

Bhutan for Life
Environmental and Social Management Plan for
Social Forestry Extension Division
(2021)

1. Introduction (A)

(A) Project Background

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

- Help Bhutan remains carbon neutral by increasing forest and vegetative cover within the Protected Area System;
- Enhance the socio-economic wellbeing of communities in and in the vicinity of the PAS through climate-informed natural resources management;
- Maintain stable, thriving and diverse populations of key species contributing toward national and global biodiversity goals; • Strengthen organizational, institutional, and financial capacity for effective management of PAs BFL includes five components that reflect these goals, divided into 16 milestones (or outputs) and over 80 detailed activities.

(B) Scope of ESMP

The preparation of this Environmental and Social Management Plan (ESMP) was required in order to manage the environmental and social impacts through and specific mitigation actions required to implement the project in accordance with the requirements of WWF’s 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 BFL focal person in each park authority (PA) and biological corridor (BC), and by the contractor to be commissioned by each PA/BC for the project.

(C) Purpose of ESMP

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

- Minimizing any adverse environmental, social and health impacts resulting from the project activities;
- Conducting all project activities in accordance with the relevant RGoB Laws and WWF's safeguard operational policies and guidelines;
- Preventing environmental degradation as a result of either individual subprojects or their cumulative effects;
- Enhancing the positive environmental and social outcomes of project activities;
- Ensuring that the proposed mitigation measures are feasible and cost-efficient;
- Providing an Action Plan to ensure that the project impact mitigation measures are properly implemented and monitored;
- Ensuring that all stakeholders are engaged in the project activities' preparation and implementation, and their concerns are fully addressed.

(D) Applicable law, policies, and regulation

This ESMP is developed by following the guidelines as set forth in the BFL's ESMF. Applicable RGoB laws and policies include the Constitution of the Kingdom of Bhutan, 2008; legislation on land and moveable property (Land Act of Bhutan 2007; Land Rules, 2007; The Moveable Cultural Property act of Bhutan, 2005); legislation and regulations on forests and protected areas (National Environment Protection Act, 2007; Forest and Nature Conservation Act of Bhutan, 1995; Forest and Nature Conservation Rules and Regulations of Bhutan, 2017; National Forest Policy, 2011); legislation on water and waste prevention (Water Act of Bhutan, 2011; Waste Prevention and Management Act, 2009); legislative requirements on environmental assessment (Environmental Assessment Act, 2000 and Regulations on the Environmental Clearance of Projects, 2001); and other relevant laws (The Local Government Act of Bhutan, 2009; Livestock Act of Bhutan, 2001; The Biodiversity Act of Bhutan, 2003; The Pesticides Act of Bhutan, 2000; The Penal Code of Bhutan, 2004; National Access and Benefit Sharing (ABS) Policy (Draft), 2014). WWF's safeguards policies that are relevant to this project are as follows: Policy on Environment and Social Risk Management; Policy on Protection of Natural Habitats; Policy on Involuntary Resettlement; Policy on Indigenous Peoples; Standard on Pest Management; Policy on Accountability and Grievance System; Standard on Physical Cultural Resources; as well as general standards on occupational and community health and safety and on energy efficiency. In

general, RGoB's laws, policies, and guidelines are in line with the WWF's environmental and social safeguards requirements. However, there are a few differences between the two systems. With regard to environmental impacts, there are no direct contradictions between the RGoB laws and regulations and the WWF's SIPP, but the requirements of the latter are more extensive. All project activities should fully comply both with the RGoB's Regulations on the Environmental Clearance of Projects, and with the procedures and mitigation measures prescribed in this ESMF. In case that the WWF's SIPP requirements are more extensive, strict, or detailed than the RGoB legislation and policies, the former will apply to all project activities. With regard to social impacts, the primary discrepancies between the RGoB laws and regulations and the WWF's SIPP refer to the status of non-title holders and informal land use, and the commitment to participatory decision-making processes. First, according to the WWF's SIPP, all users of land and natural resources (including people that lack any formal legal ownership title or usage rights) are eligible to some form of assistance or compensation if the project adversely affects their livelihoods. The RGoB laws only recognize the eligibility of land owners or formal users to receive compensation in such cases. Second, the WWF's SIPP require extensive community consultations as part of the development of various 3 safeguards documents and during project activities. RGoB legislation does not include similar requirements. For the purposes of the BFL project, the provisions of the WWF's SIPP shall prevail over the RGoB legislation in all cases of discrepancy.

