

A Progress (Final) report on
**Mobilizing Community Forest User Groups for the Elephant
Habitat Restoration**
(January – December 2020)



Submitted to
International Elephant Foundation, USA



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In 500 words or less, summarize the progress and results achieved

Historically, forests in Nepal Terai enabled elephants in the north and northeast India to be in one contiguous, large population. Undoubtedly, Terai had a large resident population of elephants. In Nepal, huge forest loss that began in 1950s, culminated into restricting wild elephants into four smalls partially or completely isolated groups numbering less than 100 animals each (Pradhan, 2007). The estimated elephant population of 107-145 elephants in 2007 in four geographic areas included 60-80 elephants in Bardia National Park (BNP) (Pradhan, 2007). The recent trends showed 155-195 resident of wild elephants in Nepal, of which 15-25 eastern, 25-30 central, 100-120 western (Bardia) and 15-20 far western populations (unpublished). Until 1994, the Bardia population was dwindling and only 2 elephants were often noticed. Later, 15-20 elephants from India, were regularly seen in the Karnali floodplain (Pradhan, 2007) and now estimated around 120 individuals, of which 50-60 are residential in BNP and 50-60 are frequently moving from BNP to Banke National Park (BaNP) to Katarniyaght Wildlife Sanctuary (KWS), India. Although protected areas system in Nepal has been progressive covering 23.39% of the land, endangered species like the elephants face the risk of local extinction because of insufficient food and habitat limitation. Therefore, crisis management may become an integral part of conservation in near future. The Bardia elephant population has been growing, but the preferred floodplain habitat is small (60 km²) (Pradhan, 2007). Habitat use by elephant depends on the availability of food materials, which vary with the seasons. In Bardia, elephants strongly preferred floodplain during the cool and the hot dry seasons. Climate change will affect the vegetation and forest types and the ecological communities they support (Thapa et al. 2015). Forest types that are resilient to climate change should be protected to conserve the ecological communities and species assemblages. Further couple of grasslands in the buffer zone and corridor forest has also been reduced due to introduction of invasive species. During drought periods, wildlife should be able to move to forage sources and escape fires.

The forest in the buffer zone are handed over to the community as a Buffer Zone Community Forest (BZCF) since 1996 with the aim to manage the forest to cater their needs of forest product so that they do not need to enter into the park. 16630 ha of forest, adjoin the park, are being managed by 130 Buffer Zone Community Forest User Groups (BZCFUGs) where 23,110 households and 1,27,120 populations are benefited. BZCF has main role for the extension of forest habitat and corridor for the movement of wildlife from one patch to another and provide basic natural resources to local communities. Some of those forest act as corridors for wildlife to move within park and buffer zone, BNP to BaNP and also to the PAs of India. In recent years, the quality of forest is degraded from the over extraction, encroachment, road network, intensive grazing, invasion by alien species, and repeated fire. Habitat degradation increases the fragmentation of the remaining pockets of suitable habitat which inevitably conflicts with farmers as they lose shelter, crops and life. We are working with local communities for the restoration of degraded land in the BZCFs, located in the elephant corridor, with the aim to facilitate easy movement of elephant and perpetual supply of forest products to local community. After having consultation workshop with local key leader, we are working with local communities of 20 BZCFs, located in the main corridor, that facilitates the movement of elephant from Bardia National Park, Nepal to Katarniyaghat Wildlife Sanctuary, India. Community level meetings and awareness program were organized to interevent the conservation program for the minimization forest degradation. Most of the BZCFUGs has implemented program for the control of grazing and fire. The forest guard are recruited by community to organize the patrolling in the forest areas. Capacity enhancement training was organized for those forest guard and community leaders. Two community watch

towers were constructed with the support of local municipality for the promotion of tourism. The BZCFUGs have prepared long term plan for the control of grazing, over extraction of resources and eradication of invasive species. During the period, 40 km electric fence is maintained by mobilizing the members of BZCFUGs to minimize the human elephant conflict in the respective areas.

