

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 Phibsoo Wildlife Sanctuary, describes mitigation measures/good practices at activity level which are required as per the screening protocol. All the screened activities which has potential risks to environment and social management have to prepare 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 2025 under Phibsoo Wildlife Sanctuary are:

1. Invasive species management at Nichula
2. Annual River bank protection, Longa River, PWS
3. Construction of outpost Staff Quarter at Phibsoo
4. Maintenance of Nichula Range Office

བཀོད་ཁུབ་བཟུང་དོན།

འབྲུག་རྒྱལ་ཡོངས་སློབ་ཀྱི་ཆོ་སྒྲུབ་མ་དངུལ་འདི་མཐའ་འཁོར་གནས་སྤངས་དང་མི་ཐཱེ་འོས་འབབ་ཅན་གྱི་ལས་འགུལ་གྱི་དབྱེ་ལག་ ཁ་བ་(Category B) བྱང་ལུ་རྒྱུད་དེ་ཡོད་པ་ཡིན། དེ་ཡང་ལས་འགུལ་འདི་ལས་བརྟེན་ཏེ་སྤྲད་སྟོབ་ས་ཁོངས་ནང་སྟོད་མིའི་མི་སེར་དང་ ཡང་ན་ སྤྲད་སྟོབ་ས་ཁོངས་ཀྱི་མཐའ་ རྫོང་ཏེ་འཛོལ་སྤྲད་སྟོབ་ས་ཁོངས་ལུ་བརྟེན་སྟོད་མིའི་མི་སེར་ ཡང་ན་ གཤམ་ཅན་གྱི་མཐའ་རྫོང་གནས་སྤངས་ཀྱི་ས་ཁོངས་རྩལ་གཞོན་པ་འབྱུང་མིའི་ཉེན་ ཁ་ཡོད་པ་ད་ གཤམ་སྤྲད་གཞོན་པ་འབྱུང་པ་ཅིན་ གཞོན་ཉེན་རྩུང་མིགས་གསལ་ས་གནས་ནང་རྒྱུང་པ་ཅིག་འབྱུང་ནི་དང་ གཞོན་ཉེན་མར་ལབ་རྒྱལ་ནི་དང་ རྩ་མེད་ཡང་གཏང་རྩུགས་པ་ཡིན།

དེ་འབད་ལཱ་ལས་ འབྲུག་ཁྱབ་ཡོངས་མིང་ཀའི་ཚེ་ཞྲག་མ་དངུལ་ཚོག་ལུ་ ཁྱབ་རྒྱའི་འབད་ཡོད་པའི་ལས་འབྲུལ་དང་ལས་རྩ་ཚུ་ མཐའ་འཁོར་གནས་
 ལྷངས་དང་མི་ལྷོ་གཉིས་ལུ་ཡུན་བརྟན་གྱི་པན་བ་ཡོད་པ་བཟོ་བགི་མ་ཚད་ འབྲུག་ཁྱབ་ཡོངས་མིང་ཀའི་ཚེ་ཞྲག་མ་དངུལ་གྱི་ཡིད་ལྷུས་ལས་རྩོན་དང་འཁོལ་
 ཐབས་ལུ་ མཐའ་འཁོར་གནས་ལྷངས་དང་མི་ལྷོ་འཛིན་རྒྱུང་འཆར་གཞི་འདི་དགོལ་དེ་ མི་དཔངས་ཁྲོས་བརྒྱན་དང་ ཏུས་དང་ཏུས་ལུ་མི་དཔངས་ལུ་གསང་
 བ་བཤད་ནི་འདི་དགོལ་ཨིན།

རང་བཞིན་གནས་སྤངས་དང་མི་ཐེ་འཛིན་སྤྱོད་འཆར་གཞི་འདི་ནང་། མིང་ཀ་དང་ཕྱོག་ཆགས་ཚུན་ལས་ཚུ་ནང་ལས་ལྷ་ཚུ་འབད་བའི་སྐབས་ ཐབས་ལམ་
 དང་བཟང་སྤྱོད་ཚུ་གསལ་སྟོན་འབད་མ་ཨིནས་ད་ འདི་ཡང་ལས་སྤེའི་གདམ་སེལ་ལམ་ལུགས་དང་འབྲིལ་ཏེ་ཨིན། གདམ་སེལ་འབད་ཡིད་བའི་ལས་སྤེ་གི་
 རང་ལས་ མཐའ་འཁོར་གནས་སྤངས་དང་མི་ཐེ་ལུ་གཞོན་ཉེན་ཡོད་བའི་ལས་སྤེ་ཚུ་གི་དོན་ལུ་ མཐའ་འཁོར་གནས་སྤངས་དང་མི་ཐེ་འཛིན་སྤྱོད་འཆར་
 གཞི་བཟོ་དགོ། འཛིན་སྤྱོད་འཆར་གཞི་འདི་ནང་ ལས་སྤེ་འགོ་མ་བཅུགས་པའི་དེ་མ་གཞི་བཅུགས་འབད་བའི་སྐབས་དང་མཇུག་བཟུམ་ད་ལུ་ མཐའ་འཁོར་
 གནས་སྤངས་འཛིན་སྤྱོད་དང་གཞོན་ཉེན་མར་སལ་གྱི་ཐབས་ལམ་ཚུ་བཅུགས་དགོབ་ཨིན།