2. Environmental and Socio-Economic Conditions: (in the plantation area)

| Sl. No | Location PA or BC | Ecological and topological condition | Climatic condition | Hydrological condition | Flora and Fauna | Socio economic condition |
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| 1 | BC6_Trashigang | The general topography for this corridor is moderate to steep slope ranging from zero degrees to more than 35 degrees. | It falls within the Humid subtropical climate or Subtropical Oceanic highland climate (Cwb) as per the Koppens climates classification of Bhutan. Majority (80 %) of areas falls under temperate, dry winter and warm summer (Cwb), While the northern areas experiencing cold, dry winter, warm summer (Dwb). Annual Mean temperature is 20.80°C. The areas experience a mean precipitation of 2164.9 mm per year. | The rivers, stream and water bodies contribute to about 0.02 Percent (0.05Sq.Km) of the total corridor area. Mainly consisting from portion of <i>Nyera Ama</i> river in West and <i>Jomorii</i> in East. Water bodies such as small lake, ponds, marshland and waterhole are found in its natural extent | 20 Mammals, 107 Birds and 157 plant species (2019). However, with revision and extension of areas from 160 sq. km to 270 sq.km, Additional around eight Biodiversity Grids (1614 to 2092) were assigned to BC6. Currently, BC 6 has about 18 Biodiversity Plots to explore the flora and fauna and accordingly, implement the conservation program in it. | No settlement |
| 2 | BC08_Bumthang | The altitude in BC8 ranges from 1700 meters above sea level (masl) to about 4580 masl. Both the lowest altitude 1700 masl and highest 4830 masl are in Wangdue Dzongkhag, while part of the Biological corridor in Trongsa Dzongkhag has the altitude ranging from 2044 - 4580 masl. | | It has good drainage that includes both perennial and seasonal water for the wildlife irrespective of forest types. In some areas, due to geomorphological reason, the higher ridges and uplands are deprived of water. | BC8 landscape has large forest coverage with more than 99% of its total area (558.6 km ² including shrubs and alpine scrubs). It is endowed with a wide altitudinal range BC 08 has a rich diversity of flora distributed across warm broad-leaved through alpine scrub. More than 623 plant | A part of BC under Trongsa Dzongkhag has 423 households that are all located outside the BC boundary while here are 466 households in and around the BC 08 under Wangdue Dzongkhag (Gewog, 2018). Agriculture and livestock farming practices are integral |

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| | | Slope :it varies from 0 to 66 degrees and more. | | | species are known to occur in the corridor, comprising of 152 medicinal plants, 21 endemic species, and 22 Rhododendron species at higher elevations. A total of 23 mammal species was recorded including Asiatic golden cat, clouded leopard, Tiger, leopard cat and marbled cat. A total of 210 bird species, including four near threatened species like Himalayan vulture, Satyr tragopan, Ward's trogon and Yellow-rumped honeyguide were recorded during the survey carried out in June and July 2019. | components of the socio-economic characteristic of farmers in rural areas. |
| 3 | BC3_Sarpang | Plantation site is located within the compound of Southern Wildlife Rescue and Rehabilitation Centre (SWRRC), Jigmeling. It is being planted as avenue and for habitat development. SWRRC lies near the bank of Bhur river. | The area experience cool and dry winter but hot and humid summer. | Water for plantation is ample as site is located just near Bhur river. | Plantation site inside SWRRC compound have few bushes and are mostly barren. However, soil is suitable for plantation. No animals other than those captured for rehabilitation are seen inside the area. | SWRRC is fenced and house offices and few enclosures. The area is mainly to cater injured and rescued wild animals. Two villages namely Rateygaon and Chipchephey are nearby. |
| 4 | BC7_Mongar | <ul style="list-style-type: none"> Topographically, BC 7 is made up of steep | Hot summer in south and cold in the north | Main river Kurichu flows within BC 7 | Floral composition is still under process of analysis | More than 300 households reside within |