Goals and objectives

The major goal of project is to mobilize the members of Buffer Zone Community Forest User Groups (20 BZCFUGs, 2796 households) for the restoration of degraded forest habitat (1730 ha) in the frequently used corridors (3 routes) by wild Asian elephant (120 elephants). It also helps for habitat restoration of other endangered species (tiger, rhino, dolphin, gharial etc.) which frequently use buffer zone of BNP and corridor forest between BNP, Nepal and KWS, India. The project is going to implement habitat restoration program where elephant is protected by Community Based Anti-Poaching Units (CBAPUs). Although 16,630 ha of forest are being managed by 130 BZCFUGs, the forest condition is degraded as these forests is consider only for resource use such as timber, fodder and fuelwood. This project will demonstrate the habitat restoration of degraded land which will accelerate the supply of forest products, and habitat for elephant and other wildlife in terms of freely movement in their traditional routes which can be adopted by neighboring BZCFUGs and other protected areas. The specific objectives of project are:

- To Strengthen the capacity of BZCFUGs for immediately addressing habitat degradation and further habitat fragmentation.
- To organize behavior change awareness campaign for the restoration of degraded forest with the active involvement of BZCFUGs' members.
- To engage and motivate community members for the proper use of human elephant conflict mitigation measures.

Specific activities during the period

Objective 1: To Strengthen the capacity of BZCFUGs for immediately addressing habitat degradation and further habitat fragmentation.

1.1. Workshop with local government bodies, BZUC and park officers

A workshop was organized with the participation of chairperson of three Buffer Zone User Committees (BZUCs), 16 Buffer Zone Community Forest User Groups (BZCFUGs), 3 Community Based Anti-poaching Units (CBAPUs) and 4 cooperatives, and officers of Bardia National Park (BNP), army (security forces) and National Trust for Nature Conservation (NTNC) with the aim to initiate collaborative effort for the restoration of degraded land in the corridor forest. Forty-two leaders were participated in the workshop. The chief warden of BNP highlighted the present challenges faced by community forests. Those are renewal of operation plan, lack of technical knowledge, annul harvest of forest products, encroachment for settlement and road construction, uncontrolled grazing, border dispute, spreading of invasive species, management of wildlife habitat, poaching and increasing human wildlife conflict. He also addressed that ecotourism, availability of forest resources, revenue from such products and wildlife habitat are the opportunities from the community forests. The BZMC chairperson urged for the timely auditing of income and expenditure, maintaining good governance and gender inclusion in the BZCFUGs. The community leader raised issues for the construction of water hole to fulfill water requirement during dry season for the wildlife. They also demanded barbed wire fencing, trenches

and bio fences for the control of grazing without disturbing the movement of wildlife. The community leaders requested park authorities for the renew of operation plan and constitution, leadership development training for the executive committees, forest management training to forest guards, and legal support for the evacuation of encroachment. They also demanded material support to erect fence for the control of grazing and electric fencing for the control of human elephant conflict. Park authority has committed for the technical support to renew the work plan of BZCF on time. The seedling grown in NTNC nursery can be used for the plantation. The local municipality is ready to support two watch towers in the the community forest for the promotion of tourism. CBAPUs showed their willingness to work with BZCFUGs for the control of wildlife poaching, illegal extraction of forest resources and human wildlife conflict minimization. The leaders are ready to mobilize their members for the control of grazing and fire, removal of unwanted species, human wildlife conflict minimization, plantation in degraded land and conservation of elephants.



Participants in workshop

1.2. Habitat restoration training:

Two field level training was organized for the BZCFUGs leader that are in corridor between Bardia National Park, Nepal and Katarniyaghat Wildlife Sanctuary, Nepal. Seventy leaders from 20 BZCFUGs were participated in the training. The training was focused on the management of forest, grazing and fire control, and removal of unwanted species. The participants demanded 14 different tree seedlings for the plantation in degraded land. National Trust for Nature conservation has started growing of those seedlings in its nursery. The training sessions were delivered by the Assistant Conservation Officer of BNP, Chairperson of BZMC, Office In-charge and NRCA of NTNC-BCP. Similarly, orientation on habitat restoration and elephant conservation were organized for 148 members (forest guard and leaders) from 38 BZCFs.

