

Environmental and Social Management Framework (ESMF)



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Executive Summary

I. Introduction

1. 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. The overall Sponsor (Executing Entity) for BFL is Bhutan's Ministry of Agriculture and Forests, Department of Forest and Park Services. For some BFL activities, WWF Bhutan will also be an active collaborator at government request.
2. BFL will be financed through a transition fund created based on the Project Finance for Permanence (PFP) approach. A significant portion of the transition fund is being requested from the Green Climate Fund (GCF) and WWF is the accredited entity negotiating BFL with the GCF. Hence, the WWF's Environmental and Social Safeguard Integrated Policies and Procedures (SIPP) apply to the project, and require the preparation of an Environmental and Social Monitoring Framework (ESMF).
3. The ESMF aims to identify and manage the environmental and social risks and impacts of the BFL project. It outlines the principles, procedures, and mitigation measures for addressing environmental and social impacts associated with the project in accordance with the laws and regulations of RGoB and with SIPP.
4. The ESMF was prepared based on the following information: a) desk review of the WWF SIPP and RGoB's environmental and social assessment policies; and b) consultation and discussions with stakeholders, including relevant civil society organizations and PAs and BCs management.
5. In general, the anticipated adverse environmental and social impacts on the population that resides within the PAs or in their vicinity and that depends on PAs for their livelihoods are site-specific, reversible and can be readily mitigated. Thus, the BFL is classified as a **"Category B" project** under the WWF Environmental and Social Safeguards Categorization Memorandum (see Annex 1). **The principles and procedures of the ESMF apply both to project activities that are funded through GCF and to activities that are funded from other sources.**

II. Project Description

6. BFL includes five components, which are divided into 16 milestones (or outputs) and over 80 detailed activities. The components are as follows:
 - (i) **Component A: Increasing forestry and land use climate mitigation (Mitigation):** This component focuses on the introduction of monitoring systems that detect forest cover change and ecological responses of forests and other systems to impacts of climate change. The findings will be used to develop climate resilient forest management practices and restoration of the degraded lands to conserve and enhance carbon stock.

- (ii) **Component B: Integrated adaptation in communities and ecosystems to improve natural resource management for livelihoods and climate resilience (Adaptation I):** This component focuses on harnessing climate, hydrological, and natural resources information to design and implement resilience and adaptation measures in Bhutan's PAS. This component will seek to benefit nature and the livelihood of the population living both inside and in the vicinity of the PAS. This will also include building ecotourism facilities inside the PAs and training local populations to create new income generating opportunities related to ecotourism in PAs to diversify livelihoods and build community resilience.
- (iii) **Component C: Climate-smart conservation to enhance provision of ecosystem services (Adaptation II):** This component seeks to secure wildlife, habitat, and reduce human wildlife conflict in the changing climate while ensuring the sustainable flow of ecosystem services.
- (iv) **Component D: Sustainable management of PAs:** This component focuses on strengthening the organizational, institutional and resource capacity for effective management of PAs. This component also includes activities to help the RGoB develop new sources of financing for Bhutan's PAS, which will help to ensure the long-term sustainability of BFL achievements.
- (v) **Component E: BFL Management, Safeguards, and Contingencies:** This component groups project management activities that are necessary for the effective implementation of BFL.

III. Project Area Profile

7. The project covers almost 51% of Bhutan's territory encompassing all agro-ecological regions of Bhutan. The project area includes 10 PAs (comprising of Parks, Wildlife Sanctuaries and Nature Reserves), and 8 BCs spread across 85 of the 205 (or 41%) Gewogs of Bhutan. Considering the population of all Gewogs that fully or partially fall within the PAs and BCs, the number of individuals that directly or indirectly depend on the PAs and BCs for their livelihood accounts to about 37% of Bhutan's population.
8. The majority of the population living inside PAs practice subsistence mixed farming supplemented by the collection of Non-Wood Forest Produces (NWFP) and other natural resources from the forest. In addition, about 49% of Bhutan's total livestock population is located within the BFL project areas. The BFL project areas produce 36% of the national level cereals, 66% of potatoes, 37% of spices 45% of vegetable 38% of oilseed and almost 50% of fruits and nuts in the country. The PAs are also home to more than 200 mammal species and 760 bird species.
9. The full baseline environmental and social data on project-affected PAs and BCs is outlined in Section 3.5 and in Annexes 2-7.

IV. Environment and Social Policy, Regulations and Guidelines

10. The project is subject to the laws and regulations of RGoB and the WWF's SIPP. For the purposes of the BFL implementation, the principles and procedures of the SIPP shall prevail in all cases of discrepancies.

11. Applicable RGoB laws and policies include the Constitution of the Kingdom of Bhutan, 2008; legislation on land and moveable property (Land Act of Bhutan 2007; Land Rules, 2007; The Moveable Cultural Property act of Bhutan, 2005); legislation and regulations on forests and protected areas (National Environment Protection Act, 2007; Forest and Nature Conservation Act of Bhutan, 1995; Forest and Nature Conservation Rules and Regulations of Bhutan, 2017; National Forest Policy, 2011); legislation on water and waste prevention (Water Act of Bhutan, 2011; Waste Prevention and Management Act, 2009); legislative requirements on environmental assessment (Environmental Assessment Act, 2000 and Regulations on the Environmental Clearance of Projects, 2001); and other relevant laws (Livestock Act of Bhutan, 2001; The Biodiversity Act of Bhutan, 2003; The Pesticides Act of Bhutan, 2000; The Penal Code of Bhutan, 2004; National Access and Benefit Sharing (ABS) Policy (Draft), 2014).

12. 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.

13. 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.

14. 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.

V. Institutional Framework

15. The implementation and institutional arrangements for the BFL project will be agreed upon and finalized by the RGoB and BFL donors before the BFL closing agreement is signed. Generally, the overall Sponsor (Executing Entity) for BFL is Bhutan's Ministry of Agriculture and Forests (MoAF), Department of Forest and Park Services. For some BFL activities, WWF Bhutan will also be an active collaborator at government request. MoAF oversees the natural resource base and

production activities of the majority of Bhutan's population. Under the MoAF, the Department of Forest and Park Services is responsible for the sustainable management of Bhutan's protected areas.

16. A BFL transition fund will be established as a new legal entity under the laws of Bhutan or an offshore jurisdiction to ensure long-term management of donor funds over the life of the BFL program and beyond. All donor funding including GCF will be held in the fund. The transition fund will be governed by an independent Board of Directors that represents the BFL Participants (RGOB, donors, WWF) and may also include Directors with experience and skills relevant to BFL. The transition fund Board will be majority non-governmental in order to ensure independent oversight of the BFL program.

17. Other oversight bodies include the following. A **BFL Project Steering Committee** will provide guidance regarding BFL's strategic direction at the policy level and review annual work plans and budget. A BFL Strategic and Technical Committee will provide technical backstopping to the project coordination unit including ensuring that the annual workplan and budget are in line with the BFL Conservation Plan and Financial Model.

18. The day-to-day management of the project will be undertaken by the **BFL Project Coordination Unit (BFL PCU)**, established within the MoAF. The PCU will be in charge of monitoring compliance with the ESMF and the implementation of all safeguards-related obligations.

19. The implementation of specific project activities will be carried out through the respective **park management for the PAs** and the concerned **Territorial Forestry Divisions (TFDs) for the BCs**. They will be responsible for all procedures related to environmental and social screening (eligibility), preparation of ESMPs for specific field activities as required, and monitoring compliance with conditions set out in the RGoB's environment clearance and/or the project's ESMF and ESMPs. The PAs' management and the BCs' TFDs will also be responsible to obtain all required clearances, permits, approvals, or consent documents from relevant authorities and stakeholders.

20. It is recommended that an **Environmental and Social Safeguards (ESS) Expert** is appointed at the **BFL PCU**. The expert will provide support to all Park Managers and TFDs in the preparation of environmental assessments for all field specific activities, development and implementation of ESMPs, monitoring of compliance and in reporting on overall safeguards to the BFL Project Steering Committee, Competent Authorities and to the NECs.

VI. Anticipated Environmental Impacts and Mitigation Measures

21. The BFL project seeks to strengthen the environmental conservation practices of Bhutan, and it is thus expected to result in major positive environmental outcomes. Minor and site-specific negative environmental impacts may include the following:

- **Implementation of new technologies that may adversely impact watersheds, livestock, and vegetation.** These environmental impacts include the design and implementation of rural alternative energies such as biogas and solar technologies, which could result in the following:

- a) Reduction in cattle as biogas requires sedentary cattle, which are mostly improved breed (which is expensive and difficult to manage). **Recommended mitigation measures** are to explore cold temperature and portable biogas technologies or arrange incentives or subsidies for purchase of improved cattle. PA/BC management is responsible for coordinating these activities and the Department of Livestock shall provide technical support.
- b) Risk of an increased methane emission (foul smell and risk fire when methane comes in contact with oxygen). **Recommended mitigation measures** for these activities are: properly cover and secure biogas plant and internal gas connections; and agree with community members on the most appropriate installation locations. PA/BC management is responsible for coordinating these activities and the Department of Livestock shall provide technical support.
- c) Use of unsuitable tree species for plantations, which could lead to low water-use efficiency and reduced growth, high mortality or further degradation of vegetation due to disruption of water balance. **Recommended mitigation measures** are to assess appropriateness of species in terms of biodiversity, water efficiency, forest fire, local needs, cultural sensitivity, survival, etc.; and use appropriate species and local species. PA/BC management is responsible for the implementation of these recommendations.

Adverse environmental impacts may also result from the implementation of innovative agriculture approaches and technologies in critical watersheds, which would result in Soil erosions, soil nutrient depletion, loss of soil fertility in the long run and eventually causing environmental degradation. **Recommended mitigation measures** are to (a) avoid the use of heavy farm machinery for tilling and do not use inorganic inputs for soil fertility management (PA/BC management and the department of Agriculture are the responsible authorities); and (b) promote through input supplies organic agriculture, conservation tillage practices, cover cropping, green manuring, and field nutrient management approaches. The Department of Agriculture Marketing and Cooperatives is the responsible authority.

- **Use of fuel wood in NWFP that may impose pressure on forests and increase waste.** The recommended mitigation measure is to use drying and grinding equipment to reduce fuel wood consumption and reduce waste. PA/BC management is responsible for monitoring these activities, while the contractor is responsible for implementation.

- **Impacts arising from excavation, waste and material management at site during project-related construction works.** Physical works that are envisaged as part of the BFL include the construction of PA and BCs management offices, improved herders shed, transit camps and water reservoirs for drinking and minor irrigation, maintenance of traditional trails. These activities are unlikely to lead to significant adverse environmental effects. However, site-specific, minor negative impacts may include the following:

- a) **Waste and sewage generation from temporary worker camps. Recommended mitigation measures** are to install waste bins around construction sites and worker camps; 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; avoid sensitive sites for camp location; and integrate site waste management with Thromde or

local community facility or local waste collection system. PA/BC management is responsible for monitoring these activities, and the contractor is responsible for their implementation.

- b) **Damage to the site conditions due to excavation causing destabilization of the site and surrounding areas causing soil erosion/landslides. Recommended mitigation measures** are to minimize the area of ground clearance; avoid sensitive alignments, such steep hillsides and ecological sensitive areas; balance filling and cutting requirements through proper route choice; maintain trail surface and alignment with vegetation and where possible install slope protection; plant trees in slide prone areas; and erect local retention walls. PA/BC management is responsible for monitoring these activities, and the contractor is responsible for their implementation.
 - c) **Removal of or damage to trees, crops, or vegetation during construction. Recommended mitigation measures** are to avoid any removal of trees, crops, or vegetation. If removal or damage cannot be avoided, plantation works shall be carried out to replace removed trees and vegetation as soon as possible. In addition, full and timely compensation shall be provided to the owners or users of the removed trees, crops, or vegetation. The compensation shall be calculated based on the replacement value of the expected produce of the trees/crops, which consists of its market price plus the costs of fully replacing the removed/damaged trees or crops. The replacement value shall be calculated by PA/BC management, in consultation with affected households and community representatives.
- **Disturbance to wildlife movement due to shifting borders and fencing of open grazing areas.** The *recommended mitigation measure* is to fence with wire mesh instead of barbed wire and adopt patched fencing to provide wildlife corridor. PA/BC management and the Department of Livestock are responsible for monitoring this activity, and the contractor is responsible for its implementation.

Additional minor risks include the **generation of waste due to ecotourism development and an increased number of visitors in PAs** (the recommended mitigation measure is to prepare waste management plans in consultation with local communities, which shall be under the responsibility of PA/BC management and Tshogpa representatives); and **invasion of new crops due to the introduction of human-wildlife conflict mitigation mechanisms** (the recommended mitigation measure is to certify new crops by BAFRA and NPPC prior to their introduction, which shall be carried out by PA/BC management).

VII. Anticipated Social Impacts and Mitigation Measures

22. The project is expected to result in positive social outcomes by enhancing rural livelihoods, strengthening community resilience to climate change, and empowering communities in the governance of natural resources. Adverse social impacts are expected to be minor and site-specific.

23. It is recommended that for all cases in which project affected people are eligible for compensation as a result of project-related activities in accordance with the ESMF, a special

vulnerability allowance shall be paid by the BFL PCU to such affected households in addition to the regular compensation. The allowance shall be equal to 20% of the compensation to which they are eligible.

24. An overview of the project's anticipated social impacts and potential mitigation measures is as follows.

- **Land acquisition**

25. Private land acquisition and physical displacement will not be allowed under this project. However, project activities may require the usage of government-owned land for the construction of ecotourism facilities, construction of reservoirs for drinking and irrigation water, and development of small scale nature-based enterprise related facilities. These facilities and structures will be located far from settlements and constructed on government-owned land plots only. These land plots will be assigned for project use according to the procedures prescribed in the Land Act, 2007 and the Land Rules and Regulations, 2007, in accordance with specific "use rights" assigned by the National Land Commission. All approvals or clearances involved in the process for government-owned land acquisition will have to be fully documented and recorded.

- **Disruption of local culture and traditional ways of life during construction activities**

26. Construction in the vicinity of traditional local communities may disrupt local culture and traditional ways of life. The following mitigation measures are recommended to prevent or at least reduce these impacts: (i) Obtain all necessary clearances from relevant government authorities for acquiring 'user rights' for land (See Annex 11, Procedural guidance for land acquisition), including forestry clearance; (ii) Carry out consultations with affected communities and local government before and during construction activities; (iii) Avoid sites that are in close proximity to dzongs, monasteries or other sacred sites; (iv) Ensure that sites identified for construction are located beyond 500 meters from a monastery, Dzong or any cultural monument; and (v) Apply the ESMF's screening checklist to ensure that the selected site do not affect cultural resources of local significance.

If cultural resources are identified, select an alternative site or obtain all necessary clearances from the local, communities, concerned Gewog, concerned Dzongkhag and the Department of Culture prior to finalization of the plan and site development. The implementation of these measures shall be under the responsibility of PA/BC management, in coordination with Gewog authorities.

- **Occupational and community health and safety**

27. The BFL project is likely to engage **temporary workers for construction activities**, and such activities will be carried out in the vicinity of local communities. PAs' and BCs' management and the implementing contractors will pay close attention to the issues of occupational and community health and safety during construction activities.

28. With regards to **occupational health and safety**, PAs and BCs' management and the implementing contractors shall provide a safe and healthy work environment, taking into account physical, chemical or biological risks that may be inherent in project activities, and specific threats to women. They shall also take steps to prevent accidents, injury, and disease arising from,

associated with, or occurring in the course of work by minimizing, as far as reasonably practicable, the causes of hazards.

