Bhutan for Life
Environmental and Social Management Plan for Royal Manas 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 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 Royal Manas National Park (RMNP) with an area of 1057.28 sq. km is the oldest national park in the country. It was first established as the game sanctuary in 1964 and became a protected area (PA) in 1993. It falls at the convergence of the Indo-Gangetic and Indo-Malayan bio-geographical realm. The location of the park is notably outstanding and forms cornerstone of PA network. It shares its corridor connections with Jigme Singye Wangchuck National Park (JSWNP) in northwest, Jomotshangkha Wildlife Sanctuary (JWS) in southeast, Phibsoo Wildlife Sanctuary (PWS) in the southwest and Phrumsengla National Park (PNP) in central north as shown in Figure 1.

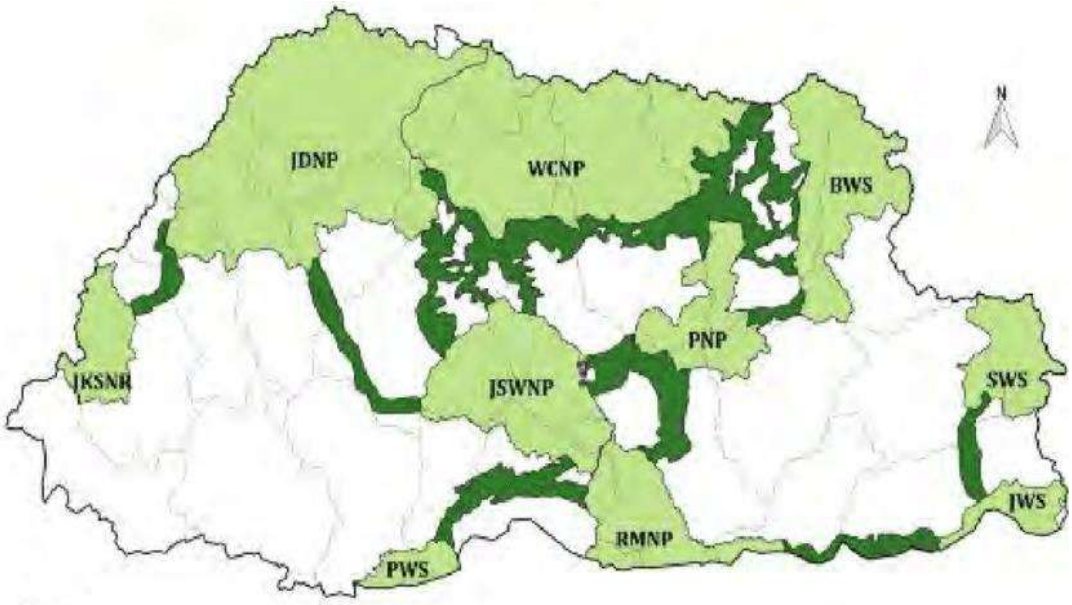

Figure 1: Map showing the connectivity of RMNP with other parks

Further, the Manas National Park of India forms a part of Transboundary Manas Conservation Area (TraMCA) and supports conservation at large landscape level. The RMNP has an area of 1057.28 sq.km which can be categorized into core zone, multiple use zone and buffer zone. Its altitude ranges from 84 - 2714 masl. The RMNP head office has three range offices and an outpost.

Habitats in the RMNP range from tropical monsoon forests and subtropical forests to warm broadleaved and cool broadleaved forests. The Manas River is Bhutan's largest river that drains into the Indian flood plains through the eastern part of the park.

The Park has recorded 65 species of mammals (including 8 cat species). It is a potential population source of Royal Bengal Tiger (10 in 2011 and 24 in 2018). It is approved as one of the Conservation Assured Tiger Standards (CA|TS) accredited sites along with JSWNP among the national parks from Bhutan in 2019. It is endemic region for endangered golden langur and pygmy hog. Other fauna species found in the park are Golden Mahseer, Elephant, Gaur, Asiatic Water Buffalo, Common Leopard, Clouded Leopard, and Sloth Bear.

It consists of 495 species of birds (70% of country's birds) consisting of three critically endangered, six vulnerable and five nearly threatened species). It has 69 species of fish, 181 species of butterfly, and more than 60 sp. of herpetofauna. It has 900 species of vascular plants (including *Dalbergia oleveri, Aquilaria malaccensis, Taxus baccata, Podocarpus neriifolia*), and 72 species of orchids.

The pictures of the various fauna and flora species recorded in the park are shown in Figures 1 and 2.

Royal Bengal Tiger (*Panthera tigris tigris*)

Royal Bengal Tiger (*Panthera tigris tigris*)

Spectacled cobra *(Naja naja)*

Golden mahseer (*Tor pitutora*)

Common Kingfisher (*Attacus atthis*)

Rufous-bellied Niltava – Male (*Niltava sundra*)

Figure 1: Pictures of fauna species

Dendrobium nobile

Dendrobium nobile

Dendrobium frimbriatum

Dendrobium frimbriatum

Aerides multiflorum

Aerides multiflorum

Figure 2: Picture of the flora species

The RMNP covers six Gewogs (Norbugang, Tareythang, Jigmechoeling, Phangkhar, Ngangla, Trong) under three Dzongkhags (Sarpang, Zhemgang and Pema Gatshel). There are about 1300 households with 5331 people. Mixed agriculture and horticulture are their sources of income.