དེ་འབད་ལ་ལས་འཛིན་རྒྱུང་འཆར་གཞི་འདི་ནང་ལས་སྐྱལ་མི་སྡེ་ལཱ་འགན། བདེ་རྒྱུང་དང་སྐྱམ་ལྷུ་དེ་ལས་སྐྱེའོག་ལམ་ལུགས་ཚུ་གི་རྒྱུར་ལས་འབྲེལ་བཤུང་ཁ་གསལ་ཚུང་དགོས་ཨིན། འཛིན་རྒྱུང་འཆར་གཞི་འདི་ནང་ལཱ་གཤམ་གཏོགས་འབད་དགོ་པའི་ཁེ་གུང་ཡོད་མི་ཚུ་གི་ཉམ་བཤུང་ཚུ་ཚུང་དགོ་པའི་ཁར་ཁེ་གུང་ཡོད་པའི་མི་ཚུ་གི་དོན་ལཱ་གཤམ་འཆར་གཞི་འདི་ནང་ལཱ་གཏོགས་འཆར་གཞི་འདི་ནང་ཁེ་ལམ་ལུགས་དེ་ལས་སྐྱེའོག་ལམ་ལུགས་ཀྱི་དུས་ཚོད་དང་བཅའ་ཁྲིམ་ཚུ་ཚུང་དགོས་ཨིན། སྤྱིར་ཀྱང་ཕྱོག་ཆགས་རྒྱུན་ལམ་ཡིན་ཆང་ཚུ་གི་མཆར་གཞི་ལས་སྐྱེ་དང་འབྲེལ་ཏེ་དབར་ཐོང་དང་སྐྱམ་ལྷུ་བསྐྱར་ཞིབ་ཚུམ་དབྱེད་འབད་ནི། དེ་ལས་མཐའ་འཁོར་གནས་སྐབས་དང་མི་སྡེ་འཛིན་རྒྱུང་འཆར་གཞི་འདི་ལོ་བསྐྱར་བཞིན་དུ་དུས་མཐུན་བཟོ་དགོས་ཨིན།

ཐེངས་འདིར་དུགས་སྤྱང་སྒྲིབ་ས་ཁོངས་ཀྱི་དོན་ལུ་སྒྱུ་ལོ་ ༢༠༢༥ ནང་མཐའ་འཁོར་ན་གནས་སྐངས་དང་མི་ཐེ་འཛིན་སྒྲིབ་འཆར་གཞི་དགོད་ཡོད་པའི་ལས་
ལྔ་ཚུ་ཡང་།

༡༩ གི་ཅུ་ལ་ལུ་ བཅན་འཇུལ་ཅི་གིང་རིགས་འཛིན་སྐྱོང་འབད་ནི།

ཨོ་ལོང་ག། རིང་ཁྱུ་བླ། ཁྱུ་བྲག་འི་ལས་སྤྱ་འབད་ནི།

༣༩ ཐིའ་ཐུ་ལུ་ ལས་བྱེད་པ་རྒྱུ་ཁྱིམ་བཞོ་བསྐྱེན་འབད་ནི་དང་།

༤། བི་རུ་ལ་ རྟགས་ཚལ་གྲིང་འཛིན་ཡིག་ཚང་ ཉམས་བཅོས་འབད་ནི།

Bhutan for Life

Draft Environmental and Social Management Plan for Phibsoo Wildlife Sanctuary (PWS) 2025

1. Introduction

1.1 Project Background

The Bhutan for Life (BFL) project aims to ensure a robust network of Protected Areas (PA's) and Biological Corridors (BC's) that secure human well-being, biodiversity conservation and increase climate resilience in Bhutan. The project shall sustain for 14-years, in this duration an immediate improvement to the management of Bhutan's protected areas for climate resilience and biodiversity gains are sought. Meanwhile the country would gradually ratchet 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 socioeconomic well being of communities in the vicinity of the PA's through climate-informed natural resources management;
- Maintain stable, thriving, and diverse populations of key species contributing toward national and global biodiversity goals; and
- Strengthen organizational, institutional, and financial capacity for effective management of PAS. BFL includes five components that reflect these goals, divided into 16 milestones (or outputs) and over 80 detailed activities.

1.2 Scope of ESMP

The preparation of this Environmental and Social Management Plan (ESMP) was deemed necessary in order to manage the environmental and social impacts. The mitigation actions required to implement the project was 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 the applicable national legislation and regulations.

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

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

1.3 Purpose of ESMP

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

- Minimizing any adverse environmental, social and health impacts resulting from the project activities;
- Conducting all project activities in accordance with the relevant RGoB Laws and

- WWF's safeguard operational policies and guidelines;
- Preventing environmental degradation as a result of either individual 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; and
- Ensuring that all stakeholders are engaged in the project activities' preparation and implementation, and their concerns are fully addressed.

1.4 Applicable law, policies, and regulation

This ESMP is developed in strict adherence and compliance to the guidelines set forth in BFL's ESMF.

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

WWF's safeguards policies that are relevant to this project are as follows:

- Policy on Environment and Social Risk Management;
- Policy on Protection of Natural Habitats;
- Policy on Involuntary Resettlement; Policy on Indigenous Peoples;
- Standard on Pest Management;
- Policy on Accountability and Grievance System;
- Standard on Physical Cultural Resources;
- General standards on both occupational and community health and safety and energy efficiency.

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

Regarding social impacts, the status of non-title holders and informal land use, and the commitment to participatory decision-making processes conclude the primary discrepancies between the RGoB laws and regulations and the WWF's SIPP. First, according to the WWF's SIPP, all users of land and natural resources (including people that lack any formal legal

ownership title or usage rights) are eligible to some form of assistance or compensation if the project adversely affects their livelihoods. The RGoB laws only recognize the eligibility of land owners or formal users to receive compensation in such cases. Second, the WWF's SIPP require extensive community consultations during the project in order to develop various safeguards documents. RGoB legislation does not include three requirements reflected in SIPP. For the purpose of the BFL project, the provisions of the WWF's SIPP shall prevail over the RGoB legislation in all cases of discrepancy.

2. Environmental and Socio-economic Conditions

Geological and topographical conditions

Phibsoo Wildlife Sanctuary (PWS) was created in 1974 along with five other protected areas as Phibsoo Reserved Forest. Later in 1993, it was upgraded to a wildlife sanctuary following a comprehensive review and revision of the national protected areas system. However, it only started its management independently in September 2014 upon separation from Sarpang Forest Division with its conservation management plan 2012-2017. Phibsoo Wildlife Sanctuary, the smallest protected area in Bhutan encompasses an area of 287.18 sq.km. It is located in the Himalayan foothills of south central Bhutan. The wildlife Sanctuary is divided into two range offices, Phibsoo Range with 167.74 sq.km to the east and Nichula Range office with 119.44 sq.km to the west. The northern part of wildlife sanctuary shares Beteni gewog boundary under Tsirang Dzongkhag between 26°51'51.04"N, 90°1'12.88"E to 26°50'58.69"N, 90°7'51.52"E with Biological Corridor (BC3) connecting the wildlife sanctuary on north eastern side. Eastern part of wildlife sanctuary falls in Singe gewog under Sarpang Dzongkhag between 26°51'0.02"N, 90°8'43.85"E to 26°46'22.37"N, 90°11'35.01"E. It's southern boundary follows Indo Bhutan international border with Ripu-Chirang Reserved Forest on the Indian side starting from Border pillar 117/1 to 145/1 till Senge gewog. While it's western boundary shares the gewog boundary of Lhamoyzingkha, Deorali, and Tsendagang from 26°42'36.01"N, 89°51'40.45"E to 26°51'5.56"N, 89°59'26.59"E flanked by Sunkosh river.

