

Bhutan for Life
Environmental and Social Management Plan for
Jigme Singye Wangchuck National Park (2020)

1. Introduction

(A) Project Background

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

BFL seeks to achieve the following objectives:

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

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

(B) Scope of ESMP

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

Centrally located and encompassing a wide altitudinal variation & vegetation, Jigme Singye Wangchuck National Park (JSWNP) is the third largest Protected Area in the Country. The park borders Royal Manas National Park (RMNP) in the south and it is connected to Jigme Dorji National Park (JDNP) and Wangchuck Centennial National Park (WCNP) to the north and Phrumsengla National Park (PNP) to the north east by biological corridors, thus forming a contagious belt between tropical south and alpine north as shown in Figure 1. Administratively, JSWNP covers 5 districts partially.

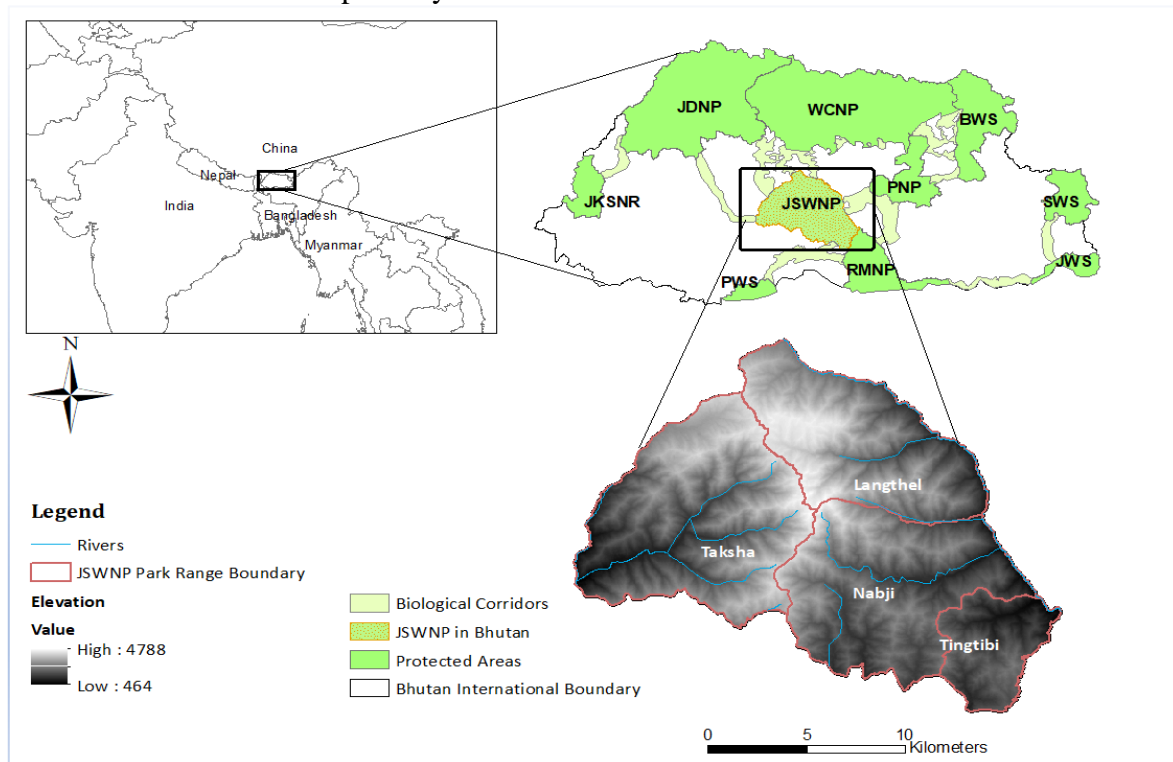


Figure 1 Location of JSWNP

The 1730 sq.km national park was gazetted in 1995 with objective of securing ecological connectivity and managing & conserving the natural & cultural heritages of Central Bhutan. 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 39 mammals, 270 birds, 139 species of butterflies, 16 fishes, and we are yet to establish the baseline for herpeto fauna, fungal diversity and diversity of orchids and herbal plants.

Amongst the mammals, the species includes some of the Asia's most charismatic species including 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. JSWNP also harbors 50% of the population of 'Critically Endangered' White-bellied Heron.

