

**འབྲུག་ཆེ་སྤྲུལ་དངུལ**  
**Bhutan for Life**  
**མཐའ་འཁོར་གནས་སྤངས་དང་མི་སྡེའི་འཛིན་སྐྱོང་འཆར་གཞི།**  
**Environmental and Social Management Plan for**  
**སྤྲུལ་བར་བརྟན་པ་ཁོངས་མངགས་ཤིང་ཡིག་ཚང་། ༢༠༢༦**  
**Biological Corridor 07 (Monger) for 2026**

**གོ་དོན་ཐུབ་པ་བྱུང་དོན།**

འབྲུག་ཆེ་སྤྲུལ་དངུལ་འདི་མཐའ་འཁོར་གནས་སྤངས་དང་མི་སྡེའི་འོས་འབབ་ཅན་གྱི་ལས་འགུལ་གྱི་དབྱེ་ཁག་ ཁ་པ་ (Category B) གང་ལུ་ཚུད་དེ་ཡོད་པ་ཡིན།  
 དེ་ཡང་ལས་འགུལ་འདི་ལས་བརྟན་ཏེ་སྤངས་སྤོངས་ཁོངས་ནང་སྤྱོད་མི་མི་སེར་དང་ཡང་ན་སྤངས་སྤོངས་ཀྱི་མཐའ་སྐྱོར་ཏེ་འཛོལ་སྤངས་སྤོངས་ཁོངས་ལུ་བརྟན་སྤྱོད་མི  
 འཛོལ་སྤངས་ ཡང་ན་ གཤམ་ཅན་གྱི་མཐའ་སྐྱོར་གནས་སྤངས་ཀྱི་སྤོངས་ཚུ་ལུ་གཞི་ན་པ་འབྱུང་ནི་འདི་ཉེན་འཕོད་པ་ད་ གཤམ་སྤྱོད་གཞི་ན་པ་འབྱུང་པ་ཅིན་  
 གཞི་ན་ཉེན་ཚུ་དམིགས་གསལ་ས་གནས་ནང་རྒྱུ་ཅིག་འབྱུང་ནི་དང་ གཞི་ན་ཉེན་མར་ཕབ་རྒྱུ་ཅི་དང་ཅུ་མེད་ཡང་གཏང་ཚུགས་པ་ཡིན།  
 དེ་འབད་མ་ལས་ འབྲུག་ཆེ་སྤྲུལ་དངུལ་ཐོག་ལུ་ རྒྱུ་ཅི་འབད་ཡོད་པའི་ལས་འགུལ་དང་ལས་སྤྱོད་ མཐའ་འཁོར་གནས་སྤངས་དང་  
 མི་སྡེ་གཉིས་ལུ་ཡུན་བརྟན་གྱི་ཕན་པ་ཡོད་པ་བཟོ་བ་གི་མ་ཚད་ འབྲུག་ཆེ་སྤྲུལ་དངུལ་གྱི་སྤྱི་བྱས་ལམ་སྟོན་དང་འབྲེལ་ཐབས་ལུ་  
 མཐའ་འཁོར་གནས་སྤངས་དང་མི་སྡེ་འཛིན་སྐྱོང་འཆར་གཞི་འདི་དགོ་པ་ད་ མི་དམངས་གྲོས་བསྟུན་དང་  
 ཏུས་དང་ཏུས་སྤྱི་དམངས་ལུ་གསང་བ་བཤད་ནི་འདི་དགོ་པ་ཡིན།

**སྤྲུལ་བར་ལམ་བརྟན་པ་(ཁོངས་མངགས་ཤིང་ཡིག་ཚང་) གི་** རང་བཞིན་གནས་སྤངས་དང་མི་སྡེ་འཛིན་སྐྱོང་འཆར་གཞི་འདི་ནང་  
 གླིང་ཀ་དང་སྤྲུལ་ཆགས་རྒྱུ་ལམ་ཚུ་ནང་ལས་སྤྱོད་ཚུ་འབད་བའི་སྤྱུལ་སྤྱོད་ ཐབས་ལམ་དང་བཟང་སྤྱོད་ཚུ་གསལ་སྟོན་འབད་མ་ཡིན་པ་ད་  
 འདི་ཡང་ལས་སྤྱོད་གདམ་སེལ་ལམ་ལུ་གསལ་དང་འབྲེལ་ཏེ་ཡིན། གདམ་སེལ་འབད་ཡོད་པའི་ལས་སྤྱོད་གི་ནང་ལས་  
 མཐའ་འཁོར་གནས་སྤངས་དང་མི་སྡེ་ལུ་གཞི་ན་ཉེན་འཕོད་པའི་ལས་སྤྱོད་ཚུ་གི་དོན་ལུ་ མཐའ་འཁོར་གནས་སྤངས་དང་མི་སྡེ་འཛིན་སྐྱོང་འཆར་གཞི་བཟོ་དགོ།  
 འཛིན་སྐྱོང་འཆར་གཞི་འདི་ནང་ ལས་སྤྱོད་འགོ་མ་བཟུགས་པའི་ཉེ་མ་གཞི་བཟུགས་འབད་བའི་སྤྱུལ་སྤྱོད་མངུག་བསྟུན་པ་ལུ་  
 མཐའ་འཁོར་གནས་སྤངས་འཛིན་སྐྱོང་དང་གཞི་ན་ཉེན་མར་ཕབ་ཀྱི་ཐབས་ལམ་ཚུ་བཟུགས་དགོ་པ་ཡིན། དེ་འབད་མ་ལས་འཛིན་སྐྱོང་འཆར་གཞི་འདི་ནང་ ལས་སྤྱོད་ མི་སྡེ་  
 ལུ་འགན། བད་སྤྱོད་དང་སྟན་ལུ། དེ་ལས་སྤྱོད་ལམ་ལུ་གསལ་ཚུ་གི་སྐོར་ལས་འབྲེལ་བཤད་ཁ་གསལ་ཚུ་དགོ་པ་ཡིན། འཛིན་སྐྱོང་འཆར་གཞི་འདི་ནང་ལུ་  
 གཤམ་གཏོགས་འབད་དགོ་པའི་ཁེ་གཏང་ཡོད་མི་ཚུ་གི་ཉེན་འབྱུང་ཚུ་དགོ་པ་འཕེལ་  
 གཤམ་གཏོགས་འཆར་གཞི་འདི་ནང་ ཁེ་གཏང་ཡོད་མི་ཚུ་གི་དོན་ལུ་གཤམ་གཏོགས་འཆར་གཞི་དགོ།  
 དེ་ལས་གཤམ་གཏོགས་ཀྱི་ཏུས་ཚུ་དང་བཅའ་སྤྱི་ཚུ་ཚུད་དགོ་པ་ཡིན། གླིང་ཀ་དང་སྤྲུལ་ཆགས་རྒྱུ་ལམ་ཡིན་ཚད་ཚུ་གི་མཆར་གཞི་ལས་སྤྱོད་དང་འབྲེལ་ཏེ་  
 དམ་ཐོ་དང་སྟན་ལུ། བསྟུར་ཞིབ། ཅིས་དབྱེད་འབད་ནི། དེ་ལས་  
 མཐའ་འཁོར་གནས་སྤངས་དང་མི་སྡེ་འཛིན་སྐྱོང་འཆར་གཞི་འདི་ལོ་བསྟར་བཞིན་ཏུ་ཏུས་མཐུན་བཟོ་དགོ་པ་ཡིན།

**སྤྲུལ་བར་ལམ་བརྟན་པ་(ཁོངས་མངགས་ཤིང་ཡིག་ཚང་) གི་དོན་ལུ་སྤྱི་ལོ་ ༢༠༢༦ ནང་མཐའ་འཁོར་གནས་སྤངས་དང་མི་སྡེ་འཛིན་སྐྱོང་འཆར་གཞི་དགོ་པ་ཡོད་པའི་ལས་**  
**སྤྱོད་ཚུ་ཡང་།**

- ༡༽ རྒྱུ་ཅི་གླིང་འཛིན་ཡིག་ཚང་ལས་བྱེད་པ་གིས་ཁོངས་ འོག་སྟེར་གྲོག་མེ་བཟུགས་ནི།
- ༢༽ ཁོང་སྐར་ ཤི་རི་ཚུ་ལུ་ སྤྱུལ་ཚད་ཅན་གྱི་ཤིང་གི་སེན་ཚུ་བཏོན་ནི་དོན་ལུ་ དེང་སང་གི་ཚད་གཞི་བར་མ་གི་གསེ་སྐྱོང་ཁང་ཅིག་ གཞི་བཟུགས་འབད་ནི།
- ༣༽ དབྱུངས་བརྩི་སྤྲུལ་གནས་སྤངས་སྐར་གྱི་ ལག་ལེན་རྒྱུ་ལུ་།
- ༤༽ དེ་སྤྱིང་ལུ་ སྤྱིང་ ༡༠ གི་ཤིང་བཟུགས་ནི་ལས་རིམ།

## **Executive Summary**

BFL has been categorized as a Category B project, as the potential adverse environmental and social impacts on population within the Protected Areas or those living around who depend on the PA for their livelihoods or environmentally important areas are site-specific, reversible and can be readily mitigated.

Therefore, to ensure that all BFL funded projects and programs are environmentally and socially sustainable as well as in line with BFL's policies and guidelines, an Environmental and Social Management Plan (ESMP) involving stakeholder participation and timely public disclosure is required.

An Environmental and Social Management Plan (ESMP) for Biological Corridor (BC) 7, under Monger Forest Division describes mitigation measures/good practices at activity level which are required as per the screening protocol. All the screened activities which have potential risks to environment and social management require the preparation of an ESMP which include environment management and mitigation plans during pre-activity, activity implementation and closing phases. Hence, it contains description of the detailed actions including communities, roles, communication and reporting and monitoring processes required as part of the implementation.

In order to ensure that the issues of all stakeholders are taken into account, it includes a stakeholder engagement plan. The plan includes identification of stakeholders, method of engagement, timing and logistics. It is a requirement for all parks and biological corridors to keep record, reporting, review, auditing and update ESMP yearly as per the planned activities.