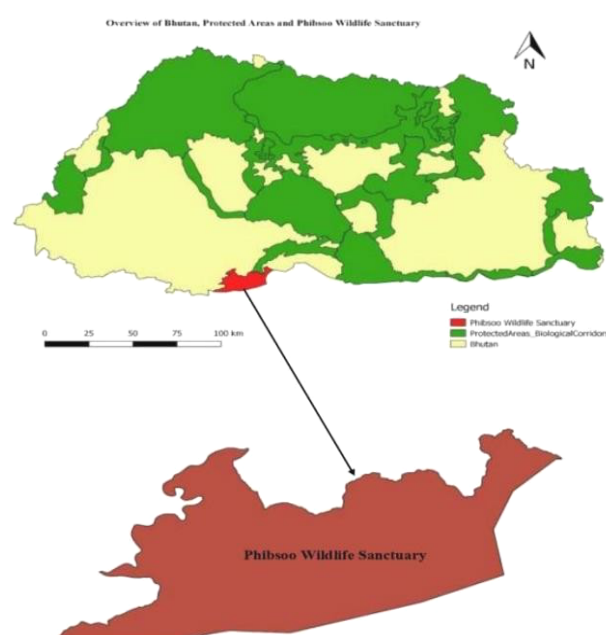


Figure 1: Location of Phibsoo Wildlife Sanctuary

PWS shares the fertile soil of southern Bhutan with loamy and sandy loam soil covering the entire region of Wildlife Sanctuary. The soil favors the growth of various cereals and crops to the resident of PWS. The Wildlife Sanctuary falls under humid subtropical climate of the country and experiences hot summer and cold winter ranging in its elevation from 75 masl - 1800 masl. It is also known for the lowest elevation range in Bhutan at Nichula gewog under Dagana Dzongkhag. PWS receives incessant summer rainfall which remains wet for the entire season while winter is often welcomed by dry and sunny weather

Climatic conditions

PWS falls in Sarpang and Dagana district with elevation ranging from less than 200 to 3000 meter above sea level (FRMD, 2017). Sarpang district experiences a maximum temperature of 27.6° C with annual total rainfall of 5930.3 mm (BSC, 2017). The district is dominated by subtropical and warm broadleaved forest with forest coverage of 78% (NFI, 2016). On the other hand, Dagana district ranges its elevation from 100 m to 4700 m above sea level. It falls in subtropical zone with annual rainfall ranging from 750 mm to 2000 mm. Therefore, PWS experiences hot summers with incessant monsoon and cool winters on average.



Figure 2 : Rangers crossing swollen rivers in Monsoon and Rangers clearing roadblocks

Hydrological conditions

Besides perennial and transitional rivers formed during monsoon, Sunkosh River, one of the major river in Bhutan drains through the plains of the Wildlife Sanctuary. The river source two hydroelectric power projects in Bhutan viz. PHPA I and PHPA II. Perennials Rivers such as Longa River, Phibsoo River and Nichula River forms an important watershed of PWS. These rivers shelter the home to critically endangered White-bellied Heron in Bhutan. Waterholes and spring water sources are distributed in the Wildlife Sanctuary contributing to the functioning of ecosystem. Waterholes are distributed densely in lower foothills of the Wildlife Sanctuary.

Flora and fauna

PWS is of immense conservation significance for Bhutan, the region and the world at large. Not only does the sanctuary protect the country's southernmost variant of sub-tropical Himalayan forest ecosystem but is also a critical source of several seasonal and perennial water bodies which contribute to the fertility of the Assam Duars. The sanctuary happens to be the easternmost limit of spotted deer (*Axis axis*), common peafowl (*Pavo cristatus*) and sal (*Shorea robusta*) bearing forests. It is also the only place where natural stands of sal and spotted deer can be sighted. At the same time, PWS is the western most limit of the globally threatened golden langur (*Trachypithecus geei*) and the rare and valuable agar tree (*Aquillaria malaccensis*). It also provides refuge to a number of charismatic and globally threatened species including the Asian elephant (*Elephas maximus*), Bengal tiger (*Panthera Tigris tigris*), Chinese Pangolin (*Manis pentadactyla*), Rufous-necked hornbill (*Aceros nipalensis*) and White-bellied Heron (*Ardea insignis*). Besides, lush alluvial grassland provides safe refuge to the prey species for keystone species.

