

Bhutan for Life

Environmental and Social Management Plan for Biological Corridor 8 (2020)

1. Introduction

(A) Project Background

The Bhutan for Life (BFL) project aims to ensure a robust network of protected areas and biological corridors that secures human well-being, biodiversity conservation and increase climate resilience in Bhutan. The project provides a 14-year financial bridge that allows for immediate improvement in the management of Bhutan's protected areas for climate resilience, and the prompt delivery of mitigation, adaptation and biodiversity gains, while the country gradually ratchets up its own financing resources.

BFL seeks to achieve the following objectives:

- Help Bhutan remain carbon neutral by increasing forest and vegetative cover within the Protected Area System;
- Enhance the socio-economic wellbeing of communities in and in the vicinity of the PAS through climate-informed natural resources management;
- Maintain stable, thriving and diverse populations of key species contributing toward national and global biodiversity goals;
- Strengthen organizational, institutional, and financial capacity for effective management of PAS.

BFL includes five components that reflect these goals, divided into 16 milestones (or outputs) and over 80 detailed activities.

(B) Scope of ESMP

The preparation of this Environmental and Social Management Plan (ESMP) was required in order to manage the environmental and social impacts through and specific mitigation actions required to implement the project in accordance with the requirements of WWF's SIPP, the project's Environmental and Social Management Framework (ESMF), and applicable national legislation and regulations.

The ESMP provides an overview of the environmental and social baseline conditions on the routes of the proposed second segment of the project, summarizes the potential impacts associated with the proposed activities and sets out the management measures required to mitigate any potential negative impacts.

This ESMP will be implemented by BFL focal person in each park authority (PA) and biological corridor (BC), and by the contractor to be commissioned by each PA/BC for the project.

(C) Purpose of ESMP

This Site-Specific ESMP is a project-specific source document detailing the environmental and social protection requirements to mitigate and minimize the adverse impacts. The ESMP's primary purpose is to ensure that the environmental requirements and social commitments associated with the project are carried forward into implementation and operational phases of the project and are effectively managed. The specific objectives of this ESMP are as hereunder:

- Minimizing any adverse environmental, social and health impacts resulting from the project activities;
- Conducting all project activities in accordance with the relevant RGoB Laws and WWF's safeguard operational policies and guidelines;

- Preventing environmental degradation as a result of either individual subprojects or their cumulative effects;
- Enhancing the positive environmental and social outcomes of project activities;
- Ensuring that the proposed mitigation measures are feasible and cost-efficient;
- Providing an Action Plan to ensure that the project impact mitigation measures are properly implemented and monitored;
- Ensuring that all stakeholders are engaged in the project activities' preparation and implementation, and their concerns are fully addressed.

(D) Applicable law, policies, and regulation

This ESMP is developed by following the guidelines as set forth in the BFL's ESMF.

Applicable RGoB laws and policies include the Constitution of the Kingdom of Bhutan, 2008; legislation on land and moveable property (Land Act of Bhutan 2007; Land Rules, 2007; The Moveable Cultural Property act of Bhutan, 2005); legislation and regulations on forests and protected areas (National Environment Protection Act, 2007; Forest and Nature Conservation Act of Bhutan, 1995; Forest and Nature Conservation Rules and Regulations of Bhutan, 2017; National Forest Policy, 2011); legislation on water and waste prevention (Water Act of Bhutan, 2011; Waste Prevention and Management Act, 2009); legislative requirements on environmental assessment (Environmental Assessment Act, 2000 and Regulations on the Environmental Clearance of Projects, 2001); and other relevant laws (The Local Government Act of Bhutan, 2009; Livestock Act of Bhutan, 2001; The Biodiversity Act of Bhutan, 2003; The Pesticides Act of Bhutan, 2000; The Penal Code of Bhutan, 2004; National Access and Benefit Sharing (ABS) Policy (Draft), 2014).

WWF's safeguards policies that are relevant to this project are as follows: Policy on Environment and Social Risk Management; Policy on Protection of Natural Habitats; Policy on Involuntary Resettlement; Policy on Indigenous Peoples; Standard on Pest Management; Policy on Accountability and Grievance System; Standard on Physical Cultural Resources; as well as general standards on occupational and community health and safety and on energy efficiency.

In general, RGoB's laws, policies, and guidelines are in line with the WWF's environmental and social safeguards requirements. However, there are a few differences between the two systems. With regard to environmental impacts, there are no direct contradictions between the RGoB laws and regulations and the WWF's SIPP, but the requirements of the latter are more extensive. All project activities should fully comply both with the RGoB's Regulations on the Environmental Clearance of Projects, and with the procedures and mitigation measures prescribed in this ESMF. In case that the WWF's SIPP requirements are more extensive, strict, or detailed than the RGoB legislation and policies, the former will apply to all project activities.

With regard to social impacts, the primary discrepancies between the RGoB laws and regulations and the WWF's SIPP refer to the status of non-title holders and informal land use, and the commitment to participatory decision-making processes. First, according to the WWF's SIPP, all users of land and natural resources (including people that lack any formal legal ownership title or usage rights) are eligible to some form of assistance or compensation if the project adversely affects their livelihoods. The RGoB laws only recognize the eligibility of land owners or formal users to receive compensation in such cases. Second, the WWF's SIPP require extensive community consultations as part of the development of various safeguards documents and during project activities. RGoB legislation does not include similar requirements. For the purposes of the BFL project, the provisions of the WWF's SIPP shall prevail over the RGoB legislation in all cases of discrepancy.

2. Environmental and Socio-Economic Conditions:

BC 08 landscape (577.90 km²) is one of the largest protected areas among 8 BCs in the country and home for several flora and fauna given a wide altitudinal range and forest types. Strategically located in central part of Bhutan, BC 08 plays significant ecological functions in the Bhutan Biological Conservation Complex. It interconnects Jigme Dorji National Park (JDNP) in the north, Wangchuck Centennial National Park (WCNP) in the north, and Jigme Singye Wangchuck National Park (JSWNP) in the south by three distinct strands that traverse across administrative jurisdiction of Wangdue and Bumthang Dzongkhags. BC 08's connectivity with JSWNP, which share its southeastern boundary with Royal Manas National Park (RMNP) in the tropics, therefore, is expected to facilitate the movement of fauna and shift or dispersal of flora in response to changing pattern of climate.

Besides ecological benefit to wildlife, BC 08 also provides space and it is a source of forest resources for more than 7928 people residing in and around it from Wangdue and Trongsa Dzongkhags. Given a maximum area (469.10 km²) under Wangdue Dzongkhag, it hosts Phobji, Gangtey, Bjena, Dangchu, Sephu Kazhi and Athang Geogs while 108.80 km² under Trongsa Dzongkhag is a home for people of Tangsibji and Nubi Geogs. There are 423 households in and around the BC 08 under Trongsa Dzongkhag, and 466 households in and around the BC 08 under Wangdue Dzongkhag (Geog, 2018). Figure 1 shows the BC 8 connecting the different parks.

