

Bhutan for Life

Environmental and Social Management Plan for Biological Corridor 5 (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 (PAS);
- 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. Specific mitigation actions will be 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 Biological Corridor 5 is located in the South Eastern part of the country and it lies within the administrative jurisdiction of Pema Gatshel and Samdrup Jongkhar Dzongkhags as shown in Figure 1. It covers an area of 203.58 km² and approximately 48 km in length and the corridor connects the Royal Manas National Park in the west and Jomotshangkha Wildlife Sanctuary in the east. It has an altitudinal variation from 127 to 1183 meters above mean sea level (masl). The main vegetation composition is tropical broad-leaved forest. It covers Norbugang and Chokhorling Gewogs under Pema Gatshel District; and Dewathang, Orong, Phuntshothang Gewogs under Samdrup Jongkhar District.

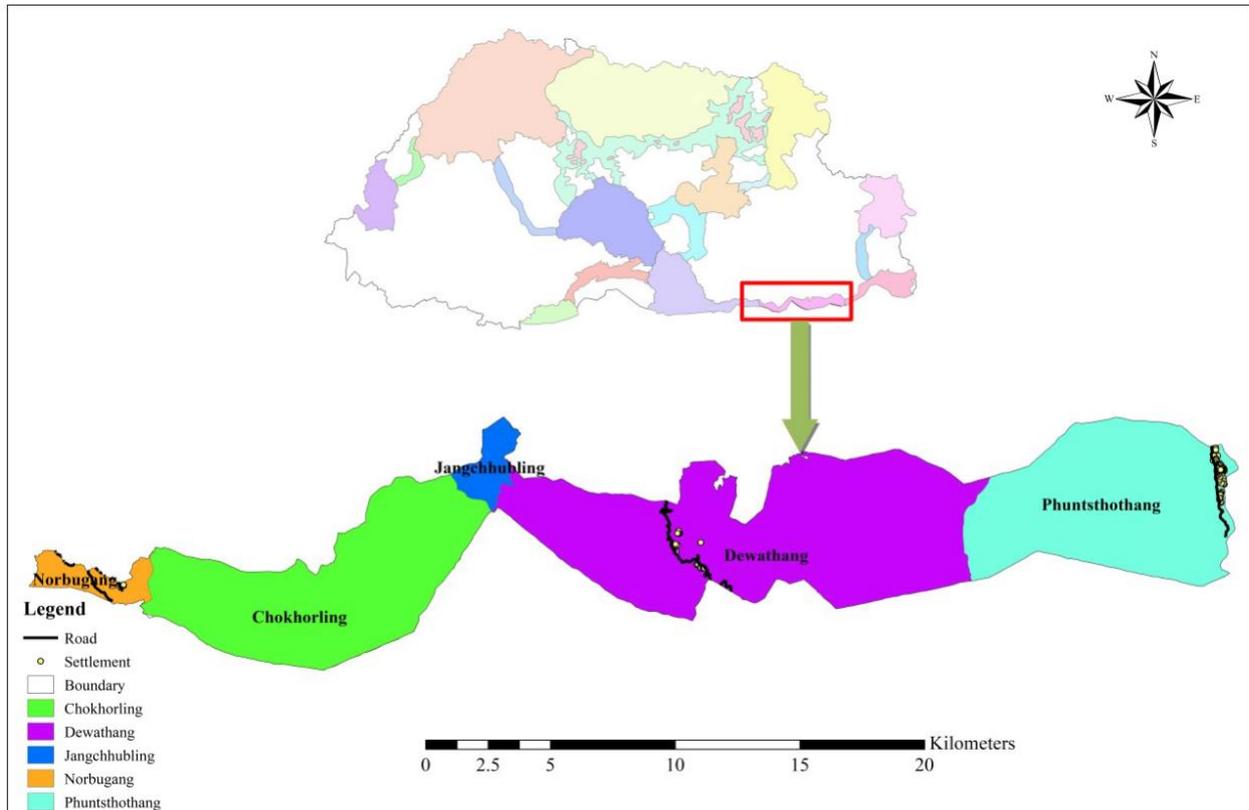


Figure 1 Location of BC5

The general topography for this corridor is moderate to steep slope ranging from zero degrees to more than 35 degrees in which the slope classification was based on the standard adopted for developing Local Forest Management Plans (LFMP) in Bhutan. The slope was classified at an interval of 0 – 25 degrees, 25-35 degrees and more than 35 degrees corresponding to gentle slope, moderately steep slope and steep slope respectively. Gentle sloped areas were found distributed mostly towards the southern belts and areas adjoining the Indian international border and steep-sloped areas mostly occur along the ridges and at many parts were found inaccessible to people.

There are also many wetlands and seasonal ponds making it a very potential habitat for wildlife populations and also forms small catchment areas for the downstream communities.

This biological corridor has over 95% of the land covered under broad-leaved forests comprising of different layers of shrubs (3.07%) and meadows (0.03%). The disturbances due to natural landslides are minimal and only 0.28% of the total corridor area is under landslide affected. The small portion of the land also falls under agriculture (0.81%) and built-up areas (0.02%). The rivers, streams and water bodies contribute to about 0.63% of the total corridor area.

The main source of income for the communities in the area is agricultural farming followed by livestock farming and the number of households in the area are 101.

3. Planned activities in Y2020

There are two dzongkhags covered in BC 5, Pema Gatshel and Samdrup Jongkhar.

The planned activities in Pema Gatshel under BC 5 in 2020 are:

1. Improvement of waterholes and saltlick establishment at various sites and habitat enrichment which include clearing, cleaning, uprooting of noxious weeds and invasive herbs and shrubs, in and around the sites and nearby trails of identified water holes. At the same time, shallow holes will be developed to store water which will be used by wild animals.