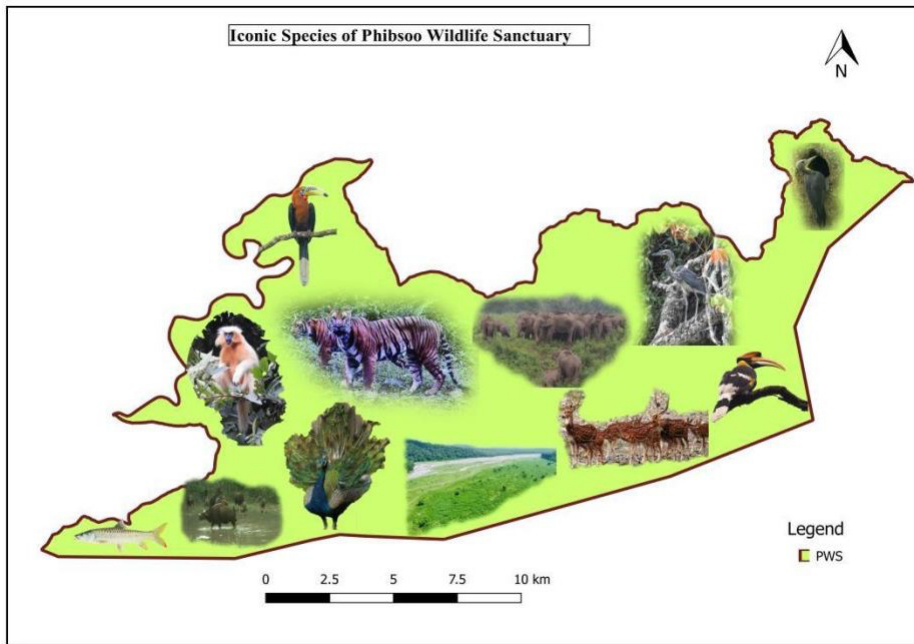


Figure 3: Iconic Species of Phibsoo Wildlife Sanctuary

Vegetation surveys recorded 358 species of plant belonging to 75 families. Total of 137 trees were distributed in 47 families, 81 shrubs in 30 families, 96 herbs in 31 families and 44 orchids in orchidae family. Overall PWS harbors about 17.5% of the country's mammal diversity and most of them being globally important. Among faunal diversity 59% is avifauna and current status of bird record is 418 species belonging to 81 families. The rapid biological survey on herpeto-fauna in 2020 results 60 species belonging to 16 families. Rapid fish survey conducted in 2020 has recorded 23 species of fishes belonging to 7 families. Rapid butterfly diversity conducted in 2020 recorded 177 species belonging to five families. Nymphalidae constitute 46% followed by Lycaenidae 18%, Pieridae 13% Papilionodae 12% and Hesperidae 11%. Zonation of the wildlife sanctuary was carried out following protected area zonation guideline 2020 which consists of four zones; Core zone, Transition zone, Buffer zone and Multiple use zone (Figure 4).

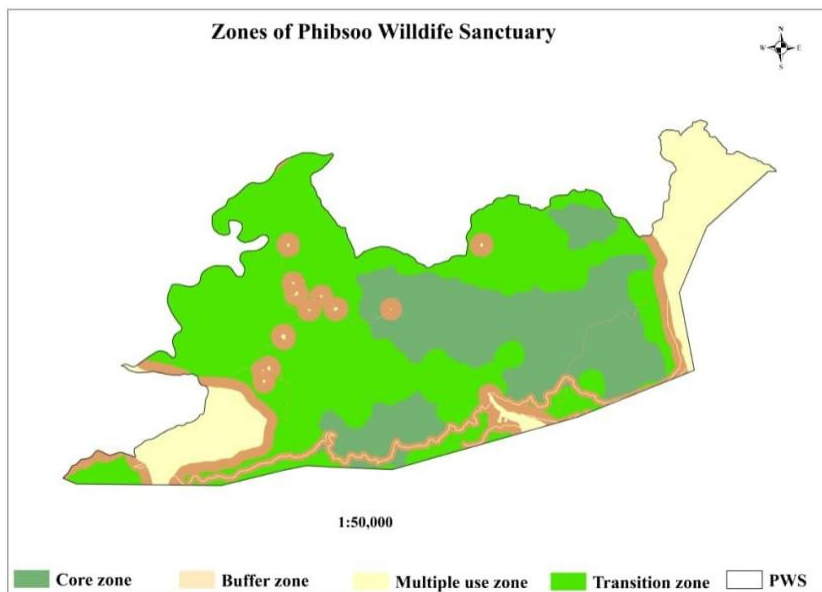


Figure 4: Zones of Phibsoo Wildlife Sanctuary

Socio-economic conditions

The PWS socio-economic survey, carried out in May 2017, lists 21 villages and hamlets in PWS. These villages and hamlets shelter a total population of 2,611, of which 1,254 people (48%) live inside the sanctuary with population density of 4.7 people /km². PWS has settlements of two gewogs with a total of 366 residents and 80 Gungtongs. The total population is 2957 with 1925 in Singye gewog and 1032 in Nichula Gewog.

3. Planned activities for January 2025 - June 2026

Activity 3.1 Invasive species (*Lantana Camera*) management

a. *Budget*: Nu. 500,000

b. *Timeline*: October 2025 - December, 2025

c. *Location*: Nichula

Nichula Gewog, located in one of the remote regions of Dagana Dzongkhag, comprises 104 households across five chiwogs. With an altitude ranging from 200 m to 1500 m, agriculture remains the primary source of livelihood for the residents. However, invasive species, particularly *Lantana camara*, have heavily infested the Nichula range and surrounding communities. This invasion poses significant health risks to both the community and livestock. If left unmanaged, *Lantana camara* will continue to spread, further degrading the ecosystem.

To control its spread, an invasive species management program will be implemented from October 2025 to December 2025. The strategy involves: Uprooting the plant, including its roots, collecting uprooted plants in an earth pit and controlled burning, where feasible, to prevent regrowth. The execution of this project will be carried out through a community contract, employing 20 local workers from nearby villages by involving the community through manual operation of invasive species management. Given that the worksite is within the community, workers will arrange their own accommodation, as is the common practice.

To ensure the well-being of workers, the project will adhere to proper wage rates and maintain hygiene and safety standards throughout the implementation period. This initiative not only addresses the ecological threat posed by *Lantana camara* but also provides economic opportunities for local youths and residents.



Figure 5: Invasive species (*Lantana camara*) management area, Nichula, Dagana

Potential social and environmental impacts

The implementation of the Lantana camara management program is expected to bring several environmental and social benefits. However, some potential negative impacts must be considered and mitigated effectively.

1. Environmental Impacts

Waste Issues: While the primary activity involves uprooting and controlled burning, the use of construction materials (such as cement, if required for containment or disposal pits) may generate waste. Improper disposal could lead to environmental pollution.

Air Quality Concerns: Controlled burning of uprooted Lantana camara may contribute to air pollution and pose health risks if not managed properly.

Soil Disturbance: The uprooting process may cause soil erosion, particularly in sloped areas, leading to potential land degradation.