The activities that required ESMPs for the year 2026 under BC7 of Monger Division are as follows:

1. Re-electrification of Staff quarter, Lhuentse Range-new proposal
2. Establishment of a Modern Medium Sized Nursery for Quality Tree Seedling Production at Sherichu, Mongar
3. Operational support of Yangbarii eco-camp
4. 10 Ha Plantation at Drepong under BC7

## **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 increases 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 well being 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 (outputs) and over 80 detailed activities.

### **(A) 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 Social Safeguards Integrated Policies and Procedures (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 the 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.

### **(B) 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 area 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 sub-projects 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.

## **2. Environmental and Socio-Economic Condition**

### **(a) Boundary description**

The BC-7 consists of two isolated strands; a strand from the former northern corridor and another from the former BC-7. The BC-7 links with three protected areas; Wangchuck Centennial National Park (WCNP) in the northwest, Bumdeling Wildlife Sanctuary (BWS) in the northeast and Phrumsengla National Park (PNP) in the southwest (Fig. 2). The corridor shares boundary with Tsakaling and Tsamang Gewogs under Mongar (28.86 km<sup>2</sup>) and Menbi, Gangzur, Khoma, Minjey, Metsho and Tsenkhar Gewogs under Lhuentse Dzongkhag (390.8 km<sup>2</sup>).

It also overlaps with significant important Bird Areas (IBA) of Korila (31.63 sq.km) and Minjey Wetland (0.4sq.km) both of which are declared by Birdlife International.



*Figure 1: Boundary of BC-07 showing the jurisdictions of Gewogs falling under it. The BC boundary connects with Bumdelling Wildlife Sanctuary in the east, Wangchuck Centennial National Park in the northwest and Phrumsengla National Park in the southwest.*

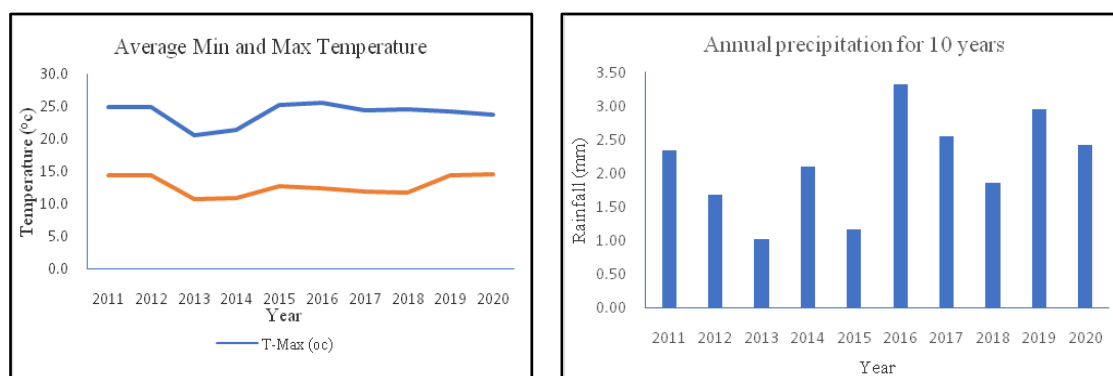
### ***(b) Water bodies***

BC-7 has numerous streams and tributaries draining into Kurichhu. The Kurichhu is one of the sub-basin tributaries of Manas watershed in the country. The 15.26 km of Kurichu that is assessed as degraded catchment runs through BC-7 forming an indispensable migratory route for avi-fauna and other lesser-known aquatic diversity. Kurichu is joined by 43.48 km of streams and another 1,296.68 km of rivulets and tributaries. The globally threatened Pallas's fish eagle, river lapwing and black-necked crane feeds and roosts along this river stretch. The vulnerable species Smooth-coated otter is also recorded feeding along Kurichu making it one of the significant wetland habitats.

Due to the presence of several wetlands and seasonal ponds in the upper ridges of forest, it forms an important habitat for wildlife populations and important catchment areas for the downstream communities.

### ***(c) Climate***

Weather data from the past 10 years (2011-2020) showed that the highest average maximum temperature of 25.4 °C (2016) and lowest average minimum temperature of 10.7° C (2013) was recorded in the BC area (Fig. 2A). The highest average precipitation recorded was 3.32 mm in 2016 and lowest of 1.01 mm in 2013 (Fig. 2B). Meteorological data has been derived from station records of Sumpa under Lhuntse Dzongkhag from the National Center for Hydrology and Meteorology (NCHM), Thimphu.



*Figure 2: The average min and max temperature in BC area (2A) and annual precipitation in BC area for last 10 years (2B)*

### ***(d) Vegetation and forest types***

There are four major forest types in BC-7 categorically broadleaf forest, chirpine forest, fir forest and mixed conifer forest. It comprises four forest types viz; broadleaf forest (74.20 %), mixed conifer forest (17.36%), chirpine forest (5.63 %) and fir forest (2.81 %).

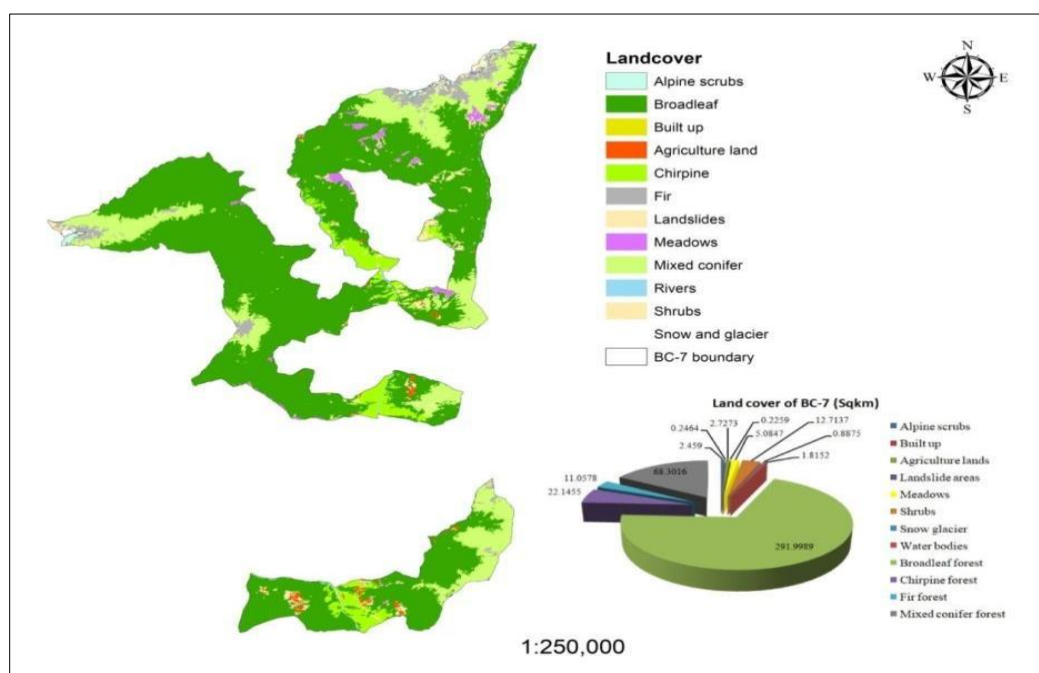


Figure 3: Land cover land use map of BC-7. The pie chart shows area (Sq.km) of BC area falling under each land cover category

#### (e) Floral diversity

The floristic compositions in BC-7 consists of 307 plant species belonging to 103 families from which 104 tree species (Annexure I), 47 shrub species (Annexure II), 144 herb species including one endemic species (*Corallo discuscooperi*) (Annexure III), five climber species (*Clematis* spp, *Hedera nepalensis*, *Tetrastigma serrulatum*, *Smilax* spp and *Piper* spp), three bamboo species (*Bambusease* spp, *Yushania microphylla* and *Yushanias* spp), three terrestrial orchid species (*Calanthe* spp, *Calanthe sylvatica* and *Galeola lindleyana*) and one cane species (*Plectocomia himalayana*) were recorded. Floral species composition of BC-07 includes five live forms such as conifer trees, deciduous trees, evergreen trees, evergreen shrubs, and deciduous shrubs.

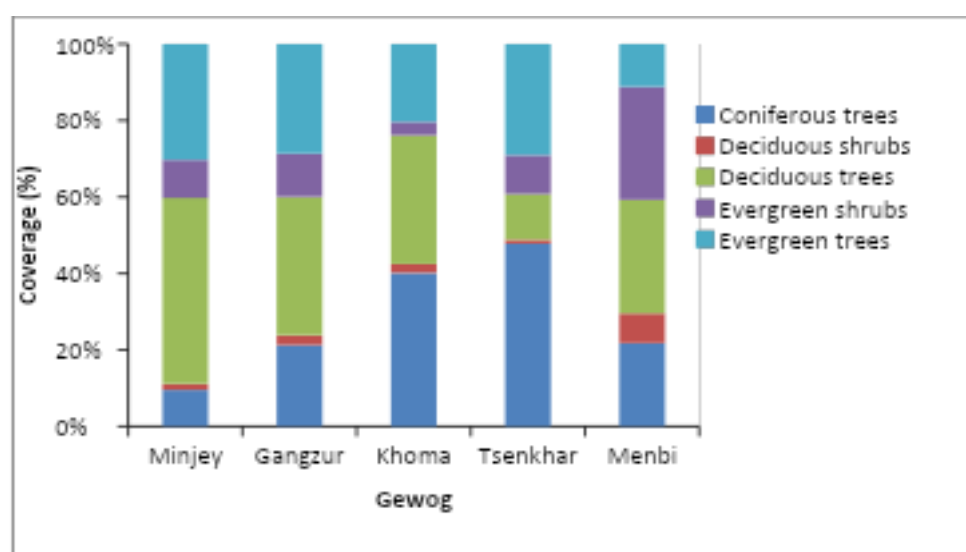


Figure 4: Floral species composition (live forms) under each Gewog in BC area

***(f) Mammal diversity***

Much as the floristic diversity, the faunal diversity of BC-07 is astounding with species from both the Palearctic and Indo-Malayan bio-geographic realms (Wangchuk et al. 2004). So far, the Divisional Forest Management office has uncovered the presence of only vertebrates, and is yet to dive into the world of invertebrates. Recent camera trap studies and field surveys have revealed the presence of 28 species of mammals belonging to 11 families and 4 orders (Annexure VI). Of these, 3 are endangered, 8 are Vulnerable, 5 are Near Threatened and 12 are Least Concerned as per the International Union for Conservation of Nature's (IUCN) Red List of Threatened Species (IUCN 2014).

