



Securing the future of Nepal's tigers

Building a tiger stronghold in Parsa Wildlife Reserve and its buffer zone

Progress report submitted to 21st Century Tiger

Reporting Period: 1 June 2015- 30 November 2015



Project Background

Globally, tiger numbers have declined by 95% compared to the beginning of the 20th century and their habitat is restricted to only 7% of its original extent. To ensure the survival of tigers in the wild, ZSL supports the government of Nepal's commitment to double tiger numbers by 2022 (i.e. to reach 250 tigers, based on 2012 national estimates of 125 tigers). Nepal is currently on track to meet this goal, with current population estimates of around 198 tigers.

In Nepal tigers are only found in the lowland districts within the Terai Arc Landscape (TAL). The majority of Nepal's tigers are found in Chitwan National Park, which represents a success story for wildlife conservation. The tiger population in the park grew from 91 in 2009 to 120 in 2013, primarily due to the large amount of resources to improve the habitat and stop poaching invested by the Government of Nepal, conservation agencies, and local communities. Generally however, protected areas that can support viable tiger populations are limited. Most of Nepal's protected areas, including Chitwan National Park, are nearing the limits of their carrying capacity. It is therefore crucial to improve and protect the entirety of the Chitwan-Parsa tiger complex by increasing conservation attention towards Parsa Wildlife Reserve (PWR) and Bara Forest.

At present, Parsa Wildlife Reserve only supports 10 adult tigers, compared to Chitwan National Park's 120. There are no scientific estimates for Bara Forest, although there is unlikely to be more than a handful at the present time. The huge difference in density between Chitwan National Park and its adjacent forests is likely due to the lack of protection against the human disturbance and degradation. Additionally, while Chitwan National Park and Parsa Wildlife Reserve are fully protected under the National Parks and Wildlife Conservation Act 2029 (1973), Bara Forest is given only a medium level of protection – this is not sufficient for adequate tiger protection. It is heavily exploited, with illegal cattle grazing and human disturbance regularly occurring in core areas of the forest. Tigers in Bara Forest likely become an easy target for poachers as the protection measures in place at Chitwan do not extend to this area.

This project aims to support DNPWC to tackle these issues and secure a long-term stronghold for tigers, through ecological monitoring of the tiger and its prey base in Bara as well as by establishing Community Based Anti-Poaching Units around Bara to prevent poaching. In its current state Bara Forest, and to a lesser extent Parsa Wildlife Reserve, may act as a sink for the tigers that disperse from Chitwan National Park, instead of allowing them to colonise and breed. However, connectivity between all three areas is excellent and with the proposed interventions, Parsa and Bara combined can support an additional 30-40 tigers, providing a quantifiable contribution to tiger conservation in Nepal and globally.