Over 4000 people reside in the national parks 561 households spread over 5 geogs partially in five districts adapting to various climatic conditions and vegetation covers.

Hydrology:

The eastern boundary of the park, from Trongsa to Tingtibi is defined by Mangde Chhu river, whereas 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. Numerous other streams and rivulets originate from the snow-fed alpine lakes in Black

Mountain area, and melting snow and monsoon rain contribute to the water volume. This network of small perennial and annual tributaries flow down the steep slopes, often as waterfalls, and along valleys to become tributaries of the larger rivers. The distinct rainy and dry seasons results in wide seasonal variations in the river flows, with large volumes of sediment-laden water flowing during the monsoon and low volume during the dry, winter season.

The local communities also rely on the water from these rivers for domestic and for irrigation, and contributing to the water withdrawal from the rivers.

There are several major hydropower plants being constructed along rivers of Punatshang Chhu (Kamechu-Taksha), Mangde Chhu (Langthel), and the Nika Chhu, which fall on the border of the national park.

Socio-economic condition of the local communities:

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 Jigmechoeling geog, Sarpang Dzongkhag. The latter village has only 7 Monpa households, but are an important part of Monpa community. In total, there are more than 4000 people in to 561 households that live inside the national park as shown in the table below:

Table 1 Communities in JSWNP

Geog	Dzongkhag	Total Households	Population
Athang	Wangdi Phodrang	121	1152
Korphu	Trongsa	207	1522
Langthel	Trongsa	74	711
Tangsibji	Trongsa	76	777
Trong	Zhemgang	83	817
Total		561	4979

The three villages of Korphu, Nabji, and Nimshong from Korphu *geog* have the highest number of households, whereas the villages in Athang *geog* are smaller and scattered. Overall, Korphu, Trong, and Tangsibji *geogs* have a smaller number but larger sized villages, whereas Langthel and Athang *geogs* have several scattered villages. The people from these villages depend on the natural resources in the national park for their livelihoods.

The major sources of livelihoods for the communities in the national park are agriculture and livestock rearing, with some income from sale of non-wood forest products.

Some households also engage in labour-based wage earning, especially in the RGOB sectors. These are mostly in villages closer to towns and infrastructure projects sites, where jobs are available. Casual labour is highest in Langthel, Korphu, and Athang *geogs*, whereas trade-based cash income is highest in Trong *geog*.

3. Planned activities in Year 2020

Activities that are planned in JSWNP in 2020 include the following:

1. River bank protection work

A small stretch (about 15 meters) of river bank near the park deputy range office at Adha has been eroded putting the drinking water supply of the office building and school at risk as shown in Figure 2. This also poses threat to the agricultural field just above the river bank as shown

in Figure 3. Natural habitat in this area is aquatic habitat consisting of few species of fish such as *Schizothorax progustus* (Trout), *Garra annandalei*, *Psilorhynchus balitora*, and *Pseudocheneis* sp.

The activity includes bio-engineering work (using local materials) to contain the erosion. There will be no machinery used as well as no materials such as concrete. However, the workers will have to get inside the river causing disturbance and also the soil used for filling up the bio-engineering structures may escape into the river causing temporary change in water quality downstream. There will be around 10 workers who are mainly local and will commute from the nearest community which is around 100 meters-500 meters. It will be for 15 days.

This activity would benefit the school, Adha community and the park's deputy range office. The budget allocated for this activity is Nu. 136,000 (USD 1850) and the planned date is from October 2020 to December 2020.

