

1. Introduction

(A) Project Background

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

BFL seeks to achieve the following objectives:

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

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

(B) Scope of ESMP

The preparation of this Environmental and Social Management Plan (ESMP) was required in order to manage the environmental and social impacts through and specific mitigation actions required to implement the project in accordance with the requirements of WWF's 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 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:

The only Strict Nature Reserve declared by the Royal Government of Bhutan in 1993 came into operation in 2010. It was initially known as the Toorsa Strict Nature Reserve. In October 2014, it was renamed as the Jigme Khesar Strict Nature Reserve (JKSNR) in honor of His Majesty the King Jigme Khesar Namgyel Wangchuck for his extraordinary contributions to the protection and conservation of natural environment. Entire area has a coverage of 784.35km², which can be categorized into different habitat zones from tropical broadleaved forest in the south to alpine in the north.

The Reserve falls in the western part of Bhutan between 27°34' and 27°11' latitude and 89°54' and 89°10' longitude bordering with Indian state of Sikkim to its west and forming a contiguous natural habitat of alpine meadows with Autonomous Tibet region of China in its north. The altitude ranges from 1400masl to over 5000 masl. It forms a part of the Sacred Himalayan landscape (SHL) building links with three major trans-boundary conservation areas in China, India and Bhutan. 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. The whole trans-boundary landscape is significant for the conservation of Snow leopards in the region forming part of the Indo-Burman biodiversity hotspot; one of the 10 hotspots of the world.

The Reserve is currently administered by four sections (Research, Information and Monitoring and Planning Section; Species Protection and Conservation Section; Communities, Recreation and Development Section; and Resource Management and Allocation Section) from the head office. There are two range offices and three outposts under the Reserve. The management is currently manned with 26 technical and 4 non-technical staff. This level of manpower is adequate to successfully implement the reserve activities within the given time frame.

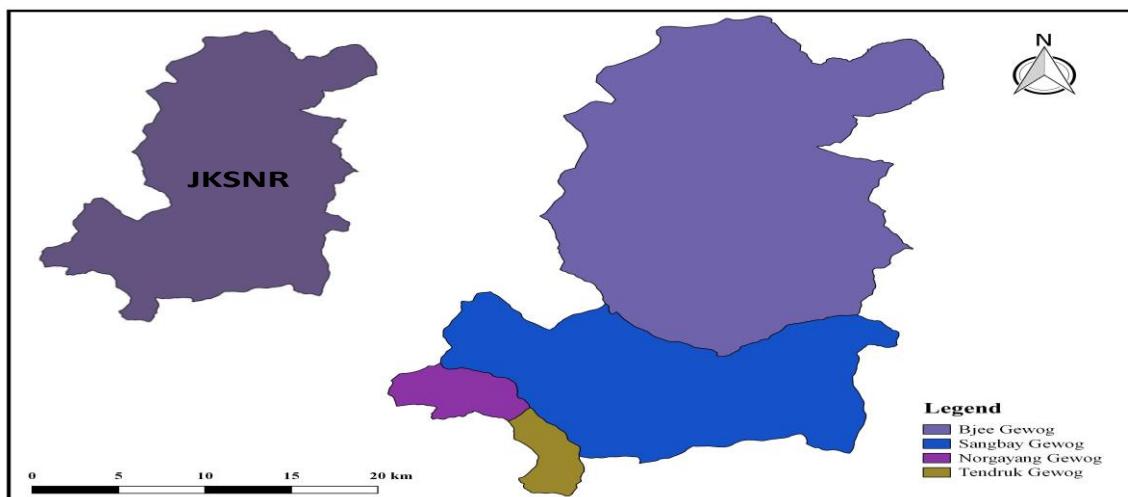


Figure 1 Location of the park

As shown in Figure 1, JKS NR covers 4 gewogs; Bjee and Sangbay under Haa and Tendruk and Norgaygang under Samtse Dzongkhag. It has a total of 506 households which includes herders of Esue and Katsho gewog under Haa. This is the only protected area in Bhutan without permanent human settlements, except for few migratory yak herding communities. It protects the western most variant of temperate forests in the country ranging from broadleaf forests to alpine meadows in the north. Being virtually uninhabited, the Reserve has one of the most pristine temperate and alpine vegetation in the entire Himalayas. The area is truly a conservation jewel in the Eastern Himalayas, abound by many globally endangered species of mammals and high value medicinal plants, rich plant communities, and endowed with many critical watersheds for two major rivers of Bhutan.