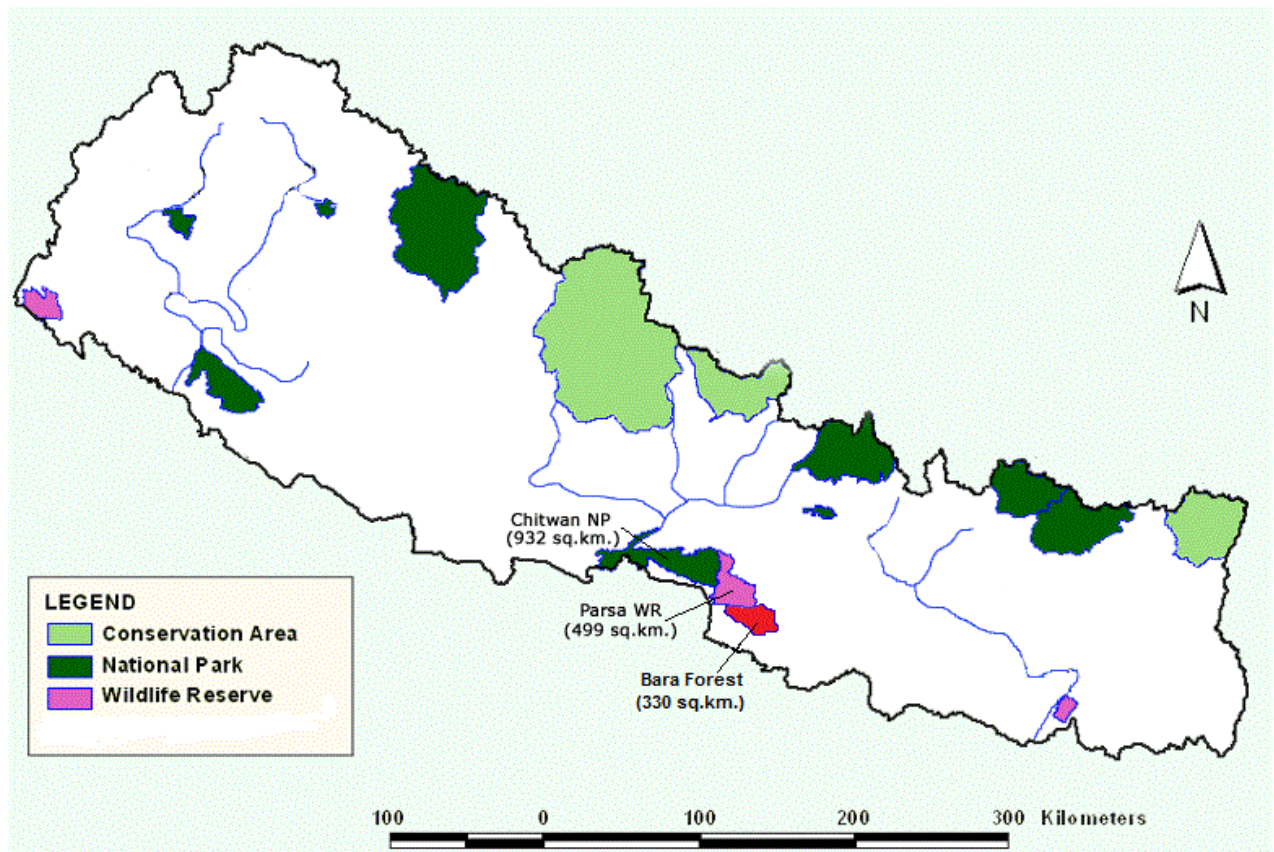


Fig 1: Map of Nepal showing the project area.

B. Objectives:

1. Reduce poaching threats to tigers by establishing two Community Based Anti-Poaching Units (CBAPU) in Bara Forest.
2. Monitor the status of tigers and their prey in Bara Forest through yearly systematic camera trapping and transect surveys.

Activities

1. Reducing poaching threats to tigers by supporting Community Based Anti-Poaching Units (CBAPUs)

ZSL field team visited Bara Forest several times in February and March for supporting the DNPWC in delineating the boundaries for proposed extension. During the visit local people were seen collecting grass, fodder, firewood, fishing and logging even in the core areas of the forest. Major areas of human disturbance were identified. Proposal for formation of CBAPU's has been proposed in such areas of high disturbance to check the inflow of people.

The project is supporting thirteen CBAPUs identified around the Parsa Wildlife Reserve including newly extended Bara Forest area. Detail of the CBAPUs supported by the