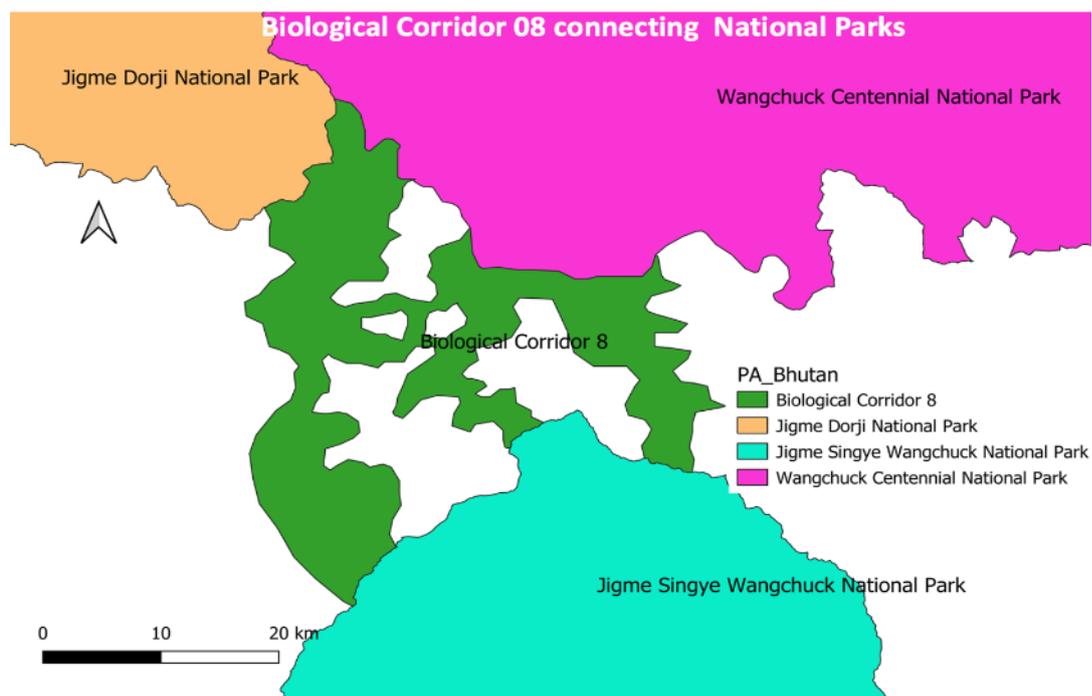


Figure 1: Northern Biological Corridor interconnecting Protected Areas

2.1 Land cover

Biological Corridor 08 landscape has large forest coverage with more than 99% of its total area 577.90 km² including shrubs and alpine scrubs. Snow glacier and other geomorphological features that includes built up (settlements, roads, transmission line) and rocky areas form 0.30% of the total area of the BC 08 (fig. 7 below). The land cover distribution is shown in Figure 2.

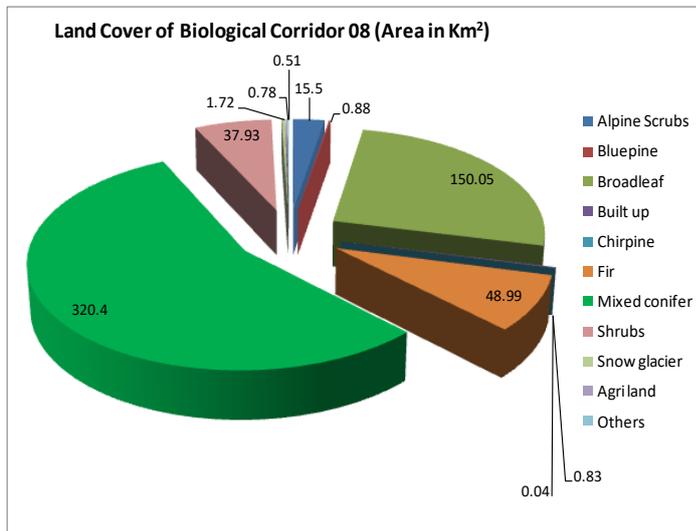


Figure 2 Land cover of BC8

The vegetation of the BC 08 was classified into various forest types in order to give better picture about it and forming heterogeneous habitats for wildlife. The classifications of the forest types were based on the ordination of Rapid Biodiversity Assessment (RBA%) of the entire tree and shrub species in each Geog and also on the cluster dendrogram arbitrarily marked at 50% similarity threshold (refer fig. 8 for detail as shown below). Three types of forests in the Biological Corridor 08 chiefly included Hemlock and Fir forest, Cool broad-leaved forest and Evergreen oak forest respectively.

2.1.1 Cool broad-leaved forest (2000-2900 masl)

The cool broad-leaved forest of Nubi, Athang and Dangchu were classified under forest type I and this type of forest occurred on moist exposed slopes above the Warm broad-leaved forests. On the drier site the species composition was dominated by *Castanopsis* or *Quercus* species and in wetter site, oak-laurel was mostly associated with dense shrubs, climbers and many epiphytes. The two types of forest intergrades with each other and the characteristic species were *Acer* spp., *Exbucklandia populnea*, *Quercus* spp., *Betula alnoides* etc. The annual rainfall reported in such forest types is about 250-500 cm.

a. Hemlock & Fir Forest (2800-3800 masl)

The Hemlock and Fir forest of Tansibji, Kazhi, Phobji, Bjena, Gangteng and Sephu were classified under forest type II and this type of forest occurred at a higher altitude on the main mountain ridges. Fir forest formed the highest tree line forested ridges throughout Bhutan, where dominant stands of fir with dense canopy provided humid environment for luxurious undergrowth of *Rhododendron* and other shrubs. The formation of considerable mist-precipitation harbors mossy forest floor with so many small herbs, e.g. *Primula* species, *Bryocarpum himalaicum*, epiphytic and terrestrial ferns, lichens and bryophytes etc. The Characteristic species recorded were *Tsuga dumosa*, *Abies densa*, *Juniperus* spp., *Rhododendron* spp. and *Viburnum* spp. etc. The annual precipitation is about 130-200 cm in this forest type of forests.

b. Evergreen oak forest (1800-2600)

The evergreen oak forests of Nyisho were classified under forest type III and these forests apparently received a rainfall of 200-300 cm in a year. At lower elevation *Castanopsis hystrix* and *C. tribuloides* were often dominant, while in higher elevation *Quercus lamellosa* were most common. On the drier site more xerophytic *Quercus* species were the characteristic species and with occasional appearance of *Pinus wallichiana* species and *Acer* spp.