The Reserve has several cultural and historical sites such as Nub-Tshonapata lake, Ngatsho, Dungtsho, Ngetotsho, Regotsho, Chunduegang and Chundulhatsho which are legendary lakes attributed with historical, spiritual and traditional beliefs. Story of origin of *Nublang* (*Bosindicus*, native cattle breed) and *Relm* (Cymbals) are said to be treasures discovered from Nub-Tshonapata lake by the Terton Sherab Mebar. These lakes are equally important sources for many streams under Haa Dzongkhag for agriculture, drinking and other domestic purposes.

It is home to many endemic and threatened species such as tiger, snow leopard, red panda, alpine musk deer, Bhutan takin, Asiatic black bear, as shown in Figure 2, and endemic plant species such as *Meconopsis superba*, *Bhutanthera himalayana*, as shown in Figure 3, harbors in northern part of reserve.



Figure 2 Pictures of important mammal species (Faunal species)

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 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.



Figure 3 Picture of the tree/flowers (floral species)

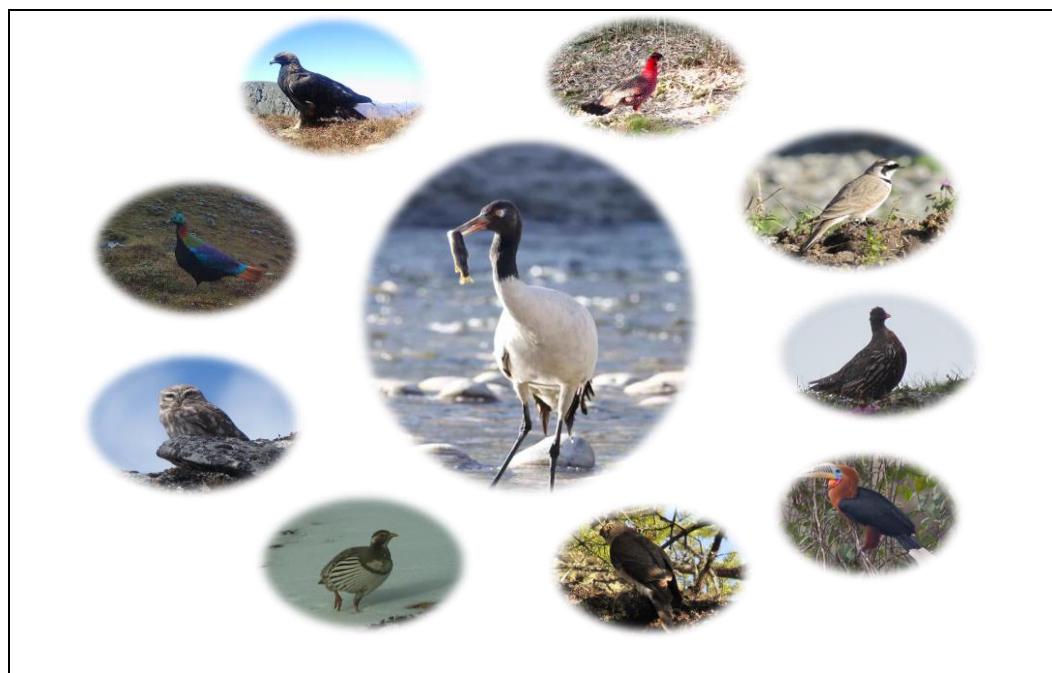


Figure 4 Picture of the bird species

3. Planned activities in Year 2020

The planned activities in JKSNR that require an ESMP are the following:

1. Construction of Eco-tourism structures along Haa-Nubtsonapata trail

This is a new activity for construction of Eco tourism structures along Haa- Nubtsonapata trail as shown in Figures 5 and 6. The infrastructure includes the construction of restroom, waterline, canopy, gazebo and camp site development.