Securing the future of Nepal's tigers

project is provided in Annex-1. Project provided the financial support for the official registration of these units within PWR system. Orientation workshop had been organised in June for the CBAPU members. During the workshop, Chief Conservation Officer and Company Commander of Nepal Army stationed for the site security of PWR highlighted the importance of CBAPU in Wildlife Conservation and its contribution to Nepal's success in celebrating Zero Poaching Years. The planned training for the CBAPU teams in July was delayed because of the earthquake and political unrest in the region. The CBAPU training was conducted in October 2015. A total of 93 participants (34 female and 59 male) from 13 Buffer Zone User Committees were trained on SMART patrolling (see Annex 2). The training also focused on GPS handling, animal sign identification, patrol record keeping and patrol database sharing with PWR office. Trainings were organised at four different locations (Aadhavar, Gaduwa post, Padam Pokhari and Handi Khola) covering several CBAPU at a time. At the end of the training, reporting mechanism and protocol was discussed and agreed among the CBAPU and PWR management. Each CBAPU has been supported with essential field gears (GPS, camera, back pack, torch, water bottle, patrol logbook for data recording etc.). The project will also support CBAPUs for one year operation (communication, field logistics and local mobility costs etc) via PWR.

Fig 2: CBAPU members ready to take photo after the completion of training along with PWR staff and ZSL team (@PWR office, Aadhavar).



Fig 4: ZSL Field staff assisting CBAPU members to handle GPS.

Fig 3: Distribution of Field gear and equipment to CBAPU members.



Fig 5: CBAPU members during patrolling.



2. Monitor the status of tigers and their prey in Bara Forest through yearly systematic camera trapping and transect surveys.

ZSL has been working with the Department of National Parks and Wildlife Conservation to strengthen the security in this area against tiger poaching and bring Bara forest under the protected area system. ZSL field team visited Bara forest several times supporting the DNPWC and our national partner National Trust for Nature Conservation (NTNC) in delineating the boundaries for proposed extension. The Government of Nepal has finally approved the decision to add 129.33 km² of Bara forests to core of Parsa Wildlife Reserve. ZSL through this project supported the field visits of the technical team and Honourable Minister of Forests and Soil Conservation. The team recommended the critical areas to be included within the core area of Parsa Wildlife Reserve.



Fig 6: Hon. Minister for Forests and Soil Conservation(in center) visiting Bara forests after it was included into protected area system

Bara forest has the potential to be an excellent habitat for the tigers and their prey base. We had already reported the possibility of presence of two tigers based on the pugmarks. ZSL field team regularly patrolled the area to track the presence of the tigers. At three separate instances tiger signs were recorded along with several records of the leopard from the area. Prey species presence survey with a focus on tigers was conducted in the extension area. Abundant signs of prey were recorded mainly of Sambar (*Rusa unicolor*), Spotted Deer (*Axis axis*), Wild Boar (*Sus scrofa*), Northern Red



Muntjac (*Muntiacus vaginalis*) and Nilgai (*Boselaphus tragocamelus*) from the area indicating presence of healthy population of tiger prey.

Following the approval of camera trapping work, due to earthquakes and current fuel crisis and ongoing agitation, this has been delayed. However, we have already completed recce trip for putting camera traps and our field staff are engaged on this together with our national partner NTNC. We are in regular contact with the DNPWC and well prepared to conduct the camera trapping this season. We will start the survey once the DNPWC approves for conducting the camera trapping survey. The revised camera trapping time plan for Parsa Wildlife Reserve and Bara forest is provided in Annex 3.

Main Achievements

1. Support for the proposed Parsa Wildlife Reserve extension by providing transport and field staff, and ZSL featuring as a permanent member of the technical team as formed by the DNPWC,
2. Providing information on tiger, birds and other wildlife in the supporting document to declare the area for protected status,
3. Working with policy makers at the decision making level held discussion with the Honourable Minister for Forests and Soil Conservation, Secretary and Chief of various divisions within the MoFSC as well as the Director General and Deputy Director General of the DNPWC
4. Thirteen CBAPUs registered and in operation around Parsa Wildlife Reserve. Training and field gears have been supplied. The teams are conducting regular patrols and we expect to receive data by the end of this month.