29. In a manner consistent with good international industry practice, the implementing contractor shall (i) identify potential hazards to workers, particularly those that may be life-threatening; (ii) provide preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances; (iii) train workers as necessary; (iv) document and report occupational accidents, diseases, and incidents; and (v) undertake emergency prevention, preparedness, and response arrangements. Specific measures are outlined in Table 12 in the ESMF.

30. **With regards to community health and safety**, PAs and BCs' management and implementing contractors shall evaluate the risks and impacts to the health and safety of the affected community during the design, construction, operation, and decommissioning of project activities, and shall establish preventive measures to address them in a manner commensurate with the identified risks and impacts. Project activities shall prevent adverse impact on the quality and supply of water to local communities, ensure the safety of construction infrastructure and equipment, introduce protective mechanisms for the use of hazardous materials; and undertake all necessary emergency preparedness and response measures. Specific measures are outlined in Table 12 in the ESMF.

- **Restrictions of Access to Livelihoods**

31. Project activities are expected to positively affect local communities' access to livelihoods. These activities will include climate-smart reforestation mechanisms, strengthening the climate and disaster resilience of participating communities, reducing human wildlife conflict by adopting appropriate policies, technologies and systems, strengthening access to nature-based employment and income-generating opportunities including eco-tourism; and more.

32. Project activities that may have adverse impacts on local communities' access to livelihoods are thus expected to be relatively minor. These would primarily include access to NWFP and access to rivers and other water sources.

(a) Access to NWFP: NWFP harvesting is a common livelihood activity in all PAs, and it may be disrupted as part of the development and implementation of climate-smart conservation plans and land restoration.

(b) Access to rivers and watersheds may be disrupted as the project is going to develop management plans for regulating access to specific river stretches and critical watersheds to strengthen their conservation. This could result in irrigation water scarcity and restricted access to fishing.

33. In order to mitigate these adverse impacts, all activities that may affect local communities' access to NWFP and/or to rivers and watersheds should be closely coordinated with community representatives and only carried out after consultations with all relevant stakeholders. Conservation plans should undertake measures that mitigate any disruption of access to livelihoods.

34. If disturbance of access to livelihoods cannot be avoided, full and timely compensation shall be provided to all livelihood users, irrespective of their formal land ownership status or title. The compensation shall be calculated based on the economic value of access to livelihoods, which consists of the market price of NWFP collection, fishing, or using irrigation water plus the costs of fully replacing these economic activities (e.g., fees, taxes, registration costs, etc.). The replacement value shall be calculated by PA/BC management, in consultation with affected households and community representatives. Additional specific mitigation measures that shall be undertaken to offset any adverse impacts are outlined in Table 12 in the ESMF.

- **Impacts on land usage and shifts in land borders**

35. Project activities will include participatory zoning and physical demarcation of all participating PAs and BCs' borders and ongoing support will be provided to fix demarcation pillars. Further, reforestation and rehabilitation activities will be carried out on lands located within traditional trails, sacred sites, or on community use land. These activities may impact grazing areas, NWFP collection areas, water catchment areas, right of ways, traditional trails, water ways, etc. While these activities will have positive long-term impacts on the livelihoods of local communities and sustainable management of natural resources, they may result for the short-term in land use conflicts among different communities or among members of the same community.

36. In order to mitigate such conflicts, PAs and BCs will ensure that relevant project activities will only be undertaken upon consultation with local communities, local authorities and other member of the public who are affected or have a stake in the usage of relevant land plots. Any change or new demarcation of boundaries should be based on free and prior informed consent of the affected communities and relevant authorities, which should be obtained prior to finalizing any border change.

37. If the demarcation of land boundaries or reforestation negatively impacts sources of economic income or other types of livelihoods of affected communities, full and timely compensation shall be provided to all affected individuals, irrespective of their formal land title. The compensation shall be calculated based on the replacement value of these livelihoods (economic market value plus any replacement costs, such as fees, taxes, registration costs, etc.) by PA/BC management.

VIII. Procedures for the Identification and Management of Environmental and Social Impacts

38. The following activities will not be financed by the BFL project: (i) Activities that involve procurement or use of any pesticides categorized IA, IB, or II by the World Health Organization (See Annex 12); (ii) Introduction of exotic species unless certified by NPPC and BAFRA; (iii) Activities that require private land acquisition; (iv) Activities that require physical displacement of persons from their homes or legal businesses, irrespective of ownership; (v) Activities that involve felling of trees in core zones of PAs and in critical watershed areas; (vi) Activities that involve quarrying and mining in PAs; and (vii) Activities that involve commercial logging.

39. In advance of the initiation of any project activity, the relevant implementing entities (PAs and BC management) shall fill in detailed information regarding the nature of the activity and its specific location in the *Safeguards Eligibility and Impacts Screening* form (Annex 13). Part 1 of this form comprises of basic information regarding the activity; Part 2 contains basic “pre-screening” questions. If the response to any of the questions in these two parts is “Yes”, the activity will be deemed ineligible for funding under the BFL. The implementing entities will thus be required to change the nature or location of the proposed activity so that it complies with all safeguards requirements and all responses at the *Safeguards Eligibility and Impacts Screening* form are negative.

40. If the activity is deemed eligible according to Part 2, an environmental and social screening procedure will be carried out in accordance with Part 3 of *Safeguard Eligibility and Impacts Screening* format, which is based on the WWF’s SIPP and applicable RGOB laws and regulations. The relevant implementing entities should respond to the specific questions in Part 3 of the form and then provided general conclusions regarding the main environmental and social impacts of the proposed activity, outline the required permits or clearances, and specify whether any additional assessments or safeguard documents (e.g., ESMP) should be prepared.

41. Issues that are considered as part of this environmental and social screening include the following: Need for government-land acquisition; Environmental impacts (e.g., dust, noise, smoke, ground vibration, pollution, flooding, etc.) and loss or damage to natural habitat; Social impacts: identification of vulnerable groups, impacts on community resources, impacts on livelihoods and socio-economic opportunities, restrictions of access to natural resources, land usage conflicts, etc.; and occupational and community health and safety issues.

IX. Guidelines for ESMP Development

42. In case that the Environmental and Social screening process identifies any adverse environmental or social impacts as a result of specific project activities, the implementing entities should develop a site- and activity-specific ESMP. The ESMP should be prepared before the initiation of the project activity and closely follow the guidance provided in this ESMF.

43. The ESMP should describe adverse environmental and social impacts that are expected to occur as a result of the specific project activity, outline concrete measures that should be undertaken to avoid or mitigate these impacts, and specify the implementation arrangements for administering these measures (including institutional structures, roles, communication, consultations, and reporting procedures).

X. Monitoring

44. The compliance of BFL activities with the ESMF will be thoroughly monitored by various entities at different stages of preparation and implementation.

(i) *Monitoring at the project level.* The overall responsibility for implementing the ESMF and for monitoring compliance with the Project’s environmental safeguard activities lies with the BFL PCU. The Environment and Social Safeguards (ESS) Expert stationed at the BFL PCU shall

oversee the implementation of all field activities and ensure their compliance with the ESMF, and provide the implementing entities (park management of each PA and Territorial Forestry Divisions for each BC) with technical support in carrying out environmental and social screenings and preparing ESMPs, and any other necessary documentation. It is also recommended to engage an international environmental and social safeguards consultant, who would monitor the compliance of all BFL activities with the ESMF on an annual basis. The consultant would closely collaborate with the BFL PCU and report directly to the BFL Secretariat.

- (ii) *Monitoring at the field activity level:* Each implementing entity (PAs and BCs' management) shall closely monitor all field activities, and ensure that they fully comply with the ESMF and with the terms and conditions included in the environmental clearances issued by the RGoB's national authorities. The implementing entities are also fully responsible for the compliance of all external contractors and service providers working in the PA/BC with the safeguards requirements outlined in the ESMF and ESMP (as applicable).
- (iii) *Monitoring at the Competent Authority (CA) or NECS level:* NECS and/or CA (whichever is specified in the environmental clearance issued to the PA/BC) are in charge of the project's annual compliance monitoring. Such monitoring activities can be announced to PAs and BCs' management in advance, or carried out without notice.

In order to facilitate compliance monitoring, the BFL PCU will submit an annual compliance report to NECS/CA and to the BFL Secretariat as per the timeline indicated in the terms and conditions indicated in the environmental clearance. This compliance report will contain the number and name of the project activity for which the environmental clearance was issued, the terms and conditions mentioned in the environmental clearance, and the status of implementation of these terms and conditions. The "compliance monitoring" format is attached in Annex 14.

XI. Grievance Redress

45. The BFL project will have a direct and tangible effect on a large number of communities and individuals residing within or in the vicinity of PAs and BCs. There is thus a need for an efficient and effective Grievance Redress Mechanism (GRM) that collects and responds to stakeholders' inquiries, suggestions, concerns, and complaints. The GRM shall constitute an integral part of BFL and assist the PCU and implementing entities in identifying and addressing the needs of local communities.

46. Complaints may include, but not be limited to, the following issues: (i) Allegations of fraud, malpractices or corruption by staff or other stakeholders as part of any project or activity financed or implemented by BFL; (ii) Environmental and/or social damages/harms caused by projects financed or implemented (including those in progress) by BFL; and (iii) Complaints and grievances by permanent or temporary workers engaged in project activities.

47. The BFL's GRM will be administered by the PCU in coordination with participating PAs and BCs management. The ESS Expert will be in charge of the operation of the GRM at the PCU, and each PA/BC authorities will assign an individual that will be responsible for collecting and processing

grievances that address activities in each of the participating PAs and BCs. The ESS Expert will submit regular reports on the operation of the GRM to the BFL Project Steering Committee.

XII. Capacity Building

48. The informed consent of local communities to project objectives and activities is crucial for the effective implementation of the project. Thus, it is important to ensure that community representatives are sufficiently educated and trained with regards to project activities. These representatives primarily constitute of the Chair of CF or NWFP groups, Tshogpa, and the Gup at the grassroots level. Community representatives identified the need for capacity building in the following areas: (i) understanding the regulatory framework on grazing and pasture management, land acquisition, land leasing mechanisms; (ii) understanding water rights and management; (iii) understanding the forestry regulation; (iv) learning about possible frameworks for the establishment and management of farmer groups; (v) carrying out environmental impacts assessment; (vi) learning regarding natural resources management, in particular in the context of water source management, grazing, community forests and NWFP management; (vii) participatory decision-making process and facilitation; and (viii) community conflict resolution and management.

XIII. Disclosure

49. All affected communities and relevant stakeholders shall be informed about the ESMF requirements and commitments. The ESMF will be translated into Dzongkha and made available on the websites of the MoAF and DoFPs, as well as the websites of the WWF US and WWF Bhutan. Hard copies of the ESMF will be placed in appropriate public locations in all participating PAs and BCs. PA and BC management authorities will be responsible to raise community awareness regarding the requirements of the ESMF, and will also ensure that all external contractors and service providers are fully familiar and comply with the ESMF and other safeguards documents.

XIV. Budget

50. The overall budget that is required for the ESMF implementation is estimated to be **\$US490,000** for the first ten years of the BFL implementation. Detailed budget estimates are available in Section 14 of the ESMF.

51. This estimate does not include the cost of compensation that may have to be paid to project affected people in accordance with this ESMF and site-specific ESMPs. Such compensation shall be fully covered by the BFL budget.

LIST OF ACRONYMS

ABS	Access and Benefit-Sharing
BAFRA	Bhutan Agriculture and Food Regulatory Authority
BCs	Biological Corridors
BFL	Bhutan for Life
BWP	Bhutan Water Policy 2003
CF	Community Forest
DoL	Department of Livestock
DT	Dzongkhag Tsogdu (Dzongkhag Development Committee)
DOA	Department of Agriculture
DoFPS	Department of Forests and Parks Services
CVCA	Climate Vulnerability and Capacity Assessment
EC	Environment Clearance
EA	Environment Assessment
EAA	Environment Assessment Act
EC	Environment Clearance
EIA	Environment Impact Assessment
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FNCRR	Nature Conservation Rules and Regulations
FPIC	Free and Prior Informed Consent
GCF	Green Climate Fund
GNH	Gross National Happiness
GT	Gewog Tshogde (Gewog Development Committee)
LGs	Local Governments
MoAF	Ministry of Agriculture and Forests
NBC	National Biodiversity Centre.
NBSAP	National Biodiversity Strategies and Action Plan
NEC	National Environment Commission
NECS	National Environment Commission Secretariat
NEPA	The National Environment Protection Act, 2007

NFI	National forest inventory
NLC	National Land Commission
NWFP	Non Wood Forest Produce
PAs	Protected Areas
PES	Payment of Environmental Services
PFP	Project Finance for Permanence
PPD	Policy and Planning Division
PPP	Public Private Partnership
RGOB	Royal Government of Bhutan
RWSS	Rural Water Supply and Sanitation
SLM	Sustainable Land Management
SIPP	WWF's Environment and Social Safeguard Integrated Policies and Procedures
SOP	State of the Parks
WUA	Water User's Association
WWF	World Wildlife Fund

EXPLANATION OF BHUTANESE TERMS

Barmi: A mediator accepted and appointed by the affected parties to resolve an issue, controversy or conflict affecting the parties

Chiwog: A unit under a Gewog

Dzongdag: District Administrator

Dzongkhag: District

Dzongkhag Tshogdu: District Council

Gewog: County

Gewog Tshogde: County Committee

Gup: Head of a Gewog

Ladham: Also called *Ridham*, is a seasonal prohibition of entrance for humans and domestic animals into parts of certain mountain and/or forested areas

Mangmi: An elected representative of the Gewog, who is also a deputy Gup

Nye: Sacred pilgrimage site

Tshogpa: An association or committee. Also referred to the Community Representative to the

GT

1. INTRODUCTION

The Kingdom of Bhutan is a small, landlocked, least developed country with a total area of 38,394 km², characterized by rugged mountainous terrain with elevations ranging from 160 meters to more than 7,000 meters above sea level. Electricity from hydropower is the country's largest export, followed by tourism. Fees on electricity exports and foreign assistance (mostly from India) are the public sector's main sources of revenue.

Covering 19,750 square kilometres, Bhutan's protected areas system encompasses over 51% of the country's territory, 41% of its forests, and the upper watersheds of all the country's major rivers. It serves as a carbon sink and a reservoir of biodiversity that includes many endemic species. The integrity of this system, consisting of 10 Protected Areas (PA) connected by 8 biological corridors (BCs), is of crucial importance for the country's climate change mitigation and resilience strategy. It is also key for the provision of food and fodder, habitats for biodiversity, preservation of cultural and spiritual heritage, recreation, and important destinations for ecotourism. As the impacts of global warming increase over the coming decades, it will be even more important to manage these areas effectively to ensure they continue to provide benefits to livelihoods and to the Bhutanese economy.

Despite the nation's network of PAs is relatively intact, many of these areas, and the people living in or adjacent to them, are under increasing pressure from economic development in surrounding areas, illegal extraction of resources, and natural disasters. These threats are exacerbated by the adverse impacts of climate change – projected to worsen over time – which include an increased incidence of extreme and variable weather, accelerated melting of glaciers, and longer dry seasons, resulting especially in increased risks from landslides, floods, and forest fires. The primary constraints faced by the Government in addressing these threats are capacity and funding, and the BFL project directly responds to these constraints.

The Bhutan for Life (BFL) project will secure that 51 percent of the nation's territory is managed under a network of Protected Areas (PAs), and serve as the cornerstone of Bhutan's pledge to remain carbon neutral, as re-stated in its Nationally Determined Contribution (NDC) under the Paris Agreement. It is also central to the country's plans for meeting its constitutional requirement to maintain a minimum of 60 percent of its land area under forest cover. The BFL project thus has the full backing of the Royal Government of Bhutan, with strong public support received during design consultations.