1.3. Intensive follow up of BZCFUGs activities by facilitating regular meeting:

Regular meeting of executive committees of 20 BZCFUGs was organized. Most of the agenda of meeting were renewal of operation plan, public audit of expenditure, encroachment control, extraction of forest resources, grazing and fire control, electric fence maintenance, tourism promotion, human-elephant conflict minimization and wildlife conservation by mobilizing users. NTNC field staff is facilitating for the monthly meeting. Now those 20 BZCFUGs are being active

for the mobilization of their user in habitat restoration and wildlife conservation, securing fund from the different organization, development of good relation with park authorities.



Participants of community forest management training



Regular meeting of Buffer Zone Community Forest User Group



Annual planning workshop of BZCFUG



Removal of dry grasses by BZCFUG members for the roof of the house



Removal of unwanted species for the firewood



Improvement of forest condition in BZCF

Objective 2: To organize behavior change awareness campaign for the restoration of degraded forest with the active involvement of BZCFUGs' members.

Awareness campaign on forest restoration: It is very difficult task to shift the behavior of village community elders from their traditional activities such as setting of fires and open grazing in their nearby forest to control of such activities. Due to the climate change some patches of forest is degraded by invasive plant species in recent years. An active session on causes and consequences of habitat degradation, importance of elephant conservation, emerging human elephant conflicts,

and user's role for the restoration of degraded habitat were organized. The participants were empowered to make the strategy for the activities to revive the forest. Mostly users of community forest, forest guard, members of CBAPUs and RRT, local school teachers and park staffs were participated in the awareness session. During the period, 60 events were organized, and 4682 local people were participated in the program. The details are presented in Table 1. Similarly, 1000 poster on Human elephant coexistence were printed and distributed to the participants.