***(g) Avifauna diversity***

As of now 276 species of birds have been recorded in BC-7; 160 bird species were recorded during the recent survey carried out in the months of June, July, November and December and 116 other species were recorded through incidental sightings (Annexure IV). Of these, 1 is endangered (pallas's fish eagle), 3 are vulnerable (black-necked crane, wood snipe, and rufous-necked hornbill), and 6 are near threatened (himalayan vulture, satyr tragopan, great hornbill, ward's trogon, river lapwing and yellow-rumped honey-guide) as per the International Union for Conservation of Nature's (IUCN) Red List of Threatened Species (IUCN 2014). The bird survey was carried out along the transect of 251.32 km which was laid within different habitats of the entire corridor.

Birds were recorded within three different habitats inside the BC: Wetland (WL) (farmland and settlements, alpine meadow, rivers and streams), conifer forest (dry temperate conifer forest, moist temperate conifer forest and sub-alpine conifer forest) and broadleaf forest (BLF) (cool broadleaved forest and warm broadleaved forest). Based on the *Chao1 estimator*, species estimation in various habitats of WL, BLF and CF are sEST=104, sEST=175 and sEST= 101 respectively. However, species observed in various habitats in WL, BLF and CF are sOBS=172, sOBS=101 and sOBS=98 respectively indicating more species encounter with more effort. The Shannon Wiener Index ( $H'$ ) shows greater species diversity in BF ( $H'=1.9$ ) in comparison to CF ( $H'=1.7$ ) and WL ( $H'=1.3$ ).

### ***(h) Social information***

The BC-07 expands over two administrative boundaries covering an area of 390.8 km<sup>2</sup> under Lhuentse and 28.86 km<sup>2</sup> under Mongar Dzongkhag. A total of 193 households reside within the BC area (Table 1). Around 727 households that reside around the BC area also use BC for natural resources particularly timber, firewood and non-wood forest products. The recent socio-economic survey involved 67% of the households comprising 46 % male and 54 % female for the interview.

*Table 1: List of households residing inside BC-07*

| Gewog               | Chiwog             | Village      | No. of HH |
|---------------------|--------------------|--------------|-----------|
| Tsenkhar            | Artobadap-Gundrang | Drakar       | 6         |
|                     |                    | Pokornang    | 1         |
|                     |                    | Yangla       | 9         |
|                     |                    | Sisinyisa    | 3         |
|                     | Autsho-Chharbi     | Gangmachen   | 1         |
|                     |                    | Drakmar Ney  | 1         |
|                     |                    | Pela Drakphu | 9         |
|                     |                    | Rashangbee   | 2         |
|                     |                    | Kilam        | 1         |
|                     | Dekiling-Tshochen  | Dekiling     | 4         |
|                     |                    | Phawantoe    | 3         |
|                     |                    | Tadogang     | 2         |
| Tsakaling<br>Minjey | Takhambi           | Goomdrang    | 6         |
|                     | Bragong Jalang     | Bragong      | 10        |
|                     |                    | Chengling    | 11        |
|                     |                    | Amdrang      | 2         |
| Menbi               | Kamder-Murmo       | Sumpa        | 3         |
|                     |                    | Zarthang     | 1         |
|                     |                    | Karney       | 1         |
|                     | Manjabe-Daangling  | Rawabee      | 4         |
| Gangzur             | Jang- Ngar         | Fatala       | 6         |
|                     | Nimshong-Tongling  | Yodra Goenpa | 1         |
|                     | Shawa-Zhamling     | Charabi      | 2         |
| Khoma               | Rolmateng-Tsango   | Khomagang    | 8         |
|                     |                    | Denchung     | 6         |
|                     | Pangkhar           | Khomadung    | 2         |
|                     | Drakteng-Baptong   | Kemtsong     | 13        |
|                     | Gangla-Khelma      | Buyum        | 1         |
| Tsamang             | Ganglapong         | Ganglapong   | 66        |
|                     |                    | Khooling     | 8         |
| Total               |                    |              | 193       |

### **3. Planned activities in the years 2026-2027**

The planned activities for the year 2026-2027 for the BC 7 are the following:

- 3.1. Operational support of Yangbari eco-camp
- 3.2. Re-electrification of Staff Quarter, Lhuentse Range
- 3.3. Establishment of a modern medium-sized Forest Nursery for quality tree seedling production at Sherichu, Mongar
- 3.4. Creation of 10 ha plantation at Daksamanag under Drepong Gewog

### ***Activity 3.1: Operational support of Yangbari eco-camp***

- ***Budget Proposed:*** Nu. 8.025 Million
- ***Timeline:*** October 2026 – June 2027
- ***Location:*** Yangbari, Gongdue Gewog, Mongar Dzongkhag; Geo-coordinates: 26.966752°, 91.187203°

Yangbari is a small village under Pekari-Yangbari chiwog under Gongdue gewog of Mongar Dzongkhag. The village is located adjoining Pemagatshel Dzongkhag in the south and Zhemgang Dzongkhag in the west. Yangbari is surrounded by forest on three sides, and the Kuri-Gongri River on the lower side of the village makes the village lively. The flat landform makes the village appear like the bordering areas of southern Bhutan. The average altitude is 250 m above sea level, receiving heavy rainfall in summer, making the area hot and humid with cool and dry winter months.

The people of Yangbari were resettled in the 1980s after His Majesty the Fourth King awarded Land Kidu during the National Day celebration in 1980. A total of 62 households reside in Yangbari, Patong, and Kormey villages, speaking three different dialects. They are dependent on agriculture and livestock farming. Apart from farming, the villagers are also seen working for daily wages on different construction sites. They are also members of a community forest management group. The community has certain basic facilities like a school, a basic health unit, a mobile network, and electricity and is connected by a motor road.

Yangbari possesses exceptional ecological and scenic value, with pristine river stretches that provide an ideal habitat for the Golden Mahseer, one of the world's most sought-after sport fish. With the growing demand for premium, low-impact, nature-based tourism experiences, there is strong potential to position Yangbari as a high-end Golden Mahseer fishing destination catering to international anglers, conservation-oriented tourists, and exclusive retreat groups. With initial financial support from Bhutan for Life and the Global Environment Facility (GEF), the area has been developed with essential infrastructure, including an approach road, water supply, seven (7) lodges, a dining-cum-kitchen facility, common toilet blocks, and compound fencing in the year 2023. However, the existing infrastructure is insufficient for effective and sustainable operation. Therefore, the following additional proposals are put forward to ensure the successful functioning of the area within 5 acres of the recreational area.

- Construction of three (3) additional lodges
- Construction of a conference/multipurpose hall
- Installation of compound light
- Construction of river-view deck
- Construction of two (2) canopies
- Landscaping and Site Beautification
- Placement of cautionary and directional signages

The work will be carried out by the winning contractor selected through an open-tender process, with certain activities undertaken departmentally. The contractor will engage a total of 30 laborers and workers from outside the project area, including both national and international labor (from India), for a period of 24 months starting October 2026. Approximately 2,000 cubic feet (cft) of timber, 10 truckloads of stone, 10 truckloads of aggregates and 100,000 liters of water will be used during the construction of the structures. Waste generated at the site will be properly segregated into biodegradable, non-biodegradable, and recyclable categories. After segregation, the waste will be stored at designated collection points for appropriate disposal. Construction materials such as timber, gravel, sand, and boulders will be sourced from the Natural Resources Development Corporation Limited (NRDCL) site located about 42 km away from the project site, while other construction materials will be transported from Nganglam.

### 3.1.1 Potential environmental impacts

Some of the potential negative impacts are:

- Generation of waste as a result of construction works.
- Air quality/pollution

### 3.1.2. Potential social impacts

Some of the potential negative impacts are:

- Workers' health and safety
- Noise pollution
- Conflict between temporary workers and local communities
- Risk of Illegal Fishing



Figure 5: Yangbari eco-lodge

### Activity 3.2: Re-electrification of Staff Quarter, Lhuentse Range

- **Budget Proposed:** Nu. 0.250 million
- **Timeline:** January 2027-March 2027
- **Location:** Tongkangla, Gangzur Gewog, Lhuentse Dzongkhag; Geo-coordinates: 27.671453°, 91.186736°

The Lhuentse Range Office was established in the early 1990s and constructed a two-story Bhutanese traditional structure. It is one of the oldest houses in Lhuentse. After the completion of the new office, the old office has been used as the staff quarters, accommodating 2 staff members.

The electrification system of the existing old structure is in very poor and unsafe condition. The building contains numerous exposed (naked) electrical wires, and the wiring system lacks proper earthing. This poses a serious safety risk, with a high likelihood of electrical short circuits and fire hazards, endangering both staff and the structure. In this regard, proper electrification works, including replacement of unsafe wiring and provision of standard earthing, to ensure a safe and functional working environment will be carried out. The work will be carried out by the winning contractor selected through an open tender process or through community contract. 2 laborers will be involved in carrying out this activity for a period of 2 months starting October 2026. Waste generated at the site will be properly segregated into biodegradable and non-biodegradable and dumped at the designated area. Since the work will be of a short duration, they will stay overnight in the office.

