



Human-Elephant Conflict Management Report



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Divisional Forest Office, Sarpang
Department of Forests and Park Services
Ministry of Agriculture and Forests
2017



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Department of Forests and Park Services
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ACRONYMS AND ABBREVIATIONS

BBS	Bhutan Broadcasting Service
BC	Biological Corridor
Chiwog	Sub-Block
Chuzhing	Wet Land
DFO	Divisional Forest Office
DoFPS	Department of Forest and Park Services
Dzongkhag	District
ECC	Elephant Conservation Committee
Gewog	Block
GI	Galvanized Iron
GPS	Global Positioning System
HEC	Human Elephant Conflict
Kamzhing	Dry Land
MoAF	Ministry of Agriculture and Forests
NCD	Nature Conservation Division
NES	National Elephant Survey
Nu	Ngultrum (Bhutanese Currency)
QRT	Quick Response Team
RNR	Renewable Natural Resource
RO	Range Officer
TraMCA	Trans-boundary Manas Conservation Area
WWF	World Wildlife Fund for Nature



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FOREWORD

Every year our farmers are losing significant amount of crops and livestock to wildlife depredation. The farmers have always been the victim of the loss of crops to wild animals besides putting strong efforts to grow crops in their agricultural land. In recent times, wild pig and elephants feature regularly in the media for raiding crops and causing much distress among our farmers.

Human-Wildlife Conflict is prevalent in all most all the dzongkhags especially Human-Elephant Conflicts in Southern region. For many years, elephants have contributed to economic loss and social pressure on farmers of Southern Bhutan where damage to crops and property has occurred. Sarpang is one of the most affected dzongkhags in Bhutan.

At this juncture, addressing Human-Elephant Conflict has become one the most significant task for Department of Forests and Park Services, MoAF. Consequently it has become necessary to assess the extent of conflict and implement intervention to reduce the conflict. Joint efforts including the support from local government and involvement of local communities are crucial in effective management of conflicts.

To help in managing Human-Elephant Conflicts in the region, Divisional Forest Office, Sarpang has come up with Human-Elephant Management Report. The root cause of problem are being analysed and interventions, such as deploying Quick Response Team in conflict sites and insurance programs for crops as longer-term solutions. The interventions outlined here are expected to reduce Human-Elephant Conflicts to a manageable level in the affected villages, enhance the livelihoods of our farmers, and offset their losses from elephant damages.

The methods carried out to address the Human-Elephant Conflict in Sarpang region could be used to assist the informed decision makings and policies. It is my hope that this management report will help us curb any further HEC related problems and could



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be served as a reference document for the educator, researchers, and students.

I take this opportunity to express my sincere appreciation to the efforts put in by the Divisional Forest Office, Sarpang for carrying out various assessments. I would like to congratulate the team from Divisional Forest Office, Sarpang and Nature Conservation Division, Department of Forests and Park Services for bringing out this management report and WWF-Bhutan for their generous funding support.

Passang Wangchen Norbu
 Offtg. Director
 Department of Forests and Park Services

1. INTRODUCTION

Human Wildlife Conflict (HWC) today continues to surface as one of the issues of national importance as the conflict is prevalent all over the country. In southern part of Bhutan, elephant depredate crops while wild pig is considered nuisance to the farmers in the northern and eastern part of Bhutan in additions to several other wild animals. For many years, elephants have contributed to economic loss and social pressure on farmers in southern Bhutan.

Currently, human-elephant conflict is one of the significant issues confronting Divisional Forest Office (DFO), Sarpang, local communities and many other stakeholders. A lot of incidences has been reported to the Division about crop raiding and property damage by elephants. Subsequently, the Division has initiated several mitigation interventions to address the conflict. The greatest challenge faced by the Division is to strike a balance between elephant conservation and safeguarding livelihood of local communities.

Managing HWC takes on many forms. These includes the development of community-based insurance/relief schemes, fencing, trenches, deterrents (e.g. noise, lighting), and legal protocols for dealing with straying wildlife, active management of wildlife, community awareness, conflict hotspot mapping, deploying Quick Response Teams following conflict events, monitoring of results and studying the behavior and monitoring the movements of the GPS radio collared elephants. These actions can be grouped into six conflict management elements: policy, prevention, mitigation, understanding the conflict, response and monitoring.

A questionnaire survey was carried out to understand the extent of conflict including spatial and temporal patterns of human elephant conflict. In addition to the social survey, presence of elephants was also obtained by GPS which later were used for hotspot mapping. The results from these surveys were used in developing this report.

Objective of the report: *Guide in implementation and upscaling of successful management interventions to address Human-Elephant Conflict through SAFE system approach.*

All the mitigation measures adopted in Sarpang Dzongkhag to address the Human Elephant Conflict are being incorporated in this report. The report encompasses all the six conflict management elements of the Human Wildlife Conflict Safe System Strategy,

providing a holistic and integrated management approach to address HWC. This report is expected to guide implementation and upscaling of various mitigation measures to confront Human-Elephant Conflict in other elephant conflict areas in Bhutan.

2. AREA DESCRIPTION

2.1 Location of Division

Division Forest Office, Sarpang is one of the oldest divisions in the Department of Forests and Park Services. It was established in 1959. It is bordered by the Royal Manas National Park in the east, Jigme Singye Wangchuck National Park (JSWNP) in the north, Phibsoo Wildlife Sanctuary (PWS) in the west and India in the south. Biological corridor number 3 that connects Royal Manas National Park and Jigme Singye Wangchuck National Park and Phibsoo Wildlife Sanctuary also falls within the administrative jurisdiction of the Division, provisioning better connectivity among protected areas.

Currently, the Division provides services to two Dzongkhags namely Sarpang and Dagana (14 gewogs) comprising a total area of 1200 km². The elevation of the Division ranges from 90-3600 masl. The Divisional Headquarter is located at Sarpang-Tar, Shompangkha gewog of Sarpang dzongkhag.

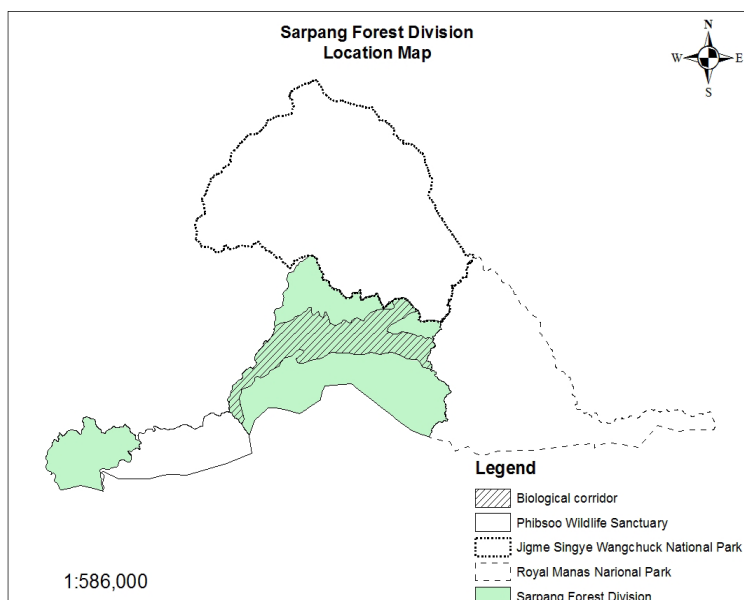


Figure 1. Location of Divisional Forest Office, Sarpang

2.2 Land-use Classification

Land-use coverage has maximum of broadleaved forest which constitute about 82% of the total land area of the division (Table 1). Agriculture land constitutes 6.32%, major crop being rice and maize.

Table 1. Land-use coverage under Sarpang

Land-use types	Area km ²
Agriculture	75.808
Built up areas	3.231
Landslide	6.123
Broadleaf Forest	993.132
Mixed Conifer Forest	11.071
Meadows	1.728
Rock outcrop	3.473
Shrub	75.157
Lakes	0.006
Rivers	36.350
Reservoirs	0.053

Source: *Bhutan Land Cover Assessment, 2010*

3. BACKGROUND ON HUMAN-ELEPHANT CONFLICT

1. POLICY

One of the policy measures, in the National Forest Policy of Bhutan, 2011, “*To maintain species persistence and ensure long term sustainability of Bhutan’s biodiversity, ecosystem services, natural habitats and cultural heritage through a network of Protected Areas, biological corridors and management of other parts of the landscape for positive environmental outcome*” is to; mainstream sustainable solutions to mitigate human wildlife conflict through innovative mechanisms and instruments based on good science.

Asian elephant (*Elephas maximus*) is listed under schedule I, as totally protected species in the Forest and Nature Conservation Act of Bhutan, 1995. The fine for any offence committed in relation to the Asian Elephant is Nu. 15000/- and the compensation shall be, to confiscate or to realize a compensation of Nu. 100000/- each per missing tusk as per the Forest and Nature Conservation Rules and Regulations, 2017.

To compensate any damages caused by elephants, crop insurance scheme, quick response team and elephant conservation committees have been formed in affected gewogs.

The home range of elephants, found within Sarpang also includes areas within the Indian states of Assam and West Bengal. Transboundary Manas Conservation Area (TraMCA) initiative provides one of the platforms for trans-boundary collaboration. Sarpang Division has been actively participating in activities related to TraMCA and will continue to do so to gain support to address human-elephant conflict

2. UNDERSTANDING THE CONFLICT

2.1 Social characteristics

2.1.1 Household characteristics

A total of 249 households were interviewed, out of which 104 households have conflict with elephants. Household respondents were largely male (63.43%). The average age of the respondent was 49.51 years. Ethnic backgrounds of the respondents were 59.71% lhotsam, 23.43% sharchop, 14.29% khengpa and 2.57% ngalop. Among the various ethnic groups 42% were settled under resettlement program. The re-settler communities are those households settled from other part of Bhutan. For the purpose of HEC analysis, only those households that have reported conflict with elephant were considered.

2.1.2 Household Income

The main sources of income for the households were agriculture followed by livestock, business and wage/salary. Income earned by the farmers during the last season was assessed and the total income from agriculture as revealed by the respondents was Nu.14.36 million with an average income of Nu.41038.50 per household per year. Agriculture is found as the main source of income followed by livestock and off-farm (small shops and wages).

2.1.3 Crops cultivated

The communities within the area grow various kind of crops. The major food crops grown are maize and paddy (Table 2) with average area of 4.75 and 3.54 acres per household respectively. Major cash crop grown are betel nuts (53.84 acres), followed by orange (37.17 acres), cardamom (5.75 acres), ginger (5.59 acres), and litchi (2.8 acres).

Table 2. Food crops and area under cultivation

Crop type	Area cultivated (acres)	Cultivation month	Harvest month
Paddy	102.71	May-July	September-December
Maize	137.76	February-May	May-August
Millet	37.20	May-September	October-January
Mustard	37	September-December	December-February
Buckwheat	1	July-October	December-January

2.1.4 Fallow Land

It was found that a total of 37.14 acres of land has been left fallow. The maximum category of land left fallow is found to be Kamzhing (21.17 acres), followed by chuzhing (15.97 acres). Lands are left fallow mainly due to wildlife depredation, shortage of water for irrigation, shortage of manpower, less productivity, landslides, rocky fields, fodder cultivation, and land being close to the Indo-Bhutan border (Table 3).

Table 3. Reasons reported by farmers for keeping land fallow

Sl. No.	Reason for keeping land fallow	% respondent
1	Wildlife Problem	35.21
2	Irrigation/water shortage	22.54
3	Shortage of manpower	21.13
4	Less productivity	8.45
5	Landslides	5.63
6	Rocky field	2.82
7	For fodder plantation	1.41
8	Land close Indo-Bhutan border (Security)	1.41
9	Isolated settlement	1.41

Source: *Human wildlife Conflict Report, DFO, Sarpang (2015)*

2.1.5 Crop depredation by elephant

Among 249 households interviewed, 104 households revealed to have conflict with elephants. Maize is the major crop lost to elephant depredation (Figure 2). Out of 14gewogs within the division, two gewogs namely Chudzom and Jigmecholing did not have any conflict with elephants. These two gewogs, being located at higher elevation from the foothills must have been inaccessible to the elephants.

