

Bhutan for Life

Environmental and Social Management Plan for Royal Botanical 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 (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

Geographically, the Royal Botanical Park (RBP) falls largely under Punakha Dzongkhag sharing some of its area with Thimphu Dzongkhag. It is currently operating under the administration of Thimphu Territorial Forest Division. It covers four gewogs of two Dzongkhag namely Toeb, Chang, Kawang and Dagala. It has 136 households and around 1,140 people residing adjacent to the park. Nomads of Dagala gewog is the only ethnic group of people. Dzongkha is a major spoken language within the local communities.

The RBP is situated between an elevation range of 2,100-3,750 masl. The park forms the heart of the "tri-junction" of the hill ranges of Sinchula, Helela and Dochula. The park has a Rhododendron garden, visitor information center and numerous nature trails such as the Rhododendron walk (1 km), Serchu Nature Trail (1 km) within its precinct area. Major trek routes extend to other parts of the park area (Dochula-Thadana trek route and Ancient trek route). The park has a lake known as Baritsho Lake which has religious sanctity as the local people give votive offerings. The park is at Lamperi 30 km (around 20 minutes' drive) away from Thimphu. There are three areas falling under the Lamperi Park. These are Hongtso in Thimphu, Begana and Menchuna in Punakha. The people of these communities depend on agriculture farming.

RBP has one of the highest/richest biodiversity. It is home to some of the flagship species such as the endangered Royal Bengal Tiger and the charismatic Red Panda. Some of fauna species found in the Park has been pictured under Figure 1.



Figure 1: Picture of fauna species

There are about 480 species of flowering plants, 26 species of mammals and 230 species of birds recorded as of now. Some of the flowers recorded at the Park can be seen in Figure 2.



Figure 2: Picture of flora species

3. Planned activities in Year 2020

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

1. Lowland grassland

This is a habitat enrichment activity with a budget of US \$3000. The plantation will be carried out in an area of 2 hectares at Menchuna (between Thimphu and Punakha Dzongkhag). The site is located within the park and at present, the area is barren. The plantation will provide winter fodder for wild animals and livestock for the adjacent village which is outside the park jurisdiction.

2. Combined zonation and pillar fixation

The activity is to carry out the zonation (core zone, multi-purpose zone and buffer zone), and physically demarcate the Royal Botanical Park area by fixing pillars. There are no communities inside the park area so they will not be affected.

The activity has a budget of US \$27,500 in an area of 70 square kilometers. The site is located within the RBP in between Thimphu and Wangdue national highway in Thimphu and Punakha Dzongkhag.

3. River bank protection

This is a new activity planned for a budget of US \$2500 in an area of 3 hectares. The activity site is located in Thimphu and Punakha Dzongkhag. The selected activity site serves as one of the critical watersheds for Wangchu and Punatsangchu rivers.

The activity is to carry out the river protection works by planting seedlings (native species) and other river training works such as building log check dams. There are no major negative impacts to the natural habitats except for river course diversion and construction wastes, but it is expected to help in prevention of soil erosion.

The site consists of all terrains (gentle to steep slope). And, there are stream, water crossing, forest and wildlife habitat within the site area. There are no households at the project site or its vicinity.

4. Improvement of salt licks/snags and waterholes & wetlands enrichment planting

This is a new activity for a budget of US \$4761.9 in an acre land. The activity requires to create and improve saltlicks and waterholes inside the park. The area is degraded and over-grazed area. The site is located in the forest and it is not used for any purpose as it is under protected area. There are no households in the project site or its vicinity. The activity will involve manual digging to make waterholes. The number of workers required will be 20 workers for a period of one month.