Activities will include the following:

- a. There will be collection and arrangement of stones to enlarge area and develop escape route using stones for wild animals.
- b. There will be cleaning and burning of debris inside existing salt lick area and enlarge existing salt lick area.
- c. Native species will be planted inside an approximate area of 1-hectare which is barren and degraded land in different location.

There will be 15 workers involving local farmers who will be engaged to carry out the aforementioned activities. Daily wages as per the existing rate will be paid. The budget allocated is Nu. 335,713.95 (USD 4,761.90) and the planned date is July 2020 to December 2020. There is a village of 8 households which is 1 km from the sites and is not affected as they do not access any natural resources from the activity sites.

The environmental and social impacts are the following:

- Wastes: Soil from digging activities and waste from workers
- Workers' health and safety
- Increased poaching: The area for waterholes and salt licks becomes a hot spot for the animals to gather which increases the risk of poaching.
- Risk of forest fire during burning of debris.
- Invasive species (weeds and unwanted herbs growth) due to plantation of native species for habitat enrichment.

2. River protection wall: This activity includes construction of wall along small river at Dezema, Chokhorling. The name of the stream is Potanala stream which is about 500 metres from the Pelzomthang Integrated check post under Nganglam Dungkhag. There is a community of 15 households who are mainly staff on duty from Royal Bhutan Police, Royal Bhutan Army, Department of Forest and Park Services, Department of Revenue and Customs, Bhutan Agriculture and Food Regulatory Authority. The stream is source of drinking water for the community but during summer, there is a risk of flood due to swelling of the river. The river will affect the site of the planned BC 5 range office. Therefore, it has been planned to construct a bank with length of 20 m and breadth of 2 m. The materials used will be mainly boulders and mesh wire. The consultation with the community is planned on 15th October, 2020 at Chokhorling gewog center. The budget allocated is Nu. 105,750 (USD 1500) and the planned date is July 2020 to December 2020. The duration of work will be 3 months and the number of workers engaged will be 15 who will mainly be local. There will be no use of machinery so it will be mainly small tools such as spades and hoe, etc. and other locally available tool. There will be minimal disturbance to the aquatic habitat as the workers will have to get inside the

river and disturb the sediments. The river protection wall includes construction activities of the wall which have the following adverse impacts:

- Waste generation during construction from workers
- Disturbance of water quality as a result of construction
- Workers' health and safety

In Samdrup Jongkhar, the planned activities for 2020 are:

1. Improvement of waterholes and saltlick establishment at various sites and habitat enrichment which include clearing, cleaning, uprooting of noxious weeds and invasive herbs and shrubs, in and around the sites and nearby trails of identified water holes and salt. The site will be at Khalatsho, Rikhey, Martang, Demola at Dewathang and Orong Gewog. Activities will include the following:

- There will be collection and arrangement of stones to enlarge area and develop escape route using stones for wild animals such as elephants and gaur, deer etc.
- There will be cleaning and burning of debris inside existing salt lick area, addition of approved salt and enlarge existing salt lick area.
- Native species will be planted inside an approximate area of 1 acre which is barren and degraded land in different location.

There will be 15 workers involving the local farmers who will be engaged to carry out the aforementioned activities. They will be accompanied by skilled forest officials. Daily wages as per the existing rate will be paid. The budget allocated is Nu. 335,713.95 (USD 4,761.90) and the planned date is July 2020 to December 2020. There is a village of 20 households which is around 4 kms from the sites and is not affected as they do not access to any natural resources from the activity sites.

The environmental and social impacts are the following:

- Wastes: waste from workers
- Workers' health and safety
- Increased poaching: The area for waterholes and salt licks becomes a hot spot for the animals to gather which increases the risk of poaching.
- Invasive species (weeds and unwanted herbs growth) due to plantation of native species for habitat enrichment.

2. River protection wall: The activity includes construction of wall along small river at Dungsam chhu at Dewathang. It is a seasonal stream which swells during summer and it affects the community causing floods especially in summer.

The wall will be around 10 metres using bricks and concrete, angle posts and barbed wire. The site is next to the Divisional Forest Office as the previous wall was washed away by the landslide caused by Dungsam chhu. There is a town just adjacent to the river. However, the construction will be only around the Divisional Forest Office. There are not many fish so natural habitat disturbance will be minimal. There will be minimal disturbance to the aquatic habitat as the workers will have to get inside the river and disturb the sediments. It will be carried out manually by 15 workers who will be mainly local for three months.

The consultation will be carried out with the Thromde as the site is inside the town. It is planned on 15th October, 2020 at Divisional Forest Office. The budget allocated is Nu. 105,750 (USD 1500) and the planned date is July 2020 to December 2020. The duration of work will be 3 months and the number of workers engaged will be 15 who will mainly be local. There will be no use of machinery so it will be mainly small tools such as spades and hoe, etc. and other

locally available tool. The river protection wall includes construction activities of the wall which have the following adverse impacts:

- Waste generation during construction from workers
- Disturbance of water quality as a result of construction mainly sediment.
- Workers' health and safety

4. Environmental and Social Impacts and Mitigation Measures

1. Improvement of waterholes in Pema Gatshel

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Costs
Activity: Water hole restoration				US\$ 4,761.9
Waste from workers.	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 wastes should be collected on a daily basis and not left in the protected areas; • Burning of waste in the activity site should be prohibited. 	BFL focal person (BC5, Pema Gatshel)	Included in the activity budget of USD 4,761.9.
Workers' health and safety (Local farmers)	Short term Minor	<ul style="list-style-type: none"> • Follow the workers' health and safety guidelines as attached to the ESMP; • Ensure safety gears such as safety wear, boots, gloves and first aid kits for the worker; • 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 	BFL focal person, BC 5 Pema Gatshel)	Nu. 15,000 = USD 212.77 for safety gears and first aid kits