The planned activities will be carried out along Esue-Katsho gewogs under Haa Dzongkhag. The sites are at 5 to 15 decimals at each location (7 locations) at altitudinal range of 2990-4250 masl. The site selected as the trekking route has historical significance along with substantial beauty for landscape photography, wilderness and to witness local culture. The activities will be in the alpine meadows with least trees or vegetation cover along plains, and both gentle and rugged slopes. At present, there are no settlement along the trail and the site

will cover about 10 decimals for the infrastructure. The area has been used for seasonal grazing, but this activity will not impact the grazing as it is not in the core grazing area.



Figure 3 Nubtsonapata trail



Figure 4 Campsite at Nubtsonapata

There will be 10-15 workers in the actual construction works for at least 2-3 months, and then 5-6 persons upon the commissioning of the services along the trail for 6 months. The expected quantity of stone required is 5 MT. The parking/stockyard will be 0.50 hectares. Logs, timbers, mud, tones and concretes will be used. The solid waste like residual, set cements is likely to be generated. Solid waste generation such as pet bottles and plastics are expected. However, the proper disposal of wastes will be done in close coordination with the contractor.

The sewage sludge from kitchen and toilet are probable to be produced from the laborers working with the project during the construction and then from the employees after the operation of the services. The waste will be managed by disposing with the garbage-in and garbage-out policy. And, waste bins will be installed at strategic locations.

The expected quantity of water to be used will be sourced from the stream that runs next to the construction site at a distance of about 100 meters. The quantity of water use would be approximately 5000 liters per month and about 40000 liters per month once in full operation. Solar lights will be used.

The activity is expected to generate noise from the operation of chain saws. However, safety gears like ear plugs will be provided to the workers and no work shall be done in the odd hours mainly in the night.

2. Improvement of waterholes

This is a new activity to be carried out at Sangbeykha and Gakiling Gewog in Haa Dzongkhag. These areas provide the prime habitat to many endangered species including tiger, red panda, gaur, Himalayan black bear, goral, sambar deer, serow, dhole and alpine musk deer. Considering the importance of waterholes for wildlife, the range offices under the Reserve will carry out an assessment and survey of waterholes in the area.

Currently, the five waterholes (one each at Phenlakha, Tshokeykem and Nakhatashigang while two are at Shaba-Shebji) were selected for improvement. All five waterholes require interventions such as clearing mud for creating pool and making opening and spaces. There will be 25 workers who will be involved for a week, and they will be camping near the activity area as it is inside the dense forest. There are no households in the project area or its vicinity.

Expected impacts are waste generation from the workers and the workers' health and safety during the clearing of waterholes.

3. Construction activities (head office, access road, community water tank, and fencing at Bjee)

This is a spillover activity of 2019 and is located at Chumpha, Bjee Gewog under Haa Dzongkhag in an area of 5 acres. Currently, there is no proper administrative building for the Reserve and it administers public services from a rented space out of the jurisdiction of the JKSNR. With proper infrastructure, the park management will be able to improve coordination of efficient information networking system to address frequent cases of wildlife poaching and illegal transportation of red sandal wood. It will also be helpful in monitoring of illegal resource collection by communities living inside and outside the Reserve.

This activity was initially funded by BTFEC and mainly covers the skeletal structure while the remaining work on installation of windows, doors, wood paneling, AAC block partitioning, roofing, electrical works, etc., will be met from BFL funding. BFL assistance is also inclusive of access road construction and compound fencing. The elevation is in an area of 2911 masl. There are no major environment or social issues, as the communities are not in the access road and compound fencing area, and all clearances have been obtained.

The design parameter is 3.7 m x 14.9 m (502.13 m²) for the actual building area and for construction of access road with granular sub base (463 m X 5.5 m). The actual construction of road is about 50 m and the remaining 413 m requires improvement on the existing roads. The compound fencing is within the park area and does not impact the community. The access road will not have any impact as it is 300 m away from the core grazing area. However, there is a community water reservoir near the access road which needs to be taken care of during construction.