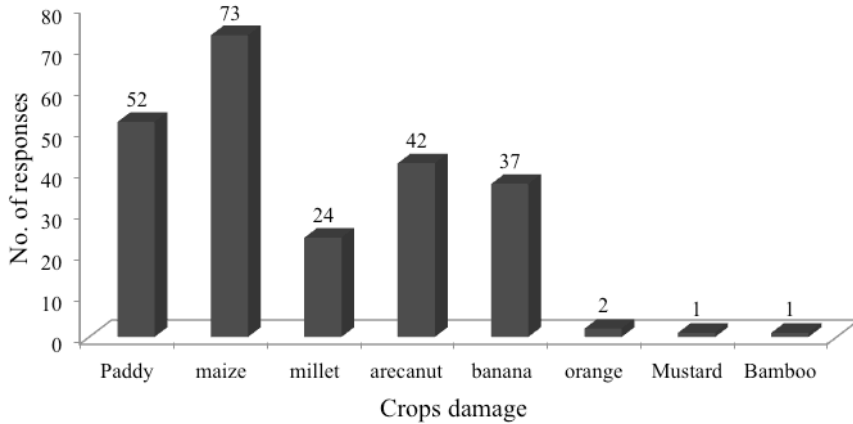


Figure 2. Incidence of crop damage by elephants

2.2 Population Study of Elephant

It is a prerequisite to know the population of elephants in the area in order to manage their habitat and conflict with the community. DFO, Sarpang assisted National Elephant Survey (NES) to determine the population of elephants in Bhutan. The result of the NES will help us in knowing the elephant population figure within the Sarpang Dzongkhag and plan accordingly for HEC management.

2.3 Spatial Pattern of Human-Elephant Conflict

Based on the survey report, incidences of conflict have been compared among the gewogs within the area. The incidence report has been quantified based on the percent of the number of households that reported conflict corresponding to the total number of households interviewed in a chiwog. Out of 14gewogs, 12 gewogs reported incidences of conflict with elephant. The most affected gewog were Lhamoyzingkha under Dagana Dzongkhag followed by Samtenling Gewog in Sarpang Dzongkhag (Figure 3). Most of these gewogs with high intensity of conflict share border with the Indian state of Assam and West Bengal.

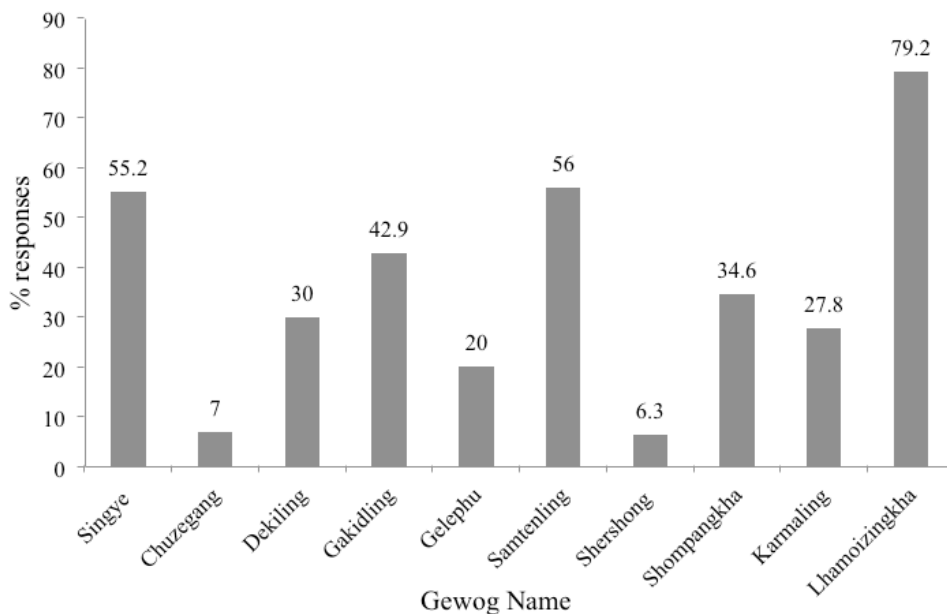


Figure 3. Severity of conflict reported in every gewog

2.4 Human elephant conflict hotspot mapping

Hotspot mapping has been carried out based on data collected from the field using GPS. The whole area has been surveyed to record the presence of elephants (Figure 4 top). It was found that, the presence of elephants in Bhutan, is closely associated with the proximity of habitat to the Indian side. A large track of reserve forest exists along international border (to the Indian side), where elephant take refuge including Ripu Chirang Elephant Reserve and Manas National Park, India (Figure 4 bottom). The map clearly illustrates that presence of elephant in Bhutan is higher in places adjacent to Assam where elephant density are reported high.

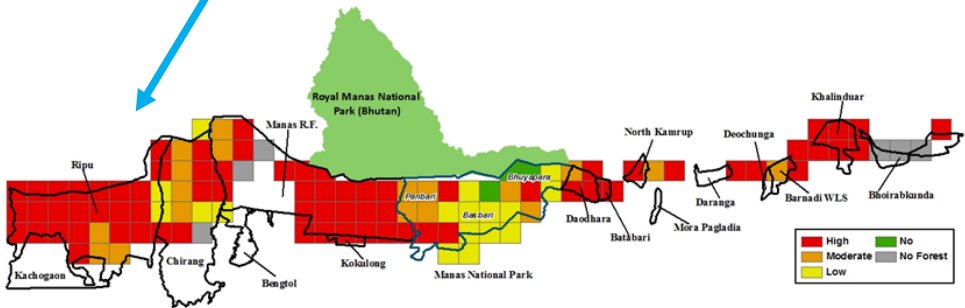
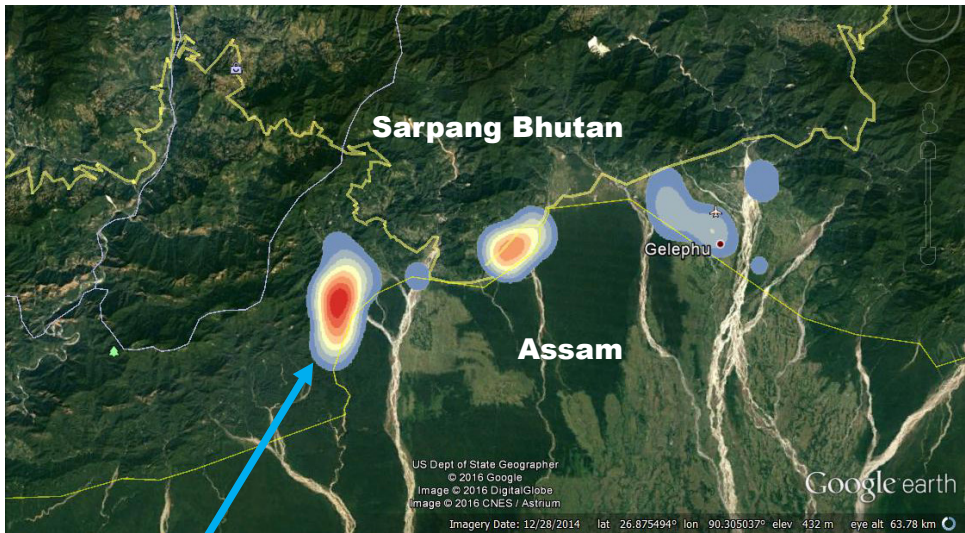


Figure 4 (top) Hot spot map of elephant presence in Bhutan based on indirect evidence, (bottom) Intensity of elephant presence in Assam

The Division lies between Royal Manas National Park and Phibsoo Wildlife Sanctuary. These two protected areas are reported to have higher presence of elephants in Bhutan. The location of elephant habitat at close proximity to villages along the border contributes to higher incidences of conflict. Similar pattern was found at places where concentration of crop raiding take place in villages located near the forest and park.

2.5 Temporal pattern of crop raiding incidence

Survey showed that, the majority of the crop raiding by elephants take place during night (about 79% of households, n=104) except for one respondent, which revealed that elephants raid crops during any time of the day (Figure 5). The higher occurrence of human elephant conflict is found to be during the cropping season.

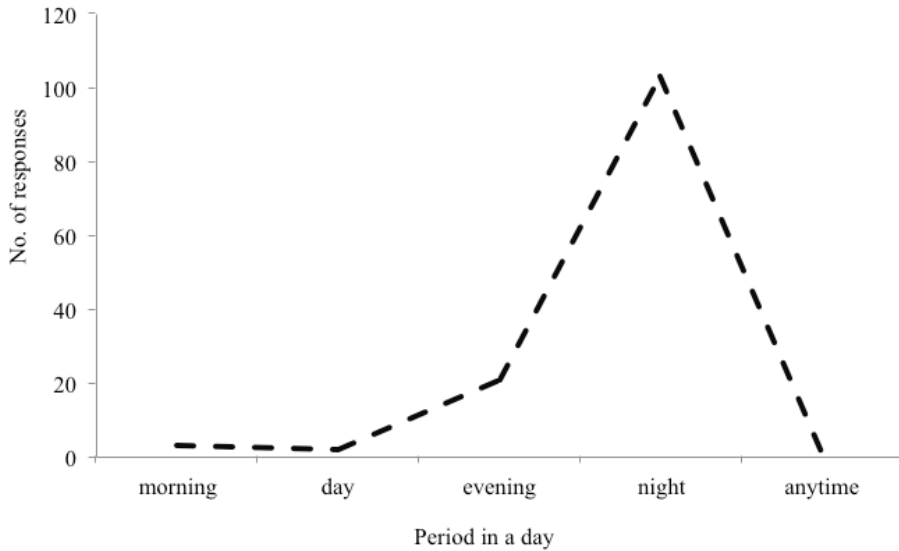


Figure 5. Diurnal pattern of crop damage caused by elephants

2.6 Crop depredation trend

51.46% of the respondents, who experienced conflict with the elephants, mentioned that the crop depredation trend has increased. While 33.98% of the respondents mentioned that it has decreased and rest answered it has remained the same.

The reasons for decrease in trend are; more settlement, use of electric fence, more area of cultivation which reduce intensity of depredation, road construction that damaged wildlife habitat, and use of several prevention measures.

On the other hand, some locals reasoned out for increase in crop depredation by wild animals over the year. The most popular reasons are; destruction or degradation of forest and habitat, increase in wild animal population, increase in forest covers around the village, decreasing of hunting (strict law enforcement), and escalation of settlement near the forest.

2.7 Capturing conflict information (Reporting of crop loss)

Report of crop and wildlife depredation is important in order to undertake interventions based on information. However, 36% of the respondents (n=104) did not report crop loss to any of the agency. There are various reasons stated by respondents for not reporting crop damage by elephant (Figure 6).

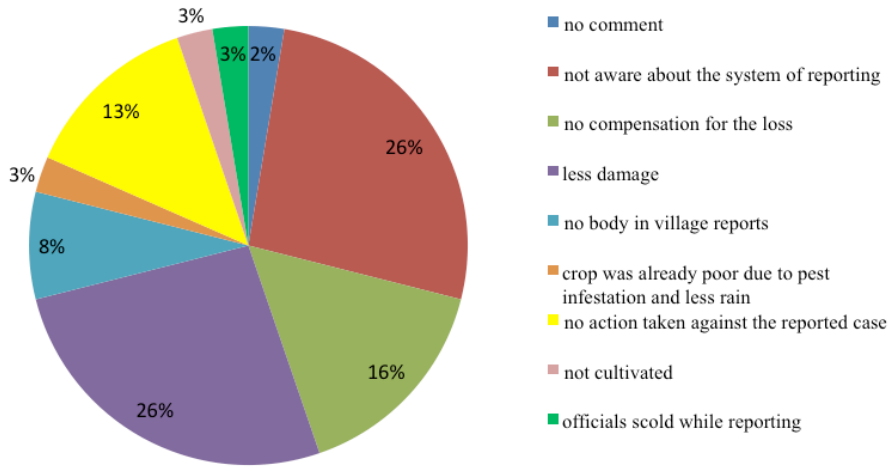


Figure 6. Reasons for not reporting incidence of crop damage

On the other hand, there are certain groups of communities who report human-elephant conflict to the authorities. More than 54% of the respondent reported that they report to gewog administration followed by RNR staff (Figure 5).