### 3.2.1 Potential environmental impacts

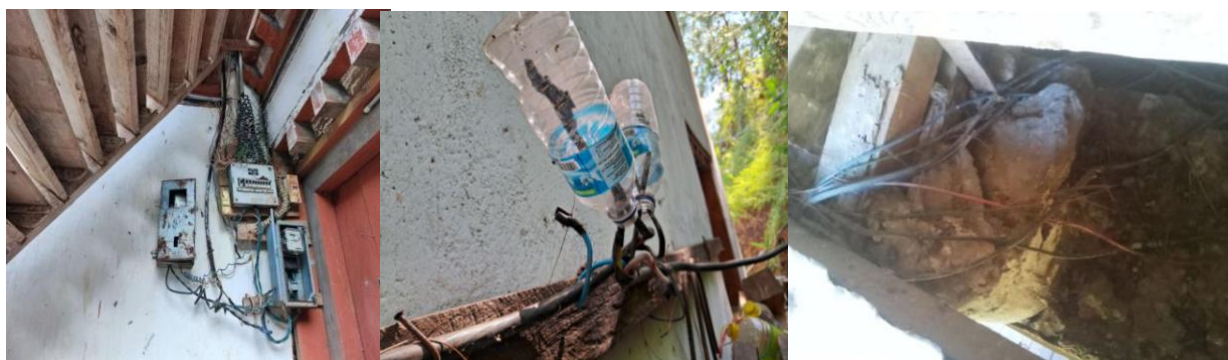
Some of the potential negative impacts are:

- Generation of waste

### 3.2.2. Potential social impacts

Some of the potential negative impacts are:

- Workers' health and safety
- Noise disturbance



*Figure 6: Default electric line of staff quarter, Lhuentse*

***Activity 3.3: Establishment of a modern medium-sized Nursery for quality tree seedling production at Sherichu, Mongar***

- **Budget Proposed:** 3.794 m
- **Timeline:** October 2026 – June 2027
- **Location:** Sherichu, Dremetse Gewog, Mongar Dzongkhag; Geo-coordinates: 27.261624°, 91.407117°

The proposed nursery site is located within the jurisdiction of the Divisional Forest Office (DFO), Mongar. Geographically, the location is near the primary national highway connecting Mongar and Trashigang, allowing for convenient transportation of materials, labor, and seedlings. Climatically, the area experiences a typical subtropical to warm temperate climate, characterized by moderate to high rainfall, especially during the monsoon season. The topography of the site is generally gentle to moderately sloping, with sections of relatively flat terrain that are ideal for establishing nursery beds and infrastructure. Its accessibility enhances efficient distribution of seedlings to other districts. The nursery site at Sherichu, located near the Mongar–Trashigang National Highway, falls under the jurisdiction of the Korila Forest Management Unit. The area presently designated as the Sherichu Nursery was formerly used as a combined forest check post and nursery. Following the removal of the forest check post, the site was fully repurposed and dedicated exclusively to nursery operations. The entire area, covering approximately 4.495 acres, is now utilized for nursery infrastructure and related activities. The location is easily accessible and well-suited for nursery activities, offering sufficient space for nursery bed development and seedling management. Its strategic position allows for effective supervision as well as convenient transport of materials and seedlings.

At present, the nursery consists of 17 mother beds that are used for raising seedlings. However, the current production is only sufficient to meet a portion of the office’s seedling requirements. The limited output is mainly attributed to inadequate facilities, including insufficient infrastructure, limited water supply systems, and lack of proper nursery management inputs. Despite this growing demand, the division currently lacks a modern, standard nursery equipped with adequate infrastructure, irrigation systems, and mechanized facilities required to produce quality seedlings in sufficient quantities. To address this gap and support national priorities related to sustainable forest management, biodiversity conservation, and climate change adaptation, the following activities will be carried out:

- Construct fencing, irrigation canals, mist chambers, shade houses, and water storage tanks.
- Procure nursery tools, equipment, and potting materials.
- Establish mother blocks and seed orchards for a reliable seed source.
- Recruit and train nursery staff in modern nursery standards.
- Implement a seedling production, monitoring, and distribution system.
- Infrastructure maintenance

The nursery is presently being developed to support forest plantation and restoration initiatives through the production of high-quality planting materials. The work will be carried out by 5 community laborers from nearby villages, under the supervision of the nursery in-charge and forestry officials from the Divisional Office. Approximately 5000 liters of water and 4 m<sup>3</sup> of sand and aggregates will be used during the maintenance of the structures. These materials will be sourced from the Natural Resources Development Corporation Limited. A temporary camp will be made to accommodate the laborers, and water supplied to the nursery will be utilized for their needs. All waste generated during the activities will be collected and disposed of properly in an environmentally responsible manner.

### 3.3.1 Potential environmental impacts

Some of the potential negative impacts are:

- Generation of waste
- Clearing of underground vegetation
- Air and noise pollution
- Accidental introduction or the risk of introducing forest pest and diseases
- Risk of fire burns during the prescribed burning

### 3.3.2. Potential social impacts

Some of the potential negative impacts are:

- Workers' health and safety



Figure 7: The view of the Sherichu Nursery

### Activity 3.4: Creation of 10 ha plantation at Daksamanag under Drepong Gewog

- **Budget Proposed:** Nu. 2.5 m
- **Timeline:** August 2026 – June 2027
- **Location:** Daksamanang, Drepong Gewog, Mongar Gewog, Geo-coordinate: 27.2347290, 91.274509

The proposed plantation site is located at Daksamanag, which falls within the Laptsa block of Laptsa Bainangri CF, Drepong Gewog, under Mongar Dzongkhag. The plantation activity is planned to be implemented between August 2026 and June 2027 with an estimated budget of Nu. 2.5 million. The activity aims to restore vegetation cover, enhance ecological stability, and promote sustainable forest management in the area by planting high-value timber species like *Michelia species*, *Exbucklandia populnea*, and *Juglans regia*.

The current proposed area is degraded, and some patches are barren due to timber extraction for the construction of the school, BHUs, and RNREC. The area is covered by shrub species and non-potential timber species like *Daphniphyllum* and *Symplocos* species. Site preparation, pit digging, transportation of seedlings, planting, and post-plantation maintenance activities will be carried out

during the implementation period. In addition, amenities like an entry gate and signboard will be made and installed to locate the site easily and for management purposes. To safeguard the plantation from grazing and external disturbances, the entire area will be enclosed through proper fencing.

The activity will require water for seedling establishment, which will be tapped from the stream located nearby the plantation site. Seedlings of timber species will be procured from authorized nurseries, while all tools and materials required for plantation works will be procured following government procurement procedures and approved quotation rates.

The plantation work will be carried out by 72 members of Laptsa Bainangri CF with supervision from the Divisional Forest Office, Mongar, and relevant forestry officials, ensuring compliance with technical specifications and environmental safeguards. The plantation site is located about 300 meters away from settlements and farm roads whereby the labor can walk from their homes, which does not require the construction of a labor camp and toilet.

*3.4.1. Some of the potential negative impacts are the following:*

- Soil and hydrology disturbance
- Waste Generation
- Potential invasive species introduction
- Wildlife and domestic animal barrier

*3.4.2. Some of the potential negative impacts are*

- Grazing route restriction
- Potential restriction of local resource access
- Occupational Health and Safety



*Figure 8: Google map showing the location of Plantation are*

#### 4.Mitigation Measures for Environmental and Social Impacts

The following ESS and GESI mitigation measures are as per the approved ESS forms shared in the link ([Links for List of Approved ESS form for Year 8 BFL implementation](#))

| Potential impact                                                            | Impact scale       | Proposed mitigation measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Responsible Party                                                                    | Costs (million)   |
|-----------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------|
| <b>Activity 3.1: Operational support of Yangbari eco-camp</b>               |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                      | <i>Nu. 8.025M</i> |
| <b>Waste:</b><br>Generation of waste as a result of construction activities | Short-term (Minor) | <p><b>Pre-construction:</b></p> <ul style="list-style-type: none"> <li>Requirements for appropriate waste management will be included in the bidding documents, as a precondition for the contractor's selection</li> <li>Requirements for appropriate waste management will be briefed to the workers.</li> </ul> <p><b>During construction:</b></p> <ul style="list-style-type: none"> <li>Ensure that camps are located away from existing streams, rivers, or water sources that no discharge from camps is made into nearby water bodies;</li> <li>Proper containers/waste bins will be provided at the project site for disposing non-degraded waste such as plastic, bottles, plastic bags, etc.</li> <li>During the construction phase, all generated waste will be segregated and stored in designated site;</li> <li>All construction waste materials shall be covered during transportation to avoid waste dispersion;</li> <li>Burning of construction waste will be prohibited</li> </ul> <p><b>After construction:</b></p> <ul style="list-style-type: none"> <li>All construction waste such as broken bricks, plastics, bottles, glass, tin, CGI sheets, tiles, waste timbers, and bamboo shall be removed from the project site and dumped at the Amumshingwong dumpyard located about 15 km away from the construction site.</li> </ul> | Nature Conservation Section Head, BFL Focal, Gyalpoizhing Range Officer & Contractor |                   |

|                                                                                                                       |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                 |  |
|-----------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--|
| <p><b>Air quality:</b> dust as a result of construction works and possible emissions from transportation vehicles</p> | <p>Short-term<br/>(Minor)</p> | <p><b>Pre-construction:</b></p> <ul style="list-style-type: none"> <li>• Requirements to limit emissions will be included in the bidding documents, as a precondition for the contractor's selection;</li> </ul> <p><b>During Construction:</b></p> <ul style="list-style-type: none"> <li>• Construction materials will be stored in appropriate and covered places to minimize dust;</li> <li>• Construction site and materials handling sites will be water-sprayed on dry and windy days.</li> <li>• Vehicle loads likely to emit dust need to be covered;</li> <li>• Workers should wear protective masks if dust appears;</li> <li>• Vehicle speed will be restricted within the construction site;</li> <li>• The construction site will be fenced with a green net to prevent dust pollution and ensure safety.</li> </ul>                                                                                                                                                                                                                    | <p>Nature Conservation Section Head, BFL Focal, Gyalpoizhing Range Officer &amp; Contractor</p> |  |
| <p><b>Workers' health and safety</b></p>                                                                              | <p>Short-term<br/>(Minor)</p> | <ul style="list-style-type: none"> <li>• Laborers shall be provided with decent living housing/camp at the construction site</li> <li>• Safe drinking water will be tapped and provided</li> <li>• A toilet facility for the workers will be provided at the construction site</li> <li>• Safety gears (boot, safety jacket, hand gloves, mask, etc.) will be provided to workers at the construction site</li> <li>• Basic first Aid kits box shall be made available at the construction site with first-aid kits such as detox, cotton wool, sterilized cotton wool, bandages, PCM, burnt ointment, insect repellent.</li> <li>• The laborers shall have access to health facilities before and during construction activities as and when required.</li> <li>• Ensure that no under-age workers, or children, are engaged;</li> <li>• Implement a grievance redressal mechanism for workers;</li> <li>• Cautionary signboards displaying Occupational Health and Safety (OHS) information shall be installed at the construction site.</li> </ul> | <p>Nature Conservation Section Head, BFL Focal, Gyalpoizhing Range Officer &amp; Contractor</p> |  |