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| | | <p>terrain, high cliffs and deep gorges.</p> <p>Vegetation comprises of broad-leaved dominated forest where few pockets of fir and mixed conifer forest on the mountain ridges</p> | | <p>Tributaries such Khomachu, Thimiyongchu, Shungmanchu, Dortenchu</p> | <p>Fauna Mammals-21 species, Birds-160 spp Fishes-6 spp Water birds-8 spp</p> | <p>BC 7 About 95% of the people depend on subsistence farming Many households income falls below one lakh per year</p> |
| 5 | BC5_Pema Gatsel | <p>The general topography for this corridor is moderate to steep slope ranging from zero degrees to more than 35 degrees in which the slope classification was based on the standard adopted for developing Local Forest Management Plans (LFMP) in Bhutan. The slope was classified at an interval of 0 – 25 degrees, 25-35 degrees and more than 35 degrees corresponding to gentle slope, moderately steep slope and steep slope respectively.</p> | <p>The Pema Gasthel Division experiences an average annual rainfall of 1500 mm to 3000 mm every year.</p> | <p>There are seven prominent and major streams. The Bodpapam and khala Tsho streams falls under Choekhorling Gewog, Pema Gatsel Dzongkhag and Deu Ru, Dewathang and Martang streams falls under Dewathang Gewog, Samdrup Jongkhar Dzongkhag. The most prominent stream inside the corridor called Agurung ri drains into one of the major river systems of the country, Nyera Ama Chhu and it also ultimately drains into Brahmaputra river.</p> | <p>This biological corridor has over 95% of the land covered under broad-leaved forests comprising of different layers of shrubs (3.07%) and meadows (0.03%). The total of 24 mammal species, 108 bird species, 80 butterflies, 29 fish species, 117 orchid species and 18 bamboo species are recorded under the Pema Gatsel Division. The 6 mammal species are listed under Schedule I as per the FNCRR 2020. The 6 mammal species are <i>Panthera tigris</i>, <i>Panthera pardus</i>, <i>Ursus thibetanus</i>, <i>Bos gaur</i>, <i>Capricornis thar</i>, <i>Elephas maximus</i>.</p> | |
| 6 | BC5_Samdrup Jongkhar | <p>Ecologically, the site falls within habitat for the Great Hornbill and</p> | <p>Falls within humid subtropical climate summers are typically</p> | <p>There is small season spring just a 10 meters distance from the</p> | <p>The site has few standing native trees of which have loosely grown. The site</p> | |