The RMNP head office has 4 Section. There are 3 range offices, 4 guard post, and 2 check post (one check post at Mathanguri is seasonal).

3. Planned activities in Year 2020

The planned activities in RMNP in 2020 include the following activities:

1. Construction of Tiger Research Field Station

This is an ongoing activity from 2019. This is constructed to enhance conservation. The site is located at Mathanguri within the RMNP at Nangla Gewog, Panbang Dungkhag under Zhemgang Dzongkhag. The Manas river runs in between the Mathanguri hill and Manas range office compound. The Manas range office compound is a low-lying area whereas Mathanguri on opposite side is a gentle hill which stands beside the Manas river. The project site is located right on the hill which runs south towards Indian border side. Along the hill side, and parallel to river, there runs an access road connecting Manas to Panbang.

The whole landscape is a forested area without settlement. The core area of project site is an open space in the forest without any other infrastructure. This site has been selected due to its strategic location for effective implementation of conservation and other management works. And the site being located at the extension of the conservation management functioning, it is expected to curve down the illegal activities. Other conservation works and services to the public are expected to be more effective.

The site is located at the multiple use zone, but it is not the core zone of the RMNP. The project site is not a critical habitat of any of the endangered species. The site is a barren land. The size of the area is 60mx30m for construction of three structures. The site is connected by an approach road of 800 m from Manas range office compound. The road will be used for transporting construction materials. Currently, it is also used by the nearby communities to commute. The construction will not affect road usage. All required approvals have been obtained from the consent authorities for construction.

The expected number of temporary workers is 10 to 15. The total capital investment for this construction is USD 130000. The expected water quantity required is 1000 litres per day, and is sourced from small stream beside Mathanguri hill. Construction materials of 1000 MT of bricks and 800 MT of aggregates and cement will be used. And 200 kWh electrical energy and 4000 cu. ft of timber is required for the construction.

Construction and food wastes are expected. However, with construction scale being small with even smaller number of workers, the waste is expected to be minimal and easily manageable. The noise pollution is expected to be less as the work is conducted manually without machinery or plant and there are no immediate communities.

2. Maintenance of Umling Range Office

This is rehabilitated activity of maintaining the existing range office and staff quarters with a budget of USD 25000. The site is located at Umling within the RMNP office compound of Rizhung Chiwog, Umling Gewog of Zhemgang Dzongkhag.

The site is located at the Umling Range office and staff quarter compound at the center of Umling village. Topographically, the village has a plain landscape and the area is located at the base of a small mountain called Thongjaphu. There are settlements and agricultural farm in the surrounding area. However, around five households are located in its vicinity area, but they do not depend on the project site. The primary source of income for the communities are agriculture farming and areca nut plantation.

The current land use pattern is for settlement. This site is selected because existing infrastructure are old and maintenance is required. It is located around 4 km distance from the nearest forest land. At present, other infrastructure in the site area include roads, educational facility, health centre, few shops and a Gewog center. The activity includes maintenance of ceiling, floor, plumbing, and electrical work. About 10 national workers are expected to be employed.

The expected water quantity required is 500 litres per day, and will be sourced from the existing drinking water supply pipeline. The expected quantity of construction materials to be used are 20 MT of aggregates and 15 MT cement and 150 kWh of electrical energy. The construction and food waste are expected to be minimal. However, maintenance will be carried out with a smaller number of workers, the waste generated is expected to be minimum.

3. Construction of gabion wall for Specialthang river (small river bank protection)

This is a new activity for construction of gabion wall at Speicalthang river bank. The site is located at Ngangla Gewog within the RMNP of Zhemgang Dzongkhag. The Specialthang river is located in the south-eastern part of RMNP. It flows toward south and enter the India. The area is covered with forest in the upstream and has huge area of grassland maintained in the downstream. The Specialthang landscape in overall is a plain area. The Specialthang river is one of the river systems within RMNP which is in the verge of degradation due to seasonal floods.

The occasional flooding has led to the deposition of river bed materials and sediments alongside the bank changing the course of the river. The situation also poses danger of flooding away the grassland habitat maintained in the downstream area which has now become a primary habitat for grassland dwelling wild animals. In addition, the patrol route which passes through this river gets flooded and washed away seasonally and frontline staff faces difficulty during patrolling. Thus, the management intervention is required at the site to protect the river bank degradation.

There will be 5 - 10 numbers of workers involved temporarily at the site to construct gabion wall. The natural habitats will not be affected by the construction of the wall. This wall is expected to prevent soil erosion. There will be 500 liters of water to be used per day, and sourced from Gaylongkhola river. About 50 MT of stones is to be used. There are no communities in the project area or its vicinity.