2.1.2. Floral diversity

Endowed with wide altitudinal range the BC 08 was reported for rich diversity of flora that were distributed across warm broadleaf through alpine scrub. During the survey that was conducted between May to June 2019, we recorded at least 297 species of plants (Appendix I). Out of these many plant species, there were 10 species of conifer evergreen trees; 30 species of broadleaf evergreen trees; 68 species of deciduous trees; 27 evergreen shrub species and 11 deciduous shrub species. Rest of the list included herbaceous plants, bamboo, and orchids.

a. Floral species composition

In the BC 08, five live form compositions vastly included ever green conifer tree, deciduous tree, evergreen tree, ever green shrubs, and deciduous shrubs. The overall life-form composition appeared to be considerable proportion of evergreen conifer trees with 50.51 %, evergreen trees 28.47%, deciduous trees 19.99%, evergreen shrub 0.93 % and deciduous shrub 0.11 % for 17 Geogs as shown in Table 1.

Phobji Geog forest was predominantly composed of evergreen conifer trees with more than 93% while Athang and Dangchu Geogs forests hosted relatively more deciduous trees that was composed of *Prunus species*, *Betula alnoides*, *Betula utilities*, *Acer species*, *Juglans regia*, *Alnus nepalensis*, *Sorbus insignia*, etc. Nubi and Nyisho Geogs were dominated by evergreen tree that largely included various *Rhododendron species*, *Symplocas species*, *Quercus lamellosa*, *Quercus lanata*, *Quercus semicarpifolia*, *Quercus glauca*, *Lyonia ovalifolia*, *Persea species*, etc. While deciduous shrubs were barely recorded across all 10 Geogs while evergreen shrubs were recorded in warmer region from the forests of Nyisho and Sephu Geogs.

Table 1: Geog-wise life form composition derived from the sum of RBA

Geogs	Evergreen Conifer Tree	Deciduous Tree	Evergreen Tree	Evergreen Shrub	Deciduous Shrub
Nubi	2.40	15.52	82.09	0.00	0.00
Tangsibji	57.53	9.19	33.28	0.00	0.00
Athang	0.00	60.70	39.30	0.00	0.00
Bjena	90.26	0.58	9.16	0.00	0.00
Dangchu	8.48	54.34	36.91	0.00	0.26
Gangteng	84.36	8.14	7.50	0.00	0.00
Kazhi	72.35	8.01	19.64	0.00	0.00
Nysho	27.26	0.71	69.71	2.31	0.00
Phobji	93.30	1.70	5.00	0.00	0.00
Sephu	75.90	14.46	9.31	0.52	0.25

2.1.3 Faunal diversity

Information about faunal diversity was exclusively on mammals and avifauna in the BC 08. From the camera trap survey (May July 2019), 5 felid species such as Asiatic golden cat (*Catopuma temmincki*), clouded leopard (*Neofelis nebulosa*), tiger (*Panthera tigris*), leopard cat (*Prionailurus bengalensis*) and marbled cat (*Pardofelis marmorata*); 3 canid species – wild dog (*Cuon alpinus*), red fox (*Vulpes vulpes*) and domestic dog (*Canis lupus familiaris*); 1 viverrid species (Weasel) which was unidentified, 1 ursid- Himalayan black bear (*Ursus thibetanus*); 2 cervid species – barking deer or muntjak (*Muntiacus muntjak*) and sambar (*Rusa unicolor*); 2 caprine species under bovid family – Himalayan serow (*Capricornis thar*), Himalayan goral (*Naemorhedus goral*); 2 bovid species - yak (*Bos grunniens*) and other cattle (local and mithun breed); 1 equid – domestic horse (*Equus caballus*); 1 moschid – Himalayan musk deer (*Moschus chrysogaster*); 1 ailurid (*Ailurus fulgens*); 1 primate species–

Assamese macaque (*Macaca assamensis*), 1 mustelid – Himalayan yellow throated marten (*Martes flavigula*); 1 suid – wild pig (*Sus scrofa*), and 3 rodents – Indian porcupine (*Hysterix indica*) including squirrel and rat were recorded.

Not even a single image of common leopard was captured from the area under both the divisions for unknown reason during the survey that was carried out in the summer. Mammal species of conservation significance in the Biological Corridor 08 are as shown in the table below with IUCN status.

Table 2: Species of conservation significance in Biological Corridor

Sl No.	Common name	Scientific name	IUCN status	Image captured (June -August 2019)
1	Tiger	<i>Panthera tigris</i>	Endangered	Recorded in both the divisions
2	Dhole (wild dog)	<i>Cuon alpinus</i>	Endangered	Recorded in both the divisions
3	Red panda	<i>Ailurus fulgens</i>	Endangered	Recorded in Wangdue division
4	Himalayan musk deer	<i>Moschus chrysogaster</i>	Endangered	Recorded in both the divisions
5	Clouded leopard	<i>Neofelis nebulosa</i>	Vulnerable	Recorded in Bumthang division
6	Sambar deer	<i>Rusa unicolor</i>	Vulnerable	Recorded in both the divisions
7	Asiatic golden cat	<i>Catopuma temminckii</i>	Near threatened	Recorded in both the divisions
8	Marbled cat	<i>Pardofelis marmorata</i>	Near threatened	Recorded in Wangdue division
9	Himalayan serow	<i>Capricornis thar</i>	Near threatened	Recorded in both the divisions

A total of 264 bird species, including four near threatened species like Himalayan vulture, Satyr tragopan, Ward's trogon and Yellow-rumped honey guide were recorded during the survey carried out in June and July 2019 across two divisions in the BC 08. The highest number of species recorded was in Wangdue division as presented in table below.

Table 3: Total bird species recorded under respective territorial division

Sl.#	Division	Total species
1	Wangdue	189
2	Bumthang	118

At least four globally threatened bird species were recorded during the short span of survey time. The survey might have overlooked other avifauna species including the species of conservation significance due to weather condition in summer despite time and effort dedicated by the survey team. Table 4 shows the details of significant avifauna recorded across two divisions in the Biological Corridor.

Table 4: Birds of conservation significance in BC 08

Common name	Count	IUCN status	Name of place recorded	Habitat/forest type
Himalayan Vulture	9	Near threatened	Tshelatop & Sephu under Wangdue division	Mixed conifer, meadows and cool broad-leaved forest
Satyr Tragopan	37	Near threatened	Phobjikha, Sephu, Tshelatop, Gogona, Shobla and Longmey under Wanguephodrang division; Drangichu and Dranglajem top under Bumthang division	Mixed conifer, Alpine Scrub, Cool broad-leaved forest and Meadows
Ward's Trogon	4	Near threatened	Nobding under Wangduep	Cool broad-leaved forest
Yellow-rumped Honeyguide	7	Near threatened	Nobding under Wangdue division	Cool broad-leaved forest

2.2 Socio-economic characteristic:

Agriculture and livestock farming practices are integral components of socio-economic characteristic of 423 households in and around the BC 08 under Trongsa Dzongkhag, and 466 households in and around the BC 08 under Wangdue Dzongkhag (Geog, 2018). the farmers in rural areas. Some households in BC 08 were found engaged in private entrepreneurship or small-scale business. Almost all the villages were reported for having government employees including military personnel that attributes in forming a diverse composition of socio-economic characteristic. Dependence on forest resources was unavoidable, and farmers living in and around biological corridor were reported to utilize timber, firewood, and non-wood forest products. For instance, Cordycep and *Paris polyphylla* appeared to contribute significantly for the livelihood of people in BC 08.