4. Environmental and Social Impacts and Mitigation Measures

1. Combined zonation and pillar fixation

- waste generation during consultation and pillar fixing

2. Improvement of lowland grassland - no impacts foreseen

3. River bank protection works may have social and environment impacts as follows:

- Waste: soil from excavation activities and waste from construction activities
- Workers’ health and safety

4. Improvement of water holes and salt licks

- Waste
- Workers health and safety
- Degradation of soil and vegetation around the saltlicks (salt lick)
- Increase poaching

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

Activity 1: Combined zonation and pillar fixation

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Cost
Activity 1: Combined zonation and pillar fixation				US\$27,500
Waste: generation of waste as a result of consultation and pillar fixing activities	Short term Minor	<ul style="list-style-type: none"> • Identification of the different waste types at the project site (soil, asphalt, food, etc.); • Proper containers/waste bins should be provided during consultation and pillar fixing activities; • 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 	BFL focal person in RBP Contractor	Incorporated in the contract agreement.

		<p>culturally sensitive areas or areas where livelihood is derived;</p> <ul style="list-style-type: none"> • All waste should be collected by the workers; • All construction materials should be covered during the transportation to avoid waste dispersion; • Burning of waste from pillar fixing should be prohibited. <p><i>After consultation and pillar fixing:</i></p> <ul style="list-style-type: none"> • * All waste shall be removed from the respective sites. 		
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Activity 2: Riverbank Protection

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Cost
Activity 2: Riverbank Protection				US\$2,500
Waste management during construction	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 river, in its vicinity, or in other non-designated places should be strictly prohibited; • Collection, transportation and final disposal of all waste should be carried out on a daily basis and not left in the river areas; • Burning of construction waste should be prohibited. 	BFL focal person in RBP Contractor	From the activity cost, and workers agreement.
Workers' health and safety	Short term Minor	<ul style="list-style-type: none"> • Comply with the 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; • Comply with the OH&S guideline; • 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, 	BFL focal person in RBP Contractor	From the activity cost, and workers agreement.

		<p>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. 		
Disturbance to access to clean water	Long term Minor	<ul style="list-style-type: none"> • Ensure that downstream communities are informed regarding planned project activities and these activities are designed in consultation with the communities 	BFL focal person in RBP	From the activity cost, and workers agreement.

Activity 3: Construction of new waterholes

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Cost
<i>Activity 3: Construction of new waterholes</i>				US\$4,761.9
Waste: soil from cleaning/digging 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, 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. 	BFL focal person in RBP	To be incorporated in the workers contract agreement. From the activity cost.
Workers' health and safety	Short term Minor	<ul style="list-style-type: none"> • Comply with the 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, 	BFL focal person in RBP	To be incorporated in the contract agreement. From the activity cost.

		<p>access to training, job assignment, and promotion, termination of employment or retirement, and disciplinary practices;</p> <ul style="list-style-type: none"> • Provide workers with an incident report book and ensure that they are aware of the project's grievance redress mechanism and can use it to raise workplace concerns. 		
Increase 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 RBP	To be incorporated in the regular patrolling.
Activity 4: Improvement of salt licks				
Degradation of soil and vegetation around the salt licks (dense forest)	Long term Minor	<ul style="list-style-type: none"> • Place the salt on an environmentally-friendly platform (e.g., stone or piece of wood) to avoid direct connection with the soil and surrounding vegetation • Use environmentally-friendly salt 	BFL focal person in RBP	To be incorporated in the contract agreement. From the activity cost.
Increase poaching	Short term Minor	<ul style="list-style-type: none"> • Waterholes shall be constructed in areas where poaching is limited • Increased patrolling of park authorities should be carried out during and after the waterhole construction 	BFL focal person in RBP	To be incorporated in the regular patrolling.

5. ESMP Implementation Arrangements

The implementation of project activities will be carried out by the BFL focal person in RBP. 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 RBP 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 RBP 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 RBP 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.