The BFL project will employ an innovative financial model built around the creation of a sinking fund to support improved management of the country's PAs while providing the time and resources to allow the Government to identify and secure long-term revenues sufficient to maintain these management improvements. While transformational for Bhutan, the project also will generate valuable experience to help achieve sustainable protected areas financing in other countries. Mitigation and adaptation benefits will be

generated in a cost-effective manner, with GCF resources leveraging both public and private financing.

BFL will be financed through a transition fund created based on the Project Finance for Permanence (PFP) approach. A significant portion of the transition fund is being requested from the Green Climate Fund (GCF) and WWF is the accredited entity negotiating BFL with the GCF. Hence, the WWF's Environmental and Social Safeguard Integrated Policies and Procedures (SIPP) apply to the project, and require the preparation of an Environmental and Social Monitoring Framework (ESMF).

The principles and procedures of the ESMF apply both to project activities that are funded through GCF and to activities that are funded from other sources.

In general, the anticipated adverse environmental and social impacts on the population that resides within the PAs or in their vicinity and that depends on PAs for their livelihoods are site-specific, reversible and can be readily mitigated. Thus, the BFL is classified as a **“Category B” project** under the WWF Environmental and Social Safeguards Categorization Memorandum (see Annex 1).

The overall Sponsor (Executing Entity) for BFL is Bhutan's Ministry of Agriculture and Forests, Department of Forest and Park Services. For some BFL activities, WWF Bhutan will also be an active collaborator at government request.

1.1. Objective of the ESMF

The preparation of this ESMF was required in accordance with the WWF's SIPP in order to identify and manage the environmental and social risks and impacts of the BFL project. The ESMF aims to outline the principles, procedures, and mitigation measures for addressing environmental and social impacts associated with the project in accordance with the laws and regulations of RGoB and with SIPP.

Since the precise scope of activities that will be implemented as part of the project will only be determined during the implementation phase, site-specific social and environmental impacts are uncertain at this stage. Thus, the development of site-specific Environmental and Social Management Plans (ESMPs) is currently not feasible, and an ESMF is necessary to set out procedures for addressing potential adverse social and environmental impacts that may occur during project activities. Site-specific ESMPs will be developed pursuant to the guidance provided by this ESMF during project implementation.

The specific objectives of the ESMF include the following:

- Identify the positive and negative social and environmental impacts and risks associated with the implementation of the Project;
- Outline the legal and regulatory framework that is relevant to the Project implementation;

- Specify appropriate roles and responsibilities of actors and parties involved in the ESMF implementation;
- Propose a set of actionable recommendations and measures to mitigate any negative impacts and enhance positive impacts;
- Develop a screening and assessment methodology for potential activities, that will allow an environmental/social risk classification and the identification of appropriate safeguards instruments to be included in the Operational Manual of the Transition Fund;
- Set out procedures to establish mechanisms to monitor the implementation and efficacy of the proposed mitigation measures;
- Outline requirements related to disclosure, grievance redress, capacity building activities, and budget required for the implementation of the ESMF.

1.2 ESMF Preparation Methodology

The ESMF was prepared based on the following information: a) desk review of the WWF SIPP and RGoB's environmental and social assessment policies; and b) consultation and discussions with stakeholders, including relevant civil society organizations and PAs and BCs management (See Annex 8).

Consultations were held in 8 out of the 10 project-affected PAs, and in 4 out of the 8 BCs covering east, west, north and southern part of the country. Community consultations were held in 11 Gewogs, involving 239 community members (171 men and 68 women). Participants in all field consultations were divided into four separate groups that consisted of men, women, elderly, and youth. The process also engaged 51 officials of the concerned PAs and BCs.

All consultations began with the introduction of project objectives, timeframe, participating stakeholders, and major activities. The consultations then proceeded to issues related to tenure and rights over resources, BFL activities and potential impacts, opportunities for community participation and grievance redress as part of the project, capacity needs, and the gender aspects of natural resources management.

The ESMF draws on consultations results, and on the relevant laws and regulations of RGoB and SIPP. The relevant RGOB laws and regulations related safeguards apply to the project since it is implemented within the PAs and BCs of Bhutan. WWF's SIPP apply since the project is managed by WWF, which is an accredited entity of GCF.

2. PROJECT DESCRIPTION

This chapter outlines the objectives of the BFL project, its components, milestones, and major supported activities.

2.1. Objectives of the BFL Project

The 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.

2.2. Project Components

Component A: Increasing forestry and land use climate mitigation (Mitigation)

This component focuses on monitoring systems that detect forest cover change and ecological responses of forests and other systems to impacts of climate change. The findings will be used to develop climate resilient forest management practices and restoration of the degraded lands to conserve and enhance carbon stock.

This component will seek to achieve two general goals:

- (i) Maintain forest quality and extent in 1.1 million hectares within the PA network, which will help secure the storage of the current stock of 206 million tons of carbon dioxide equivalent, and increase climate resilience through forest ecosystem conservation;

- (ii) Strengthen monitoring systems to detect forest cover changes, combat the climate change increased risk of forest fires, promote rural alternative energy technologies such as biogas and household solar, and implement climate smart restoration of degraded land areas within the PAs. All these interventions will reduce deforestation risks and hence maintain or increase the current rate of forest growth inside PAs, with these activities, over BFL's 14-year life, increasing carbon sequestration in PAS forest by 35.1 million tons of CO₂eq.

Major activities that will be implemented as part of these goals include the following:

- Strengthen and update information management and monitoring systems to detect forest cover changes, and ecological responses of forests and other systems to impacts of climate change.
- Promote rural alternative energy technologies such as biogas and household solar for communities living within PAs/BCs.
- Implement climate smart restoration of degraded land areas within the protected areas system.
- Other BFL activities (budgeted under the PAS Sustainable Management component) that will strongly contribute to this component include physical demarcation of PAS borders, and the provision of staff, infrastructure, vehicles and equipment to effectively patrol the PAS, prevent illegal logging, and combat forest fires.

Component B: Integrated adaptation in communities and ecosystems to improve natural resource management for livelihoods and climate resilience (Adaptation I):

This component focuses on harnessing climate, hydrological, and natural resources information to design and implement resilience and adaptation measures in Bhutan's PAS. This component will seek to benefit nature and the livelihood of the population living both inside and in the vicinity of the PAS. This will also include building ecotourism facilities inside the PAs and training local populations to create new income generating opportunities related to ecotourism in PAs to diversify livelihoods and build community resilience.

Major activities under this component will include:

- Promote ecotourism, sustainable harvesting, local processing of select commercially viable NWFPs, and nature based local enterprises to enhance community resilience to climate change impacts through alternative income generation;
- Conduct community-based Climate Vulnerability and Capacity Assessments (CVCAs), develop community adaptation plans, and implement ecosystem-based adaptation and climate-smart solutions based on CVCA results and plan priorities;

- Document, revive where necessary, and promote continued use of traditional/indigenous natural resource management and farming systems to improve conservation outcomes and build climate resilience;
- Raise awareness and build capacity of local communities to implement climate-resilient sustainable resource management practices, community-based climate adaptation plans, and to become citizen scientists;
- (Not funded by GCF) Reduce human wildlife conflict in and around protected areas through adoption of appropriate policies, technologies and systems to enhance community resilience.

Component C: Climate-smart conservation to enhance provision of ecosystem services (Adaptation II):

This component focuses on harnessing climate, natural resource and biological information to design and implement ecosystem based adaptation management of Bhutan's PAs. This component will work to secure wildlife, habitat, and reduce human wildlife conflict in the changing climate while ensuring the sustainable flow of ecosystem services.

Major activities under this component will include:

- (Partially funded by GCF) Develop climate-smart species conservation plans, accounting for direct and indirect impacts of climate change;
- Conduct mapping and analysis to track the rate and extent of habitat change and loss due to climate change and other anthropogenic causes, assess functionality of biological corridors (including their future feasibility under climate change scenarios), compile inventory of invasive species in PAs/BCs, and designate high biodiversity habitats, degraded lands and climate refugia;
- (Partially funded by GCF) Implement SMART patrolling in all PAs/BCs, and strengthen poaching and illegal wildlife trade enforcement agencies, inter-agency cooperation, informant networks, and bilateral cooperation;
- Implement restoration of lowland grasslands, alpine meadows, wetlands, riparian areas, floodplains and other key wildlife habitats based on climate information to reduce climate change impacts, provide habitat for wildlife and limit climate change impacts on human well-being and infrastructure;
- Conduct training and provide equipment to monitor and respond to forest fires;
- Designate a high conservation, economic and culturally valued stretch of rivers as free flowing, and build institutional and local capacity to manage the stretch to reduce climate change impacts and increase ecological and downstream community resilience;

- Build local capacity to implement protection and management mechanisms for ten critical watersheds inside protected areas that will provide the greatest conservation, socio-economic, and climate resilience benefits;
- Enhance knowledge on climate change and impacts on various sectors based on climate change scenario modelling and valuation of key ecosystem services, and build awareness and capacity of the government, academia, and research institutions to use the tools and incorporate findings into relevant plans and policies;
- (Not funded by GCF) Develop green and climate-resilient design and construction principles (e.g. those that respond to increasing extreme hazards such as floods and extreme storms), and apply these principles to all infrastructure in and around PAs.

Component D: Sustainable management of PAs

This component focuses on strengthening the organizational, institutional and resource capacity for effective management of PAs. This component also includes activities to help the RGoB develop new sources of financing for Bhutan's PAS, which will help to ensure the long-term sustainability of BFL achievements.

Major activities included under this component are as follows:

- Develop climate-smart PA and BC management plans, syncing with National Five Year Plan cycles;
- Development, lobbying for, and implementation of new long-term sustainable financing mechanisms;
- (Not funded by GCF) Carry out participatory zoning and physically demarcate all PAs/BCs;
- (Not funded by GCF) Strengthen existing information management systems, and evaluate PA/BC management effectiveness using Bhutan Management Effectiveness Tracking Tool (Bhutan METT+) approach;
- (Partially funded by GCF) Build capacity of the PAS staff for effective protected areas management, research (including climate change and its impacts), and biodiversity monitoring;
- (Partially funded by GCF) Provision of staff, infrastructure, vehicles and equipment to effectively patrol the PAS and prevent illegal deforestation.

Component E: BFL Management, Safeguards, and Contingencies:

This component groups project management activities that are necessary for the effective implementation of BFL. Activities under this component include the following:

- Project management: putting in place the project coordination unit (Ministry of Agriculture and Forests), staffing it, and administering all its activities; putting in place the BFL Transition Fund, including a Secretariat in Bhutan, and administering all its activities;
- Implementation of the EMSF and gender mainstreaming;
- Monitoring and evaluation activities, including the operationalization of information management systems for data collection and standardized reporting;
- Project external audits.
- Administering a contingency budget to address unforeseen programmatic or financial challenges during the BFL implementation.

3. PROJECT AREA PROFILE

This chapter outlines the baseline data regarding the project area, including an overview of its geographic coverage, demography, farming system, wildlife, and specific environment and social baseline data on each of the project-affected PAs and BCs.

3.1. Geographic Coverage

The project covers almost 51% of Bhutan's territory encompassing all agro-ecological regions of Bhutan. The project area comprises of 88% of Bhutan's alpine region, 74% of its cool temperate region, 29% of its dry sub-tropical region, 62% of its warm temperate region, and 53% of the wet subtropical regions of Bhutan (See Annex 2a and 2b for details).

The BFL project area includes 10 PAs (comprising of Parks, Wildlife Sanctuaries and Nature Reserves), and 8 BCs spread across 85 of the 205 (or 41%) Gewogs of Bhutan. Of these, 17 Gewogs are associated with the BCs and 75 with the PAs. The project area covers 18 of the 20 Dzongkhags. The only Dzongkhags that fall outside the BFL areas are Chukha and Pema Gatshel.

3.2. Demography

As of 2016, the RGoB estimated the total population of Bhutan to be 768,577. According to the BFL prospectus, population living inside or in the vicinity (less than 10 km) from PA borders comprise about 20% of Bhutan's population. This does not include estimates of population living within and in the vicinity of BCs.

Considering the population of all Gewogs that fully or partially fall within the PAs and BCs, the number of individuals that directly or indirectly depend on the PAs and BCs for their livelihood accounts is about 37% of Bhutan's population. These areas have an estimated population of density of 4.4 as compared to about 13.1 at the national level (See Annex 7).

3.3. Farming Systems

A majority of the population living inside Bhutan's PAs practice subsistence mixed farming supplemented by the collection of Non-Wood Forest Produces (NWFP) and other natural resources from the forest. Establishment of farmer groups for livestock, agriculture, Community Forests (CFs) and NWFPs within the past decade have contributed significantly to enabling participation of communities in forest conservation and sustainable management of natural resources.

Out of the 677 CF Groups in Bhutan, 46% conduct activities inside PAs. Community forests within the BFL project areas comprise of 2.7% of national forest areas and 4.26% of forests areas within the PAs and BCs (See Annex 3 for details).

There is a total of 202 farmer groups in Bhutan and 32% of such groups operate within the project areas of BFL. These farmer groups have an average size of 24 members and out of which 49% comprise of females (see Annex 4 for details). Some farmer groups graduate to form farmer cooperatives and out of the 191 farmer cooperatives in Bhutan, 45% of such cooperatives are within the BFL project areas. The membership of females in the cooperatives is 44.78% at the national level while within the PAs and BCs, females comprise of 53% of members of such cooperatives. CF Groups and other Farmer Groups operate based on their articles of incorporation and are recognized as key grassroots level institutions.

About 49% of Bhutan's total livestock population is located within the BFL project areas. This includes horses (55%), local cattle (54%), sheep (50%), improved cattle (44%), and goats (32%). Considering one cattle as a livestock grazing unit and converting all other types of livestock into a livestock grazing indicate that the BFL project areas has a grazing density of 5 livestock units per square kilometer compared to 9.9 at the national level. For livestock baseline data refer, Annex 5a and 5b.

The BFL project areas produce 36% of the national level cereals, 66% of potatoes, 37% of spices 45% of vegetable 38% of oilseed and almost 50% of fruits and nuts in the country (See Annex 6a and 6b).

3.4. Wildlife

As a result of the extensive areas maintained under the PAs and BC as well as the habitat connectivity through BCs, Bhutan has more than 200 mammal species including the red panda, one horned rhino Rhinoceros, blue sheep, Tibetan wolf, takin – the national animal of Bhutan, Asian elephants, Gaur, Asiatic golden cat, Himalayan serow, musk deer, and clouded leopard. Almost all these species are endangered. Bhutan has an estimated tiger population of 103 and at heights of over 4,000 m tigers share range with snow leopards (DoFPS, 2016). There are over 760 bird species out of which 18 are globally threatened including the critically endangered white-bellied heron.

3.5. Baseline Environmental and Social Data on PAs and BCs

The baseline environmental and social data on project-affected PAs and BCs is as follows.

(i) Bumdeling Wildlife Sanctuary (BWS)

The BWS covers Eastern Himalayan ecosystem ranging from warm broadleaved forest to alpine meadows and scree slopes. More than 60 per cent of the area within the PAs is covered by forest while a proportion of more than one third is covered by snow, rock and shrub.

The Ramsar Convention recognizes the Bumdeling flood plain as an important wetland area. The Kholongchu River and its three tributaries flow through the wetland. The tributaries provide local communities with a source of water for irrigation and drinking. The main river is the site of a hydropower project, located 35km south of the wetland.

The sanctuary consists of nearly 1,000 households. These are farmers (growing rice in lower areas, and maize and grains in the higher regions) and yak herders in the high mountains. The sanctuary is of high significance in terms of the preservation of cultural and traditional practices. 'Kishuthara' weaving (Silk textiles) and the production of wooden containers (known locally as 'Dappa') are important sources of income.

