not used	settlement	3
						Entire plant is uprooted, leaf			
93	Theeparnelli	All year	Women	5	Leaf, root	and root plucked	Medicinal	Not sold	1
								Medicinal,	
								use not	
						Bark is scraped off using		known to 1	
94	Pulukupattai	All year	Men and Women	1	Bark	knife	Not used	settlement	2
					Young				
		January-			shoots,	Young shoots and flowers			
95	Kaatumocha	February	Men and Women	4	flower	plucked	Consumption	Not sold	2



Figure 1. Monthly harvest of major non-timber forest produce

Figure 2. Harvest of major non-timber forest produce from 2011-2013


Focus group questionnaire

- 1. Total No. of families in the settlement:
- 2. Total No. of individuals in the settlement:
- 3. Initiate the mapping exercise
 - Settlement (including local areas around and Village/State boundaries (if present))
 - Fields (plantations)
 - Water source
 - Forest (local names)
- 4. What are the major sources of income for the people of this settlement?
- 5. What about NTFP collection?
 - How many people from the community are engaged in NTFP collection?
- 6. Time spent on NTFP collection during other activities like grazing (open grazing or herding), firewood collection
- 7. What are the NTFP's that you collect? (*impetus on species that are not sold*)
 - Quantity of each NTFP collected

(Mark the areas of NTFP type and area of availability on the map up to 10 with the most volume)

- season
- harvest techniques/customs/practices followed before setting out to collect the NTFP's
- Parts used and uses of the NTFP's collected? Household use/sale
- How do you go to collect the NTFP's and medicinal plants?
- NTFP's collected before but not available in the forests now
- 8. What are the problems you face?
 - Issues regarding NTFP collection and sale
 - Problems with Forest officials and the Panchayat
 - Permission from any authority to collect NTFPs
- 9. Do you get any fair price for NTFP's?
 - Different prices in different markets
 - Lower rates compared to other collectors?
 - Value addition chain? (Price difference between raw and processed product)

Details of NTFP collected

		Local Name season Mer	Collected	<i>Quantity available</i> in the forest <i>per</i> <i>year</i>					
No	Local Name		Individually/ In a group; Men /Women /Family/Families/Other	1 (very low)	2 (low)	3 (medium)	4 (high)	5 (very high)	Part (s) used

		Use (s)				
No	Harvest techniques/ practices/customs followed	household	Sale			

NTFP questionnaire

Name:	Date:
Age:	Gender:
Settlement Name & Area:	Education:

Income: Daily / Monthly / Annual (circle)

- 1. How do you earn your income? (mention all the jobs that you do)
- 2. Use the tabulated column for collecting detailed information on NTFPs and medicinal plants
- 3. How do you think livelihood supported by NTFP collection can be improved?

3 a. Detailed Information of the different NTFPs and medicinal plants collected

No	Local name	Frequency of harvest (no of times per year)	Quar	Quantity collected (in kg/Lt)		
110		requency of harvest (no of times per year)	2011	2012	2013	

3b. Detailed information of the different NTFPs and medicinal plants collected

	Quantity of product utilized for (in kg/Lt)		Price sold at	Sold to		
No			(in Rupees)	Whom	Where	
	Household	Market				

2.2. A workshop report including the workshop material, list of individuals in the collectors network and discussions regarding the collection protocols and their practicality

This product/deliverable was not achieved during the project period. During the 2nd half of the project, value-addition workshops were planned at 2 settlements - one each at Theni and Kodaikanal, especially in relation to harvest of honey. However, during the time when the workshop was to be conducted, indigenous communities stated a lack of demand for forest produce and additional pressures from the Forest Department due to which collection has reduced vastly. In such conditions, they felt a workshop was not necessary. They suggested that the workshop could be re-organised during the upcoming summer season towards honey. However, due to restrictions from the creation of Kodaikanal Wildlife Sanctuary, many more communities stopped collecting NTFPs across the range. The demand for NTFPs also reduced vastly at Theni and Kodaikanal due to which there was little interest among local communities. Due to these reasons, the workshops were not conduct.

2.3. A report of market surveys detailing the prices, their distribution and stability of NTFP produce

Market surveys were undertaken based on the information gained from the questionnaire surveys to understand the market dynamics and trade of NTFPs collected by the indigenous communities. Questionnaire surveys were conducted with the owners at the NTFP market in Madurai (2 dealers), Bodi (2 dealers), Andipatty (2 dealers), Kumily and Kamakapatty. The information was collected through a questionnaire that was administered face-to-face which lasted between 60 to 120 minutes in the local languages (Tamil and Malayalam).

The NTFPs collected by the indigenous communities were sold to the nearby merchants who then sold it to the wholesale markets. The traders were all males, above the age of 40 years and had undergone formal education except one. Three of the respondents were graduates and were in the NTFP industry for a span of three years to four decades

A total of 178 NTFPs were traded by the nine dealers surveyed at Bodi, Andipatti, Kumily, Madurai and Kamakapatti. On comparison, the interviewed indigenous communities collected only 34 of these for trade and five for sustenance. The NTFP collectors directly brought the products to these dealers, except two small scale dealers who sourced their products from the wholesale dealers at Madurai and were paid immediately after delivery. Transport of the products to other bigger markets was the only additional expense faced by the dealers. The dealers, except one, stated that they sourced some of their products (n=50) from the surrounding indigenous communities, while the others were sourced from the wholesale market at Madurai who in turn received their products from middlemen. The outlet at Kumily received their products from the surrounding indigenous settlements in Kerala and had stopped trading with the communities from Tamil Nadu.

The respondents stated that the purchase rate of the product varied depending on season and availability and this had an influence on the selling price. The smaller shops at Bodi and Andipatti sold their products to the locals in small quantities, while the outlet in Kumily operated with the tourists. The dealer at Madurai sold the products to pharmaceutical companies and traditional practitioners.. Products like *Avuri elai, Nilavahai, Thaatupootukodi, Pulichankelangu, Sarnathiveru* were also exported.

One of the respondents stated an increase in NTFP dealers leading to competition. Improper harvest and drying techniques, storage of products in plastic sacs by the collectors were also noted to be a cause of decrease in quantity of the products sold by the dealers. The established shops required a license and tin number to market their products as stated by the respondents, while the small scale dealers did not resort to any such practices.

No.	NTFP's sold	Area	Purchase price (Rs/Kg)	Selling price (Rs/kg)	Sourced from Indigenous Communities of Theni and Kodaikanal
1.	Aala vidai	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
2.	Aaliarasi	Bodi	Rate varies	Depends on rate of purchase	No
3.	Aavarailai	Andipatti-1, Madurai-1, Madurai-2	8 (Andipatti-1), 15 (Madurai- 1), Rate varies (Madurai-2)	10 (Andipatti-1), 20 (Madurai-1); Depends on rate of purchase (Madurai-2)	Yes (Andipatti-1, Madurai-1) No (Madurai- 2)
4.	Aavaram poo	Andipatti-1, Bodi, Madurai-2	15 (Andipatti-1), Price varies (Bodi, Madurai-2)	18 (Andipatti-1), depends on purchase price (Bodi, Madurai-2)	Yes (Andipatti-1), No (Bodi, Madurai-2)
5.	Aeralingi	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
6.	Ahasakirudan kelangu	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
7.	Ahil	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
8.	Akraakara	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
9.	Akroot	Bodi, Andipatti-2	Rate varies (Bodi, Andipatti- 2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
10.	Amkrakelangu	Bodi, Andipatti-2	Rate varies (Bodi, Andipatti- 2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
11.	Arasam vidai	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
12.	Athimathiram	Bodi, Andipatti-2	Rate varies (Bodi), 150 (Andipatti-2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
13.	Avurielai	Madurai-1	35	40	Yes
14.	Badam	Bodi, Andipatti-2	Rate varies (Bodi, Andipatti- 2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
15.	Badampisin	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
16.	Bhoomisakkarak elangu	Andipatti-1, Bodi	30 (Andipatti-1), Price varies (Bodi)	35 (Andipatti-1), Depands on purchase price (Bodi)	Yes(Andipatti-1), No (Bodi)
17.	Black pepper	Kumily, Bodi	520 (Kumily), Price varies (Bodi)	550 (Andipatti-1), Depends on purchase price (Bodi)	No (Kumily, Bodi)
18.	Carboarasi	Bodi, Andipatti-2	Rate varies (Bodi); 60 (Andipatti-2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)

Table 2. List of NTFPs and medicinal plants sold by merchants at markets with details of purchase and selling price and the involvement of indigenous communities of Theni and Kodaikanal

19.	Chalamisti	Bodi	Rate varies	Depends on rate of purchase	No
20.	Charaparipu	Bodi	Rate varies	Depends on rate of purchase	No
21.	Cheenikarakallu	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
22.	Chembarathielai	Madurai-1	25	40	Yes
23.	Chembarathipoo	Madurai-1	80	90	Yes
24.	Chitagathipoo	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
25.	Chitratai	Bodi, Andipatti-2	Rate varies (Bodi, Andipatti- 2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
26.	Chukku	Bodi, Andipatti-2	Rate varies (Bodi, Andipatti- 2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
27.	Clove	Kumily	1150	1400	No
28.	Deshavaram	Bodi, Andipatti-2	Rate varies (Bodi), 600 (Andipatti-2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
29.	Elanthampazham	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
30.	Erukalampoo	Andipatti-1	25	35	Yes
31.	Ettikottai	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
32.	Garudakodi	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
33.	Ghee	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
34.	Honey	Kumily, Andipatti-2, Madurai-2	250 (Kumily); Rate varies (Andipatti-2, Madurai-2)	300 (Kumily); Sell in small quantities for Rs.5-10 (Andipatti-2); Depends on rate of purchase (Madurai-2)	No (Kumily, Andipatti-2, Madurai-2)
35.	Honey wax	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
36.	Ilapali kelangu	Bodi	Rate varies	Depends on rate of purchase	No
37.	Ilupam poo	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
38.	Indhuppu	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
39.	Injampattai	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
40.	Inthampattai	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
41.	Ischoolarasi	Bodi, Andipatti-2	Rate varies (Bodi, Andipatti- 2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
42.	Jaathikai	Bodi, Andipatti-2, Madurai-2	Rate varies (Bodi, Andipatti-2, Madurai-2)	Depends on rate of purchase (Bodi, Madurai-2); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2, Madurai-2)
43.	Jaathipatri	Bodi, Madurai-2	Rate varies (Bodi, Madurai-2)	Depends on rate of purchase (Bodi, Madurai-2)	No ((Bodi, Madurai-2)
44.	Kaasikatti	Bodi	Rate varies	Depends on rate of purchase	No

45.	Kaatujeerakam	Bodi	Rate varies	Depends on rate of purchase	No
46.	Kaatuthulasi	Andipatti-1, Madurai-2	35 (Andipatti-1), rate varies (Madurai-2)	45 (Andipatti-1); Depends on rate of purchase (Madurai-2)	Yes (Andipatti-1); No (Madurai-2)
47.	Kaavikallu	Bodi, Andipatti-2	Rate varies (Bodi, Andipatti- 2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
48.	Kadukai	Bodi, Madurai-1, Madurai-2	Rate varies (Bodi, Madurai-2), 12 (Madurai-1)	Depends on rate of purchase (Bodi, Madurai-2), 15 (Madurai-1)	No (Bodi, Maduari-2), Yes (Madurai-1)
49.	Kadukapoovu	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
50.	Kandankathri	Andipatti-1, Madurai-1, Madurai-2	50 (Andipatti-1), 25 (Madurai- 1), Rate varies (Madurai-2)	60 (Andipatti-1), 30 (Madurai-1); Depends on rate of purchase (Madurai-2)	Yes (Andipatti-1, Madurai-1), No (Madurai- 2)
51.	Kannupulla chedi	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
52.	Karinjeerakam	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
53.	Karisalankanni	Madurai-1	12	15	Yes
54.	Kariuppu	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
55.	Kariyapagalam	Bodi	Rate varies	Depends on rate of purchase	No
56.	Karpatti	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
57.	Karupu kaanapayaru	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
58.	Karuvala pisin	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
59.	Kasturimanjal	Bodi, Andipatti-2	Rate varies (Bodi); 120 (Andipatti-2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
60.	Keelarnelli	Andipatti-1, Madurai-1	35 (Andipatti-1), 25 (Madurai- 1)	40 (Andipatti-1), 30 (Madurai-1)	Yes (Andipatti-1, Madurai-1)
61.	Kilachikai	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
62.	Kodiveli	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
63.	Kolakupattai	Bodi	Rate varies	Depends on rate of purchase	No
64.	Kovaichedi	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
65.	Kovaipazham	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
66.	Kozhikalpullu	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
67.	Kuhaneerpodi	Andipatti-2	40	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
68.	Kulamapattai	Madurai-1	35	40	Yes
69.	Kumtikai	Bodi	Rate varies	Depends on rate of purchase	No
70.	Kungliyam	Kumily, Bodi,	200 (Kumily), Price varies	250 (Kumily), Depends on purchase rate	No (Kumily, Bodi,

		Madurai-1, Andipatti-2	(Bodi, andipatti-2), 125 (Madurai-1)	(Bodi), 160 (Madurai-1), Sell in small quantities for Rs.5-10 (Andipatti-2)	Andipatti-2), Yes (Madurai-1)
71.	Kuppameni	Madurai-1	15	18	Yes
72.	Lavangapisisn	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
73.	Maachakai	Bodi, Andipatti-2	Rate varies (Bodi, Andipatti- 2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
74.	Magilampoo	Bodi, Andipatti-2	Rate varies (Bodi, Andipatti- 2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
75.	Mahalikelangu	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
76.	Malaivembu	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
77.	Manjagathi	Andipatti-1, Madurai-2	15 (Andiaptti-1), Rate varies (Madurai-2)	17 (Andipatti-1), Depends on rate of purchase (Madurai-2)	Yes (Andipatti-1), No (Madurai-2)
78.	Maramanjal	Andipatti-2	80	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
79.	Marikolathu	Madurai-1	25	30	Yes
80.	Maruthanpattai	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
81.	Maruvoo	Madurai-1	10	15	Yes
82.	Mayilkaalpullu	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
83.	Melagu	Andipatti-2, Madurai-2	Rate varies (Andipatti-1, Madurai-2)	Sell in small quantities for Rs.5-10 (Andipatti-2), Depends on purchase price (Madurai-2)	No (Andipatti-2, Madurai-2)
84.	Mevarnelli	Andipatti-1, Madurai-1	35 (Andipatti-1), 12 (Madurai- 1)	40 (Andipatti-1), 15 (Madurai-1)	Yes (Andipatti-1, Madurai-1)
85.	Modakaruthan keerai	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
86.	Moonthikottai	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
87.	Mudakathan	Madurai-1, Madurai-2	15 (Madurai-1); Rate varies (Madurai-2)	18 (Madurai-1), Depends on purchase price (Madurai-2)	Yes (Madurai-1); No (Madurai-2)
88.	Mungil arisi	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
89.	Mungil kuchi	Madurai-1	25	30	Yes
90.	Muringa elai	Andipatti-1	40	50	Yes
91.	Muringa pisin	Andipatti-2, Madurai-2	Rate varies (Andipatti-2, Madurai-2)	Sell in small quantities for Rs.5-10 (Andipatti-2);), Depends on rate of purchase (Madurai-2)	No (Andipatti-2, Madurai- 2)
92.	Muringa vidai	Andipatti-1, Andipatti- 2, Madurai-2	120 (Andipatti-1); Rate varies (Andipatti-2, Madurai-2)	150 (Andipatti-1); Sell in small quantities for Rs.5-10 (Andipatti-2), Depends on rate of purchase (Madurai-2)	Yes (Andipatti-1); No (Andipatti-2, Madurai-2)
93.	Murukan vidai	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No

94.	Musumusukai	Madurai-1, Madurai-2	20 (Madurai-1); Rate varies (Madurai-2)	25 (Madurai-1), Depends on purchase price (Madurai-2)	Yes (Madurai-1); No (Madurai-2)
95.	Naayuruvi	Madurai-1	15	20	Yes
96.	Nannarivaeru	Andipatti-1, Bodi	250 (Andipatti-1), Price varies (Bodi)	300 (Andipatti-1), Depends on purchase price (Bodi)	Yes (Andipatti-1), No (Bodi)
97.	Narthankai	Madurai-1, Madurai-2	45 (Madurai-1); Rate varies (Madurai-2)	55 (Madurai-1), Depends on purchase price (Madurai-2)	Yes (Madurai-1); No (Madurai-2)
98.	Nayampepadaku	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
99.	Nayikadugu	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
100.	Neeradimuthu	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
101.	Neermullivedhai	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
102.	Nellikai	Bodi, Madurai-1, Madurai-2	Rate varies (Bodi, Madurai-2), 14 (Madurai-1)	Depends on rate of purchase (Bodi, Madurai-2), 25 (Madurai-1)	No (Bodi, Madurai-2), Yes (Madurai-1)
103.	Nellivethal	Andipatti-2	35	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
104.	Nerinjimullu	Andipatti-1	60	70	Yes
105.	Neyikottankai	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
106.	Nilavaahai	Madurai-1	12	14	Yes
107.	Nilavembu	Madurai-1	35	40	Yes
108.	Olankelangu	Bodi, Andipatti-2	Rate varies (Bodi), 350 (Andipatti-2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
109.	Oomam	Bodi, Andipatti-2	Rate varies (Bodi, Andipatti- 2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
110.	Paalmethukankel angu	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
111.	Papadam	Andipatti-1	90	100	Yes
112.	Pappali poo	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
113.	Pappaliela	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
114.	Parangipattai	Bodi	Rate varies	Depends on rate of purchase	No
115.	Parangishakkai	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
116.	Parpadapul	Madurai-1, Madurai-2	60 (Madurai-1), 120 (Madurai-2)	70 (Madurai-1), Depends on purchase price (Madurai-2)	Yes (Madurai-1), No (Madurai-2)
117.	Peramboo	Madurai-1	25	30	Yes
118.	Peranda	Andipatti-1, Madurai-1	16 (Andipatti-1), 15 (Madurai-	20 (Andipatti-1), 20 (Madurai-1)	Yes (Andipatti-1,

			1)		Madurai-1)
119.	Perarathai	Madurai-1	35	40	Yes
120.	Perinjeerakam	Bodi	Rate varies	Depends on rate of purchase	No
121.	Pista	Bodi, Andipatti-2	Rate varies (Bodi, Andipatti- 2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
122.	Pisukupattai	Madurai-1	55	60	Yes
123.	Poonakalivethai	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
124.	Porakelangu	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
125.	Pothuppu	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
126.	Pulichankelangu	Madurai-1	45	50	Yes
127.	Rosebud	Bodi, Madurai-1, Andipatti-2	Rate varies (Bodi, Andipatti- 2), 60 (Madurai-1)	Depends on rate of purchase (Bodi), 70 (Madurai-1), Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, andipatti-2), Yes (Madurai-1)
128.	Saaranai vaeru	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
129.	Sangu elai	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
130.	Saranthi vaeru	Andipatti-1	30	35	Yes
131.	Seenthil kodi	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
132.	Seevakai	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
133.	Sekapu	Andipatti-1, Madurai-2	80 (Andipatti-1); Rate varies	85 (Andipatti-1); Depends on rate of	Yes (Andipatti-1), No
	gundumuthu elai		(Madurai-2)	purchase (Madurai-2)	(Madurai-2)
134.	Shalakuppai	Bodi, Andipatti-2	Rate varies (Bodi, Andipatti- 2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
135.	Shalashakku	Bodi	Rate varies	Depends on rate of purchase	No
136.	Shapshakarai	Bodi	Rate varies	Depends on rate of purchase	No
137.	Sheenthil podi	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
138.	Shenbagapoo	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
139.	Sirukurinji	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
140.	Thaen kai	Madurai-1	250	350	Yes
141.	Tipli	Bodi, Andipatti-2	Rate varies (Bodi), 600 (Andipatti-2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
142.	Thalasuruli kodi	Andipatti-1	35	35	Yes
143.	Thalasuruli vaeru	Andipatti-1, Madurai-2	45 (Andiaptti-1), Rate varies (Madurai-2)	60 (Andipatti-1), Depends on rate of purchase (Madurai-2)	Yes (Andipatti-1), No (Madurai-2)
144.	Thaneervittan kelangu	Bodi	Rate varies	Depends on rate of purchase	No