|                                                                                                                                                                 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                 |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--|
| <b>Noise disturbance:</b><br>Possible noise disturbance as a result of outdoor equipment usage and transportation vehicles driving around the construction site | Short-term<br>(Minor) | <b>Pre-construction:</b> <ul style="list-style-type: none"> <li>Requirements to limit noise pollution should be included in the bidding documents, as a precondition for the contractor's selection;</li> </ul> <b>During the construction:</b> <ul style="list-style-type: none"> <li>Restrict noisy construction activities to daytime working hours (8 am to 5 pm)</li> <li>Vehicles that are excessively noisy shall not be operated until corrective measures have been taken;</li> <li>Minimize noise disturbance by providing screening nets/CGI sheets within the construction site;</li> </ul>                                                                                                                                                                                                                                | Nature Conservation Section Head, BFL Focal, Gyalpoizhing Range Officer & Contractor                            |  |
| <b>Conflict between temporary workers and local communities (labor management)</b>                                                                              | Short-term<br>(Minor) | <ul style="list-style-type: none"> <li>Workers shall be widely briefed about the local culture and traditions, as well as the legal consequences of harassment and intimidation, especially with regards to sexual harassment and gender-based violence;</li> <li>Local communities shall be made aware of the engagement of temporary workers in project sites;</li> <li>Strict monitoring shall be carried out to ensure conflicts are minimized;</li> </ul>                                                                                                                                                                                                                                                                                                                                                                         | Nature Conservation Section Heads, BFL Focal, Gyalpoizhing Range Officer & Contractor                           |  |
| <b>Risk of Illegal Fishing</b>                                                                                                                                  |                       | <ul style="list-style-type: none"> <li>Fishing by the local communities within the Yangbari stretch will be restricted to support conservation and sustainable management.</li> <li>To prevent illegal fishing and to ensure local residents receive tangible benefits from sustainable ecotourism activities, an equitable benefit-sharing mechanism shall be established between the operator operating the ecolodge and the local community.</li> <li>The community will be advocated or sensitized on legal provision (FNCA and FNCRR 2023)</li> <li>SMART patrolling shall be conducted periodically to deter wildlife and forestry offenses.</li> <li>Joint patrolling will be carried out by the Gyalpoizhing Range Office, the local community, and the operator as identified through the concessionary framework.</li> </ul> | Nature Conservation Section Heads, BFL Focal, Gyalpoizhing Range Officer, local community, private entrepreneur |  |

| <b>Activity 3.2: Re-electrification of Staff Quarter, Lhuentse Range</b> |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                | <b>Nu. 0.25 m</b> |
|--------------------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------------------|
| <b>Waste: Generation of waste as a result of maintenance activities</b>  | Short-term (Minor) | <ul style="list-style-type: none"> <li>● <b>Pre-construction:</b></li> <li>● Requirements for appropriate waste management should be included in the bidding documents, as a precondition for the contractor's selection</li> <li>● Requirements for appropriate waste management should be briefed to the workers.</li> <li>● <b>During construction:</b> <ul style="list-style-type: none"> <li>○ Proper containers/waste bins shall be provided at the project site for disposing non-degraded waste such as plastic, bottles, plastic bags, etc.</li> <li>○ During the construction phase, all generated waste will be segregated and stored in designated site;</li> <li>○ The transportation and final disposal of construction waste should be undertaken after the construction.</li> <li>○ Burning of construction waste should be prohibited</li> </ul> </li> <li>● <b>After construction:</b> <ul style="list-style-type: none"> <li>○ All construction waste such as electric wires, sockets, plastics, and bottles shall be removed from the project site and dumped at Sumpa dumpyard located about 1.5 km away from the construction site. In case of noncompliance, a portion of the security deposit will be used to clean up the construction site.</li> </ul> </li> </ul> | BFL Focal, Lhuentse Range Officer & Contractor |                   |

|                                                                                                                              |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                |                   |
|------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------------------|
| <b>Workers' health and safety</b>                                                                                            | Short-term (Minor) | <ul style="list-style-type: none"> <li>• Laborers shall be provided with decent living housing/camp at the construction site</li> <li>• Safe drinking water will be tapped and provided</li> <li>• A toilet facility for the workers will be provided at the construction site</li> <li>• Safety gears (boot, safety jacket, hand gloves, mask, etc.) will be provided to workers at the construction site</li> <li>• Basic first Aid kits box shall be made available at the construction site with first aid kits such as detox, cotton wool, sterilized cotton wool, bandages, PCM, burnt ointment, insect repellent.</li> <li>• The laborers shall have access to health facilities before and during construction activities as and when required.</li> <li>• Ensure that no under-age workers, or children, are engaged;</li> <li>• Implement a grievance redressal mechanism for workers and maintain a proper registry;</li> <li>• A cautionary signboard detailing OHS display shall be installed at the site;</li> </ul> | BFL Focal, Lhuentse Range Officer & Contractor |                   |
| <b>Noise disturbance:</b>                                                                                                    | Short-term (Minor) | <ul style="list-style-type: none"> <li>• Construction activities shall be restricted to daytime hours (7:00 AM–7:00 PM), and no construction work shall be permitted during nighttime.</li> <li>• Earplugs and protecting devices shall be provided to workers on-site if necessary</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | BFL Focal, Lhuentse Range Officer & Contractor |                   |
| <b>Activity 3.3: Establishment of a modern medium-sized Nursery for quality tree seedling production at Sherichu, Mongar</b> |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                | <b>Nu. 3.794m</b> |
| <b>Generation of waste as a result of maintenance</b>                                                                        | Short-term (Minor) | <ul style="list-style-type: none"> <li>• The waste such as damaged polypot bags, old green nets, bottles, plastics, etc. shall be collected and disposed of in the waste bins and later dumped at the designated dumping yard.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | BFL Focal, Unit In-charge & Nursery In-charge  |                   |

|                                                                                      |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                               |  |
|--------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--|
| <b>Air and noise pollution</b>                                                       | Short-term (Minor) | <ul style="list-style-type: none"> <li>● In and around soil working sites (sieving, poly pot filling), green net fencing/CGI screening shall be provided to prevent dust pollution;</li> <li>● Nursery site and materials storage (topsoil, leaf mold, and sand) should be water-sprayed on dry and windy days;</li> <li>● Nursery workers shall be provided with protective masks during soil work;</li> <li>● Vehicle transporting nursery materials (topsoil, leaf mold, and sand) shall be covered with the tarpaulin;</li> <li>● For the maintenance of the existing infrastructure (nursery store, caretaker huts), requirements to limit noise pollution should be included in the bidding documents, as a precondition for the contractor's selection.</li> <li>● During the maintenance of nursery infrastructure, the maintenance work shall not be permitted during the nights; the operations on site shall be restricted to the hours 7am—7pm;</li> <li>● Screening of the infrastructure shall be done with GCI sheet/green net materials to prevent noise and air pollution</li> </ul> | BFL Focal, Unit In-charge & Nursery In-charge |  |
| <b>Accidental introduction or the risk of introducing forest pests and diseases.</b> | Short-term (Minor) | <ul style="list-style-type: none"> <li>● The collected materials like leaf mould, topsoil, and seeds will be treated prior to use in the nursery. This can include solarization (covering soil with plastic under sunlight for a few weeks), drying, or sieving to remove weed seeds.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nursery In-charge                             |  |

|                                                               |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                         |                 |
|---------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-----------------|
| <b>Workers' health and safety</b>                             | Short-term (Minor) | <ul style="list-style-type: none"> <li>• Laborers shall be provided with decent living housing/camp at the construction site</li> <li>• Safe drinking water will be tapped and provided</li> <li>• A toilet facility for the workers will be provided at the construction site</li> <li>• Safety gears (boot, safety jacket, hand gloves, mask, etc.) will be provided to workers at the construction site</li> <li>• Basic first Aid kits box shall be made available at the construction site with first aid kits such as detox, cotton wool, sterilized cotton wool, bandages, PCM, burnt ointment, insect repellent.</li> <li>• The laborers shall have access to health facilities before and during construction activities as and when required.</li> <li>• Ensure that no under-age workers, or children, are engaged;</li> <li>• Implement a grievance redressal mechanism for workers and maintain a proper registry;</li> <li>• A cautionary signboard detailing OHS display shall be installed at the site;</li> </ul> | CFO, BFL Focal & Unit In-charge                         |                 |
| <b>Activity 3.4: 10 ha plantation at Daksamanag under BC7</b> |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                         | <b>Nu. 2.5M</b> |
| <b>Soil and hydrology Disturbance</b>                         | Short-term Minor   | <ul style="list-style-type: none"> <li>• Proper layout and alignment shall be carried out to prevent soil erosion.</li> <li>• Planting pits shall be constructed along the contour as part of soil and water conservation.</li> <li>• Mulching of planting pits shall be carried out with leaf mold, and grass, soil, and water conservation measures on sloping areas will be adopted at the site.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | BFL Focal, Plantation Focal, Gyalpoizhing Range Officer |                 |
| <b>Waste Generation</b>                                       |                    | <ul style="list-style-type: none"> <li>• The waste such as damaged poly pot bags, bottles, plastics, etc. shall be collected and disposed of in the waste bins provided by the contractor, which later on will be dumped at the dumping yard.</li> <li>• The workers/labourers shall be briefed to bring back the food waste wrappers, plastics, mineral water bottles, etc. after the daily work</li> <li>• Burning of waste shall be prohibited;</li> <li>• Dumping of waste on the plantation sites, on private land, or in other non-designated places will be prohibited.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                          | BFL Focal, Plantation Focal, Gyalpoizhing Range Officer |                 |