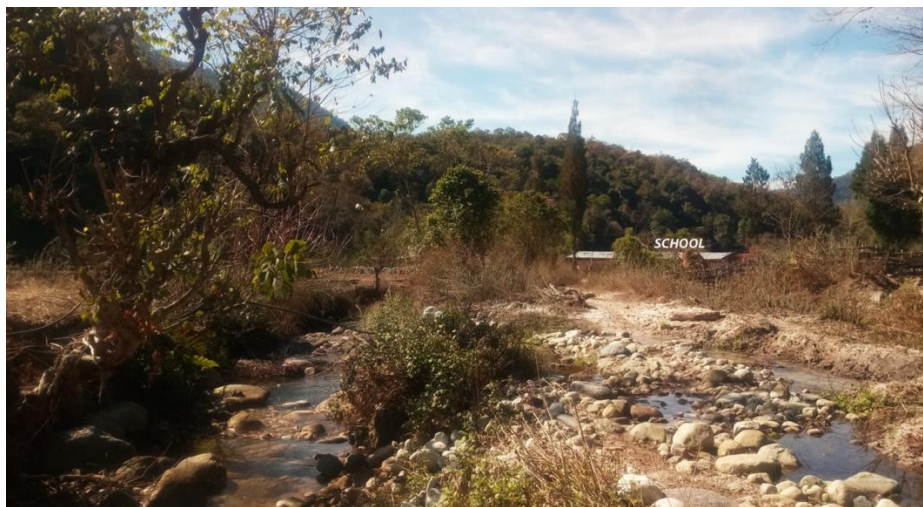


Figure 2 Location of school w.r.t. the eroded river bank



Figure 3 River bank protection site

The activity has the following adverse impacts:

- Disturbance of natural habitat especially the aquatic habitat during the bioengineering work as the workers will have to get in the river and disturb the sediments.
- Water quality disturbance: There will be filling of soil on the bank which will affect the quality of water downstream temporarily. However, the disturbance will be of small scale and temporary.

- Workers' health and safety: As the workers have to work in the river, which is very slippery and full of rough stones and pebbles, there is a need of safety.

2. Construction of staff quarter at Zhemgang

The construction of staff quarter is at Tingtibi town near the fuel station with budget allocation of USD 65000 in an area of about 30 decimals. The Thromde clearance for construction is obtained. As the land falls within the town area, clearance from the community as well as from the municipal are also obtained. The planned date to start is March 2020 and expected date of completion is December 2020. The land was fallow and belonged to Tingtibi municipality and there was no use of the land. So, there is no effect on the usage and access right to the communities which is commercial establishment consisting of around 150 households.

There will be 7 workers who are local and they will be staying in an old staff quarter belonging to the Range Office with basic facilities such as electricity, drinking water, toilet and kitchen. The construction consists of one storied structure.

Following are adverse impacts of the activity:

- Noise disturbance: Possible noise disturbance as a result of outdoor equipment usage such as excavator, mixer and transportation vehicles driving around the construction site. The community (Tingtibi town) is close to the construction site;
- Air quality: dust from the foundation digging and possible emissions from transportation vehicles;
- Waste: generation of waste as a result of construction activities, such as concrete wastes;
- Workers' health and safety: Since the activity involves hard labor, especially during concrete and iron works accidental mishaps could occur. Also, because the construction site is located adjacent to national highway the workers might also be affected by the traffic on the highway.
- Local community's health and safety: Noise pollution from the construction site might cause disturbance to the community during peaceful hours. The heavy vehicles used for construction running through the community (town) might affect people's movement in and around the town area.
- Conflict between temporary workers and local communities: Since the majority of the workers are from outside the locality, their difference in lifestyle and belief system might conflict with the local culture and cause tension between them.



Figure 4 Construction site

3. Construction of retention wall

The main activity is to construct the retention wall behind the staff quarter at Tingtibi. The current staff quarter under construction requires a retention wall behind it. The estimated budget is USD 3537. The length is 30 m and breadth is 1.5 m. As it is a part of the staff quarter construction, all clearances are obtained. The planned date to start is November 2020 and expected date of completion is December 2020. The land was fallow and belonged to Tingtibi municipality and there was no use of the land. So, there is no effect on the usage and access right to the communities which is commercial establishment consisting of around 150 households.

Following are adverse impacts of the activity:

- Wastes: excavation activities and waste from workers
- Workers' health and safety

4. Improvement of waterholes.

The main activity is to restore the existing waterholes under Langthel range of JSWNP. The waterholes are highly degraded due to deposition of mud and debris during the monsoon seasons over the years. This has led to decrease in size and water quality in the waterholes. Therefore, the activity will include digging out and removal of the excess mud and debris, and connection of external water channel to the waterholes if it is felt necessary. There will be 10-12 workers including the forest officials and the local helpers for the duration of 15 days in different waterholes for which safety of the workers need to be considered. The adverse impacts include waste generated by workers. The budget allocated for this activity is Nu.323,809 (USD 4405.5) and the planned date is from October 2020 to December 2020.