		<p>and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, job assignment, termination of employment or retirement, and disciplinary practices;</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. 		
Increased poaching: The area for waterholes and salt licks becomes a hot spot for the animals to gather which increases the risk of poaching.	Short term Minor	<ul style="list-style-type: none"> • Increased patrolling of BC authorities should be carried out during and after the waterhole restoration. 	BFL focal person (BC5, Pema Gatshel)	Included in the activity budget
Risk of forest fire during burning of debris.	Short term Minor	<ul style="list-style-type: none"> • Plan the activity during spring and summer avoiding dry season; • Controlled and prescribe burning by making fire line 	BFL focal person (BC5, Pema Gatshel)	Included in the activity budget
Invasive species (weeds and unwanted herbs growth) due to plantation of native species	Short term Minor	<ul style="list-style-type: none"> • Assess appropriateness of species in terms of biodiversity, water efficiency, forest fire, local needs, cultural sensitivity, survival, etc. 	BFL focal person (BC5, Pema Gatshel)	Included in the activity budget.

2. River protection wall which includes construction of wall along small stream at Dezema, Chokhorling.in Pema Gatshel

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Costs
				US\$ 1,500
Waste generation by workers	Short term Minor	<p><i>Pre-construction:</i></p> <ul style="list-style-type: none"> • Awareness about wastes and management in the activity area by the forest officials to the workers. <p><i>During construction:</i></p>	BFL focal (BC5, Pema Gatshel)	Awareness program and campaign: Nu 7000 = USD 99.29

		<ul style="list-style-type: none"> • Identification of the different waste types at the project site (soil, food, excess mesh wires etc.); • Proper containers/waste bins should be provided at the project site; • Dumping waste shall be prohibited on fragile slopes, rivers, 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 (daily); • 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. 		
Disturbance of water quality as a result of construction	Short term Minor	<ul style="list-style-type: none"> • Avoid pouring construction materials as well as wastes from workers such as food, plastics etc. into the river; • Avoid open defecation in the river. 	BFL focal person (BC5, Pema Gatshel)	Included in the activity budget of USD 1,500
Workers' health and safety	Short term Minor	<ul style="list-style-type: none"> • Follow the workers' health and safety guidelines; • Ensure safety gears and first aid kit; • 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 person (BC5, Pema Gatshel)	Nu. 15,000 = USD 212.77 for safety gears and first aid kits

		<p>to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, job assignment, termination of employment or retirement, and disciplinary practices;</p> <ul style="list-style-type: none"> • A grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns 		
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3. Improvement of waterholes in Samdrup Jongkhar

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Costs
Activity: Water hole restoration				4,761.9
Wastes: Soil from digging activities and waste from workers.	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 wastes should be collected on a daily basis and not left in the protected areas; • Burning of waste in the activity site should be prohibited. 	BFL focal person (BC5, Samdrup Jongkhar)	Included in the activity budget of USD 4,761.9
Workers' health and safety (Local farmers)	Short term Minor	<ul style="list-style-type: none"> • Follow the workers' health and safety guidelines as attached to the ESMP; • Ensure safety gears such as safety wear, boots, gloves and first aid kits for the workers; • Ensure that no underage workers, or children are engaged; 	BFL focal person (BC5 Samdrup Jongkhar)	Nu. 15,000 = USD 212.77 for safety gears and first aid kits

		<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; Workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, job assignment, termination of employment or retirement, and disciplinary practices; A grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns should be in place. 		
Increased poaching: The area for waterholes and salt licks becomes a hot spot for the animals to gather which increases the risk of poaching.	Short term Minor	<ul style="list-style-type: none"> Increased patrolling of BC authorities should be carried out during and after the waterhole restoration. 	BFL focal person (BC5, Samdrup Jongkhar)	Included in the activity budget
Invasive species (weeds and unwanted herbs growth) due to plantation of native species	Short term Minor	<ul style="list-style-type: none"> Assess appropriateness of species in terms of biodiversity, water efficiency, forest fire, local needs, cultural sensitivity, survival, etc. 	BFL focal person (BC5, Samdrup Jongkhar)	Included in the activity budget.