2. Social Impacts

Workers' Health and Safety: The physical nature of the work, including uprooting and burning, may lead to injuries if proper safety measures are not enforced. Exposure to smoke from burning *Lantana camara* may affect respiratory health. Potential encounters with wildlife or venomous species in the work area could pose safety risks.

Activity 3.2 River Bank protection/Riprap set-up at Phibsoo and Longa River, PWS

a. *Budget:* Nu. 100,000

b. *Timeline:* October 2025- March 2026

c. *Location:* Phibsoo outpost

The construction of riverbank protection and riprap at Phibsoo Outpost aims to prevent the erosion of grassland and alluvial soil near the Phibsoo and Longa rivers, which are at risk of being washed away by flash floods during the monsoon season. The project involves the construction of an approximately 500 meter riprap along each riverbank with the required width to effectively reduce erosion and strengthen the riverbanks. Scheduled to take place from October 2025 to March 2026, the six-month project will be executed through a community contract, employing 20 to 30 local workers from Sengye Gewog. Since the project site is within the community, workers will arrange their own accommodation as per common local practice. However, fair wages, proper hygiene, and safety measures will be ensured throughout the implementation period. Workers will be provided with personal protective equipment (PPE), and first-aid kits will be available on-site, with regular safety briefings conducted to maintain a secure working environment. Upon completion, a Standard Operating Procedure (SOP) will be established to ensure long-term maintenance and sustainability of the riprap structures. The initiative not only enhances flood resilience but also creates employment opportunities for the local community.



Figure 6: Proposed area to construct river bank protection riprap structure at Phibsoo outpost.

Potential social and environmental impacts

Following are some the possible common environmental and social impacts foreseen during the implementation of the proposed activities:

- Noise and disturbance: construction activities and the increased human presence in the area may disrupt wildlife behavior, potentially affecting their natural habitats and breeding patterns.
- Waste issues: Use of cements and other construction materials is likely to create waste issues
- Workers Health and Safety: Laborers will be exposed to various occupational hazards.

Activity 3.3 Construction of Outpost Staff Quarter (16 Units) PWS

a.Budget: Nu. 4,415,000/-

b.Timeline: October 2025- June 2026

c.Location: Phibsoo outpost

Phibsoo Wildlife Sanctuary currently houses 12 captive elephants under the care of 19 mahouts (elephant caretakers). However, due to a shortage of quarters, the mahouts are currently residing in temporary tarpaulin sheds, which provide inadequate living conditions. To address this, the construction of staff quarters is planned from October 2025 to June 2026, aiming to improve both the working and living conditions of the mahouts.

The construction will involve key activities such as digging, clearing, and building. As the designated site falls within state reserve forest land, there are no conflicts over user rights with the local community. Additionally, the Phibsoo Outpost is situated 25 km away from the nearest settlement, further minimizing any social or land-use concerns. The project will be internally managed, with PWS staff and nearby gewog community members participating in the construction, ensuring fair compensation for their contributions.

Following the engineer's estimation and technical sanction, the construction will utilize locally available resources, including dead, dying, and wind-fallen trees as well as gravel and stones from the outpost to optimize resource efficiency. The Phibsoo staff and community members involved in the construction will be accommodated at Phibsoo Outpost, where essential services will be made available to support the workforce throughout the project duration.



Figure 7: Existing mahout quarter and the engineer drawing of new mahout quarter

Potential social and environmental impacts

Following are some of the environmental and social impacts foreseen during the implementation of the proposed activities:

- Vegetation destruction: Clearing of land for construction may result in the loss of natural vegetation.
- Noise and disturbance: Construction activities and increased human presence in the area can disrupt wildlife behavior, affecting their natural habitats and breeding patterns.
- Waste generation: Construction projects often generate a significant amount of waste, including construction debris, which if not managed properly, can have negative impacts on the environment.
- Workers Health and Safety

Activity 3.4 Maintenance of Nichula Range office, PWS

a.Budget: Nu. 1,000,000

b.Timeline: October 2025- March 2026

c.Location: Nichula Range, PWS, Dagana

Nichula Gewog, located in a remote area of Dagana Dzongkhag, consists of 104 households grouped into five chiwogs, with an altitude ranging from 200 m to 1500 m. Agriculture is the primary source of livelihood for the residents. The maintenance of the Nichula Range office is crucial to ensure that there are no interruptions in forestry services, which directly impacts the well-being and satisfaction of the nearby communities.

The maintenance work is planned to take place from October 2025 to March 2026 over a 6-month period. This will be carried out under a community contract/awarding tender to the contractor. The contractor or the community contractor of primarily local youth and residents, will arrange their own accommodation, following the customary practice in the community.

During the execution of the work, proper wage rates, hygiene, and safety measures will be ensured. Additionally, social arrangements for the long-term maintenance of the office will be included in the standard operating procedure after the completion of the project. This approach aims to enhance the community's satisfaction while ensuring efficient service delivery.



Figure 8: Nichula range office current condition

Potential social and environmental impacts

Following are some the possible common environmental and social impacts foreseen during the implementation of the proposed activities:

- Noise and disturbance: Construction activities and increased human presence in the area can disrupt wildlife behavior, affecting their natural habitats and breeding patterns.
- Waste issues: Use of cements and other construction materials is likely to create waste issues
- Workers Health and Safety

4.Mitigation Measures for Environmental and Social Impacts

Potential impacts to the environment and society along with the mitigating measures are listed below in the table