Annexes

Annex 1 : List of CBAPU and their location

S.N	Buffer Zone Users Committee with CBAPU	Locations	Number of member trained
1	Janahit Users Committee	South of Parsa Wildlife Resrve	12
2	Amleshwor Users Committee	East of parsa Wildlife Reserve	10
3	Churiya Mai Users Committee	North East of parsa Wildlife Reserve	12
4	Sunakhari Users Committee	South of Parsa Wildlife Resrve	7
5	Panchamukhi Users Committee	South East of Parsa Wildlife Reserve	4
6	Kusum Batika Users Committee	South West of Parsa Wildlife Reserve	6
7	Nirmal Users Committee	West of Parsa Wildlife Reserve	1
8	Padam Milan Users Committee	East of Parsa Wildlife Reserve	9
9	Ujwal Bhabisya Users Committee	North of Parsa Wildlife Reserve	10
10	Lokpriya Users Committee	North of Parsa Wildlife Reserve	6
11	Manahari Users Committee	North East of Parsa Wildlife Reserve	6
12	Lokhit Users Committee	North of Parsa Wildlife Reserve	7
13	Prakritik Samrakchan Users Committee	North East of Parsa Wildlife Reserve	3
	Total		93

Annex 2 :List of participants of CBAPU training

S. N	Name of the participants	Gender	Buffer Zone Users Committee	Address
1	Ram Prasad Adhikari	Male	Janahit Users Committee	Simara, Bara
2	RabindraKhakurel	Male	Janahit Users Committee	Simara, Bara
3	Shree Ram Regmi	Male	Janahit Users Committee	Simara, Bara
4	Ram Kumar Aryal	Male	Janahit Users Committee	Simara, Bara
5	ShankharPakhrin	Male	Janahit Users Committee	Simara, Bara
6	Deepak Raj Sharma	Male	Janahit Users Committee	Simara, Bara
7	Deepak Lama	Male	Janahit Users Committee	Simara, Bara
8	Ram Das Dhauju	Male	Janahit Users Committee	Simara, Bara
9	RoshaniSapkota	Female	Janahit Users Committee	Simara, Bara
10	SashikalaBhattarai	Female	Janahit Users Committee	Simara, Bara
11	InduSapkota	Female	Janahit Users Committee	Simara, Bara
12	AmritLal Shrestha	Male	Janahit Users Committee	Simara, Bara
13	BishuManandhar	Male	Amleshwor Users Committee	Amlekhgunj, Bara
14	Lal Kumar Shrestha	Male	Amleshwor Users Committee	Amlekhgunj, Bara
15	Kabindra PrasadDahal	Male	Amleshwor Users Committee	Amlekhgunj, Bara
16	Puja Magar	Female	Amleshwor Users Committee	Amlekhgunj, Bara