4. River protection wall which includes construction of wall along small stream at Dewathang, Samdrup Jongkhar

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Costs
Activity: Water hole restoration				4,761.9
Waste generation during	Short term Minor	<i>Pre-construction:</i> <ul style="list-style-type: none"> Awareness about wastes and management in the activity area 	BFL focal (BC 5, Samdrup Jongkhar)	Awareness program and campaign:

construction by workers		<p>by the forest officials to the workers.</p> <p><i>During construction:</i></p> <ul style="list-style-type: none"> • Identification of the different waste types at the project site (soil, food, excess mesh wires etc.); • Proper containers/waste bins should be provided at the project site; • Dumping waste shall be prohibited on fragile slopes, rivers, 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 (daily); • 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. 		Nu 7000 = USD 99.29
Disturbance of water quality as a result of construction	Short term Minor	<ul style="list-style-type: none"> • Avoid pouring construction materials as well as wastes from workers such as food, plastics etc. into the river; • Avoid open defecation in the river. 	BFL focal person (BC 5, Samdrup Jongkhar)	Included in the activity budget of USD 1,500
Workers' health and safety	Short term Minor	<ul style="list-style-type: none"> • Follow the workers' health and safety guidelines; • Ensure safety gears and first aid kit; • 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 	BFL focal person (BC 5, Samdrup Jongkhar)	Nu. 15,000 = USD 212.77 for safety gears and first aid kits

		<p>and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, job assignment, termination of employment or retirement, and disciplinary practices;</p> <ul style="list-style-type: none"> • A grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns. 		
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5. ESMP Implementation arrangements

The implementation of project activities will be carried out by the BFL focal person in BC 5. 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 BC 5 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 Supervising Engineer in BC 5 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 BC will be contingent upon their full compliance with the safeguards requirements.

6. ESMP monitoring arrangements

The BFL focal person in BC 5 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.

BC 5 is also fully responsible for the compliance of all external contractors and service providers working in the BC 5 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. Waterhole management at Pema Gatshel

- 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).

Dates	Location	Report
August, 2020	BC 5 (Pema Gatshel)	Implementation of the activity
August - November, 2020	BC 5, (Pema Gatshel)	Monitoring (SMART patrolling)
December, 2020	BC 5, (Pema Gatshel)	Completion
SMART patrolling carried out as per their plan		

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

Dates	Location	Report
31 August, 2020	BC 5, (Pema Gatshel)	Implementation report
15 September, 2020	BC 5, (Pema Gatshel)	Monitoring and quarterly report
December, 2020	BC 5, (Pema Gatshel)	Annual report

- Monitoring by ESS consultants:

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

Dates	Location	Report
August - September, 2020	BC 5, (Pema Gatshel)	Monitoring

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

Dates	Location	Report
September, 2020	PCU	Field Report
December, 2020	PCU	Completion Report

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

Dates	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)

Dates	Location	Report
31 January, 2021	WWF	Annual report

2. River Embankment construction to protect from flooding at Pema Gatshel

- Monitoring by implementing entities:

- Field visits - at least weekly

Dates	Location	Report
October, 2020	BC 5, (Pema Gatshel)	Implementation
Every week until December 2020	BC 5, (Pema Gatshel)	Supervision and monitoring
31 December, 2020	BC 5, (Pema Gatshel)	Completion

- Monthly reports by the implementing entities submitted to ESS consultants

Dates	Location	Report
October, 2020	BC 5, (Pema Gatshel)	Implementation report
Every week until December 2020	BC 5, (Pema Gatshel)	Supervision and monitoring report
31 December, 2020	BC 5, (Pema Gatshel)	Completion

- Monitoring by ESS consultants:

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

Dates	Location	Report
October, 2020	BC 5, (Pema Gatshel)	Implementation
December, 2020	BC 5, (Pema Gatshel)	Supervision and monitoring

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

Dates	Location	Report
October, 2020	PCU	Implementation report
December, 2020	PCU	Annual report

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

Dates	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)

Dates	Location	Report
31 January, 2021	BFL	Annual Progress Report

3. Waterhole management at Samdrup Jongkhar

- 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).