Table 1: Summary data of BWS

Altitude Range (m)	1495 to 6400
Area (sq. km)	1520.61
No. of Mammals spp	42
No. of Plants spp.	734
No. of Birds spp (Nos)	343
No. of households	1000
Population (inside PA)	8047
No. of Dzongkhags covered	3
Name of Dzongkhags	Lhuentse, Mongar, Trashy Yantgse
No. of Gewogs covered	5
Name of Gewogs	Minjey, Kurtoed, Khoma, Shermuhoong, Boomdeling
Ethnic groups	Sharchop speaking Kurtoes, Sharchop and Tshangla dialects.
Farming System	Rice, Maize, Yak Herders, Dapa Makers
Species	Black-necked cranes, Snow Leopard, Tiger, Asiatic wild dog, Himalayan Musk Deer, Bumdeling floodplain is a declared Ramsar site

(ii) Jigme Dorji National Park (JDNP)

JDNP is the only park in the country that has all four national wildlife symbols: Blue Poppy (*Meconopsis grandis*), Takin, Raven and Cypress (*Cupressus corneyana*). It is also the only park inhabited by both the tiger and the snow leopard. The park is well known for its medicinal plants, natural hot springs, medicinal waters, and scenery. Mt. Jomolhari (which straddles Tibet and Bhutan) is located in the northwestern part of the JDNP, and is sacred to Buddhists as it is the home of the goddesses Jomo.

The park area covers snow capped mountains and glacial lakes, which are an important source of water for four major rivers that provide income from hydro-electricity generation in the downstream valleys.

Table 2: Summary Data of JDNP:

Altitude Range (m)	1200 to 7314
Area (sq. km)	4316
No. of Mammals spp	50
No. of Plants spp.	1434
No. of Birds spp (Nos)	313
No. of households	1500
Population (inside PA)	6000
No. of Dzongkhags covered	5
Name of Dzongkhags	Gasa, Paro, Punakha, Thimphu, Wangdue Phodrang
No. of Gewogs covered	14
Name of Gewogs	Khamaed, Khatoed, Lunana, Doteng, Tsento, Goenshari, Toedwang, Chhubu, Kabisa, Lingzhi, Soe, Naro, Kawang, Kazhi
Ethnic groups	All Ngalong (Dzongkha) speaking communities with different tones. People from Laya, Lunana, Lingzhi, Soe and Naro are pre-dominantly migratory yak herders
Farming System	Livestock and agriculture
Species	Royal Bengal Tiger, Snow Leopard, Bhutan Takin , Himalayan Musk Deer, Clouded Leopard, Marbled Cat, Asiatic Wild Dog, Red Panda, Asiatic Black Bear, White Bellied Heron, Cordyceps sinensis and medicinal and incense plants

(iii) Jigme Khesar Strict Nature Reserve (JKSNR)

Jigme Khesar Strict Nature Reserve (JKSNR) is the only Strict Nature Reserve in Bhutan; and the only protected area without permanent human settlements, except for few

migratory yak-herding communities who have traditional grazing rights in the reserve. The Reserve has two major rivers (Haachu and Amochhu) which support mega-hydropower projects located downstream (Wangchu and Amo Chu, in planning stage).

Table 3: Summary Data of JKSNR

Altitude Range (m)	1400 to 4900
Area (sq. km)	609
No. of Mammals spp	29
No. of Plants spp.	427
No. of Birds spp (Nos)	161
No. of households	0
Population (inside PA)	0
No. of Dzongkhags covered	2
Name of Dzongkhags	Haa and Samtse
No. of Gewogs covered	6
Name of Gewogs	Sombaykha, Samar, Bjee, Norgaygang, Tendruk, Norboogang
Ethnic groups	Dzongkha speaking Ngalops in the north and Nepali speaking Lhotshampas in the south
Farming System	Yak Herding
Species	Musk deer, Red panda, Snow Leopard, Clouded Leopard, Gaur

(iv) **Jigme Singye Wangchuck National Park (JSWNP),**

Centrally located in the protected area system, sharing borders with RMNP and is linked through biological corridors to JDNP and PNP. The ago-ecological conditions of the park extend from sub-tropical to alpine and includes some of the largest and least disturbed areas of the Eastern Himalayas.

Table 4: Summary data of JSWNP

Altitude Range (m)	250 to 4925
Area (sq. km)	1723
No. of Mammals spp	38
No. of Plants spp.	440
No. of Birds spp (Nos)	270
No. of households	588

Population (inside PA)	6000
No. of Dzongkhags covered	4
Name of Dzongkhags	Sarpang, Trongsa, Wangdue Phodrang, Zhemgang
No. of Gewogs covered	11
Name of Gewogs	Chhudzom, Jigmechoeling, Dragteng, Korphu, Langthil, Tangsibji, Patsaling, Phuentenchhu, Phobji, Athang, Trong
Ethnic groups	Nepali speaking communities in the south, Khengkha and Bumthap speaking communities in Trongsa and Ngalong speaking communities in Wangdue. Jangbi community of Langthel and Olep Community of Atahng are Monpa who speak monkha language and until recently were isolated communities depending mostly on cane and bamboo as well as livestock. Now they practice agriculture, have schools, health centers, electricity and roads. Most people now speak Dzongkha and wear the national dress.
Farming System	Mixed Agriculture and livestock
Species	Black-necked cranes, White-bellied heron, Goldern Langur, Tiger

(v) Jomotshangkha Wildlife Sanctuary (JWS),

The sanctuary protects sub-tropical forest with high biological diversity in the south-eastern corner of Bhutan. It is the second smallest protected area in the country.

Table 5: Summary Data of JWS

PA	JWS
Altitude Range (m)	200 to 2,300
Area (sq. km)	334.73
No. of Mammals spp	23
No. of Plants spp.	Not known
No. of Birds spp	Not known
HH (nos)	1742 (estimates for all all 5 Gewog)
Population (inside PA)	8333 (estimates for all all 5 Gewog)
No. of Dzongkhags covered	1
Name of Dzongkhags	Samdurp Jongkhar

No. of Gewogs covered	5
Name of Gewogs	Langchenphu, Phuentshogthang, Pemathang, Serthig, Samrang
Ethnic groups	Nepali speaking Lhotshampas and Tshangla Speaking communities Sharchop
Farming System	Rice, Maize and cattle
Species	Common Leopard, Himalayan Black Bear, Asiatic Wild Elephant Tigers, Pygmy Hog, Hispid hare

(vi) Phibsoo Wildlife Sanctuary (PWS)

Located in the foothills of south central Bhutan and shares an international border with Ripu-Chirang Reserved Forest in India and the sanctuary is connected through biological corridors to JSWNP and RMNP. The sanctuary is a sub-tropical forest ecosystem. It is the only natural habitat of spotted deer (Chital) in the country and has wild sal and agar wood forests.

Table 6: Summary data of PWS

Altitude Range (m)	200 to 1,600
Area (sq. km)	269
No. of Mammals spp	40
No. of Plants spp.	637
No. of Birds spp	131
No. of Households HH (nos)	107
Pop (inside PA)	5500
No. of Dzongkhags covered	2
Name of Dzongkhags	Dasgana and Sarpang
No. of Gewogs covered	3
Name of Gewogs	Lhamoidzingkha, Nichula and Senggey
Ethnic groups	Mostly Nepali speaking Lhotshampas
Farming System	Rice, maize and cattle
Species	Common Leopard, Himalayan Black Bear, Asiatic Wild Elephant, Tigers, Pygmy Hog, Hispid hare

(vii) Phrumsengla National Park (PNP)

The PNP has vegetation ranges from subtropical broadleaf to alpine grassland. Some 100 km of the East–West national highway runs through the park, mostly inside the core zone of the park.

Table 7: Summary data of PNP

Altitude Range (m)	800 to 4500
Area (sq. km)	905
No. of Mammals spp	60
No. of Plants spp.	750
No. of Birds spp	360
No of Households	1165
Pop (inside PA)	5600
No. of Dzongkhags	4
Name of Dzongkhags	Bumthang, Lhuentse, Mongar, Zhemgang
No. of Gewogs	10
Name of Gewogs	Ura, Chhumig, Tang, Jarey, Maedtsho, Gangzur, Saling, Tsamang, Shingkar, Nangkor
Ethnic groups	Bumthaps speaking Bumthangkha, Zhemgang people speaking Khengkha, Mongar and Lhuentse people speaking Kurtope language
Farming System	Agro-pastoralist
Species	Red Panda, Tiger, Rufous-necked Hornbill; Highly valuable fungi Matsutake Tricholoma Matsutake, (locally known as Sangay Shamu) mushroom

(viii) Royal Manas National Park (RMNP)

Connected by biological corridors to JSWNP, PWS, PNP and JWS and to the Indian Manas National Park in the south, the location of Royal Manas National Park (RMNP) forms the cornerstone of the protected area network in Bhutan.

Habitats 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.

Table 8: Summary data of RMNP

Altitude Range (m)	500 to 2714
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Area (sq. km)	1057
No. of Mammals spp	66
No. of Plants spp.	900
No. of Birds spp	426
No. of Households	686
Population (inside PA)	5331
No. of Dzongkhags covered	2
Name of Dzongkhags	Sarpang and Zhemgang
No. of Gewogs	8
Name of Gewogs	Norboogang, Umling, Tareythang, Serzhong, Jigmechoeling, Phangkhar, Ngangla, Trong
Ethnic groups	Khengkha speaking community in Zhemgang and Nepalis speaking community in Sarpang. Sarpang also a communities from all across Bhutan who settled there under the resettlement program of the Government.
Farming System	Mixed agriculture and horticulture
Species	Golden Mahseer, Tiger, Elephant, Gau, Asiatic Water Buffalo, Common Leopard, Clouded Leopard, Golden Langur and Sloth Bear

(ix) Sakteng Wildlife Sanctuary (SWS)

The alpine meadow and temperate and warm broadleaf forests of SWS include the sources of three major rivers; Manas Chu, Bada Chu and Dhansiri Chu. The Sanctuary is situated in the remotest part of the country where only limited development programs have been implemented. Ninety per cent of the people are herders from a nomadic tribe, the Brokpas, who rear yak and herds of cattle for subsistence.

Table 9: Summary data of SWS

Altitude Range (m)	1584 to 4500
Area (sq. km)	740.6
No. of Mammals spp	30
No. of Plants spp.	622
No. of Birds spp	227
No. of Households	
Population (inside PA)	4500

No. of Dzongkhags covered	2
Name of Dzongkhags	Trashigang and Samdrup Jongkhar
No. of Gewogs	3
Name of Gewogs	Lauri, Merak and Sakteng
Ethnic groups	Tshanglakha speaking communities in Lauri and Dakpa speaking communities in Merak and Sakteng. Merak and Sakteng communities wear a unique dress code
Farming System	Herders in Merak and Sakteng while Lauri communities practice mixed agriculture
Highlight	Red Panda, Monal Pheasant, Blue Poppy flower

(x) Wangchuck Centennial National Park (WCNP)

WCNP is located in central-northern Bhutan. It was established in 2008 due to its rich biodiversity, role as a water tower, importance in maintaining livelihoods of resident communities, and for reasons of international border security. WCNP represents the middle Himalayan ecosystems and contains several ecological biomes ranging from blue pine forest to dry alpine areas. It is the largest protected area in Bhutan and includes the highest (and unclimbed) peak in Bhutan, Gangar Puensum. The northern parts of the park remain inaccessible for four to five months in winter due to harsh climatic conditions.

Table 10: Summary data of WCNP

Altitude Range (m)	
Area (sq. km)	4914
No. of Mammals spp	43
No. of Plants spp.	693
No. of Birds spp	250
No. of Households	1,600
Population (inside PA)	10588
No. of Dzongkhags covered	5
Name of Dzongkhags	Bumthang, Gasa, Lhuentse, Trongsa and Wangdue Phodrang
No. of Gewogs	10
Name of Gewogs	Chhoekhor, Tang, Lunana, Kurtoed, Khoma, Gangzur, Nubi, Kazhi, Saepchu, Dangchhu
Ethnic groups	Bumthap speaking communities of Bumthang and Trongsa, Kurtoep speaking communities of Lhuentse and Ngalong speaking communities of Wangdue and Gasa

Farming System	Settled agricultural and as well as nomadic pastoralists
Species	Red Panda, Monal Pheasants, Tragopan, Black Necked Crane, Blue poppy flower, Musk Deer, Bhutan Takin, Common Leopard, Himalayan Black Bear, Wild Dog, Common Raven, Himalayan Monal; Over-lapping tiger and snow leopard habitat

(xi) Royal Botanical Park Lamperi (RBPL)

RBPL is located at central-northern Bhutan. It was established in 2008 due to its rich biodiversity, role as a water tower, importance in maintaining livelihoods of resident communities, and for reasons of international border security. WCNP represents the middle Himalayan ecosystems and contains several ecological biomes ranging from blue pine forest to dry alpine areas. It is the largest protected area in Bhutan and includes the highest (and unclimbed) peak in Bhutan, Gangar Puensum. The northern parts of the park remain inaccessible for four to five months in winter due to harsh climatic conditions.

Table 11: Summary data of WCNP

Altitude Range (m)	
Area (sq. km)	4914
No. of Mammals spp	43
No. of Plants spp.	693
No. of Birds spp	250
No. of Households	1,600
Population (inside PA)	10588
No. of Dzongkhags covered	5
Name of Dzongkhags	Bumthang, Gasa, Lhuentse, Trongsa and Wangdue Phodrang
No. of Gewogs	10
Name of Gewogs	Chhoekhor, Tang, Lunana, Kurtoed, Khoma, Gangzur, Nubi, Kazhi, Saephu, Dangchhu
Ethnic groups	Bumthap speaking communities of Bumthang and Trongsa, Kurtoep speaking communities of Lhuentse and Ngalong speaking communities of Wangdue and Gasa
Farming System	Settled agricultural and as well as nomadic pastoralists
Species	Red Panda, Monal Pheasants, Tragopan, Black Necked Crane, Blue poppy flower, Musk Deer, Bhutan Takin, Common Leopard, Himalayan Black Bear, Wild Dog, Common Raven,