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| | | <p>Rofouse Necked Hornbill.</p> <p>Topological condition= Gentle sloped areas and south facing</p> | <p>long, hot and humid. Winters are mild and dry.</p> | <p>periphery of the site.</p> | <p>been planted with more than 3 species of the saplings. Whereas the site is also been fenced with barbed wire there in no fauna to be sites inside the plantation site but there was sighting of sambar deer, Barking deers, hornbills and butterflies around the areas.</p> <p>Dominant Flora around the plantation area= Terminaliasp, Dubanga, Teak, Phoebe spp, Altingiaexelsa, Syzigymecuminiand other broadleaved spp.</p> | |
| 7 | JWS | <p>Temperate forest, gentle slope 30%</p> | <p>Cool temperate</p> | <p>Since it is situated in the broadleaved forest the place receives maximum rainfall</p> | <p>Mix broadleaved forest dominated by Quercus spp, Exbucklandia sp, Symplocus sp and Samber, deer, wild pig are the few animals in the site.</p> | <p>People there practices subsistence farming (dryland) and few households' rear large number of cattle. Their source of income is from sales of vegetables, NWFP (Rubia and Chirata).</p> |
| 8 | JKSNR | <p>The altitude ranges from 1361masl to over 5597 masl. Geographically, northern part of reserve consists mostly of rugged mountain terrains, rocky peaks, screes, and harbouring numerous sacred alpine lakes and</p> | <p>The reserve experiences a cold climatic condition in the alpine zone and warmer in the lower foothills</p> | <p>The Reserve has several cultural and historical sites such as Nub-Tshonapata lake, Ngatsho, Dungtsho, Ngetotsho, Regotsho, Chunduegang and Chundulhatsho which are legendary lakes</p> | <p>The Reserve has a record of 473 species of plants including tree & shrub (205), herb & grasses (193) and orchids (75), 39 species of mammals, birds of 203 species (refer Figure 4), 68 species of butterflies and 7 species</p> | |

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| | | <p>few plains. The southern parts are scoured steeply by streams and rivers forming narrow valleys. It also falls within Kangchenjunga Landscape linking further to Bhutan Biological Conservation Complex that has the natural connectivity to rest of the Protected Areas of Bhutan.</p> | | <p>attributed with historical, spiritual and traditional beliefs</p> | <p>of fishes. It has 4 endangered species, 7 vulnerable species, 9 near-threatened species, 19 least concern species and 11 species of Schedule I under Forest Nature Conservation Act of Bhutan.</p> | |
| 9 | JSWNP | <p>JSWNP best represents the middle Himalayan ecosystem & contains several ecological biomes ranging from sub-tropical to alpine meadow. The biologically diverse park has recorded the presence of baseline for, fungal diversity and diversity of orchids and herbal plants.</p> | <p>The wide elevation range and the mountainous terrain create complex climatic conditions, from wet subtropical in the south to cold temperate in the northern, high elevation areas.</p> | <p>Mangde Chhu , Punatshang Chhu touches the mid-western part of the park in Taksha. Nika Chhu river drains the Chendebji valley in the northern part of the park by joining the Mangde Chhu river.</p> | <p>39 mammals, 270 birds, 139 species of butterflies, 16 fishes, 43 species of herpetofauna. Amongst the mammals, the species includes the Royal Bengal tiger, golden langur, musk deer, clouded leopard, golden cat, marbled cat, red panda, gaur etc. Birds of conservation significance include Rufous-necked Hornbill, Satyr tragopan and Himalayan Monal. It also harbors 50% of the population of ‘Critically Endangered’ White-bellied Heron.</p> | <p>There is a diversity of communities residing inside the national park, including some of Bhutan’s first settlers; the Oleps community in Rukha village in Athang geog and the Monpa communities in Jangbi, Wangling, and Phumzur villages in Langthel geog, and the Reti community under Jigmechoelinggeog, Sarpang . In total, there</p> |

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| | | | | | | <p>are more than 4000 people in to 561 households that live inside the national park.</p> <p>The major sources of livelihoods are agriculture and livestock rearing, with some income from sale of non-wood forest products.</p> |
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3. Planned activities in Y2021