Following are adverse impacts of the activity:

- Wastes: mud from excavation activities and waste from workers
- Workers' health and safety
- Increased poaching as the animals gather around the waterholes making it a hotspot for poachers.

5. Combined zonation

The activity includes demarcation of the protected areas and carry out maintenance in the existing structures by fixing pillars. The budget allocated for the activity is Nu. 4,916,400. The planned date is July 2020 to June 2021. The protected areas consist of settlements within the national park. The settlements are Kudra, Phrumzur, Jangbi, Wangling and Kella under Langthel range; Nabji, Korphu, Nimshong and Reeti under Nabji range; Tama, Takabi and Berti under Tingtibi range and Adha, Rukha, Migtena, Lawa, Lamga, Dayu and Samthang under Taksa range.

The existing resource usage rights include rural timber for house construction and renovation, firewood, Non-Timber Forest Product (NTFP), and grazing rights in the protected areas.

The activity will first consist of consultation with the communities and then after the consent from the communities, there will be pillar fixing as per the national guideline of National Land Commission (NLC). During peg fixing, there will be 10 workers (including staff from NLC, forest officials and local people). It will be for a duration of 6 months in phase wise and the workers will stay in eco-friendly camps/ tents.

Following are adverse impacts of the activity:

- Waste from consultation and during peg fixing by workers.

6. Improvement of lowland grassland

The activity includes sowing of fodder grass seeds in degraded grasslands in Tingtibi and Langthel range of JSWNP. The areas are located at moderately steep slopes. The planned date of implementation is from July 2020 to October 2020 and planned budget is USD 3000. These sites are not used by the local communities and the activity is mainly focused for wildlife (ungulate species). The sites are located deep in the forest and the nearest community is around 5 kms away from these sites. Around 5 local people will be employed as wage workers and over 7 forest officials will be involved in the activity. The activity will be for 1 week over the three months period. The sites are abandoned pasture lands which was used by nomadic herders decades ago, and have degraded over the years. The activity will involve removal of existing grasses, minor soil disturbance and sowing of fodder seed by broadcasting method.

Following are adverse impacts of the activity:

- Wastes: There will be waste generated from the debris and from the workers.

4. Environmental and Social Impacts and Mitigation Measures

1. River Bank protection

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Costs (USD 1= Nu.70.50)
Activity: River protection wall				US\$ 3,500
Disturbance of natural habitat	Short term Minor	<ul style="list-style-type: none"> • Avoid using heavy machinery. • Avoid soil excavation to minimize impact on natural habitats. 	BFL focal point in [JSWNP] Contractor (Community)	Cost will be met from the activity budget
Water contamination as a result of construction water quality	Short term Minor	<ul style="list-style-type: none"> • Avoid pouring construction materials into the river. 	BFL focal point in [JSWNP] Contractor	Included in the activity budget
Workers' health and safety	Short term Minor	<ul style="list-style-type: none"> • Ensure safety gears and first aid kits for the workers; • Ensure regular health screening for the workers pre and during construction activities; • Ensure that no underage workers, or children are engaged; • Decent work conditions, including an appropriate salary, working hours for workers shall be provided to all workers; • Workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, 	BFL focal point in [JSWNP] Contractor	Nu. 10,000 (USD 141.84) for the safety gears and first aid kit for 10 workers

		<p>such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, job assignment, and disciplinary practices;</p> <ul style="list-style-type: none"> • A grievance mechanism for workers to raise workplace concerns should be in place. 		
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2. Construction of staff quarter in Zhemgang.

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Costs (USD 1= Nu.70.50)
Activity: Construction of Range Office which will start in 2020				US\$65,000
<p>Noise disturbance: Possible noise disturbance as a result of outdoor equipment usage such as excavator, mixer and transportation vehicles driving around the construction site. The communities are close to the construction site.</p>	<p>Short term Minor</p>	<p><i>Pre-construction:</i></p> <ul style="list-style-type: none"> • requirements to limit noise pollution should be included in the bidding documents, as a precondition for the contractor's selection <p><i>During construction:</i></p> <ul style="list-style-type: none"> • The control of the noise level should be performed before the startup of construction • The construction work should be not 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 (fitness). • Earplugs and protecting devices shall be provided to workers on site. 	<p>BFL focal person in [JSWNP]</p>	<p>Cost will be from the activity budget</p>
<p><i>Air quality:</i> dust and possible emissions from transportation vehicles</p>	<p>Short term Minor</p>	<p><i>Pre-construction:</i></p> <ul style="list-style-type: none"> • requirements to limit emissions should be included in the bidding documents, as a precondition for the contractor's selection <p><i>During construction:</i></p> <ul style="list-style-type: none"> • Construction site, transportation routes and materials handling sites should be water-sprayed on dry and windy days; 	<p>BFL focal person in [JSWNP] Contractor</p>	<p>Cost will be from the activity budget</p>