During the course of construction, there will be temporarily increase in influx of people mainly laborers. The expected quantity of water to be used is approximately 100,000 liters per month. The water is sourced from the stream next to the office construction site at a distance of about 300 m. The construction materials are coarse aggregates (40 truckloads), fine aggregates (35 truckloads) and stone (270 cubic meters). The electricity requirement is 867 KWh per month. The expected solid waste includes residual of construction wastes such as bricks, iron bars, blocks of unwanted set-cements and other plastics and food wastes from the workers. Therefore, timely and proper disposal of wastes will be crucial and it will be done in close coordination with the contractor.

It is also likely that there will noise production from the operation of plants and construction equipment, particularly mixer machine, JCB back-hoe and excavators. However, the site is located far and there are few households in the adjoining settlement. Moreover, safety gears like ear plugs will be provided to the workers and no work shall be done in the odd hours mainly in the night.

4. Construction activities (range office and staff quarter, and access road at Sombeykha)

The construction is located in Sangbey-Ama on a 20-decimal land. The site is centrally located and there are other offices established viz -a-viz Agriculture, Livestock, School, Health units, Banks and Geog Offices all in one location where by communities can conveniently avail all the relevant services together. The land is barren with no trees. The reason for selecting this site is because of its proximity to the human settlement mainly for efficient delivery of services.

The construction materials required are coarse aggregates (20 truck loads), fine aggregates (15 truck loads), stone (150 meters cubic), and electricity of 350 KWh/month. There is an existing road near the site, but an access road of 12 meters will be constructed. There will be

10-15 workers employed (mason, carpenters and laborers) comprising of both locals and non-nationals depending on the skills.

Solid wastes from construction residues such as bricks, iron bars, set cements, ragged clothes measuring 2.5 cubic meters are likely to be generated. The sewage sludge from kitchen and toilet are likely to be produced from the laborers working with the project. However, the proper disposal of the wastes will be done in close coordination with the contractor.

There will be likely noise disturbance from the operation of construction equipment and plants particularly mixer machine, JCB backhoe and excavators. However, safety gears like ear plugs will be provided to the workers and no work shall be done in the odd hours.

4. Environmental and Social Impacts and Mitigation Measures

1. For construction of office infrastructure at Bjee and Sombeykha gewogs

Environmental Impacts: The negative environmental impacts from the project (construction activities) are anticipated to be minimal. The potential environmental impacts include:

- Construction-related impacts arising from excavation, waste and material management at site, including manually removing scrubs only. No other vegetation will be removed;
- Soil erosion/landslide (Bjee and Sombeykha);
- Community water source need to be protected (Bjee)
- Grazing to other areas need to be provided
- Extraction (excessive) of water and forest resources;
- 25 (trees, poles and sapling) were cut down for construction (Bjee)
- Noise disturbance: Possible noise disturbance as a result of outdoor equipment usage and transportation vehicles driving around the construction site
- Dust/air pollution is likely as a result of construction works and possible emissions from transportation vehicles

Social Risks/Impacts: Although most of the measures have been taken into account prior to construction, there are few other measures that will need to be taken into consideration as the project is just at the beginning phase. Some of the social risks associated with the project includes:

- Land -the land is not used for any other purpose. Part of the land is used for secondary grazing (for office headquarters), but as it is a secondary grazing there is already core grazing area which is not impacted.
- Occupational health and safety hazards, especially for construction workers. There is community water tank near the road access (office headquarter).

2. Improvement of waterholes and salt licks

The potential environmental and social impacts for this activity includes:

- Waste: soil from excavation activities and waste from construction activities
- Workers' health and safety
- Increase poaching

3. Eco-tourism infrastructure

The potential environmental and social impacts for this activity includes:

- Construction of canopy, demarcation of trails
- Generation of waste as a result of construction activities
- Workers' health and safety

However, given the scale of the project, these risks are expected to be minimal, site-specific and those for which mitigation measures can easily be developed through standard and applicable regulations. These impacts are again site-specific, reversible and can be minimized/mitigated by developing appropriate measures. Specifically, to address these concerns, the project will comply with the relevant Acts and Rules and Regulations of the Kingdom of Bhutan. ESMP is prepared as per requirement based on ESMF to ensure adequate mitigation measures.