145.	Thanikai	Bodi, Madurai-1,	Rate varies (Bodi, Madurai-2),	Depends on rate of purchase (Bodi,	No (Bodi, Maduari-2), Yes
146	701 4 4 1 1	Maduari-2	8 (Madurai-1)	Maduari-2), 10 (Madurai-1)	(Madurai-1)
146.	Thatuputukodi	Madurai-1	35	45	Yes
147.	Theethankottai	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
148.	Theraiviapattai	Madurai-1, Madurai-2	45 (Madurai-1); Rate varies (Madurai-2)	50 (Madurai-1); Depends on purchase price (Madurai-2)	Yes (Madurai-1), No (Madurai-2)
149.	Theta	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
150.	Thirunetru pachila	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
151.	Thoothuvalai	Madurai-1, Madurai-2	45 (Madurai-1); Rate varies (Madurai-2)	48 (Madurai-1); Depends on purchase price (Madurai-2)	Yes (Madurai-1), No (Madurai-2)
152.	Tottachinungi	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
153.	Tuttielai	Madurai-1, Madurai-2	15 (Madurai-1); Rate varies (Madurai-2)	20 (Madurai-1); Depends on purchase price (Madurai-2)	Yes (Madurai-1), No (Madurai-2)
154.	Usilamelai	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
155.	Vaadamadakki elai	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
156.	Vaahaipattai	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
157.	Vaalathandu	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
158.	Vaalmulagu	Bodi, Andipatti-2	Rate varies (Bodi, Andipatti- 2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
159.	Vasambu	Bodi	Rate varies	Depends on rate of purchase	No
160.	Vellakungliyum	Bodi, Andipatti-2	Rate varies (Bodi, Andipatti- 2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
161.	Vellamulagu	Bodi, Andipatti-2	Rate varies (Bodi, Andipatti- 2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2); Depends on rate of purchase (Madurai-2)	No (Bodi, Andipatti-2, Madurai-2)
162.	Vellarugu	Madurai-1, Andipatti-2, Madurai-2	70 (Madurai-1), Rate vries (Andipatti-2, Madurai-2)	100 (Madurai-1); Sell in small quantities for Rs.5-10 (Andipatti-2)	Yes (Madurai-1); No (Andipatti-2)
163.	Vembadampattai	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Andipatti-2)
164.	Vengapattai	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
165.	Venkadugu	Bodi, Andipatti-2	Rate varies (Bodi, Andipatti- 2)		
166.	Vetrivaeru	Bodi, Andipatti-2	Rate varies (Bodi), 80 (Andipatti-2)	Depends on rate of purchase (Bodi); Sell in small quantities for Rs.5-10 (Andipatti-2)	No (Bodi, Andipatti-2)
167.	Vilamchivaeru	Bodi, Andipatti-2	Rate varies (Bodi), 80	Depends on rate of purchase (Bodi); Sell in	No (Bodi, Andipatti-2)

			(Andipatti-2)	small quantities for Rs.5-10 (Andipatti-2)	
168.	Vilampazham	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
169.	Vilva pazham	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
170.	Vishnukranthi	Madurai-2	Rate varies (Madurai-2)	Depends on rate of purchase (Madurai-2)	No
171.	Yettivedhai	Andipatti-2	Rate varies	Sell in small quantities for Rs.5-10	No (Andipatti-2)
				(Andipatti-2)	

Markets: Bodi = Kaaveriappan Naatumarunthu Kadai, Andipatti-1 = Aravind Mera Herbals, Andipatti-2 = Sami podi kadai, Madurai-1 = CMP herbs, Madurai-2 = C M Subbaiah Nadar firm, Kumily = shops in kumily

2.4. A report on the value addition initiatives undertaken in order to improve the returns from NTFP produce and its success

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2.5. A report on the development of the market chain through the supply of value-added produce by the collectors network to identified markets

Honey was chosen as the non-timber forest product for value addition. The Daily Wild supported the designing and printing of labels, procuring of glass bottles and helped with setting up the niche consumer market especially at Hyderabad, Thiruvananthapuram and Kochi. The communities received a larger rate than the existing market rate and also received a profit on each bottle sold. Meetings towards value addition were undertaken but communities showed a lack of interest towards it due to lack of market demand, pressures from the forest department and consequential alternative livelihoods. One community at Kodaikanal expressed interest towards packaging and marketing the produce by themselves. However, due to restrictions from the creation of Kodaikanal Wildlife Sanctuary, communities largely stopped collecting NTFPs across the range. The demand for NTFPs also reduced at Theni and Kodaikanal due to which there was little interest among local communities. During the second season, the prices for honey quoted by the indigenous collectors was very high due to which the consumers from the 1st year were unwilling to buy the produce. Due to this, the sales could not be continued.

Potential list of NTFPs that can be value-added

	Non-timber Forest Product	Use	Place of collection
1	Honey	Used for general consumption and also as medicine for cold, cough and throat infections	All settlements
2	Bee wax	candles	Melaparavu, Vadagaraparai, Valagiri, Patialkadu, Korangombu, Karuvelampatty,
3	Nannali veru	Mixed with coffee, sherbath	Velaparkovil, Raasimalai colony, Ethakovil, Sarakadu, Vilangulam, Melaparavu
4	Biryani leaf	spice	Karuvelanpatty (Mr. Rasan)
5	Vetri veru	Skin care	Ethakovil (Mr. Pichai, collects for own use)
6	Seevakai	Hair care	Paliyangudi (Mr. Velayan), Korangombu
7	Coffee*	Roasted beans	Korangombu, Karuvelampatty, Sembrankulam, Patialkadu, Vadagaraparai, Valagiri, Kombaikadu, Vilangulam

Specific status of honey towards potential for value addition

Settlement	1 st Review	2 nd Review
Paliyangudi	Rs. 800/lt	Not ripe yet.15 more days.
Muduvakudi	Ordered 20 litres. Depending on the availability, rates will be fixed.	Not reachable
Vellimalai	Switched off	Not reachable
Velapparkoil	Will go to collect in Varsunadu after pongal. 1 bottle is priced at Rs. 300. Sold at the temple.	Switched off
Vadagaraparai	Kurinji poo honey. Will be coffee colored.	Not reachable
Valagiri	Rate Rs 500 per litre.	Honey not yet ripe. Another 10-20 days.
Kombaikadu	Call by May. Rate: 300	Not receiving
Savarikadu	Not reachable	Forest fire and no rains. Honey is not available.
Kadamandrevu	Not reachable	Switched off
Indra Colony	Not reachable	Not receiving
Raasimalai	Malathaen 400 Perunthaen 600	Not receiving
Serakadu	Declined offer due to high rates	
Melaparavu	Rate Rs. 600	All have started going for other workrespondent did not seem interested. Nannari not available. Only sarnathi is being collected now

Vilangulam	Harvest from May. 300/lt (malathaen). Have asked for 20 litres	Honey has not ripened yet. Another 10 days harvest will begin. Have told everybody in the settlement. Will call as soon as honey comes
Korangombu	Collection from May 1 st . Rates will be fixed then. Ordered 20 lts.	After 10 day
Kuranvanguli	Not reachable	Switched off
Karumparai	Not reachable	Switched off
Pattur	Not reachable	Switched off
Sembramkulam	Not reachable	No rains. Will take in 10 days.
Patialkadu	No rains yet. Will inform once honey comes.	Not reachable
Karuvelanpatty	Honey will come by may. nannari and biryani leaf, will collect and call	Honey-not yet. No rains, nannari and biryani started to take. Election work going on. Will collect and call after that
Tamaraikulam	Call in may. Now honey is not formed. Will try to take before and then call. If in small quantities then it may not be possible to harvest.	Switched off

Markets for the honey have been found at Cochin, Munnar, Thiruvananthapuram and Hyderabad mainly at organic based stores or through known contacts and colleagues

Component 3: Enhancing stakeholder capacity in eco-tourism and its promotion to enhance the livelihoods of local communities in Theni and Kodaikanal Forest Division of Tamil Nadu

3.1. Report detailing the orientation and training workshops for guides and list of local guides and home-stays run by the local community

3.2. A report of discussions with the Forest Department on eco-tourism including the certification of local guides and local community-run home stays.

3.3. Outreach materials regarding the site information promoting biodiversity-friendly action/behavior on trek routes and local outreach centers.

3.4. Report on the discussions with the forest department and panchayats regarding waste management and procurement and setup of bins

3.5. Promotional material for the conservation-friendly tourism and a report on the success of this tourism

3.1. Report detailing the orientation and training workshops for guides and list of local guides and home-stays run by the local community

In total two training workshops were organized with the local guides of the Kottagudi Panchayat to build their capacity in conducting ecotourism. The first workshop aimed to understand the status of eco-guides in the region, problems they faced, undertaking treks with domestic and international tourists and the need for them to organize into a group. The second workshop aimed to build their capacity in conversing to tourists regarding the history of the Kottagudi valley, local bird diversity of the region and effectively manage waste.

Numerous meetings and joint discussions were held with the local guides towards to help them towards the formation of a registered group. We first approached the Forest Department towards this to form an Eco-development Committee since this model is active in numerous parts of the State. The Forest Department however declined and stated that this was not possible. We then approached the Pudhu Vazhlvu Thittam Department of the Theni Government towards their formation of a Self-help group. This Department suggested that a Common Livelihoods Group would be more applicable for this purpose. We then organized a meeting with the co-ordinator of the program from the Department. However due to the absence of minimum number of individuals for such a meeting, the co-ordinator stated that this could not be considered as an official meeting and requested us to organize a meeting with the requisite number. We then resolved to start the initiative at one settlement instead of trying to get every settlement involved into tourism at one time. Since there was an option of adding new individuals after setting up the group, we chose Top Station, which had the most tourism. We organised two meetings here and took back the results to the Department. The main co-ordinator had changed and they stated that this project was colossal in size and could not be pursued. We therefore decided to declare the group as a Society or an Association and met with an Auditor towards getting the documentation ready for such a group. We collected member details for the entire group and the members also elected their representatives. When we were collecting this information, the new DFO, Theni stated that he was setting up an Eco-tourism Monitoring Committee (ETMC) towards managing the ecotourism in the Kottagudi valley. After discussions with the DFO, we then decided to pursue the ETMC for the entire valley with support from the Forest Department. We provided the DFO, Theni with all the necessary information we had collected and also the membership information we had collected. The ETMC has been setup by the Theni Forest Division and will be active once the Forest Department begins to manage the tourism in the Kottagudi valley with the support of local communities and landowners.

A list of the local guides: tourism providers was compiled including the services they provided.

Ecotourism Workshop 1: 16-17th July 2013

Kotagudi Panchayat – Theni



Aims of the Workshop

- To build a network of guides in the Kottagudi Panchayat which is part of the proposed Theni Conservation Reserve.
- To explain the concept of ecotourism in order to reduce the tourism footprint on the biodiversity rich area.
- To identify tourism related problems and opportunities.
- To provide basic training and formulate ethics and regulations to improve the trek experience for tourists.
- To introduce to the Forest Department the guides that undertake tourism in the area.
- To identify the potential of forming an association of guides and other tourism service providers in Kottagudi Panchayat.
- To improve waste management practices to be followed by the guides.

Workshop Schedule

Day 1 (16/7/2013)

Morning session (10:30 am to 1:00pm)

- Introduction (Base-line questionnaire survey).
- Delivering Eco-Experiences: Improving the tourist experience through the integration of biodiversity, culture and folklore.
- Understanding the tourist: Understanding where their discomfort lies and measures to be taken to provide assurance to them. How to be resourceful? Learn first aid and suggest proper clothing for tourists while trekking.
- Interactive session to identify the current problems and the changes required.
- Income generation and SHGs(Self Help Groups).

Afternoon session (2.00pm to 4:30pm)

- How can the Government help? Forest department officials providing information and rules to be followed during treks and with tourists. Discussion with the Forest Department about legal provisions for setting up entry stations, self help groups and ID cards for the guides and home stays, schemes available through the FD.
- Concur on Ethics: Fix ethics amongst the guides including the monetary element. Finalize a constant rate and sticking to it regardless of the tourist type. Work against littering the area. Avoid night treks regarding to safety and law.
- Documentary screening and discussion.
- Facilitating tourism: Establishing clean and desirable standards in lodging, food and sustainability in energy.
- Waste management: Management of plastic and other wastes, recycling waste.

Day 2 (17/7/2013)

Morning session (7:00am to 9:30am)

- Trek
- Summary and conclusion
- Feedback forms

Delivering eco-experiences:

- Ecotourism is to protect the natural ecosystem and the cultural heritage.
- The motto is to make the trek informational and lively.

- Show and tell, this is better than just telling anything at all. Need to know when to talk and allow the groups to listen to nature.
- Participants should be encouraged to participate and interact with the environment. (Like spotting a bird or other animal and encouraging the tourists to watch them or take photographs of it and should know when to halt if tourists show unacceptable behavior).
- Be aware of the flora and fauna (their regional names, folklores regarding it, local heritage).
- Make them understand the importance of the ecosystem and the dependence of local people. (Like about the pipeline to Bodi so as to make sure they do not throw litter into the water).
- Clear, true and concise explanations of trekking route, area, resting time and place, overnight stay and food arrangements.
- Thorough knowledge of what should be done before, during and after the trek.
- Suggest backpack luggage (only essentials, strictly not any valuables) to be carried during the trek.
- Ask the tourists to wear proper light colored clothing, proper shoes, and hiking stick, sunhat, raincoat and other regular medicines that they use.

Understanding the tourists: what do they expect? How do we provide their needs?

- Ensuring security and safety of the tourist.
- Be sensitive to the clients, help, and encourage them.
- Be aware and equipped on how to act during emergencies (During instances of communal riots or tension do not hesitate to ask the tourists not to visit).
- Carry first aid kit with at least painkillers and band-aid and be aware of preliminary first aid practices.
- Essential commodities and equipments like torch, knife, tents, water.
- Set a pace based on the slowest member of the group, offer enough opportunities to rest, drink and eat snacks but without littering the forest. (Drive the tourist to be responsible).

Interactive session to identify the current problems and the changes required.

Concur on ethics

- Fix guide charges amongst themselves and stick to it regardless of any tourist.
- Operate legally and ethically.
- No eve-teasing activities should be practiced by the guides or other locals as this reduces the number of tourist who visits.
- No loud music or other entertainment related electronic gadgets. (You are here to enjoy nature).
- No alcohol consumption should be allowed inside forest or during treks.
- No campfire inside the forest. No cooking or disposal of cigarettes in the forest, which can start a fire.

- Make sure tourists do not litter. (Instill upon them a sense of littering your home) Pack up trash and dispose it off only in dustbins. (Make provision for garbage bags to dispose trash).
- No use of soaps/shampoo/detergents near waterfalls. (Do not promote it by selling sachets of these articles).
- Ask tourists to keep reasonable distance from wild animals and not to provoke them. No feeding of animals.
- No night treks. (Due to safety concern about tourists and not affects the activities of nocturnal animals).
- Make rules and code of conduct for tourists.
- Organize occasional meetings amongst guides.

Income generation and distribution

- Guide charges, entrance fee, permit fee, (Employment of more locals).
- Home stays and local food.
- Encourage tourists to buy and consume locally made food than packaged ones (like replace murukku for packed chips).

Facilitating tourism

- Every activity should be in accordance with minimizing impact on environment and wildlife.
- Use local materials for building purpose.
- Accommodation infrastructure: lodges, tents, huts. (Accommodation standards may be simple but should ensure basic comfort and cleanliness).
- Rest rooms and toilets: Western toilets, septic tank. Cleanliness is given utmost importance. Make sure the rooms, toilets and bed materials are clean and devoid of dust or mud, toilets), Electricity: Solar power.
- Water supply: Restrict use of bottled water. Provide drinking water through basic Pure IT filters mentioning the date of cleaning.
- Waste management: Plastic should be collected in dustbins and transported to Bodi/Munnar for recycling. (Do not expect money and transport the waste yourself).

Workshop participants

Trainees: There were altogether 17 individuals from the Kotagudi Panchayat, five from Top station, seven from Kotagudi, and five from Kurangani.

Trainer: Mr.Senthil Kumar, Mr. Ancel Correya and Mr. Saravana Kumar from *Kestrel Adventures* (Munnar).

Theni Forest Department: Mr. Selvaraj V. (Drafting Officer), Mr. Rajendran (Ranger, Bodi)

Workshop facilitators from WILD: Arun Kangavel, N. Nithula, Sethu Parvathy and C.Pandi.

Workshop Content and activities

Day 1

The workshop was participatory and activity based. Attendees were encouraged to ask questions and discuss amongst themselves, various group activities were also promoted. The introduction session let the participants and the trainers have a general perception about themselves, ecotourism and the purpose of the workshop.

The first activity initiated was to identify the prospects of tourism as understood by the trainees. For this, the participants formed three groups based on the village they belonged to. They were asked to write about the best tourist places, potential areas for developing tourism, problems that they faced facilitating tourism and how tourism could be improved. These were put up so that everyone could scrutinize one another's perception.



On board! Stick-ons with problems faced by guides from each settlement and their perceptions on improving tourism in their area.

They pasted their individual comments on the board. All the groups perceived Top station, Kolukkumalai and Kurangini as the best tourist places in the panchayat. Attendees believed that

the whole of kotagudi panchayat has the potential for development in tourism but some specified that it could be the Sambal waterfalls. The group from Top station and Kurangani found the Police, Forest Department and the lack of basic facilities especially toilets, to be their most important problems. Some attendees from Kurangani also stated that there were problems within the community in their village, which affected tourism. Individuals from Kottagudi perceived the bad mobile connectivity, roads, and problems with the Panchayat administration and absence of tourism-related development as problems to tourism in their village. The group from Top Station opined that setting up of a park, elephant safari and waste bins could improve tourism. Kurangani held that a better roadway, a park, hospital, banning alcohol and plastic and harvesting rainwater could enhance tourism.

In order to understand the existent tourism and infrastructure in the Kottagudi Panchayat, the trainees mapped the villages, existing and prospective trek routes, waterfalls and other tourist attractions, lodging and villages where guides were available and wildlife could be sighted., .



It is here! Community map showing existing and prospective trek routes and tourism-related infrastructure

After completing the mapping exercise, the attendees marked the entry points used by tourists to enter the landscape and those which are most frequently used by tourists. The most frequently used

were Kurangani via Munthal and Top station via Munnar. The group suggested that a request could be made to the Forest Department to set up entry stations to avail entrance fees into the landscape and to keep a check on plastic and alcohol use by tourists.

The attendees then discussed among themselves to identify and decide the ethics and rules that they as guides needed to follow while trekking. One of them noted down the rules that they collectively agreed on. This included banning night treks; discouraging tourists from consuming alcohol and drugs, maintaining punctuality and in order to provide enough time for the tourist with the lowest pace, they agreed that the trek duration mentioned would be two hours more than the actual time. They agreed on conducting monthly meetings amongst them to continue dialogue on tourism-related issues and developments. Towards the end, the attendees stated that more time and meetings among them were needed to formulate the ethics completely.

The afternoon session after lunch began with a discussion with the Theni Forest Department, Mr. Selvaraj (Drafting Officer) and Mr. Rajendran (Bodi Ranger). They elaborated on conserving wildlife and forests and that the tourist guides should also protect them. The guides enquired why the Police department posed as a hassle to them for taking tourists on treks. The Forest Department officials stated that they should approach the Collectorate and request for an Identity card issued for guiding tourists, since the problem was that they were not certified. To attain this they were asked to approach the Collector as a group. The Bodi Ranger stated that and ecotourism initiative undertaken by the Forest Department would be begun soon at Top Station. The Forest Department stated that the guides and the Forest Department were 'two wheels of the same vehicle' working for the same cause, which was conservation. He elaborated on biodiversity conservation and the afforestation scheme that could be utilized by the whole community. They were also positive towards establishing local community-based ecotourism in the area and urged the guides to act collectively towards it.



The Problems?? Mr Selvaraj (DO, Theni) examining the perceptions of the guides on tourism in the Kottagudi Panchayat.

The next session dealt with the basics of ecotourism as a concept for responsible tourism. For this, Mr. Senthil and Ancel asked the participants to form groups to discuss the idea of tourism and why they wanted to do it. Senthil explained that this activity would help him know about the knowledge of the guides, which would enable him to plan the rest of the session accordingly. One group stated that ecotourism was a cue to developing their village, to generate income and that it dealt with teaching the tourists about their culture and making them contemplate about the beauty of their place. Another group also stated that ecotourism would facilitate development, job security and attain basic facilities for their village. The third group stated that it would give them whatever that they wanted and that they should take care of tourists as their guests.

Mr. Senthil then explained that ecotourism is when the local community own, learn and earn from tourism. He told that change in lifestyle, better education, job security and environmental conservation would follow, if they set up a proper ecotourism venture in the Kottagudi Panchayat. The session was interactive with the locals asking questions on the development of roads and electricity. They were answered not to be stringent on building road ways as it would negate the tourism and the profession of tourism guides in the area with them 'digging their own grave'. When the discussion advanced on how less propitious they were in terms of tourism in Kottagudi, Rajan, an attendee from Top station informed about a rock carving that he saw near the Kottagudi

village, which revealed that there were inhabitants there nearly 2000 years back. A discussion on a traditional art form at Kottagudi also came up, revealing that one of the trainees was part of it.

Mr. Senthil stated that Kurangani, Kottagudi and Top station were in the early stages of tourism and if it proceeded in the right track, they could reap success in the industry. For that, he explained the importance of organizing themselves, sharing knowledge and maintaining a pleasant relationship amongst the three villages. He urged them to find proper ways for waste disposal and improve the information provided to the tourists regarding the trek plan and undertaking it. The role of the character and personality of the guides, appearance and acts of courteousness were discussed. He recommended that they fix a rate for the service and make sure nobody deters it.

The team from WILD society then gave a brief introduction on how they could organize themselves and brought out the idea of a Self Help Group into the discussion. Further description on its functioning and composition, the necessities for registering such a group and the manner in which the activities should be focused to avail the entitled Government schemes was provided. They were asked to facilitate meetings amongst themselves in order to elect the five leading members. They all agreed that this association could help establish better communication amongst them.

The last session was to clear any doubts the attendees had. Many questions came up of which Kumaresan from Kotagudi wanted to know about the permits one needed to take when building a home stay or cottage. This was answered by explaining the difference between a home stay and a cottage and that necessary permits had to be taken from the Panchayat. With this, sessions for the first day of the workshop were completed.