SFED will be facilitating implementation of plantation activities under BFL in nine different Parks and BC's namely Bumthang, Sarpang, Mongar, Pemagatshel, Tashigang, JKSNR, JWS and JWSNP for year 3. The activity under taken will be maintenance of the already existing plantation areas that require first and second year of maintenance. The total of 107.42 hectares of area will be maintained as an activity for the year 2021. The maintenance of plantation area covers from cool broadleaved, warm broadleaved tropical broadleaved, plain grassland, sub tropical and temperate. The plantation belongs to the state and is looked after by the Department of Forest and Park Services. The maintenance of the plantation is decided by the Department based on field monitoring carried out by field and SFED which is purely based on field requirements. Furthermore, the Norms and Standard for Nursery and Plantation, 2020 clearly guides maintenance of the plantation. The maintenance work is carried out periodically to ensure success of plantations. In general, plantations take five years to get established after which the maintenance work is not carried out. Therefore, the plantation sites are selected based on their creation year requiring 2nd year and 1st year maintenance since they are most critical maintenance for establishment of the plantation. Since the budget could only be sufficient for following sites requiring 1st and 2nd year maintenance, the rest of the sites will be prioritized in the following years.

The details of plantation maintenance area are as follows:

| Sl.No | Dzongkhag/Division | Location name | Gewog | Initial year of creation | Type of plantation | Total area(ha) |
|--------------|--------------------|-------------------------|-----------|--------------------------|---------------------|----------------|
| 1 | BC8_Bumthang | Thilee Zur-1 | Nubi | 2019-20 | Normal pltn | 3 |
| | | Thilee Zur-2 | | 2019-20 | | 2 |
| | Total | | | | | 5 |
| 2 | BC3_Sarpang | SWRRC Jigmeling | Jigmeling | | Habitat development | 3 |
| | Total | | | | | 3 |
| 3 | BC7_Mongar | Murmur | Menbi | 2019-20 | Afforestation pltn | 3 |
| | | Shingthangbrangsa | Ngatsang | 2018-19 | Afforestation | 6.66 |
| | | Lungdama wang, Yangbary | Balam | 2018-19 | Normal pltn | 4 |
| | | Rongtoe | Ngatsang | 2018-19 | Normal pltn | 2.63 |
| | | Zachu | Tsakaling | 2019-20 | Enrichment pltn | 15 |
| | | Babanang | Thangrong | 2019-20 | | 6 |
| | | Changshing Gonpa | Thangrong | 2019-20 | | 4 |
| Total | | | | | 41.29 | |

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| 4 | BC5_Pema Gatsel | Dolepchen | Zobel | 2018-19 | | 7.53 |
| | | Jashagonpa | Zobel | 2018-19 | | 4.6 |
| | | Denshingyee | Dungmin | 2018-19 | | 5 |
| | Total | | | | | 17.13 |
| 5 | BC6_T/gang | Demkhar | Phongmey | 2018-19 | Enrichment pltn | 20 |
| | | Total | | | | 20 |
| 6 | BC5_Samdrup Jongkhar | Gerwa | Deothang | 2019-20 | Normal pltn | 5 |
| | | Total | | | | 5 |
| 7 | JKSNR | Near Dungkhag Office | Gakiling | | Afforestation pltn | 2.5 |
| | | Nebi gonpa | Sombekha | | Afforestation pltn | 2.5 |
| | Total | | | | | 5 |
| 8 | JWS | Lauri | Lauri | 2018-19 | Normal pltn | 5 |
| | Total | | | | | 5 |
| 9 | JSWNP | Rangthang | Langthel | 2019-20 | Habitat Enrichment | 6 |
| | | Total | | | | 6 |
| | | Total | | | | 107.42 |

4. Environmental and Social Impacts and Mitigation Measures

Maintenance of plantation at nine different sites

| Potential impact | Impact scale | Proposed mitigation measures | Responsible party | Cost |
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| Activity : Maintenance of plantation at nine different sites | | | | Nu.3.5 m |
| Maintenance work (Maintenance of first and second year plantation already created in the nine sites. Bush clearance , weeding, replacement of casualty seedlings, and fencing repair works. | Long term Minor | Since the activity is only maintenance of already created plantation areas, there is no need for public consultation and approval needed from public. The area has been already agreed upon before the creation of the new plantation. Only bush clearance, weeding, repair of fencing post and replacement of casualty seedlings will be carried out in the area. | BFL focal person in SFED and in the nine different sites | |
| Workers' health and safety including | Short term Minor | Comply with the workers' health and safety guidelines; <ul style="list-style-type: none"> • Ensure regular health screening for the workers pre and during maintenance of the plantation; • Ensure that no underage workers, or children are engaged; | BFL focal person in SFED and in the nine different sites | To be part of worker agreement. |