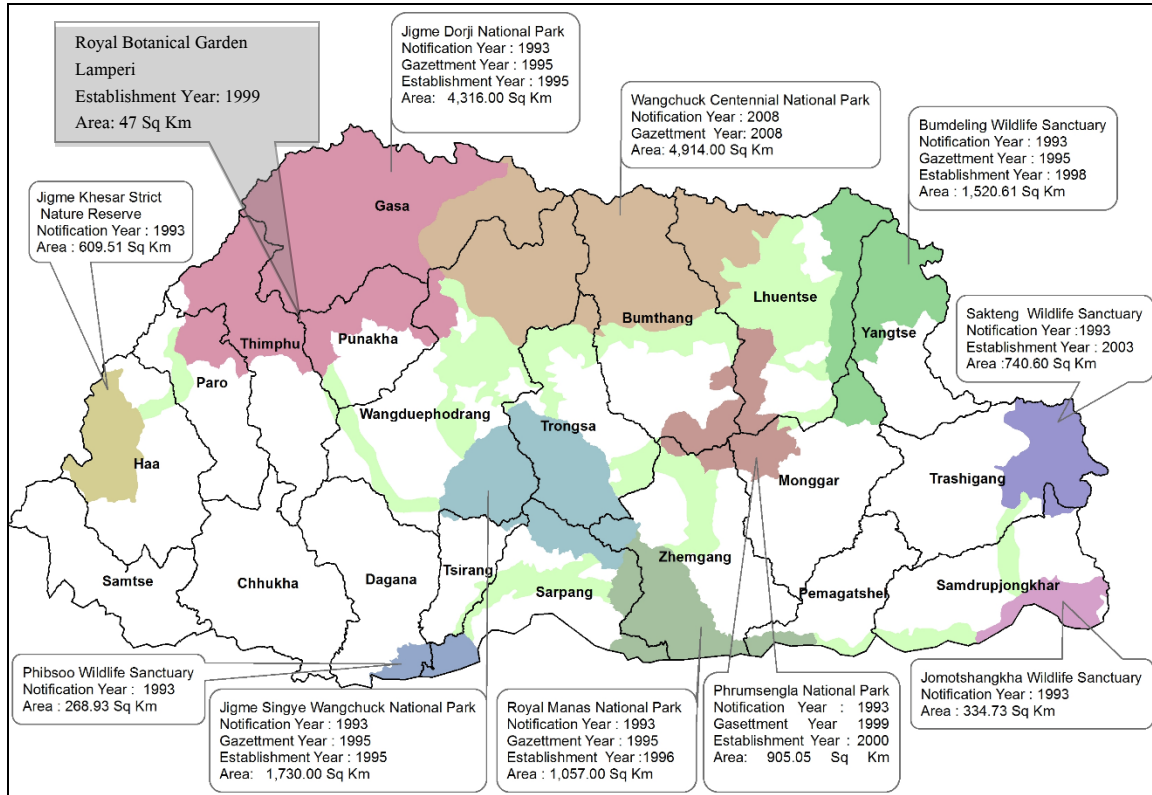
	Himalayan Monal; Over-lapping tiger and snow leopard habitat
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The biological corridors in Bhutan were introduced in 1999 to connect all protected areas together into a single contiguous area providing free mobility to wild animals. Isolated populations of wildlife or plants are less genetically viable and at much greater risk than connected populations. The corridors' locations were chosen to balance many factors, including the risk of forest fires, migration patterns of keystone species, difficulty of terrain, habitat condition, human impacts, and the passage's shape, such as the width of narrowest constriction. The longest corridor is the North Corridor, with a total length of 76 km, and the shortest is the 16 km connection between Phrumsengla National Park and the North Corridor. The BCs included in the project are as follows:

1. BC1 connects JKSNR-JDNP, and comprises 2 Gewogs, Bjee in Haa and Tshento in Paro.
2. BC2 connects JDNP to JSWNP, and covers 6 Gewogs within 2 Dzongkhags of Thimphu and Wangdue Dzongkhags. The gewogs are Toedpaisa, Kabisa, Chang, Nahi, Gase Tshowom and Darkar.
3. BC3 connects PWS to RMNP to JKSNR, and covers 10 Gewogs of Sarpang Dzongkhag. The gewogs are Chhuzangang, Gakiling, Dekiling, Samtenling, Chhudzom, Senggey, Serzhong, Jigmechoeling, Doonglagang and Sergithang.
4. BC4 connects PNP to JSWNP to RMNP and covers 5 Gewogs of Zhemgang, Trongsa and Bumthang Dzongkhags. The Gewogs are Chhumig, Langthil, Shingkar, Nangkor and Trong.
5. BC5 connects JWS to RMNP and covers 3 Gewogs of Samdrupjongkhar and Pema Gatshel Dzongkhags. The Gewogs are Orong, Pemathang and Norboogang.
6. BC6 connects JWS to SWS and covers 5 Gewogs of Samdrupjongkhar and Trashigang Dzongkhags. The Gewogs are Martshala, Serthig, Samrang, Lauri and Kangpar.
7. BC7 connects PNP to BWS and covers 5 Gewogs of Lhuentse and Trashiyangtse Dzongkhags. The gewogs are Tsaenkhar, Jarey, Shermuhoong, Tsamang and Samrang.
8. BC8 connects JKSNR to JDNP to WCNP covers 17 Gewogs within 4 Dzongkhags of Lhuentse, Bumthang, Trongsa and Wangduephodrang. The Gewogs are Chhoekhor, and Tang, in Bumthang; Maenbi, Minje, Maedtsho, Khoma and Gangzur in Lhuentse; Tangsibji, and Nubi, in Trongsa; Nyishog, Gangteng, Bjednag, Kazhi, Phobji, Athang, Saephu and Dangchhu in Wangdue Phodrang.

The spatial coverage of the project comprises agro-ecological and geographical locations in Bhutan as indicated in the following map:

Figure 1: Spatial Coverage of BFL Activities



4. ENVIRONMENT AND SOCIAL POLICY, REGULATIONS AND GUIDELINES

This chapter first outlines the laws and regulations of RGoB and the WWF's SIPP that are applicable to the project, and then discusses gaps between RGoB laws and regulations and the SIPP. **For the purposes of the BFL implementation, the principles and procedures of the SIPP shall prevail in all cases of discrepancies.**

4.1 RGOB's Policies, laws, Regulations Guidelines

The current review of applicable national policies, legislation and regulations includes those that are pertinent to the project, as well as the broader policy and reform context within which the project takes place. Particular attention has been paid to laws and regulations governing the project's implementation and the access of poor and excluded groups to goods, services, and opportunities provided by the project (See Annex 9 for details).

The Constitution of the Kingdom of Bhutan, 2008: The Constitution of Bhutan requires every citizen to contribute to the protection of the natural environment, conservation of the rich biodiversity of Bhutan and prevention of all forms of ecological degradation including noise, visual and physical pollution. It assigns the rights over mineral resources, rivers, lakes and forests to the RGoB to be regulated by law. It requires the state to preserve, protect and promote the cultural heritage of the country, including monuments, places and objects. The state is assigned to ensure safe and healthy environment, maintaining a minimum of sixty percent of Bhutan's total land under forest cover for all time, secure ecologically balanced sustainable development and sovereign rights of the state over its own biological resources, including legislation to ensure sustainable use of natural resources and intergenerational equity. In accordance to the Constitution, the Parliament can, by law, declare any part of the country to be a National Park, Wildlife Reserve, Nature Reserve, Protected Forest, Biosphere Reserve, Critical Watershed and such other categories meriting protection.

Local Governments in the country are required to consider local interests in the governance of natural resources by engaging the population in consultative processes. A person shall not be deprived of property by acquisition or requisition, except for public purpose and on payment of fair compensation in accordance with the provisions of the law.

(i) Land and Moveable Property

Land Act of Bhutan 2007: The Land Act defines the legal framework to manage, regulate and administer the ownership and use of land for socio-economic development and environmental well-being. The Act clarifies that trees, either naturally grown or planted, belong to the landowner when grown on registered land. It also enables individuals to lease government-reserved forestland for economic and other purposes.

The act defines procedures for the removal of Tsamdro (grazing land registered under individual title granting usufruct rights only) from individual ownership. Such grazing land is reverted and maintained as Government-owned land in towns and Government Reserved Forests in rural areas. However, the Tsamdro can be leased to individual households or communities owning livestock based on herd size. Preference is given to prior rights holders and communities. Highlanders who are directly dependent on Tsamdro for their livelihoods may retain their Tsamdro rights under lease irrespective of possession of livestock and their herd size. Grazing and pasture development on Tsamdro is permitted based on a Tsamdro management plan, prepared by the lessee and the Department of Forests and Park Services and. The Act recognizes a right of way established over land through local customs by uninterrupted use for a period of more than 5 years, and requires landowners to respect it.

Land Rules, 2007: The Rules specify requirements for land acquisition and lease. They stipulate that private registered lands shall only be expropriated for public use in case of unavoidable circumstances and only if appropriate compensation is provided based on valuation by the PAVA. Private land can only be taken over after a substitute land plot is registered under the name of the landowner or upon the provision of the full cash compensation to the landowner.

The Rules allow to lease land from the SRF, but such land should only be used in accordance to an approved management plan. This requirement applies to land leased for commercial agriculture, grazing and sokhshing. Lease of SRF for commercial farms and sokshing should not be for a period beyond 30 years while that of grazing should be renewed every 10 years.

Lease of SRF for grazing is based on livestock ownership and herd size, while lease for agriculture purposes is based on ownership and size of agriculture land. However, highlanders are eligible for Tsamdro on lease, irrespective of possession of livestock and herd size. They are also eligible to sub-lease the leased Tsamdro.

The Moveable Cultural Property act of Bhutan, 2005: Requires that the title of all cultural properties shall be registered in the name of the Dratshang, Government, Community or private individuals. Cultural Property registered in a Thram shall not be sold, used for personal means, exchanged, gifted, or damaged. Considering that foreign visitors are often not familiar with the Cultural Property Act of Bhutan, it is the legal responsibility of the concerned agency/host/guide to brief the visitor on the Act where applicable. If any items that are considered to be Valuable Cultural Property are found by chance during the construction of roads or buildings or any other related works, the “chance find” shall be immediately reported to the Department of Culture through the concerned Dzongkhag.

(ii) Forests and Protected Areas

National Environment Protection Act, 2007: This Act outlines principles and a legal framework for forest governance and management. It sets out requirements for the sustainable use and management of the country’s resources and ecosystems.

Forest and Nature Conservation Act of Bhutan, 1995: This Act ensures the protection and sustainable utilization of forests, fauna, and other natural resources of Bhutan for the benefit of present and future generations. The Department of Forests and Parks Services is fully responsible for the sustainable management, protection, and regulation of all natural resources within Government Reserved Forests as well as in other parts of the country. The Forest and Nature Conservation Rules of Bhutan 2017 have been issued to support the implementation of this Act.

Forest and Nature Conservation Rules and Regulations of Bhutan, 2017: The rules requires that land within PAs is only allocated to local residents or for public usage, and sets out specific conditions for such land allocation. The regulations restrict livestock grazing to areas that are fenced for natural regeneration for a specified period and to plantation areas, whether fenced or not and until the seedlings are well established. It allows goat grazing only within a confined area and not freely in SRF. However, the regulations secures rights of way to existing “tsalam” and “chulam”, traditionally used during migration, provided that such routes are not lawfully closed by the Government. The regulations also require that PAs must prepare Management Plans in consultation with local communities, local authorities, individuals that depend on PAs for their livelihoods, as well as other relevant stakeholders or recognized civil society organizations.

The Forest and Nature Conservation Act and the Forest and Nature Conservation Rules prohibit any construction, including motor roads, buildings, fences, or any other physical structures inside a PA, except with written permission or authorization from the MoAF. In the core zone of PA only activity necessary for achieving conservation objective are permitted. Certain activities, such as felling trees, waste disposal, building structures, are strictly controlled within the forests. Land clearance is not permitted (a) within 100 feet on either side of the banks or edge of rivers, streams or watercourses, which are kept as riparian reserve for conservation, and (b) land with greater than 45-degree slope.

National Forest Policy, 2011: The policy encourages the engagement of rural communities to manage forests sustainably for socio-economic benefits, poverty reduction and to contribute to overall sustainable forest management. The policy envisions the network of PAs and BCs to maintain species persistence and ensure the long-term sustainability of Bhutan’s biodiversity, ecosystem services, natural habitats and cultural heritage for positive environmental outcomes. It calls for an integrated approach to the conservation of cultural heritage traditions, local water supply sources and riparian reserves, soil protection, specific wild floral/faunal habitat and species protection in PA management. The policy provides an enabling environment for the promotion of nature-based tourism to bring benefits to local communities and enhance conservation in PAs and BCs. It also sets out guidelines for the development of public recreational areas. The policy allows regulated grazing in multiple-use and buffer zones in national forests, and requires the development and implementation of measures to protect natural ecosystems against invasive alien plant species.

(iii) Water & Waste Prevention

The Water Act of Bhutan, 2011: The Act sets out principles for water allocation for drinking, agriculture, energy, and industrial use, tourism and recreation and for other uses. It establishes the principle that water is a public resource managed by the State, and that every citizen has equal right of access to this resource. The Act stipulates that no individual or community should be deprived of access to water, including downstream and upstream needs. It also forbids the discharge of any effluent directly or indirectly to any water resource, unless the discharge is done in accordance with the Effluent Discharge Standard. At the Dzongkhag level, the Act assigns the Dzongkhag Environment Committee to function as the Dzongkhag Water Management Committee for the purpose of proper and effective protection and management of water resources.

The Water Act clarifies that Local Governments, religious bodies, and the Ministry of Home and Cultural Affairs bear responsibility for protecting therapeutical waters such as Menchhu, Drupchhu, Tshachhu, and Neychhu. Blocking or otherwise altering an irrigation channel flowing through one's property shall not be allowed without the consent of the users of that channel, even where the channel is not required by the property owner. This Act is relevant in enabling safeguard measures in use of water for the project activities, as well as for management of drinking and irrigation water within communities that are part of the project areas.

Waste Prevention and Management Act, 2009: The Act requires that every person shall take all precautionary measures in maintaining a clean and healthy environment and that individuals that pollute the environment or cause ecological harm shall be responsible for the costs of avoidance, contamination, abatement, medical compensation, mitigation, remediation, and restoration of the environmental damage. The lead implementing agencies shall make arrangements for dealing with waste in various areas.

(iv) Environmental Assessment Requirements

Environmental Assessment Act, 2000: This Act requires the government to ensure that environmental concerns are considered when formulating, renewing, modifying and implementing any policy, plan, or program. Issuance of an environmental clearance is a prerequisite to the issuance of a development consent and those that do not require a development consent can commence only after receiving an environmental clearance, which contains environmental terms and conditions to be complied with. When a decision on the environmental clearance is taken, the NECs or the CA are required to make a public announcement of the decision informing about the project/activity, as well as measures that should be taken to avoid or mitigate potential adverse impacts. The act and ensuing notifications from the NECs identifies sectors that do not require environment clearances and delegates identified competent authorities to issue environment clearances for specified sectors. The act requires the Secretariat and other competent authorities to monitor and control compliance with the terms of environmental clearances. The relevant authorities shall report annually to the Secretariat on implementation, monitoring and

enforcement and the Secretariat shall report annually to the Commission. The EA Act also sets out specific procedures on compensation if land acquisition and property displacement are required.

Regulations on the Environmental Clearance of Projects, 2001: The regulations require that environmental clearance is only issued after the screening and assessment of the environmental impacts of development projects. Applicants should submit the following documentation as part of the environmental screening process:

- Assessment of the potential adverse effects of the project on the environment including direct, indirect, and cumulative effects;
- Proof of compliance with relevant sectoral guidelines or codes of best practices, if any, issued by the Secretariat or competent authorities;
- Action plan the details how adverse project impacts will be avoided, mitigated or reduced; and
- Description of the environmental benefits of the project, including how the project will benefit affected people and use clean and sustainable technologies.

The Secretariat or relevant Competent Authority shall examine the application in accordance to sectoral guidelines, and may issue an environmental clearance, require a separate environmental assessment, or provide a blanket denial. If an environmental clearance is issued, the NECs or the CA shall issue a public notification accordingly.

If the NECs or CA requires the applicant to conduct an environmental assessment, the following procedure applies:

1. The applicant shall prepare terms of reference for the environmental assessment report, which have to be approved by the NECs or CA;
2. The applicant shall be responsible for the preparation of an environmental assessment report, according to the terms of reference approved by the Secretariat or Competent Authority (See Annex 15 for outline of the EA Report);
3. In the process of the EA report preparation, a public consultation must be held.

Upon receipt of the complete environmental assessment report and completion of the public notice procedures, the NECs or the CA may issue an environmental clearance with binding mitigation and compliance measures as well as appropriate monitoring, recording and reporting requirements.

(v) Other relevant laws

Livestock Act of Bhutan, 2001: The act regulates livestock breeding, health and production aimed at enhancing their productivity and preventing diseases so as to enhance rural income and livelihood. The Act facilitates sets out requirements for the introduction and reproduction of high-quality and appropriate breeds of livestock, poultry and fish in the country. It also outlines requirements to prevent the spread of infectious diseases among the livestock population.