2.2.1 Agriculture farming

Most commonly cultivated cereal crops across two divisions were found to be paddy and maize in the lower elevation while wheat was found largely in highland. Maize was barely cultivated while rice as a staple food was vastly cultivated by for farmers of Trongsa. Wheat and barley were grown across two Dzongkhags and used to brew local beverage and as a feed for cattle. Farmers also cultivated potato as cash crop while radish and turnips were grown both for consumption and to feed the cattle. Increasing chili cultivation was largely known for consumption and commercial purpose. Tseri or shifting cultivation was not reported in the biological corridor. Therefore, local extinction of some agriculture crop variety was reported by people for a discontinued shifting cultivation practice over the last two decades.

2.2.2. Livestock farming

Livestock farming was reported as one of the key components of agriculture and, thus being a main source of livelihood for subsistence of farmers in this biological corridor. Farmers across two Dzongkhags were reported for rearing various types of livestock for food (butter and cheese), draught power, means of fertilizers, raw materials for cloths, and transportation. As a result, livestock farming appeared to forms an integral part of rural poverty reduction strategies (RNR statistics, 2015). Largely, farmers reared traditional cattle breed across thus forming 52% of livestock composition in general. Farmers of Wangdue reared huge number of local cattle compared to farmers of Trongsa. The reason for rearing the local cattle was reported for rugged terrain that is very difficult to adapt by the improved breed.

Farmers from Trongsa were seen to take pace in rearing Brown Swiss and Jersey breed due to warm climatic condition. Thus, improved breed appeared to attribute 25% of livestock composition across two Dzongkhags. Yak and mithun breeds were reported for diminishing year after year in Wangdue dzongkhag due to rising alternative livelihood sources. In the highland, brown Swiss cattle were reported for taking a faster pace to replace local cattle. Some farmers from Wangdue reared caprine (sheep) for wool production and was largely used for weaving yathra. Table 5 shows the number of farmers rearing different cattle and breed in Wangdue phodrang and Bumthang.

Table 5: Livestock composition (number of heads) across BC

Division	Traditional cattle	Improved breed	Mithun breed	Yak	Equine	Caprine
Wangdue	613	76	26	476	32	121
Bumthang	324	457	5	0	9	0

2.2.3. Livelihoods of people

About 70% of the respondents under Wangdue division reported that agriculture crop cultivation in their own land was a main source of livelihood composition and therefore a top priority. For less than 5% respondents, agriculture farming was secondary while more than 15% respondents reported Cordyceps and weaving yathra were main livelihood sources. At least, 10% respondents asserted that livestock farming was their integral component of livelihood composition. Farmers under this Dzongkhag division never went out for casual labor and therefore it was not a part of their livelihood composition.

For the farmers of Trongsa, agriculture farming was integral part of livelihood composition. About 40% of the respondents ranked agriculture farming as top priority while for 14% respondents it was a secondary. At least 20% respondents asserted that livestock farming was their top priority while it was tertiary for about 17% respondents. Unlike farmers of Wangdue, at least 7% respondents asserted that main source of livelihood was casual labor for farmers of Trongsa.

2.2.4 Food security

Farmers are worried about the food grain self-sufficiency in the two Dzongkhags in the biological corridor. Almost 99% respondents from Wangdue and 84% from Trongsa reported the purchase of food grains. Only less than 1% respondents from Wangdue and 16% respondents from Trongsa reported for self-sufficient grain production from their own land. Places where rice was not grown for unfavorable climatic conditions like Phobji, Gangtey and Sephu, farmers have to purchase the grains.

Food security was also determined from the perspective of vegetable, cheese and butter self-sufficiency for a household. In this regard, 90% respondents from Wangdue reported that they largely produce vegetables from their own garden for home consumption and same was the case with butter and cheese production. Purchase of cheese and butter are reported by about 30% respondents from Wangdue.

In case of farmers of Trongsa, they produced sufficient vegetables for their home consumption according to about 95% respondents while primary source of vegetable were forest and shops for at least 5% respondents. About 65% respondents reported that that their secondary source of vegetable was shop. More than 65% respondents from Trongsa reported for self-sufficient butter and cheese production while more than 8% respondents said that they purchased from other farmers in the village.

2.2.5 Cash income sources

Cash income sources of the farmers in BC 08 varied from labor for agriculture, sale of forest products, sale of livestock products, casual labor, business, weaving, salary of employee, and house rent and. Out of these many sources, in case of Wangdue farmers, sale of agriculture products was predominant income source for 55% respondents. For about 30% respondent's livestock product was secondary cash income source, and forest products that vastly included Cordycep was reported as primary income source for more than 15% respondents from Sephu and Dangchu Geogs. The agriculture labor and casual labor were absolutely insignificant income sources for this segment of people. Overall, agriculture products were a main source of cash income followed by livestock products, which include butter, cheese and milk, and forest products for the farmers of Wangdue.

Farmers of Trongsa generated cash income predominantly from agriculture and livestock products as well. More than 48% respondents reported agriculture products as primary cash income source while about 26% asserted it as secondary income source. More than 39% respondents reported livestock as primary and secondary income source. In general, livestock product (basically a sale of butter and cheese) is inarguably a vital cash income source according to assertion made by 79% respondents followed by agriculture products and casual labor with 74% and 22% respectively in case of farmers of Trongsa. Non-Wood Forest Products (NWFPs) was tertiary cash income source according to less than 1% respondents from Trongsa. Only 2% respondents from Trongsa reported forest products as one of the cash income sources.

3. Planned activities in 2020

Activities that are planned in BC 8 in 2020 include the following;

1. Construction of BC 8 Range Office: The site is located at Domkhar village under Chumey Gewog on an area of 0.698 acres. The name of the location for the proposed site is called Domkhar and it was selected because of its strategic location for service delivery and accessibility. The area is located adjacent to the east-west national highway at a distance of 500 – 700 meters from the settlements in Chumey Geog. At present, there is a makeshift office at the site to provide services for 214 households (about 2000 population) under Chumey Geog, and people of Drakteng (344 households) and Langthil (335 households) Geogs under Trongsa Dzongkhag. The planned date of the construction activity is July 2020 to July 2021 and the estimated cost is Nu.5,083,600 (USD 72,108).

The proposed site is a government registered land with Thram no. 384 of plot CHU-2815 under Division office. The nearest community is a Vocational Training Institute which is 500 metres away from the site. There course include practical classes such as training on using various machinery for construction. There is a sawmill and 3 shops near the site.