Day 2

Trek training

The second day of the workshop was attended by 12 of the 17 partcipants. The training was planned such that the five experienced guides amongst the group were asked to lead the "tourist" group in turns and explain how they would coordinate with their assistants and guide the tourists. During the trek, they also explained how they kept track of all the guests and ensured their safety by counting their numbers every now and then. They explained to the inexperienced the need to coordinate amongst the guides and to keep at the pace of the slowest guest. They explained about the history, showed them the tribal villages and other attractions in view. One of the guides elucidated about the medicinal plants they came across on the way like lemon grass, *eenji* which was used to make brooms and *keezharnelli*, "touch-me-not" plant, silver oak, cotton and mango plantations. They pointed out the water pipeline that originated in Kurangani through which the water went to the Bodinaickanur Municipality. They also pointed out a Scarlet Minivet, sunbird and a shrike.



...and that you see on the top is Top Station! Wilbert, an experienced guide from Top Station introducing the place to the group.

We then found a spot to sit and have a discussion. The discussion brought light on the existing waste management practice, which is 'collect and burn'. The WILD team then explained to them that collecting the wastes, transporting and disposing it off in the nearest corporation was a better option than burning plastics. Establishing contacts with the rag pickers and using existing contacts to transport wastes were discussed. An attendee from Top station suggested that they first build cement rings to collect wastes because other metal or plastic bins would be carried away in the wind. He suggested that each guide take charge of transportation in rotation and that it should be financially supported by the guide's collective effort. Cleanliness standards to be taken into consideration in home stays, restrooms and toilets were discussed and the need to construct septic tanks was also conferred.

The next discussion started with organizing the SHG and its activities and including women and indigenous communities into it. All of them regarded it being a necessity and the session was dispersed after they agreed on a meeting within themselves to decide the bearers, members, and rules for the SHG.

Ecotourism workshop questionnaire and feedback report

Baseline information was collected before the workshop (Appendix 1) and a feedback form (Appendix 2) to the workshop was completed at its culmination. The responses were then summarized.

Seventeen individuals (five from Kottagudi, seven from Kurangani and five from Top Station) participated, among which 12 of them attended the workshop on both the days while the rest attended only on the first day. Of these 17 individuals, 12 of them were already experienced in guiding tourists on treks while two of them had accompanied other guides on treks. Three individuals were new to this profession and had no prior experience of guiding. While three individuals had an experience of 20 years and more, three had an experience of more than five years and the rest had less than five years of experience.

Five of them were working as full-time guides among which only one individual had no other secondary business. The remaining four members also had a shop, hotel or home-stay. For all the other members, working as tourist guides was not the main occupation. They were involved in other jobs (agriculture, grazing, JCB operator, Airtel marketing, CNC designing, solar energy dealer) and three of them were studying.

All the individuals were interested in working as guides and two of them were interested in setting up new home-stays. In addition, five of the guides had their own home-stays and food services for the tourists. Majority of the guides were not highly educated. The highest educational qualification was a Bachelor's degree (n=3) and 12^{th} standard (n=2).

The respondents were of the opinion that tourist inflow was more during the vacations (April-may, December and weekends). There was an opinion that local tourists (Tamil Nadu and other states of south India) visited the place during weekends while tourists from other parts of the country and abroad mostly came during the vacations. Another opinion was that tourists came in during the season when paddy was sowed (February-March, November-December) and harvested (April-May, January-February) to enjoy the green pastures.

The charges varied among guides. The established guides charged the tourists depending on the packages chosen. There was a difference in rates for domestic and international tourists. The local guides fixed the rates based on the trek distance. They charged the tourists about Rs.500 - 2000 per trek/individual. The guides had to take permission from the Forest Department before a trek. The guides from Top Station had to take permission from the Kerala Forest Department in case they were walking through areas owned by them. Some of them were not aware of the permissions required while some more went trekking without any permission.

The guides were of the opinion that the tourists came to visit places around Kottagudi panchayat to enjoy nature, to have a break from the city lifestyle, to enjoy the waterfalls, climate and see the stone inscriptions found around Kurangani. There were also adventure enthusiasts who came for trekking. All the guides stated that they would explain the history and culture of the place and the names of plants and animals they knew. One of the respondents said that he would explain the names of medicinal plants to tourists. Only a couple of them were not sure of what they would tell the tourists.

All the participants of the workshop knew Tamil. A few of them could converse in Malayalam. Hindi and English were also known by a few of them but not very well. One of the participants knew Kannada. A major number of the participant guides agreed that they faced no problems when communicating with the tourists, as they would manage using signs and non-verbal means. One of the respondents said that problems arose when international tourists from places like Russia and France arrived. These tourists, according to the respondent, were not familiar with English and hence communicating with them was a problem. Only a couple of respondents said that they faced a problem with language, as they were not able to convey their thoughts and ideas.

While a majority of the individuals had no training in administering first aid, a few of them had received some sort of training earlier. While one of them was a compounder for 6 years, another individual learnt it from his friends who are technicians. Most of the individuals possessed knowledge of traditional/herbal medicines passed on from generations and they told that these remedies would be used during times of need during the trek. A couple of them knew how to save a drowning person and one also knew how to administer first aid during snakebite.

Only the experienced guides had a clear idea of how the safety of tourists would be ensured. Some of the responses were; a large group of tourists is escorted by more than one guide, informing the tourists to follow the instructions given and to maintain decorum during the trek. The guides also carried first aid kit along with them for use in case of emergency. An interesting reply that came about from one respondent was that he would pray to God and begin the trek. All the respondents, except one, said that they collected all the waste generated from the treks and dumped it in dustbins available at the place of stay or buried it in a pit. A few said that, they then set the waste on fire. Only one respondent said that he disposed the waste in the forest.

Ten respondents had attended a guide-training workshop previously. This workshop was conducted by GREEN, an NGO, who had also issued a training certificate to the participants. One of the participants had also worked under another guide during his initial days in this profession. The other participants had no training before and did not posses any certificate.

When asked about the competition they faced, most respondents were of the opinion that they did not face any. The reason for this according to one respondent was that the place (Kottagudi) has not been established as a tourist spot. One participant said that backpackers were a competition, as they did not hire guides. Another opinion was that there exists competition amongst the villages, as the tourists visiting a village were not allowed accommodation in another village. There were problems along the Kerala side; recently there was a case of a foreigner being teased in one of the home-stays after which running home-stays in Top Stations have become a problem.

The limitations that the guides faced were mainly a lack of experience and communication issues. For one respondent finance was a constraint as he was keen on expanding his work. Here again issues along the Kerala side were raised. One respondent stated that money was a major factor among the guides from Kerala. He said that if these guides were given money, they allowed tourists to do anything they wanted and hence tourists preferred to go with them.

Most of the participants attended the workshop with the expectation of getting an authorized ID card, license or certificate. Members from Kottagudi village came in with an idea of developing their village using tourism as a means and to learn more about how to do so.

After the workshop, a **feedback** questionnaire was asked to find out if the expectations from the workshop were met.

When asked to rate the content dealt in the workshop on a scale of one-five, the participant ratings varied between two to five with an average of four. The language used and the usefulness of the workshop were rated between two to five with an average for both being four.

The participants said that their expectations were met but not completely, as they had been expecting to get a certificate. A few also said that they were expecting to learn more about how to be a guide but that the workshop dealt mostly with problems related to tourism. However when asked what they liked the most about the workshop they stated that they liked the talk on how to guide tourists and how to be a good guide. The talk about waste management and the interactive activity were also appreciated by the participants.

When the respondents were asked how they would change the way they would guide tourists on future treks, they replied that they would include things that they had learnt in the workshop. They would explain the details of the place to the tourists and also make changes in the way they disposed the waste. Punctuality was another aspect they said they would follow during their future treks.

According to the respondents, the workshop was good for the beginners who participated. Some of them were also of the opinion that the information provided should have been more elaborate. A couple of guides stated that the success of the workshop in the future would depend on the interest and unity shown by them. A number of topics like building an association and its working, waste disposal, how to be a good tourist guide, how to interact with the tourists, language and communication were suggested for the follow up workshop if conducted. One of them also wanted to know the ways in which women could also enter this profession.
Appendix 1

Name:

Guide / home-stay / food / other..... (Encircle)

Age:

Education:

Settlement:

Income:

- 1. Have you been guiding people for treks? Yes/no
- 2. How long have you been doing this?
- 3. Is this a full-time job? If No, list the other jobs you do?
- 4. When do tourists come?
- 5. What are the charges per trek?
- 6. What are the permissions that you get before you take the tourists on a trek?
- 7. What according to you are the tourists looking forward to from their visit to the place you are guiding them?
- 8. What do you inform the tourists about the place?

9. What are the languages that you communicate in with the tourists?

10. Do you face any language problems when handling the tourists?

11. Have you been trained to administer first aid?

12. What are the safety measures you follow on a trek?

13. How do you manage the waste generated during the treks?

14. Have you been part of a training program before?

15. Were you issued a guide certificate?

16. What is the kind of competition you face?

17. Where do you think you fall short?

18. What are your expectations from this workshop?

Appendix 2

1. Rate the following questions about the workshop on a scale of 1-5 with 1 being the lowest and 5 being the highest. (encircle the relevant option)

Content was relevant	1	2	3	4	5
Language was understandable	1	2	3	4	5
Useful	1	2	3	4	5

- 2. Did you establish contacts with guides from other villages during the workshop?
- 3. Were your expectations from the workshop met?
- 4. What did you like most about this workshop?
- 5. Will you make any changes to the way you conduct tourism? If yes, what will they be?
- 6. How do you think we can improve this workshop?
- 7. What should the next workshop concentrate on?

~	Sl.	Participant name	Address	Phone no.	2.ml 3	
	1	MANIKANDAN S	1-37, WARD 1 KATTAKUDI, KATTAKUDI (P GHENT - 605582	9788479390	/	
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	6	BALAMURULAN P	1-33/36 , WARD 1. KOTTA KODI (P) THENI-625584	8142309619	1	
	7 ·	PRABAKARAN P	3-36 MANMAD I STREET LOTTAGUD I BODINAVARANUR (1403)	8940752795	1	
	6	WILBART JANES	25-5/81, TOP STATION KOTTAGUDI	9786472386	2	
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	u.	MANOHARAN	TOP STATION	9442183853	8	

Participant details

SL	Participant name	Address	Phone no.	
12.	PRADEEP K	TOPSTATION KOTTAGUDI, SCOLAMILA- Pin 625582	97877342.39	
13 .	SIVAPRAKASH, R	CHERK POST KOTTAGUDI BODWAICKANUR 625582	9781734239	
14.	SATISH KUMAR	KURANGANI KOTTAGUDI BODINAKANURG25552	5626115179	
15	SATISH &	61/NZ, KURANICANI KOTTACUDI DDINAICKANUR- 625552	9791623133	
16.	Yogesh Lumar	BODINAICKANLIR DOG G 25582	9787019675 9245963375	
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Participant details

Ecotourism Workshop 2: 24th & 25th February 2014

Top Station, Kottagudi Panchayat, Theni District

Eco-tourism Capacity building workshop at Top Station

Workshop participants

Trainees: Pandiaraaj, Manikandan, Marimuthu, Wilbert James, Mariyappan, Manoj, Raja, Antony, Suresh, Vijaya Rani, Manoharan, Shekar

Anti-Naxal Wing, Theni: Pandi Kannan

Trainers: Senthil Kumar (Kestrel Adventures), Sethu Parvathy and Arun Kanagavel

Facilitators: Ancel Correya (Kestrel Adventures) and Nithula Nirmal

Workshop content and activities

This workshop, the second in its series, aimed at building the capacity of the local individuals involved in tourism activities in the Kottagudi panchayat. Trainees from Topstation, Central and Kottagudi villages attended the workshop. This workshop was aimed at familiarizing them with the history of Top Station/Kottagudi Panchayat, identifying threatened/endemic and distinct avifauna and mammals in the area and regarding the setup of a co-operative society.

The session on the historical significance of Top Station/Kottagudi Panchayat was started with a discussion on the migration of the *Muduva* tribal community from Madurai, with the Goddess *Kannagi* towards the Cardamom hills. Their role in the Tamil folk story *'Chilappatikaram'* was discussed, according to which, they were the first to occupy these hills. Later on, the British visited the area and began the plantation era of Munnar.

Prior to the plantations, the Poonjar Royal family had the ownership of land which they leased to the British towards plantations. The lease agreement was for 99 years and people were brought in to Munnar from Madurai, Tirunelveli and Tanjore as plantation labor and was initiated by John Daniel Munroe. The laborers too entered in to an agreement with the British, that the entire family be a part of the working community.

Cultivation began with cinchona, coffee and rubber, whose failure then paved the way for tea in these hills. The first tea was planted in 1880 at Parvathy estate in 50 acres but by A. H Sharp. The success eventually led to an increased land cover with tea.

Since the hills did not support any other food crops, the planters made an agreement with a contractor at Bodinaickannur - Chuppan Chetty, for food supplies and transportation of tea chests to the railway station at Bodi, from where it would be transported to the Tuticorin port. Towards this transportation, the first rope-way established from Top Station to Bottom station (Kurangini) in 1902. From Top Station through Kundala uptill Munnar, a monorail was then established. In 1924, a flood ravaged the monorail system which was then replaced with the ropeway. By 1926, the longest ropeway system in India of around 40 km was established in Munnar. After independence, the Tata Sons Private Limited formed a new company for packaging and distribution of tea from the Kannan Devan Hills Produce Co Ltd. While the importance of Top Station was being discussed, the attendees from Kottagudi showed keen interest on sharing the legend of the deity at Kombutooki temple and an inscribed stone installation at Kottagudi, estimated to be around 600 years old. The year was in dispute as Manikandan pointed out that his grandfather stated it as being 2000 years old.

The next session was dedicated to familiarizing the important and common avifauna and mammals in the Kottagudi Panchayat. The words "endemic" and "threatened" were explained and their significance was highlighted in 15 birds and 10 mammals chosen towards identification in this workshop. A power point presentation with photographs and The book of Indian birds by Salim Ali were used as aids. The attendees were encouraged to identify the birds based on their local names and were later made familiar with their English common names, including their endemic and threatened status. The attendees were mostly familiar with the larger-sized avifauna and mammals and their favorable habitat. The presentation was repeated after dinner to familiarize them with the common names. A trek was organized on 24th evening and 25th morning from the Top Station road upto the gates of the Shola National Park to spot and identify mammals and avifauna at Top Station and re-familiarize the trainees with their common names. The trainees were asked to observe and identify the birds they had seen in the presentation. On repeated sighting of the same bird and repeating the common names, the attendees were fairly familiar with the Nilgiri Wood Pigeon, Kerala Laughing thrush, Oriental white–eye and could identify a Barbet with its unique call.

The latter part of the day after the Biodiversity Identification workshop, the formation of a cooperative society was discussed with the trainees with Mr. Senthil Kumar from Kestrel Adventures Pvt. Ltd moderating the session. The concept of a Co-operative Society was detailed along with the pre-requisites norms and conditions. The trainees than discussed goals and purposes, by-laws and use of funds and a draft version of these issues were prepared in the local language (Tamil). The group discussed on the goals and suggested that the co- operative be formed with a service motto and not-for-profit to improve ecotourism and their livelihoods. Conservation of environment, biodiversity and management of wastes generated were added to be the goals. The members decided that through the society, support would be given to guides, food stall owners, home stays and individuals for their development. Since they lack experience in collective management, they added that they would seek guidance/consultation and keep alliance with other organizations. They urged that upon formation each member would be given an identity card.

Some general rules to follow were also decided. They urged that it is necessary for the tourists' safety that they avoid night treks and arrange for a first-aid point/person. Restrictions were imposed on themselves too when they decided that the guides, or any person with the tourists should avoid consumption of alcohol and smoking. They decided that they would charge the tourists standard rates which would be fixed by the society. They stated that considerable restrictions would need to be placed on tourists too, to avoid incidents from alcohol abuse, loud sounds, un-regulated treks and disposal of wastes.

The collective opinion arose that they should first work on acquiring proper licenses for, guiding and home-stays and that no trekking or any activity shall be conducted without permission from the concerning authority or without a local guide. Being amateurs in the sector, they wished to keep alliance with other organizations till they became competent to run it themselves independently.

They agreed upon Rs.500 to be a standard amount for registration and Rs.100 as monthly membership fee from the members. The use of funds was also discussed but with the context of only managing the waste generated. They were keen on making the place clean before anything. They decided on appointing two persons, one for Top Station and Central Station and another for Kurangani and Kottagudi to collect and segregate wastes with remuneration from the society funds. The expense for the promoter of the society would also be borne from this fund. The duties of the promoter or any bearers of the society were not yet defined.

Suresh, Mariyappan and Manoj from Top Station suggested that an office building would be critical for the effectively running the society and that they could transform it to an Tourist Information centre also. Everyone agreed upon this but however, realized that it would need more funding.

The group decided to have a sub unit of the society for Kottagudi and Kurangani and have separate minutes and registers as it would be difficult for the core committee to manage it from the distance as the office was decided to be in Top Station. This was as suggested by Mr. Senthil, of Kestrel adventures who promised support and facilitation for the formation of the society. He himself is a founder of a tourism co-operative society in Munnar and promised all support and guidance for the members. The meeting was dispersed late in the night. A new draft of the bylaws and rules for the cooperative society was formulated and the bylaws and the rules were read out and unanimously passed before dispersing from the workshop. After which the cement bins bought through the project funds towards the waste management initiative at Top Station were set in place.

Image 1: Presentation highlighting the most important and characteristics birds and mammals in the Kottagudi Valley



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Image 2. Workshop discussion with participants



Report of meetings towards formation of Common Livelihoods Group for guides of Kottagudi valley

As per the collective opinion of the local guides from the Kottagudi. Panchayat who attended the 'Ecotourism workshop' organized on the 16th and 17th July, to form an association or group, the schemes or provisions available through the Government were explored. The local guides agreed among themselves the formation of a Self Help Group (SHG). To discuss the details and procedures of registering an SHG, a meeting was set up at the DRDA (District Rural Development Agency) office in the Theni Collectorate with the Assistant Program Officer Mr. Tankapandiyan on August 5th, 2013. He introduced us to the 'Puduvaazhu Thittam', a project undertaken by the State Government for the formation of Community-based Organizations (CBO) with an aim to enhance the livelihood of economically weak, rural communities. A discussion was carried out on the same day with the Project Director, Mr. Kaluhasalamoorthy and the Project Officer for SHGs, Smt. Hemalatha. The background and activities of the Tourism guides currently operating within the Kottagudi Panchayat and their willingness to form an SHG was informed. When the objective and prospective activities of the group was explained to the officials, they assured to help us even though their initial response was that the allocation for forming SHGs in Kottagudi is complete.

Later a discussion in detail about the activities of the group was conducted with the Project Officer. She assured all help and guidance that would be required during the formation, registration and maintenance of the group. Here, she introduced to us the concept of Common Livelihood Group (CLG), which would consist of 40-45 members. At the completion of successful monthly meetings over a period of 3 months and based on their activities and prospects, a fund could be released towards the group from the project for infrastructure development. The project also aims to make the group self-reliant through capacity building. She asked us to submit a proposal to the District Collector based on the rationale for forming such a group and the activities planned by them along with a report of the preliminary data collected detailing the monthly income, current employment and the expectations of the members in the group regarding the formation of the CLG and his/her activities henceforth. She asked us to inform her of the meeting of the group so that she could send a facilitator from their behalf to overlook the group meeting and activities in order to produce a related report for the Project Director.

Based on this discussion, the tourism guides organised a meeting on 12th August. However only one member from Topstation and three from Kottagudi arrived at Kurangini for the meeting. The CLG Facilitator, Mr. Muthupandi advised for the meeting be postponed, as the set minimum of 20 members were unavailable. He then briefed those on attendance, how the project could help the members. He explained that there were provisions for training in income-generating activities and financial support would be provided for the infrastructure development. Apart from that, the group could propose ideas for enhancing their livelihoods. Waste management was one such issue that came up for discussion for which the facilitator assured that the idea could be further enhanced and proposed to the project for financial assistance and capacity building. He enquired about the planned activities and informed that help could only be sought/provided after successful meetings

over three months with at least 20 members in attendance and that the group should unanimously make decisions regarding their working and activities. He also assured that each member of the CLG would be issued an Identity card.

The proceedings of the meeting were informed to other local guides who did not attend the meeting and were asked to organize a suitable meeting as soon as possible.

Remarks

- The members who did not attend the workshop were informed of this meeting with the concerned government officials and were asked to organize a meeting as soon as possible.
- The guides from Kurangini did not seem interested in the meetings, concentrating the group-based initiative at one settlement could improve the attendance of members.
- The proposal sought by the project officer can only be produced after the first "real" meeting since
 - There could be new individuals from the associated local communities attending the meeting
 - The preliminary survey report and the members list that should be produced along with the proposal should have the details of elected bearers and members and their current occupational status.

First meeting report, Common Livelihood Group, Top Station

The initiative to form a Common Livelihood Group (CLG) to avail government support for livelihood enhancement and authorization of activities was introduced among the settlements of Kottagudi Panchayat. Regarding this a group meeting with the facilitator from the 'Pudhuvaazhvu' project was organized last month. This was not fruitful because of deficient attendees from the settlement. Therefore, in the initial phase one settlement, Topstation was recognized to be needful of an immediate organization of tourism providers as it is the most visited tourist spot and the enormous amount of waste generated for which there is not any desirable management options. Almost all the settlers in Top Station indulge in tourism-based activities for their livelihood too. The meeting was coordinated in Topstation on 6th September for which the facilitator from the Pudhuvaazhvu project was unable to attend but the activities were recorded to be conferred with at the earliest.