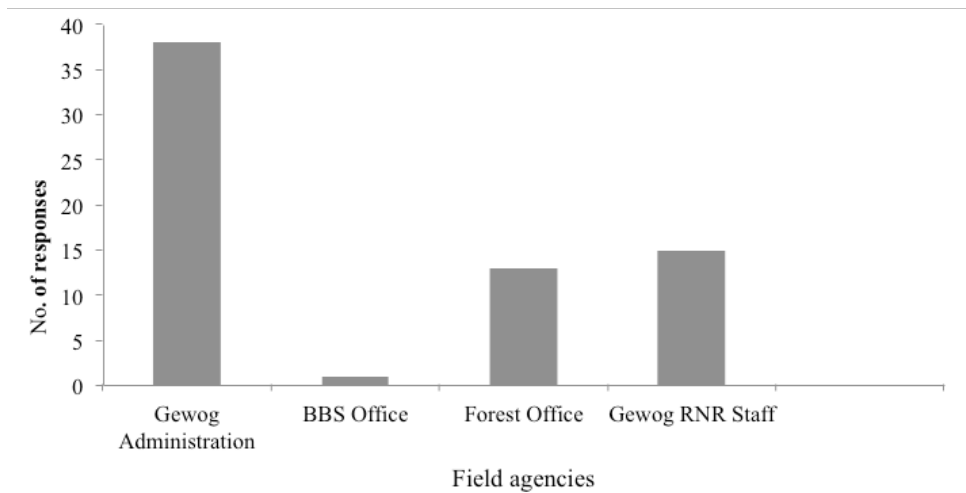


Figure 7. Incidences of report by farmers to various agencies

3. PREVENTION

3.1 Indigenous Preventative Measures

Preventative measures that do not reflect local realities have minimal impact. Survey has reported few prevention methods being practiced by local communities. The popular methods are making fire, beating drum, patrolling around the field and making noise. The studies in other countries have found that mixture of prevention method were effective as elephants get accustomed to single method over the time. Therefore, the local communities should be encouraged to practice these traditional methods.

3.2 Deterrents

Survey has reported that there are several deterrents-used by communities to protect crop from elephants. Except for the Lhotsham community, all other ethnic groups of people are re-settlers and they lack ideas on use of deterrents. The most popular deterrent used by the community are making fire, beating drum and making noise (Table 4).

Recently, Divisional Forest Office, Sarpang with the support from RBP, had tried to use tear gas to chase away herd of elephants in Dzomlingthang and it hasn't work out, as elephant were found to be resistant to such repellents.

Table 4. Deterrents used by different ethnic communities

Categories (No. of households)	Lhotsham (60)	Khengpa (11)	Ngalop (2)	Sharchop (30)	Total
Making fire	30	6	1	20	57
Clearing bush around field	5	1	1	2	9
Beating drum	30	6	1	10	47
Guarding by dog	1	0	1	0	2
Patrol around field	12	2	2	7	23
Making noise	28	4	2	13	47
Total	106	19	8	52	185

3.3 Barriers

In the recent years, solar/electric fence has been initiated and found effective as compared to traditional methods. Over the years there has been increasing number of communities requesting for establishment of solar/electric fence. A comparative analysis was carried out to assess the impact of electric fence funded by WWF Bhutan (Ecolife project- Sustaining Livelihood for Ecosystem Services) under Samtenthang chiwog. The assessment result indicated that there is an appreciable impact on the crop production after installation of electric fence (Table 5).

Table 5. Outcome of electric fence towards agriculture production

Sl. no.	Crop	2015 (before fencing)		2016 (after fencing)	
		Area (Ac)	Production (MT)	Area (Ac)	Production (MT)
1	Paddy	130	213	230	368
2	Millet	15	7.5	40	51
3	Maize	135	353	250	412

3.3.1 Solar/electric fencing

Solar/electric fencing has been carried out in severely affected communities within the Division. A total of 153km of electric fence has been established in entire gewogs in the Division (**Annexure I**). As far as possible, the fences have been confined around private land which otherwise block traditional route of elephant.

Maintenance

The beneficiaries will carry out maintenance of fence as per the bylaws formulated by beneficiaries themselves (**Annexure II**). The main activities under the maintenance include as follows:

- **Removal of vegetation:** All vegetation within a minimum distance of one meter on both the sides of the fence should be cleared.
- **Component damage:** Any damages to fencing components such as energizer, GI wire, insulator, battery, earthing, solar panel, fence post and electric cable should be managed by the beneficiaries. Moreover, the applying of lubricant to GI wires twice a year to prevent it from rusting.

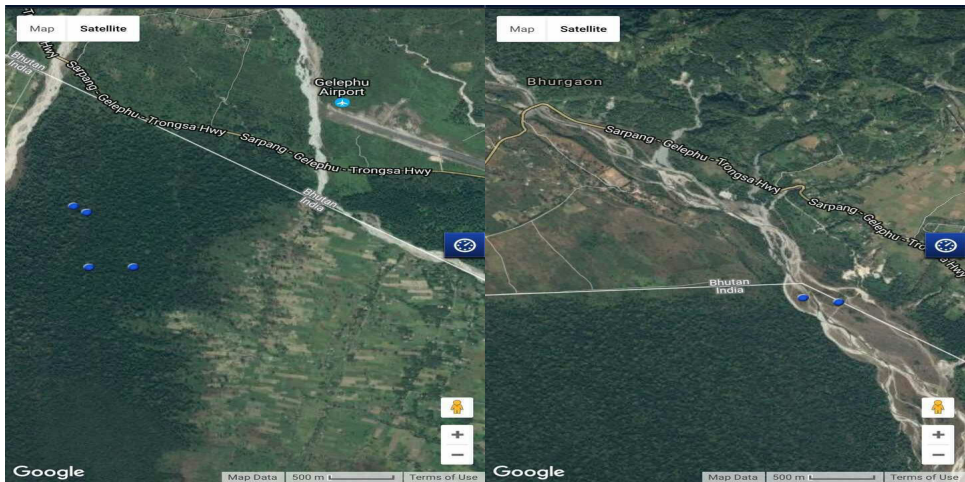


3.4 Monitoring of Elephants- Use of locations from Radio Collared Elephants

Out of few elephants collared in the Southern belt by Mr. Sonam Wangdi, Dy. CFO from NCD as a part of study on Examine the dietary pattern and determine the habitat preference and migratory route of the Asiatic Elephants in Bhutan; two female elephants named Jetsun and Dema resides within Sarpang and Phibsoo area respectively.

It is done to understand the migratory pattern of the elephant and also to monitor their movement towards the agricultural fields. The information acquired on location of elephant is being informed to the field staff and Quick Response Team to prepare for preventing damages to crops and properties. Thus, advance information obtained from this collaring method has helped to guard elephant from damaging crops and properties.

However, there are also few other herds which come into conflict with communities. There is a need to collar these remaining herds in future to keep track of elephant presence in and around settlements.



Screen shot showing location of collared elephant (approaching settlements)

3.5 Habitat Improvement

3.5.1 Waterholes



Waterholes are being constructed at Gelephu, Lhamoyzingkha and Sarpang. It has been observed that elephants have damaged drinking water tanks and pipelines in villages. After creating waterholes, it was noticed that elephants have frequently visited those waterholes. So the number of waterholes needs to be increased. In the coming years, more water holes will be created including maintenance of existing waterholes.

3.5.2 Fodder Enrichment

Due to scarcity of forage in habitat areas, the elephant frequently raids agricultural crops in villages. In order to minimize the crop raiding by elephants, enrichment of habitat with preferred fodder species has been carried out. DFO, Sarpang initiated 10 acres of banana and bamboo plantation around Khurul Lake under Lhamoyzingkha range.

Such enrichment programs with other palatable fodder species needs to be continued in other habitats to ensure extensive coverage of forage.



Habitat enrichment plantation

3.5.3 Removal of *Lantana camara*

Lantana camara is an invasive exotic weed which is found spreading throughout the elephant's habitat under Sarpang dzongkhag. The *Lantana camara* was uprooted from 20 hectares at Sarpang and Gelephu Range which was profusely affecting the growth of other native species in the area. The best method to remove lantana is by manual uprooting followed by plantation of native species. The procedure followed for this are:

1. Cut below the root-stem transition zone
2. Burn dried clumps
3. Weed out *Lantana* saplings beneath the trees
4. Restore native plants in the empty space



3.6 Salt lick area management

Salt lick is one of the important components of wildlife habitat and the movement of elephant is also sometime determined by the presences of salt licks in that particular area. DFO, Sarpang has identified two salt lick areas each in Lhamoyzingkha and Sarpang Range. DFO, Sarpang plans to identify salt lick area in entire Division and carry out mapping for management.

3.7 Corridor Management

DFO, Sarpang has maintained the corridors by limiting the construction of fence only around private registered land. Evidences gathered from survey in the division showed that elephant use dry river bed to move across the border. So it is important to not fence those corridors which otherwise will obstruct elephant movement resulting in destruction of fence.

3.8 Education and Community Awareness

3.8.1 Schools

Education and awareness program on elephant conservation is carried out in schools and communities. The main objective of creating awareness in the schools is to disseminate information to students on importance of elephant and its conservation. While they return back to villages they act as ambassadors between Department of Forests and Park Services and communities. During the awareness program, schools held various activities such as debate, quiz and drawing competitions and there were also presentations by forestry officials.



The table below represents the list of gender wise participants in Sarpang Central School and Sarpang Lower Secondary School.

Sl. No.	Sarpang Central School		Sarpang Lower Secondary School		Total Participants
	Male	Female	Male	Female	
Teachers	30	12	20	24	86
Supporting Staffs	45	21	4	4	74
Students	437	377	483	468	1765
Total	512	410	507	496	
Grand Total	922		1003		1925

1765 students and 160 school faculty made aware on importance of elephants conservation.

3.8.2 Communities

Educating the adult group of people to disseminate innovative techniques, build local capacity in conflict resolution and increasing public understanding of Human Elephants Conflicts. There is also need to impart knowledge on various mitigation methods and on safety measure while confronting with elephants. DFO, Sarpang plans to design advocacy program in collaboration with schools for effective dissemination of information on elephant conservation.



3.8.3 Signage

DFO, Sarpang has installed sign boards along the highway cautioning maximum speed limit and presence of elephants. Sign boards were also installed at the electric fence site to caution local people on safety.



3.8.4 General Ideas on Prevention of Property damage by Elephant

- Houses should not have white-washed or brightly painted walls as they are more prone to damage by elephant than those with green, ochre or earth coloured walls.
- People should be advised not to grow bamboo, banana and jack fruit very close to their houses as these attract elephants.
- Houses should not have tall hedge around them which could prevent sighting an approaching elephant.