Securing the future of Nepal's tigers

17	LaxmiSapkota	Female	Amleshwor Users Committee	Amlekhgunj, Bara
18	RenuMagar	Female	Amleshwor Users Committee	Amlekhgunj, Bara
19	SonikaBaniya	Female	Amleshwor Users Committee	Amlekhgunj, Bara
20	HiraManandhar	Male	Amleshwor Users Committee	Amlekhgunj, Bara
21	BabuPulamiMagar	Male	Amleshwor Users Committee	Amlekhgunj, Bara
22	Raj KumarManandhar	Male	Amleshwor Users Committee	Amlekhgunj, Bara
23	DurgaGole	Female	Churiya Mai Users Committee	Churiya Mai, Makwanpur
24	NabinaDhungel	Female	Churiya Mai Users Committee	Churiya Mai, Makwanpur
25	SamjhanaGole	Female	Churiya Mai Users Committee	Churiya Mai, Makwanpur
26	GomaSintaan	Female	Churiya Mai Users Committee	Churiya Mai, Makwanpur
27	Shree Maya Theengh	Female	Churiya Mai Users Committee	Churiya Mai, Makwanpur
28	Ruba Maya Gole	Female	Churiya Mai Users Committee	Churiya Mai, Makwanpur
29	Dhan Devi Bhlon	Female	Churiya Mai Users Committee	Churiya Mai, Makwanpur
30	SharmilaTheengh	Female	Churiya Mai Users Committee	Churiya Mai, Makwanpur
31	Devi Maya Bal	Female	Churiya Mai Users Committee	Churiya Mai, Makwanpur
32	Chandra Devi Tamang	Female	Churiya Mai Users Committee	Churiya Mai, Makwanpur
33	BimalaMoktan	Female	Churiya Mai Users Committee	Churiya Mai, Makwanpur
34	Bal Ram Bal	Male	Churiya Mai Users Committee	Churiya Mai, Makwanpur
35	NimaDorje Lama	Male	Sunakhari Users Committee	Suvarnapur, Parsa
36	Devi PrasadDahal	Male	Sunakhari Users Committee	Suvarnapur, Parsa
37	Aas BahadurPaakhrin	Male	Sunakhari Users Committee	Suvarnapur, Parsa
38	Bal Ram Komorcha	Male	Sunakhari Users Committee	Suvarnapur, Parsa
39	Indra Bahadur Paakhrin	Male	Sunakhari Users Committee	Suvarnapur, Parsa
40	Dal Bahadur Thapa	Male	Sunakhari Users Committee	Suvarnapur, Parsa
41	Bhim Bahadur Paakhrin	Male	Sunakhari Users Committee	Suvarnapur, Parsa
42	BinaKumariShakya	Female	Kusum Batika Users Committee	Mali Basti, Parsa
43	BinuSinjaliMagar	Female	Kusum Batika Users Committee	Mali Basti, Parsa
44	Man Maya Shrestha	Female	Kusum Batika Users Committee	Mali Basti, Parsa
45	Dal Bahadur Shrestha	Male	Kusum Batika Users Committee	Mali Basti, Parsa
46	Raj Theengh	Male	Kusum Batika Users Committee	Mali Basti, Parsa
47	Narayan Lama	Male	Kusum Batika Users Committee	Mali Basti, Parsa
48	Shankar VaiyaTharu	Male	Panchamukhi Users Committee	Mahadevpatti, Parsa
49	Rajendra Kumar Shrestha	Male	Panchamukhi Users Committee	Mahadevpatti, Parsa
50	Shambhu Thakur Hajaam	Male	Panchamukhi Users Committee	Mahadevpatti, Parsa
51	Laxman Shah	Male	Panchamukhi Users Committee	Mahadevpatti, Parsa
52	Arjun Kumar Shrestha	Male	Nirmal Users Committee	NirmalBasti, Parsa
53	Kamal Theengh	Male	Padam Milan Users Committee	Padampokhari, Makawanpur
54	Shiva Rupakheti	Male	Padam Milan Users Committee	Padampokhari, Makawanpur
55	Jiwan KumarTheengh	Male	Padam Milan Users Committee	Padampokhari, Makawanpur
56	SanjibTitung	Male	Padam Milan Users Committee	Padampokhari, Makawanpur
57	Tip Raj Theengh	Male	Padam Milan Users Committee	Padampokhari, Makawanpur
58	RenukaTitung	Female	Padam Milan Users Committee	Padampokhari, Makawanpur
59	Gun Maya Theengh	Female	Padam Milan Users Committee	Padampokhari, Makawanpur