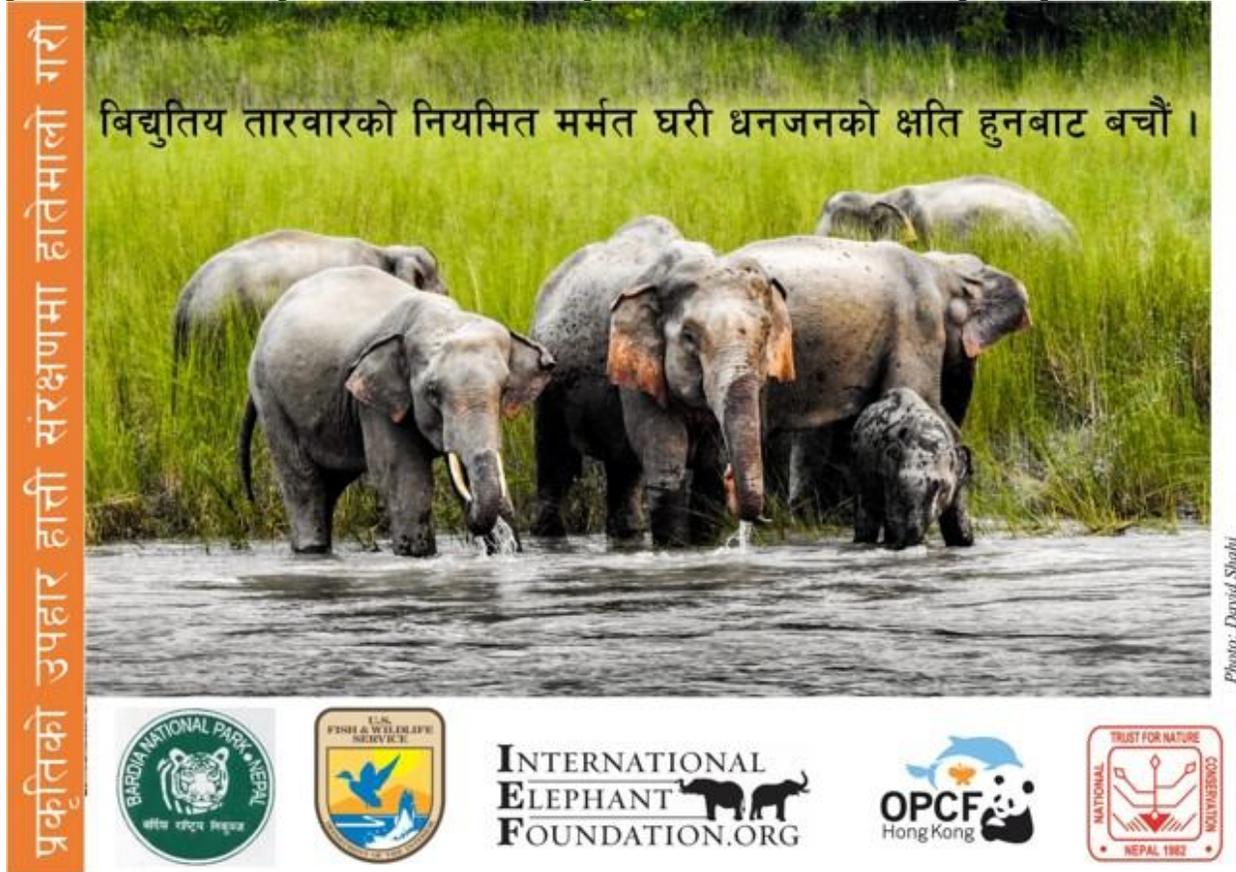


Table 1: Details of awareness campaign:

S.N.	Date	Activities	Participants
1	26-Jan	Interaction with RRT members	12
2	11-Feb	Human Wildlife Co-existence at Shivapur	42
3	13-Feb	Interaction with CBAPU in Thakurdwara	14
4	14-Feb	Interaction with community forest user groups	30
5	23-Feb	Interaction meeting for CBAPU day celebration	24
6	3-Mar	CBAPU Day celebration	2500
7	9-Mar	CBAPU day progress review with local stakeholders	40
8	11-Mar	Interaction with Babai User Committee	30
9	13-Mar	Classes for the governmental frontline staff, Surkhet	22
10	14-May	Training for game scout on safely elephant chasing	30
11	5-Jun	Interaction with army on HWC mitigation measures	30
12	6-Jun	Interaction with army on HWC mitigation measures	30

S.N.	Date	Activities	Participants
13	7-Jun	Interaction with army on HWC mitigation measures	30
14	8-Jun	Interaction with army on HWC mitigation measures	30
15	9-Jul	Training for forest guard on wildlife conservation and habitat restoration	50
16	11-Jul	Community forest issues in Thakurdwara	40
17	12-Jul	Community forest issues in Babai	50
18	13-Jul	Community forest issues in Suryapatuwa and Bhada	30
19	13-Jul	Community forest issues in Bhada	30
20	29-Jul	Tiger conservation interaction at park headquarter (local stakeholders, park army)	45
21	4-Aug	Interaction with Dalla CBAPU members on wildlife conservation (30)	80
22	4-Aug	Interaction with park stakeholders	
23	26-Aug	Interaction with local stakeholders (ETDF, NAGA, BNCC, WESC, SENSE Nepal, BZMCs, CBAPUs, Park, NTNC, ZSL)	22
24	27-Aug	Interaction with CBAPU members (12 CBAPUs (17 persons), 2 Army, 10 park staffs, 2 Council members (progress, challenges and future plan) Issues of conservation: poaching; extraction of timber, gravel; fishing; animal attack by dog, human wildlife conflict mitigation	32
25	29-Aug	Visit electric fence site of Manua, Bindra, Gola and Pathabar, distributed 10 torch lights in Lohagad: Machine: Lohagad and Guptipur are ok (need to be repair the fence site).	10
26	30-Aug	Babai river rafting (18 persons)	18
27	31-Aug	Meeting of BZMC, budget allocation, 16 BZMC members, 1 army, 10 park staffs (Human wildlife conflict mitigation-elephant, tiger, leopard, wild boar (concrete wall, electric fence, mesh wire fence, torch light) coordination with local government, conservation fee from gravel/sand, CBAPU)	27
28	3-Sep	Dalla CBAPU meeting (60 persons)	60
29	4-Sep	Kailashi CBAPU meeting	45
30	5-Sep	12th international vulture conservation awareness day	25
31	5-Sep	Pattharbhoji CBAPU interaction	120
32	7-Sep	CBAPU team in suryapatuwa	14
33	10-Sep	CBAPU training in Thakurdwara (32 representatives from Suryapatuwa, Thakurdwara, Shivapur, Neulapur, Babai)	32
34	11-Sep	Training in Banjariya, 32 participants	32
35	12-Sep	Tourism promotion interaction organized by ETDF	40
36	12-Sep	Interacting in Dalla (CBAPU, community forest, CFCC, Park, DFO, NTNC, TAL, army, ward chairperson)-26 persons: Issues: Prompt allocation of compensation (what for landless); support for problematic tiger monitoring; human wildlife conflict mitigation (electric fence timely repair, torch light, alternative crops, safely chasing of elephant, timely compensation allocation); predator proof corral house; mesh wire; watch tower; alternative crops (chilly, bamboo, bel, lemon); grazing control	26
37	30-Sep	Interaction with the stakeholders of Shivapur Ekikrit for the elephant and tiger conservation (100 participants), 11 participants raised, Issues: the recent death of tiger, frequent interaction with local communities, patrolling with game scout, electric fence maintenance, park people relationship, illegal activities in community forest, use of ground for playing football, availability of grass, fuelwood and timber, control of free livestock, income generation activities for youth, how to develop positive on tiger conservation, compensation from wildlife damage, livestock insurance, active participation of youths, overall positive for elephant/tiger conservation. Distribution of 5 torch lights	100