3.9 Zero Poaching

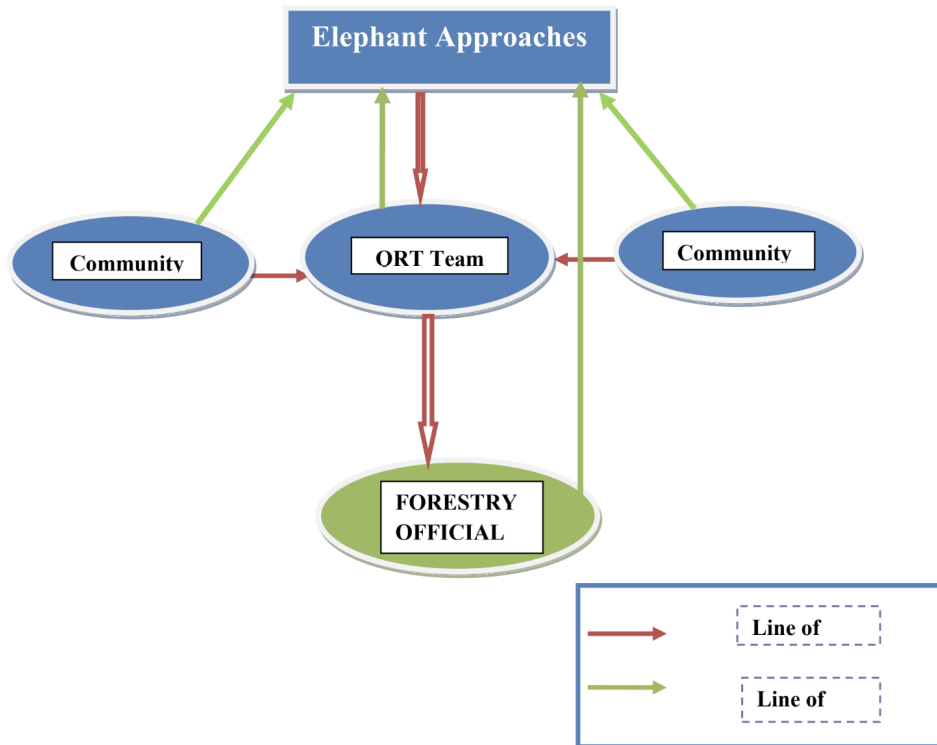
Divisional Forest Office, Sarpang is implementing Spatial Monitoring and Reporting Tool (SMART) as an effective tool to plan, implement, and monitor anti-poaching activities. All spatial data collected are geo-referenced using GPS, which enables data officers to produce the following: indices for monitoring of wildlife populations, illegal activities and resources; distribution maps for planning and monitoring; baseline information for patrol deployment planning; information on wildlife population structure; performance indicators to monitor and evaluate the implementation of annual operations plans; and reports for collaborating institutions etc. Intensification of patrolling, enhancement of communications and provision of mobility are some of the prioritized activities under Zero poaching project which is currently being implemented under Divisional Forest Office, Sarpang. It is being funded by WWF Bhutan, with a theme, “Ensuring Tiger Protection beyond Protected Areas” and it is expected to benefit in human elephant conflict management.

4. RESPONSE

4.1 Quick Response Team

Quick Response Team (QRT) has been formed in severely affected communities. The team member comprises of local people ranging from five to eleven in a team (**Annexure IV**). QRT leader will receive the information on the presence of elephants from communities. The role of QRT is to alert, mobilize and support local people to drive away elephant approaching their field and also to report to forestry officials to seek assistance if required. The DFO and RO will accordingly depute the field staffs to the right direction without further delay. Currently, there are four QRT and additional QRT needs to be formed in remaining affected communities.

PROTOCOL FOR QUICK RESPONSE TEAM REPORTING



4.2 Search lights

Divisional Forest Office, Sarpang had procured and distributed search lights to field staffs and QRT members to help in chasing away the crop raiding elephants. The search light replaces bamboo torches and less powerful light. The division office plans to supply additional torch lights to the remaining communities.



4.3 Communication

Communication is one of the important aspects for successfully handling the conflict situations. A proper channel of communication and usage of gadgets like handset are essential to inform and deploy staffs at right time. Therefore, the Division has issued few handsets to the staffs to ensure effective communication and for timely interventions.

5. Mitigation

5.1 Elephant Conservation Committee

In those gewogs where there is a high incidence of HEC, Elephant Conservation Committee (ECC) was formed. Crop insurance scheme has been initiated in these five ECC. An amount of Nu.0.5m has been provided to four groups as seed money and Nu.0.2m to one group as top up fund to their existing seed money (Table 6). Detail modality of fund management has been included in bylaw (**Annexure III**).

Table 6. Beneficiaries of elephant conservation committee

Group Name	Gewog	Amount (M)	Fixed Deposit Account	Beneficiaries (HH)
ECC, Gakidling	Gakiling	0.5		564
ECC, Shompangkha	Shompangkha	0.5		320
ECC, Singye	Singye	0.5		282
ECC, Samtenling	Samtenling	0.5		357
ECC, L/zingkha	L/zingkha	0.2		

6. MONITORING AND EVALUATION

Monitoring and Evaluation will form the principal constituent for determining the achievement of management objectives and strategic actions outlined in the management report. It's important to identify whether the implemented interventions are being effective and the objectives are being met, to learn from observation of the management strategy implementation and to adapt the management actions accordingly in future.

Divisional Forest Office, Sarpang need to take up regular monitoring of implemented activities; to check the effectiveness and sustainability of interventions, to advice communities on lesson and to recommend for future implementations. Documentation of such activities are important not only for policy and decision makers, but also to learn and to upscale such activities in other areas.

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Annexure I: Result of solar fence

Gewog	Chiwog	Total household	Area (Ac)		Solar/Electric/Both	Length (km)	Year of Establishment
			Dry land	Wet land			
Umling	Chuburthang	18	9.5	12.5	Electric fence	1.35	2015
	Thingazor	19	35	40	Electric fence	2.5	
	Tashithang	18	41	50	Electric fence	5.27	
	Rejuk	70	230	130	Electric fence	3	
	Rejuk/Tashithang/ Chubarthang	140	315.5	130	Solar	7.07	2011
	Total	265	631	362.5		19.19	
Gakidling	Gatemkha	3	6.85		Electric fence	1.2	2015
	Gatemkha	1	2.4	0	Electric fence	0.475	
	Gakidling	29		200	Electric fence	7.96	2015 & 2016
	Gatemkha	15	11.81	12.66	Electric fence	1.5	2015
	Gatemkha	14	22.8	4.23	Electric fence	2.3	2015
	Gatemkha	16	25.14	5.66	Electric fence	1.1	2015
	Gakidling	1	4	1.11	Electric fence	0.09	2015
	Gakidling	1	0	1.25	Electric fence	0.39	2015
	Getemkha	1	3	0	Electric	0.2	2016
	Getemkha	5	11	7.1	Electric	3.4	2016
	Rilangthang	4	11.5	1	Electric	1	2016
	Rilangthang	3	6.9	4.15	Electric	1.7	2016
	Menchulam	5	25.25	2.6	Electric	6	2016
	Menchulam	1	1.5	0	Electric	2	2016
	Total	99	132.15	239.76		29.315	
Samtenling	Samtenling	3	8	7	Electric fence	0.8	2015
	Khempagang	4	0	10.5	Electric fence	1.2	
	Samtenthang, Dechenpelri & Chokhorling	175	343	172	Both	4	2015
		Total	182	351	189.5		6
Singye	Thoenba	74	161.47	44.56	Electric fence	4	2015
	Sangaythang	67	115.6	137.55	Both	7.2	2009
	Yarpheing	56	172.64	73.69	Both	4	2015
	Laptsakha & Nengyul	66	168.04	157.28	Both	7	2013
	Labar Botey	1	5.37	6.37	Solar	1.5	2016
	Labar Botey	1	1.5	3.05	Solar	1.5	2016
	DeosalyKhop	1	0.5	1.5	Solar	1	2016
	DeosalyKhop	1	3.08	4.08	Solar	2	2016
	Balu Kholchi	4	5.98	6.28	Solar	1.7	2016
	Sisty Khopan	5	2.49	3.66	Solar	1.2	2016
	Ringalung	5	4.08	6.33	Solar	1.5	2016
	Sistey B	14	22.77	33.08	Electric	2	2016
	Total	295	663.52	477.43		34.6	

Dekiling	Chokhorling/Jigmeling	450		1000	Solar	7	2104
	Total	450		1000		7	
Shompangkha	Dargaythang/ Kencholing	84		150	Electric	3.5	2014
	Dargaythang	70	100	200	Both	1.5	2015
	Dargaythang	3	0	6	Electric	1	2015
	Rigsungang	15	15	0	Electric	2	2015
	Total	172	115	356		8	
Sershong	Kingaling	11	32	3.5	Electric	1.66	2014
	Tashiphu	13	51.02	13.86	Electric	3.15	2016
	Tashiphu	5	16.35	4.12	Electric	1	2016
	Tashiphu	18	29.12	22.61	Electric	1.85	2016
	Pemeling	1	5	0	Electric	0.55	2015
	Barshong (Pemathang)	48	38.35	71.27	Electric	6.5	2016
	Total	96	171.84	115.36		14.71	
Chuusagang	Chaskhar	29	30	70	Electric	2.79	2013
	Pangzor	28	20	230	Electric	1.5	2014
	Barthang	110	100	200	Electric	3	2015
	Barthang	40	50	150	Solar	0.5	2015
	Shawapang	25	10	115	Electric	2	2015
	Total	232	210	765		9.79	
Tarethang	Tashicholing/ Pemacholing/ Yezergang	75	301	78.19	Both	8.64	2015
	Total	75	301	78.19		8.641	
Chudzom	Lhayul Lower	6	7	7.34	Electric	3.5	2015
	Ashithang	19	60.48	3.05	Electric	4.45	2016
	Gurung goun	5	12	13.45	Electric	4.5	2016
	Total	30	79.48	23.84		12.45	
Gelephu	Pokheral Dangra	3	0	8.5	Electric	0.7	2016
	Perithang Khamey	5	1	9.65	Electric	0.91	2016
	Zomlingthang	1	4	0	Electric	0.4	2016
	Total	9	5	18.15		2.01	
Jigmecholing	Khatey	40	28.69	53.92	Electric	3.5	2016
	Gongdugang	20		0	Electric		
	Total	60	28.69	53.92		3.5	

Annexure II

By-laws for Maintenance of Electric Fencing Chiwog: Khenpagang Gewog: Samtenling, Sarpang Dzongkhag



**Divisional Forest Office, Sarpang
Department of Forests and Park Services
Ministry of Agriculture and Forests**

Article I. Objective

1. To prevent wild animals especially elephants from damaging agriculture crops and also to prevent damage to live and properties.

Article II. Beneficiaries

1. The affected communities of Khenpagang chiwog.
2. The beneficiary communities comprise of 89 households.

Article III. Committee Members

- A. Chairperson: Mr. Kharka Bdr. Rai,
- B. Committee members:
 1. Mr. Thakur Prasad Adhikari
 2. Mr. DorjangDukpa
 3. Ran Bdr. Mongar
 4. Mani Raj Rai
- C. The committee members will serve for 1 year and will appoint and hand over the charge to the new committee members. The list of new committee members will be submitted to the Forest Range Office, Gelephu, Divisional Forest Office, Sarpang, DoFPS through Gewog Administration. The committee members are exempted from labour contribution during repair and maintenance of the fence.
- D. Roles and Responsibilities:
 1. The Chairperson will chair any meeting related to the fence.
 2. The Chairperson will be the focal point for any issues related to the fence.
 3. The committee members will support the Chairperson and supervise any works related to the fence.

Article III. Management

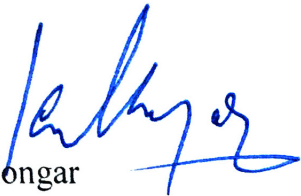
1. This electric fence will be managed by of community of Khenpagang Chiwog with technical support from the Divisional Forest Office, Sarpang, DoFPS

2. The maintenance of the fence will be done by the community of Khenpagang Chiwog. Each Chiwog will contribute equal number of labour depending on the degree of damages. The cost for the maintenance will also be contributed equally by each Chiwog depending on extent of damages.
3. Community will recruit four fence caretakers to check the status fence daily from September to November and weekly during rest of the year and will report the status to the committee members.
4. The caretaker will also check for current leakage, functioning of the energizer and battery
5. The Community will nominate the caretakers on yearly basis by the committee members.
6. Those households failing to attend the voluntary labour of fence maintenance shall be liable to a fine of Nu.215.00, failure to which will be dealt as per existing laws of the country. The fine will be used to engage laborers required for repair and maintenance of the fence. The committee will maintain proper books of accounts and will present to the community.
7. Those land holders whose lands are kept fallow should start their contributions, from the day the owner of the land starts cultivation.
8. Anyone found guilty of damaging or attempting to damage the fence shall be held responsible for complete repair of the damaged fence. Failure to which the offender will bear the cost of the repair submitted by the committee.

Article IV. Monitoring and Reporting

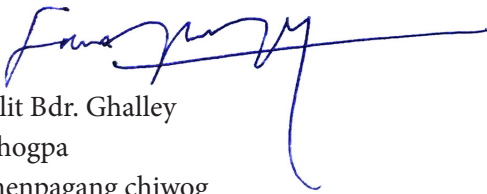
1. The Chairperson will compile a report on the status of the fence at the end of every month and submit to the Forest Range Office, Gelephu, Divisional Forest Office, Sarpang, Department of Forests and Park Services.
2. The Division will further report to the Nature Conservation Division, Department of Forests and Park Services.