Potential impact	Impact scale	Proposed mitigation measures	Responsible Party	Cost
<i>Invasive species (Lantana Camera) management</i>				Nu. 500,000
1. Waste generation	Minor (Short term)	● Monitor construction sites by the monitoring in charge ● Provide proper container and waste bins at project sites; ● Any construction-related waste will be collected and disposed of responsibly, with reusable materials recycled where possible.	Nichula Range BFL focal	To be incorporated in bidding document
2. Worker's health and Safety	Minor (Short term)	● Follow the workers' health and safety guidelines as attached to the ESMP (BFL guidelines); ● Ensure regular health screening for the workers pre and during activities; ● Ensure that no underage workers, or children are engaged; ● Decent work conditions, including an appropriate salary, working hours, accommodation and food for workers shall be provided to all workers; ● Workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, job assignment, termination of employment, and disciplinary practices; and ● A grievance mechanism for workers to raise workplace concerns should be in place ● Workers will be provided with protective gear such as gloves, masks, and boots. First-aid kits will be available on-site, and safety briefings will be conducted.	Nichula Range BFL Focal	To be incorporated in bidding document
<i>River Bank protection/Riprap set-up at Phibsoo and Longa River, PWS</i>				Nu. 1,000,000
1. Noise and Disturbance	Minor (Short term)	● Provide noise control ear accessories to the workers ● Create awareness to the workers to regularly use the noise control accessories		To be part of the activity cost
2. Waste generation	Minor (Short term)	● Cleaning regularly and brief in charges to collect e-waste after completion of	Phibsoo Range BFL Focal	To be part of the activity cost

		daily assigned task; ● Provide proper container and waste bins at project sites; ● Waste dumping beside designated sites prohibited; ● Concept of Reduce, Reuse and Recycle must be followed and implemented.		
3. Worker's health and Safety	Minor (Short term)	● Follow the workers' health and safety guidelines as attached to the ESMP (BFL guidelines); ● Ensure regular health screening for the workers prior to and during activities; ● Ensure that no underage workers, or children are engaged; ● Decent work conditions, including an appropriate salary, working hours, accommodation and food for workers shall be provided to all workers; ● Workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, job assignment, termination of employment or retirement, and disciplinary practices; and ● A grievance mechanism for workers to raise workplace concerns should be in place.	Phibsoo Range BFL Focal	To be part of the activity cost
<i>Construction of Outpost Staff Quarter (16 Units) PWS</i>				Nu. 4,415,000
1. Vegetation destruction	Minor (Short term)	● Less destruction to vegetation ● Replanting native vegetation can help restore the vegetation if destroyed ● Utilizing only dead, dying and wind fallen timbers from the site	Phibsoo Range BFL Focal	To be incorporated in bidding document
2. Noise and Disturbance	Minor (Short term)	● Provide noise control ear accessories to the workers ● Create awareness to the workers to regularly use the noise control accessories	Phibsoo Range BFL Focal	To be incorporated in bidding document
3. Waste generation	Minor (Short term)	● Monitor construction sites by the monitoring in charge ● Provide proper container and waste bins at project sites; ● Any construction-related waste will be collected and disposed of responsibly, with reusable materials recycled where possible.	Phibsoo Range BFL Focal	To be incorporated in bidding document

4. Worker's health and Safety	Minor (Short term)	● Follow the workers' health and safety guidelines as attached to the ESMP (BFL guidelines); ● Ensure regular health screening for the workers pre and during activities; ● Ensure that no underage workers, or children are engaged; ● Decent work conditions, including an appropriate salary, working hours, accommodation and food for workers shall be provided to all workers; ● Workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, job assignment, termination of employment, and disciplinary practices; and ● A grievance mechanism for workers to raise workplace concerns should be in place ● Workers will be provided with protective gear such as gloves, masks, and boots. First-aid kits will be available on-site, and safety briefings will be conducted.	Phibsoo Range BFL focal	To be incorporated in bidding document
Maintenance of Nichula Range office, Dagana				Nu. 1,000,000
1. Noise and Disturbance	Minor (Short term)	● Provide noise control ear accessories to the workers ● Create awareness to the workers to regularly use the noise control accessories	Nichula Range BFL focal	To be part of the activity cost
2. Waste generation	Minor (Short term)	● Cleaning regularly and brief in charges to collect e-waste after completion of	Nichula Range BFL focal	To be part of the activity cost
3. Worker's health and Safety	Minor (Short term)	● Follow the workers' health and safety guidelines as attached to the ESMP (BFL guidelines); ● Ensure regular health screening for the workers pre and during activities; ● Ensure that no underage workers, or children are engaged; ● Decent work conditions, including an appropriate salary, working hours, accommodation and food for workers shall be provided to all workers; ● Workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, job assignment, termination of employment, and disciplinary practices; and ● A grievance mechanism for workers to raise workplace concerns should be in place ● Workers will be provided with protective gear such as gloves, masks, and boots. First-aid kits will be available on-site, and safety briefings will be conducted.	Nichula Range BFL focal	To be incorporated in bidding document

4. ESMP Implementation arrangements

The implementation of project activities will be carried out by the BFL focal person, the Phibsoo Range Officer (Range Office Focal), and the Nichula Range Officer (Range Office Focal) in PWS. The BFL focal person and the respective range officer or site in charge will be responsible for ensuring compliance with all procedures outlined in this ESMP.

The BFL focal person at PWS will be responsible for obtaining any required clearances, permits, approvals, or consent documents from relevant authorities and stakeholders. This ESMP should be incorporated into the community contract and shared with the respective range office or assigned site in charge. The BFL focal person will circulate the ESMP to the range officers to ensure its implementation and strict compliance for the year 2025-2026.

The range officer or site in charge is obligated to implement all proposed preventive and mitigation measures related to environmental and social impacts as outlined in this plan. Additionally, they must maintain records of any documents related to these measures, such as letters requesting municipal disposal of inert waste, records of Occupational Health and Safety (OHS) information sessions conducted for all workers before the start of activities, and all developed OHS plans.

An OHS information session must be organized by the BFL focal person, range officer, site in charge, and work implementer for all workers before the commencement of project activities. Additionally, a session must be conducted before any specific tasks that involve high health risks.

The PWS's Supervising Engineer with BFL focal needs to monitor the implementation of proposed measures by range officer or site in charge with visual checking, reviewing the records of evidence that the measures have been applied and ask the range officer/site in charge to apply the measures as soon as possible. Non-compliance should be recorded and the report on any noncompliance should be reported to the ESS officer, PWS immediately, and the ESS officer will report it to the PCU (M&E Officer). 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.