Therefore, for all the potential adverse impacts of environment and social related to each activity, mitigation measures have been prepared as shown in the table below:

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Costs
Construction of range office and staff quarters in Sombeykha (spillover activity of 2019)				US\$71,600
Noise disturbance: Possible noise disturbance as a result of outdoor equipment usage and transportation vehicles driving around the construction site	Short term Minor	<p>Nearest community is located 100-200 meters from the construction site, and thus noise disturbance is likely to be minimal. To minimize the noise disturbance for the workers, the following mitigation measures need to be undertaken:</p> <ul style="list-style-type: none"> • Noise level control should be performed before the start up of construction activities; • The equipment should be fitted with appropriate noise devices that will reduce sound level; • The construction work should not be permitted during the nights, the operations on site shall be restricted to the hours 7am—7pm; • Vehicles that are excessively noisy shall not be operated until corrective measures have been taken; • Earplugs and protecting devices shall be provided to workers on site. 	BFL focal person in JKSNR Contractor	To be included in the bidding document
Air quality: dust pollution is likely as a result of construction works and possible emissions from transportation vehicles	Short term Minor	<ul style="list-style-type: none"> • Construction site, transportation routes and materials handling sites should be water-sprayed on dry and windy days; • Construction materials should be stored in appropriate and covered places to minimize dust; • Before allowing vehicles on site, fitness and emission test of the vehicle shall be performed; • Vehicle loads likely to emit dust need to be covered; • Workers should wear protective masks if dust appears; • Vehicle speed should be restricted within the construction site; • Regular maintenance of the vehicles and construction machinery should be 	BFL focal person in JKSNR Contractor	To be included in the bidding document

		<p>performed in order to reduce any leakages of motor oils, emissions and dispersion of pollution;</p> <ul style="list-style-type: none"> • Burning of debris from ground clearance shall be prohibited. 		
Waste: generation of waste as a result of construction activities	Short term Minor	<ul style="list-style-type: none"> • Identification of the different waste types at the project site (soil, asphalt, food, etc.); • Ensure that camps are located away from existing stream, river, or water sources, and that no discharge from camps is made into nearby water bodies; • Proper containers/waste bins should be provided at the project site; • Dumping of waste on the sides of the road, on private land, or in other non-designated places should be prohibited; • Dumping waste shall be prohibited on fragile slopes, forests, religious or other culturally sensitive areas or areas where livelihood is derived; • Collection, transportation and final disposal of all waste should be undertaken regularly on a weekly basis; • Possible hazardous waste (motor oils, vehicle fuels, etc.) should be collected separately and authorized collector and transporter should be sub-contracted to transport and finally dispose; • All construction materials should be covered during the transportation to avoid waste dispersion; • The options for reuse/recycling of the generated waste streams should be taking into consideration (e.g. excavated soil, etc.). • Burning of construction waste should be prohibited. <p><i>After construction:</i></p> <p>* All waste shall be removed from the project site.</p>	BFL focal person in JKS NR Contractor	To be included in the bidding document
Soil erosion, landslides and flooding (Sombeykha for the structure for range office and staff quarter already completed)	Short term Minor	<p><i>Pre-construction:</i></p> <p>Site is prone to soil erosion/landslides shall be avoided, to the extent possible</p> <p><i>During construction:</i></p> <ul style="list-style-type: none"> • Construction should be limited to the non-monsoon season; • Ensure safety during construction with the small stream flowing along the right side of the site. To the extent possible using environmentally friendly materials, and ensure the water does not overflow. • The area of ground clearance should be 	BFL focal point in JKS NR Contractor	US\$ 4255

		<p>minimized;</p> <ul style="list-style-type: none"> • Avoid sensitive alignments, such steep hillsides and ecological sensitive areas; • Balance filling and cutting requirements through proper route choice; • Maintain trail surface and alignment with vegetation and where possible install slope protection • Construction retention wall 		
Workers' health and safety	Short term Minor	<ul style="list-style-type: none"> • Comply with BFL's occupational health and safety guidelines • Ensure regular health screening for the workers pre and during construction activities • Ensure that no underage workers, or children are engaged • 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, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices. • Implement a grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns 	BFL focal point in JKSNR Contractor	To be included in the bidding document