4. Grassland management at Specialthang

This is a rehabilitated activity for management of grassland. The site is located at Specialthang of Ngangla Gewog, Panbang Dungkhag of Zhemgang Dzongkhag. The total size of area is 189 hectares.

Specialthang, located at the south east region of RMNP, is a lowland grassland managed since 2013. The area is bound between two rivers running down from both sides. Primarily, the area is the grassland and the surrounding areas beneath rivers are all forest land. The site is selected due to growth of invasive species being the main issue deteriorating the grassland ecosystem in the area. There will be requirement of grass seeds, and other field equipment to sow seeds. From the burning of grassland (block wise burning), there will be CO2 emission though the volume is less. There are no settlement or infrastructure in the surrounding area.

5. Improvement of salt licks, waterholes and snags

This is a rehabilitated activity for improvement of salt licks and waterhole. There will be five salt licks and one waterhole and snags. At the proposed sites, there are materials such as leave litter, fallen branches, logs and growth of other vegetation in the peripheral area that have

reduced the waterhole size. Therefore, to prevent drying up of waterhole and salt licks, this intervention has been proposed. The activity requires clearing up of natural waterhole by manual removing of sunk or deposited materials and addition of authorized mineral salt on to the existing salt licks. All work will be done manually. The activity is not expected to have any disturbance.

The current land use of the proposed area is forest. The site is located in the PA on the hill side of Kanamakura, Tareythang Gewog of Sarpang Dzongkhag. It is at an area of 1.2 acres. The area is a forest land with warm broad leave vegetation. The Kanamakura river which is perennial runs from the base of the hill. There are no households in its vicinity, and communities do not depend on the project site. The expected number of temporary workers are 5 to 8 numbers. The work duration is for a month and construction of camp site will not be required.

6. Construction of guard post at Tingtibi

The construction of a guard post at Tingtibi of Trong Gewog in Zhemgang Dzongkhag in an area of 13 decimal. The project site lies within the Tingtibi town plan area. It is located near to the Gelephu-Zhemgang highway which runs through the town. Towards south, there lies Mangdechhu River around 300 m away. The natural landscape of the area is plain. Whole town area lies within the valley surrounded by mountains, few kilometers away from town, from all the directions. The location is at the point of entry towards northern region of the park thus the location is suitable for regulation of forest produce movements. The location is strategically placed to implement conservation, and other relevant management works effectively in the northern parts of park area. At present, the area is a small town with following facilities:

a) Road (Gelephu-Zhemgang highway)
b) Tingtibi Lower School (Yebilaptsa Middle School lies 2 km away from project site)
c) Hospital, (around 2km)
d) Other commercial infrastructures such as shops, restaurants, hotels and automobile workshops.

Since the activity is an ongoing construction work from before the start of BFL, the ground floor is already completed. The construction was started since mid-2017 under the initial funding by the IUCN. The initial fund was only enough to complete the first-storey of the guard post. Therefore, the remaining works is to be met from BFL project fund.

There will be 10-12 numbers of workers involved temporarily during construction phase. The water for the construction will be sourced from small stream beside Mangdechu river. The materials required are bricks (500 MT), aggregates (300 MT), cement (300 MT), and metal (200 MT). The electricity required is 200 kWh. All construction works will be done manually without use of heavy and loud construction machineries and equipment, so less noise and disturbance are anticipated. There are around 30-40 households located in the nearby area. Most of them are employees in the government, corporate and private sectors. The community will not be affected by the construction.

7. Zonation and pillar fixing of RMNP

This is a rehabilitation activity for management in RMNP. The site is located at Zhemgang, Pema Gatshel and Sarpang Dzongkhags. The total size of area is 1057 sq. km. The planned activities are to survey park boundaries, transport metal pillars, cement and pillar fixations. It will help to demarcate the park boundary for better conservation of rich biodiversity within the landscape designated as the protected area. The proposed activity will be along the park border areas passing through roads, transmission lines and so forth. The RMNP is primarily covered

with sub-tropical broadleaved forest. The Park landscape is plain in the southern belt, and hilly in the northern belt with an altitude ranging between 80-2680 masl.

There will be 10-15 staffs involved temporarily for this activity. About 10 MT of aggregate and cement might be used during pillar fixations. The demarcation will not affect any existing access or usage rights, as the demarcation is within the park area.