This By-Law have been read, discussed, agreed and endorsed by the community of Chiwog represented by the following representative of the public.



Kumar Mongar

GUP
Gewog Administration
Samtening Gewog
Sarpang Dzongkhag
Samtening



Lalit Bdr. Ghalley
Tshogpa
Khenpagang chiwog

**By-laws for Maintenance of Electric Fencing
Chiwog: Samtenthang
Gewog: Samtenling, Sarpang Dzongkhag**



**Divisional Forest Office, Sarpang
Department of Forests and Park Services
Ministry of Agriculture and Forests**

Article I. Objective

1. To prevent wild animals especially elephants from damaging agriculture crops and also to prevent damage to live and properties.

Article II. Beneficiaries

1. The affected communities of Samtenthang chiwog.
2. The beneficiary communities comprise of 75 households.

Article III. Committee Members

- A. Chairperson: Mr. Gagyal
- B. Committee members:
 1. Mr. Yongba
 2. Mrs. Radhika Rai
 3. Mr. Datta Ram Acharya
 4. Mr. Lal Bhadur Rai
- C. The committee members will serve for 3 years and will appoint and hand over the charge to the new committee members. The list of new committee members will be submitted to the Forest Range Office, Gelephu, Divisional Forest Office, Sarpang, DoFPS through Gewog Administration. The committee members are exempted from labour contribution during repair and maintenance of the fence.
- D. Roles and Responsibilities:
 1. The Chairperson will chair any meeting related to the fence.
 2. The Chairperson will be the focal point for any issues related to the fence.
 3. The committee members will support the Chairperson and supervise any works related to the fence.

Article III. Management

1. This electric fence will be managed by of community of Samtenthang chiwog with technical support from the Divisional Forest Office, Sarpang, DoFPS

2. The maintenance of the fence will be done by the community of Samtenthang chiwog. Each household contribute equal number of labour depending on the degree of damages. The cost for the maintenance will also be contributed equally by each chiwog depending on extent of damages.
3. Community will recruit three fence caretakers to check the status of the fence once in two days and will report the status to the committee members.
4. The caretaker will also check for current leakage, functioning of the energizer and battery
5. The Community will nominate the caretakers on yearly basis by the committee members.
6. Those households failing to attend the voluntary labour of fence maintenance will be liable to a fine of Nu.250/- failure to which will be dealt as per existing laws of the country. The fine will be used to engage laborers required for repair and maintenance of the fence. The committee will maintain proper books of accounts and will present to the community.
7. Those land holders whose lands are kept fallow should start their contributions, from the day the owner of the land starts cultivation.
8. Anyone found guilty of damaging or attempting to damage the fence shall be held responsible for complete repair of the damaged fence. Failure to which the offender will bear the cost of the repair submitted by the committee.

Article IV. Monitoring and Reporting

1. The Chairperson will compile a report on the status of the fence at the end of every month and submit to the Forest Range Office, Gelephu, Divisional Forest Office, Sarpang, DoFPS.
2. The Division will further report to the Nature Conservation Division, Department of Forests and Park Services.

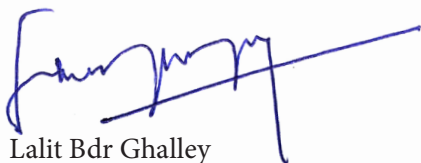
This By-Law have been read, discussed, agreed and endorsed by the community of Samtenthang chiwog represented by the following representative of the public.



Kumar Mongar

Gup, Gewog Administration

Samtenling Gewog
Samtenling Dzongkhag



Lalit Bdr Ghalley

Tshokpa,

Samtenthang Chiwog

**By-laws for Maintenance of Electric Fencing
Chiwog: Gakidling
Gewog: Gakidling, Sarpang Dzongkhag**



**Divisional Forest Office, Sarpang
Department of Forests and Park Services
Ministry of Agriculture and Forests**

Article I. Objective

1. To prevent wild animals especially elephants from damaging agriculture crops and also to prevent damage to live and properties.

Article II. Beneficiaries

1. The affected communities of Gakidling chiwog.
2. The beneficiary communities comprise of 83 households.

Article III. Committee Members

A. Chairperson: Mr. Chador

B. Committee members:

1. Mr. Mangal Chan Subba
2. Mr. Kinzang Chophel
3. Mr. Pelzang
4. Mr. Bhim Bdr. Kumar
5. Mr. Sangay Norbu

C. The committee members will serve for 1 year and will appoint and hand over the charge to the new committee members. The list of new committee members will be submitted to the Forest Range Office, Sarpang, Divisional Forest Office, Sarpang, DoFPS through Gewog Administration. The committee members are exempted from labour contribution during repair and maintenance of the fence.

D. Roles and Responsibilities:

1. The Chairperson will chair any meeting related to the fence.
2. The Chairperson will be the focal point for any issues related to the fence.
3. The committee members will support the Chairperson and supervise any works related to the fence.

Article III. Management

1. This electric fence will be managed by the community of Gakidling chiwog with technical support from the Divisional Forest Office, Sarpang, DoFPS.
2. Each household will contribute equal number of labour depending on the degree of damages. The cost for the maintenance will also be contributed equally by each household depending on extent of damages.
3. Community will recruit four fence caretakers from each group (Group I – Gurung khola to Kashinath gate and Gurung khola to Bhim Bdr. Kumar gate, Group II- Hillay khola to Sistey khola gate and Birkha Bdr Guragai gate to Bhim Bdr Kumar gate, Group III- Hillay khola to Kashinath gate and Hillay khola to Birkha Bdr. Guragai gate, Group IV- Bunakha). The caretakers will check the status of the fence once in a week and will report the status to the committee members.
4. The respective operator will also check for current leakage, functioning of the energizer and battery and report to the committee members.
5. The Community will nominate the caretakers on yearly basis.
6. Those households failing to attend the voluntary labour of fence maintenance will be liable to a fine of Nu.215/- failure to which will be dealt as per existing laws of the country. The fine will be used to engage laborers required for repair and maintenance of the fence. The committee will maintain proper books of accounts and will present to the community.
7. Those land holders whose lands are kept fallow should start their contributions, from the day the owner of the land starts cultivation.
8. Anyone found guilty of damaging or attempting to damage the fence shall be held responsible for complete repair of the damaged fence. Failure to which the offender will bear the cost of the repair submitted by the committee.

Article IV. Monitoring and Reporting


1. The Chairperson will compile a report on the status of the fence at the end of every month and submit to the Forest Range Office, Sarpang, Divisional Forest Office, Sarpang, DoFPS.
2. The Division will further report to the Nature Conservation Division, DoFPS

This By-Law have been read, discussed, agreed and endorsed by the community of Gakidling chiwog represented by the following representative of the public.

Nim Dorji Sherpa

Gup, Gewog Administration

Gakidling



Bhim Kumar Raika
~~Bhim Kr. Raika~~
Tshokpa
Gakidling Chiwog
~~Gakidling Chiwog~~

Annexure III

CHAPTER I Gakidling Elephant Conservation Committee (GECC)

Article I. Name

This institution will be named as, “Gakidling Elephant Conservation Committee (GECC)”

Article II. Purposes

The purpose of GECC will be:

1. To integrate the management of human wildlife conflict with the community level programs.
2. To initiate community based insurance programs for insuring agricultural crops against damage by wildlife.
3. To initiate Quick Response to any wildlife damage through formation of Quick Response Teams (QRT)
4. To initiate community level micro financing activities and developmental activities within the Community
5. To promote a sense of biodiversity conservation in the Community

Article III. GECC executive members

1. Executive members of GECC will be elected by the community and will be composed of a Chairman, a secretary and a treasurer.
2. GECC will hereafter serve as a focal agency within the Community for any future activities related to human wildlife conflicts and any other works related to elephant conservation.
3. An official from Sarpang Range or concerned Gewog RNR will be the observing member of GECC and will provide advice on any technical matters like verification and assessment of wildlife damage.

Article IV: Executive members

Position	Name	Village/Remarks
Chairman	Gup, Gewog administration, Gakidling	Gewog office, Gakidling
Secretary	Kumbu Tshewang	Getemkha, +975 17669375
Treasurer	Khandu Wangmo	Gakidling, +975 17241633
Observer	Kezang Dhendup	Range Officer, Sarpang

Additional Members as and when necessary:

Sl #	Position	Tshogpas of following Chiwogs
1	Member	Gakidling
2	Member	Sangkha
3	Member	Getemkha
4	Member	Menchulam
5	Member	Rilangthang

Article V. Duties and Power of Executive members

1. The Executive members shall be responsible for the implementation of responsibilities listed in Article II.
2. The Executive members shall be responsible for the growth of fund through fund raising initiatives and the management of the fund.
3. The Executive members shall be responsible for administration and maintaining the book of finance for the smooth functioning of the GECC.
4. The Executive members shall be responsible for collecting annual premium and disbursing of the cash compensation.
5. The Executive members shall be answerable to the concerned authority for conservation activities and financial matters.
6. The GECC shall seek prior approval from the Concerned Authority (DoFPS) whenever new activities such as crediting and relevant activities are initiated.

Article VI. Membership

1. The general members of this GECC will comprise of those households with willingness to join the GECC; with land holdings and cultivation of agriculture crops in Gakidling gewog.

Article VII. Meeting

1. The annual general meeting of the GECC will be held at the end of the financial year at such date, time and location as determined, from time to time, by the committee members or Chairman.
2. Special meetings of the general members may be called by the committees or Chairman of the GECC and shall be held at such date, time and location as shall be determined, from time to time, by the committee members or Chairman.

Article VIII. Quorum

1. In order for the GECC to take any decision with regard to the spending of fund, a minimum quorum of 2/3 majorities of general members are required.

Article IX. Monitoring and Reporting

1. The executive member will monitor the activities regularly and maintain record of compensations made.
2. The executive member will submit annual report to DFO Sarpang, DoFPS.
3. The concerned government office (DoFPS) may monitor the progress of the GECC and its activities whenever deemed necessary

CHAPTER II

Crop Insurance Program

Article I. Objective

1. To reduce the economic loss through crop damage by wildlife
2. To gain community's confidence in conservation and reduce retaliatory killing of elephants and wildlife.

Article II. Beneficiaries

1. The affected communities of Gakidling gewog.
2. The communities will comprise of 564 household of 5 Chiwogs under Gakidling Gewog.

Article III. Management

1. This crop insurance scheme will be managed by GECC of Gakidling Gewog with technical support from DFO, Sarpang, Department of Forests and Park Services.

Article IV. Seed Money

1. The seed money of Nu 500,000/- (Ngultrum five hundred thousand only) is being provided by DoFPS, MoAF, Royal Government of Bhutan for institutionalization of GECC to start the crop insurance programs.
2. Seed money will be deposited into fixed deposit account in the name of GECC under the **joint signatory of Chairman and Treasurer**.
3. The seed amount will not be used for paying compensation. Only the interest generated from the seed money will be deposited into saving deposit account on maturity.

Article V. Premium

1. Annual premium of Nu100/- will be paid by all members against insuring of crops with the GECC. [As agreed during the consultation meeting on 15th June, 2016]
2. The annual premium for the future will be determined by the general membership and will remain in effect until changes are made by the general membership with 2/3 majority vote.

3. The insurance premium will be collected in the month of January every year and will be deposited into the savings deposit account of the GECC; which along with the interest from the fixed deposit account will be used for paying compensation for damage to insured crops.
4. The annual premium will be collected by the Executive members. The Executive members are entitled for transportation fare and other actual expenses incurred while working for the benefit of the GECC.