The first meeting regarding the formation of the Common livelihood group in Topstation by the guides, small shop owners, and home stay owners came about satisfactorily. About 21 individuals from Top Station attended the meeting and included more into the group who were unable to attend that day. Hence, altogether a group of 32 individuals currently commissioning tourism-based activities in Top Station is expected to be members of the group. The group constituted tourist guides with experience ranging from 1-20 years. 11 individuals in the group are currently working with the Kerala Forest Department as guides under EDCs. The three women represented in the group are small shop owners near the View Point. The tourism-based enterprises set up by them are the Fruit and Cool drink shops, small eateries, guiding for treks, home stay, tents and camping and horse riding.

The premise of the meeting was explained to them first, to generate a general idea of the kind of activities conceivable by forming a group. Following this, the group was asked to record their existing tourism-based activities in the locality. One amongst them recorded it, with the name of individual practicing it and his/her immediate necessity to enhance their livelihood. Four such activities could be generalized namely, horse riding, shops, guiding, and home stay. The chief necessity identified by them was license or recognition from the government. It was revealed that almost all of them are currently operating without it and face issues with the Forest department and the Police frequently. Their main expectation on formation of the group was authorization from the government, be it the panchayat, Forest department, Police department or KDHP Pvt Ltd. They seek a license as such to be issued in their name or from the group to carry out tourism-based activities and are also willing to pay rent/insurance for the same. They urged that apart from the individual benefits, they need assistance to set up dustbins, information boards, development of trekking routes, toilets and big umbrellas for tourists.

Later, the individuals who undertake trekking activities were asked to discuss their shortcomings to which they responded with the issue of trekking through state borderlands and the enormous lantana/shrub thickets that make the trek dreary. They urged for the proper timely maintenance of trek routes. Almost all members had small shops around the viewpoint area to make up their finance while there do not have any guiding/trekking jobs. Since the land where they had set up shop belongs to either the company or the forest department, they find it obligatory to attain an authorization from the government to carry out their activities. They possessed only a 'receipt' issued from the panchayat. For some, KDHP Pvt Ltd had set up shops but on rent. They all agreed to pay an amount as rent to be authorized to set up shops in the area. Their consent was sought on account that the authorization can only be given for one enterprise in a family for which they nodded. They seemed also concerned about the platforms built using sacks of soil that collapse frequently.

The horse riders grumbled about the panchayat not issuing them 'receipts' with which they could avail license from the tourism department. Home stay owners also lamented their concern over availing a license. Earlier an NGO, GREEN provided them with a document as license but the government authorities do not consider it valid.

The individuals who currently work with the Kerala EDCs informed that they were planning to confer the Tamil Nadu government to organize guides to work in Tamilnadu. They also wanted to propose to the DFO (District Forest Officer) to recruit them as fire/forest watchers as they have experience of 7 years by working in Kerala.

Later, the ethics to be followed as a group was discussed and recorded. This included being responsible for tourism in the area, conservation of nature and wildlife, proper waste management and undertaking proper measures to ensure better tourist turnover. They agreed on monitoring to avoid uncouth behavior from within the group. Strict directive regarding consumption of alcohol and drugs by the tourists and the members on duty was pressed.

The session was dispersed after deciding to meet on the 4th of October for their next meeting. Another meeting before this date was planned to carry out with the facilitator from the 'Pudhuvazhvu' project to educate them of the activities and provisions from the government under the project.

To stipulate their knowledge about undertaking tourism, an individual questionnaire was constituted which impart that most of them have only primary education with only one having a diploma. They informed that tourists visit the area all year long with abundance during festivals, holidays, vacations, and weekends. The tourist expectations while visiting the place was recognized as to contemplate the 'beauty of nature', 'wildlife sightings' and because of less noise and pollution.

Based on the questionnaire survey it is concluded that none of the members has any official training or certificate or license for guiding or other such activities. None of them was educated with basic first aid, their only safety option while on a trek was a stick, and they practiced traditional medicine (Pachila marunnu) on injuries. Wastes including the plastics were burned but the guides should be appreciated of their effort not to litter forests by carrying the wastes in their pockets and disposing it off in dustbins. Lack of proper infrastructure and proficiency in language were considered the major shortcomings from their side.

All of them look forward for the development of the area with proper infrastructure and safety facilities that would provide better income by attracting tourists. Proper management of tourism activities, proper disposal of wastes and clearing the area of wastes were declared as activities they wished to pursue with the formation of the group.



Image 1. Discussion among the local tourism providers of Top Station

Second CLG Meeting Report, Top Station

(including list of type of tourism provider

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3rd CLG Meeting

As decided in the first meeting of the group that happened on 6th September, the meeting with the facilitator from Pudhuvaazhvu project was planned to be conducted on the 13th September so that the provisions and guidelines of formation and maintenance of the groups shall be discussed. Since the facilitator failed to be at the venue of the meeting on that day, it was postponed without settling the date. When contacted through telephone he mentioned his inability to attend due to meeting with higher officials the same day. On contacting again through phone, he mentioned his business due to work until the end of the month. He was contacted on the 28th to confirm a date for the meeting but then even he said he would be engaged till the 6th of October. He also gave us the information that the project officer has changed and that we should consult him of the project again for his consent and confirmation to take it forward under Pudhuvaazhvu Project. And so, the project officer is to be met tomorrow (1st October) regarding this.

After this the administrators of the Pudhuvaazhvu project were not interested in the project and did not provide any support towards this initiative. After this it was decided that the groups would pursue this as a private association or society. Towards this the Membership forms along with their photographs, a copy of their authorized identity cards and membership forms (attached) were collected. A list of existing members along with the office bearers was formulated.

Kottagudi Valley Ecotourism Society Member's List

Top Station

Mariyappan.S Balan Anthony Sugan Wilbart James Amul raj Bhagyam Manikandan P. Vinod Kuamr A. Bastin Vincent M. Subramani J.David P.Arul Das Vijaya B. Zahir hussain Marimuttu.R R. Krishnan P.Iyyappan

Kottagudi

S. Manikandan V. Ramesh Kannan Sathish Kannaya

Kurangini

Yogesh Kumar. K Satish Kumar Manoj Kumar Siva Pradeep. K Rajendran

List of office bearers for the Kottagudi Valley Ecotourism Society

President: Wilbart James

Secretary: Anthony

Treasurer: Marimuttu

Executive members

- 1. Yogesh
- 2. Vincent
- 3. Vijaya
- 4. Mariyappan
- 5. Manikandan
- 6. Manoharan

3.2. A report of discussions with the Forest Department on eco-tourism including the certification of local guides and local community-run home stays.

We first initiated a discussion with the Theni Forest Department towards setting up an ecodevelopment committee (EDC) towards formally incorporating the local guides and their services into the official ecotourism for Kottagudi ecotourism. However, the Forest Department showed interest in ecotourism and the guides only during the 2nd year of the project. We submitted all our previous reports and information on the group/association for local guides so that it could be integrated into the Ecotourism Management Committee. Information regarding the local guides and the services was provided to them so that necessary certification could be issued to them by the Forests Department. We were requested to submit a proposal of our ideas towards making the ecotourism official and transparent while improving the services provided to tourists responsibly. This proposal along with our previous survey reports resulted in the Forest Department receiving a grant of Rs 98,00,000/- from the Tourism, Culture and Religious Endowments Department of Tamil Nadu State Government. We also made an official presentation to the Conservator of Forests, Madurai Circle towards this. We then submitted a proposal to the Theni Forest Division towards developing the ecotourism infrastructure at Top Station after organizing a field visit with the concerned stakeholders, local communities, Theni Forest Division and KDHP Pvt Ltd. On the basis of these we formulated a microplan for improving the ecotourism at Top Station that will be implemented by the Theni Forest Division in collaboration with the stakeholders.

Meetings were also undertaken with the DFO, Kodaikanal towards ecotourism at Kodaikanal. However, after a few meetings we were not re-contacted regarding the programs we were requested to participate in. We therefore focused our efforts towards ecotourism at Theni.

<u>Report of initial meetings with stakeholders on ecotourism and certification</u> <u>of local guides</u>

Tourism Department

The tourism officer who has authority over the tourism activities in Theni is Mr.Gunasekaharan, whose office is in Kodaikanal. Upon discussion with him about providing certification/license for guides in Top Station, he informed their inability to do so as most of the candidates do not have graduate level education. However, he informed that he would render support towards this if we send a detailed proposal to the district collector explaining the issue.

Pudhuvaazhvu thittam

The Pudhuvaazhvu project is an empowerment and poverty alleviation project from the government of Tamilnadu. The Zonal project officer and the District project officer was met regarding the formation of a Self help group /Common livelihood group under the project for the local guides in Top Station. They suggested that, they would consider it if the project is feasible, as all the titles under the project are filled. Towards this, the facilitator of the project in Kottagudi panchayat was contacted as his presence is inevitable for the formation of the group. He assured that upon formation of the group, the member individuals could be provided identity cards and sanction for guiding from the concerned departments in the district government (Tourism department and Forest department). He suggested that this would be possible after the first official meeting of the group. The meeting of the group was organized at Top Station but the facilitator failed to attend. Later the Zonal officer was replaced and the new officer suggested that, as they were overwhelmed with work, would not be able to acknowledge the effort through the Puduvaazhvu project.

Theni Forest Department

Upon discussion with the District forest officer, Theni, Mr. Sundara Kumar he informed that the certification could not be issued from his office. However, he suggested that he could give temporary job for 1 or 2 individuals with exceptional experience in the field of guiding, as Anti-poaching watchers and can go guiding also from the Forest Department.

Kodaikanal Forest Department

A meeting with the DFO was held in his office, Kodaikanal on 16th August 2013. We introduced our project and ourselves and informed about the conduction of workshops (Ecotourism) for local guides in the Theni Forest Division. The DFO spoke about his tourism-related activities including cementing the Kumbakarai water fall area for the better safety of tourists. He then spoke about his 'Ecotourism Micro-plan' preparation in Kodaikanal involving the local communities for which he requested materials for reading and reference (which was sent to him via email along with the Ecotourism workshop report the next day). He also said that an ecotourism workshop needed to be conducted for the forest officials, which is expected to be conducted by the DFO, Theni. He told that if the opportunity to conduct the workshop falls in his hands; he would inform us and would expect facilitation. He then elaborated the existence of tribal communities in three ranges in Kodaikanal forest division and that the information can be availed through his office consenting us to conduct the surveys.

The Kodaikanal DFO was met again on 24th September 2013 to provide him the field guides availed through the project. He mentioned his plans of organizing an Ecotourism workshop for the Ecotourism Management Committee formed in different places of interest in Kodaikanal, including the Kumbakarai waterfalls. The committee includes individuals from the local communities residing near the area of interest and the Forest Department officials' in-charge of tourism activities. They were to be briefed of the ethics and responsibilities of undertaking ecotourism activities. The DFO then said that he would inform us of the activities through his office. The workshop, as mentioned by him, was planned to be conducted in the first week of October.

Ecotourism in Kottagudi Panchayat, Theni District

(1st Ecotourism proposal to Theni Forest Division)

Improving ecotourism is part of a project '*Roots of a Green Economy: Enhancing biodiversity conservation and local livelihoods in the Anamalai Corridor*' undertaken by Arun Kanagavel - Wildlife Information Liaison Development (WILD) Society, Coimbatore

Location: Top Station, Kottagudi Panchayat, Theni District, Tamil Nadu

Executive summary

Nearly 2.5 lakh tourists visit the Kottagudi Panchayat (Kurangani, Top Station, Kollukumalai and Kottagudi) annually of which almost half of them visit these locations in their personal vehicles. Most of this region where the tourism is existent is currently declared as a Reserve Forest and is under the management of the Theni Forest Department, Tamil Nadu. An amount of approximately Rs. 55,00,000/- could generated by the Forest Department by availing Entrance fees from tourists (Rs. 10 per tourist) and their vehicles (Rs 20 per vehicle). Rs. 5,00,000/- can be availed from fees from tourists who undertake treks and camping (Rs 100 for 5000 tourists) in this region.

The '*Roots of a Green Economy: Enhancing biodiversity conservation and local livelihoods in the Anamalai Corridor*' project undertaken by Arun Kanagavel - Wildlife Information Liaison Development society (WILD, Coimbatore) at Theni and Kodaikanal, aims to enhance biodiversity conservation and local livelihoods in the proposed Theni Conservation Reserve area and in the two forest divisions.

In relation to the income generation from the above-mentioned tourism in Kottagudi, a pure tourism-based approach would not account for the conservation and protection of wildlife and pristine habitats associated with the region. An "eco-tourism" model would ensure biodiversity conservation and be a reliable income generation for the associated local communities. Moreover, the eco-tourism can be one of the initiatives of the proposed Theni Conservation Reserve and not a stand-alone as then only the income-generation activity will be given more priority above wildlife conservation and local livelihoods.

This ecotourism project will need to include adequate planning to setup entrance check-posts, waste management, training local guides, provision of certification for home-stays run by the local communities, identity cards for the local guides and designing trek routes and related promotional material

Rationale

The Green Economy project planned in Theni Forest Department and Palni Hills focuses on enhancing biodiversity conservation and local livelihoods. The previous study in 2012 as part of the project "*Establishing community conservation reserves in the Anamalai Corridor*" revealed that tourism is existent in Kottagudi Panchayat. In the Kottagudi Panchayat, out of the 11 settlements, Top Station, Kolukkumalai, Kurangini, Central Station and Kottagudi have increased tourist visits owing to the View points, waterfalls and associated trek routes. The increased number of tourists over the past ten years has lead to the development of local tourism initiatives by the local communities of the settlements like home stays, guides, small hotels and shops. The tourism activities around Kottagudi are trekking, camping, rock climbing, biking and visiting view-points, waterfalls and streams.

Very few of these tourism activities are well planned or managed and involve an uncontrolled entry of tourists and inadequate waste disposal which affects the forest landscape. Since the streams and waterfalls are freely accessible to tourists, this has caused problems not only to the water sources in forest areas but also the resident local communities. This unregulated tourism promotes a lesser nature conservation focus.

There are numerous individuals from the local communities in this Panchayat whose income generation is mainly/partly from this seasonal tourism. None of them has an Identity card issued from the Government or are not part of an association. Some of them are undertaking tourism assignments with the background of a training certificate provided earlier in 2008 by an NGO. Many of them have undertaken training programs including one conducted by us on 16-17th July, 2013 which was attended by the Bodi Forest Ranger and Drafting Officer of the Theni Forest Department. This uncertainty in the form of the absence of ID cards and an association, leads to job insecurity for these local communities and cause a constant discord for their livelihood.

Hence, to improve biodiversity conservation and the livelihoods of the local communities, a Responsible Eco-tourism initiative can be begun in the Kottagudi Panchayat beginning at Topstation where most of the tourism is concentrated. Such an eco-tourism initiative would facilitate the interaction between the Forest Department and the local communities for efficient biodiversity conservation and income generation for both the stakeholders. It would therefore minimize impact on the forest landscape, improve community welfare and local support for wildlife conservation.

Main Findings

- Around 2.5 lakh tourists visit locations in the Kottagudi Panchayat annually of which almost half of them visit in their personal vehicles. There is little documentation of tourist information and control over their visits
- Every tourist who enters the trekking routes must be issued compulsory entrance tickets which record the number of tourists and the local guide. A local guide must be compulsory for any treks, one guide per 4 tourists.
- There is an absence of waste disposal and its management in Kottagudi and most of the tourist wastes end up accumulated near the water sources or in forest areas.
- Lack of identity card or license amongst guides and home stays questions their credibility and authority.
- An amount of Rs. 55,00,000/- could be earned by the Forest Department from the tourists through availing entrance fees from tourists, their vehicles and for trekking activities through the setup of entry stations.

Objectives

The objective of this proposed project is to reform the existent tourism at the Kottagudi Panchayat mainly Top Station into ecologically responsible and community managed eco-tourism such that

- The conservation of the shola-grassland forests and its wild flora and fauna is integrated into the existent tourism
- Secure the livelihood of the local communities undertaking eco-tourism through formalizing the eco-tourism and capacity building
- A waste management initiative is begun to ensure the existent tourism does not affect the environment

Project approach

The proposed Responsible Eco-tourism at the Kottagudi Panchayat, Theni District would need to be undertaken as a part of the proposed Theni Conservation Reserve. This is so as only then will the conservation of the pristine wildlife and *shola* forest-grassland habitat and local livelihoods as mentioned in the submitted *Theni Conservation Reserve proposal*, be given more attention and priority than the income-generation activity

The ecotourism project in its pioneer stage would need to focus on:

- 1. <u>Regulating the tourist entry</u>
- Entry stations at 2 locations: Kurangani and Top Station.
- Entry Stations would note down all the necessary information of the tourists and prohibit the transfer of plastic and other materials.
- All the necessary information for tourists local guides, local home-stay accommodation and treks can be planned and paid for at the entry station.
- All trekking tourists would require to take along a local, registered eco-tourism guide.
- Trek routes would need to be planned across the Panchayat and tourists/guides would be only allowed to use these

The resulting income could be used to support the eco-tourism guides, forest staff, waste management and other initiatives

- 2. Formalizing guide activities and home-stay facilities
- The existing local guides and home-stays of the local communities in this region would need to be provided with Identity cards and licenses respectively so as to would make their activities legal and in standard with the principles of eco-tourism.
- An association/self-help group/eco-development committee (EDC) would require to be setup for the local guides and their home-stay to form a local group who would be responsible and registered for undertaking the eco-tourism in the proposed region
- The local guides would require to be trained in identifying biodiversity, undertaking firstaid and waste management.
- 3. <u>Implementing waste management</u>.
- Setup Dust-bins for the collection of waste materials
- Setup a local group in charge of segregating waste and storing the non-decomposable waste like plastic, glass and tins.
- Transfer the stored waste to nearest urban town
- The decomposable waste like food and paper can be set into pits and later used as compost material

Establishing responsible eco-tourism activities would also facilitate environment education, providing awareness on the biodiversity and the need for conservation to the tourists and local communities. This would serve as a collaborative eco-tourism model in the entire state of Tamil Nadu that can be replicable.

Stakeholder Roles

1. <u>Forest Department</u>: The Forest Department will be the management authority as large portions of the existing tourist paths belong to the Forest Department. The Forest Department will also raise the expected infrastructure like in the form of tourist check posts and set up the financial channels to manage the funds generated through the eco-tourism.

2. <u>Local Community</u>: The local community in various settlements of the Kottagudi panchayat composed of numerous BPL (below-poverty line) families, SC and ST communities will continue to undertake the tourism so as to secure their livelihoods from ongoing vigorous competition. Beside this they will also support the Forest Department and help in protecting the pristine forests in this region

3. <u>NGO</u>: Mr. Arun Kangavel and his team from WILD, Coimbatore has been working in this region towards conserving the forests and wildlife and the local livelihoods of the communities. They will continue to provide support and expertise in undertaking wildlife and social surveys, planning necessary initiatives and solutions towards this project.

The first phase of this initiative can be begun at Top Station where most of the tourism is currently concentrated.

Ecotourism destination development at Top Station

(2nd Ecotourism proposal to Theni Forest Division)

Introduction

In the Theni district of Tamil Nadu, Top Station is the most prominent tourist destination in terms of the total number of tourists. The Kottagudi Panchayat that Top Station is part of, encompasses the Kottagudi valley whose various settlements together form the most trekked circuit in the Theni district. Moreover, this region's shola grassland forest is integral to the district and especially to the towns of Theni and Bodinaickanur by serving as a watershed and providing potable water to the population of 1,245,899 (census, 2011). The Reserve Forest in this region spread over 21829.24 hectares supports birds and mammals including numerous endemic and threatened fauna like Nilgiri tahr, Nilgiri Langur and Indian gaur which are Schedule I species in the Wildlife Protection Act of India, 1972 and Nilgiri Woodpigeon, Black and Orange flycatcher and Whitebellied Shortwing which are threatened and endemic to Western Ghats. The Kottagudi Valley serves as an important landscape link across which wildlife populations migrate across Kodaikanal and Kerala which leads to a stable population. The high tourist visitation has lead to the development of local tourism initiatives undertaken by the local communities of these settlements like home-stays, camping, guides for trekking, small hotels and shops. However, these activities are inadequately planned and managed and has also lead to the degradation of shola-grassland forests.

The present tourism-related infrastructure in Top Station are 23 food/tea shops, six individual fruit vendors, one gift shop and one shooting range along the Top Station View Point pathway. There are three big hotels at Top Station, one with accommodation facility and four small hotels. The camping site owned by Chandisan Company has the highest camping capacity (40 tents) in Top Station. They charge Rs.1000/- per tent. Local individuals also facilitate camping in the area and currently four individuals work on providing tent camping with no standard rate. One large private resort is slowly establishing itself at Top Station - Amazonia. The establishment completely lacks local communities, has involved the removal of the under-canopy vegetation and will also include quad-bike racing in the sensitive terrain. Forty members can be accommodated here with each bearing a rate of Rs. 1500. There are 15 guides 2 cooks and 3 home stay providers in total among the local community at Top Station. For guiding services, the rates vary with individuals irrespective of the quality of the trek. Hence, there is a need for standardizing the rates, according to the feature of the trek in order to promise uniformity in the quality of services provided.

Currently, Top Station is mostly visited in the form of a day activity around Munnar as a "sightseeing" point rather than a "stay behind" tourism destination. Improved infrastructure and better promotion and management would lead to improved income generation that would support the conservation of shola-grasslands, support the livelihood of the local community and improve the tourist experience.