4. Environmental and Social Impacts and Mitigation Measures

For the construction, relevant Acts and Rules and Regulations of the Kingdom of Bhutan have been followed in obtaining clearances from the competent Authorities. Some of the adverse environmental and social impacts for the activity are described below:

1. Construction of Tiger Research Field Station and Guard Post in Tingtibi
    - Air quality: dust pollution is likely as a result of construction works and possible emissions from transportation vehicles
    - Waste: generation of waste as a result of construction activities
    - Workers' health and safety
    - Conflict between temporary workers and local communities

2. Improvement of water holes and salt licks
    a. Construction of new waterholes waste
        - Soil from excavation activities and waste from the activities (both activity)
        - Workers' health and safety (both activity)
        - Increase poaching

    b. Improvement of salt licks
        - Increase poaching

3. Restoration of lowland grasslands
    - Workers' health and safety

4. Construction of gabion wall for Specialthang river (small river bank protection)
    - Waste management during construction
    - Workers health and safety

5. Maintenance of Range office
    - Waste: generation of waste as a result of construction activities
    - Workers' health and safety

6. Zonation and pillar fixing of RMNP
    - Waste: generation of waste as a result of consultation and pillar fixing activities

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

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

Activity 1: Construction of Tiger Research Field Station and Guard Post in Tingtibi

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Costs
Activity 1: Construction of Tiger Research Field Station and Guard Post in Tingtibi				**US$ 130,000**
Waste: generation of waste as a result of construction activities	Short term Minor	• Identification of the different waste types at the project site (soil, asphalt, food, etc.); • Ensure that camps are located away from existing stream, river, or water sources, and that no discharge from camps is made into nearby water bodies; • Proper containers/waste bins should be provided at the project site; • Dumping of waste on the sides of the road, on private land, or in other non-designated places should be prohibited; • Dumping waste shall be prohibited on fragile slopes, forests, religious or other culturally sensitive areas or areas where livelihood is derived; • Collection, transportation and final disposal of all waste should be undertaken regularly on a weekly basis; • Possible hazardous waste (motor oils, vehicle fuels, etc.) should be collected separately and authorized collector and transporter should be sub-contracted to transport and finally dispose; • All construction materials should be covered during the transportation to avoid waste dispersion; • The options for reuse/recycling of the generated waste streams should be taking into consideration (e.g. excavated soil, etc.); • Burning of construction waste should be prohibited. *After construction:* • All waste shall be removed from the project site.	BFL focal person in RMNP Contractor	Wastes collection: Nu. 10,000 = USD 141.84
Workers' health and safety	Short term Minor	• Comply with the BFL's occupational health and safety guidelines; • Ensure regular health screening for the workers pre and during construction activities;	BFL focal point in RMNP Contractor	Incorporated in the bidding document.

		• Ensure that no underage workers, or children are engaged; • Ensure decent work conditions, including an appropriate salary, working hours, accommodation and food for workers shall be provided to all workers; • Ensure that workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices; • Implement a grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns.		

Activity 2: Improvement of new waterholes

Potential impact	**Impact scale**	**Proposed mitigation measures**	**Responsible party**	**Cost**
Activity 2: Improvement of new waterholes				***US$4761.90***
Waste: soil from excavation activities and waste from construction activities	Short term Minor	• 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 RMNP Contractor	Incorporated in the worker agreement.
Workers' health and safety	Short term Minor	• 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;	BFL focal person in RMNP Contractor	Incorporated in the worker agreement.

		• Ensure decent work conditions, including an appropriate salary, working hours, accommodation and food for workers shall be provided to all workers; • Ensure that workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, and promotion, termination of employment or retirement, and disciplinary practices; • 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	• 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 RMNP Contractor	Part of regular patrolling.
Activity 3: Improvement of salt licks				
Increase poaching	Short term Minor	• Saltlicks 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 RMNP	Part of regular patrolling.

Activity 4: Restoration of lowland grasslands

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Cost
Activity 4: Restoration of lowland grasslands				**US$10000**
Workers' health and safety	Short term Minor	• Comply with the BFL's occupational health and safety guidelines; • Ensure regular health screening for the workers pre and during construction activities; • Ensure that no underage workers, or children are engaged; • Ensure decent work conditions, including an appropriate salary, working hours, accommodation and	BFL focal point in RMNP Contractor	Incorporated in the bidding document.

		food for workers shall be provided to all workers; • Ensure that workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices; • Implement a grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns.		

Activity 5: Construction of gabion wall for Specialthang river

Potential impact	**Impact scale**	**Proposed mitigation measures**	**Responsible party**	**Cost:**
Activity 5: Construction of gabion wall for Specialthang river (small river bank protection)				**US$ 9,000**
Waste management during construction	Short term Minor	• 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.	BFL focal person in RMNP Contractor	Wastes collection: Nu. 10,000 = USD 141.84
Workers' health and safety	Short term Minor	• 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	BFL focal person in RMNP Contractor	Incorporated in the worker agreement.

		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, and promotion, termination of employment or retirement, and disciplinary practices; • 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.		