The area is a flat ground with no trees but with a small stream flowing nearby which do not fall in core area of any protected area. The construction of the office will have 20 numbers of workers who will be main Indian and they will be staying in a temporary shelter within the construction site. There will be requirement of 100000 L of water, 200m³ of stone, 60 m³ of aggregates, 85 T of cement and 150 m³ of sand. All these will be sourced from a dealer in the area. The work will be for a duration of 1 year. The machinery used will be carpentry machines, slab cutting machines, excavator, mixer and trucks for transportation.

The adverse environmental and social impacts from the project are:

- Noise disturbance: Possible noise disturbance as a result of outdoor equipment usage and transportation vehicles driving around the construction site. There is a Vocational Training Institute near the site.

- Waste: generation of waste as a result of construction activities.
- Water quality: contamination of the stream flowing near the site may occur due to waste water and sewage from construction sites.
- Occupational health and safety hazards, especially for construction workers and local communities.
- Local community health and safety especially the students of VTI.
- Conflict between foreign temporary workers and local communities consisting of students from Vocational Training Institute, sawmill and shops.

2. Maintenance of Range Office at Trongsa under Loushong, Nubi Gewog. The office is strategically located in the Trongsa municipal area. The office area is 12153 sq.ft registered on the name of this office . The planned date is July 2020 and the budget are approximately, Nu.2,15000(USD 3050). The maintenance includes renovation of existing structure mainly changing of roof which are CGI sheets, repairing rooms such painting and renovating plinth area which will include working with concrete. The requirements for the maintenance are 20000L water, aggregate: 8 m 3 aggregates, 10 T of cement and 8 m³ of sand. There will be 10 numbers of workers who will be mainly local and commuting from the Nubi Gewog as the site is within the gewog. The work will be for duration 3 months.

The adverse impacts of this are:

- Waste related to workers and materials on site.
- Workers health and safety

3. Restoration to enhance quality and resilience of lowland grasslands at Demlaya at Nubi, Trongsa, Singyethang at Chendedji village and Drang. The areas are spread over in pockets over the above-mentioned places and the total area planned is 5 Ha. There are 33 households at Nubi which is 5 kms away from the activity site, 7 households are Chendebji which is 7 kms away from the activity site and 7 households at Drang which is 4 kms away from the activity site. However, no community are impacted as households in any community depend on the sites for any activity or livelihoods. The planned date is July, 2020 and proposed budget is approximately Nu. 1,80,000 (USD 2553).

The activity includes clearing of exotic and unpalatable bushes and shrubs in broadleaved forests, ploughing and lowland grass species and sowing of tubers (sweet potato and tapioca) which are natives in newly cleared areas and degraded/open areas at the sites.

The natural habitat is wild ungulates. There will be 10 number of workers including skilled forest officials working for 20 days who will be commuting from the nearest community. There will be burning of dried debris (time: early morning and evening when there are no winds).

The environmental and social impacts could include the following:

- Workers health and safety.
- Waste by workers on sites.
- Risk of forest fire

4. Improvement of waterholes and salt licks at Chendebji and Ngyala top. The area of 20 Ha is planned in July 2020. The estimated costs of the activity is Nu. 3,40,000 (USD 4823). There are 39 households in Chendebji and it is 7 kms away from the activity site. In Nyala there are 11 households and is 5 kms from the activity site. The activity has no impact on the community as the community do not depend on the natural resources on the sites of the water holes and salt licks. The activity includes bioengineering works and enrichment of

wetland by clearing unpalatable bushes and shrubs in mixed conifer forests. There will be ploughing and broadcasting of highland grass species which are native in newly cleared and degraded/open areas at, Chedebji and Ngyala top. 4 numbers of salt lick sites and, 4 numbers of waterholes including enrichment plantations at Chendebji and Ngyala areas will be improved by ploughing. The site was selected due to the presence of Tiger in Chendebji. There will be 10 local workers including skilled and trained forest officials accompanying the workers to avoid human wildlife conflict and minimize disturbances to the tigers. The workers will work only during the day for 20 days and there will be no camping at the sites. Workers will stay at the nearest communities.

The environmental and social impacts could include the following:

- Wastes from digging and workers
- Workers health and safety.
- Risk of invasion by planted species and displace the native species
- Increased the risk of poaching; Once enrichment work is completed the waterholes and saltlicks may invite several animals and sometimes may result to congregation. Hence, a risk of easy killing by poachers grows in the area in the future.

5. Combined Zonation:

This activity includes demarcation of BC 8. The activity covers the whole area of BC 8 and is included in the conservation management plans of BC 8. The planned date is from November, 2020 to April, 2021 and the budget for the activity is USD 10,000. There will be physical demarcation like installation of boundary pegs. The area includes combination of conserved area and settlements by local community of around 1357 households. There will be 10 gewogs included for this activity which are Phobji, Gangtey, Nyosho, Kazhi, Dangchu, Sephu, Bjena, Ashang, Tangsibji and Nubu Geogs. The demarcation will be carried out as per the existing zonation guidelines where the access of local community to any resources will not be restricted.

The activity includes two phases. First phase is consultation with the community for making zones of BC area where the community have access to the natural resources and their user right and all the settlements who are within the administrative boundaries. Communities use timber, firewood and fodder from the allocated areas.

The following are the impacts for the activity:

- Wastes during the consultation meeting and peg fixation at the sites

4. Environmental and Social Impacts and Mitigation Measures

1. Construction of Range Office

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Costs
Activity: Construction of Range Office				USD 72,108
Noise disturbance: Possible noise disturbance as a result of outdoor equipment usage and transportation vehicles driving	Short term Minor	<p><i>Pre-construction:</i> requirements to limit noise pollution should be included in the bidding documents, as a precondition for the contractor's selection.</p> <p><i>During construction:</i></p> <ul style="list-style-type: none"> • The control of the noise level should be performed before the 	BFL focal person in [BC 8] Contractor	To be incorporated in the bidding document from the activity cost USD 72,108

<p>around the construction site. There is a Vocational Training Institute near the site.</p>		<p>startup of construction</p> <ul style="list-style-type: none"> • The construction work should be not permitted during the nights and the operations on site shall be restricted to the hours 7am-7pm • Vehicles that are excessively noisy shall not be operated until corrective measures have been taken. • Earplugs and protecting devices shall be provided to workers on site. 		
<p>Waste: generation of waste as a result of construction activities</p>	<p>Short term Minor</p>	<p><i>Pre-construction:</i> requirements for appropriate waste management should be included in the bidding documents, as a precondition for the contractor's selection.</p> <p><i>During construction:</i></p> <ul style="list-style-type: none"> • Identification of the different waste types at the project site (soil, cement, concrete, food, etc.); • Ensure that camps are located away from the existing stream, and that no discharge from camps is made into stream. • Proper containers/waste bins should be provided at the project site; • Dumping of waste on the sides of the road, on private land, or in other non-designated places should be prohibited. • Dumping waste shall be prohibited on fragile slopes, forests, religious or other culturally sensitive areas or areas where livelihood is derived; • Collection, transportation and final disposal of all waste should be undertaken regularly [weekly] • Possible hazardous waste (motor oils, vehicle fuels, etc.) should be collected separately and authorized collector and transporter should be sub-contracted to transport and finally dispose; 	<p>BFL focal person in [BC 8]</p> <p>Contractor</p>	<p>To be incorporated in the bidding document from the activity cost USD 72,108</p>