		<ul style="list-style-type: none"> • Construction materials should be stored in appropriate and covered 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; • Usage of protective masks for the workers if dust appears; • Restriction of the vehicle speed within the construction sites; • Perform regular maintenance of the vehicles and construction machinery in order to • reduce the leakages of motor oils, emissions and dispersion of pollution; • Burning of debris from ground clearance are not permitted. 		
Waste: generation of waste as a result of construction activities	Short term Minor	<p><i>Pre-construction:</i></p> <ul style="list-style-type: none"> • requirements for appropriate waste management should be included in the bidding documents, as a precondition for the contractor's selection <p><i>During construction:</i></p> <ul style="list-style-type: none"> • Identification of the different waste types at the project site (soil, concrete, food, etc.); • Proper containers/waste bins should be provided at the project site; • Dumping of waste on the sides of the road, on private land, or in other non-designated places should be prohibited. • Dumping waste shall be prohibited on fragile slopes, forests, religious or other culturally sensitive areas or areas where livelihood is derived; • Collection, transportation and final disposal of all waste should be undertaken regularly [weekly] 	BFL focal person in [JSWNP]	Waste management budget: Nu.20,000 (USD 283.68)

		<ul style="list-style-type: none"> • All construction materials should be covered during the transportation to avoid waste dispersion; • The options for reuse/recycling of the generated waste 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. 		
Workers' health and safety	Short term Minor	<ul style="list-style-type: none"> • Follow the workers' health and safety guidelines as attached to the ESMP. • Ensure regular health screening for the workers pre and during construction activities • Ensure that no underage workers, or children are engaged • Decent work conditions, including an appropriate salary, working hours, accommodation and food for workers shall be provided to all workers • Workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices. • A grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns should be in place. 	BFL focal point in [JSWNP] Contractor	Included in the bidding documents from the activity budget

Local community's health and safety		<ul style="list-style-type: none"> • Ensure the safety of all project-related equipment, in line with the requirements above. • Minimize the use of hazardous materials, and ensure that community members are not exposed to them. In case that the use of such materials is necessary, provide sufficient notice to local community members and inform them on safety and protection measures. • Avoid dumping any waste or otherwise contaminating community sources of water supply and water quality. • Provide information to local communities on construction activities and plans. 	BFL focal point in [JSWNP] Contractor	Included in the bidding documents from the activity budget
Conflict between temporary workers and local communities		<ul style="list-style-type: none"> • Workers shall be made aware of local situation, as well as the legal consequences of harassment and intimidation, especially with regards to sexual harassment and gender-based violence. • Local communities shall be made aware of the engagement of temporary workers in project sites. • Strict monitoring shall be carried out to ensure conflicts are minimized. 	BFL focal point in [JSWNP] Contractor	Included in the bidding documents from the activity budget.

3. Construction of retention wall

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Costs (USD 1= Nu.70.50)
Activity: Construction of retention wall				US\$3,688
<i>Waste:</i> generation of waste as a result of construction activities	Short term Minor	<p><i>Pre-construction:</i></p> <ul style="list-style-type: none"> • requirements for appropriate waste management should be included in the bidding documents, as a precondition for the contractor's selection <p><i>During construction:</i></p> <ul style="list-style-type: none"> • Identification of the different waste types at the project site (soil, concrete, food, etc.); 	BFL focal person in [JSWNP]	To be included in the activity budget

		<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 regularly [weekly] • All construction materials should be covered during the transportation to avoid waste dispersion; • The options for reuse/recycling of the generated waste 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. 		
Workers' health and safety	Short term Minor	<ul style="list-style-type: none"> • Follow the workers' health and safety guidelines as attached to the ESMP. • Ensure regular health screening for the workers pre and during construction activities • Ensure that no underage workers, or children are engaged • Decent work conditions, including an appropriate salary, working hours, accommodation and food for workers shall be provided to all workers • Workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect 	BFL focal point in [JSWNP] Contractor	Included in the bidding documents from the activity budget

		<p>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.</p> <ul style="list-style-type: none"> • A grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns should be in place. 		
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4. Improving waterholes in Langthel Geog.