S.N.	Date	Activities	Participants
38	30-Sep	Coordination meeting with local government bodies and park authorities for the minimization of human wildlife conflict across Geruwa region . Issues: 36 km fence (machine in 5 km section, awareness, social mobilization cost for the guard person, timely repair), Gabion along the river, Game proof fence with electric fence, extraction of sand and gravel	16
39	1-Oct	Interaction meeting with CBAPU Shivapur (8)	8
40	1-Oct	Afternoon: Torch light distribution in Dalla (14 troch lights)	14
41	1-Sep	Ecotourism workshop with political leader	36
42	3-Sep	District level coordination meeting for wildlife crime control	48
43	15-Sep	Highly clean on conservation day	80
44	2-Oct	Sweep operation by park in Khata corridor	40
45	4-Oct	CBAPU Coordination meeting, 16 CBPU members from 13 CBAPU sub-committee, park, NTNC, Ujyalo Nepal, army, TAL, ZSL (issue raised: communication support, awareness program in each tole, meeting support, stationery materials, coordination with park and BZUC, Income generation and skill enhancement activities, Sports materials support, information sharing	16
46	5-Oct	Renew of 3 CBAPU in Banke	60
47	6-Oct	Renew of 2 CBAPU in Banke	45
48	8-Oct	Interaction with journalist (23), park 6, NTNC 2, Ujyalo Nepal 1, Council 1	23
49	9-Oct	Interaction with local government (7), BZUCs (17), Park staffs (12), NTNC (1)	37
50	10-Oct	Interaction with park retire staff (50), park staffs (12), local stakeholders (8)	80
51	10-Oct	Annual ceremony of women environmental sub-committee	20
52	9-Nov	Opening of tree house for tourism promotion in khata corridor	70
53	22-Nov	Interaction with protection unit for the strengthening of anti-poaching in BNP, Army 9, Park 3, CBAPU 1, Council 1, NTNC, 1	15
54	7-Dec	Interaction with community forest group from Shivapur (15 male, 15 female)	30
55	8-Dec	Interaction for the conservation of wildlife in Banke, T-shirt/sports materials distribution	18
56	9-Dec	Interaction with the CBAPU members of Thakurdwara and T shirt distribution	35
57	9-Dec	Interaction with community forest user groups of Bagkhor	40
58	10 Dec	How to escape from wild elephant with army and park staffs	42
59	10-Dec	Interaction with CBAPU members across Geruwa region, T-shirt/sport materials distribution	36
60	12-Dec	Interaction with Stakeholders for elephant conservation at Khata corridor	80
Total			4682



CBAPU chairperson explain the RRT coordinator briefing the progress made importance of CBAPU



Participant of class on human elephant co-existence

Interaction with local communities for wildlife conservation

Objective 3: To engage and motivate community members for the proper use of human elephant conflict mitigation measures.