Article VI. Insurance coverage

The general members will decide on the insurance coverage for crop(s) against wildlife in the future. Following crops will be covered under the scheme [As agreed during the consultation on 15th June, 2016]:

Sl. No	Crop types	Wildlife types
1	Cereals crops	Elephants and other wild animals
2	Vegetables	
3	Betel nut	
4	Ginger	
5	Fruit trees	
6	Cardamom	
7	Bamboo	
8	Sugarcane	
9	Coffee	
10	Fodder	
11	Cassava root (Semal tarul)	
12	Broom grass	
13	Seedlings/trees within the private forests	

Article VII. Sustaining the Fund

1. For the purpose of sustainability of the program, the GECC will raise funds through following mechanisms which will add to the savings deposit.
2. Towards the end of the fixed deposit terms, if there is any amount left after the payment of all compensations and financing other activities, the amount will be deposited into the fixed deposit account to increase the principal sum of the seed money.

3. Donations, with prior approval from the approving authority will be raised by the GECC from individuals and organization through various means. The amount will then be deposited into the savings deposit account of the GECC.

Article VIII. False compensation claim

1. For the purpose of claiming the crop insurance, Thram number with field details (Plot No. & Location Name of the field) should be submitted to the GECC.
2. If any member of the GECC is found making false claims, the committee will decide on appropriate course of action.

Article IX. Verification of compensation claim

1. The GECC will decide on whether the losses are genuine to claim compensation from the GECC fund.
2. The assessment of damage to crop will be carried out by the GECC with technical support from the concerned Gewog RNR Sector or nearest Forest Office, if required.

Article X. Compensation eligibility

1. The compensation payment will be entitled only to the registered members of GECC.
2. Only the insured crops from the particular field will be eligible for the compensation claims.

Article XI. Compensation payment

1. The compensation amount will be calculated based on the formula, agreed by the community with the ceiling of Nu.10000.00 (Ten thousand only) for 1 Acre; as decided by the GECC members in close consultation with the general members.
2. ***The compensation for damage of crop land measuring less than 1 acre, will be calculated as per the following formula:
[Compensation= Nu.100 times the measure of crop land in decimal.
For Example: for 10 decimal of crop land, calculate the compensation as follows:
10 x Nu.100=Nu.1000.00]***
3. **The insurance premium and only the interest from the fixed deposit account will be used for paying the compensation for damages by wild animals.**

4. The compensation will be paid in favor of the thram holder and authorized tenants.
5. For withdrawing of compensation from the savings deposit, the cheque will be signed by the Chairman and the treasurer of the GECC.
6. The compensation will be paid per incidence on case by case basis.

Article XII. Zero Claim for compensation

If there is no (zero) claim, the contribution from the community as the insurance premium will be deposited to the fixed deposit account on maturity. In such case all the members of GECC are entitled to receive the following year's premium reduction reward which will be decided by the GECC.

Article XIII. Discontinuation of membership

If any member desires to discontinue the membership to the insurance programs, the total premium paid will be forfeited by the GECC.

Article XIV. Auditing

The account will be subjected to auditing by an authorized auditing authority whenever deemed necessary.

Article XV. Penalty

1. In case of the failure of the insurance scheme, depending on the severity of the case the seed money will be liable to be forfeited by the Department of Forests and Park Services, MoAF.
2. In case of misuse of fund, the person found guilty will be dealt as per the existing laws of the country.

CHAPTER III

Quick Response Team (QRT)

A. Objective

1. To immediately respond during wild elephant entry into the villages.
2. To reduce human elephant conflicts through community participation.
3. To act as steward and custodian of conservation hand in hand with the DoFPS.


B. Roles and Responsibilities

1. To form groups and drive away the wild elephants at any hours.
2. To prevent crop damages especially by elephants and also save structures and life of the people by the elephants.
3. To guide and inform the community of elephant presence in the locality.

C. Benefits

1. The QRT members will be provided a simple extension kits (rain gear, search lights, boots, etc.) whenever possible through external supports and funds.
2. They will be provided hands on training on elephant behavior, mitigation measures and other relevant safety precautions.
3. The team will be selected for short term learning and exposure tours within the country and outside whenever possible through external supports and funds.

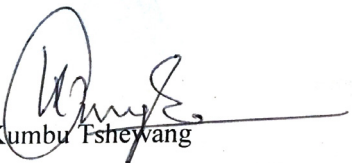
This By-Law have been read, discussed, agreed and endorsed by the community of Gakidling Community Elephant Conservation Committee represented by the following representatives of the community.



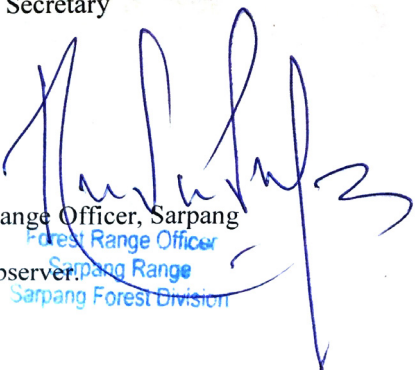
Gup, Gewog Administration, Gakidling
Chairman



Khandu Wangmo
Treasurer



Kumbu Tsheywang
Secretary



Range Officer, Sarpang
Forest Range Officer
Observer, Sarpang Range
Sarpang Forest Division

CHAPTER I

Samtenling Elephant Conservation Committee (SECC)

Article I. Name

This institution will be named as, “Samtenling Elephant Conservation Committee (SECC)”

Article II. Purposes

To integrate the management of human wildlife conflict with the community level programs.

2. To initiate community based insurance programs for insuring agricultural crops against damage by wildlife.
3. To initiate Quick Response to any wildlife damage through formation of Quick Response Teams (QRT)
4. To initiate community level micro financing activities and developmental activities within the Community
5. To promote a sense of biodiversity conservation in the Community

Article III. SECC executive members

1. Executive members of SECC will be elected by the community and will be composed of a Chairman, a secretary and a treasurer.
2. SECC will hereafter serve as a focal agency within the Community for any future activities related to human wildlife conflicts and any other works related to elephant conservation.
3. An official from Gelephu Range or concerned Gewog RNR will be the observing member of SECC and will provide advice on any technical matters like verification and assessment of wildlife damage.

Article IV: Executive members

Sl. No	Position	Name	Village/Remarks
1	Chairman	Gup, Gewog administration, Samtenling	
2	Secretary	Som Raj Gurung	Chokhorling, +975 17854004
3	Treasurer	Kumar Mongar	Samtenling, +975 77878894
4	Observer	Singye Wangchuk	Range Officer, Gelephu

Additional Members as and when necessary:

Sl. No	Position	Tshogpas of following Chiwogs
1	Member	Samtenling
2	Member	Khenpagang
3	Member	Samtenthang
4	Member	Chokhorling
5	Member	Dechenpelri

Article V. Duties and Power of Executive members

1. The Executive members shall be responsible for the implementation of responsibilities listed in Article II.
2. The Executive members shall be responsible for the growth of fund through fund raising initiatives and the management of the fund.
3. The Executive members shall be responsible for administration and maintaining the book of finance for the smooth functioning of the SECC.
4. The Executive members shall be responsible for collecting annual premium and disbursing of the cash compensation.
5. The Executive members shall be answerable to conservation authority for conservation activities and financial matters.
6. The SECC shall seek prior approval from the Concerned Authority (DoFPS) whenever new activities such as crediting and relevant activities are initiated.

Article VI. Membership

1. The general members of this SECC will comprise of those households with willingness to join the SECC; with land holdings and cultivation of agriculture crops in Samtenling gewog.

Article VII. Meeting

1. The annual general meeting of the SECC will be held at the end of the financial year at such date, time and location as determined, from time to time, by the committee members or Chairman.
2. Special meetings of the general members may be called by the committees or Chairman of the SECC and shall be held at such date, time and location as shall be determined, from time to time, by the committee members or Chairman.

Article VIII. Quorum

1. In order for the SECC to take any decision with regard to the spending of fund, a minimum quorum of 2/3 majorities of general members are required.

Article IX. Monitoring and Reporting

1. The executive member will monitor the activities regularly and maintain record of compensations made.
2. The executive member will submit annual report to DFO Sarpang, DoFPS.
3. The concerned government office (DoFPS) may monitor the progress of the SECC and its activities whenever deemed necessary.

CHAPTER II

Crop Insurance Program

Article I. Objective

1. To reduce the economic loss through crop damage by wildlife
2. To gain community's confidence in conservation and reduce retaliatory killing of elephants and wildlife.

Article II. Beneficiaries

1. The affected communities of Samtenling gewog.
2. The communities will comprise of 357 household of 5 Chiwogs under Samtenling Gewog.

Article III. Management

1. This crop insurance scheme will be managed by SECC of Samtenling Gewog with technical support from DFO, Sarpang, Department of Forests and Park Services.

Article IV. Seed Money

2. The seed money of Nu 500,000/- (Ngultrum five hundred thousand only) is being provided by DoFPS, MoAF, Royal Government of Bhutan for institutionalization of SECC to start the crop insurance programs.
3. Seed money will be deposited into fixed deposit account in the name of SECC under the **joint signatory of Chairman and Treasurer**.
4. The seed amount will not be used for paying compensation. Only the interest generated from the seed money will be deposited into saving deposit account on maturity.

Article V. Premium

1. Annual premium of Nu100/- will be paid by all members against insuring of crops with the SECC. [As agreed during the consultation meeting on 31st May, 2016]
2. The annual premium for the future will be determined by the general membership and will remain in effect until changes are made by the general membership with 2/3 majority vote.

3. The insurance premium will be collected in the month of January every year and will be deposited into the savings deposit account of the SECC; which along with the interest from the fixed deposit account will be used for paying compensation for damage to insured crops.
4. The annual premium will be collected by the Executive members. The Executive members are entitled for transportation fare and other actual expenses incurred while working for the benefit of the SECC.

Article VI. Insurance coverage

The general members will decide on the insurance coverage for crop(s) against wildlife in the future. Following crops will be covered under the scheme [As agreed during the consultation on 31st May, 2016]:

Crop types	Wildlife types
Cereals	Elephant and other wild animals
Vegetables	
Betel nut	
Ginger	
Fruit trees	
Cardamom	
Bamboo	
Sugar cane	
Coffee	
Fodder	
Broom grass	

Article VII. Sustaining the Fund

1. For the purpose of sustainability of the program, the SECC will raise funds through following mechanisms which will add to the savings deposit.
2. Towards the end of the fixed deposit terms, if there is any amount left after the payment of all compensations and financing other activities, the amount will be deposited into the fixed deposit account to increase the principal sum of the seed money.
3. Donations, with prior approval from the approving authority will be raised by the SECC from individuals and organization through various means. The amount will

then be deposited into the savings deposit account of the SECC.

Article VIII. False compensation claim

1. For the purpose of claiming the crop insurance, Thram number with field details (Plot No. & Location Name of the field) should be submitted to the SECC.
2. If any member of the SECC is found making false claims, the committee will decide on appropriate course of action.

Article IX. Verification of compensation claim

1. The SECC will decide on whether the losses are genuine to claim compensation from the SECC fund.
2. The assessment of damage to crop will be carried out by the SECC with technical support from the concerned Gewog RNR Sector or nearest Forest Office, if required.

Article X. Compensation eligibility

1. The compensation payment will be entitled only to the registered members of SECC.
2. Only the insured crops from the particular field will be eligible for the compensation claims.

Article XI. Compensation payment

1. The compensation amount will be calculated based on the formula, agreed by the community with the ceiling of Nu.10000.00 (Ten thousand only) for 1 Acre; as decided by the SECC members in close consultation with the general members.
2. **The compensation for damage of crop land measuring less than 1 acre, will be calculated as per the following formula:
[Compensation= Nu.100 times the measure of crop land in decimal.
For Example: for 10 decimal of crop land, calculate the compensation as follows:
10 x Nu.100=Nu.1000.00].**
3. **The insurance premium and only the interest from the fixed deposit account will be used for paying the compensation for damages by wild animals.**
4. The compensation will be paid in favor of the thram holder and authorized tenants.
5. For withdrawing of compensation from the savings deposit, the cheque will be

signed by the Chairman and the treasurer of the SECC.

6. The compensation will be paid per incidence on case by case basis.

Article XII. Zero Claim for compensation

1. If there is no (zero) claim, the contribution from the community as the insurance premium will be deposited to the fixed deposit account on maturity. In such case all the members of SECC are entitled to receive the following year's premium reduction reward which will be decided by the SECC.