|                                                        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                         |  |
|--------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--|
| <b>Potential Invasive Introduction</b>                 |  | <ul style="list-style-type: none"> <li>• The specific native timber species to be planted must be verified with the DoFPS to confirm the chosen species.</li> <li>• Avoid species with a known history of invasiveness in similar climatic zones.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                     | BFL Focal, Plantation Focal, Gyalpoizhing Range Officer |  |
| <b>Wildlife and domestic animal barrier</b>            |  | <ul style="list-style-type: none"> <li>• Wildlife movement corridors will be identified during planning and implementation of plantation fencing works. Such wildlife corridors shall be left unfenced for safe movement of wildlife.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                 | BFL Focal, Plantation Focal, Gyalpoizhing Range Officer |  |
| <b>Grazing Route restriction</b>                       |  | <ul style="list-style-type: none"> <li>• Traditional migration routes and animal trails will be identified and avoided during the consultation meeting.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                         |  |
| <b>Potential restriction of local resources access</b> |  | <ul style="list-style-type: none"> <li>• Community consultations will be conducted before project implementation, and their concerns and suggestions will be incorporated into project design and implementation.</li> <li>• Facilitate access from alternative sources for firewood, fodder, timber, or water where restrictions occur.</li> <li>• Local communities should be informed of the plantation objectives, species selection, fencing layout, and likely future forest-based livelihood opportunities.</li> <li>• Community clearance or social clearance for the land will be sought from the community.</li> </ul> | BFL Focal, Plantation Focal, Gyalpoizhing Range Officer |  |

|                                          |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                |  |
|------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|--|
| <p><i>Workers' health and safety</i></p> |  | <ul style="list-style-type: none"> <li>● Plantation workers shall be advocated and instructed to comply with basic safety gears such as gum boots, long-sleeve shirts, trouser jackets, etc.</li> <li>● Ensure that no underage workers, or children, are engaged in plantation work.</li> <li>● Basic first aid kits shall be made available at the plantation site (such as a detox kit, cotton wool, sterilized cotton wool, bandages, PCM, burnt ointment, and insect repellent).</li> <li>● 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;</li> <li>● A grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns shall be in place, and a proper registry shall be maintained.</li> </ul> | <p>BFL Focal, Plantation Focal, Gyalpoizhing Range Officer</p> |  |
|------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|--|

## 5. ESMP Implementation Arrangements

The implementation of project activities will be carried out by the BFL focal person in BC7, Divisional Forest Office, Mongar. The focal 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 BC7 for the year 2026. **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., a letter asking the municipality for disposal of inert waste, records on OHS information sessions performed for all workers before the start of activities, all developed OHS plans, etc.). **An OHS information session should be organized by the contractor for all workers prior to the start of the project activities and prior to any specific tasks with high health risks.**

The BC7 Supervising Engineer needs to monitor the implementation of proposed measures by the contractor and contractor's subcontractors with visual checking, review 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-compliance should be reported to the PCU (M&E Officer & ESS expert). 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 safeguard's requirements.

## 6. ESMP Monitoring Arrangements

The BFL focal person in the Divisional Forest Office, Mongar, 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. The protocol for monitoring of activities under this ESMP will be carried out as follows:

| SI# | Activities                                                                                              | Monitoring team                                         | Timeline      |              | Location             | Means of Verification                                                                        |
|-----|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------|---------------|--------------|----------------------|----------------------------------------------------------------------------------------------|
|     |                                                                                                         |                                                         | Start         | Complete     |                      |                                                                                              |
| 1   | Operational support of Yangbari eco-camp                                                                | <b>Field Focal</b> , Engineer and Gyalpoizhing RO       | August 2026   | June 2027    | Yangbari, Gongdue    | Field visit & Report                                                                         |
|     |                                                                                                         | <b>PCU:ESS&amp;GESI</b> , M&E Officer                   | Sep 2026      | October 2026 |                      |                                                                                              |
| 2   | Re-electrification of Staff Quarter, Lhuentse Range                                                     | <b>Field Focal</b> , Site Engineer and Lhuentse RO      | August 2026   | June 2027    | Tongkangla, Lhuentse | Field visit & report<br>PCU team do will virtual monitoring and compliance                   |
|     |                                                                                                         | <b>PCU:ESS&amp;GESI</b> , M&E Officer                   | December 2026 | January 2027 |                      |                                                                                              |
| 3   | Establishment of a modern medium-sized Nursery for quality tree seedling production at Sherichu, Mongar | <b>Field focal</b> , FRPMS section head, unit in-charge | December 2026 | June 2027    | Sherichu, Mongar     | Field visit & report<br>PCU will conduct monitoring as per M&E framework during eastern tour |
|     |                                                                                                         | <b>PCU:ESS&amp;GESI</b> , M&E Officer                   | Sep 2026      | October 2026 |                      |                                                                                              |

## 6. 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 activity is as follows:

| Sl. No. | Activity                                                                                                | Amount (Nu)              | Budget for ESS mitigation (Nu)                                                                                             |
|---------|---------------------------------------------------------------------------------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------|
| 1       | Operational support of Yangbari eco-camp                                                                | <i>Nu. 8.025million</i>  | To be part of contract agreement from the activity cost                                                                    |
| 2       | Re-electrification of Staff Quarter, Lhuenste Range                                                     | <i>Nu. 0.250 million</i> | To be part of contract agreement from the activity cost                                                                    |
| 3       | Establishment of a modern medium-sized Nursery for quality tree seedling production at Sherichu, Mongar | <i>Nu. 3.794million</i>  | Based on Norms & Standards for Nursery and Plantation 2020 and to be part of the contract agreement from the activity cost |
| 4       | Creation of 10 ha plantation at Daksamanag under Drepong Gewog                                          | <i>Nu. 2.5 million</i>   | Based on the norms & Standards for Nursery and Plantation 2020 and the forest management code of Bhutan                    |

## 7. Consultation and Disclosure Mechanisms

This ESMP has been prepared in consultation with the staff of the Divisional Head Office, Range Officer, and Units In-Charge. The ESMP will be disclosed to the local residents during the implementation, and their concerns, if any, will be addressed.

The complete English version of the ESMP, along with a Dzongkha version executive summary, will be made publicly available on the websites of the Ministry of Environment and Natural Resources (MoENR) and WWF-US GCF AE website, Bhutan for Life Program, Mongar Forest Division, and Dzongkhag Administration of Lhuentse and Mongar. Additionally, hard copies of the ESMP will be accessible at the Division head office and field offices.

## 8. Stakeholder Engagement Plan

For the operation of the Yangbari eco-camp, re-electrification of staff quarters, establishment of a modern medium-sized nursery for quality tree seedling production at Sherichu, and creation of a 10ha plantation at Daksamanag under Drepong Gewog, Mongar, we will seek administrative and financial approval (AAFS) from the Department of Forests and Park Services.

The local community residing near the planned BFL activities in BC-7 will be actively engaged throughout the implementation process. The consultation meeting will be organized if necessary during the activity's implementation, and these consultations may be combined with discussions for other BFL or non-BFL activities if feasible.

The report on the involvement of the stakeholders and communities (along with a list of participants, disaggregated by gender and age) will be submitted to the ESS & GESI Officer at PCU. The ESS & GESI officer 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.

## **10. Grievance Redressal Mechanisms**

This ESMP and its mitigation measures are required to be disclosed to communities for 30 days prior to the start of implementation of activities.

In addition, the BFL focal point is responsible for making local communities aware of the grievance mechanisms: the BFL-specific grievance mechanism, WWF's Grievance Mechanism, and the GCF Independent Review Mechanism.

### ***BFL-specific Grievance Mechanism***

A grievance redressal mechanism (GRM) is in place to address any grievances arising from the implementation of BFL activities, including resources; non-performance of project obligations, including safeguards; violation of law and/or corruption; project governance and implementation; fair access and benefit sharing; stakeholder engagement; labor-related issues and incidents; gender-related issues; and others.

If the stakeholders have any grievances related to the BFL project, they can report their grievances via letter, phone call, or verbally to the nearby gewog or forest offices. The report can also be sent to the BFL PCU office or WWF office. The specific brochure for the GRM is attached in the annexe II for any grievance related to the implementation of the project activities.

### ***WWF Grievance Mechanism***

A grievance can be filed with the Project Complaints Officer (PCO), a WWF staff member fully independent from the project team, who is responsible for the WWF grievance mechanism and who can be reached at:

Email: [SafeguardsComplaint@wwfus.org](mailto:SafeguardsComplaint@wwfus.org)

Mailing address:

Project Complaints Officer

Safeguards Complaints,

World Wildlife Fund

1250 24th Street NW

Washington, DC 20037

Stakeholders may also submit a complaint online through an independent third-party platform at <https://secure.ethicspoint.com/domain/media/en/gui/59041/index.html>

### ***GCF Independent Review Mechanism***

The Independent Review Mechanism (IRM) provides recourse to those affected or who may be affected by GCF projects. Complainants can find information on filing a complaint and proceed to file a complaint on the GCF IRM website: <https://irm.greenclimate.fund/case-register/file-complaint>.

## 11.Certification of Mitigation Measures and Approvals for ESMPs

This section serves to clarify that the Environmental and Social Management Plan (ESMP) and its associated mitigation measures are fully compliant with the BFL Environmental and Social Management Framework (ESMF) and have undergone the intensive review and approval process.

All the mitigation measures, environmental and social management prescriptions, and good practices outlined in this ESMP are based on the following approved documentation:

1. **Screening and Scoping Tools (SST):** The identification of potential impacts and subsequent mitigation measures are derived from the approved SST submitted to the PCU by IAs and approved by ESS & GESI experts in a WWF-US AE team.
2. **Site-specific template and endorsement from implementing agencies (IAs):** all mitigation actions are formulated as per the approved SST, ensuring they are mitigation prescriptions that are site-specific and relevant to the planned activities and are further endorsed from IAs for implementation.

This ESMP is hereby certified for implementation. All parties involved in the execution of the project activities are obligated to perform all proposed preventive and mitigation measures as detailed in the plan, and compliance with these measures is the prerequisite for the disbursement of project funds.

### ESMP prepared by (IAs)



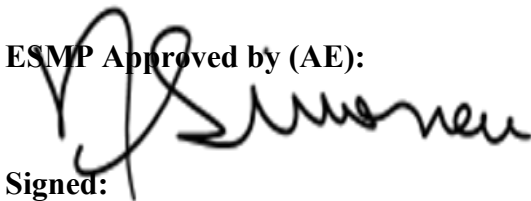
Name: Tshewang Tenzin  
Title: Sr. Forest Ranger III  
Date: 5/5/2026

### ESMP Reviewed by (PCU):



Name: Ugyen Dechen  
Title: Project Officer  
Date: 25<sup>th</sup> June 2026

### ESMP Approved by (AE):



Signed:  
Name: Nathalie Simoneau

Title: Senior Director – Gender, Social Inclusion & Safeguards  
Date: June 30, 2026

## ***Annexure I-BFL: OCCUPATIONAL HEALTH AND SAFETY STANDARDS***

Employers and supervisors are obliged to implement all reasonable precautions to protect the health and safety of workers. Implementing entities should hire contractors that have the technical capability to manage the occupational health and safety issues of their workers, extending the application of the hazard management activities through formal procurement agreements.