Securing the future of Nepal's tigers

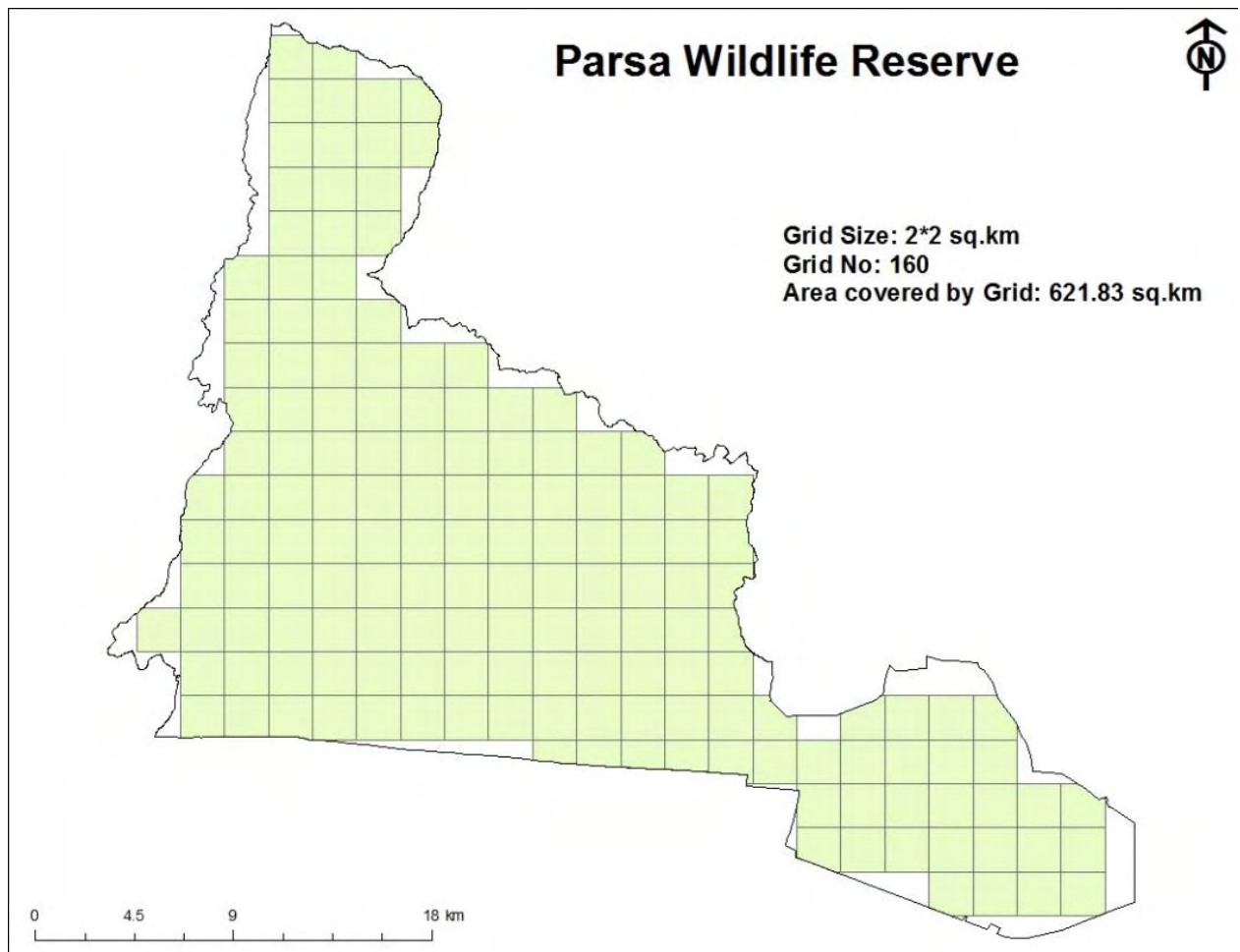
60	Tara Devi Moktan	Female	Padam Milan Users Committee	Padampokhari, Makawanpur
61	Raj Kumar Theengh	Male	Padam Milan Users Committee	Padampokhari, Makawanpur
62	Bikash Bhlon	Male	Prakritik Samrakchan Users Committee	Padampokhari, Makawanpur
63	Nawa Raj Ghalan	Male	Prakritik Samrakchan Users Committee	Padampokhari, Makawanpur
64	Sitaram Paakhrin	Male	Prakritik Samrakchan Users Committee	Padampokhari, Makawanpur
65	Arjun Pudasaini	Male	Ujwal Bhabisya Users Committee	Masine, Makwanpur
66	Parmeshwar Lamichhane	Male	Ujwal Bhabisya Users Committee	Masine, Makwanpur
67	Man Bahadur Theengh	Male	Ujwal Bhabisya Users Committee	Masine, Makwanpur
68	Shree Krishna Dhakal	Male	Ujwal Bhabisya Users Committee	Masine, Makwanpur
69	Rajendra Subedi	Male	Ujwal Bhabisya Users Committee	Masine, Makwanpur
70	Shyam Bahadur Karki	Male	Ujwal Bhabisya Users Committee	Masine, Makwanpur
71	Samjhana Praja	Female	Ujwal Bhabisya Users Committee	Masine, Makwanpur
72	Roshan Aryal	Male	Ujwal Bhabisya Users Committee	Masine, Makwanpur
73	Chanamati Praja	Female	Ujwal Bhabisya Users Committee	Masine, Makwanpur
74	Gopal Subedi	Male	Ujwal Bhabisya Users Committee	Masine, Makwanpur
75	Om Bahadur Ale	Male	Lokpriya Users Committee	Bastipur, Makwanpur
76	Sarita Thakuri	Female	Lokpriya Users Committee	Bastipur, Makwanpur
77	Rupa Shahi Thakuri	Female	Lokpriya Users Committee	Bastipur, Makwanpur
78	Bhim Bahadur Theengh	Male	Lokpriya Users Committee	Bastipur, Makwanpur
79	Sushma Theengh	Female	Lokpriya Users Committee	Bastipur, Makwanpur
80	Som Kumar Thapa Magar	Male	Lokpriya Users Committee	Bastipur, Makwanpur
81	Bimala Karki	Female	Manahari Users Committee	Manahari, Makwanpur
82	Sarita Aryal	Female	Manahari Users Committee	Manahari, Makwanpur
83	Gurash Rai	Female	Manahari Users Committee	Manahari, Makwanpur
84	Rashila Thapa	Female	Manahari Users Committee	Manahari, Makwanpur
85	Netra Kumari Thapa	Female	Manahari Users Committee	Manahari, Makwanpur
86	Padam Titung	Male	Manahari Users Committee	Manahari, Makwanpur