Activity 6: Office maintenance at Umling

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Cost
Activity 6: Office maintenance at Umling				**US$ 25,000**
Waste: generation of waste as a result of activities	Short term Minor	*Pre-construction:* requirements for appropriate waste management should be included in the bidding documents, as a precondition for the contractor's selection *During construction:* • Identification of the different waste types at the project site (soil, asphalt, food, etc.); • Ensure that camps are located away from existing stream, river, or water sources, and that no discharge from camps is made into nearby water bodies; • Proper containers/waste bins should be provided at the project site; • Dumping of waste on the sides of the road, on private land, or in other non-designated places should be prohibited; • Dumping waste shall be prohibited on fragile slopes, forests, religious or other culturally sensitive areas or areas where livelihood is derived; • Collection, transportation and final disposal of all waste should be undertaken regularly [*specify:* weekly]	BFL focal person in RMNP Contractor	Incorporated in the bidding document.

		• Possible hazardous waste (motor oils, vehicle fuels, etc.) should be collected separately and authorized collector and transporter should be sub-contracted to transport and finally dispose; • All construction materials should be covered during the transportation to avoid waste dispersion; • The options for reuse/recycling of the generated waste streams should be taking into consideration (e.g. excavated soil, etc.). • Burning of construction waste should be prohibited. *After construction:* • All waste shall be removed from the project site.		
Workers' health and safety	Short term Minor	• 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, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices; • Implement a grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns	BFL focal point in RMNP Contractor	Incorporated in the bidding document.

Local community's health and safety	Short term Minor	• 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 RMNP Contractor	Incorporated in the bidding document.

Activity 7: Zonation and pillar fixing

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Cost
Activity 7: Zonation and pillar fixing				**US$ 10,000**
Waste: generation of waste as a result of consultation and pillar fixing activities	Short term Minor	• Identification of the different waste types at the project site (soil, asphalt, food, etc.); • Proper containers/waste bins should be provided during consultation and at pillar fixing 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; • 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. • *After consultation and pillar fixing:* • * All waste shall be removed from the respective work sites.	BFL focal person in RMNP Contractor	Incorporated in the contract agreement.

5. ESMP Implementation Arrangements

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

RMNP is also fully responsible for the compliance of all external contractors and service providers working in park 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. **Construction of Tiger Research Field Station and Guard Post:**
    - Monitoring by implementing entities:
        - At least weekly field visits: December 2019 - August 2020 (Tiger Research Centre), July - December, 2020 (Guard Post in Tingtibi)
        - Monthly reports prepared by implementing entities and submitted to ESS consultants: June - August 2020 (Tiger Research Centre), July - December, 2020 (Guard Post in Tingtibi)

    - Monitoring by ESS consultants:
        - At least quarterly field visits by ESS consultants - March 2020, August 2020 (Tiger Research Centre), May 2020, August 2020, December 2020 (Guard Post in Tingtibi)
        - Quarterly reports by ESS consultants to the PCU (M&E officer) - June 2020, December 2020

- Bi-annual reports by PCU (M&E officer) to Secretariat - 15 January, 2020, 15 July 2020, 15 January, 2021
- Bi-annual reports by the Secretariat to WWF US (as part of mid-year and final APR) - 31 January, 2020, 31 July 2020, 31 January, 2021

2. Maintenance of Umling Range Office:

- Monitoring by implementing entities:
    - At least weekly field visits - July - December 2020 (consultation - yes)
    - Monthly reports prepared by implementing entities and submitted to ESS consultants - July - December 2020

- Monitoring by ESS consultants:
    - At least quarterly field visits by ESS consultants - September 2020 and December 2020
    - Quarterly reports by ESS consultants to the PCU (M&E officer) – October 2020 and December 2020 (Annual Progress Report)

- Annual report by PCU (M&E officer) to Secretariat - 15 January, 2021
- Annual report by the Secretariat to WWF US (as part of mid-year and final APR) - 15 January, 2021

3. Lowland grasslands management at Specialthang:

- Monitoring by implementing entities:
    - Field visits at least twice - during the intervention and within three months after the intervention - October - November 2020
    - Reports by the implementing entities submitted to ESS consultants within a week after each field visit - November 2020

- Monitoring by ESS consultants:
    - Field visits by ESS consultants - at least once during the intervention, together with the implementing party - October 2020
    - Reports by ESS consultants to the PCU (M&E officer) - within one week after the field visit and within three months after the intervention report - October including annual progress report to be submitted in December 2020

- Annual report by PCU (M&E officer) to Secretariat - 15 January, 2021
- Annual report by the Secretariat to WWF US (as part of mid-year and final APR) - 15 January, 2021

4. 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) - October 2020, November 2020
    - Reports by the implementing entities submitted to ESS consultants weekly during the intervention and then monthly after the intervention completion- October 2020, November 2020

- Monitoring by ESS consultants:
    - Field visits by ESS consultants - at least once during the intervention - October 2020
    - Reports by ESS consultants to the PCU (M&E officer) - within two weeks after the field visit and for annual reporting - November 2020

- Annual report by PCU (M&E officer) to Secretariat - 15 January, 2021
- Annual report by the Secretariat to WWF US (as part of mid-year and final APR) - 15 January, 2021

5. Construction of gabion wall for Specialthang river:

- Monitoring by implementing entities:
    - Field visits - at least weekly - October- December 2020
    - Monthly reports by the implementing entities submitted to ESS consultants. October - December 2020