3.1. Supply of repair materials for electric fence: Although park has constructed electric fence along the village boundary, the fence is not working properly due to the lack of timely repair and maintenance. On the other hand, while elephants are moving from the corridor forest, the cases of human elephant conflict are increasing in the last five years. The regular interaction was made with the local community leaders for the mobilization of users of BZCFUGs in the repair and maintenance of fence. We have purchased the fencing wire, clips, nails and power energizer and regularly providing on the demand of BZCFUGs. The program assistant of NTNC is regularly visiting the site and inform the BZCFUGs if any repair is needed. He is also equipped with power testing machine to know any leakage of power in the fence. The forest guard also inspect the fence site and repair the fence on time if any damage happened. The buffer zone community forest user groups with the support of village traditional leaders mobilize all the households to clean the electric fence site especially grasses and fallen branches. Repair materials were provided to four BZCFs and approx. 16 km fence was renovated. Additional 24 km electric fence was renovated in the western border of park with the support of Bardia National Park. Similarly, 900 m of concrete wall was constructed along the village border to stop the elephant entry in the village.



Monitoring the performance of electric fence



Regular check up of power supply



Stock of wire for timely replace the damage site



Observation of fence site with community leaders

3.2. Torch light distribution:

Five rapid response team was formed by the representation of CBAPU members for the safely chasing of elephant from crop land. Similarly, one park level rapid response team was formed from the park staffs and army personnel for the timely action taken to chase elephant. The park and community level rapid response teams are jointly working to chase the elephant from the village and crop land. The movement of elephant and precaution measures are aware from the community miki. During the period, 100 high focus troch lights were distributed to those RRT members and other community members living in conflict prone area to chase the elephant safely from the crop land.



Distribution of torch light to community leaders

Describe any activities that differ from the original proposed actions and explain the reason for the change

We gave more focus on onsite awareness program so the cost of poster production and hoarding boards were used for awareness campaign and CBAPU mobilization for the conservation of elephant and RRT for the minimization of human elephant conflict. Additional activities are being implemented with the support of Bardia National Park (BNP), National Trust for Nature Conservation (NTNC), and local governments.

Conservation outcomes for elephants, other wildlife, habitat and human communities, and list major findings and accomplishments to date:

Following outcomes are achieved with the active involvement of BZCFUGs:

- Renewal operational plan of 5 BZCFUGs.

- Timely auditing by 16 BZCFUGs
- Regular bush removal and sustainable extraction of forest resources (firewood, dry grasses) by all BZCFUGs.
- Control of illegal extraction of firewood, timber, fodder and river materials (sand, gravel and stone)
- Partially control for grazing.
- Mobilization of users for the fire control. No fire during the reporting period.
- Construction of game proof fence (1.2 km) by four BZCFUGs and barbed wire fence (1.8 km) by three BZCFUGs along the border of village for the control of livestock grazing and crop damage by spotted deer and wild boar.
- Construction of concrete wall (900 m) by a BZCFUG to stop the movement of elephant in village.
- 8822 seedlings were planted in degraded land by 7 BZCFUGs.
- Accelerated the compensation process for the damage made by elephant and tiger.
- More than 40 km electric fence is regularly maintained with the leverage of 46000 USD fund from local government, NTNC and Bardia National Park
- 4682 local communities were participated in awareness session on elephant and other wildlife conservation.
- CBAPU members regularly monitored problem causing wild animals (mostly elephants) and helped authorities on their efforts to minimize human-wildlife conflict.
- No any human death and injury by elephant in 2020 where as one old man was killed by elephant in India-Nepal border.



Removal of unwanted species



Sustainable extraction of firewood



Plantation in degraded land



maintenance of waterhole



Setting fire for the chasing of elephant from village



A male elephant was electrocuted by villagers during lockdown



A tiger death was found in snare



Spotted deer in the community forest

Approximately how many humans/communities are/were impacted by your project? Approximately how many elephants are/were impacted by your project?