This section provides guidance and examples of reasonable precautions to implement in managing principal risks to occupational health and safety. It is based on the IFC's Environmental, Health, and Safety Guidelines (April 30, 2007)<sup>1</sup> and the Occupational Health and Safety Guidelines of Bhutan's Construction Development Corporation Ltd., which relies on the national Regulation on Occupational Health, Safety and Welfare 2012, Regulation on Working Conditions 2012 and Labour Act 2007, and in compliance to SI.No.21 of Regulation on Occupational Health, Safety and Welfare 2012.

### **1. General Facility Design and Operation**

#### **Integrity of Work place Structures**

Permanent and recurrent places of work should be designed and equipped to protect occupational health and safety:

- Surfaces, structures and installations should be easy to clean and maintain, and not allow for accumulation of hazardous compounds.
- Buildings should be structurally safe, provide appropriate protection against the climatic conditions, and have acceptable light and noise conditions.
- Fire resistant, noise-absorbing materials should, to the extent feasible, be used for cladding on ceilings and walls.
- Floors should be level, even, and non-skid.
- Heavy oscillating, rotating or alternating equipment should be located in dedicated buildings or structurally isolated sections.

***Severe Weather and Facility Shutdown:*** Work place structures should be designed and constructed to withstand the expected elements for the region and have an area designated for safe refuge (e.g., in case of earthquake).

***Workspace and Exit :*** The space provided for each worker, and in total, should be adequate for safe execution of all activities, including transport and interim storage of materials and products.

***Fire Precautions:*** The work place should be designed to prevent the start of fires. Other essential measures include:

- The work place shall be provided with adequate means of protection and escape in case of fire.
- The work place shall be provided with an adequate number of relevant fire extinguishers.
- Workers shall wear shoes without iron or steel nails or any other exposed ferrous materials which is likely to cause sparks by friction.
- Smoking, lightening, or carrying of matches, lighters or smoking materials shall be prohibited within and around the construction sites.
- All other precautions, as are reasonably practicable, shall be taken to prevent initiation of ignition from all other possible sources such as open flames, frictional sparks,

overheated surfaces of machinery or plant, chemical or physical, chemical reaction and radiant heat.

- At every workplace adequate provision of water supply for firefighting shall be provided and maintained.
- Facilities shall be equipped with firefighting equipment (e.g., fire extinguishing bottle). The equipment should be maintained in good working order and be readily accessible. It should be adequate for the dimensions and use of the premises, equipment installed, physical and chemical properties of substances present, and the maximum number of people present.
- Manual firefighting equipment shall be easily accessible and simple to use.
- Fire extinguishers and emergency alarm systems that are both audible and visible should be in place.
- Fire exits should be identified and marked in Dzongkha and English- all workers should be made aware of the fire exits.

***Lavatories and Showers*** :Adequate lavatory facilities (toilets and washing areas) should be provided for the number of people expected to work in the facility (one for at least one for every 20 workers). Toilet facilities should also be provided with adequate supplies of water and soap and also be connected to sewerage systems.

#### ***Potable Water Supply***

- Adequate supplies of clean drinking water should be provided to workers at the worksite.

#### ***Clean Eating Area***

- Where there is potential for exposure to substances poisonous by ingestion, suitable arrangements are to be made for provision of clean eating areas where workers are not exposed to the hazardous or noxious substances.

#### ***Lighting***

- Workplaces should receive adequate natural light and if required supplemented with artificial illumination to promote worker's safety and enable safe equipment operation.
- Emergency lighting of adequate intensity should be provided in case of failure of the power line.

#### ***Safe Access***

- Passage ways for pedestrians and vehicles within and outside buildings should be segregated and provide for easy, safe, and appropriate access.
- Equipment and installations requiring servicing, inspection, and/or cleaning should have unobstructed, unrestricted, and ready access.
- Covers need to be provided wherever necessary, if there is risk of falling off a head object.
- Measures to prevent unauthorized access to dangerous areas should be in place.

#### ***First Aid***

- The employer should ensure that qualified first-aid can be provided at all times. A sufficient number of first aid boxes or cupboards shall be provided and maintained so

as to be readily available during all working hours, provided that the distance of the nearest first aid box or a cupboard shall be not more than 200m from any working place.

- First aid kits include all equipment outlined in Annex 1 to these Guidelines.
- Each first aid box or a cupboard shall be distinctly marked "FIRST AID"

**Air Supply:** Work place should have adequate ventilation for fresh air

## **2. Information Provision on Occupational Health and Safety (OHS)**

2. The Contractor is responsible to hold an information session to familiarize all workers with the OHS procedures specified in these guidelines, in order to ensure they are apprised of the basic site rules of work at/on the site and of personal protection and preventing injury to fellow workers.
3. The information session should consist of basic hazard awareness, site-specific hazards, safe work practices, and emergency procedures for fire, evacuation, and natural disaster, as appropriate. Any site-specific hazard or color coding in use should be thoroughly reviewed as part of orientation training.

**3. Physical Hazards:** Physical hazards represent potential for accident or injury or illness due to repetitive exposure to mechanical action or work activity.

**Rotating and Moving Equipment:** Injury or death can occur from being trapped, entangled, or struck by machinery parts due to unexpected starting of equipment or unobvious movement during operations. Recommended protective measures include:

- Designing machines to eliminate trap hazards and ensuring that extremities are kept out of harm's way under normal operating conditions. Examples of proper design considerations include two-hand operated machines to prevent amputations or the availability of emergency stops dedicated to the machine and placed in strategic locations. Where a machine or equipment has an exposed moving part or exposed pinch point that may endanger the safety of any worker, the machine or equipment should be equipped with, and protected by, a guard or other device that prevents access to the moving part or pinch point. Guards should be designed and installed in conformance with appropriate machine safety standards.

## **Noise**

- No worker should be exposed to a noise level greater than 90 dB (A) for a duration of more than 8 hours per day without wearing earplugs/earmuffs.
- Exposures to impulsive or impact noise shall not exceed 140dB (A).
- For every 3 dB (A) increase in sound levels from the permissible limit of noise, the 'allowed' exposure period or duration should be reduced by 50 percent.
- Where it is not practicable to reduce the noise, the employer must limit the duration of time persons employed or working in the workplace are exposed to the noise so that such persons are not exposed to excessive noise.
- Prior to the issuance of hearing protective devices as the final control mechanism, use of acoustic insulating materials, isolation of the noise source, and other engineering controls should be investigated and implemented, where feasible.
- Periodic medical hearing checks should be performed on workers exposed to high noise

**Vibration:** In any workplace where persons are at work in any process or operation which involves exposure to vibration which may constitute a risk to their health, it shall be the duty of the employer to provide, so far as is reasonably practicable, effective means to reduce the vibration.

**Electrical:** Exposed or faulty electrical devices, such as circuit breakers, panels, cables, cords and hand tools, can pose a serious risk to workers. Overhead wires can be struck by metal devices, such as poles or ladders, and by vehicles with metal booms. Vehicles or grounded metal objects brought into close proximity with overhead wires can result in arcing between the wires and the object, without actual contact. Recommended actions include:

- Marking all energized electrical devices and lines with warning signs
- Locking out (de-charging and leaving open with a controlled locking device) and tagging-out (warning sign placed on the lock) devices during service or maintenance
- Checking all electrical cords, cables, and hand power tools for frayed or exposed cords and following manufacturer recommendations for maximum permitted operating voltage of the portable hand tools
- Double insulating/grounding all electrical equipment used in environments that are, or may become, wet; using equipment with ground fault interrupter (GFI) protected circuits
- Protecting power cords and extension cords against damage from traffic by shielding or suspending above traffic areas
- Appropriate labeling of service room using high voltage equipment ('electrical hazard') and where entry is controlled or prohibited
- Establishing "No Approach" zones around or under high voltage power lines
- Conducting detailed identification and marking of all buried electrical wiring prior to any excavation work
- Every person who is working on an electric supply line or apparatus or both shall be provided with tools and devices such as gloves, rubber shoes, and safety belts, ladders, earthing devices, helmets, line testers, hand lines whichever is relevant for protecting him/her from mechanical and electrical injury.

**Eye Hazards:** Solid particles from a wide variety of industrial operations, and/or a liquid chemical spray may strike a worker in the eye causing an eye injury or permanent blindness. Recommended measures include:

- Use of machine guards or splash shields and/or face and eye protection devices, such as safety glasses with side shields, goggles, and/or a full-face shield. Frequent checks of these types of equipment prior to use to ensure mechanical integrity is also good practice.
- Where machine or work fragments could present a hazard to transient workers or passers-by, extra area guarding or proximity restricting systems should be implemented, or PPE required for transients and visitors.

**Welding / Hot Work:** Welding creates an extremely bright and intense light that may seriously injure a worker's eyesight. In extreme cases, blindness may result. Additionally, welding may produce noxious fumes to which prolonged exposure can cause serious chronic diseases. Recommended measures include:

- Provision of proper eye protection such as welder goggles and/or a full-face eye shield for all personnel involved in, or assisting, welding operations. Additional methods may include the use of welding barrier screens around the specific work station.

**Working Environment Temperature:** Exposure to hot or cold working conditions in indoor or outdoor environments can result temperature stress-related injury or death. Use of personal protective equipment (PPE) to protect against other occupational hazards can accentuate and aggravate heat-related illnesses. Extreme temperatures in permanent work environments should be avoided through implementation of engineering controls and ventilation. Where this is not possible, such as during short-term outdoor work, temperature related stress management procedures should be implemented which include:

- Monitoring weather forecasts for outdoor work to provide advance warning of extreme weather and scheduling work accordingly.
- Providing temporary shelters to protect against the elements during working activities or for use as rest areas.
- Use of protective clothing
- Providing easy access to adequate hydration such as drinking water or electrolyte drinks.