The Biodiversity Act of Bhutan, 2003: This Act recognizes and protects Traditional Knowledge, innovation, and practices of local communities associated with biodiversity. It supports the prevention of illegal access to genetic and biochemical resources and associated Traditional Knowledge.

The Pesticides Act of Bhutan, 2000: Bhutan encourages the practices of organic agriculture. Hence chemical pesticides procurement/import, distribution and use are well controlled through a centralized system and are legally governed by Act. The Act has been enacted with the purpose of, among other things, ensuring that integrated pest management is pursued, limiting the use of pesticides as the last resort. Integrated Pest Management guidelines are in place and are under implementation as a part of the National Plant Protection Center's regular program. PAB (Articles 4 to 6) stipulates strict requirements for import, sale and use of pesticides.

The Penal Code of Bhutan, 2004: The Penal Code of Bhutan defines that individual consent cannot be obtained under fraud, duress, compulsion, or coercion. This aspect is relevant as a principle in obtaining free and prior informed consent from local communities and stakeholders for BFL project activities.

National Access and Benefit Sharing (ABS) Policy (Draft), 2014: The National Access and Benefit Sharing (ABS) Policy ensures fair and equitable sharing of benefits arising from research and commercial utilization of Bhutan's genetic resources and associated traditional knowledge. The policy provides for long term mutually supportive relationships between the providers and users of Bhutan's genetic resources and associated traditional knowledge.

4.2 WWF Safeguards Policies and Procedures Applicable to the Project

WWF's safeguards policies require that any potentially adverse environmental and social impacts are identified, avoided, or mitigated. Safeguards policies that are relevant to this project are as follows.

(i) Policy on Environment and Social Risk Management

This policy is applicable because BFL intends to support activities that result in a variety environment and social impacts. BFL is a conservation project, and its environmental and social outcomes are expected to be generally positive. The project is classified as Category B based on initial analysis. Adverse environmental and social impacts that may occur as a result of project activities are expected to be site-specific, negligible and easily mitigated.

The exact location and impact of specific activities cannot be determined at this stage, and will only be known during project implementation. Thus, an ESMF was prepared to set out guidelines and procedures on how to identify, assess and monitor environmental and social impacts, and how to avoid or mitigate adverse impacts. Site-specific ESMPs will be prepared as required, based on principles and guidelines of the ESMF.

(ii) Policy on Protection of Natural Habitats

The project area comprises of all PAs and BCs in Bhutan, which provide ecosystem services and livelihood to communities of 85 out of the 205 Gewogs in Bhutan. The mainstay of these communities is agriculture and livestock, which are directly dependent on natural resources.

WWF's mission is to protect natural habitats, and it does not undertake any projects that would result in conversion or degradation of critical natural habitats, especially those that are legally protected, officially proposed for protection, or identified as having high conservation value.

Overall, BFL project activities will produce significant conservation benefits. Any potential adverse environmental impacts on human populations or environmentally important areas including forests, grasslands and other natural habitats are expected to be very limited. However, the ESMF is prepared to properly manage the risk of any unforeseen adverse environmental impact on natural habitats, including critical natural habitats, as well as measures to enhance the project's positive environmental outcomes.

(iii) Policy on Involuntary Resettlement

The WWF's policy seeks to ensure that adverse social or economic impacts on resource-dependent local communities as a result from conservation-related restrictions on resource access and/or use are avoided or minimized. Resolution of conflicts between conservation objectives and local livelihoods is sought primarily through voluntary agreements, including benefits commensurate with any losses incurred. Involuntary resettlement is avoided or minimized, including through assessment of all viable alternative project designs and, in limited circumstances where this is not possible, displaced persons are assisted in improving or at least restoring their livelihoods and standards of living relative to pre-displacement or pre-project levels (whichever is higher).

The adverse resettlement impacts of the BFL project are expected to be minimal. Land acquisition or physical displacement will be avoided. Other forms of economic resettlement (e.g., restrictions of access to natural resources and livelihoods, loss of community property resources, land use conflicts, etc.) will be discouraged under the project. However, if such resettlement impacts will be unavoidable, mitigation measures will be taken to reduce and mitigate such impacts, in accordance with the guidance provided in the ESMF.

(iv) Policy on Indigenous Peoples

The WWF's policy requires to ensure that indigenous rights are respected, that indigenous peoples do not suffer adverse impacts from projects, and that indigenous peoples receive culturally appropriate benefits from conservation. The policy mandates that projects respect indigenous peoples' rights, including their rights to FPIC processes and to tenure over traditional territories; that culturally appropriate and equitable benefits (including from traditional ecological knowledge) are negotiated and agreed upon with the indigenous peoples' communities in question; and that potential adverse impacts are avoided or adequately addressed through a participatory and consultative approach.

People in every valley/region in Bhutan can be considered indigenous people, with almost every valley/region having distinct dialects. Local population is broadly identified as Sharchop (eastern), Ngalo (western) and Lhotsham (southern). Within these broad regional categories of people, there are pockets of settlements with distinct cultural practices and traditions. For example in the Jigme Singye Wangchuck National Park has two groups – the Monpas in Trongsa and Olep in Wangdue could be considered IPs under WWF’s Indigenous People policy given their distinct cultural practices and traditions. However, their social and cultural identity although distinct from dominant society, does not make them vulnerable or disadvantaged.

Thus, a separate documentation does not need to be prepared, but guidelines on IP engagement are included in the ESMF. In order to ensure that all project affected peoples take an active part in the design and implementation of project activities, the implementation of the ESMF will be done in a participatory and inclusive manner, and based on FPIC principles, as required in the Process Framework below.

(v) Standard on Pest Management

The project will promote the use of demand-driven, ecologically based biological or environmental pest management practices, reduce reliance on synthetic chemical pesticides, and include assessment of pest management issues, impacts, and risks in the Environment and Social Safeguards Screening process under ESMF. It will also require that pesticides are procured contingent on an assessment of the nature and degree of associated risks, taking into account the proposed use and intended users.

The project will not allow the procurement or use of formulated products that are in World Health Organization (WHO) Classes IA and IB, or formulations of products in Class II, unless there are restrictions that are likely to deny use or access by lay personnel and others without training or proper equipment. The project will follow the recommendations and minimum standards as described in the United Nations Food and Agriculture Organization (FAO) International Code of Conduct on the Distribution and Use of Pesticides and its associated technical guidelines, and procure only pesticides, along with suitable protective and application equipment, that will permit pest management actions to be carried out with well-defined and minimal risk to health, environment, and livelihoods.

(vi) Policy on Accountability and Grievance System

Project-affected communities and other interested stakeholders may raise a grievance at any time to the Project [Coordination Unit \(PCU\)](#). The Project [PCU](#) will be responsible for informing project-affected parties about the Accountability and Grievance Mechanism. Contact information of the PCU will be made publicly available. Relevant details are also provided in the Grievance Redress & Process Framework section of this ESMF.

The WWF Policy on Accountability and Grievance Mechanism is not intended to replace project- and country-level dispute resolution and redress mechanisms. This mechanism is designed to: Address potential breaches of WWF’s policies and procedures; be independent, transparent, and effective; be accessible to project-affected people; keep complainants abreast of progress of cases brought forward; and maintain records on all cases and issues brought forward for review.

(vii) Standard on Physical Cultural Resources

This policy requires that Physical Cultural Resources (PCR), which include archaeological, paleontological, historical, architectural, and sacred sites (e.g., graveyards, burial sites, sites of unique natural values, etc.) are appropriately preserved and their destruction or damage is appropriately avoided.

BFL activities will not involve significant excavations. However, monasteries and cultural sites are typically located in the vicinity of communities. Reverence towards mountains and rivers is also part of the Bhutanese culture.

Project activities will contribute to strengthening the sanctity of such cultural resources through integrated conservation actions. To avoid or at least mitigate any adverse impacts on PCR, the project will not finance activities that could significantly damage PCR and, as appropriate, conduct field-based surveys using qualified specialists to evaluate PCR and feasible project alternatives that avoid significant PCR damage. The Project Coordination Unit will also consult with local people and other relevant stakeholders in documenting the presence and significance of PCR, assessing the nature and extent of potential impacts on these resources, and designing and implementing mitigation plans. In the case of “chance finds” during the course of project works, the procedure outlined in Annex 10 will be followed.

(viii) Guidance on Projects Relating to Dams

The BFL project will not affect the development of new dams or the operation of existing dams. Thus, this Guidance is not triggered.

(ix) Health and Safety

While there is no separate WWF policy on occupational and community health and safety, these issues are taken into account as part of the general WWF policy on Environment and Social Risk Management, and the screening process that applies to all project-related activities. These general standards require employers and supervisors to implement all reasonable precautions to protect the health and safety of workers through the introduction of preventive and protective measures. They also require to ensure that the labor rights of project-employed workers are observed, as indicated in the screening tool in Annex 13.

Project activities should also prevent adverse impact involving quality and supply of water to affected communities; safety of project infrastructure, life and properties; protective mechanisms for the use of hazardous materials; disease prevention procedures; and emergency preparedness and response.

(ii) Energy Efficiency

While there is no separate WWF policy on energy efficiency, all project activities will adhere to principles of energy efficiency, as outlined in the screening tool in Annex 13.

4.3 Gaps between RGoB's laws and policies and the WWF's SIPP

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, as discussed below. In all cases of conflict or discrepancy, the requirements of the WWF will prevail, for the purpose of the BFL project, over RGoB laws and regulations.

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. For instance, WWF's SIPP require a thorough environmental and social analysis of the impact of specific project activities on the environment and on local communities before the activity is formally approved and any funds are disbursed. These requirements are beyond the environmental clearance process prescribed by the RGoB legislation. 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.¹

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.

¹ For instance, the Moveable Cultural Property Act of Bhutan, 2005 requires that any items considered to be "valuable cultural property" and are discovered during project construction works shall be immediately reported to the Department of Culture through the concerned Dzongkhag. There is, however, no accepted procedure for "chance finds." Hence, the "chance find procedure" of the WWF's SIPP will be applied and the general provisions of the Moveable Cultural Property Act of Bhutan will be followed (Annex 10).

5. INSTITUTIONAL FRAMEWORK

The implementation and institutional arrangements for the BFL project will be agreed upon and finalized by the RGoB and BFL donors before the BFL closing agreement is signed. Generally, the overall Sponsor (Executing Entity) for BFL is Bhutan's Ministry of Agriculture and Forests, Department of Forest and Park Services. For some BFL activities, WWF Bhutan will also be an active collaborator at government request.

The Ministry of Agriculture and Forests (MoAF) is the custodian of Bhutan's natural resources and rich biodiversity, with the vision to promote "Sustainable natural resources for equitable social and economic wellbeing of the Bhutanese people"². The MoAF oversees the natural resource base and production activities of the majority of Bhutan's population, 69 percent of which is rural. Under the MoAF, the Department of Forest and Park Services is responsible for the sustainable management of Bhutan's protected areas. The Department is headed by a Director, while each protected area is managed by a dedicated park manager with the rank of Chief Forestry Officer.³

Bhutan for Life Fund (BfLF): The BfLF will be established as a new legal entity under the laws of Bhutan to manage a Transition Fund that will support the achievement of the goals of the Bhutan for Life Program. The Transition Fund will be a restricted pool of funds contributed by donors, including the GCF, to ensure a long-term flow of funding to the BFL Program during the period when the RGoB is increasing its financial and human resource allocations in order to reach full national funding for recurring activities of the PA network. The BfLF will be governed by an independent Board of Trustees that represents the BFL participants (RGoB, His Majesty's Secretariat, donors, WWF) and will also include Trustees with experience and skills relevant to BFL. The BfLF Board will be majority non-governmental in order to ensure independent oversight of the BFL Program. An Operating Manual will set out details of the governance and operation of the BfLF and the Transition Fund. The technical and financial performance of the BFL Program will be reviewed regularly by the BfLF Board which will release disbursements from the Transition Fund based on the Program's progress toward meeting its stated goals and milestones. The BfLF Board will be supported by a small Secretariat led by an Executive Director.

Other oversight bodies include the following. A **BFL Project Steering Committee** will provide guidance regarding BFL's strategic direction at the policy level and review annual work plans and budget. A **BFL Strategic and Technical Committee** will provide technical backstopping to the project coordination unit including ensuring that the annual workplan and budget are in line with the BFL Conservation Plan and Financial Model. The BFL Strategic and Technical Committee will include technical experts from the key stakeholders who are conversant on the BFL Conservation Plan. Members of these bodies may include

² See more information at the MoAF's website <http://www.moaf.gov.bt/>

³ See more information at the Department of Forest and Park Services website <http://www.dofps.gov.bt/>

the Gross National Happiness Commission, Ministry of Agriculture and Forests (MoAF), Ministry of Finance (MoF), National Environment Commission, and BFL development partner organizations such as WWF.

A **BFL Operating Manual** will be finalized prior to closing and form part of the BFL closing agreement. The BFL Operating Manual will describe the governance and operation of the BFL institutions and serve as a common set of rules governing the BFL program, including disbursement conditions based on agreed milestones and indicators.

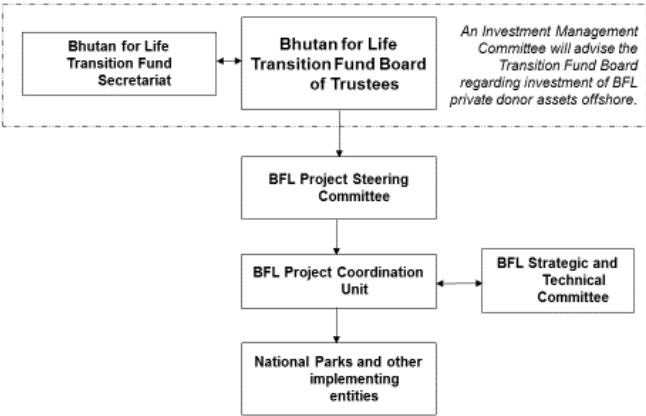
The day-to-day management of the project will be undertaken by the **BFL Project Coordination Unit (BFL PCU)**, established within the Ministry of Agriculture and Forests (MoAF). The PCU will be in charge of monitoring compliance with the ESMF and the implementation of all safeguards-related obligations.

The implementation of specific project activities will be carried out through the respective **park management for the PAs** and the concerned **Territorial Forestry Divisions (TFDs) for the BCs**. They will be responsible for all procedures related to environmental and social screening (eligibility), preparation of ESMPs for specific field activities as required, and monitoring compliance with conditions set out in the RGoB's environment clearance and/or the project's ESMF and ESMPs. The PAs' management and the BCs' TFDs will also be responsible to obtain all required clearances, permits, approvals, or consent documents from relevant authorities and stakeholders. The PAs' management and BCs' TFDs will work in collaboration with local governments and administrations on all matters related to local development. These include relevant Dzongkhag Administrations and the elected representatives of the Gewog Administrations. The Gewog Administrations' Gup, Mangmi and Tshogpa are the direct link with local communities, the Tshogpas representing each community, Mangmi representing several communities and the Gup representing the whole Gewog population.

It is recommended that an **Environmental and Social Safeguards (ESS) Expert** is appointed at the **BFL PCU**. The expert will provide support to all Park Managers and TFDs in the preparation of environmental assessments for all field specific activities, development and implementation of ESMPs, monitoring of compliance and in reporting on overall safeguards to the BFL Project Steering Committee, Competent Authorities and to the NECs.