		<ul style="list-style-type: none"> • All construction materials should be covered during the transportation to avoid waste dispersion; • The options for reuse/recycling of the generated waste streams should be taking into consideration (e.g. excavated soil, etc.); • Burning of construction waste should be prohibited. <p><i>After construction:</i></p> <ul style="list-style-type: none"> • All waste shall be removed from the project site. 		
Water quality: contamination of streams may occur due to waste water and sewage from construction sites.	Short term and Minor	<p><i>Pre-construction:</i> requirements for appropriate measures to prevent water contamination should be included in the bidding documents, as a precondition for the contractor's selection</p> <p><i>During construction:</i></p> <ul style="list-style-type: none"> • An environment-friendly toilet (e.g., pit toilet) and washing facilities should be made available, built with locally available materials; • Open defecation in the vicinity of project sites should be prohibited; • Throwing waste in water sources should be prohibited; • Possible hazardous waste (motor oils, vehicle fuels, lubricants) should be collected separately and authorized entity should be transporting and disposing the hazardous waste; <p><i>After construction</i></p> <ul style="list-style-type: none"> • Pit toilets are dismantled and pits are covered • Any waste is removed from the project site 	BFL focal point in [BC 8]	To be incorporated in the bidding document from the activity cost USD 72,108
Occupational health and safety hazards, especially for construction workers		<ul style="list-style-type: none"> • Follow the workers' health and safety guidelines as attached to the ESMP. • Ensure regular health screening for the workers pre and during construction activities. • Ensure that no underage 	BFL focal point in [BC 8] Contractor	To be incorporated in the bidding document from the activity cost USD 72,108

		<p>workers, or children are engaged.</p> <ul style="list-style-type: none"> • Decent work conditions, including an appropriate salary, working hours, accommodation and food for workers shall be provided to all workers. • Workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, job assignment, termination of employment or retirement, and disciplinary practices. • A grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns should be in place. 		
Local community's health and safety especially of the students of VTI		<ul style="list-style-type: none"> • Ensure the safety of all project-related equipment, in line with the requirements above. • Minimize the use of hazardous materials, and ensure that community members (students) are not exposed to them. In case that the use of such materials is necessary, provide sufficient notice to local community members and inform them on safety and protection measures. • Avoid dumping any waste or otherwise contaminating community sources of water supply and water quality. • Provide information to local communities on construction activities and plans. 	BFL focal point in [BC 8] Contractor	To be incorporated in the bidding document from the activity cost USD 72,108
Conflict between foreign temporary workers and local communities		<ul style="list-style-type: none"> • Workers shall be made aware of local culture and traditions, as well as the legal consequences of harassment and intimidation, especially with regards to sexual harassment and gender-based violence. 	BFL focal point in [BC 8] Contractor	To be incorporated in the bidding document from the activity cost USD 72,108

		<ul style="list-style-type: none"> Local communities shall be made aware of the engagement of temporary workers in project sites Strict monitoring shall be carried out to ensure conflicts are minimized 		
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2. Maintenance of existing Range Office (changing of window, roofing and lightings):

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Costs
Activity: Maintenance of Range Office				USD 3,000
Waste: generation of waste as a result of maintenance activities	Short term Minor	<p><i>Pre-construction:</i> requirements for appropriate waste management should be included in the bidding documents, as a precondition for the contractor's selection</p> <p><i>During construction:</i></p> <ul style="list-style-type: none"> Identification of the different waste types at the project site (CGI sheet, food, plastics, etc.); Proper containers/waste bins should be provided at the project site; Dumping of waste on the sides of the road, on private land, or in other non-designated places should be prohibited; Dumping waste shall be prohibited on fragile slopes, forests, religious or other culturally sensitive areas or areas where livelihood is derived; Collection, transportation and final disposal of all waste should be undertaken regularly [weekly]; Possible hazardous waste such as glasses and old iron should be collected separately and authorized collector and transporter should be sub-contracted to transport and finally dispose; The options for reuse/recycling of the generated waste streams should be taking into consideration (e.g. excavated soil, etc.); Burning of construction waste should be prohibited. 	BFL focal person in [BC 8] Contractor	To be incorporated in the bidding document from the activity cost USD 3,000

		<p><i>After construction:</i></p> <ul style="list-style-type: none"> All waste shall be removed from the project site. 	BFL focal person in [BC 8] Contractor	
Workers' health and safety		<ul style="list-style-type: none"> Follow the workers' health and safety guidelines as attached to the ESMP; Safety gears and first aid kit to be provided to the workers; Ensure that no underage workers, or children are engaged; Decent work conditions, including an appropriate salary, working hours, accommodation and food for workers shall be provided to all workers; Workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to job assignment, termination of employment or retirement, and disciplinary practices; A grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns should be in place. 	BFL focal point in [BC 8] Contractor	To be incorporated in the bidding document from the activity cost USD 3,000

3. Implement restoration to enhance quality and resilience of lowland grasslands

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Costs
<i>Activity: Restoration of lowland grassland</i>				USD 3,000
Workers health and safety.	Short term Minor	<ul style="list-style-type: none"> Follow the workers' health and safety guidelines as attached to the ESMP; Ensure First kit and working wears for the workers' safety.; Ensure that no underage workers, or children are engaged; Decent work conditions, including an appropriate salary, working hours, accommodation and food for workers shall be provided to all workers; 	BFL focal person (BC 8)	Nu. 10,000 = USD 141.84 for safety gears and first aid kits for 10 workers

		<ul style="list-style-type: none"> Workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment,, job assignment, promotion, termination of employment or retirement, and disciplinary practices. A grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns should be in place. 		
Waste from workers	Short term Minor	<p><i>Pre-construction:</i></p> <ul style="list-style-type: none"> Awareness about wastes and management in the activity area by the forest officials to the workers. <p><i>During construction:</i></p> <ul style="list-style-type: none"> Identification of the different waste types at the project site (soil, food, excess mesh wires etc.); Proper containers/waste bins should be provided at the project site; Dumping waste shall be prohibited on fragile slopes, rivers, forests, religious or other culturally sensitive areas or areas where livelihood is derived; Collection, transportation and final disposal of all waste should be undertaken regularly [daily]; The options for reuse/recycling of the generated waste streams should be taking into consideration (e.g. excavated soil, etc.); Burning of construction waste should be prohibited. <p><i>After construction:</i></p>	BFL focal person (BC 8)	Incorporated within the activity budget.