Infrastructure development in and around Top Station, Theni

- 1. Tourism Information/Reception Centre
- 2. Tourist Interpretation Centre
- 3. Parking Area
- 4. Dormitories and Camping Facilities
- 5. Waste Management
- 1. Currently, there is no active promotion of ecotourism activities from a centralized body or major land-owner (Forest Department, Tata) like trekking or bird watching in Top Station. This leads to a severe lack of clarity of who is in charge of tourism and leads to a "free-rider" policy. Already, this has led to massive dumping of garbage close to the food stalls, hotel, camping sites and trek routes. None of the income generated at Top Station actually supports the maintenance and management of the region. Every season, more of the shola-grasslands are replaced by unplanned and unauthorized infrastructure. Moreover, adequate information is unavailable to a tourist regarding the activities that can be undertaken at Top Station that are legally recognized and transparent in terms of fees and necessary permissions. A centralized information cum reception centre with details of activities around Top Station and where the necessary payments can be made to avail entry into Top Station, local trekking guides and home-stays would be beneficial towards this. This would assist in generating income towards maintaining and conservation of Top Station and ensure tourists are provided with the facility to avail these activities. A minimum amount of Rs. 5 as entrance fees for adults and children above 10 years could be collected. One person from the local community could be employed to collect the necessary fees and during peak season, one more person could be employed to provide information on the activities and booking.
- 2. Top station is currently understood and promoted as a view point, its importance in terms of its history and biodiversity are ignored. In order to communicate this information successfully to the tourists, an interpretation centre could be established at Top Station highlighting its history and biodiversity.

- 3. A minimum of one thousand tourists visit Top Station each day during the peak tourist season and, tourist vehicles including cars and buses clog the entire road to Top Station from the Highway to the Tata private gate. A properly designated parking area at Top Station would help in managing the vehicles at Top Station and collecting the necessary fees towards it would better manage the tourism area. Parking fees for bikes Rs. 5, Rs. 10 for cars and Rs 50 for buses. Two persons from the local community could be employed to collect the parking fees.
- 4. A dormitory with basic facilities can be constructed to provide tourists with a cost-effective and reliable accommodation that would ensure their longer stay at Top station rather than a few hours. The dormitory would also help them experience the Top Station landscape through a short walk. The dormitory could be set up at Middle station which is only 4 km from Top Station. This would avoid cluttering of buildings at the sensitive Top Station area, which being the top of the hill is prone to constant erosion from loose soil. It would also be away from the daily crowd which most of the tourists' desire. Tent camping facilities could also be made available around Central Station with three-man to five-man tents to spend the night economically, preferably with a view of sunrise as this would appeal to tourists. This can be planned as per the area available for development under the Forest department at Central Station. Two persons from the local community could be employed in the dormitory as a cook and a house keeper.
- 5. Irresponsible tourism activities and a lack of waste disposal facilities had caused habitatrelated problems especially with uncontrolled waste disposal, unauthorized entry into forests and forest fires. However, in Top Station the local collection of plastic water bottles was initiated, due to its market demand and quantity generated. The plastic bottles are then transported for recycling to Munnar. Currently, there exists no measures to process biodegradable wastes, paper and other plastic wastes like instant noodle packets, biscuit wrappers, milk packets and bread covers which are collected and burned or dumped on the hill slopes posing threats to the environment and the wildlife. Towards this, a storage house could be constructed at Top Station to store the wastes after segregating paper and plastic waste to facilitate their transportation to the recycler during timely intervals. Pits would need to be dug at Top station to collect and aid decomposition of biodegradable wastes. The compost could be made available for buyers or used as a manure by the local community. One person from the local community could be employed to ensure collection and segregation of wastes.

Map of Topstation, Theni District, Tamil Nadu including the locations for new infrastructure to develop the region into eco-sensitive, locally managed tourism destination



*Map not to scale
<u>Multi-stakeholder meeting at Top Station to discuss ecotourism</u> <u>development</u>

A meeting was organized with the Theni Forest Department, KDHP Pvt Ltd and local communities to discuss how ecotourism can be improved in the areas the different stakeholders owned including designation of parking areas and regulating entry into Top Station. The Forest Department also discussed the portion of the land that KDHP was handing over to them for control.



Ecotourism Micro-plan for Theni Forest Division (3rd Ecotourism proposal for Theni Forest Division)

1. Background of the project

The Forest Policy of 1988 urged state governments to develop appropriate strategies for the management of Protected Areas with involvement from and benefits to the local communities. The concerns of livelihood security and biodiversity conservation were attempted to be integrated. Forest-based tourism was identified as an important mechanism not only to motivate protection of forests among local communities but also to ensure a reduced dependence on forest produce. An ecotourism policy was constituted in 2003 for establishing ecotourism sites across Tamil Nadu. As per the guidelines in the ecotourism policy, these locations were to be identified by the Forest Department and community based organizations (VFCs). The establishment of community-based tourism in Anamalai Tiger Reserve has contributed significantly to park protection and visitor satisfaction while ensuring a sustained livelihood for the local community. In Theni Forest Division, the Principal Chief Conservator of Forests, Tamil Nadu identified Top Station as one of the potential ecotourism sites, which is located in the Theni district of Tamilnadu. Towards establishing and implementing this, Forest Department officials, local community and local non-governmental organizations met and locally appropriate community-based ecotourism programs including the benefit sharing mechanism towards seeking approval of the expert authority.

2. Site related information

a. Area

Top Station, situated in the Kottagudi Hills is an extension of the Palni hills that merges with the Cardamom Hills. The village is part of the Kottagudi Panchayat in the Theni district of Tamil Nadu. This area has multiple landowners, those being the Forest Department, Kannan Devan Hills Plantations Private Limited (KDHP) and other private owners. Most of the forest area currently belongs to KDHP, but currently they are in the process of handing over a large portion of the forested areas to the Theni Forest Division. Combining the Revenue and the Forest Land, 3788.44 ha is under Government authority. A considerable portion of land here is utilized by the local community for their tourism infrastructure like restaurants and homestays apart from their own houses and agriculture. The land acquired by the majority of the local community does not have a *patta*.

b. Transport and communication

There is only one motor-able road to Top Station via Munnar in Kerala. Otherwise, it is a 12km trek from the Kurangini village (Bottom Station) at the foothills of Theni. Kurangini is accessible by public and private transport, which is 30km distance from Theni town via Bodinaickanur and the following Munthal check-post. The nearest railway station and airport

is in Madurai (76.4km). There is a post office at Central Station, which is 7km from Kurangini and is accessible only by foot. Mobile connectivity is relatively poor in all the villages in the plains beyond Munthal check-post and connectivity is much better at Top Station than at other villages. Landline phone connections are available in a few houses in Kurangini and Kottagudi villages in the plains.

c. Biodiversity uniqueness of the site

The forest types at Top Station range from the unique shola-grasslands at the higher elevations (1400m asl) to the moist, deciduous forests at lower elevations and dry scrub forests in the rain-shadow plains. Shola-grassland ecosystems are geographically isolated and complex due to its multiple levels of vegetation patchiness, where forests are found in depressions or folds of the mountain and are separated by grasslands. These habitats show high endemism with several species being restricted to a narrow elevation band. The Kottagudi Hills are home to 15 large mammals of which seven species are endangered and two endemic to Western Ghats. There are 116 species of birds of which 10 species are endemic to Western Ghats. The Schedule I mammals as per the Wildlife Protection Act, 1972, seen in this area are Nilgiri Tahr (Nilgiritragus hylocrius), Nilgiri langur (Trachypithecus johnii), Asian elephant (Elephas maximus), Indian Gaur (Bos gaurus) and Leopard (Panthera pardus). Among mammals, Nilgiri tahr, Nilgiri langur and dusky striped squirrel (Funambulus sublineatus) are endemic to the Western Ghats. The Nilgiri tahr, Asian elephant and wild dog (*Cuon alpinus*) are Endangered; Nilgiri langur, Dusky striped squirrel and Indian Gaur are Vulnerable; and the Leopard is Near Threatened as per the IUCN Red List. Among birds, the Nilgiri Woodpigeon (Columba elphinstonii), Nilgiri Pipit (Anthus nilghiriensis), Yellow-browed bulbul (Iole indica), Malabar Whistling-thrush (Myiophonus horsfieldii), Indian Rufous babbler (Turdoides subrufus), Nilgiri Flycatcher (Eumvias albicaudata), Blue winged Parakeet (Psittacula columboides), Black and orange Flycatcher (Ficedula nigrorufa), Crimsonbacked Sunbird (*Nectarinia minima*) and White-bellied Treepie (*Dendrocitta leucogsatris*) are endemic to the Western Ghats. The Nilgiri Wood Pigeon and Nilgiri Pipit are Vulnerable and, the Nilgiri Flycatcher, Black and orange flycatcher and Grey Breasted Laughing Thrush are Near Threatened as per the IUCN Red List. Among herpetofauna, the Travancore ground skink (Kaestlea travancoria) and Horsfield's spiny lizard (Salea horsfieldii) are endemic to the Western Ghats.

d. Tourism attractions

Visiting Top Station to experience the pleasant environment, climate and the view of the valley and, trekking around the landscape are the main attraction for tourists here. The most frequently used trek route is the one from Top Station to Kurangini (Bottom Station), which has great historical importance in terms of human civilization and land-use. Kannagi, the protagonist in the Tamil epic 'Chilapatikaram' is thought to have discovered this route according to local beliefs. Scottish planters, who travelled to Munnar to cultivate tea formally

laid this path around 125 years ago. Tourists also trek from Yellapatty, which borders the Kottagudi Reserve Forest in Theni and the Devikulam Reserve Forest in Kerala, to Top Station. They also trek in the adjoining tea plantations and undertake wildlife and bird watching treks at Pampadum Shola National Park which is managed by the Kerala Forest Department. Top Station is currently more famous for the viewpoint from this area that gives a bird's eye-view of the surrounding mountains including Kolukkumalai, and the Kottagudi valley. Other nature-based attractions involves seasonal waterfalls in the plains in Kurangini and Kottagudi especially the Sambalyar waterfalls. Kurangini is also a weekend destination for many locals in and around Theni and Bodinaickanur. The tourists who comes here can be categorized as: foreign tourists who mostly opt for camping and hard treks and domestic tourists who prefer enjoying the pleasant climate.

e. Cultural attractions

The main cultural attraction in the landscape is the self begotten stone idol of Kannagi at the Kottagudi village, a local deity for which the locals conduct festivals annually. This is attended widely by local communities, including from the surrounding areas like Kanthaloor and Koviloor in Munnar. Another famous temple here is the Kombutooki Ainagar temple whose central deity is Lord Vinayaka. Two short stone pillars etched in an unknown script are present at the Kottagudi village which, the community believes had been laid by their ancestors around 600 years back to mark the entrance to the settlement. Another settlement, Central Station also hosts a historical attraction, a broken stone tomb/mosque whose date of construction and history is unknown and could have been active when the ropeway system was functional. The indigenous community, Muduvars, who are believed to be the followers of Kannagi from Madurai also reside in the Kottagudi valley at 'Muduvakudi'. They subsist on minor forest produce such as leafy vegetables and tubers. They also farm around their settlement, collect honey and medicinal plants to supply for sale and work as daily-wage laborers in the surrounding estates

f. Neighborhood attractions

Munnar, the top tourist destination of Kerala is situated towards the north-western side of Top Station. Most tourists who visit Munnar make a visit to Top Station but very few stay back at Top Station. Top Station is mostly the end destination for a 'sight-seeing' trip around Munnar which include Madupatty dam, dairy farm, echo point, Kundala dam, binocular view point and Yellapatty farms. As all these attraction falls within a 36 km stretch, it accommodates the itinerary for a day trip. Further off from Top Station is the Kurinjimala Sanctuary (with the unique *Strobilanthes* species that blooms once in 12 years) and the farming village of Koviloor. The Kolukkumalai tea plantation is situated in the south-western side of Top Station. Various tourism companies that operate trekking activities to Kolukkumalai facilitate the 'Top valley' trek starting from Yellapatty village to Top Station, which includes a different view of Kolukkumalai, Top Station and Kottagudi valley.

g. List of available infrastructure

	Tourism related infrastructure	Units	Local community involvement
1	Food/tea shops	23	Maximum (includes individuals from Munnar and surrounding settlements)
2	Individual fruit vendors	6	Maximum (includes individuals from Munnar and surrounding settlements)
3	Memorabilia/Gift shop	1	Managed by individual from Munnar
4	Shooting range	1	Maximum
5	Home stay	3	Maximum
	Large hotels with accommodation facility	1	Minimum (owned by non-resident individual)
5	Hotels without accommodation facility	3	Moderate (some individuals from surrounding villages and North India work as hotel staff)
6	Camping	5	Maximum
7	Private view point	1	Minimum (owned by non-resident individual from Theni and managed by 2 individuals based at Top Station and surrounding village)
8	Resort	1	None
	Human resources	No of Individuals	
1	Local Guide	15	All local individuals
2	Chef	5	Local individuals and some from North India
3	Drivers	Taxi stand	There is a taxi stand operated at Top Station where 2-3 taxis are always stationed. Otherwise taxis can be arranged from nearby villages of Koviloor and Yellapatty. A few local guides can also drive

The camping site owned by Chandisan Company has the highest camping capacity (40 tents) at Top Station. They charge Rs.1000/- per tent. Local individuals facilitate camping in the area with no standard rate. One large private resort is slowly establishing itself at Top Station - Amazonia. The establishment completely lacks individuals from local communities, has involved the removal of the under-canopy vegetation, and will include quad-bike racing in the sensitive terrain. Currently 40 individuals can be accommodated here and would cost Rs. 1500 per person per day.

In areas located at higher altitudes, tourism is a growing industry. It has been claimed to have increased over the past three years at settlements within the Kottagudi Panchayat. Tourists visit either the waterfalls or trek across the hill routes. Growing populations of Indian and foreign tourists has led to the development of local tourism initiatives like shops, home-stays, small hotels and informal guides. GREEN, an NGO, carried out local tourism development activities as part of a UNDP project from 2007 to 2009. This involved training locals as guides, promotion of local crafts and marketing local produce like weaving and basket making. Out of 27 trained guides within the Kottagudi Panchayat, eight individuals currently carry out this activity. However the other activities have been dis-continued. Initiatives by some locals include adventure activities like camping and trekking, while rock climbing and mountain biking are activities specifically carried out at Top Station. Such initiatives help locals to earn a good income for 3-4 months in a year when tourist numbers are the highest. Tourist visits also increase on weekends and holidays. However, tourism is not well-managed or planned, especially for visits to waterfalls or treks and neither is it legal and transparent. Free access to these areas has also caused problems for local communities and the habitat, like uncontrolled waste disposal, especially in and around water sources. A local individual from Kolukkumalai stated that the Kerala FD is strict about garbage disposal in its forest, while it is not the same in Tamil Nadu. Kolukkumalai being private estate land, is not under the jurisdiction of the FD or the Panchayat where the garbage disposal is claimed to better. But in reality, the waste from the estate is irresponsibly dumped on the slope and hence stays undetected beyond the tea bushes of the estate. Locals have expressed a need for facilities for regulated garbage disposal however this has not yet been implemented. The use and management of garbage cans has a mixed response, with not many people accepting responsibility for the same.

Tourism is existent in other parts of the Panchayat at Kurangini, Kottagudi and Kolukkumlai. Small ponds and scattered rain-fed waterfalls make Kurangini and Kottagudi a favorite getaway during weekends for the residents of nearby town of Bodinaickanur and Theni. The panoramic view and the rich biodiversity attract photographers and film-makers. Kurangini and Kottagudi have government-owned rest houses that are made available for tourists to stay. Other than these there are no concrete structures exclusively for tourism in this area. Tent camping is also carried out in these parts (Kurangani, Kottagudi, Central Station, Mudhuvakudi) mostly in interior areas, adjoining the forests. As of now, the only authority that keeps a tab on the tourist activity especially accommodation and trekking in Kurangini is the local police. Camping is also available at Kolukkumalai, in the estate-owned campsite and the premium estate guest house, which is promoted as 'Boss Classic Inn'. This mostly accommodates high-paying foreign tourists. A trek to the nearby Meesapullimalai, the second highest peak in South India is possible from Kolukkumlai after due permission is availed from the Kerala Forest Development Corporation. Tourists visit on a daily basis to see the old tea factory, the sunrise and to enjoy the 12 km jeep ride from Suryanelle to the estate during the tourist season. Foreign tourists also visit with a different guide, usually well versed in the necessary language or English, and a local person accompanies them at times to show the routes. In some cases, tourism management initiatives do exist. At Kolukkumalai, the Forest Department (FD) is informed after which the tourists trek through or camp in the forest. Top station is one of the most visited sites by tourists. A portion of this site, which belongs to the FD, is being used for small-scale private tourism initiatives like shops setup by the local community at Top Station and at times leased out to individuals from nearby settlements and from Munnar. The Top Station view point, which is privately owned has an entry fee of Rs.50. Issues faced by the FD are tourist entry into their areas without permission and hawker stalls set up on the way to Top Station.

h. Description of local community

Kottagudi panchayat has 11 scattered settlements distributed in 6 wards of Bodinaickanur Taluk. The six settlements that have been considered to be part of the community-based ecotourism initiative are Kolukkumalai, Top Station, Central Station, Muduvakudi, Kurangini and Kottagudi. The settlements located at higher elevations among these are Kolukkumalai and Top Station followed by Central Station and Muduvakudi. The rest, Kurangini and Kottagudi are in the plains. The local communities already undertake tourism as an alternative livelihood apart from their main occupation of farming, cattle grazing and NTFP collection. Most individuals at Kottagudi depend on farming, while the locals at Kolukkumalai work in the Kolukkumalai tea estate and factory. Muduvakudi is the only indigenous settlement in the Kottagudi Panchayat, which is composed of the Muduvar community. They depend mostly on NTFP collection and daily-wage labor for their daily livelihood. Inhabitants of Central Station depend mostly on daily-wage labor, rural employment schemes, cattle grazing, and providing pony carriages for their livelihood. Top Station is the only village where the main source of livelihood is tourism. The local community at Top Station mostly run wayside amenity shops, small eateries and homestays. Some individuals undertake trekking and camping at Kottagudi, Kurangini, Central Station and Top Station. Most of the individuals who work as guards at the Pampadum Shola National park in the Kerala portion of Top Station are residents of Top Station. In Kurangini, the sources of income are seasonal work in coffee plantation, silk cotton plantations, rural employment schemes and ecotourism. The local community of Kottagudi Panchayat mostly consider Tamil as their native language although they are well versed in Malayalam and some individuals who undertake ecotourism also manage to speak English.

i. Dynamics of local community

Intra-community relations are occasionally affected by caste and religious differences. Differences have been developing over time, however not openly. Some obvious problems are those between landowners and the group of individuals who used to work for them. There is usually no interaction between these two groups, although they are a part of the same settlement. Issues within the community come up during festivals and elections, and subside post these events. Strong community cohesiveness is not apparent in most cases however, no

major conflicts occur. Intra-community conflicts are most often solved within the community and taken to the Panchayat only if they remain unsolved. In Top Station, people believe that the indigenous community is better off due to Government aid and specialized schemes for them. The indigenous community whereas believe that they are not included in most Government plans as they reside in remote locations closer to the forest. A common issue among the community members is varying sources of income and related instability. Lack of implementation of infrastructure development and easy access to needs like water, ration shop, basic transport and medical facilities has caused resentment towards the Forest Department and Village Panchayat.

Most of the guides trained through the GREEN project are at Central, Top station and Kurangini. Some that have not had formal-training through the NGO, function at Kolukkumalai. An informal network of guides when active, works with one guide from Kurangini sending tourists to different settlements and a different guide taking over from that settlement. This works especially on the Kurangani – Kolukkumalai route and not as much on the other routes. There is a monopoly of this route by the local guides from Kurangani.

3. The Proposal

a. Rationale for site selection

Top Station is the most prominent tourist destination in the Kottagudi valley in terms of the total number of tourists that visit. The Kottagudi Panchayat that Top Station is a part of, encompasses the Kottagudi valley whose various settlements together form the most trekked circuit in the Theni district. Moreover, this region's shola-grassland ecosystem is integral to the district, especially to the towns of Theni and Bodinaickanur by serving as a watershed and providing potable water to a population of 12,45,899 (Census, 2011). The Reserve Forest in this region spread over 21,829.24 hectare supports numerous birds and mammals including endemic and threatened fauna like Nilgiri tahr, Nilgiri Langur and Indian gaur which are Schedule I species in the Wildlife Protection Act of India, 1972 and Nilgiri Woodpigeon, Black and Orange flycatcher and White-bellied Shortwing, which are threatened and endemic to Western Ghats. The Kottagudi valley serves as an important landscape link across which wildlife populations migrate across Kodaikanal and Kerala, which leads to a stable wildlife population.

The high tourist visitation has lead to the development of local tourism initiatives undertaken by the local communities of these settlements like home-stays, camping, guides for trekking, small hotels and shops. However, these activities are inadequately planned and managed and has also lead to the degradation of shola-grassland forests. For guiding services, the rates vary with individuals irrespective of the quality and length of the trek. Hence, there is a need for standardizing these rates according to the trek, in order to promise uniformity in the quality of services provided.