- 2,796 households (14,653 population) affiliated with 16 BZCFUGs are directly benefited from the restoration of existing forest condition.
- 4682 community members were benefited from the awareness program and 70 community leaders enhanced the skill on community forest management.
- 3973 population of 692 households are benefited (crop depredation, property damage and human casualties) from the proper running of electric fence.
- The recolonized western population of around 120 elephants are protected in the Bardia National park, buffer zone and adjoining corridor. This initiative directly contributed to improve the forest condition of 1730 ha.



Herd of elephant used the community forest while moving from one park to another



Bamboo in the community forest foraging by elephant

Describe any problems discovered or that occurred during this grant period

- Due to the lock down implemented by government for the control of COVID-19, community meetings, awareness session and field travel were partially disturbed.
- One elephant and one tiger were killed by electrocution and snares, respectively during the lock down period of COVID-19. Besides, pressure on the forest resources are increased after the loss of job in the city after COVID.
- Human wildlife conflict is rampantly increased, especially from tiger. During 2019-2020, 15 people were killed by tiger and one people lost life from wild elephant.

Was your project successful? State short and long-term goals that you are using to evaluate your accomplishments.

This initiation has mobilized local communities, living around the forest, to restore the 1730 ha of community forest. The community forest provides the basic requirements of rural livelihood such as fodder, firewood and timber, and movement path and forage for elephant and other wildlife, out of the park. The community participation for the restoration of degraded land and safely movement of elephants out of the park evaluate the success of our intervention.



Photo: foraging of elephant in the corridor community forest

Based on this Project, what is the “next step” for this project and does it have implications for future conservation actions?

Continuous efforts are needed for the seeking of support from local organization for the sustainable funding of BZCFUGs and conflict mitigation measures such as electric fence. Bardia National Park and Buffer Zone User Committees are committed for the allocation of certain revenue for the continuation of habitat restoration program. The NTNC and its field staffs will facilitate the regular monthly meeting and mobilization of users for the control of grazing and fire, plantation and removal of invasive species. The repair materials will perpetually supply from NTNC. In the recent years, the casualties from tiger and elephants are increasing. It resulted to death of endangered wildlife from local communities. We are planning to establish mechanism for the monitoring of problematic animal (tiger and elephant) and timely aware local communities for its movement to minimize further damage. While monitoring those animals, we will disseminate the animal behavior message to local communities and community role for the conservation of wildlife and conflict mitigation.

Provide at least one human interest story

The chairperson of Asaregudi BZUC Mr. Tarajung Malla shared his happiness, “After the timely maintenance and regular inspection of electric fence, the entrance of elephant bull in the village is significantly reduced. Community members are also guarding the cropland during harvesting season on watch tower using high focus torch light. I am happy to see the smile of farmers after getting rice and maize without damage from elephant. We realize the importance of timely repair of fence”

Organizations associated with this project

Following organization have regularly supporting for the restoration of degraded habitat and mobilization of local communities for elephant conservation:

- Bardia National Park
- National Trust for Nature Conservation
- Ujyalo Nepal
- Buffer Zone User Committees (BUCs)
- Buffer Zone Management Committee (BZMC)
- Buffer Zone Community Forest User Group (BZCFUG)
- Community Based Anti-poaching Units (CBAPUs)
- Rapid Response Teams (RRTs)
- Nature Guide Association (NAGA)
- Eco-tourism Development Forum (ETDF)
- Bardia Nature Conservation Club (BNCC)
- Local governments (Urban/rural municipalities)

Financial report

Attached separately

Five high resolution digital images

Attached separately

Video

Attached separately

Has your project received any media coverage?

Covered by local media (FM, newspaper and TV channel)



Photo: Interview for national television on elephant conservation in Bardia

Link:

https://www.youtube.com/watch?v=UUG9OE_Y_zE&fbclid=IwAR2EkO9dvn3TrbO7NOLEODb7F06Atb65DOvQ71IPjpHMPtbTCwngWndEjvY

Social Media

Facebook: National Trust for Nature Conservation-Bardia Conservation Program