		<ul style="list-style-type: none"> All waste shall be removed from the project site. 		
Risk of forest fire during burning of debris.	Short term Minor	<ul style="list-style-type: none"> Plan burning during mornings and evenings to avoid wind; Controlled and prescribe burning by making fire line 	BFL focal person (BC 8)	Incorporated within the activity budget

4. Waterhole restoration by replacing the old pipes with new ones in the existing water hole

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Costs
Activity: Water hole restoration				US\$ 4761.9
Waste from digging activities	Short term Minor	<ul style="list-style-type: none"> Proper containers/waste bins should be provided at the project site; Dumping of waste in the waterholes, in the protected areas or in other non-designated places should be strictly prohibited. Dumping of waste shall be prohibited on fragile slopes, forests, religious or other culturally sensitive areas or areas where livelihood is derived; Collection, transportation and final disposal of all waste should be collected on a daily basis and not left in the protected areas; Burning of construction waste should be prohibited. 	BFL focal point in [BC 8]	To be incorporated in activity budget
Workers' health and safety	Short term Minor	<ul style="list-style-type: none"> Follow the workers' health and safety guidelines as attached to the ESMP; Ensure safety gears and first aid kits; Ensure that no underage workers, or children are engaged; Decent work conditions, including an appropriate salary, working hours, accommodation and food for workers shall be provided to all workers; workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such 	BFL focal point in [BC 8]	Nu. 10,000 = USD 141.84 for workers safety gears and first aid kits.

		<p>as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices;</p> <ul style="list-style-type: none"> • A grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns should be in place. 		
Risk of invasive species	Short term Minor	<ul style="list-style-type: none"> • Assess appropriateness of species in terms of biodiversity, water efficiency, forest fire, local needs, cultural sensitivity, survival, etc. 	BFL focal (BC8)	To be incorporated in activity budget of patrolling
Increased the risk of poaching; Once enrichment work is completed the waterholes and saltlicks may invite several animals and sometimes may result to congregation. Hence, a risk of easy killing by poachers grows in the area in the future.	Short term Minor	<ul style="list-style-type: none"> • Waterholes restoration is in the existing area. • Increased patrolling of BC authorities should be carried out during and after the waterhole restoration. 	BFL focal (BC8)	To be incorporated in activity budget of patrolling.

5. Combined zonation

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Cost
Activity: Combined zonation				USD 10000
Wastes during consultation and peg fixing	Short term Minor	<ul style="list-style-type: none"> • Proper containers/waste bins should be provided at the consultation and the peg fixation sites; • Dumping of waste on the sides of the road, on private land, or in other non-designated places should be prohibited. • Dumping waste shall be prohibited on fragile slopes, 	BFL focal person (BC 8)	Included in the activity budget

		forests, religious or other culturally sensitive areas or areas where livelihood is derived		
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5. ESMP Implementation arrangements

The implementation of project activities will be carried out by the BFL focal person in BC 8. The focal person will be responsible for compliance with all procedures outlined in this ESMP, as well as compliance with any requirements to obtain clearances, permits, approvals, or consent documents from relevant authorities and stakeholders.

This ESMP should be part of the contract that the PA will sign with the Contractor(s) for implementation of the planned activities in BC 8 in 2020. The Contractor is obligated to perform all proposed preventive or mitigation environmental and social measures in this plan and to keep the evidence of any documents related to applying these measures (e.g., letter asking the municipality for disposal of inert waste, records on OHS information session performed for all workers before start of activities, all developed EHS plans, etc.). An OHS information session should be organized by the Contractor for all workers prior start the project activities and prior any specific tasks with high health risks.

The Supervising Engineer in BC 8 needs to monitor the implementation of proposed measures by the Contractor and Contractor’s subcontractors with visual checking, reviewing the records of evidence that the measures have been applied and ask the Contractor to apply the measures as soon as possible. Non-compliances should be recorded and the Report on any non-compliances should be reported to the ESS consultants immediately, and the ESS consultants will report it to the PCU (M&E Officer). Each non-compliance should be closed with appropriate measure/s and the evidence should be kept.

Disbursement of project funds to the PA will be contingent upon their full compliance with the safeguards requirements.

6. ESMP monitoring arrangements

The BFL focal person in BC 8 will closely monitor the implementation of all planned activities and the required mitigation measures, and ensure that they fully comply with this ESMP and with the terms and conditions included in the environment clearances issued by RGoB’s national authorities.

BC 8 is also fully responsible for the compliance of all external contractors and service providers working in the BC 8 with the safeguards requirements outlined in the ESMP.

The monitoring of activities under this ESMP will be carried out in the following manner:

1. Construction of Range Office:

- Monitoring by implementing entities:
 - At least weekly field visits

Dates	Location	Report
August, 2020	BC8	Implementation
August - November, 2020 March - June, 2021	BC8	Supervision and advise on safety
30 June, 2021	BC8	Completion report

- Monthly reports prepared by implementing entities and submitted to ESS consultants

Dates	Location	Report
20 June, 2020	BC8	Implementation
August - November, 2020 March - June, 2021	BC8	Supervision and advise on safety
30 June, 2021	BC8	Completion report

- Monitoring by ESS consultants:

- At least quarterly field visits by ESS consultants

Dates	Location	Report
September, 2020 December, 2020 March, 2021 June, 2021	BC8	Supervision and Monitoring
30 June, 2021	BC8	Completion and inspection

- Quarterly reports by ESS consultants to the PCU (M&E officer)

Dates	Location	Report
September, 2020 December, 2020 March, 2021 June, 2021	PCU	Supervision and Monitoring report
30 June, 2021	PCU	Completion report

- Bi-annual reports by PCU (M&E officer) to Secretariat

Dates	Location	Report
15 January, 2021	BFL	Annual Progress Report
15 July, 2021	BFL	Semi-Annual Progress Report

- Bi-annual reports of the Secretariat to WWF US (as part of mid-year and final APRs)

Dates	Location	Report
31 January, 2021	WWF	Annual Progress Report
31 July, 2021	WWF	Semi-Annual Progress Report

2. Maintenance of Range Office

- Monitoring by implementing entities:

- a. At least weekly field visits

Dates	Location	Report
August, 2020	BC 8	Implementation
August - November, 2020	BC 8	Supervision and advise on safety
31 December 2020	BC 8	Completion

- b. Monthly reports prepared by implementing entities and submitted to ESS consultants

Dates	Location	Report
August, 2020	BC 8	Implementation report
August - November, 2020	BC 8	Monitoring report
December 2020	BC 8	Completion report

- Monitoring by ESS consultants:
 - At least quarterly field visits by ESS consultants