87	Tej Raj Pandey	Male	Lokhit Users Committee	Makari, Makwanpur
88	Raj Kumar Lama	Male	Lokhit Users Committee	Makari, Makwanpur
89	Poshak Babu Bista	Male	Lokhit Users Committee	Makari, Makwanpur
90	Chandra Singh Syangtan	Male	Lokhit Users Committee	Makari, Makwanpur
91	Bharat Prasad Bartaula	Male	Lokhit Users Committee	Makari, Makwanpur
92	Bir Bahadur Syangtan	Male	Lokhit Users Committee	Makari, Makwanpur
93	Hem Prasad Ghimire	Male	Lokhit Users Committee	Makari, Makwanpur



Annex 3: Camera trap survey Plan

	December																																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
Camera Trap deployment BLOCK 1																					Training to field team and preparation															
	January																																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
Camera Trap deployment BLOCK 1	Deployment																																			
Cameras Stations Live BLOCK 1 (21 Days)										BLOCK 1																										
	February																																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29							
Camera Trap deployment BLOCK 2	Deployment																																			
Cameras Stations Live BLOCK 2 (21 Days)										BLOCK 2																										
	March																																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
Camera Trap recovery	Recovery																																			
Image Processing and analysis											Analysis																									

Annex 4 : Grid division of PWR including extended area for proposed camera trapping



Annex 5 : Photographs from the field



Tiger pugmarks recorded at Dudhaura Khola, Bara Forest



Vegetation around Halkhoriya daha provides best habitat for tiger prey

Securing the future of Nepal's tigers



CBAPU members conducting foot patrol in the buffer zone area



Spotted deer recorded by ZSL recce team



21ST CENTURY TIGER
giving wild tigers a future

ZSL | LET'S WORK
FOR WILDLIFE

Mid-term Report to 21st Century Tigers
Zoological Society of London



CBAPU member talking with the firewood collector in Bara Forest