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Costs
		Construction of range head office in Bjee access road and compound fencing (new activity)		US\$98,246
Three trees were cut down for the construction	Long term Minor	<p><i>During construction:</i> Ensure that no accidental damage is caused to any additional trees or local vegetation.</p> <p><i>After construction:</i> Replant trees after construction.</p>	BFL focal person in JKSNR Selected contractor	Number of seedlings: 25 Costs per seedling; Nu. 10; Workers costs: Nu. 500 Total cost: US\$10.64
Noise disturbance: Possible noise disturbance as a result of outdoor equipment usage and	Short term Minor	Nearest community is located 100-200 meters from the construction site, and thus noise disturbance is likely to be minimal. To minimize the noise disturbance for the workers, the following mitigation measures need to be undertaken: <ul style="list-style-type: none"> • Noise level control should be performed 	BFL focal person in JKSNR Contractor	To be included in the bidding document

transportation vehicles driving around the construction site		<p>before the start-up of construction activities;</p> <ul style="list-style-type: none"> • The equipment should be fitted with appropriate noise devices that will reduce sound level; • The construction work should not be permitted during the nights, the operations on site shall be restricted to the hours 7am—7pm; • Vehicles that are excessively noisy shall not be operated until corrective measures have been taken; • Earplugs and protecting devices shall be provided to workers on site. 		
Air quality: dust pollution is likely as a result of construction works and possible emissions from transportation vehicles	Short term Minor	<ul style="list-style-type: none"> • Construction site, transportation routes and materials handling sites should be water-sprayed on dry and windy days; • Construction materials should be stored in appropriate and covered places to minimize dust; • Before allowing vehicles on site, fitness and emission test of the vehicle shall be performed; • Vehicle loads likely to emit dust need to be covered; • Workers should wear protective masks if dust appears; • Vehicle speed should be restricted within the construction site; • Regular maintenance of vehicles and construction machinery should be performed in order to reduce any leakages of motor oils, emissions and dispersion of pollution; • Burning of debris from ground clearance shall be prohibited. 	BFL focal person in JKSNR Contractor	To be included in the bidding document
Waste: generation of waste as a result of construction activities	Short term Minor	<ul style="list-style-type: none"> • Identification of the different waste types at the project site (soil, asphalt, food, etc.); • Ensure that camps are located away from existing stream, river, or water sources, and that no discharge from camps is made into nearby water bodies; • 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 	BFL focal person in JKSNR Contractor	To be included in the bidding document

		<p>disposal of all waste should be undertaken regularly on a weekly basis;</p> <ul style="list-style-type: none"> • Possible hazardous waste (motor oils, vehicle fuels, etc.) should be collected separately and authorized collector and transporter should be sub-contracted to transport and finally dispose; • All construction materials should be covered during the transportation to avoid waste dispersion; • The options for reuse/recycling of the generated waste streams should be taking into consideration (e.g. excavated soil, etc.). • Burning of construction waste should be prohibited. <p><i>After construction:</i></p> <ul style="list-style-type: none"> * All waste shall be removed from the project site. 	BFL focal person in JKSNR Contractor	
Workers' health and safety	Short term Minor	<ul style="list-style-type: none"> • Comply with BFL's occupational health and safety guidelines • Ensure regular health screening for the workers pre and during construction activities • Ensure that no underage workers, or children are engaged • 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, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices. • Implement a grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns 	BFL focal point in JKSNR Contractor	To be included in the bidding document
Community water tank near the access road	Long term Minor	<ul style="list-style-type: none"> • Ensure the road access do not affect the water tank • Fence and protect the water tank 	BFL focal person in JKSNR Contractor	To be included from the activity cost
Access to grazing (office headquarter)	Short term Minor	<ul style="list-style-type: none"> • Ensure there is an alternative grazing • Ensure access to core grazing is not impacted 	BFL focal person in JKSNR	To be included from the activity cost