Dates	Location	Report
September, 2020	BC 8	Implementation
December, 2020	BC 8	Completion

- Quarterly reports by ESS consultants to the PCU (M&E officer)

Dates	Location	Report
September, 2020	PCU	Implementation status report
December, 2020	PCU	Completion report

- Annual report by PCU (M&E officer) to Secretariat

Dates	Location	Report
15 January, 2021	BFL	Annual Progress Report

- Bi-annual reports of the Secretariat to WWF US (as part of mid-year and final APRs)

Dates	Location	Report
31 January, 2021	WWF	Annual Progress Report

3. Restoration of lowland grasslands

- Monitoring by implementing entities:
 - Field visits at least twice - during the intervention and within three months after the intervention

Dates	Location	Report
October, 2020	BC 8	Implementation
November, 2020	BC 8	Monitoring report and implementation
December, 2020	BC 8	Completion

- Reports by the implementing entities submitted to ESS consultants within a week after each field visit

Dates	Location	Report
October, 2020	BC 8	Implementation report
November, 2020	BC 8	Monitoring report and implementation report
December, 2020	BC 8	Completion report

- Monitoring by ESS consultants:

- Field visits by ESS consultants – at least once during the intervention, together with the implementing party

Dates	Location	Report
October, 2020	BC 8	Implementation

- Reports by ESS consultants to the PCU (M&E officer) – within one week after the field visit and within three months after the intervention

Dates	Location	Report
October, 2020	PCU	Implementation
December, 2020	PCU	Annual Progress Report

- Annual Report by PCU (M&E officer) to Secretariat

Dates	Location	Report
15 January, 2021	BFL	Annual Progress Report

- Annual report of the Secretariat to WWF US (as part of mid-year and final APRs)

Dates	Location	Report
31 January, 2021	WWF	Annual Progress Report

4. Waterhole, salt lick management and enrichment planting:

- Monitoring by implementing entities:

- Field visits at least twice—during the intervention and then monthly as part of the “SMART patrolling” activity (please adapt based on field conditions, and also based on the availability of SMART patrolling activities).

Dates	Location	Report
July, 2020	BC 8	Implementation of the activity
August - November, 2020	BC 8	Monitoring
December, 2020	BC 8	Completion
Increased SMART patrolling		

- Reports by the implementing entities submitted to ESS consultants weekly during the intervention and then monthly after the intervention completion

Dates	Location	Report
August, 2020	PCU, Thimphu	Progress report
September, 2020	PCU, Thimphu	Annual report
October, 2020	PCU, Thimphu	Quarterly report
December, 2020	PCU, Thimphu	Mid-term report

- Monitoring by ESS consultants:

- Field visits by ESS consultants - at least once during the intervention;

Dates	Location	Report
July, 2020	BC 8	Monitoring

- Reports by ESS consultants to the PCU (M&E officer) – within two weeks after the field visit and for semi-annual reporting

Dates	Location	Report
August, 2020	PCU	Implementation report
December, 2020	PCU	Annual Progress report

- Annual report by PCU (M&E officer) to Secretariat

Dates	Location	Report
15 January, 2021	BFL	Annual Progress report

- Annual report of the Secretariat to WWF US (as part of mid-year and final APRs)

Dates	Location	Report
31 January, 2021	WWF	Annual Progress report

5. Combined zonation:

- Monitoring by implementing entities:

- At least weekly field visits

Dates	Location	Report
November, 2020	BC8	Consultation
November, 2020 January - March 2021	BC8	Implementation
April, 2021	BC8	Completion

- Monthly reports prepared by implementing entities and submitted to ESS consultants

Dates	Location	Report
November, 2020	BC8	Consultation report
November, 2020 January - March 2021	BC8	Implementation report
April, 2021	BC8	Completion report

- Monitoring by ESS consultants:

- At least quarterly field visits by ESS consultants

Dates	Location	Report
November, 2020	BC8	Supervision and Monitoring
April, 2021	BC8	Completion

- Quarterly reports by ESS consultants to the PCU (M&E officer)

Dates	Location	Report
December, 2020	PCU	Supervision and Monitoring report
July, 2021	PCU	Annual Progress Report

- Bi-annual reports by PCU (M&E officer) to Secretariat

Dates	Location	Report
15 January, 2021	BFL	Annual Progress Report
15 July, 2021	BFL	Semi-Annual Progress Report

- Bi-annual reports of the Secretariat to WWF US (as part of mid-year and final APR)

Dates	Location	Report
31 January, 2021	WWF	Annual Progress Report
31 July, 2021	WWF	Semi-Annual Progress Report

7. Capacity Need and Budget

Activities under this ESMP will be implemented by the BFL focal person, supervising engineer, and a contractor that will employ workers as mentioned in the contract agreement.

The budget for each of the activities is:

1. Construction of Range office: USD 72,108
2. Maintenance of Range Office: USD 3,000
3. Restoration of lowland grassland: USD 3,000
4. Improving waterholes: USD 4,761.9
5. Combined zonation: USD 10,000

A separate budget of USD 408 will cover the implementation of the ESMP mitigation measures.

8. Consultation and Disclosure Mechanisms

This ESMP has been prepared in a participatory manner, and a community consultation will be carried out on as mentioned in section 9 to inform local communities regarding the planned project activities, solicit their opinions, and enable them to question proposed mitigation measures.

The detailed minutes of the consultation meeting should be attached, along with a full list of participants (disaggregated by gender and age).

The full English version of this ESMP, as well as an executive summary in Bhutanese, shall be disclosed on the website of MoAF, BFL and WWF, Bhutan Program. Hard copies of the ESMP should also be available at the PA Management Office and at the PCU Office.

9. Stakeholder engagement plan

The local community that resides in the vicinity of the planned BFL activities in BC 8 will be engaged throughout the implementation of these activities.

1. Construction of office
 - Dates of consultation: 15 July, 2020
 - Agenda: Information on construction of office including conservation awareness
 - Location: Chumey, Bumthang
2. Lowland grassland
 - a. Dates of consultation: 1 October, 2020
 - b. Agenda: Conservation awareness on importance of grassland management, and forest management
 - c. Location: Demlaya at Nubi, Trongsa, Singyethang at Chendedji village and Drang.
3. Waterholes restoration
 - a. Dates of consultation: 7 July, 2020
 - b. Agenda: Conservation awareness on waterholes, salt licks and enrichment plantation
 - c. Location: Chendebji and Nyala
4. Combined zonation
 - a. Dates of consultation: 5 November, 2020
 - b. Agenda: Zonation and awareness
 - c. Location: BC 8 (gewog wise)

The BFL focal person has to submit the official minutes of consultation meetings (along with a list of participants, disaggregated by gender and age) to ESS consultants within one week after the completion of the consultation. The ESS consultants will submit the consultation reports to the PCU (M&E officer) one week after their receipt. The PCU (M&E officer) will report to the Secretariat on a semi-annual basis.