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Costs (USD 1= Nu.70.5)
Activity: Salt Lick and Waterhole restoration				US\$ 4,761.9
Waste: mud from excavation activities and waste from digging activities	Short term Minor	<ul style="list-style-type: none"> • Proper containers/waste bins should be provided at the project site; • Dumping of waste in the waterholes, in the protected areas or in other non-designated places should be strictly prohibited. • Dumping of waste shall be prohibited on fragile slopes, forests, religious or other culturally sensitive areas or areas where livelihood is derived; • Collection, transportation and final disposal of all waste should be collected on a daily basis and not left in the protected areas • Burning of construction waste should be prohibited. 	BFL focal point in [JSWNP]	Cost will be met from the activity budget of USD 4,761.9
Workers' health and safety	Short term Minor	<ul style="list-style-type: none"> • Ensure safety kits and first aid kits. • Ensure regular health screening for the workers pre and during construction activities • Ensure that no underage workers, or children are engaged. 	BFL focal point in [JSWNP]	Nu 8,000 = USD 113.48 for safety gears and first aid

		<ul style="list-style-type: none"> Decent work conditions, including an appropriate salary, working hours, accommodation and food for workers shall be provided to all workers. A grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns should be in place. 		
Increased poaching	Short term Minor	<ul style="list-style-type: none"> Increased patrolling of park authorities should be carried out during and after the waterhole restoration. 	BFL focal point in [JSWNP]	Included in the regular patrolling

5. Combined zonation by Physically demarcating JSWNP of 1730 km².

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Costs (USD 1= Nu.70.5)
Activity: Combined zonation				US\$ 66890
Wastes during consultation and peg fixing	Short term Minor	<ul style="list-style-type: none"> Proper containers/waste bins should be provided at the consultation and the peg fixation sites; Dumping of waste on the sides of the road, on private land, or in other non-designated places should be prohibited. Dumping waste shall be prohibited on fragile slopes, forests, religious or other culturally sensitive areas or areas where livelihood is derived; 	BFL focal person (JSWNP)	Cost will be met from the activity budget of USD 66,890

6. Restoration of lowland grassland

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Costs (USD 1= Nu.70.5)
Activity: Restoration of lowland grassland				USD 3000
Waste: There will be waste generated from the debris and from the workers.	Short term Minor	<ul style="list-style-type: none"> Proper containers/waste bins should be provided sites; Dumping of waste in the activity site should be prohibited; Dumping waste shall be prohibited on fragile slopes, forests, religious or other culturally sensitive areas or areas where livelihood is derived; Burning of waste in the activity site is prohibited 	BFL focal person (JSWNP)	Included in the activity budget

5. ESMP Implementation Arrangements

The implementation of project activities will be carried out by the BFL focal person in JSWNP. 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) (including community contractors) for implementation of the planned activities in JSWNP 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 JSWNP's 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 safeguard's requirements.

6. ESMP Monitoring Arrangements

The BFL focal person in JSWNP 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.

JSWNP's PA is also fully responsible for the compliance of all external contractors and service providers working in the JSWNP with the safeguard's requirements outlined in the ESMP.

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

1. River Embankment construction to protect from flooding:

- Monitoring by implementing entities:
 - Field visits - at twice in a month

Date	Location	Report
October, 2020	JSWNP	Implementation
November, 2020 November, 2020	JSWNP	Monitoring
December, 2020	JSWNP	Completion inspection

- Monthly reports by the implementing entities submitted to ESS consultants

Date	Location	Report
October, 2020	JSWNP	Implementation report
November, 2020	JSWNP	Monitoring report
December, 2020	JSWNP	Completion report

- Monitoring by ESS consultants:

- Field visits - at least twice during the construction activities.