Currently, Top Station is mostly visited in the form of a as a "sightseeing" point around Munnar rather than a "stay behind" tourism destination. Improved infrastructure and, better promotion and management would lead to improved income generation that would support the conservation of shola-grasslands and the livelihood of the local community while improving the tourist experience.

b. The current status of biodiversity in the selected site

Top Station has three Schedule I protected species, four in schedule II, two in schedule III and one in the schedule IV of the Wildlife Protection Act, 1976. Top Station has 15 mammals including the Nilgiri marten and Nilgiri Langur which are endemic to Western Ghats. Of these, seven are threatened as per the IUCN Red List. Herds of Indian Gaur are present around Top Station and across the Kottagudi valley. The Endangered dusky striped squirrel is restricted to higher elevations like Top Station, Central Station and Kolukkumalai. There are 64 species of Birds in Kottagudi like Nilgiri Wood pigeon, White-bellied blue robin, Malabar whistling thrush, Eurasian Black bird, Indian scimitar babbler, White-bellied short wing, Nilgiri flycatcher, Black and orange flycatcher and Kerala Laughingthrush can only be seen at high elevations. Top Station also has characteristic herpetofauna like the large-scaled pit viper and Nilgiri Spiny Lizard.

Apart from the nearby Pampadum Shola National park and the Kurinjimala Sanctuary that occur in the adjoining state of Kerala, forest areas of Top Station that occur within Tamil Nadu are not formally protected within any protected area. However, a proposal for a Conservation Reserve that integrates this region and the Agamalai Hills is currently being considered by the Tamil Nadu Forest Department. Biodiversity in the area are affected by habitat fragmentation and disturbance caused by the tea estates, *Lantana camara* thickets, coffee cultivation and uncontrolled tourism. The habitat also has plantations of *Eucalyptus* and pine trees which supports lesser biodiversity.

c. Likely conflicts between resource use for ecotourism and the livelihood of local inhabitants, if any

At Kurangini, some individuals claim access and authority to all trek routes around the Kottagudi Panchayat sometimes even denying entry for other guides from other settlements in the Panchayat. The local police officials are also said to be asking for "something" from local guides to provide permit for tourists to access trek routes and even campsites that are set up in private-owned land. Other than this, there is no conflict among the community regarding the resource use for ecotourism and their livelihoods, as ecotourism is already in practice at Top Station as a major income source.

The local community have already set up food stalls and small shops in the land owned by KDHP Pvt Ltd and FD, which has been functional since 10 years. These encroachments could cause conflicts between this local community and the FD, when new infrastructure for the planned ecotourism initiatives are constructed by the FD. The local community at Top Station are also not interested in salaried employment from the FD since the salaries are meagre in comparison to the income they generate from the stalls. This could prove challenging for the

FD to convince the local community to manage the ecotourism officially and pro-actively at Top Station. Another point of conflict is from the private View Point setup by a resident of Theni at Top Station that has monetarized a pathway owned by the Forest Department/KDHP. The political clout of these private owners might continue to impede in providing cost-effective and ethical ecotourism initiatives to the visiting tourists.

The local communities' association with the FD is characterized by resource use, forest fires and livestock grazing. The local communities' concerns with the FD also relates to infrastructure development like the construction and maintenance of roads and putting up street lights. Since some areas fall within the Reserve Forest and have thick vegetation cover, clearing such roads is not permitted by the FD. There is also a a general perception that if the FD were to get more active in the area, it would lead to stricter enforcement of resource use regulations that could cause further conflicts between the FD and local communities.

A Village Forest Committee (VFC) in the area has been inactive. Irregular or lack of turnout of local individuals at meetings, even during official visits by the Conservator of Forests (Madurai Circle), is a problem faced by the Theni FD. The VFC also provides interest-free personal loans to local communities, most of which are claimed to have not been re-paid. The existing head of the VFC is also said to be negligent of his responsibilities and is also disinterested in vacating his post. There have been numerous discussions of appointing a different VFC head, which has not resulted in any further action.

At Central Station, local individuals claim that a revised survey of private land did not take place in their village due to which the area is being encroached upon. Initiatives have been taken up by the locals to convince the FD to issue new documents; however this has not resulted into reality so far. This has led to resentment towards the FD, with little or no discussion about land use solutions. Hence there could be chances of this community not cooperating or participating in the eco-tourism initiatives by the FD.

d. Strategies to minimize the conflicts (social integration, integrated landuse plan and expansion of public services)

In light of the existing data from the preliminary surveys (PRA, socio economic survey) the immediate requirement is to develop entry points at Top Station and Kurangani/Kottagudi. This would assure transparency in managing tourists, the income generated and, create employment for the local community. In order to ensure equal opportunities for all registered guides, a 'one window' booking/registry system would need to be implemented at the two entry stations. The bookings shall be registered by the tourists at the entry stations and, guides will be given opportunities based upon their availability and their expertise. The formation of Ecotourism Management Committee (ETMC) including the relevant members from all the participating villages shall ensure transparency and promote equal membership in the entire Kottagudi Panchayat. An authorization system would need to be setup by the Eco-tourism Management Committee (ETMC), which would issue passes to the tourists. These passes would need to be recognized by the Forest department, Police department and the Panchayat

so that it can be utilized as a proof for tourists and local guides. An identity card would also need to be issued to the local guides registered as a member of the ETMC authorizing his/her services as a guide in the Kottagudi Panchayat.

Multiple meetings needs to be conducted with the local community for the developing and implementing ecotourism infrastructure and managing the ecotourism initiatives. Assistance from FD to the local community in providing employment opportunities, capacity building and management of eco-tourism would improve the relationship of the FD among a certain section of the local communities. The local individuals at Top Station, who have already setup food-stalls could be provided designated stalls established by the FD. A monthly rental fixed by the FD could then be paid by these local individuals to the ETMC.

A workshop involving guides from the local community was organized on 16th and 17th July 2013 to initiate dialogues on community based tourism in the Kotagudi Panchayat. This workshop was also initiated towards building a network amongst the guides towards forming a united local group involved in ecotourism. The workshop also formulated best locally appropriate practices for the guides in the field. While the knowledge and services provided by these existing guides was remarkable, individual conflicts and their issues towards FD needs to be improved.

e. Carrying capacity of the site

The carrying capacity of a site revolves around the following three dimensions: socialdemographic, physical-environmental, and political-economic. These dimensions reflect the range of issues arising while implementing an ecotourism plan. At Top Station however, the current tourism is not managed or reviewed until now. This provided an opportunity to understand the issues related to the three dimensions of tourism in the region. According to the convention on Biodiversity, assessment of carrying capacity is not a holistic approach towards visitor management. The number of tourists who can visit Top Station in a day can then only be indicated through the number of tourists who can be logistically managed by the ETMC. The maximum number of tourists that can be efficiently accommodated through various services proposed for trekking, camping and other local accommodation on a daily basis are 250 tourists. The daily visitation during the peak season to Top Station viewpoint is around 500-1000 currently, which can be maintained as such. Hence the maximum capacity of tourists for Top Station for a day would be 750-1250.



Figure 1. Trek routes, major villages and flagship species in the Kottagudi valley as per PRA with local communities

f. Suggested activities with timeline

Month/year	Activity	Particulars	Unit	Cost (in lakhs)
Sept-Nov 2015	#Entry Stations	To systematically manage ecotourism	2 stations @Rs. 1, 00,000 lakhs per station (Kurangini, Top Station)	2.0
Oct-Nov 2015	*Waiting sheds	To provide resting sheds to trekkers and tourists for rest, shelter from rain and drinking water	2 (Central Station, Top Station)	1.0
Sept-Nov 2015	#Parking area	Systematic accommodation of traffic	Two areas (large and small vehicles) to be demarcated as parking spaces at Top Station	4.0
Sept-Oct 2015	*Levelling grounds and construction of retaining walls and fixing barricades	As per site requirement	2 (Top Station and Central station)	15.0
Sept 2015	#Surveys	To understand tourist preferences of food, activities and souvenirs	One questionnaire survey with atleast 100 tourists	0.3
Nov 2015 - Feb 2016	#Waste management	Setting up dustbins for degradable and non- degradable waste. Construction of a central waste stocking unit. Appointment of two individuals for waste collection and segregation. Arranging transportation to transfer non-degradable waste	14 cement dustbins (Top Station)	4.0
Dec 2015- Apr 2016	#Stakeholder discussions and capacity building	Discussions on ecotourism management and training of local community at Top Station to manage the ecotourism initiatives	2 meetings (one community meeting and one stakeholders meeting) and 4 capacity building workshops (hospitality and catering, guiding and tracking wildlife, waste management,	6.0

			development of products and services)	
Dec 2015- Jan 2016	*Formation of viewing platform	For tourists to view the Kottagudi valley from an elevated platform	2 (Munthal, Top Station)	6.0
Dec 2015- Jan 2016	*Construction of watch tower	For viewing the Kottagudi valley from an elevated platform for tourists and for vigilance on the area by the Forest Department	1 (Top Station)	6.5
Jan-Feb 2016	*Construction of eco shops	Eco shops that sell promotional materials, souvenirs and local produce	2 eco shops: Top Station (1), Kottagudi (1)	5.0
Jan-Feb 2016	*Construction of food court	Food court to sell local food and refreshments	Top Station (1)	8.0
Jan-Feb 2016	#Construction of public toilet	Public toilet with basic needs	1 toilet building with 4 cabins: 2 for men and 2 for women at Top Station	6.0
Jan-Mar 2016	#Water connections	Water pipe connectivity for food court & drinking water, toilet and dormitory	3 sets of 1 syntax tank, water pump and water pipe connection (according to length needed).	2.5
Mar-May 2016	*Construction of Dormitory	To provide a cost-effective accommodation facility for	1 dormitory with a maximum housing capacity of 30 tourists at Top Station	10.0
Mar-Jun 2016	*Construction of interpretation centre	Interpretation centre to promote nature conservation among tourists by providing them with information of the history and biodiversity of the region	2 interpretation centers: Top Station (1), Kottagudi (1)	8.0
Apr 2016	*Binoculars and spotting scopes	For viewing biodiversity	4 (Top Station)	2.0
Apr 2016	*Camping material and kitchen utensils	Basic camping and kitchen material, furniture, mattresses and bed linen for dormitory, camping and trekking	As per requirements	2.5
Apr-May 2016	*Construction of landscaping and providing other recreational facilities	To provide tourists with an easy means of access	Top Station	9.5

Apr-Jun	*Walk paths and	To provide tourists with an easy means of	Kurangini - Top Station trek path	8.0
2017	steps for easy	access		
	treading from			
	Top Station to			
	Kurangini			
Jun 2017	#Mid term	To analyze the progress and effect of	-	1.5
	evaluation	ecotourism initiatives implemented and		
		undertake any changes if necessary		
Jul-Sep	#Forest	Regeneration of the shola-grassland	Top Station	4.0
2016	Regeneration	ecosystem by clearing the invasive Lantana		
		<i>camara</i> , pine and eucalyptus trees		
Aug-Oct	#Development of	To provide tourists with unique items to	Top Station, Kottagudi, Kurangini,	2.5
2016	souvenirs from	make Top Station distinct in the tourism	Central Station, Kolukkumalai	
	local materials	circuit at Munnar and provide local		
		communities an additional means of		
		livelihood		
Nov 2016-	#Designing and	To create a brand and strategy for focused	Top Station	8.0
May 2017	Printing	and responsible ecotourism at Top Station		
	promotional			
	materials, and			
	organizing			
	promotional			
	events			
Jan 2017	#Information	To provide information on the biodiversity	3 Waste management boards and 2	1.0
	boards and	and available tourism initiatives at Top	tourist information boards (Top	
	signage	Station and towards disposing waste	Station, trek route from Top Station	
		carefully	to Kottagudi)	
Jun 2017	#Final evaluation	Final analysis of progress and effect of	-	1.5
		ecotourism initiatives		
	TOTAL COST			124.8

*Activities suggested according to the G.O (Ms.) No. 59 dated 19>5.2014 for which INR 98.0 lakh was sanctioned by the Tourism Culture and Religious Endowments (T3) Department.

Activities suggested by NGO

g. Collaborating agencies/ professionals

- I. For capacity building of CBET team (hospitality, catering, guide, tracking wildlife, waste management) who is the collaborator? Their experience in the respective domains.
 - Hospitality: Senthil Kumar, Kestrel Adventures and Holidays Pvt. Ltd. Mr. Senthil is a tour operator since 2002 and the founder of Kestrel Adventures. He has been carrying out responsible community-based initiatives in Munnar and the Kottagudi valley
 - Catering: Senthil Kumar and Paul Raj. Senthil Kumar has experience catering for tourists especially during outdoor camps. Paul Raj is familiar with regional and international cuisines.
 - Guiding: Senthil Kumar and Renjith Hadlee. Both collaborators are part of Kestrel Adventures and Holidays Pvt. Ltd. Renjith Hadlee is also an experienced professional guide and naturalist who had received a certificate of excellence from the National Adventure Academy, Idukki.
 - Tracking wildlife: Arun Kanagavel and Sandeep Das are wildlife conservation researchers working in the region since 2010. Renjith Hadlee is a professional guide and naturalist part of Kestrel Adventures and Holidays Pvt. Ltd. The three collaborators will support this component
 - Waste Management: Arun Kanagavel and Sethu Parvathy are researchers working in the Anamalai landscape and has been part of initiatives aimed at implementation and raising awareness regarding waste management in the Kottagudi valley.
 - For production of local souvenirs: The Daily Wild is an enterprise founded by Arun Kanagavel and his family, which focus on developing products on the theme of biodiversity to promote sustainable and recycled products including those made by local communities. The Daily Wild is also involved in promoting responsible community-based produce in the Kottagudi valley.
- II. For development of Products and services (customer-based tour packages and services like food, homestay, guide, healthcare and shopping)

Kestrel Adventures and Holidays Pvt Ltd and The Daily Wild with their experience in formulating and promoting tour packages will provide services in facilitating homestay, guide

and nature-based activities. Mr. Hari Prasad, an artist based in Munnar who has helped design the interpretation center at Kottagudi will also help in developing the products.

III. For marketing of products and services

Kestrel Adventures and Holidays Pvt. Ltd and The Daily Wild are involved in marketing and promoting products and services. The promotion of Kottagudi valley had already been initiated through social media. The social networking site - Facebook is currently used as a medium other than directly networking with tour operators in Kerala and Tamil Nadu.

4. Community's involvement

a. Preparation of microplan

The microplan was prepared by Conservation Research Group (Sethu Parvathy, Arun Kanagavel) a research organization that is part of St. Albert's College (Kochi). They two wildlife researchers cum anthropologists have been based at Theni and have been working in the region since 2010 and specifically on improving ecotourism at Kottagudi valley since 2013. Information obtained from the discussions and surveys conducted with the local community by the Forest Department to initiate new ecotourism activities at Top Station have been integrated into the microplan.

b. Participation in development of destinations

The ETMC, which is represented by individuals from the local community, will be involved in identifying and developing trek routes and itineraries for Top Station. The ETMC shall commence a meeting with public and private sector groups (like NGOs, Kottagudi Panchayat, private tour operators) to formulate a working plan on implementing the microplan, managing ecotourism, improving visitor experience and providing sustainable local products for the tourists at Top Station. A destination map shall be developed with participation from the community that could help the tourism providers to understand the destination better. The ETMC shall present the destination itinerary for Top Station to the network of private tourism operators for including it in their tourism plan. The waste management plan will be implemented by the ETMC, which would prove much easier if a prohibition on the use of plastic was issued while planning and implementing the tourism plan. Apart from being an easy measure to manage the waste, this prohibition shall also be in the best of interest for responsible ecotourism. Group discussions shall be conducted within the ETMC to plan promotional events at Top Station to improve tourism and tourist experience at Top Station. The planned infrastructure at Top Station would be implemented after integrating the suggestions of the local community. The new job opportunities that will be created after implementation of tourism initiatives at Top Station will be provided only to the resident local communities of Kottagudi Panchayat.

c. Participating in training for special skills (construction of eco huts and other visitor infrastructure and, hospitality)

All the individuals from the community who are currently practicing tourism as their livelihood and those who are willing to take up new activities related to ecotourism in Top Station shall attend the training courses (Table f) to build capacity in skills integral to ecotourism. In order to ensure participation from the women of the community there will be women collaborators as a part of every workshop conducted.

d. Concurrence and adopting to Village/ Community charters for self regulation and implementation of ecotourism policies and strategies.

The ETMC, which is represented by the resident local community at Top Station and Theni Forest Department, shall be the authority for self-regulation and implementation of the ecotourism plan at Top Station.

5. Project Implementation

a. Role of ETMC (like role in awareness creation, management and maintenance of sites, aforestation and forest protection, support services to SHGs)

The ETMC will be responsible for creating awareness among tourists and the local communities in the Kottagudi valley regarding the biodiversity and history of Top Station and waste management through the setup of information boards and interpretation centers. Awareness programs will also be conducted by the ETMC every year to promote the conservation of biodiversity and natural resources. This committee will also be responsible for identifying maintenance requirements for the existing infrastructure. A special impetus will be made by the ETMC to effectively manage and maintain the waste generated due to the tourism in the Kottagudi valley. The ETMC shall have an accounting wing to manage the finances, which include book keeping, usage of funds on various activities and profit sharing. A logistics wing in the ETMC will plan tourism plans, implement them and undertake tourist management. A promotion wing in the ETMC will promote Top Station amongst tourists (social media, local newspapers, magazines, tourism specific programs at Top Station) and tour operators (brochures detailing destination profile and tourism services, dedicated services and packages for tour operators). Additional a biodiversity protection wing within the ETMC could be setup to plan and implement aforestation initiatives, protection of forests from forest fires and protection of wildlife. The biodiversity protection wing shall be trained in tracking wildlife and undertaking biodiversity-related surveys.

b. Role of local institutions (Gram sabha, PRI, SHG etc)

Local institutions will facilitate the construction of infrastructure and will support the implementation of ecotourism plan whenever necessary. Local self-help groups will support the management of wastes and the development of souvenirs and local food.

c. Role of forest department staff

The Forest department will be the key facilitators for this ecotourism venture. They shall be actively involved in all initiatives and will overlook all issues related to ecotourism at Top Station. The Department will be actively involved in gathering individuals from the local community at Top Station towards developing Top Station into an ecotourism destination and working in the different activities planned. The presence of the Forest department would also positively influence the local community towards a synergistic view towards the environment rather than as a commodity, which is the current status at Top Station as of now. They will organize and facilitate all meetings with the ETMC and the local communities and other organizations involved in the planned ecotourism initiative. The Forest Department will help manage and keep in check all the financial transactions of the ETMC and will initiate half-yearly audits. The officers of the Bodi Range shall be responsible for offering timely support especially with regard to managing tourism at Top Station, implementing eco-tourism related restrictions and accurate collection of fees. The forest department will also help develop and implement a regulatory framework for controlling unsustainable tourism.

d. Role of other stakeholders/ service providers/line departments

The role of other collaborating agencies/professional has been detailed in the above sections. The development of an institutional body to manage tourism and biodiversity conservation is of highest priority for this ecotourism initiative at Top Station. Towards this, collaborations with various other related institutions, NGOs, Panchayat, Pudhu Vaazhu thittam, Department of Tourism and academic institutions is essential. The evaluation and monitoring components of the ecotourism plan will be developed in partnership with research based-institutions or professionals. This will help achieve transparent, high quality and independent reviews that would improve the existing ecotourism through a feedback mechanism.

6. Expected Result (to be quantified)

a. Reduction in forest dependent livelihoods (for forest dependents)

The only forest dependent livelihood activity by the local community in Top Station is tourism that does not utilize any forest produce. However, this does affect the habitat quality due to disposal of tourism-generated waste in natural areas. Firewood collection (including for camp-fires) and encroachment of forest area is prevalent in the area. Recently, goats are also being grazed at Top Station. These issues shall be addressed with a view to reduce dependence and find a pragmatic solution during ETMC meetings. After the implementation of ecotourism initiatives at Top Station, an efficient system for waste disposal and regular clean-ups will help improve and retain the quality of the surrounding shola-grassland habitat.

b. Community's commitment to biodiversity conservation

The successful implementation of the waste management and reforestation initiatives would indicate the community's commitment towards biodiversity conservation. Moreover, their participation in the site clean-ups organized, pro-active role changing the behavior of tourists from the perspective of waste disposal and reporting forest-fires and other threats to biodiversity would display the local community's commitment to biodiversity conservation.