The implementation arrangements can be depicted as follows:

Bhutan for Life Implementation Arrangement



6. ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The BFL project seeks to strengthen the environmental conservation practices of Bhutan, and it is thus expected to result in major positive environmental outcomes. Minor and site-specific negative environmental impacts may include the following:

- Implementation of new technologies that may adversely impact watersheds, livestock, and vegetation.
- Use of fuel wood in NWFP that may impose pressure on forests and increase waste.
- Impacts arising from excavation, waste and material management at site during minor construction of PA and BCs management offices, improved herders shed, transit camps and water reservoirs for drinking and minor irrigation, maintenance of traditional trails.
- Disturbance to wildlife movement due to shifting borders and fencing of open grazing areas.

Additional minor risks include the generation of waste due to ecotourism development and an increased number of visitors in PAs, and invasion of new crops due to the introduction of human-wildlife conflict mitigation mechanisms.

A detailed overview of these impacts, potential mitigation measures, and responsible authorities is provided below.

Table 11. Anticipated Environmental Impacts and Mitigation Measures

Activities	Cause of impact	Potential Impacts	Recommended Mitigation Measures	Responsible Agency
Design and implementation of rural alternative energies such as biogas and solar technologies	Implementation of Biogas initiatives	Reduction in cattle as biogas requires sedentary cattle, which are mostly improved breed (which is expensive and difficult to manage)	Explore cold temperature and portable biogas technologies or arrange incentives or subsidies for purchase of improved cattle	PA/BC (coordination) Department of Livestock (Technical Support)
		Risk of an increased methane emission (foul smell and risk fire when methane comes in contact with oxygen)	Properly cover and secure biogas plant and internal gas connections Agree with community members on the most appropriate installation locations	PA/BC (coordination) Department of Livestock (Technical Support)
	Use of unsuitable tree species for plantations	Low water-use efficiency and reduced growth, high mortality or further degradation of vegetation due to disruption of water balance	Assess appropriateness of species in terms of biodiversity, water efficiency, forest fire, local needs, cultural sensitivity, survival, etc. Use appropriate species and local species	PA/BC Management
Implementation of innovative agriculture approaches	Attempts to increase agriculture production through use of mechanization and chemical inputs	Soil erosions, soil nutrient depletion, loss of soil fertility in the long run and eventually causing environmental degradation	Avoid the use of heavy farm machinery for tilling and do not use inorganic inputs for soil fertility management Promote through input supplies organic agriculture, conservation tillage practices,	PA and BC Management Department of Agriculture

and technologies in critical watersheds			cover cropping, green manuring, and field nutrient management approaches	Department of Agriculture Marketing and Cooperatives
Use of fuel wood in NWFP processing	Use of fuel wood	Pressure on forest	Use drying and grinding equipment to reduce fuel wood consumption and reduce waste	PA/BC (monitoring) Contractor (compliance)
Construction activities during project implementation	Waste and sewage generation from temporary worker camps	Waste and sewage in the vicinity of temporary worker camps	<p>Install waste bins around construction sites and worker camps</p> <p>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.</p> <p>Integrate site waste management with Thromde or local community facility or local waste collection system;</p> <p>Avoid sensitive sites, (e.g., steep hillsides or erosive areas)</p>	PA/BC (monitoring) Contractor (Compliance)
	Site development and construction activities	Damage to the site conditions due to excavation causing destabilization of the site and surrounding areas causing soil erosion/landslides	<p>Minimize the area of ground clearance.</p> <p>Avoid sensitive alignments, such steep hillsides and ecological sensitive areas.</p> <p>Balance filling and cutting requirements through proper route choice</p> <p>Maintain trail surface and alignment with vegetation and where possible install slope protection</p>	PA/BC (monitoring) Contractor (compliance)

			Plant trees in slide prone areas Erect local retention walls	
		Removal of or damage to trees, crops, or vegetation during construction.	Avoid removal of trees, crops, or vegetation If removal or damage cannot be avoided, plantation works shall be carried out to replace removed trees and vegetation as soon as possible. In addition, full and timely compensation shall be provided to the owners or users of the removed trees, crops, or vegetation. The compensation shall be calculated based on the replacement value of the expected produce of the trees/crops, which consists of its market price plus the costs of fully replacing the removed/damaged trees or crops. The replacement value shall be calculated by PA/BC management, in consultation with affected households and community representatives.	PA/BC (monitoring) Contractor (compliance)
Shifting land use boundaries	Fencing of open grazing areas	Disruption to movement of wildlife	Fence with wire mesh instead of barbed wire and adopt patched fencing to provide wildlife corridor	PA and BC management (monitoring) Department of livestock (monitoring) Contractor (implementation)
Introduce human-wildlife	Introduction of alternative crops	Risk of invasion by new crop or new crop disease	New crops should be certified by BAFRA and NPPC prior to their introduction	PA/BC management;

conflict mitigation mechanisms				
Ecotourism product development	Increased number of visitors in PAs	Waste generation	Prepare waste management plans in consultation with local communities	PA/BC Tshogpa

7. ANTICIPATED SOCIAL IMPACTS AND MITIGATION MEASURES

The project is expected to result in positive social outcomes by enhancing rural livelihoods, strengthening community resilience to climate change, and empowering communities in the governance of natural resources. Adverse social impacts are expected to be minor and site-specific. Such impacts may include the following:

- Adverse impacts related to construction activities: disturbance of traditional ways of life and local culture due to construction activities; community health and safety; and workers' health and safety.
- Restrictions on access to natural resources and livelihoods;
- Shifting land use boundaries (grazing areas, NWFP collection areas, water catchment areas, right of ways, traditional trails, water ways, etc.);

Additional minor impacts may result from the development of conservation plans and community management systems that may disrupt traditional ways of life of local communities; and potential negative impacts on cultural resources and artifacts.

To address and mitigate these concerns, the project will comply with the relevant laws, policies, and regulations of RGoB and the WWF's SIPP. In case of discrepancies, the WWF's SIPP will apply. Site-specific ESMPs will be prepared as needed, and in accordance with the ESMF, to ensure that adequate mitigation measures are implemented.

It is recommended that for all cases in which project affected people are eligible for compensation as a result of project-related activities in accordance with the ESMF, a special **vulnerability allowance shall be paid by the BFL PCU to such affected households in addition to the regular compensation**. The allowance shall be equal to 20% of the compensation to which they are eligible.

A detailed overview of the project's anticipated social impacts and potential mitigation measures is as follows.

(i) Land Acquisition

Private land acquisition and physical displacement will not be allowed under this project. However, project activities may require the usage of government-owned land for the construction of ecotourism facilities, construction of reservoirs for drinking and irrigation water, and development of small scale nature-based enterprise related facilities.

These facilities and structures will be located far from settlements and constructed on government-owned land plots only. These land plots will be assigned for project use according to the procedures prescribed in the Land Act, 2007 and the Land Rules and Regulations, 2007, in accordance with specific "use rights" assigned by the National Land Commission. All approvals or clearances involved in the process for government-owned land acquisition will have to be fully documented and recorded.

Construction in the vicinity of traditional local communities may disrupt local culture and traditional ways of life. Specific mitigation measures that should be undertaken to mitigate such impacts are outlined in Table 12 below.

(ii) Occupational and Community Health and Safety

The BFL project is likely to engage temporary workers for construction activities, and such activities will be carried out in the vicinity of local communities. PAs' and BCs' management and the implementing contractors will pay close attention to the issues of occupational and community health and safety during construction activities.

With regards to occupational health and safety, PAs and BCs' management and the implementing contractors shall provide a safe and healthy work environment, taking into account physical, chemical or biological risks that may be inherent in project activities, and specific threats to women. They shall also take steps to prevent accidents, injury, and disease arising from, associated with, or occurring in the course of work by minimizing, as far as reasonably practicable, the causes of hazards. In a manner consistent with good international industry practice, the implementing contractor shall (i) identify potential hazards to workers, particularly those that may be life-threatening; (ii) provide preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances; (iii) train workers as necessary; (iv) document and report occupational accidents, diseases, and incidents; and (v) undertake emergency prevention, preparedness, and response arrangements. Specific measures are outlined in Table 12.

With regards to community health and safety, PAs and BCs' management and implementing contractors shall evaluate the risks and impacts to the health and safety of the affected community during the design, construction, operation, and decommissioning of project activities, and shall establish preventive measures to address them in a manner commensurate with the identified risks and impacts. Project activities shall prevent adverse impact on the quality and supply of water to local communities, ensure the safety of construction infrastructure and equipment, introduce protective mechanisms for the use of hazardous materials; and undertake all necessary emergency preparedness and response measures. Specific measures are outlined in Table 12.

(iii) Restrictions of Access to Livelihoods

The RGoB legislation strictly restricts and regulates the types of activities allowed in PAs and BCs. The Forest Management Code of Bhutan prohibits commercial logging within wildlife refuge areas and corridors, and requires to avoid road construction in these areas. The Code only allows activities that do not change the quality of the local habitat and do not disturb wildlife. Local communities are also allowed to harvest NWFP in forests.

Project activities are expected to positively affect local communities' access to livelihoods. These activities will include climate-smart reforestation mechanisms, strengthening the climate and disaster resilience of participating communities, reducing human wildlife conflict by adopting appropriate policies, technologies and systems, strengthening access

to nature-based employment and income-generating opportunities including eco-tourism; and more.

Project activities that may have adverse impacts on local communities' access to livelihoods are thus expected to be relatively minor. These would primarily include access to NWFP and access to rivers and other water sources.

- **Access to NWFP:** NWFP harvesting is a common livelihood activity in all PAs, and it may be disrupted as part of the development and implementation of climate-smart conservation plans and land restoration.
- **Access to rivers and watersheds:** may be disrupted as the project is going to develop management plans for regulating access to specific river stretches and critical watersheds to strengthen their conservation. This could result in irrigation water scarcity and restricted access to fishing.

In order to mitigate these adverse impacts, all activities that may affect local communities' access to NWFP and/or to rivers and watersheds should be closely coordinated with community representatives and only carried out after consultations with all relevant stakeholders. Conservation plans should undertake measures that mitigate any disruption of access to livelihoods.

If disturbance of access to livelihoods cannot be avoided, full and timely compensation shall be provided to all livelihood users, irrespective of their formal land ownership status or title. The compensation shall be calculated based on the economic replacement value of access to livelihoods, which consists of the market price of NWFP collection and fishing plus the costs of fully replacing these economic activities. The replacement value shall be calculated by PA/BC management, in consultation with affected households and community representatives.

Additional specific mitigation measures that shall be undertaken to offset any adverse impacts are outlined in Table 12 below.

(iv) Impacts on land usage and shifts in land borders

Project activities will include participatory zoning and physical demarcation of all participating PAs' and BCs' borders and ongoing support will be provided to fix demarcation pillars. Further, reforestation and rehabilitation activities will be carried out on lands located within traditional trails, sacred sites, or on community use land. These activities may impact grazing areas, NWFP collection areas, water catchment areas, right of ways, traditional trails, water ways, etc.

While these activities will have positive long-term impacts on the livelihoods of local communities and sustainable management of natural resources, these activities may result for the short-term in land use conflicts among different communities or among members of the same community. In order to mitigate such conflicts, PAs and BCs will ensure that relevant project activities will only be undertaken upon consultation with local

communities, local authorities and other member of the public who are affected or have a stake in the usage of relevant land plots. Any change or new demarcation of boundaries should be based on free and prior informed consent of the affected communities and relevant authorities, which should be obtained prior to finalizing any border change.

If the demarcation of land boundaries, reforestation activities, or shifting grazing areas negatively impact sources of economic income or other types of livelihoods of affected communities, full and timely compensation shall be provided to all affected individuals, irrespective of their formal land title. The compensation shall be calculated based on the replacement value of these livelihoods (economic market value plus any replacement costs) by PA/BC management.

Table 12. Anticipated Social Impacts and Mitigation Measures

Activities	Cause of impact	Potential Impacts	Recommended Mitigation Measures	Responsible Agency
Construction of facilities and structures	Allotment of government-owned land	Disturbance of traditional ways of life and local culture	<p>Obtain all necessary clearances from relevant government authorities for acquiring ‘user rights’ for land(See Annex 11,Procedural guidance for land acquisition), including forestry clearance</p> <p>Carry out consultations with affected communities and local government before and during construction activities to mitigate any adverse impacts on the community</p> <p>Avoid sites that are in close proximity to dzongs, monasteries or other sacred sites</p> <p>Ensure that sites identified for construction are located beyond 500 meters from a monastery, Dzong or any cultural monument</p> <p>Apply the ESMF’s screening checklist to ensure that the selected site do not affect cultural resources of local significance. If cultural resources are identified, select an alternative site or obtain all necessary clearances from the local, communities, concerned Gewog, concerned Dzongkhag and the Department of Culture prior to finalization of the plan and site development</p>	PA/BC Gewog
	Engagement of temporary construction workers	Working conditions, Occupational health and safety	<p>Ensure that no underage workers, or children are engaged</p> <p>Ensure decent work conditions, including an appropriate salary, working hours, accommodation</p>	PA/BC (monitoring) Contractor

			<p>and food for workers, etc.</p> <p>Ensure that all 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.</p> <p>Take all necessary measures to prevent and address harassment, intimidation, and/or exploitation, especially in regard to women.</p> <p>Provide a grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns.</p> <p>Follow the preventive and protective measures that are specified in the IFC Occupational Health and Safety Guidelines (see http://www.ifc.org/wps/wcm/connect/9aef2880488559a983acd36a6515bb18/2%2BOccupational%2BHealth%2Band%2BSafety.pdf?MOD=AJPERES)</p>	(Compliance)
	Construction in the vicinity of local communities	Community health and safety	<p>Ensure the safety of all project-related equipment</p> <p>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.</p>	<p>PA/BC (monitoring)</p> <p>Contractor (Compliance)</p>

			<p>Avoid any adverse impacts on community sources of water supply and water quality.</p> <p>Provide information to local communities on</p>	
Access to livelihoods	Development of protection and management mechanisms for watersheds and river stretches	<p>Scarcity of irrigation water</p> <p>Restricted access to fishing</p>	<p>Select water-efficient and drought- resistant species and varieties for afforestation and reforestation</p> <p>Prepare management plan in collaboration with the relevant Department/agency (as per FNCRR, 2017)</p> <p>If disturbance of access to watersheds and rivers cannot be avoided, full and timely compensation shall be provided to all users, irrespective of their formal land ownership status or title. The compensation shall be calculated based on the economic market value of access to fishing areas or irrigation water plus the costs of fully replacing these economic activities. The replacement value shall be calculated by PA/BC management, in consultation with affected households and community representatives.</p>	<p>PA/BC management</p> <p>NPPC</p>
	Development of management plans for NWFPs	<p>Community conflicts</p> <p>Risk of resource depletion due to ad-hoc and unsustainable illegal harvesting</p>	<p>Develop list of NWFPs that need sustainable management and harvesting strategy, and develop sustainable management and harvesting guidelines for each identified NWFP</p> <p>Establish NWFP groups and prepare NWFP Management Plan for each NWFP group, so that local communities that depend on NWFP for their livelihoods are able to derive sustainable incomes from NWFP resources</p> <p>Carry out trainings on management of NWFPs (eg <i>Paris polyphylla</i> or locally called Thok Sumpa)</p>	<p>PA and BC management</p>