5. ESMP monitoring arrangements

The BFL focal person in PWS 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. PWS's PA is also fully responsible for the compliance of all external contractors and service providers working in the PWS with the safeguards requirements outlined in the ESMP. The monitoring of activities under this ESMP will be carried out in the following manner:

Sl. No.	Activities	Monitoring team	Timeline		Location	Means of Verification
			Start	Complete		
1	Invasive species (Lantana Camera) management	Field Focal	October 2025	December 2025	Nichula range	Field visits and reports
		ESS Focal	November 2025	December 2025		
2	River Bank protection/Riprap set-up at Phibsoo and Long River, PWS	Field Focal	October 2025	March 2026	Phibsoo outpost	Field visits and reports
		ESS Focal	February 2025	March 2026		
3	Construction of Outpost	Field Focal	October 2025	June 2026	Phibsoo outpost	Field visits and reports

	Staff Quarter (16 Units) PWS	ESS Focal	March 2026	June 2026		
4	Maintenance of Nichula Range office	Field Focal	October 2025	March 2026	Nichula range	Field visits and reports
		ESS Focal	December 2025	March 2026		
5	Animal Rescue and Rehabilitation Center Construction at Wangchulingka Outpost	Field Focal	October 2025	June 2026	Phibsoo Outpost	Field visits and reports
		ESS Focal	December 2025	June 2026		

- Monitoring by implementing entities:
 - At least weekly field visits
 - Monthly reports prepared by implementing entities and submitted to ESS officer at PCU
- Monitoring by ESS officer at PCU:
 - At least one field visit by ESS officer
 - Quarterly reports by ESS officer to the PCU (M&E officer)
- Quarterly reports by PCU (M&E officer) to Secretariat
- Bi-annual reports of the Secretariat to WWF US (as part of mid-year and final APRs)

6. Capacity Need and Budget

Activities under this ESMP will be implemented by the BFL focal person, supervising engineer, and range officer/site incharge that will employ workers as mentioned in ESMP. The budget for the activities are as bulleted below:

Sl. No.	Activity	Amount (Nu.)	Budget for ESS mitigation
1	Invasive species (Lantana Camera) management	500,000	To be part of the activity cost
2	River Bank protection/Riprap set-up at Phibsoo and Longa River, PWS	1000,000	To be part of the activity cost
3	Construction of Outpost Staff Quarter (16 Units) PWS	4.415.000	To be part of the activity cost
4	Maintenance of Nichula Range office	1000,000	To be part of the activity cost
	Total (Nu.)	6,915000	

The proposed activities are of very small scale and there are no adverse social and environmental impacts which require mitigation measures. Therefore, separate funds for mitigation measures are not proposed.

7. Consultation and Disclosure Mechanisms

This ESMP has been developed through a participatory approach, with community consultation scheduled on March 2025 at Nichula Gewog Office and Phibsoo Geowg Office. Local community representatives such as the Gup (Gewog head), Mangmi, and Tshogpa has been engaged to discuss planned project activities, particularly regarding Invasive species management at Nichula range area/locality, maintenance of Nichula range office, construction of staff quarter at Phibsoo outpost and construction of riprap at Phibsoo outpost. This consultation aims to gather their opinions and allow them to inquire about proposed mitigation measures.

The complete English version of the ESMP, along with a Bhutanese executive summary, will be made publicly available on the websites of the Ministry of Environment and Natural Resources (MoENR) and WWF, Bhutan Program. Additionally, hard copies of the ESMP will be accessible at the PA Management Office and the PCU Office.

8. Stakeholder engagement plan

The local community residing near the planned BFL activities in PWS will be actively engaged throughout the implementation process. Prior to commencing any construction activities, such as invasive species management, construction of river bank protection/ riprap, maintenance of Nichula range office and the construction of staff quarter at Phibsoo outpost, a consultation meeting will be convened. Subsequent consultations 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.

Official minutes of the consultation meetings, including a list of participants disaggregated by gender and age, will be compiled by the BFL focal and submitted to the ESS officer at PCU within one week after each consultation's conclusion. The ESS officer will then forward the consultation reports to the PCU's Monitoring and Evaluation (M&E) officer within one week of receipt. Semi-annual reports will be submitted by the PCU's M&E officer to the Secretariat, ensuring comprehensive oversight of community engagement efforts.

9. 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, on resources, non-performances of project obligation 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 BLF project they can report their grievances via letter, phone call or verbally to nearby gewog or forest offices. The report can also be sent to the BFL PCU office or WWF office. The procedures to file grievances related to the project is mentioned in the BFL GRM brochure attached in the annexure.

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

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>.

Annexure I

BFL: Suggested 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) 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 Sl. No. 21 of Regulation on Occupational Health, Safety and Welfare 2012.

1. General Facility Design and Operation

Integrity of Workplace 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 climate, 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

- Workplace 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 workplace should be designed to prevent the start of fires through the implementation of fire codes applicable to industrial settings. Other essential measures include:

- The workplace shall be provided with adequate means of protection and escape in case of fire.
- The workplace shall be provided with 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.
- 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.
- Equipping facilities 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.

Lavatories and Showers

- Adequate lavatory facilities (toilets and washing areas) should be provided for the number of people

expected to work in the facility (at least one for every 20 workers). Toilet facilities should also be provided with adequate supplies of hot and cold running water and soap.

Potable Water Supply

- Adequate supplies of potable drinking water should be provided to workers at the work site.

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, to the degree feasible, receive natural light and be supplemented with sufficient artificial illumination to promote workers' safety and health, and enable safe equipment operation. Supplemental 'task lighting' may be required where specific visual acuity requirements should be met.
- Emergency lighting of adequate intensity should be installed upon failure of the principal artificial light source to ensure safe shut-down, evacuation, etc.

Safe Access

- Passageways 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 should, if feasible, be installed to protect against falling items.
- 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 stall be not more than 200m from any working place.

- First aid kits include all equipment outlined in Annex 1 to these Guidelines.
- Remote sites should have written emergency procedures in place for dealing with cases of trauma or serious illness up to the point at which patient care can be transferred to an appropriate medical facility.

Work Uniform

- The contractor shall provide a working uniform to each worker.
- All workers shall be required to attend the duty in proper uniform unless otherwise instructed by the Contractor.