- c. Increase in the level of visitors' awareness and commitment to biodiversity conservation Increasing the level of visitors' awareness and commitment to biodiversity conservation will be a major focus of this initiative. Interpretation centers with a dedicated interpreter will explain the shola-grassland habitat and the need to conserve grasslands and associated biodiversity. Information boards will be setup at strategic locations to provide information regarding Top Station, especially its history and to dispose waste in the allocated bins. All the individuals of the local community who will be a part of this initiative will make sure that tourists do not litter and pick up pro-conservation behavior in this manner. At the entry points, tourists especially of Indian origin will be suggested to undertake short treks at Top Station and also stay back in the guest accommodations for a better experience of this ecotourism site. The food court at Top Station will serve local sustainable produce and the souvenir store will sell locally developed products that will improve visitors' awareness and commitment to biodiversity conservation, especially at Top Station.
- d. Direct employment in the CBET site

The direct employment opportunities that will be created through the implementation of the various activities in the ecotourism initiative are:

- i. Ticketing, Tourist information and registry keeper at Entry stations (Munthal, Top Station): 4 personnel
- ii. Parking Manager (Top Station): 2 personnel
- iii. Forest protection and tourist safety watchers: 8 personnel
- iv. Chief Accountant: 1 personnel
- v. Interpreter at the interpretation center (Munthal, Top Station): 2 personnel
- vi. Binocular/spotting scope: 1 personnel
- vii. Food Court (Top Station): 10 personnel
- viii. Eco shop: 3 personnel
- ix. Trekking guide: 20 personnel
- x. Camping team (2 chefs and 1 guide): 4 teams (12 personnel)
- xi. House-keeping and Chef at Dormitory (Top Station): 2 personnel
- xii. Waste management & maintenance: 2 personnel
- xiii. Toilet maintenance: 1 personnel
- xiv. Construction of infrastructure and maintenance of trek routes: Temporary daily-wage laborers as per need

Total direct employment generated: 68 personnel

- e. Employment created indirectly by providing opportunities for alternative employment.
 - i. Tourists will be advised to stay at home-stays run by the local communities themselves. An employment for a total of 10-20 resident families will be supported in this manner.
 - ii. Development of local, hand-made souvenirs and other products in the Kottagudi valley will support individuals from the local communities around this region
- iii. Farmers in and around Top Station would benefit from their local produce being directly bought by the Food Court and hawkers at Top Station.
- iv. Pambadam Shola National Park (Kerala) has benefited from the tourism at Top Station. Most of the front-line staff employed at this protected area are from the resident local community at Top Station. A larger inflow of tourists would also improve the revenue and lead to more employment opportunities being generated at this protected area, especially among trekking and wildlife enthusiasts.
- v. Taxi and jeeps operate regularly from Munnar to Top Station. A larger tourist inflow will lead to higher income and more drivers would receive employment through this. Additionally, share-jeeps can be officially planned to and fro from Top Station.
- vi. Tour operators: The ecotourism initiative planned at Top Station will liaise directly with tour operators towards supporting a clientele that would trek and stay at Top Station to maximize returns for the venture. Such a collaboration would also work in the favor of higher incomes for tour operators through reduced rates and higher turnover in tourist volumes.
- vii. KDHP Pvt Ltd: This tea plantation based company owns a large proportion of the land at Top Station and many of their previous employees live(d) at Top Station. If they were to develop tourism-related infrastructure and initiatives including organizing treks through their tea-plantations then additional employment opportunities would be generated for the local communities within this company.
- viii. Private resorts: Numerous private resorts are being built in and around Top Station, which will directly depend on the tourist inflow to Top Station and the tour operators. These resorts will provide additional employment opportunities to the local communities in and around Top Station.

7. Budget

a. Sources of income (initial working capital to ETMC, gate receipts)

	Particulars	Amount (Rs)
1	Initial capital issued to ETMC from Tourism. Culture and	98,00,000
	Religious Endowments Department	
2	Gate passes	10 per adult
		5 per child
3	Parking fees	
	Two wheelers	10 per vehicle
	Three wheelers	15 per vehicle

	Four wheelers (cars and jeeps only)	20 per vehicle
	Tempo travelers	50 per vehicle
	Buses	100 per vehicle
4	Toilet Maintenance	5 per person
5	Trekking fees (excluding Trekking guide's wage and packed food)	50 per person
6	Camping fees (excluding Camping team's wage and food)	250 per day per person
7	Dormitory	200 per day per person
8	Sale of souvenirs	20,000 per month
9	Maintenance charges at Food Court (10 stalls)	500 per stall per month
10	Fine towards littering the area (This fine will be enforced and collected by a forest protection and tourist safety watcher if a tourists is noticed disposing any plastic, inorganic or organic waste in non-dedicated areas)	200 per instance per person

b. Details of expenditures (investments, recurring)

	Expenditure	Particulars	Amount (Rs)
1	Total project cost		1,24,80,000
	Confirmed Investments		
2	Ecotourism Infrastructure	Proposed in G.O (Ms.) No. 59	98,00,000
	(Initial)		
3	Balance investment required	for project implementation	26,80,000
	Recurring expenditure		Annual Amount* (Rs)
2	Salaries	Personnel directly employed for	58,80,000 (annually)
		ecotourism activities as per	
2	XXZ	Annexure 2	
3	Waste transportation	Lorry renting costs	96,000 (8,000 p.m.)
4	Health and safety	First aid material	12,000 (1,000 p.m.)
	equipment		
5	Maintenance	Maintenance of infrastructure	1,20,000 (10,000
			p.m.)
6	Electricity	Expense on monthly usage of	1,20,000 (10,000
		electricity	p.m.)
7	Food supplies	For preparing meals for tourists	35,92,140 (annually)
		during trekking, camping and	
		stay at dormitory	
8	Annual auditing	Expenses incurred for an	25,000 (annually)
		annual auditing of financial	
		accounts by an independent	
		auditor	

*p.m. = per month

c. Likely returns on investment

	Particulars	Amount (Rs)
1	Initial Investment	1,24,80,000
2a	Minimum Profit during 1 st year	18,00,000
2b	Estimated Profit for 7 years @ 10% growth	1,38,88,098
	in profit every year	

This ecotourism venture will break even as per the most conservative estimation by the 6^{th} year of its commencement (2022).

8. Monitoring and Evaluation

- a. Monitoring indicators
 - i. Site infrastructure plans and on-ground implementation
 - ii. Minute books of periodical multi-stakeholder meetings on implementation progress
 - iii. Status of waste at Top Station after implementation of waste management initiatives
 - iv. Visitor book at Eco-hut and dormitory showing comments/messages from tourists
 - v. Habitat characteristics of restored shola-grassland sites at Top Station.
 - vi. Tourist surveys to understand visitor satisfaction
 - vii. ETMC financial accounts
- b. Monitoring mechanisms
 - i. The site infrastructure plans will be cross-checked with its progress on the ground by an independent civil engineer and architect.
 - An ecotourism management expert shall analyze the entries from the minute book of the multi-stakeholder meeting to assess the discussions regarding the ecotourism initiative. They shall also make suggestions on improving the management and operation of these initiatives.
- iii. The extent of waste generated at Top Station before and after implementation of waste management initiatives will be measured along with the number of instances of unethical waste disposal instances by the local communities and tourists.
- iv. The ETMC shall in all meetings read visitor suggestions at the Eco-hut and dormitory and, take the necessary action on improving visitor satisfaction. A social science expert shall also analyze the visitor book entries to formulate mechanisms to improve visitor satisfaction at these visitor interaction centers.
- v. A botanist shall conduct habitat characterization surveys before and after restoration of the shola-grassland sites across a period of 5 years. The results of surveys shall be analyzed to assess its progress.
- Questionnaire surveys shall be undertaken with 100 tourists before and after setup of planned ecotourism initiatives to understand the tourism experience by 4 collaborators. The questionnaire will be formulated by a social science expert who will also analyze the results.

- vii. An auditor shall review the finances of the ETMC and suggest measures to manage profits and use the funds available in a cost-effective manner.
- c. Monitoring frequency
 - i. The site infrastructure plans will be monitored every two months until its implementation is completed.
 - ii. The ETMC meetings shall happen once every three months and the multi-stakeholder meeting shall happen twice every year or as and when necessary in case of emergency regarding management or resource use concerns.
 - iii. Waste management will be monitored once every three months every year.
 - iv. The visitor book entries shall be analyzed once every three months during the first year of commencing the ecotourism initiatives. Visitor book entries shall then be monitored twice every year after the peak seasons (June and December).
 - v. Habitat characterization surveys shall be conducted at the site before restoration and once every year post-restoration during the summer season for a period of 5 years.
 - vi. Visitor satisfaction surveys shall be conducted twice every year during the two peak tourist seasons.
 - vii. The financial auditing shall be conducted once every year at the end of the financial year
- d. Monitoring formats

The monitoring format for each indicator vary vastly in their methods used and will be formulated as per the experts and collaborators involved in monitoring and evaluating the planned ecotourism objectives

e. Monitoring team

The monitoring team shall be identified and selected as per the qualification and experience required in the particular subject.

9. Sustainability

a. Projected income from the tourism operations

The table below details conservative daily average figures of the income generated from the ecotourism activities proposed at Top Station. These figures would provide an idea of the minimum income generated per day during the peak tourist season.

	Activity	Income generated per day* (Rs)	
1	Gate passes	7000 (650 adults, 100 children)	
2	Vehicle passes	2200 (15 two-wheeler, 10 three-wheelers, 30 four-	
		wheelers, 10 minivans, 8 buses)	

Trek (10 tourist groups of 5	13500 (Rs 600 per guide, Rs 125 per food box
individuals each, 1 trekking guide	(lunch), Rs 50 per person for trekking permit)
per group, 1 packed food box)	
Camps (4 camping groups of 6	28,000 (Rs 2200 per camping team, Rs 400 per tent,
individuals each)	Rs 100 per sleeping bag, Rs 250 per person for
	camping permit, Rs 400 per person for food charges
	for three meals)
Dormitory (occupied by 20 people	13,000 (Rs 250 per person for dormitory rent, Rs
for a night)	300 per person for food (dinner & breakfast), Rs
	100 per person for house-keeping and cook)
Public toilet	750 (Rs 5 per person for 150 individuals)
Fines collected	Fines collected will be returned to the tourist in case
	he/she picks up the waste disposed unethically and
	disposes it in the designated area
TOTAL	64,450 per day (during peak season)
	 individuals each, 1 trekking guide per group, 1 packed food box) Camps (4 camping groups of 6 individuals each) Dormitory (occupied by 20 people for a night) Public toilet Fines collected

*This is a projected income and average values have been estimated

Income generated through tourism activities for a year

The annual income generated from the ecotourism activities has been estimated below as per the average income generated during each day of the peak tourist season and non-peak season. The income generated during each day of the non-peak season has been extrapolated using the peak season estimates at a ratio of 2:25 (Peak season: Non-peak season)

	Season & No. of days	Average daily income (Rs)	Average annual income (Rs)	
1	Peak season: 150 days	64,450	96,67,500	
2	Non-peak season: 180 days	9,207	16,57,260	
		Sub-TOTAL	1,13,24,760	
3	Monthly maintenance fee	5000	60,000	
	from food court stalls			
4	Monthly profit from sale of	20,000	2,40,000	
	souvenirs			
	TOTAL 1,16,24,760			

b. Estimated expenses to run the Tourism operations

	Activity	Expense estimated for a year (Rs)
1	Salaries	58,80,000
2	Waste transportation	96,000
3	Health and safety equipment	12,000
4	Maintenance	1,20,000
5	Electricity	1,20,000
6	Food supplies (Camp, dormitory and trek for peak tourist season (150 days) and non-peak season (180 days))	35,92,140*
7	Annual auditing	25,000
	TOTAL	98,45,140

*Food supplies:

- a) Camping: Peak season = 14,40,000 (400*24*150), Non-peak season = 1,38,240 (400*24*180*0.08)
- b) Trekking: Peak season = 9,37,500 (50*125*150), Non-peak season = 90,000 (125*50*180*0.08)
- c) Dormitory: Peak season = 9,00,000 (300*20*150), Non-peak season = 86,400 (300*20*180*0.08)
- c. Expected gains

	Annual balance sheet	Total (Rs)
1	Annual income	1,16,24,760
2	Annual expenses	98,45,140
	TOTAL	17,79,620

The expected approximate minimum annual profit is Rs. 18,00,000 per year.

d. The application of the use of gains

The profit gained shall be utilized towards undertaking ETMC meetings, maintenance of existing infrastructure and equipment, undertaking new biodiversity conservation measures, setting up a corpus fund, monitoring of ecotourism initiatives and improving the livelihoods of the local communities at Top Station and other participating settlements of the Kottagudi Panchayat.

Annexure- 1: Detailed list of proposed infrastructures

Type of infrastructure	Details of infrastructure	Location (lat and long)	Size/length	Facilities	Capacity	Cost
Entry stations	To manage tourist entry locations and provide details of ecotourism services		50 sq ft	Accommodate 2 ticketing officers and have billing and phone facility	NA	
Waiting sheds	Shelter from rain and sunlight for trekkers			This is a roofed structure10 personswith seating facility anddrinking water		
Parking Area	To manage vehicular traffic at Top Station		32500 sq ft / 0.75 acre.	Parking lot with different 100 cars areas marked for different vehicles		
Retaining walls	For safety of tourists at the view point		as per site requirement	NA	NA	
Waste management units	Construction of a central waste stocking unit, organic waste collection pit and designated cement structures for waste disposal by tourists		300 sq ft roofed structure, 10 sq ft pits (10 no), 20 collection pits	Dedicated space for aggregating inorganic wastes post segregation for transportation to scrap dealers, space for decomposing organic waste and space for disposal of organic and inorganic waste by tourists	NA	
Viewing platform	To view the Kottagudi valley from an elevated platform			An elevated roofed platform	20 persons	
Watch tower	For viewing the Kottagudi valley from an elevated platform			An elevated roofed platform	20 persons	

	for tourists and for vigilance on the area by the Forest Department		
Eco shops	Shops were locals will can buy souvenirs	Promotional materials, locally designed and hand-made souvenirs, local produce	20 persons
Food court	Small eateries and restaurant	Provide a wide variety of local and hygienic food	100 persons
Public Toilets	Public toilet	4 toilet cabins will provide basic toilet facilities	2 men & 2 women
Dormitory	To provide a cost- effective accommodation facility for students	The dormitory will consist of 5 bedrooms with attached toilets	30 persons
Interpretation center	Interpretation center to promote nature conservation among tourists	The center will provide background information in a visual format about the history of the region, its biodiversity and its importance to human life	20 persons

Annexure- 2 Proposed direct employment generation

	Type of Employment	No to be involved (personnel)	Approximate employment period (day/month)	Expected daily/monthly income (Rs)	Average yearly expenditure (Rs)
1	Ticketing, Tourist information and registry keeper	4	12 months	7500 per month	3,60,000
2	Parking Manager	2	12 months	6000 per month	1,44,000
3	Forest protection and tourist safety watchers	8	12 months	8500 per month	8,16,000
4	Chief Accountant	1	12 months	18,000 per month	2,16,000
5	Interpreter at the interpretation center	2	12 months	7500 per month	1,80,000
6	Binocular/spotting scope/Watch Tower	1	12 months	6000 per month	72,000
7	Food Court	10	12 months	Income will be generated by the personnel directly	N/A
8	Eco shop	3	12 months	7000 per month	2,52,000
9	Trekking guide	20	180 days	600 per day	21,60,000
10	Camping team (2 chefs and 1 guide)	12 (4 teams)	150 days	2200 per day	13,20,000
11	House-keeping & Chef at Dormitory	2	12 months	7500 per month	1,80,000
12	Waste management and maintenance	2	12 months	5000 per month	1,20,000
13	Toilet maintenance	1	12 months	5000 per month	60,000
14	Construction of infrastructure and maintenance of trek routes:	Daily-wage laborers as per need	As per need	400-600 per day	N/A
	TOTAL	68 personnel			58,80,000

3.3. Outreach materials regarding the site information promoting biodiversity-friendly action/behavior on trek routes and local outreach centers

A dedicated Facebook page was setup towards promoting ecotourism at Kottagudi Valley on social networking sites. <u>http://www.facebook.com/kottagudiecotour.</u> The page highlights the locales and activities at the different villages within the Panchayat. It has also begun to introduce the key local individuals involved in conducting the ecotourism at this valley through photographs and video interviews (with subtitles in English) that were voluntarily edited by Mr. Appu N. Bhattathiri (4 two minute videos). The facebook page's cover photo (5 no) and display photo (4 no) were designed with financial support from CEPF. The page currently has 414 'likes' (1st March 2016) without being monetarily advertised.

An A3 sized brochure was designed with financial support from CEPF highlighting the Kottagudi Valley and the activities available at each settlement. These brochures were printed with support from Kestrel Adventures and The Daily Wild. Brochures have been sent to major tourism operators at Cochin. Laminated brochures were also be made available to some local guides. The brochure was re-designed for the Theni Forest Division so that it could be disseminated free of cost to tourists who undertook treks in the Kottagudi valley.

Two entrance tickets (Indian, Foreigner) were also designed for the Theni Forest Division with support from The Daily Wild for distribution to tourists who undertake treks in the Kottagudi valley. These tickets featured local biodiversity with an aim to disseminate information on local biodiversity and responsible behavior including not teasing wildlife and appropriately discarding waste generated.

Image 1. The Kottagudi Ecotourism Circuit Facebook page

http://www.facebook.com/kottagudiecotour.



Image 2. Display image designed for the facebook page for Kottagudi Ecotourism Circuit





Image 3. Kottagudi Valley Ecotourism Circuit Brochure (front side, A3 size)

Image 4. Kottagudi Valley Ecotourism Circuit Brochure (back side, A3 size)







TOURISM LOCATIONS WITHIN THE Bottom Station and is accessible only by foot. KOTTAGUDI VALLEY

KOTTAGUDI

According to legend. Nottaguali was the village where Kennegi and her followers from Madural rested encoute to the Cardamon Hills during 100-300 A.D. Kannagi is known to have reduced the Pandhya dynasty in Madurai to ashes from her anger, over the wronged killing of her husband. The village is a perfect destination to understand the local culture, cuisine and farming.

Activities: Farming, trekking, bird watching, cooking with the locats plantation walk.

Important Mammals and Birds seen here: Gaux Emerald Dove, Golden-fronted Leafbird, Indian Scimitar Babbler, Yellow-convented Woodpocker, Malabar Parakeet, Whitebellied Grange.

KURANGINI

Kurangini is historically known as Bottom Station by the British as it was the last station of the old rodeway that corried teo chests from Munnar. The Kottagudi River has a steep fail-off close to the village, which gives rise to the Sambalavar Falls

Activities: Trekking, bird watching, plantation walk and staterfall visit.

Important Mammala and Birds seen here: Gaur, Whitebellied Drongo, Pompadour Green Pigeon, Brown-capped Pygmy Wondpecker, Malabar Parakeer, Emerald Dove.

MIDDLE STATION

Middle Station, a part of the historic ropeway is surrounded by coffee plantations, shola- grassland vegetation and lesser known caves. It is an ideal location for bird watching and the pre-monscon period embrace a diversity of butterflies. No motorable pathway neists to this place from either Top/

Activities Trokking, bird watching, plantation walk.

Important Mammals and Birds seen here: Nilgiri Langut Malabar Whistling Thrush, Black and Orange Flycatcher, Crimson-backed Sunbird, Nilgiri Flycatcher, Kerala Laughing Thrush, Malabar Parakeet.

TOP STATION

Top Station derives its name for being the highest ropeway station established to transport tee chests from Munnar to Bodi. The remains of the ropeway station are still visible and the cliff showcases the entire Rottaguel valley, complete with its rolling grasslands and everatioen forests.

Activities Trekking, bird watching, cycling, mountain cycling, plantation walk.

Interesting animals seen here: Nilgiri Marten, Nilgiri langur, Dusiy Striped Stuirrel, Malabar Giant squirrel, Nilgiri wood pigeon, Whitebellied Shortwing, Crimson-backed Surbird, Anamalai Spiny Island.

KOLUKKUMALAI

Rolukkumatal is the world's highest organic tea plantation at 2300m above sea level. The tea factory here was built 80 years ago and is still used to traditionally manufacture tea using British-age machinery. The sunrise from Kolukkumlal, overlooking the Kottagudi valley is sublime and delightful and can be enjoyed directly from the campsine.

Activities: Trokking, bird watching, tea-picking & tea- tasting, mountain cycling.

Interesting animals seen here: Nigiri tahr, Nigiri lengur, Malabar Giant Squimel, Nilgiri Pipit, Halabar Whistling Thrush, Kerala Laughing thrush.

YELLAPATTY:

Veilapatty is tucked in between teaplantations and the shola evergreen forests atop an edge of the Kottagudi valley. The campsite is slient, service and away from the mass tourism. A reforestation initiative is being undertaken to improve the forest cover here.

Activities Treikling, bird wetching.

Interesting animals seen here: Nilgiri Marten, Gaur, Nilgiri Langur, Nilgiri Flycatches, Black and Orange Flycatcher, Kerala Laughing, Thrush, Malabar Whistling Thrush.

Accommodation

Tents can be pitched at permitted areas with support from local guides and authorities. The other options everlable are: Kottagudi: Home-stay, Kurangani: Home-stay, Middle Station: Home-stay, Top Station: Home-stay, Formal Hotel, Kollukumalal: Eco-Guest House.

When to go Kettagudi & Kurangini

When travelling here take into account the morsoon season (June-July) and the summer time temperature, which is high. The best season to visit would be during winter and early summer (October to February).

Top Station, Middle Station, Kolukirumalai & Wilapatty

These places are chilly throughout the year and warmer during the summer. Monsoon rains can get heavy and the accompanying fug further reduces visibility. Ideal months to visit would be from October to May.

Access

Kortagudi & Kurangani: Closest autort/(ailway - Madura). 30km by bus/taxi/tuk tuk from Theni town in Tamil Nadu. These two villages are 2.5 km apart.

Kolukkumalai, Middle Station, Vellapatty & Top Station: Closest airport/railway - Cochin and Madurai

Can be accessed by foot from Kattagudi/Kurangani: Kolukkurnalai (12km), Middle Station (7km), Top Station (12km), Holukkumala) (36km). Yellapotty (28 km) and Top Station (34km) can be accessed via mad from Munnar

For Kolukkumalai, tad/buses are available till Sorvanelle from where the rest of the journey is by jeep.

Wellapatty and Top Station can be accessed by share jeep/tani/

buses/tuk tuk/cycle. At Vellapatty, the rest of the journey (4.5km) is either an faot or jeep.

8-5dillional Information

. Any trek in the region cannot be undertaken alone. Permissions from local authorities and employing a local guide from the starting point is required. · Dispose all waste at bins provided or store them till you find one. Do not litter the route or villages.