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| <p>COVID</p> <p>(Refer to the full OHS guidelines attached where ever relevant)</p> | | <ul style="list-style-type: none"> • Ensure decent work conditions, including an appropriate salary, working hours, accommodation and food for workers shall be provided to all workers; • Ensure that 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, • Provide workers with an incident report book and ensure that they are aware of the project’s grievance redress mechanism and can use it to raise workplace concerns. <p>Strictly abide by COVID prevention protocols (use masks, maintain distance, wash hands regularly etc.)</p> | | |
| <p>Waste: generation of waste from the poly pot used for seedling</p> | <p>Short term Minor</p> | <p><i>During Plantation:</i></p> <ul style="list-style-type: none"> • Proper containers/waste bins should be provided at the project site; • Dumping of waste on the sides of the road, on private land, or in other non-designated places should be prohibited; • Dumping waste shall be prohibited on fragile slopes, forests, religious or other culturally sensitive areas or areas where livelihood is derived; • Collection, transportation and final disposal of all waste should be undertaken immediately after the plantation. • All plantation materials should be covered during the transportation to avoid waste dispersion; • Burning of waste should be prohibited. <p><i>After Plantation:</i></p> <p>All waste shall be removed from the project site.</p> | <p>BFL focal person in SFED and in the nine different sites</p> <p>Plantation workers</p> | <p>To be part of worker agreement.</p> |
| <p>Soil erosion, landslides and flooding</p> | <p>Short</p> | <p><i>Pre-plantation:</i></p> <p>Sites are prone to soil erosion or</p> | | |

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| | term Minor | <p>landslides shall be dealt with extra care, minimal digging and disturbance to the soil need to be ensured.</p> <p><i>During Plantation:</i></p> <ul style="list-style-type: none"> • Plantation should be limited to the non-monsoon season; • Bioengineering structures or vegetative cuttings shall be used, to the extent possible using environmentally friendly materials. • Plantation of bamboo trees or other plants and species that support land retention; • The area of ground clearance should be minimized; • Avoid sensitive alignments, such steep hillsides and ecological sensitive areas; | | |
| Community access to grazing is restricted during the plantation and until the plantation is established grazing if present will be restricted. | Short term Minor | <ul style="list-style-type: none"> • Allocation of alternative grazing area • Proper awareness and consultation with the local community. | BFL focal person in SFED and in the nine different sites | |
| Conflict between plantation workers and local communities | Short term Minor | <ul style="list-style-type: none"> • Plantation works shall be given to the local community where ever possible • In areas where there is no skilled labor available Local communities shall be made aware of the engagement of temporary workers in plantation sites. • Strict monitoring shall be carried out to ensure conflicts are minimized | BFL focal person in SFED and in the nine different sites | |

4. ESMP Implementation Arrangements

The implementation of maintenance of plantation will be carried out by the BFL focal person in SFED in coordination with site specific BFL focal persons.

Social Forestry and Extension Division (SFED) is one of the five functional Divisions of the Department of Forests and Park Services. The Division facilitates and works toward strengthening the capacity of the communities to sustainably manage forest resources by promoting participatory forest management and good governance. Plantation section serves as one of the sections under SFED which formulates and revises policies related to plantation in the country. The section also develops strategies, framework, guidelines, norms and standards for the plantation program, technically backstop the planning and implementation of plantation in the country including nursery development and plantation techniques. Some of the main functions of plantation section under SFED are as follows:

- Identify suitable indigenous and exotic species for plantation that aid in soil and conservation, Facilitate community participation in plantation programs,
- Facilitate and provide efficient and effective service delivery within the turnaround time specified for forestry clearances,
- Plan and organize workshops, seminar and conferences relevant to plantation,
- Develop proposals and programs relevant to nursery development and plantation in the country, Compile and maintain information on plantation in the country,
- Monitor and evaluate the plantation programs and projects
- Review management plans relevant to plantation and facilitate the approval of the plan and Represent the Department at national and international forum(s) related to the plantation.