Date	Location	Report
October, 2020	JSWNP	Implementation
December, 2020	JSWNP	Completion inspection

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

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

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

Date	Location	Report
15 January, 2021	BFL	Annual Progress Report

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

Date	Location	Report
31 January, 2021	WWF	Annual Progress Report

2. Construction activities:

- Monitoring by implementing entities:

- At least once in a month field visits

Date	Location	Report
March, 2020	Tingtibi, JSWNP	Implementation
April - November, 2020	Tingtibi, JSWNP	Monitoring
30 December, 2020	Tingtibi, JSWNP	Completion inspection

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

Date	Location	Report
20 March, 2020	Tingtibi, JSWNP	Implementation report
April - November, 2020	Tingtibi, JSWNP	Monthly Monitoring report
30 December, 2020	JSWNP	Completion report

- Monitoring by ESS consultants:

- At least quarterly field visits by ESS consultants

Date	Location	Report
April, 2020	Tingtibi, JSWNP	Implementation
July, 2020	Tingtibi, JSWNP	Monitoring
December, 2020	Tingtibi, JSWNP	Completion

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

Date	Location	Report
April, 2020	PCU	Implementation
July, 2020	PCU	Monitoring report
December, 2020	PCU	Completion report

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

Date	Location	Report
15 July, 2020	BFL	Semi-Annual Progress Report

15 January, 2020	BFL	Annual Progress Report
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- Bi-annual reports of the Secretariat to WWF US (as part of mid-year and final APRs)

Date	Location	Report
31 July, 2020	WWF	Semi-Annual Progress Report
31 January, 2020	WWF	Annual Progress Report

3. Waterhole management:

- Monitoring by implementing entities:

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

Date	Location	Report
October, 2020	JSWNP	Implementation
November, 2020	JSWNP	SMART Patrolling
December, 2020	JSWNP	Completion and SMART patrolling
*Increased SMART patrolling as part of their workplan after the completion of the activity		

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

Date	Location	Report
October, 2020	JSWNP	Implementation report
November, 2020	JSWNP	SMART patrolling report
December, 2020	JSWNP	SMART patrolling 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
October, 2020	JSWNP	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
November, 2020	PCU	Implementation
December, 2020	PCU	Annual Progress Report

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

Date	Location	Report
15 January, 2021	BFL	Annual Progress Report

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

Date	Location	Report
31 January, 2021	WWF	Annual Progress Report

4. Combined zonation:

- Monitoring by implementing entities:

- Field visits—at least once during the intervention by implementing entities, and then three months after the intervention.

Date	Location	Report
July, 2020	JSWNP	Consultation
October, 2020	JSWNP	After consultation
December, 2020	JSWNP	Peg fixing
January, 2021	JSWNP	Peg fixation
March, 2021	JSWNP	Peg fixation
June, 2021	JSWNP	Completion

- Reports submitted by the implementing entities to ESS consultants once after the completion of the intervention, and then three months after the intervention

Date	Location	Report
July, 2020	JSWNP	Consultation report
December, 2020	JSWNP	After consultation report
December, 2020	JSWNP	Progress report
March, 2021	JSWNP	Progress report
June, 2021	JSWNP	Completion report

- Monitoring by ESS consultants:
- Field visits– at least once during the intervention

Date	Location	Report
July, 2020	JSWNP	Consultation

- Reports submitted once by ESS consultants within a week after the field visit, and then for semi-annual reporting to the PCU (M&E officer).

Date	Location	Report
August, 2020	PCU	Monitoring report

- Reports by PCU (M&E officer) to Secretariat – bi-annually.

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

- Reports of the Secretariat to WWF US-bi-annually, as part of mid-year and final APRs.

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

5. Restoration of lowland grasslands (habitat management):

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

Date	Location	Report
July, 2020	JSWNP	Implementation
October, 2020	JSWNP	Monitoring
December, 2020	JSWNP	Completion

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

Date	Location	Report
July, 2020	JSWNP	Implementation report

October, 2020	JSWNP	Monitoring report
December, 2020	JSWNP	Completion report

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

Date	Location	Report
August, 2020	JSWNP	Implementation

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

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

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

Date	Location	Report
15 January, 2021	BFL	Annual Progress Report

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

Date	Location	Report
31 January, 2021	WWF	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 are: USD 3500, USD, 65000, USD 3688, USD 4761.9, USD 66890 and USD 3000.