Improvement of waterholes and salt licks

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Cost:
Activity: Construction/Improvement of new waterholes				US\$ 4,761.9
Waste: soil from excavation activities and waste from construction activities	Short term Minor	<ul style="list-style-type: none"> • Proper containers/waste bins should be provided at the project site; • Dumping of waste in the waterholes, on the sides of the road, on private land, or in other non-designated places should be strictly prohibited. • Dumping of waste shall be prohibited on fragile slopes, forests, religious or other culturally sensitive areas or areas where livelihood is derived; • Collection, transportation and final disposal of all waste should be carried out on a daily basis and not left in the protected areas • Burning of construction waste should be prohibited. • Use proper waste management guideline 	BFL focal person in JKSNR Contractor	To be included in the contract agreement
Workers' health and safety	Short term Minor	<ul style="list-style-type: none"> • Comply with workers' health and safety guidelines • Ensure regular health screening for the workers pre and during construction activities • Ensure that no underage workers, or children are engaged • 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, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices. • Implement a grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns 	BFL focal person in JKSNR Contractor	To be included in the contract agreement
Increase in poaching	Short term Minor	<ul style="list-style-type: none"> • Construct waterholes in areas where poaching is limited • Park authorities shall carry out increased patrolling during and after the waterhole construction 	BFL focal person in JKSNR Contractor	Part of regular patrolling

Eco-tourism infrastructure

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Cost
<i>Construction of canopy, demarcation of trails</i>				US\$ 15,000
Waste: generation of waste as a result of construction activities	Short term Minor	<ul style="list-style-type: none"> • Identification of the different waste types at the project site (soil, asphalt, food, etc.); • Ensure that camps are located away from existing stream, river, or water sources, and that no discharge from camps is made into nearby water bodies; • Proper containers/waste bins should be provided at the project site; • Dumping of waste on the sides of the road, on private land, or in other non-designated places should be prohibited; • Dumping waste shall be prohibited on fragile slopes, forests, religious or other culturally sensitive areas or areas where livelihood is derived; • Collection, transportation and final disposal of all waste should be undertaken regularly on a weekly basis; • Possible hazardous waste (motor oils, vehicle fuels, etc.) should be collected separately and authorized collector and transporter should be sub-contracted to transport and finally dispose; • All construction materials should be covered during the transportation to avoid waste dispersion; • The options for reuse/recycling of the generated waste streams should be taking into consideration (e.g. excavated soil, etc.). • Burning of construction waste should be prohibited. <p><i>After construction:</i></p> <ul style="list-style-type: none"> • * All waste shall be removed from the project site. 	BFL focal person in JKSNR Contractor	To be included in the bidding document
Workers' health and safety	Short term Minor	<ul style="list-style-type: none"> • Comply with the BFL's occupational health and safety guidelines • Ensure regular health screening for the workers pre and during construction activities • Ensure that no underage workers, or children are engaged • 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 	BFL focal point in JKSNR Contractor	To be included in the bidding document

		<p>with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, and promotion, termination of employment or retirement, and disciplinary practices.</p> <ul style="list-style-type: none"> • Implement a grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns 		
Access to grazing (office headquarter)	Short term Minor	<ul style="list-style-type: none"> • Ensure there is an alternative grazing • Ensure access to core grazing is not impacted 	BFL focal person in JKSNR	To be included from the activity cost

5. ESMP Implementation Arrangements

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

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

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

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

6. ESMP Monitoring Arrangements

The BFL focal person in JKSNR 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.

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

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

1. Construction activities (staff quarters and eco-tourism):

- At least weekly field visits
(Once in a week from field office and once in a month by BFL focal, JKSNR. Monthly report on the progress, constraints, complains, etc. shall submit to ESS consultants at the end of every month)

Date	Location	Report
August, 2020	JKSNR	Implementation
September - November, 2020	JKSNR	Monitoring every month
December, 2020	JKSNR	Completion report

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

Date	Location	Report
September, 2020	JKSNR	Quarterly report
December, 2020	JKSNR	Completion report

- Monitoring by ESS consultants:

- At least quarterly field visits by ESS consultants

Date	Location	Report
August, 2020	JKSNR	Implementation
September, 2020	JKSNR	Monitoring
December, 2020	JKSNR	Completion report

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

Date	Location	Report
August, 2020	PCU	Semi-Annual progress report
December, 2020	PCU	Annual progress report

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

Date	Location	Report
July 15, 2020	BFL	Semi-Annual progress report
January 15, 2021	BFL	Annual progress report

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

Date	Location	Report
July 31, 2020	WWF	Semi-Annual progress report
January 31, 2021	WWF	Annual progress report

2. Improvement of Waterholes:

- Monitoring by implementing entities:

Date	Location	Report
August 2020	JKSNR	Implementation
August - November 2020	JKSNR	Implementation and Monitoring
December, 2020	JKSNR	Completion report

*Increased SMART patrolling as part of their workplan after the completion of the activity.