- Monitoring by ESS consultants:
    - Field visits - at least twice during the construction activities - October 2020, December 2020
    - Reports by ESS consultants to the PCU (M&E officer) - within two weeks after the field visits and for annual reporting - October 2020, December 2020

- Annual report by PCU (M&E officer) to Secretariat - 15 January, 2021
- Annual report by the Secretariat to WWF US (as part of mid-year and final APR) - 15 January, 2021

6. Combined zonation and pillar fixation:

- 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) - September - December 2020
    - Reports by the implementing entities submitted to ESS consultants weekly during the intervention and then monthly after the intervention completion September - December 2020

- Monitoring by ESS consultants:
    - Field visits by ESS consultants - at least once during the intervention - October 2020
    - Reports by ESS consultants to the PCU (M&E officer) - within two weeks after the field visit and for annual reporting - November 2020 and December 2020

- Annual report by PCU (M&E officer) to Secretariat - 15 January, 2021
- Annual report by the Secretariat to WWF US (as part of mid-year and final APR) - 15 January, 2021

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 50 workers. The budget for each activity is as follows:

1. On-going construction of Tiger Research Field Station and guard post - 130,000
2. Maintenance of Umling Range Office - US$ 25,000
3. Construction of gabion wall for Specialthang river - US$ 9500
4. Zonation and pillar fixing of RMNP - US$ 10,000
5. Grassland management at Specialthang - US$ 10,000
6. Improvement of salt licks, waterholes and snags - US$ 4761.9

7. Consultation and Disclosure Mechanisms

This ESMP has been prepared in a participatory manner with the BFL Focal of RMNP, and the Sectoral with clearance obtained on March 9, 2018 for construction of Tiger Research Field Station at Manas. This activity is an additional budget to an already existing incomplete structure. There are no community in the area, so only Sectoral clearance was obtained. While, for the Guard Post at Tingtibi, clearance was obtained on October 2, 2017. The informed stakeholders were consulted regarding the planned project activities, solicit their opinions, and enable them to question proposed mitigation measures. All clearances were obtained, and no issues were raised. The stakeholder clearances are annexed with this ESMP.

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.

8. Stakeholder engagement plan

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

- For all construction activities (construction of offices including maintenance 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).
- Construction and maintenance activities - Tiger Research Field Station (already obtained since the activity is a top up to already existing incomplete new structure), Tingtibi (already obtained since the activity is a top up to already existing incomplete new structure), Umling office maintenance (not required since the site is within Umling range office compound)

- Riverbank - located inside the park so not required because there is no community
- Combined zonation and pillar fixing - August 2020
- Waterhole - none because there is no community
- 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).

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

Annex 1. Sectoral Clearances obtained for Tiger Research Field Station

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Royal Government of Bhutan
Ministry of Agriculture and Forests
Department of Forests and Park Services
Thimphu

FPED/FSFS/39/2018 / 1261

March 9, 2018

The Chief Forestry Officer
Royal Manas National Park
Gelephu.

Subject: Administrative and Financial Approval.

Please refer your letter no. RMNP/RAS-13/2017-2018/camp Thimphu dated 9th March, 2018 seeking Administrative and Financial approval for construction of Tiger Research Field Station and construction of reservoir tank and drinking water supply line to Tiger Research Field station at Mathanguri (Manas) in Ngangla Geog, Panbang Dungkhag under Zhemgang Dzongkhag with financial support from WWF, Bhutan.

In this regard, approval is hereby accorded for above mentioned work as per the approved Technical Sanction no. DoA/Engg-2/1035 dated 9th March, 2018 of the Chief Engineer, Department of Agriculture, Thimphu.

(Phento Tshering)
Director

Received No. 768
File No. RAS-13
Date 16/03/2016
RMNP, Gelephu

Copy to:
The Director, Directorate Services, MoAF, Thimphu

RAS for information & necessary action
16/3/2018

POST BOX NO. 1345 PHONE: 975(02)323055/321185/323487/ EPABX: 334458/334487 FAX:322395/322836 HOOTLINE: 211 WEBSITE: dof.gov.bt

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DEPARTMENT OF FORESTS & PARK SERVICES
Office of the Park Manager
ROYAL MANAS NATIONAL PARK
Gelephu: Bhutan

RMNP/CPS-05/2017-18/ 814

March 13, 2018

Sub: Forest Clearance for land Regularization

In pursuant to the approval letter vide No. DoFPS/FPED/FLCS/6/2018/1380 dated 12/03/2018 of the Hon'ble Director, Department of Forests & Park Services, Thimphu, this forest clearance is issued for **Land Regularization** from SRF Land measuring **2.0 acre** at **Mathanguri** under **Nangla Gewog** in favour of **Royal Manas National Park, Department of Forests & Park Services, Gelephu for construction of Tiger Research Field Station**.