The budget for the ESMP mitigation measures are met within the activity budget except for safety gears and waste management embedded in the activity which amounts to USD 539.01.

8. Consultation and Disclosure Mechanisms

This ESMP has been prepared in a participatory manner, and a community consultation was carried out on 27 February, 2020 on construction activity to inform local communities regarding the planned project activities, solicit their opinions, and enable them to question proposed mitigation measures. The main issues that were raised during the consultation meeting include the following:

- The main issues were for reallocation of site for construction. The reallocation was because the previous site was blocking the view of the monastery and was falling under green zone area as per the Local Area Plan of the Thromde in Zhemgang. The issue raised was to relocate the site. Accordingly, the site was relocated as per the letter assured from Dasho Dzungdag and attached in ANNEX 1.
- Location: Zhemgang DT hall.

The detailed minutes of the consultation meeting was not recorded. However, for future consultation meetings, the minutes of meetings will be recorded and attached as per the requirement 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, BFL and WWF, Bhutan Program. Hard copies of the ESMP should also be available at the PA Management Office and at the PCU Office.




9. Stakeholder engagement plan

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

- For all construction activities (construction of offices and riverbank protection)—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).
- For activities that have no direct impact on communities (improvement of lowland grassland and waterhole rehabilitation)—consultation meetings have to be organized once a year (can be combined with consultations for other BFL or non-BFL activities).
- **River bank protection work**
 - Dates of consultation: October week 1, 2020
 - Agenda: Problem statement, need for the intervention, structural design of the protection works, work ethics, budget, pros of the intervention and future management will be discussed.
 - Location: Athang, Deputy range office
- **Construction of staff quarter at Zhemgang including retention wall around the staff quarter**
 - Dates of consultation: 27 February, 2020
 - Agenda: Site allocation (change of plot), reasons for changing the site, thomde and environmental clearance and consent for starting the construction were worked out.
 - Location: Zhemgang DT hall.
- **Improving waterholes in Langthel Geog**
 - Dates of consultation: October week 2, 2020
 - Agenda: Rationale behind the intervention, importance of conserving wildlife, basics of Human wildlife conflict (HWC), advantages of restoring waterholes, and future management will be discussed.
 - Location: Kella village
- **Combined zonation**
 - Dates of consultation: July week 1, 2020
 - Agenda: New boundary of JSWNP, basics of new zonation guidelines, need for zonation, user rights and restrictions in various zones of the national park and related rules and regulations will be discussed.
 - Location: All geog centers inside JSWNP.
- **Restoration of lowland grasslands (habitat management):**
 - Dates of consultation: July, week 1, 2020.
 - Agenda: Need for the intervention, advantages of restoring the grasslands, importance of wildlife conservation and future management plans will be discussed.
 - Location: 1. Tingtibi range office; 2. Langthel range 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.

ANNEXURE 1: Letter from Dzongdag as an outcome of the consultation

	<p>དཔལ་ལྷན་འབྲུག་གཞུང་། ཚོང་ཁག་བདག་སྐྱོང་། གཞུང་མ་སྒང་། Royal Government of Bhutan Dzongkhag Administration ZHEMGANG</p>	
<p>ZD/DES-04/2019-20 8293</p>		<p>12th March 2020</p>
<p>The Park Ranger Jigme Singye Wangchuck National Park Tingtibe, Zhemgang</p>		
<p>Sub: Relocation of site for the construction of staff quarter of JSWNP Office atTingtibe</p>		
<p>Dear Sir,</p>		
<p>In response to your letter No. JSWNP/TPR/20/19-20/87 dated 11th March, 2020, please note that the proposed staff quarter construction was falling in the green zone as per the revised Structural Plan of Tingtibi.</p>		
<p>Therefore, construction site is relocated and the Thram for the new location will be provided as soon as the required formalities are completed. The Administration hereby grants the approval to construct the staff quarter at the allocated new location as per the approved design.</p>		
<p>Thanking you,</p>		
<p>Yours sincerely,</p> <div style="text-align: center;"> (Lobzang Dorji) DZONGDAG</div>		
<p>Cc:</p> <ol style="list-style-type: none">1. Development Regulatory Officer, DHS for information2. Guard file		
<p>Tel #: 00975-03-741116/741142</p>		
<p>12.03.20 20 72</p>		