- Reports by the implementing entities submitted to ESS consultants

Date	Location	Report
August, 2020	JKSNR	Implementation report

December, 2020	JKSNR	Completion report
*Increased SMART patrolling as part of their workplan after the completion of the activity		

- Monitoring by ESS consultants:

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

Date	Location	Report
August, 2020	JKSNR	Implementation

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

Date	Location	Report
August, 2020	PCU	Implementation report
December, 2020	PCU	Annual report

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

Date	Location	Report
15 January, 2021	BFL	Annual Progress Report

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

Date	Location	Report
31 January, 2021	BFL	Annual Progress Report

7. Capacity Need and Budget

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

The budget for each of the activities is:

1. Construction of eco-tourism structures along Haa - Nubtsonapata trail - US\$15,000
2. Waterholes, salt lick - US\$ 4,761.9
3. Construction of Range office cum staff quarters at Sangbeykha - US\$ 71,600
4. Construction of reserve head office including road access and fencing around office compound at Bjee- US\$ 98246

A separate budget of USD 4,265.64 will cover the implementation of the ESMP mitigation measures.

8. Consultation and Disclosure Mechanisms

This ESMP has been prepared in a participatory manner, and a community consultation was carried out as follows:

- Office head quarter (Bjee Gewog)- (11 August 2018),
- Office and staff quarter (Sombeykha)- (19 November 2019), and
- Eco tourism (21 July 2019).

This was carried out to inform Gewog regarding the planned project activities, solicit their opinions, and enable them to question proposed mitigation measures. There were no issues were raised during the consultation meeting and no records were maintained. However, the focal will record and maintain the minutes of meeting in future consultation meetings.

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.

9. Stakeholder Engagement Plan

The local community that resides in the vicinity of the planned BFL activities in JKSNR will be engaged throughout the implementation of these activities as follows:

1. Construction of eco-tourism structures along Haa- Nubtsonapata trail –
 - Dates: 21 July 2019
 - Agenda: information on ecotourism trails and maintenance
 - Location: Gewog Office
2. Waterholes, salt lick
 - Dates: October 2020
 - Agenda: Conservation and management plan of waterholes
 - Location: Gakiling range office and Sobeykha range office
3. Construction of Range office cum staff quarters at Sangbeykha Range Office-
 - Dates: 21 July 2019
 - Agenda: information and clearance on office construction
 - Location: Gewog Office
4. Construction of head office, access road and fencing of office compound at Bjee
 - Dates: 11 August 2018
 - Agenda: information and clearance on office construction
 - Location: Gewog Office

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

Annex 1. Community consultation minutes

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ROYAL GOVERNMENT OF BHUTAN
SANGBAYKHA GEWOG ADMINISTRATION
SANGBAYKHA DUNGKHAG, HAA



SGA/DAH(26)2019/811

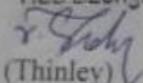
Date: 19/11/2019

TO WHOM IT MAY CONCERN

Sangbaykha Gewog Administration certifies that there is no complain and restriction against the construction of Park Range Office, JKSNR on registered land measuring 20 decimal at Sangbaykha Gewog below RNR Office.

Gewog Administrative Officer

Sangb. Gewog
Haa Dzongkhag


(Thinley)

Gup, Sangbaykha Gewog

Cc: 1. Gewog Office File



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ROYAL GOVERNMENT OF BHUTAN
GEWOG ADMINISTRATION
EUSU: HAA



Eusu/Administration(01)2019/ 13

Date- 21/07/2019

The Chief Forestry Officer
Jigme Khesar Strict Nature Reserve
Haa

Subject:- Administrative Approval

Sir,

In regard to the letter No.JKSNR/07/2019-2020/445, the Gewog Administrative is pleased to accord Administrative Approval for the construction of infrastructure in order to boost Eco Tourism along the trails of Nub Tshonapata.

Yours sincerely

(Tshering Peldon)
Administrative Officer