All BFL focal persons in the mentioned areas of plantation will be responsible for compliance with all procedures outlined in this ESMP. All plantations both new creation and maintenance is to be taken up by stated owned enterprise (SOE) namely Green Bhutan Corporation Limited (GBCL) based on the MOU signed between GBCL and the Department of Forest and Park Services. Therefore, the ESMP must be part of the contract that the PA/BC will sign with the Green Bhutan Corporation Limited (GBCL) for implementation of the planned activities in 2021.

GBCL 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. The SFED focal person together with different site focal persons needs to monitor the implementation of proposed measures. Non compliances should be recorded and reported to the ESS officer immediately, and the ESS officer will report it to the PCU (M&E).

5. ESMP Monitoring Arrangements

The BFL focal persons in Bumthang, Sarpang, Mongar, Pemagatshel, Tashigang, S/Jongkhar, JKSNR, JWS and JSWNP will closely monitor the implementation of maintenance of plantation at their specific sites to ensure that they fully comply with this ESMP and is as per the technical and administration approval given by the Department. The overall monitoring

will be carried out by the SFED BFL focal person to ensure further that no deviation from ESMP has been made. The monitoring of maintenance of plantation under this ESMP will be carried out in the following manner:

Activity: Maintenance of plantation

| Sl.No | Activities | Monitoring team | Timeline | | Location | Means of Verification |
|-------|---------------------|-----------------|---------------------------------|-----------|-----------------|-----------------------|
| | | | Start | Complete | | |
| 1 | BC7_Trashigang | Field focal | March 2021 | June 2021 | Demkhar | Field visit |
| | | ESS officer | 4 th week June, 2021 | | | Field visit/reports |
| 2 | BC8_Bumthang | Field focal | March 2021 | June 2021 | Thinlee Zur 1&2 | Field visit |
| | | ESS officer | 4 th week June, 2021 | | | Field visit/reports |
| 3 | BC3_Sarpang | Field focal | March 2021 | June 2021 | Jigmeling | |
| | | ESS officer | 4 th week June, 2021 | | | Field visit/reports |
| 4 | BC7_Mongar | Field focals | March 2021 | June 2021 | Mongar | |
| | | ESS officer | 4 th week June, 2021 | | | Field visit/reports |
| 5 | BC5_Pema Gatsel | Field focal | March 2021 | June 2021 | Pemagatshel | Field visit |
| | | ESS officer | 4 th week June, 2021 | | | Field visit/reports |
| 6 | BC5_SamdrupJongkhar | Field focal | March 2021 | June 2021 | Gerwa | Field visit/reports |
| | | ESS officer | 4 th week June, 2021 | | | |
| 7. | JWS | Field focal | March 2021 | June 2021 | Lauri | Field visit |
| | | ESS officer | 4 th week June, 2021 | | | |
| 8 | JKSNR | Field focal | March 2021 | June 2021 | Sombaykha | Field visit |
| | | ESS officer | 4 th week June, 2021 | | | |
| 9 | JSWNP | Field focal | March 2021 | June 2021 | langthel | Field visit |
| | | ESS officer | 4 th week June, 2021 | | | |

JWS, BC5_SamdrupJongkhar and BC3_Sarpang falls under high-risk zone and movement of people and vehicles for and to high-risk area is restricted. Therefore, physical monitoring of the activities by ESS officer is not possible as of now. If the situation improves, physical monitoring for the work will be carried out.