Dates	Location	Report
August, 2020	BC 5, Samdrup Jongkhar	Implementation of the activity
August - November, 2020	BC 5, Samdrup Jongkhar	Monitoring (SMART patrolling)
December, 2020	BC 5, Samdrup Jongkhar	Completion
SMART patrolling carried out as per their plan		

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

Dates	Location	Report
31 August, 2020	BC 5, Samdrup Jongkhar	Implementation report
15 September, 2020	BC 5, Samdrup Jongkhar	Monitoring and quarterly report
December, 2020	BC 5, Samdrup Jongkhar	Annual report

- Monitoring by ESS consultants:

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

Dates	Location	Report
August - September, 2020	BC 5, Samdrup Jongkhar	Monitoring

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

Dates	Location	Report
September, 2020	PCU	Annual Progress report
December, 2020	PCU	Completion report

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

Dates	Location	Report
15 January, 2020	BFL	Progress report

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

Dates	Location	Report
31 January, 2020	WWF	Annual report

4. River Embankment construction to protect from flooding at Samdrup Jongkhar

- Monitoring by implementing entities:

- Field visits—at least weekly

Dates	Location	Report
October, 2020	BC 5, Samdrup Jongkhar	Implementation
Every week until December 2020	BC 5, Samdrup Jongkhar	Supervision and monitoring
31 December, 2020	BC 5, Samdrup Jongkhar	Completion

- Monthly reports by the implementing entities submitted to ESS consultants

Dates	Location	Report
October, 2020	BC 5, Samdrup Jongkhar	Implementation report
Every week until December 2020	BC 5, Samdrup Jongkhar	Supervision and monitoring report
31 December, 2020	BC 5, Samdrup Jongkhar	Completion

- Monitoring by ESS consultants:

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

Dates	Location	Report
October, 2020	BC 5, Samdrup Jongkhar	Implementation
December, 2020	BC 5, Samdrup Jongkhar	Supervision and monitoring

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

Dates	Location	Report
October, 2020	PCU	Implementation report
December, 2020	PCU	Annual report

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

Dates	Location	Report
15 January, 2021	BFL	Annual Progress Report

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

Dates	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. Improving waterholes and saltlicks at Pema Gatshel: US\$ 4761.9
2. River wall protection at Pema Gatshel: US\$ 1500
3. Improving waterholes and saltlicks at Pema Gatshel: USD 4761.9
4. River wall protection at Pema Gatshel: US\$ 1500

A separate budget of USD 1400 will cover the implementation of the ESMP mitigation measures. There is a need of consultation budget for the river bank protection which is estimated to be USD 200.

8. Consultation and Disclosure Mechanisms

This ESMP has been prepared in a participatory manner, and a community consultation will be carried out as stated in section 9 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 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 BC 5 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).
 - Consultation dates for the river bank protection at Pema Gatshel is as follows:
 - Dates: 15 October, 2020
 - Agenda: information on river bank protection
 - Place: Nganglam, Pema Gatshel
 - Consultation dates for the river bank protection at Samdrup Jongkhar is as follows:
 - Dates: 15 October, 2020
 - Agenda: information on river bank protection
 - Place: Division Forest Office

- 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).
 - Consultation dates for the waterholes, salt licks
 - Dates: 30 July, 2020
 - Agenda: Conservation plans and importance
 - Place: Pema Gatshel
 - Consultation dates for the waterholes, salt licks
 - Dates: 30 July, 2020
 - Agenda: Conservation plans and importance
 - Place: Dewathang, Orong in Samdrup Jongkhar

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.