**Ergonomics, Repetitive Motion, Manual Handling:** Injuries due to ergonomic factors, such as repetitive motion, overexertion, and manual handling, take prolonged and repeated exposures to develop, and typically require periods of weeks to months for recovery. These OHS problems should minimize or eliminated to maintain a productive workplace. Controls may include:

- Use of mechanical assists to eliminate or reduce exertions required to lift materials, hold tools and work objects, and requiring multi-person lifts if weights exceed thresholds (adult man- 50kg, adultfemale-25kg)
- Selecting and designing tools that reduce force requirements and holding times, and improve postures
- Incorporating rest and stretch breaks into work processes, and conducting job rotation
- Implementing quality control and maintenance programs that reduce unnecessary forces and exertions

**Working at Heights:** Fall prevention and protection measures should be implemented whenever a worker is exposed to the hazard of falling more than two meters; into operating machinery; into water or other liquid; into hazardous substances; or through an opening in a work surface. Fall prevention / protection measures may also be warranted on a case-specific basis when there are risks of falling from lesser heights. Fall prevention may include:

- Installation of guard rails with mid-rails and toe boards at the edge of any fall hazard area & Proper use of ladders and scaffolds by trained workers
- Use of fall prevention devices, including safety belt and lanyard travel limiting devices to prevent access to fall hazard area, or fall protection devices such as full body harnesses used in conjunction with shock absorbing lanyards or self-retracting in retail fall arrest devices attached to fixed anchor point or horizontal life-lines
- Appropriate training in use, serviceability, and integrity of the necessary PPE
- Inclusion of rescue and/or recovery plans, and equipment to respond to worker safer an arrested fall

**Illumination:** Work area light intensity should be adequate for the general purpose of the location and type of activity, and should be supplemented with dedicated work station illumination, as needed. Controls should include:

- Use of energy efficient light sources with minimum heat emission
- Undertaking measures to eliminate glare/reflections and flickering of lights

- Taking precautions to minimize and control optical radiation including direct sunlight.
- Exposure to high intensity UV and IR radiation and high intensity visible light should also be controlled
- Controlling laser hazards in accordance with equipment specifications, certifications, and recognized safety standards. The lowest feasible class Laser should be applied to minimize risks.

**3. Personal safety equipment for workers:** All workers are equipped with the following personal safety equipment: helmet, gloves, ordinary boots and reflective vest. Workers that are exposed to dust should also be provided with eye protection glasses and face mask. Workers that are exposed to noise should be provided with ear plugs. Workers that need to work in the dark should be provided with hand and cap lamps. Workers are instructed regarding safety equipment as follows:

- Always wear complete set of protective wear.
- Do not wear loose clothing, such as overhang shirt, jackets, mufflers etc.
- Tuck shirt and jacket well.
- Secure helmet with belt under the chin.
- Tuck the bottom sleeves of trouser inside safety boot.
- Dress with reflector

## **5. Standards for workers' accommodation**

### ***1. General living facilities***

- The location of the facilities is designed to avoid flooding or other natural hazards
- The living facilities are located within areas on able distance from the worksite.
- Transport is provided to work sites and free if the accommodation is reasonably far from the worksite.
- The living facilities are built using adequate materials, kept in good repair and kept clean and free from waste and refuse.

**2. Drainage:** The site is adequately drained.

**3. Heating, air conditioning, ventilation and light:** Living facilities are provided with adequate heating, ventilation, and light systems including emergency lighting.

### ***4. Water***

- Workers have easy access to a supply of clean/potable water in adequate quantities.
- The quality of the water complies with national/local requirements and is regularly monitored.
- Tanks used for the storage of drinking water are constructed and covered to prevent water stored there in from becoming polluted or contaminated.
- The quality of the drinking water

**5. Waste water and solid waste:** Wastewater, sewage, food and any other waste materials are adequately discharged in compliance with national and/or international standards and without causing any significant impacts on camp residents, the environment or surrounding communities. And Specific containers for waste collection are provided and emptied on a regular basis.

### ***6. Rooms/dormitories facilities***

- Rooms/dormitories are kept in good condition. They are aired and cleaned at regular intervals.
- Rooms/dormitories are built with easily cleanable flooring material.
- Rooms/dormitories and sanitary facilities are located in the same buildings.

- Residents are provided with enough space.
- The number of workers sharing the same room/dormitory is minimized.
- Doors and windows are lockable and provided with mosquito screens when necessary.
- Separate sleeping areas are provided for men and women.
- A separate bed is provided for every worker and use of double deck bunks is minimized.
- Workers are provided with comfortable mattresses. Workers may be expected to use their own pillows and bed linens.
- Adequate facilities for the storage of personal belongings are provided.
- Separate storages for work clothes and PPE and depending on condition, drying/airing areas are provided.

#### ***8. Sanitary and toilet facilities***

- Sanitary and toilet facilities are constructed from materials that are easily cleanable.
- Sanitary and toilet facilities are cleaned frequently and kept in working condition.
- Toilets, showers/bathrooms and other sanitary facilities are designed to provide workers with adequate privacy including ceiling to floor partitions and lockable doors.
- Separate sanitary and toilet facilities are provided for men and women.
- Toilet and shower facilities are conveniently located and easily accessible.
- Toilet facilities are environmentally friendly (e.g, pit toilet) and sewage is not disposed of into the worksite.
- Open defecation in the vicinity of project sites should be prohibited.
- An adequate number of hand wash basins and showers/bathrooms facilities are provided.

***9. Cooking and laundry facilities:*** Cooking and laundry facilities should be available for workers at the work site or in close vicinity to it. These facilities should be kept in clean and sanitary conditions.

**Annex1. Contents of first aid box or cup-boards:** The first aid boxes or cup-boards shall be distinctively marked with white cross on a green background and shall contain the following equipment:

1. Small sterilized dressings (12)
2. Medium size sterilized dressings (6)
3. Large size sterilized dressings (6)
4. Large size sterilized burn dressings (6)
5. (1/2oz.) Sterilized cotton wool (6 packets)
6. (2oz.) Bottle containing a two percent alcoholic solution of iodine (1)
7. (2oz.) Bottle containing Betadine (antiseptic solution) having the dose and mode of administration indicated on the label (1)
8. Roll of adhesive plaster(1)
9. A snake bite lancet(1)
10. Torch light(1)
11. Pair of scissors(1)
12. Tablets Aspirin(5gms)2 dozen
13. Burn Ointment (2tubes)
14. Dettol (2 phial, about 2 ozs)
15. Bandages 4 inches wide
16. Bandages 2 inches wide
17. Triangular bandages(2)
18. Packets of safety pins(1)
19. A supply of suitable splint

## Annexure II- BFL specific GRM Brochure



### HOW TO FILE YOUR COMPLAINT

To file your complaint, please contact any of the designated individuals provided below. You may maintain anonymity if you prefer.

#### HEAD OFFICE

- Pema Yangden
- 117432406
- pyangden@moenr.gov.bt
- CFO, Mongar Forest Division, Mongar

#### LHUNTSE RANGE OFFICE

- Sangay Chedup
- 17755528
- sangaychedup16@gmail.com
- Lhuntse Range Office, Lhuntse

YOU MAY ALSO CONTACT THE BFL PROJECT COORDINATION UNIT (PCU) OR FUND SECRETARIAT (FS) AT:

#### BFL FUND SECRETARIAT (FS)

- Kuenzang Tobgay
- 17750414
- kuenzangtobgay@bfl.org.bt
- Bhutan For Life Fund Secretariat, Royal Textile Academy, Thimphu

#### GYALPOIZHING RANGE OFFICE

- Tenzin Lhendup
- 17653876
- tenzinl@mongar.gov.bt
- Gyalpoizhing Range Office, Mongar

#### KORILA FOREST MANAGEMENT UNIT

- Dawa Norbu
- 17818204
- dawnors86@gmail.com
- Tangmachu Beat Office, Lhuntse

#### BFL PROJECT COORDINATION UNIT (PCU)

- Ugyen Dechen
- 117491881
- ugyendechen@gmail.com
- BFL Project Coordination Unit, Department of Forests and Park Services, Ministry of Energy and Natural Resources, Thimphu

IF YOU ARE NOT COMFORTABLE FILING YOUR COMPLAINTS AT PROTECTED AREA OFFICES, YOU MAY ALSO FILE YOUR COMPLAINTS AT THE NEAREST FOLLOWING GEWOG OFFICES:

1. Gongdue Gewog - 17383492
2. Ngatshang Gewog - 17687788
3. Gangzur Gewog - 17700922

IF THE NATIONAL PROCESS OF GRM IS UNABLE TO RESOLVE THE GRIEVANCE, COMPLAINTS MAY ALSO BE FILED WITH WORLD WILDLIFE FUND (WWF).

Write to the WWF GCF Accredited entity at:  
SafeguardsComplaint@wwf.us.org  
Project Complaints Officer, Safeguards Complaints, World Wildlife Fund 1250 24th Street NW Washington, DC 20037

COMPLAINTS MAY ALSO BE FILED WITH THE WWF INDEPENDENT REDRESS MECHANISM (IRM) OPTION. COMPLAINT CAN BE FILED BY:

- Sending it by mail or email at [irm@gcfund.org](mailto:irm@gcfund.org)
- Sending a voice or video recording
- Filling out the online complaints form available at:  
<https://gcf.isight.com/external/case/new/group=Complaint>

A complaint for IRM should generally include:

- Name, address and contact information
- A description of the programme (caused adverse impacts to the complainant)
- A description of how the complainants have been/maybe adversely impacted by the project/programme
- Whether confidentiality is being requested and the reasons for it.

COMPLAINTS MAY ALSO BE FILED WITH THE WWF THIRD PARTY GRIEVANCE REPORTING MECHANISM BY USING ETHICS POINT WEBSITE AT:

<https://secure.ethicspoint.com/domain/media/en/gui/59041/index.html>

This mechanism can receive reports online or by phone in multiple languages.

IF YOU ARE UNSATISFIED WITH THE COMPLAINT RESOLUTION PROCESS, YOU CAN APPEAL TO:

GRM Appeal Committee, Bhutan For Life Project, DoFPS, Thimphu, Bhutan.