This Forest clearance is accorded based on field verification of the Range Officer, **Manas Range Office** vide letter No. **MR/RA-03/2017-2018/260** dated **05/02/2018** and **subsequent approval from Hon'ble Director, DoFPS** (letter no. mentioned above) on the following conditions:

1. This clearance is limited to forestry perspective as per the detailed field report;
2. This clearance is not transferable;
3. The validation of this clearance shall subject to obtaining other relevant clearances.
4. This Clearance shall not be liable for any dispute arising during the implementation of activity.
5. This clearance is limited within the proposed area for specific one time activity.
6. Others
7. Date of issue: **13/03/2018**

Chief Forestry Officer

Copy to:

1. Dasho Dzongda, Dzongkhag Administration, Zhemgang for kind information
2. The Director, DoFPS for kind information
3. The Gup, Nangla Gewog for information
4. The Range Officer, Manas Range for necessary action
5. The applicant for information and necessary follow-up

RMNP: royal manas national park

དཔལ་ལྡན་འབྲུག་གཞུང་།
སོ་ནམ་ལྡན་ཁག་ནང་གསེས་ནཊ་ཚལ་ལས་ཁུངས།

ROYAL GOVERNMENT OF BHUTAN
MINISTRY OF AGRICULTURE AND FORESTS
DEPARTMENT OF FORESTS AND PARK SERVICES
THIMPHU

No. DoFPS/FPED/FLCS/6/2018/1380 Date: 12/03/2018

The Park Manager,
Royal Manas National Park,
Gelephu.

Sub: Approval for Forestry Clearance.

Approval is hereby issued for forestry clearance with reference to your vide letter No. RMNP/CPS-05/2017-18/744 dated 20/02/2018 regarding construction of Tiger Research Field Station at Mathanguri top under Manas Range. It is accorded in prior consultation with NCD and on the basis of submitted field inspection report and recommendation.

Please incorporate proper monitoring to avoid future complications.

(Phento Tshering)
DIRECTOR

Received No. 767
File No. CPS-05
Date 16/03/018
RMNP, Gelephu

CPS & RAS
for information and necessary action.
16/3/2018

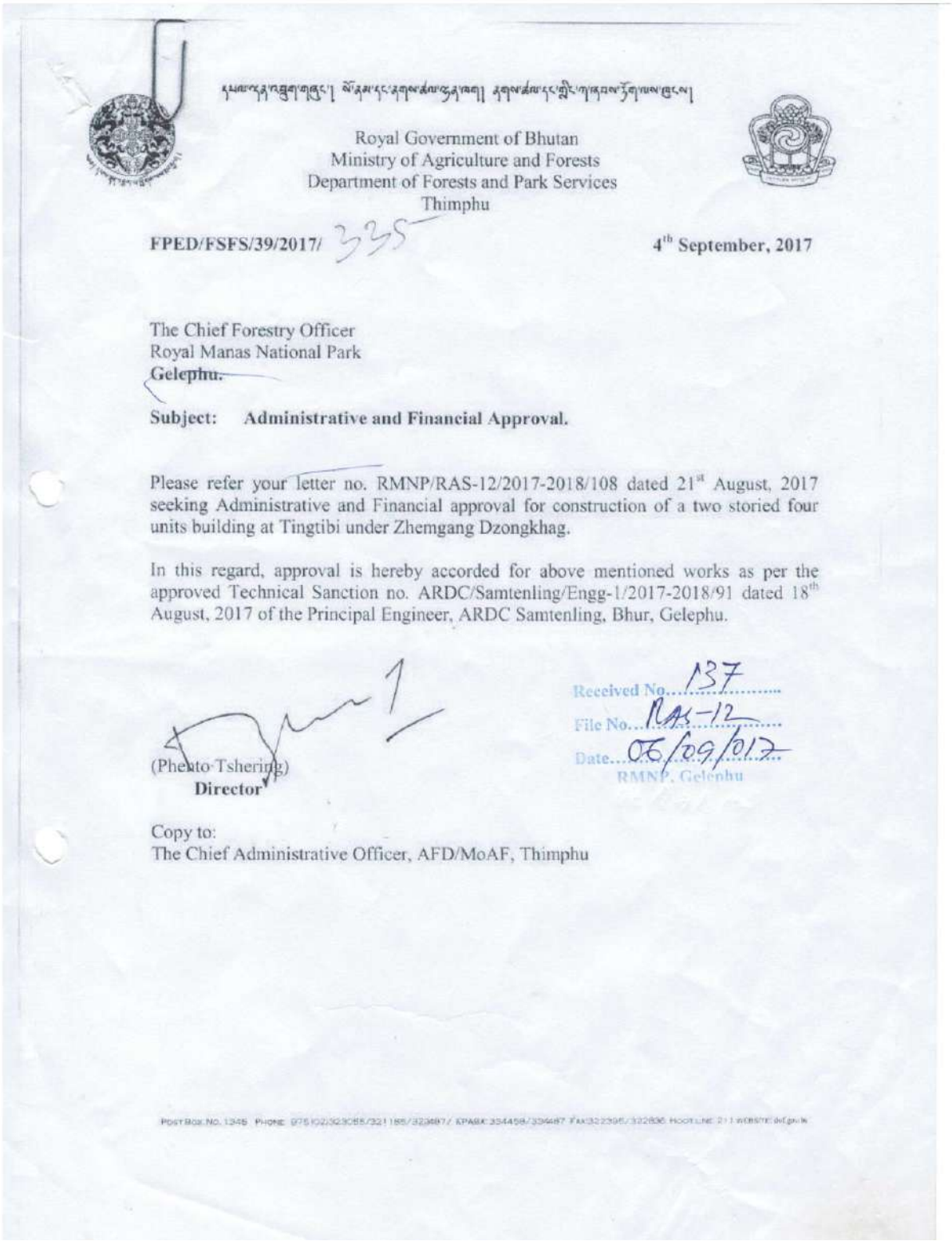
CC to:

1. PA to Director, DoFPS for record.

Post box No. 1345 Phone 975(02)323055/321185/322487 EPABX-33458/334487 Fax No. 322836/322395 Hot Line 211

Annex 2. Sectoral Clearances obtained for Guard Post

དཔལ་ལྡན་འབྲུག་གཞུང་། ལོ་རྣམ་དང་རྣགས་ཚལ་ཉུན་ཁག། རྣགས་ཚལ་དང་གླིང་ཀ་ཞབས་ཏོག་ལས་ཁུངས།



Royal Government of Bhutan
Ministry of Agriculture and Forests
Department of Forests and Park Services
Thimphu

FPED/FSFS/39/2017/ 335 **4th September, 2017**

The Chief Forestry Officer
Royal Manas National Park
Gelephu.

Subject: Administrative and Financial Approval.

Please refer your letter no. RMNP/RAS-12/2017-2018/108 dated 21st August, 2017 seeking Administrative and Financial approval for construction of a two storied four units building at Tingtibi under Zhemgang Dzongkhag.

In this regard, approval is hereby accorded for above mentioned works as per the approved Technical Sanction no. ARDC/Samtenling/Engg-1/2017-2018/91 dated 18th August, 2017 of the Principal Engineer, ARDC Samtenling, Bhur, Gelephu.

Received No. 137
File No. RAS-12
Date 06/09/017
RMNP, Gelephu

(Phento Tshering)
Director

Copy to:
The Chief Administrative Officer, AFD/MoAF, Thimphu

POST BOX NO. 1346 PHONE 975102/323055/321185/323487/ EPABX 334458/334487 FAX 322395/322836 HOOTLINE 211 WEBSITE dofgov.bt

གཞལ་སྒང་རྫོང་ཁག།

DZONGKHANG MUNICIPAL
ZHEMGANG

ZD/ZMC-01/2017-2018/ 7026 2nd October, 2017

The Park Manager,
Royal Manas National Park,
Gyelephu,
Sarpang.

Sub: Approval for construction of G+1 storey building over plot no. UTRO-5236 located under Tingtibe town, Zhemgang

Sir,

As per the approved Notesheet vide its no. ZD/ZMC-01/2017-2018/7025 dated 2nd October, 2017 of offtg. Dasho Dzongdag, Zhemgang, the construction of G+1 storied RCC building is here by accorded under following terms and condition:

1. The building line must be maintained as indicated in the proposed site plan
2. Duration to complete the work shall be 2 years after date of issuance of approval
3. The construction should be accommodate within the registered area with the minimum set back of 3m
4. Applicant are mandatorily asked to use local bricks to construct the building in order to ensure the best compliance and promote our product standdaudization and import of red bricks shall be allowed up on non availibilty or non feasibility of local materials with prior approval and written application from the concern agencies and project Engineer in charge
5. The waste water from bath room and surface run off should drained out at Suitable outfall by not hampering other properties
6. The external facade of structure shall be in Traditional Style
7. Construction septic tank and soakpit should be within the registered area without affecting the private and government land
8. the building colour should be white, mudcolour, grey and exposed stone masonary as per approved vide letter no. MoWHS/DoHS/C &DRD/Adm/2014-2015/160 dated 28th July, 2014
9. **The applicant shall inform Dzongkhag Municipality Office during layout of building**
10. After completion of building, the applicant should seek occupancy certificate up on submission of written application to the Office

RAS, Mangmelli
for information
record

Dzongkhag Municipality -03-741281, Dzongkhag Engineering sector-03-741142, Fax 03-741116

The applicant should take necessary precautions against accidents, damages or inconvenience to the public and workers.Further, owner shall ensure that the construction materials are properly stacked and covered within the plot. Dzongkhag Municipality shall not be responsible for any accident or failure of the structure (if any), as the supervision is the sole responsibility of the applicant

2/10/2017

(Damchen)
Offtg. District Engineer,
Zhemgang

Copy to;

1. Dasho Dzongdag, Dzongkhag Adm, Zhemgang for kind information
2. Building Inspector for monthly monitoring and supervision
3. Office file