Monitoring by implementing entities (BA/BC focal):

- Field visits—at least weekly
- Monthly reports by the implementing entities submitted to ESS officer

Monitoring by implementing entities (SFED focal)

- Field visits—during implementation of the work.
- Reports by SFED focal to ESS officer – Annual report submitted to the PCU

Monitoring by ESS officer at PCU:

- Field monitoring by ESS officer - monitoring through photographic/video evidence submitted by the IAs during the implementation as per the given dateline in the table above. Field monitoring after the completion of the work combining with the other BFL activities in that area requiring field visit.
- a. Reports by ESS officer to BFL Fund Secretariat – Annual report submitted to the BFL Fund Secretariat in January, 2022.

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 from SFED and site-specific areas. The budget for the maintenance of the plantation at different areas will be given 3.5 m ngultrum yearly to carry out the activities. Following is the detail of the budget for each plantation sites under respective PA or BC:

| Dzongkhag/Division | Location name | Total area(ha) | Budget allocation |
|---------------------------|-------------------------|-----------------------|--------------------------|
| BC8_Bumthang | Thilee Zur-1 | 3 | 1,14,000 |
| | Thilee Zur-2 | 2 | 76,000 |
| BC3_Sarpang | SWRRC Jigmeling | 3 | 1,14,000 |
| BC7_Mongar | Murmur | 3 | 1,14,000 |
| | Shingthangbrangsa | 6.66 | 2,53,000 |
| | Lungdama wang, Yangbary | 4 | 1,52,000 |
| | Rongtoe | 2.63 | 99,940 |
| | Zachu | 15 | 5,70,000 |
| | Babanang | 6 | 2,28,000 |
| | Changshing Gonpa | 4 | 1,52,000 |
| BC5_Pema Gatsel | Dolepchen | 7.53 | 2,86,140 |
| | Jashagonpa | 4.6 | 1,74,000 |
| | Denshingyee | 5 | 1,90,000 |
| BC5_T/gang | Demkhar | 20 | 7,60,000 |

| | | | |
|-------------------------|----------------------|---------------|-----------------|
| BC5_Samdrup Jongkhar | Gerwa | 5 | 1,90,000 |
| JKSNR | Near Dungkhaq Office | 2.5 | 79000 |
| | Nebi gonpa | 2.5 | 95000 |
| JWS | Lauri | 5 | 1,90,000 |
| JSWNP | Rangthang | 6 | 2,28,000 |
| | | 107.42 | 3,49,940 |

There is no separate budget required for the ESS mitigation measures since it will be met from the total activity cost.

7. Consultation and Disclosure Mechanisms

Since the maintenance of plantation is being carried out on already created plantation areas which are undergoing first and second year maintenance, community consultation have not been carried out. However, before the implementation of the plantation maintenance work, the nearby communities if any will be consulted to make them aware of the work and also to get their feedback on choice of species. If they have any native species which will benefit them in future, the species will be selected for refilling of the plantation.

The consultation will be carried out with along with the other consultation meeting for BFL activities in the PA/BC. The detailed minutes of the consultation meeting will be attached to this ESMP, along with a full list of participants (disaggregated by gender and age).

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

8. Stakeholder Engagement Plan

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

For all activities—one consultation meeting has to be organized during the intervention period, and subsequent consultations have to be held annually (these can be combined with consultations for other BFL or non-BFL activities).

Local community in the vicinity will also be engaged in the maintenance work. They will work on daily wage basis and commute from their home during the day for the work. The maintenance work include weeding, bush cutting, change of causality seedlings and fencing repair works.

The BFL focal person will submit the official minutes of consultation meetings (along with a list of participants, disaggregated by gender and age) to ESS officer within one week after the completion of the consultation. The ESS 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.

Annexure . 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)¹ 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 pneumophilia) 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 hours 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 of overglasses 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 in 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' accommodation²

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)
10. Torch light (1)
11. Pair of scissors (1)
12. Tablets Aspirin (5gms) 2 dozen
13. Burn Ointment (2 tubes)
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