· If travelling during the rainy season or early winter, wear closed shoes and carry salt with you to keep leeches away. . Carry torch, rain-coats and water proof bags in the winter as sudden showers of rain may occur. Also carry sweaters and a bottle of water.

+ Alcohol consumption and smoking during the trek and other activities is not permitted.

. Do not tease wild animals/birds or approach them closely or by to handle them. Do not pick wild flowers.





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Design In Kingerstein, Haard Kinkasto, Serversh Harter, Na Yaor Design-

for hother infermation concert.

Image 5. Cover image designed for the facebook page for Kottagudi Ecotourism Circuit



Image 6. Entrance ticket designed for the Forest Department towards trekking by Indian tourists in the Kottagudi valley





Top Station (Kottagudi Valley) Ecotourism Tamil Nadu Forest Department, Theni Forest Division

The Indian Gaur **Bos gaurus** is the largest bovine (cattle) species in the world that is native to South-east Asia. These animals some of which can grow upto a weight of 1500kg are usually seen grazing across the Kottagudi valley. They are usually calm and docibe yet can turn extremely aggressive when approached very close or teased.

The Theni Forest Department also organises treks and nature camps that includes accommodation at Agamalai from Sothuparai Dam. Please contact the Ecotourism Officer at +91-9445468516 / 04546-25225 or 'dfo_theni@gmail.com' for further information including complains, queries and bookings.

Trekking Pass: Indian (Admit One Person)

A child aged below 10 years is allowed to trek free of cost under the supervision of an adult Hurting wildlife, picting flora, disposing waste in trekking ana is punishable under the Indian Wildlife Act **Image 7.** Entrance ticket designed for the Forest Department towards trekking by Foreign tourists in the Kottagudi valley



Top Station (Kottagudi Valley) Ecotourism Tamil Nadu Forest Department, Theni Forest Division

The White-bellied Blue Robin (Myiomela albiventris) is a small bushchat-like bird that occurs only in the southern portion of the Western Ghat mountains in India. It has a distinct white supercilium, dark slaty-blue upperside and whitish underbody. They are one of the most threatened birds in the Western Ghats and can be seen in the undergrowth of evergreen forests at elevations above 1000m in the Kottagudi Valley, especially at Top Station.

The Theni Forest Department also organises treks and nature camps that includes accommodation at Agamalai from Sothuparai Dam. Please contact the Ecotourism Officer at +91-9445468516 / 04546-25225 or vfo_theni@gmail.com for further information including complains, queries and bookings.

Trekking Pass: Foreigner (Admit One Person)

A child aged below 10 years is allowed to trek free of cost under the supervision of an adult Hurting wildlife, picking flore, disposing weste in trekking area is punishable under the Irdian Wildlife Act
3.4. Report on the discussions with the forest department and panchayats regarding waste management and procurement and setup of bins

A total of seven cement dustbins were setup at Topstation towards providing tourists with an opportunity to dispose waste appropriately. Eight 50kg capacity industrial plastic bins were provided to the Kottagudi for effectively managing their plastic and glass waste. Five 1-2 tonne bags for collecting plastic waste was procured for stocking plastic waste at Kolukkumalai tea estate. Fifty 50kg plastic bags were procured for stocking plastic waste at Top Station by the individual from the local community who collected it (Mr. Kaasipandi). Meetings were undertaken with the local communities, Theni Forest Department, KDHP Pvt Ltd and Kolukkumalai tea estate management regarding waste segregation and responsible disposal of plastic and food waste. Two cleanup campaigns were organized with support from The Daily Wild and Kestrel Adventures at Kolukkumala and Top Station. A plastic collection drive was conducted at the Kottagudi village. At Top Station, the waste management initiative was discussed with the local communities during all the meetings conducted there. It was first decided that each individual would segregate their waste and stock it in sacks provided. After that it was decided that a person would be employed from the local community towards collecting, segregating, stocking and transportation of wastes to vendors at Munnar. They jointly agreed on employing Mr. Kaasipandi who was already involved in collection of plastic waste in and around Top Station. However later on they decided to employ another individual from the nearby settlement of Kovilloor. Three pits were dug at Top Station with the support of KDHP Pvt Ltd to dispose of the biodegradable waste generated.

Waste Management in the Kottagudi Panchayat

As the Theni Forest Department, Kottagudi Panchayat and KDHp Pvt Ltd are stakehodlers with major land ownership at Top Station, we discussed the set up of dustbins in the area with them and requested for their permission. As a result, seven dustbins were installed at Kottagudi on the 27 December 2013. However, the transportation of wastes from the sites is still in question, as the Panchayat seem not interested, and was not ready to have discussions with the municipality for transportation of wastes.

For installation of dustbins at Top Station, permission was sought from the Kannan Devan Hills Plantation Pvt. Ltd also, as they have land ownership through the Chunduvarrai estate. Even though the permission was granted from all the parties, the transportation of wastes remains disconcerted. It was proved hard for the Kottagudi panchayat to work regarding this because it is remote and they cannot work through the Munnar belt, as it is another state (Kerala). However, a discussion was carried out with the Munnar panchayat councilor, Mr. Rangasamy, who assured that the transportation and disposal of wastes could be arranged for. He insisted that he discuss with the Panchayat secretary before giving a word towards this. A set of six cemented rings as dustbins are to be installed at Top Station by February.

A total of seven cement dustbins were setup at Topstation towards providing tourists with an opportunity to dispose waste appropriately. Also, it was an opportunity for local communities to collect their wastes generated at their food stalls. While this has been successful to an extent, the real issue is the transportation of waste from Top Station. In the absence of active removal of garbage from the area, the waste generated continues to pile. This leads to burning the garbage by the local communities and re-piling. One individual from the local community currently purchases the plastic bottles, glass bottles and cans from the individuals who run the food stalls and sells them to commercial recyclers at Munnar. We are actively trying to support him and have discussed with local communities to segregate more of their wastes like milk and maggi packets, which are economically important. Moreover, we are trying to source funding from the local stakeholders towards a monthly salary to support his livelihood. Towards processing the biodegradable food waste that is generated here, an initial set of degradable pits (3 no) were dug at Top Station. Local communities who run food stalls at Top Station beyond the Tata private gate have been requested to dispose their food wastes here after the end of every day. Another set of degradable pits will be dug for the large hotels at Top Station before the Tata private gate in February. In December, the locals stated that one of the dustbins at Top Station setup was rolled down the valley by a few tourists after dusk. They stated that they heard a loud sound late evening and realized the next day that one of the dustbins was missing.

At Kottagudi, the dustbins that were setup in the village have been successful in the collection of glass bottles, which were otherwise thrown away in the surrounding farmlands. However, this was not so in the case of plastic waste. A scheme was then setup in collaboration with KG Vinayaka Youth Tourism Society at Kottagudi to provide locals with a small present towards those who

collected the most amount of plastic waste generated at their home for a period of one month. While this was successful in collecting plastic waste, the main issue identified was transportation which will now be the focus of future mitigations in the Kottagudi Valley.



Image 1. Plastic cleanup campaign at Kollukumalai tea estate



Image 2. Plastic cleanup campaign at Top Station





3.5. Promotional material for conservation-friendly tourism and a report on the success of this tourism

Outreach material that we designed for the ecotourism doubled up as promotional material for the project. All these material promoted conservation friendly tourism. This has been detailed in the section 3.3. Besides this we also designed and printed T-shirts and magnets featuring a logo for Top Station on a small scale (30 no) with financial support from The Daily Wild. The tenders we had supported that involved setting up information boards at Top Station, setting up an information centre at Kottagudi and art installations featuring biodiversity on the Kurangini – Top Station trek path further promote conservation-friendly tourism while disseminating information about local culture and biodiversity.

Image 1. Top Station magnet featuring the Nilgiri Marten logo



Image 2. T-shirt featuring the Top Station logo



Membership forms of local guides who signed up for the Kottagudi Valley Ecotourism Society



NAME: Kanpaya AGE: 28 GENDER: M D.O.B: 15-03-1987. FATHER'S NAME: Samuval ADDRESS: Naripatti



Kurangani Bodirayakanen T.K Thenne D.T Service provided in tourism sector: Guide Homestay Camping Shop Cock Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: Kurangani Date: 25-11-2014

Applicant's signature

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME: YOGGSH KUMAR K AGE: 27 GENDER: M D.O.B: 1988 March 2. FATHER'S NAME: KALAICHELVAN ADDRESS: Yogut To Stall, MALACAL KURANGINI, KOTTAGUDI POST BODIAVAICE AND RTALOK



THENI - MOR-9383019675 Service provided in tourism sector:

Guide Homestay Camping Shop Cook Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: KURANGINI

Date: 25-11-2014

NK. Yold Applicant's signature

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME: Sathish kuman AGE: 20 GENDER: M D.O.B: 1995 APT. 20 FATHER'S NAME: Kubanthiran ADDRESS: Mainroad Kurangani (Post) Bodinayakanur(T.K) Thani : 625582 Mol: 8526118179.



Service provided in tourism sector: Guide Homestay Camping Shop Cook Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: Kunangani

Date: 2-5 -11-2014

Applicant's signature

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME: Manaj Kumaz-AGE: 20 GENDER: M D.O.B: 20.5. 1995 FATHER'S NAME: 2930 ADDRESS: Main Road



Kovil Street Kurangani - Post Bodinayakanur T.K. Service provided in tourism sector 25 582 pin Guide Homestay Camping Shop Cook Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: Kurangani Date: 25-11.2014

Annal Anna Applicant's signature

Approved as a member: Yes / No

PRESIDENT

SECRETARY

KOTTAGUDI VALLEY ECOTOURISM SOCIETY

MEMBERSHIP FORM

NAME: Siva AGE: 20-GENDER: M D.O.B: 1993 Aug 20 FATHER'S NAME: MariyaPpan ADDRESS: Mainroad Lovil Street Kowangani Post Bodinaya Kanur T. K



Theni: 62-55 89-71 Service provided in tourism sector:

Guide Homestay Camping Shop Cock Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: Kurangani Date: 25-11-2014.

· M2. Sitca

Applicant's signature

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME: PRADEEP.K AGE: 19 GENDER: m D.O.B: 23 1995 mor 23 FATHER'S NAME: Kirupakaran ADDRESS: mainroad . Post Kurangani . Post Bodinaya Kanur. (T.K) Theni



Service provided in tourism sector: Guide Homestay Camping Shop Cook Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: Kurangani Date: 25 - 11 - 2014

Applicant's signature

Approved as a member: Yes / No.

PRESIDENT

SECRETARY

KOTTAGUDI VALLEY ECOTOURISM SOCIETY

MEMBERSHIP FORM

NAME: Rajendran : M AGE: 27 GENDER: M D.O.B: 1988 Nay 5 -FATHER'S NAME: MOKKachamy ADDRESS: Kovil street, &, ward Kurangani KoTTagudi : Post KoTTagudi : Post Bodinaya Kanur (T.K)



Service provided in tourism sector: Guide Homestay Camping Shop Cook Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: Kunangaai Date: 25 - 11 - 2014

Applicant's signature

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME: Kannan AGE: 32 GENDER: M D.O.B: 1/ 1982 ADDRESS: Nage 1-60 Ward-1, kottakud:



Service provided in tourism sector:

Guide Homestay Camping Shop Cook Others - dures

Theni

DECLARATION

33 I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place:

Date:

Applicant's signature

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME: P. I YAPPAN AGE: 26 GENDER: M D.O.B: FATHER'S NAME: PARAMAN ADDRESS: 1/55 KOTTAGODI-(PO) BODINAYAKANOR (J-K) THENI. D.T) 625582



Service provided in tourism sector:

Guide Homestay Camping Shop Cook Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place:

Date:

PANNUUN

Applicant's signature

Approved as a member. Yes / No

PRESIDENT

SECRETARY

NAME S. MANIKANDAN AGE: GENDER: M D.O.B. FATHER'S NAME SUBBUTAN . P ADDRESS: 1/37 KOTTAGUDI(P.0) BODINAYAKANUR (T.K) THENE . D.TI 625582



DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place:

Date:

Applicant's signature

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME: V. RAMESH AGE: 27 GENDER: M D.O.B: FATHER'S NAME: VANARAJAN ADDRESS: 1/57 KOTTAGODI (P.O) BODINAYA KANOR (T-K) THENI ON G25582

Service provided in tourism sector:

Guide Homestay Camping Shop Cook Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

V.RAMESH

Place. Date:

Applicant's signature

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME: R-MARIMUTHU AGE: 31 GENDER: M D.O.B: 20/06/1984 FATHER'S NAME: M. RAMASAMY ADDRESS: 25/1 KOTTAGEDI (P.O) BODI NAYAKANUR'T-K) THENI (DT) 625582



Service provided in tourism sector:

Guide Homestay Camping Shop Cook Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

R. Muilluth

Place:

Date:

Applicant's signature

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME: R. KRISHNAN AGE: 28 GENDER: M D.O.B: */*/1986 FATHER'S NAME: RAJAMANI ADDRESS: 1/61 KOTTAGUDI.(D.O) BODINAYAKANUR.(T.K) THENI (D.T) GASSER



Service provided in tourism sector:

Guide Homestay Camping Shop Cook Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: Date:

R.KRTSHWAN

Applicant's signature

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME: MANDHARAN , J AGE: 53 GENDER: M D.O.B: FATHER'S NAME: JOSEPH ADDRESS: JOPSTATION, BOTTAGUDI, BODI THUNK, Service provided in tourism sector: Guide Homestay Camping Shop Cook Others

THENI

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: TOPSTATION

Date: 7-10-192014

J M & ho Kodah Applicant's signature

W. 9442783853

Approved as a member. Yes / No

PRESIDENT

SECRETARY

NAME: MARMAPPAN.S. AGE: 44 GENDER: M D.O.B: FATHER'S NAME: SUBBURAYAN ADDRESS: 12, TOPSTATION,

KOTTAQUDI, BODITALUK, THENI



Service provided in tourism sector.

Guide Homestay Camping Shop Cook Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: TOPSTATION Date: 1-10 -2014

S confliction

Applicant's signature Ph : 7598111784

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME: BALAN AGE: 22 GENDER: M D.O.B: FATHER'S NAME: CHINNAPPAN ADDRESS: GOPSTATION, KOTTAGUDI,

3314

Service provided in tourism sector: Guide Homestay Camping Shop Cook Others

THEN'S DRT

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

aba

Place: TOTESTATION

Applicant's signature Pk: 8905400657

Date: 7-10-2014

3

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME: ANTHONY AGE: 36 GENDER: M D.O.B: * | x | 1979 FATHER'S NAME: ADDRESS: 4-23/66, 10000-4, TOP STATION ,

KOTTAGUDI CENTRALPOST, THENI - 6255% 2 Service provided in tourism sector Guide Homestay Camping Shop Cook Others - pory siding



DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

A み ヴ & J 11 つつつう Applicant's signature

Place: TOPSTATION Date: 1-10-2014

74 9787047527

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME: SUGAN AGE: 20 GENDER: M D.O.B: FATHER'S NAME: SAKAWAM ADDRESS: JOPETATION, VECAMILA HOTEL KOTTAGODI, THENI



Phate 1 0312

Service provided in tourism sector. Guide Homestay Camping Shop Cook Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

SUGAN

Place: TOPSTATION Date: 7-10-2014

Applicant's signature

PK: 08903682163

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME: WILBART JANUES AGE: 58 GENDER: M D.O.B: 28 - 2 - 1956 FATHER'S NAME: AROGIYASANI ADDRESS: TOPSTATION, KOTTAGODI,

THONI



Service provided in tourism sector:

Guide Homestay Camping Shop Cook Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: TO PSTATION

Date: 7-10-2014

Applicant's signature

Ph' 0890 3682163

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME: ANUL RAJ AGE: 42 GENDER: M D.O.B. FATHER'S NAME: ANANO RAJ ADDRESS: TOPSTATION, SOADI, CONTRAL POST,

Service provided in tourism sector Guide Homestay Camping Shop Cook Others

BODI TALOK, THENI DIST

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: TOPSTATION

A HG & Ins Applicant's signature

Date: 1-10-2014

Th: 9626761331

Approved as a member. Yes / No

PRESIDENT

SECRETARY

NAME: BHAGYAN AGE: 31 GENDER: F D.O.B: FATHER'S NAME: INSANAPRAKASAN ADDRESS: TOPSTATION,

KOTTAGUDI,

BODI TALOK.

てれきい」 Service provided in tourism sector:

Guide Homestay Camping Shop Cook Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

A-LITE BULO

Place: ToPSTATION Date: 7-10-2014

Applicant's signature

Ph: 9489359094

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME: MANIKANDAN AGE: 28 GENDER: M D.O.B: X X 1985 FATHER'S NAME: NURUMAN ADDRESS: 4-32/72, TORSTRICTION, KOTTAGUD,



Neto 3310

Service provided in tourism sector.

BODI, JHENI

Guide Homestay Camping Shop Cook Others - Dony siding

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: TOPSTATION

Date: 1-10-2014

Applicant's signature Ph 1084/3942.3171

Approved as a member: Yes / No

PRESIDENT

SECRETARY

9446061091

KOTTAGUDI VALLEY ECOTOURISM SOCIETY MEMBERSHIP FORM

NAME: P VINOD KOWAR AGE: 33 GENDER: M D.O.B: 2-11-1981 FATHER'S NAME: PAVAWR9J ADDRESS: TOP STATION, 30AN, CENTRAL PORT,

BODI TALUK . THEWIDIST



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Service provided in tourism sector.

Guide Homestay Camping Shop Cook Others - Driveh

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: TOPSTATIONU

Date: 7-10-2014

Applicant's signature

Ph: 9446061091

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME: A. BASTIN AGE: 41 GENDER: M D.O.B: FATHER'S NAME: ANTHONYSAMI ADDRESS: TOPSTATION, KOTTAGODI,

CONTRAC POST, BODI TALOK, THEM Service provided in tourism sector.

Guide Homestay Camping Shop Cook Others

DECLARATION

33 I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

BUNGROOM

Place: TOPSTATION

Date: 7-10 -2014

Applicant's signature

Ph: 9787019664

Approved as a member. Yes / No

PRESIDENT

SECRETARY

NAME: VINCENT AGE: 37 GENDER: M D.O.B: 13-7-1977 FATHER'S NAME: ANAND RAJ ADDRESS: TOPSTATION, 30401,

CENTRAL POST.

BODINAICRAWURTALOK,

THENI DIST

Service provided in tourism sector

Guide Homestay Camping Shop Cook Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: TOPSTATION Date: T-10-2014

Applicant's signature

7.de 3307

all a series

Approved as a member: Yes / No

PRESIDENT

SECRETARY

Ph 8098614292

KOTTAGUDI VALLEY ECOTOURISM SOCIETY MEMBERSHIP FORM

NAME: N. SUBRANAWI AGE: 38 GENDER: N D.O.B: FATHER'S NAME: MUTHU MANI ADDRESS: TOPSTATION, SOADI,



Photono: 3308

Service provided in tourism sector.

CENTRAL POET.

Guide Homestay Camping Shop Cook Others

BODI TOLUK, THENI DIST

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place TOPSTATION Date 7-10-2014

m. Give Blood

Applicant's signature

a construction of

Approved as a member. Yes / No

PRESIDENT

SECRETARY

NAME: J. DAVID AGE: 43 GENDER: M D.O.B FATHER'S NAME T. JOSE PH ADDRESS: "OPSTATION, 30 ADI. CENTRAL POST,

BODI TALUK, THENSI Service provided in tourism sector. Guide Homestay Camping Shop Cook Others

DECLARATION

34 I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

J' CL-D-Applicant's signature

Place TOPSTATION Date: 7-10-2014

Ph: 09400240715 -

Approved as a member. Yes / No

PRESIDENT

SECRETARY

NAME: A P. ARUL DAS AGE: 37 GENDER: M D.O.B: 13-6-1977 FATHER'S NAME: PICHALNUITU ADDRESS: TOPSTATION, SOADI.



CENTRAL POST.

BODI TALUK, THENI DIST Service provided in tourism sector Guide Homestay Camping Shop Cook Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: T-10 TOPSTATION Date: 7-10-2014

Applicant's signature

Ph: 8281540977

Approved as a member: Yes / No

PRESIDENT

SECRETARY

NAME VIJATA AGE: 39 GENDER: F D.O.B: 1976 FATHER'S NAME: MARIYAPPAN ADDRESS: POPERATION,

KOTTAGUDI, BODI TALOK, THENI DIST



Photo 3324

Service provided in tourism sector:

Guide Homestay Camping Shop Cook Others

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: ToRSTATION Date: 7-10-2014

Applicant's signature Ph. 7402470716

Approved as a member: Yes / No

PRESIDENT

SECRETARY

KOTTAGUDI VALLEY ECOTOURISM SOCIETY

MEMBERSHIP FORM

NAME: 3. J AGE: GENDER: D.O.B: FATHER'S NAME: ADDRESS:

B. ZAHIR HUSSAIN AI years Male 9:9:69. NAME M. BAWAJEE CENTRAL STATION - PO S. R. NAGAR, BODIGURD THENI - DT 625582

Service provided in tourism sector. Guide Homestay Camping Shop Cook Others

3.

DECLARATION

I hereby declare that the above furnished details are true and that I would abide by the rules and regulations of the society, until my membership persists. Any misbehaviour from my part towards a member/ institution/ a tourist will be questionable and eligible for trial in front of the general committee.

Place: Central Station Date: 20/12/2014

Applicant's signature

Approved as a member: Yes / No

PRESIDENT

SECRETARY