Air Supply

- Sufficient fresh air should be supplied for indoor and confined workspaces. Factors to be considered in ventilation design include physical activity, substances in use, and process related emissions. Air distribution systems should be designed so as not to expose workers to draughts.
- Re-circulation of contaminated air is not acceptable. Heating, ventilation and air conditioning (HVAC) systems should be equipped, maintained and operated so as to prevent growth and spreading of disease agents (e.g. Legionella pneumophila) or breeding of vectors (e.g. mosquitoes and flies) of public health concern.

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

- 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.
- 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 85 dB(A) for a duration of more than 8 hours per day without hearing protection. In addition, no unprotected ear should be exposed to a peak sound pressure level (instantaneous) of more than 140 dB(C).
- The use of hearing protection should be enforced actively when the equivalent sound level over 8 hours reaches 85 dB(A), the peak sound levels reach 140 dB(C), or the average maximum sound level reaches 110dB(A). Hearing protective devices provided should be capable of reducing sound levels at the ear to at least 85 dB(A).
- Although hearing protection is preferred for any period of noise exposure in excess of 85 dB(A), an equivalent level of protection can be obtained, but less easily managed, by limiting the duration of noise exposure. For every 3 dB(A) increase in sound levels, the 'allowed' exposure period or duration should be reduced by 50 percent.
- 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 levels.

Vibration

Exposure to hand-arm vibration from equipment such as hand and power tools, or whole-body vibrations from surfaces on which the worker stands or sits, should be controlled through choice of equipment, installation of vibration dampening pads or devices, and limiting the duration of exposure.

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 rooms housing high voltage equipment ('electrical hazard') and where entry is controlled or prohibited
- Establishing "No Approach" zones around or under high voltage power lines
- Rubber tired construction or other vehicles that come into direct contact with, or arcing between, high voltage wires may need to be taken out of service for periods of 48 hour and have the tires replaced to prevent catastrophic tire and wheel assembly failure, potentially causing serious injury or death
- Conducting detailed identification and marking of all buried electrical wiring prior to any excavation work

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.
- Provisions should be made for persons who have to wear prescription glasses either through the use over glasses or prescription hardened glasses.

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 (a solid piece of light metal, canvas, or plywood designed to block welding light from others). Devices to extract and remove noxious fumes at the source may also be required.

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, and avoiding consumption of alcoholic beverages

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 be minimized or eliminated to maintain a productive workplace. Controls may include:

- Facility and workstation design with 5th to 95th percentile operational and maintenance workers in mind
- 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
- 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 guardrails 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 inertial 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 workers after 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.

4. 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 a reasonable distance from the worksite.
- Transport is provided to worksite safe and free.
- The living facilities are built using adequate materials, kept in good repair and kept clean and free from rubbish and other 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 or WHO standards.
- Tanks used for the storage of drinking water are constructed and covered to prevent water stored therein from becoming polluted or contaminated.
- The quality of the drinking water is regularly monitored.

5. Wastewater 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.
- Specific containers for rubbish collection are provided and emptied on a regular basis.
- Pest extermination, vector control and disinfection are undertaken throughout the living facilities at least once.

6. Rooms/dormitories facilities

- Rooms/dormitories are kept in good condition.
- Rooms/dormitories 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.
- Mobile partitions or curtains are provided.
- Adequate number of furniture such as table, chair, mirror, and lamps are provided for all workers.
- Separate sleeping areas are provided for men and women.

7. Bed arrangements and storage facilities

- A separate bed is provided for every worker.
- The practice of “hot-bedding” is prohibited.
- There is a minimum space of 1 meter between beds.
- The use of double deck bunks is minimized.
- If double deck bunks are in use, there is enough clear space between the lower and upper bunk of the bed.
- Workers are provided with comfortable mattresses. Workers may be expected to use their own pillows and bed linens.
- Workers wash bed linen frequently and applied with adequate repellents and disinfectants (where conditions warrant).
- 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 facilities are conveniently located and easily accessible.
- Toilet facilities are environmentally friendly (e.g., pit toilet) and sewage is not disposed 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.
- Shower facilities are provided with water heating facilities.

9. Cooking and laundry facilities

Cooking and laundry facilities should be available for workers at the worksite or in close vicinity to it. These facilities should be kept in clean and sanitary conditions.

10. Leisure, social and telecommunications facilities

- Basic social collective spaces should be available to workers.
- Workers are provided with dedicated places for religious observance, as appropriate.
- The employer provides workers with local sim cards that can be used for communication on their personal cell phones.

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. (1/2 oz.) Sterilized cotton wool (6 packets)
6. (2oz.) Bottle containing a two per cent 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) Torch light (1)
10. Pair of scissors (1)
11. Tablets Aspirin (5gms) 2 dozen
12. Burn Ointment (2 tubes)
13. Dettol (2 phial, about 2 ozs)
14. Bandages 4 inches wide
15. Bandages 2 inches wide
16. Triangular bandages (2)
17. Packets of safety pins (1)
18. A supply of suitable splin

Annexure II - BFL GRM Brochure for PWS



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.

BFL FOCAL OFFICER

- Khandu Tshomo
- 17460936
- khandut@moenr.gov.bt
- Shariphu Head Office, Singye Gewog, Sarpang

PHIBSOO RANGE OFFICE

- Tshering Nidup
- 17685292
- tsheringnidup@moenr.gov.bt
- Phibsoo Range Office, Singye Gewog, Sarpang

NICHULA RANGE OFFICE

- Lax Man Tamang
- 17829840
- laxamntamang@gmail.com
- Nichula Range Office, Lamoizingkha Gewog, Dagana

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

- Nichula Gewog – 17749899
- Sengye Gewog – 17626508

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 GCF INDEPENDENT REDRESS MECHANISM (IRM) OPTION. COMPLAINT CAN BE FILED BY:

- Sending it by mail or email at 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.

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

BFL PROJECT COORDINATION UNIT (PCU)

- Ugyen Dechen
- 17491881
- ugyendeche@gmail.com
- BFL Project Coordination Unit, Department of Forests and Park Services, Ministry of Energy and Natural Resources, Taba, Thimphu