Article XIII. Discontinuation of membership

1. If any member desires to discontinue the membership to the insurance programs, the total premium paid will be forfeited by the SECC.

Article XIV. Auditing

1. The account will be subjected to annual auditing by an authorized auditing authority

Article XV. Penalty

1. In case of the failure of the insurance scheme, depending on the severity of the case the seed money will be liable to be forfeited by the Department of Forests and Park Services, MoAF.
2. In case of misuse of fund, the person found guilty will be dealt as per the existing laws of the country.

CHAPTER III

Quick Response Team (QRT)

A. Objective

1. To immediately respond during wild elephant entry into the villages.
2. To reduce human elephant conflicts through community participation.
3. To act as steward and custodian of conservation hand in hand with the DoFPS.

B. Roles and Responsibilities

1. To form groups and drive away the wild elephants at any hours.
2. To prevent crop damages especially by elephants and also save structures and life of the people by the elephants.
3. To guide and inform the community of elephant presence in the locality.


C. Benefits

1. The QRT members will be provided a simple extension kits (rain gear, search lights, boots, etc.) whenever possible through external supports and funds.
2. They will be provided hands on training on elephant behavior, mitigation measures and other relevant safety precautions.
3. The team will be selected for short term learning and exposure tours within the country and outside whenever possible through external supports and funds.

This By-Law have been read, discussed, agreed and endorsed by the community of Samtenling Community Elephant Conservation Committee represented by the following representatives of the community.

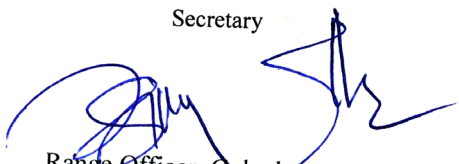

Gup, Gewog Administration, Samtenling

GUP
Samtenling Gewog
Sarpang Dzongkhag
Chairman


Kumar Mongar
Treasurer


Som Raj Gurung

Secretary


Range Officer, Gelephu
Observer
Forest Range Office, Gelephu
Sarpang : Division

CHAPTER I
Shompangkha Elephant Conservation Committee (SECC)

Article I. Name

1. This institution will be named as, “Shompangkha Elephant Conservation Committee (SECC)”

Article II. Purposes

1. To integrate the management of human wildlife conflict with the community level programs.
2. To initiate community based insurance programs for insuring agricultural crops against damage by wildlife.
3. To initiate Quick Response to any wildlife damage through formation of Quick Response Teams (QRT)
4. To initiate community level micro financing activities and developmental activities within the Community
5. To promote a sense of biodiversity conservation in the Community

Article III. SECC executive members

1. Executive members of SECC will be elected by the community and will be composed of a Chairman, a secretary and a treasurer.
2. SECC will hereafter serve as a focal agency within the Community for any future activities related to human wildlife conflicts and any other works related to elephant conservation.
3. An official from Sarpang Range or concerned Gewog RNR will be the observing member of SECC and will provide advice on any technical matters like verification and assessment of wildlife damage.

Article IV: Executive members

Sl. No	Position	Name	Village/Remarks
1	Chairman	Gup, Gewog administration, Shompangkha	
2	Secretary	T. P Homagai	Dargeything, +975 17753872
3	Treasurer	Kiran Rai	Risumgang, +975 17879268
4	Observer	Kezang Dhendup	Range Officer, Sarpang

Additional Members as and when necessary:

Sl. No	Position	Tshogpas of following chiwogs
1	Member	Dargeything
2	Member	Kencholing
3	Member	Gomchula
4	Member	Risumgang
5	Member	Shompangkha

Article V. Duties and Power of Executive members

1. The Executive members shall be responsible for the implementation of responsibilities listed in Article II.
2. The Executive members shall be responsible for the growth of fund through fund raising initiatives and the management of the fund.
3. The Executive members shall be responsible for administration and maintaining the book of finance for the smooth functioning of the SECC.
4. The Executive members shall be responsible for collecting annual premium and disbursing of the cash compensation.
5. The Executive members shall be answerable to the concerned authority for conservation activities and financial matters.
6. The SECC shall seek prior approval from the Concerned Authority (DoFPS) whenever new activities such as crediting and relevant activities are initiated.

Article VI. Membership

1. The general members of this SECC will comprise of those households with willingness to join the SECC; with land holdings and cultivation of agriculture crops in Shompangkha gewog.

Article VII. Meeting

1. The annual general meeting of the SECC will be held at the end of the financial year at such date, time and location as determined, from time to time, by the committee members or Chairman.
2. Special meetings of the general members may be called by the committees or Chairman of the SECC and shall be held at such date, time and location as shall be determined, from time to time, by the committee members or Chairman.

Article VIII. Quorum

1. In order for the SECC to take any decision with regard to the spending of fund, a minimum quorum of 2/3 majorities of general members are required.

Article IX. Monitoring and Reporting

1. The executive member will monitor the activities regularly and maintain record of compensations made.
2. The executive member will submit annual report to DFO Sarpang, DoFPS.
3. The concerned government office (DoFPS) may monitor the progress of the SECC and its activities whenever deemed necessary

CHAPTER II

Crop Insurance Program

Article I. Objective

1. To reduce the economic loss through crop damage by wildlife
2. To gain community's confidence in conservation and reduce retaliatory killing of elephants and wildlife.

Article II. Beneficiaries

1. The affected communities of Shompangkha gewog.
2. The communities will comprise of 320 household of 5 Chiwogs under Shompangkha Gewog.

Article III. Management

1. This crop insurance scheme will be managed by SECC of Shompangkha Gewog with technical support from DFO, Sarpang, Department of Forests and Park Services.

Article IV. Seed Money

1. The seed money of Nu 500,000/- (Ngultrum five hundred thousand only) is being provided by DoFPS, MoAF, Royal Government of Bhutan for institutionalization of SECC to start the crop insurance programs.
2. Seed money will be deposited into fixed deposit account in the name of SECC under the **joint signatory of Chairman and Treasurer**.
3. The seed amount will not be used for paying compensation. Only the interest generated from the seed money will be deposited into saving deposit account on maturity.

Article V. Premium

1. Annual premium of Nu100/- will be paid by all members against insuring of crops with the SECC. [As agreed during the consultation meeting on 14th June, 2016]
2. The annual premium for the future will be determined by the general membership and will remain in effect until changes are made by the general membership with

2/3 majority vote.

3. The insurance premium will be collected in the month of January every year and will be deposited into the savings deposit account of the SECC; which along with the interest from the fixed deposit account will be used for paying compensation for damage to insured crops.
4. The annual premium will be collected by the Executive members. The Executive members are entitled for transportation fare and other actual expenses incurred while working for the benefit of the SECC.

Article VI. Insurance coverage

The general members will decide on the insurance coverage for crop(s) against wildlife in the future. Following crops will be covered under the scheme [As agreed during the consultation on 14th June, 2016]:

Sl. No	Crop types	Wildlife types
1	Cereals	Elephant and other wild animals
2	Vegetables	
3	Betel nut	
4	Ginger	
5	Fruit trees	
6	Cardamom	
7	Bamboo	
8	Sugar cane	
9	Coffee	
10	Fodder	
11	Broom grass	
12	Seedlings/trees within the private forests	

Article VII. Sustaining the Fund

1. For the purpose of sustainability of the program, the SECC will raise funds through following mechanisms which will add to the savings deposit.
2. Towards the end of the fixed deposit terms, if there is any amount left after the payment of all compensations and financing other activities, the amount will be deposited into

the fixed deposit account to increase the principal sum of the seed money.

3. Donations, with prior approval from the approving authority will be raised by the SECC from individuals and organization through various means. The amount will then be deposited into the savings deposit account of the SECC.

Article VIII. False compensation claim

1. For the purpose of claiming the crop insurance, Thram number with field details (Plot No. & Location Name of the field) should be submitted to the SECC.
2. If any member of the SECC is found making false claims, the committee will decide on appropriate course of action.

Article IX. Verification of compensation claim

1. The SECC will decide on whether the losses are genuine to claim compensation from the SECC fund.
2. The assessment of damage to crop will be carried out by the SECC with technical support from the concerned Gewog RNR Sector or nearest Forest Office, if required.

Article X. Compensation eligibility

1. The compensation payment will be entitled only to the registered members of SECC.
2. Only the insured crops from the particular field will be eligible for the compensation claims.

Article XI. Compensation payment

1. The compensation amount will be calculated based on the formula, agreed by the community with the ceiling of Nu.10000.00 (Ten thousand only) for 1 Acre; as decided by the SECC members in close consultation with the general members.
2. ***The compensation for damage of crop land measuring less than 1 acre, will be calculated as per the following formula:
[Compensation= Nu.100 times the measure of crop land in decimal.
For Example: for 10 decimal of crop land, calculate the compensation as follows:
10 x Nu.100=Nu.1000.00]***
3. **The insurance premium and only the interest from the fixed deposit account**

will be used for paying the compensation for damages by wild animals.

4. The compensation will be paid in favor of the thram holder and authorized tenants.
5. For withdrawing of compensation from the savings deposit, the cheque will be signed by the Chairman and the treasurer of the SECC.
6. The compensation will be paid per incidence on case by case basis.

Article XII. Zero Claim for compensation

1. If there is no (zero) claim, the contribution from the community as the insurance premium will be deposited to the fixed deposit account on maturity. In such case all the members of SECC are entitled to receive the following year's premium reduction reward which will be decided by the SECC.

Article XIII. Discontinuation of membership

1. If any member desires to discontinue the membership to the insurance programs, the total premium paid will be forfeited by the SECC.

Article XIV. Auditing

1. The account will be subjected to auditing by an authorized auditing authority whenever deemed necessary.

Article XV. Penalty

1. In case of the failure of the insurance scheme, depending on the severity of the case the seed money will be liable to be forfeited by the Department of Forests and Park Services, MoAF.
2. In case of misuse of fund, the person found guilty will be dealt as per the existing laws of the country.

CHAPTER III

Quick Response Team (QRT)

A. Objective

1. To immediately respond during wild elephant entry into the villages.
2. To reduce human elephant conflicts through community participation.
3. To act as steward and custodian of conservation hand in hand with the DoFPS.

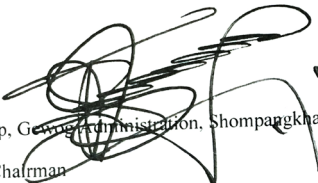
B. Roles and Responsibilities

1. To form groups and drive away the wild elephants at any hours.
2. To prevent crop damages especially by elephants and also save structures and life of the people by the elephants.
3. To guide and inform the community of elephant presence in the locality.


C. Benefits

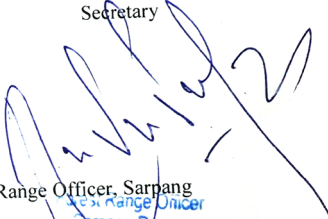
1. The QRT members will be provided a simple extension kits (rain gear, search lights, boots, etc.) whenever possible through external supports and funds.
2. They will be provided hands on training on elephant behavior, mitigation measures and other relevant safety precautions.
3. The team will be selected for short term learning and exposure tours within the country and outside whenever possible through external supports and funds.

This By-Law have been read, discussed, agreed and endorsed by the community of Shompangkha Elephant Conservation Committee represented by the following representatives of the community.


Gup, Gewog Administration, Shompangkha
Chairman




T.P Homaga
Secretary


Range Officer, Sarpang
Sarpang Range
Observer
Sarpang Forest Division

CHAPTER I
Singye Elephant Conservation Committee (SECC)

Article I. Name

1. This institution will be named as, “Singye Elephant Conservation Committee (SECC)”

Article II. Purposes

1. To integrate the management of human wildlife conflict with the community level programs.
2. To initiate community based insurance programs for insuring agricultural crops against damage by wildlife.
3. To initiate Quick Response to any wildlife damage through formation of Quick Response Teams (QRT)
4. To initiate community level micro financing activities and developmental activities within the Community
5. To promote a sense of biodiversity conservation in the Community

Article III. SECC executive members

1. Executive members of SECC will be elected by the community and will be composed of a Chairman, a secretary and a treasurer.
2. SECC will hereafter serve as a focal agency within the Community for any future activities related to human wildlife conflicts and any other works related to elephant conservation.
3. An official from Sarpang Range or concerned Gewog RNR will be the observing member of SECC and will provide advice on any technical matters like verification and assessment of wildlife damage.