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

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

1. Restoration of habitat enrichment (lowland grassland)

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

Dates	Location	Report
August, 2020	RBP	Implementation
August - September, 2020	RBP	Monitoring report and implementation
September, 2020	RBP	Completion

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

Dates	Location	Report
August, 2020	RBP	Implementation report
August - September, 2020	RBP	Monitoring report and implementation report
September, 2020	RBP	Completion report

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

Dates	Location	Report
August, 2020	RBP	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

Dates	Location	Report
September, 2020	PCU	Implementation
December, 2020	PCU	Annual Progress 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 APR)

Dates	Location	Report
31 January, 2021	WWF	Annual Progress Report

2. Combined zonation and pillar fixation:

- Monitoring by implementing entities:

- At least weekly field visits

Dates	Location	Report
August, 2020	RBP	Consultation
September - December, 2020	RBP	Implementation
December, 2020	RBP	Completion

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

Dates	Location	Report
August, 2020	RBP	Consultation report
September - December, 2020	RBP	Implementation report
December, 2020	RBP	Completion report

- Monitoring by ESS consultants:

- At least quarterly field visits by ESS consultants

Dates	Location	Report
October, 2020	RBP	Supervision and Monitoring
December, 2020	RBP	Completion

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

Dates	Location	Report
September, 2020	PCU	Supervision and Monitoring report
December, 2020	PCU	Annual Progress Report

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

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

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

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

3. River bank protection:

- Monitoring by implementing entities:

Dates	Location	Report
October, 2020	RBP	Inspection and monitoring during the intervention
October - December 2020	RBP	Monitoring of progress

- Monthly reports by the implementing entities submitted to ESS consultants

Dates	Location	Report
November, 2020	PCU	Implementation and Monitoring report
December, 2020	PCU	Completion report

- Monitoring by ESS consultants:

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

Dates	Location	Report
October, 2020	RBP	Progress Report
December, 2020	RBP	Completion Report

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

Dates	Location	Report
October, 2020	PCU	Monitoring and Progress report

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

Dates	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)

Dates	Location	Report
30 January, 2021	WWF	Annual Progress Report

4. Waterhole and salt licks

- 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
July, 2020	RBP	Implementation of the activity
August - November, 2020	RBP	Monitoring
December, 2020	RBP	Completion
*Increased SMART patrolling		

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

Dates	Location	Report
August, 2020	PCU	Progress report
September, 2020	PCU	Annual report
October, 2020	PCU	Quarterly report
December, 2020	PCU	Mid-term report

- Monitoring by ESS consultants:

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

Dates	Location	Report
July, 2020	RBP	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
August, 2020	PCU	Implementation report
December, 2020	PCU	Annual Progress 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 APR)

Dates	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.

The budget for each of the activities are lowland grassland for US\$ 3000, combined zonation and pillar fixation for US\$ 27,500, river bank protection for US\$ 2500, and waterhole for US\$ 4761.9.

8. Consultation and Disclosure Mechanisms

This ESMP has been prepared in a participatory manner with the implementing agency. Since there is no community within the Park, a consultation should be carried out with the Gewog Administration as soon as the budget is released to inform the local authority regarding all planned project activities to solicit their opinions, and enable them to question proposed mitigation measures. The main issues raised by the Gewog Administration during the consultation should be recorded and the detailed minutes of the consultation meeting should be attached to this ESMP, along with a full list of participants (disaggregated by gender and age).

The full English version of this ESMP, as well as an executive summary in Bhutanese, shall be disclosed on the website of MoAF, 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 authority (Gewog Administration) near RBP will be engaged throughout the implementation of these activities.

- For all construction activities - one consultation meeting has to be organized during the intervention period, and subsequent consultations have to be held annually (these can be combined with consultations for other BFL or non-BFL activities).
- For activities that have no direct impact on communities (improvement of lowland grassland and waterhole rehabilitation, pillar fixation) - consultation meetings have to be organized once a year (can be combined with consultations for other BFL or non-BFL activities)
- Lowland grassland - Gewog - July 2020
- Waterholes/salt lick - Gewog- July 2020
- Riverbank protection - Gewog- July 2020
- Pillar fixation - Gewog- July 2020

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.