Article IV: Executive members

Sl. No	Position	Name	Village/Remarks
1	Chairman	Gup, Gewog administration, Singye	Sangaythang +975 17341040
2	Secretary	Namgang Tshering	Yarpheling +975 17800372

3	Treasurer	Kishor Bhattarai	Laptsakha +975 17774674
4	Observer	Kezang Dhendup	Range Officer, Sarpang

Additional Members as and when necessary:

Sl. No	Position	Tshogpas of following Chiwogs
1	Member	Sangaythang
2	Member	Laptsakha
3	Member	Yarpheyling
4	Member	Rishong
5	Member	Nyenyul

Article V. Duties and Power of Executive members

1. The Executive members shall be responsible for the implementation of responsibilities listed in Article II.
2. The Executive members shall be responsible for the growth of fund through fund raising initiatives and the management of the fund.
3. The Executive members shall be responsible for administration and maintaining the book of finance for the smooth functioning of the SECC.
4. The Executive members shall be responsible for collecting annual premium and disbursing of the cash compensation.
5. The Executive members shall be answerable to the concerned authority for conservation activities and financial matters.
6. The SECC shall seek prior approval from the Concerned Authority (DoFPS) whenever new activities such as crediting and relevant activities are initiated.

Article VI. Membership

1. The general members of this SECC will comprise of those households with willingness to join the SECC; with land holdings and cultivation of agriculture crops in Singye gewog.

Article VII. Meeting

1. The annual general meeting of the SECC will be held at the end of the financial year at such date, time and location as determined, from time to time, by the committee

members or Chairman.

2. Special meetings of the general members may be called by the committees or Chairman of the SECC and shall be held at such date, time and location as shall be determined, from time to time, by the committee members or Chairman.

Article VIII. Quorum

1. In order for the SECC to take any decision with regard to the spending of fund, a minimum quorum of 2/3 majorities of general members are required.

Article IX. Monitoring and Reporting

1. The executive member will monitor the activities regularly and maintain record of compensations made.
2. The executive member will submit annual report to DFO Sarpang, DoFPS.
3. The concerned government office (DoFPS) may monitor the progress of the SECC and its activities whenever deemed necessary

CHAPTER II

Crop Insurance Program

Article I. Objective

1. To reduce the economic loss through crop damage by wildlife
2. To gain community's confidence in conservation and reduce retaliatory killing of elephants and wildlife.

Article II. Beneficiaries

1. The affected communities of Singye gewog.
2. The communities will comprise of 282 household of 5 Chiwogs under Singye Gewog.
3. New members joining the scheme will have to contribute the past premium along with the interest at prevailing rates.

Article III. Management

1. This crop insurance scheme will be managed by SECC of Singye Gewog with technical support from DFO, Sarpang, Department of Forests and Park Services.

Article IV. Seed Money

1. The seed money of Nu 500,000/- (Ngultrum five hundred thousand only) is being provided by DoFPS, MoAF, Royal Government of Bhutan for institutionalization of SECC to start the crop insurance programs.
2. Seed money will be deposited into fixed deposit account in the name of SECC under the **joint signatory of Chairman and Treasurer**.
3. The seed amount will not be used for paying compensation. Only the interest generated from the seed money will be deposited into saving deposit account on maturity.

Article V. Premium

1. Annual premium of Nu150/- will be paid by all members against insuring of crops with the SECC. [As agreed during the consultation meeting on 16th June, 2016]
2. The annual premium for the future will be determined by the general membership

and will remain in effect until changes are made by the general membership with 2/3 majority vote.

3. The insurance premium will be collected in the month of January every year and will be deposited into the savings deposit account of the SECC; which along with the interest from the fixed deposit account will be used for paying compensation for damage to insured crops.
4. The annual premium will be collected by the Executive members. The Executive members are entitled for transportation fare and other actual expenses incurred while working for the benefit of the GECC.

Article VI. Insurance coverage

The general members will decide on the insurance coverage for crop(s) against wildlife in the future. Following crops will be covered under the scheme [As agreed during the consultation on 15th June, 2016]:

Sl. No	Crop types	Wildlife types
1	Cereals crops	Elephants Wild pig (damage minimum 15 decimal)
2	Vegetables	
3	Betel nut	
4	Ginger	
5	Fruit trees	
6	Cardamom	

Article VII. Sustaining the Fund

1. For the purpose of sustainability of the program, the SECC will raise funds through following mechanisms which will add to the savings deposit.
2. Towards the end of the fixed deposit terms, if there is any amount left after the payment of all compensations and financing other activities, the amount will be deposited into the fixed deposit account to increase the principal sum of the seed money.
3. Donations, with prior approval from the approving authority will be raised by the SECC from individuals and organization through various means. The amount will then be deposited into the savings deposit account of the SECC.

Article VIII. False compensation claim

1. For the purpose of claiming the crop insurance, Thram number with field details (Plot No. & Location Name of the field) should be submitted to the SECC.
2. If any member of the SECC is found making false claims, the committee will decide on appropriate course of action.

Article IX. Verification of compensation claim

1. The SECC will decide on whether the losses are genuine to claim compensation from the SECC fund.
2. The assessment of damage to crop will be carried out by the SECC with technical support from the concerned Gewog RNR Sector or nearest Forest Office, if required.

Article X. Compensation eligibility

1. The compensation payment will be entitled only to the registered members of SECC.
2. Only the insured crops from the particular field will be eligible for the compensation claims.

Article XI. Compensation payment

1. The compensation amount will be calculated based on the formula, agreed by the community with the ceiling of Nu.10000.00 (Ten thousand only) for 1 Acre; as decided by the SECC members in close consultation with the general members. The damage caused should be a minimum of 15 decimal to be eligible for compensation.
2. **The insurance premium and only the interest from the fixed deposit account will be used for paying the compensation for damages by wild animals.**
3. The compensation will be paid in favor of the thram holder and authorized tenants.
4. For withdrawing of compensation from the savings deposit, the cheque will be signed by the Chairman and the treasurer of the SECC.
5. The compensation will be paid per incidence on case by case basis.

Article XII. Zero Claim for compensation

1. If there is no (zero) claim, the contribution from the community as the insurance premium will be deposited to the fixed deposit account on maturity. In such case all the members of SECC are entitled to receive the following year's premium reduction reward which will be decided by the SECC.

Article XIII. Discontinuation of membership

1. If any member desires to discontinue the membership to the insurance programs, the total premium paid will be forfeited by the SECC and will not be allowed to join again.

Article XIV. Auditing

1. The account will be subjected to auditing by an authorized auditing authority whenever deemed necessary.

Article XV.

1. In case of the failure of the insurance scheme, depending on the severity of the case the seed money will be liable to be forfeited by the Department of Forests and Park Services, MoAF.
2. In case of misuse of fund, the person found guilty will be dealt as per the existing laws of the country.

CHAPTER III Quick Response Team (QRT)

A. Objective

1. To immediately respond during wild elephant entry into the villages.
2. To reduce human elephant conflicts through community participation.
3. To act as steward and custodian of conservation hand in hand with the DoFPS.


B. Roles and Responsibilities


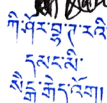
1. To form groups and drive away the wild elephants at any hours.
2. To prevent crop damages especially by elephants and also save structures and life of the people by the elephants.
3. To guide and inform the community of elephant presence in the locality.


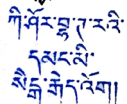
C. Benefits

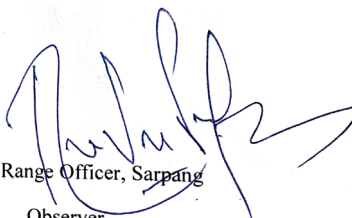
1. The QRT members will be provided a simple extension kits (rain gear, search lights, boots, etc.) whenever possible through external supports and funds.
2. They will be provided hands on training on elephant behavior, mitigation measures and other relevant safety precautions.
3. The team will be selected for short term learning and exposure tours within the country and outside whenever possible through external supports and funds.

This By-Law have been read, discussed, agreed and endorsed by the community of Singye Community Elephant Conservation Committee represented by the following representatives of the community.


Gup, Gewog Administration, Singye
Chairman

Kishore Bhattra
Treasurer 



Mangmi
Secretary 


Range Officer, Sarpang
Observer.

Annexure IV

Recipient of Gears

Quick Response Team

Khenpagang Chiwog + *Sumden Gy Chiwog (20 km away)*

Sl.No	Name	Role	Contact no.	Signature
12.	Mr.KharkaBdr. Rai	Team Leader	+975 77299435	<i>[Signature]</i>
13.	Mr. Thakur Prasad Adhikari	Member	+97517856612	<i>[Signature]</i>
14.	Mr.DorjangDukpa	Member	+97517877892	<i>[Signature]</i>
15.	Ran Bdr. Mongar	Member		<i>[Signature]</i>
16.	Mani Raj Rai	Member	+975 17848621	<i>[Signature]</i>

Recipient of Gears

Quick Response Team

Seng-gey


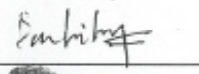



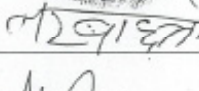

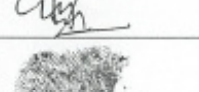
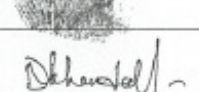
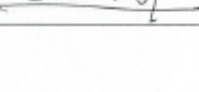
Sl. No	Name	Role	Contact No.	Signature
1	Lachu Man Rai	Team Leader	17341040	<i>[Signature]</i>
2	Birkha Bdr. Mongar	Member	17758269	<i>[Signature]</i>
3	Gokul Singh Suba	Member	16901258	<i>[Signature]</i>
4	Tshering Tashi	Member	17674140	<i>[Signature]</i>
5	Aim Prasad	Member	17722519	<i>[Signature]</i>
6	Santa Bir Subba	Member	17881117	
7	Indra Bdr. Subba	Member	17243087	<i>[Signature]</i>
8	Bhoj Raj Rai	Member	17404474	<i>[Signature]</i>
9	Moonu Rai	Member	17383151	<i>[Signature]</i>
10	Dil Bdr. Mongar	Member	17413363	
11	Kuenga	Member	17652818	<i>[Signature]</i>

12 Mahan Mongar Member 17413363




13. Tshewang Norbu Member 17767625

14. Man Bdr Chhetri Member 17534774




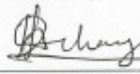
Recipient of Gears
 Quick Response Team
 Shompangkha Gewog

SI No	Name of the Members	Role	Contact No.	Signature
1	T.P Homagai	Team Leader	+975 17753872	
2	MonarathAchariya	Member	+975 17710809	
3	NimaTshering	Member	+975 17962670	
4	Nima Lama	Member	+975 17764998	
5	TsheringShangbo	Member	+975 17661988	
6	Nar Bdr. Chhetri	Member	+975 17706403	
7	Aim DorjiBomjan	Member	+975 17620178	
8	PadamRai	Member	+975 17340799	
9	DawaTamang	Member	+975 16900964	
10	Deo Narayan Khandal	Member	+975 17738294	

Recipient of Gears
Quick Response Team
Gakidling Gewog

Sl.No	Name	Role	Contact no.	Signature
1	Mr. Chador	Team Leader	17728430	
2	Mr.Mangal Chan Subba	Member		
3	Mr.KinzangChophel	Member		
4	Mr.Pelzang	Member	17860821	
5	Mr.BhimBdr. Kamar	Member		
6	Mr.SangayNorbu	Member		

Recipient of Gears
Quick Response Team
Samtenthang Chiwog
Samtenling Gewog

Sl No	Name of the Members	Role	Contact No.	Signature
1	Mr.Gagyal	Team Leader	16903900	
2	Mr.Yongba	Member	(No phone)	
3	Mrs.RadhikaRai	Member	17390637	
4	Mr.Datta Ram Acharya	Member	17741037	
5	Mr.LalBhadurRai	Member	17390637	