			If disturbance of access to NWFP cannot be avoided, full and timely compensation shall be provided to all livelihood users, irrespective of their formal land ownership status or title. The compensation shall be calculated based on the economic market value of each type of NWFP plus the costs of fully replacing these economic activities. The replacement value shall be calculated by PA/BC management, in consultation with affected households and community representatives.	
Affecting land usage and shifting land boundaries	Physical demarcation of land borders	<p>Multiple PA and BC jurisdictions overlap in a single Gewog causing local administrative confusion</p> <p>Lack of awareness on actual boundary on-ground</p>	<p>Engage local government representatives and administrations in the demarcation or re-alignment of PA and BC boundaries</p> <p>Any change or new demarcation of boundaries should be based on free and prior informed consent of the affected communities and relevant authorities, which should be obtained prior to finalizing any border change</p> <p>If the demarcation of land boundaries negatively impacts sources of economic income or other types of livelihoods of affected communities, full and timely compensation shall be provided to all affected individuals, irrespective of their formal land title. The compensation shall be calculated based on the replacement value of these livelihoods (market value plus any replacement costs) by PA/BC management.</p>	<p>PA/BC</p> <p>Dzongkhag</p> <p>Gewog</p> <p>DoFPS</p>
	Reforestation and rehabilitation activities on lands located within	Land use conflict	All project activities will only be undertaken upon consultation with local communities, local authorities and other member of the public who are	<p>PA/BC</p> <p>Dzongkhag</p>

	traditional trails, sacred sites, or community use land		<p>affected or have a stake in local land use (as per the principle of Rule 44 of FNCA, 2017 (for management of protected areas)).</p> <p>Identify approaches that provide benefit to the local community (e.g., agroforestry that provide fodder to communities; trail maintenance integrated with restoration work; sacred site maintenance with plantation of culturally appropriate species); Apply indigenous practice where possible.</p> <p>If the reforestation activities negatively impact sources of economic income or other types of livelihoods of affected communities, full and timely compensation shall be provided to all affected individuals, irrespective of their formal land title. The compensation shall be calculated based on the replacement value of these livelihoods (market value plus any replacement costs) by PA/BC management.</p>	Gewog
	Development of community grazing management plans	<p>Community conflicts</p> <p>Lack of awareness on grazing regulations and rights</p> <p>Herd trespassing and conflict amongst individual herders by protecting respective grazing areas</p>	<p>Awareness raising activities and capacity building on pasture and grazing management rights and regulations</p> <p>Formulate a tsamdro (grazing area) management plan in line with the Land Act and Land Rules (Rotational grazing practices, Herd size management, etc.)</p> <p>Design and promote eco-friendly makeshift houses for herders, homestays to sell cattle herding experience to tourist</p> <p>If disturbance of access to grazing areas cannot be avoided, full and timely compensation shall be</p>	<p>PA/BC management</p> <p>DoL</p> <p>Contractor</p>

			provided to all grazing area users, irrespective of their formal land ownership status or title. The compensation shall be calculated based on the economic value of access to grazing areas plus the costs of fully replacing these economic activities. The replacement value shall be calculated by PA/BC management, in consultation with affected households and community representatives.	
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8. PROCEDURES FOR THE IDENTIFICATION AND MANAGEMENT OF ENVIRONMENTAL AND SOCIAL IMPACTS

The following activities will not be financed by the BFL project:

1. Activities that involve procurement or use of any pesticides categorized IA, IB, or II by the World Health Organization (See Annex 12);
2. Introduction of exotic species unless certified by NPPC and BAFRA;
3. Activities that require private land acquisition;
4. Activities that require physical displacement of persons from their homes or legal businesses, irrespective of ownership;
5. Activities that involve felling of trees in core zones of PAs and in critical watershed areas;
6. Activities that involve quarrying and mining in PAs;
7. Activities that involve commercial logging.

In advance of the initiation of any project activity, the relevant implementing entities (PAs and BC management) should fill in detailed information regarding the nature of the activity and its specific location in the *Safeguards Eligibility and Impacts Screening* form (Annex 13). Part 1 of this form comprises of basic information regarding the activity; Part 2 contains basic “pre-screening” questions. If the response to any of the questions in these two parts is “Yes”, the activity will be deemed ineligible for funding under the BFL. The implementing entities will thus be required to change the nature or location of the proposed activity so that it complies with all safeguards requirements and all responses at the *Safeguards Eligibility and Impacts Screening* form are negative.

If the activity is deemed eligible according to Part 2, an environmental and social screening procedure will be carried out in accordance with Part 3 of *Safeguard Eligibility and Impacts Screening* format, which is based on the WWF’s SIPP and applicable RGOB laws and regulations. The implementing entities shall respond to the specific questions in Part 3 of the form, provide general conclusions regarding the main environmental and social impacts of each proposed activity, outline the required permits or clearances, and specify whether any additional assessments or safeguard documents (e.g., ESMP) should be prepared.

Issues that are considered as part of this environmental and social screening include the following:

- a. Need for government-land acquisition;
- b. Environmental impacts (e.g., dust, noise, smoke, ground vibration, pollution, flooding, etc.) and loss or damage to natural habitat;
- c. Social impacts: identification of vulnerable groups, impacts on community resources, impacts on livelihoods and socio-economic opportunities, restrictions of access to natural resources, land usage conflicts, etc.; and

d. Health and safety issues (both for workers and for local communities).

The screening format should be undertaken by the implementing entity (PAs or BCs management) and reviewed by the NECS or the Competent Authority. If the screening process indicates that additional assessments or safeguards documents shall be prepared, these should be carried out by the implementing entity.

The NECS or the Competent Authority will review the application and environmental clearances with terms and conditions or outline additional conditions that should be met in order to obtain an environmental clearance.

9. GUIDELINES FOR ESMP DEVELOPMENT

In case that the Environmental and Social screening process identifies any adverse environmental or social impacts as a result of specific project activities, the implementing entities should develop a site- and activity-specific ESMP. The ESMP should be prepared before the initiation of the project activity and closely follow the guidance provided in this ESMF.

The ESMP should describe adverse environmental and social impacts that are expected to occur as a result of the specific project activity, outline concrete measures that should be undertaken to avoid or mitigate these impacts, and specify the implementation arrangements for administering these measures (including institutional structures, roles, communication, consultations, and reporting procedures).

The structure of the ESMP should be as follows:

- (i) A concise introduction:** explaining the context and objectives of the ESMP, the connection of the proposed activity to the project, and the findings of the screening process.
- (ii) Project description:** Objective and description of activities, nature and scope of the project (location with map, construction and/or operation processes, equipment to be used, site facilities and workers and their camps; bill of quantities if civil works are involved, activity schedule).
- (iii) Baseline environmental and social data:** Key environmental information or measurements such as topography, land use and water uses, soil types, flow of water, and water quality/pollution; and data on socioeconomic conditions of the local population. Photos showing the existing conditions of the project sites should also be included.
- (iv) Expected impacts and mitigation measures:** Description of specific environmental and social impacts of the activity and corresponding mitigation measures.
- (v) ESMP Implementation arrangements:** Responsibilities for design, bidding and contracts where relevant, monitoring, reporting, recording and auditing.

- (vi) **Capacity Need and Budget:** Capacity needed for the implementation of the ESMP and cost estimates for implementation of the ESMP.
- (vii) **Consultation and Disclosure Mechanisms:** Timeline and format of disclosure.
- (viii) **Monitoring:** Environmental and social compliance monitoring with responsibilities.
- (ix) **A stakeholder engagement plan:** in order to ensure that local communities and other relevant stakeholders are fully involved in the implementation of the ESMP, a stakeholder engagement plan should be included in the ESMP. The Plan should specify the issues outlined in Table 13:

Table 13: Stakeholder Engagement Plan

Stakeholders Identification	Develop a list of relevant stakeholders that will be engaged in the particular activity.
Proposed method of engagement	Method of engagement to be used (workshops, forums, meetings).
Timing and outreach	Timing issues or requirements (at what stage of activity planning and implementation will stakeholders be engaged. Most of the communities have identified winter season as best time for community consultations.); and outreach requirements needed to ensure that all community members have an equal opportunity to take part in the consultations.
Identify Resources needed	Resources required for the engagement process.
Responsibility	Implementing entities and specific individuals that are responsible for carrying out the consultations.
Identify Key messages to communicate	Key messages to be conveyed to during the stakeholder consultations.
Managing Risk	Identifying the risks associated with the consultation process and measures that will be undertaken to mitigate or manage such risks (e.g., low rates of participation of women/youth/elderly, and specific outreach efforts that will be undertaken to engage those groups).

10. MONITORING

The compliance of BFL activities with the ESMF will be thoroughly monitored by various entities at different stages of preparation and implementation.

Monitoring at the project level. The overall responsibility for implementing the ESMF and for monitoring compliance with the Project's environmental safeguard activities lies with the BFL PCU. The Environment and Social Safeguards (ESS) Expert stationed at the BFL PCU shall oversee the implementation of all field activities and ensure their compliance with the ESMF. The ESS Expert will also provide the implementing entities (park management of each PA and Territorial Forestry Divisions for each BC) with technical support in carrying out environmental and social screenings and preparing ESMPs and any other necessary documentation. The ESS Expert shall also monitor the project's grievance redress mechanism (GRM) and assess its effectiveness (i.e., to what extent grievances are resolved in an expeditious and satisfactory manner).

The ESS Expert will also be responsible for reporting on overall safeguards compliance to the BFL PCU manager, the BFL Project Steering Committee, Competent Authorities and to the NECs.

It is also recommended to engage an international environmental and social safeguards consultant, who would monitor the compliance of all BFL activities with the ESMF on an annual basis. The consultant would closely collaborate with the BFL PCU and report directly to the BFL Secretariat.

Monitoring at the field activity level: Each implementing entity (PAs and BCs' management) shall closely monitor all field activities, and ensure that they fully comply with the ESMF and with the terms and conditions included in the environment clearances issued by RGoB's national authorities. The implementing entities are also fully responsible for the compliance of all external contractors and service providers working in the PA/BC with the safeguards requirements outlined in the ESMF and ESMP (as applicable). The implementing entities will provide the BFL PCU's ESS Expert with monthly monitoring reports. Disbursement of project funds to implementing entities will be contingent upon their full compliance with the safeguards requirements.

Monitoring at the Competent Authority (CA) or NECS level: NECS and/or CA (whoever is specified in the environmental clearance issued to the PA/BC) are in charge of the project's annual compliance monitoring. Such monitoring activities can be announced to PAs and BCs' management in advance, or carried out without notice.

In order to facilitate compliance monitoring, the BFL PCU will submit an annual compliance report to NECS/CA as per the timeline indicated in the terms and conditions indicated in the environmental clearance. The same report will also be submitted to the BFL Secretariat through the BFL Project Steering Committee. This compliance report will contain the number and name of the project activity for which the environmental clearance was issued, the terms and conditions mentioned in the environmental clearance, and the status of implementation of these terms and conditions.

The CA or the NECS may conduct ad-hoc compliance monitoring visits to project sites to monitor compliance with the environmental clearance and with other safeguards provisions outlined in the ESMF, ESMP and/or in the RGoB's legislation, as applicable. As part of such monitoring, the CA/NECS may issue recommendations or impose penalties as appropriate.

The “compliance monitoring” format is attached in Annex 14. This format will be modified depending on the terms and conditions mentioned in the specific environmental clearance issued to the project activity.

11. GRIEVANCE REDRESS

The BFL project will have a direct and tangible effect on a large number of communities and individuals residing within or in the vicinity of PAs and BCs. There is thus a need for an efficient and effective Grievance Redress Mechanism (GRM) that collects and responds to stakeholders' inquiries, suggestions, concerns, and complaints. The GRM shall constitute an integral part of BFL and assist the PCU and implementing entities in identifying and addressing the needs of local communities. Since the BFL project spans over 14 years, it is particularly important to constitute the GRM as a permanent and accessible institutional arrangement for addressing any grievances arising from the implementation of project activities.

It is in the interest of the BFL project to ensure that all grievances or conflicts that are related to BFL activities are appropriately resolved at the local level, without escalation to higher authorities or the initiation of court procedures. Project affected communities will therefore be encouraged to approach the project's GRM.

The GRM will operate based on the following principles:

1. ***Fairness:*** Grievances are assessed impartially, and handled transparently.
2. ***Objectiveness and independence:*** The GRM operates independently of all interested parties in order to guarantee fair, objective, and impartial treatment to each case.
3. ***Simplicity and accessibility:*** Procedures to file grievances and seek action are simple enough that project beneficiaries can easily understand them.
4. ***Responsiveness and efficiency:*** The GRM is designed to be responsive to the needs of all complainants. Accordingly, officials handling grievances must be trained to take effective action upon, and respond quickly to, grievances and suggestions.
5. ***Speed and proportionality:*** All grievances, simple or complex, are addressed and resolved as quickly as possible. The action taken on the grievance or suggestion is swift, decisive, and constructive.
6. ***Participation and inclusiveness:*** A wide range of affected people—communities and vulnerable groups—are encouraged to bring grievances and comments to the attention

of the project implementers. Special attention is given to ensure that poor people and marginalized groups, including those with special needs, are able to access the GRM.

7. ***Accountability and closing the feedback loop:*** All grievances are recorded and monitored, and no grievance remains unresolved. Complainants are always notified and get explanations regarding the results of their complaint. An appeal option shall always be available.

Complaints may include, but not be limited to, the following issues:

- (i) Allegations of fraud, malpractices or corruption by staff or other stakeholders as part of any project or activity financed or implemented by BFL;
- (ii) Environmental and/or social damages/harms caused by projects financed or implemented (including those in progress) by BFL;
- (iii) Complaints and grievances by permanent or temporary workers engaged in project activities.

Complaints could relate to pollution prevention and resource efficiency; negative impacts on public health, environment or culture; destruction of natural habitats; disproportionate impact on marginalized and vulnerable groups; discrimination or harassment; violation of applicable laws and regulations; destruction of physical and cultural heritage; or any other issues which adversely impact communities or individuals in project areas. The grievance redress mechanism will be implemented in a culturally sensitive manner and facilitate access to vulnerable populations.

The BFL's GRM will be administered by the PCU in coordination with participating PAs and BCs management. The ESS Expert will be in charge of the operation of the GRM at the PCU, and each PA/BC authorities will assign an individual that will be responsible for collecting and processing grievances that address activities in each of the participating PAs and BCs. The GRM will operate according to the following guidelines.

(1) Submitting complaints: Project affected people, workers, or interested stakeholders can submit grievances, complaints, questions, or suggestions either to PA/BC authorities or directly to the national BFL PCU through a variety of communication channels, including phone, regular mail, email, text messaging/SMS, or in-person, by visiting the local PA/BC offices. It is important to enable to separate channels for complaint submissions (one through relevant PA/BC authorities and the other directly to the PCU) in order to ensure that project affected people have sufficient opportunities to lodge their complaints to impartial and neutral authorities of their choice.

(2) Processing complaints: all grievances submitted to PA/BC authorities and to the BFL PCU shall be registered and considered. A tracking registration number should be provided to all complainants. To facilitate investigation, complaints will be categorized into four types: (a) comments, suggestions, or queries; (b) complaints relating to nonperformance of BFL obligations; (c) complaints referring to violations of law and/or corruption while implementing BFL activities; (d) complaints against

authorities, officials or community members involved BFL project management; and
(e) any complaints/issues not falling in the above categories.

(3) Acknowledging the receipt of complaints: once a grievance is submitted, the PA/BC authority or the BFL PCU shall acknowledge its receipt, brief the complainant on the grievance resolution process, provide the contact details of the person in charge of handling the grievance, and provide a registration number that would enable the complainant to track the status of the complaint.

(4) Investigating complaints: PA/BC authorities or the BFL PCU will gather all relevant information, conduct field visits as necessary, and communicate with all relevant stakeholders as part of the complaint investigation process. The concerned authorities/offices dealing with the investigation should ensure that the investigators are neutral and do not have any stake in the outcome of the investigation. A written response to all grievances will be provided to the complainant within 10 working days. If further investigation is required, the complainant will be informed accordingly and a final response will be provided after an additional period of 10 working days. Grievances that cannot be resolved by grievance receiving authorities/office at their level should be referred to a higher level for verification and further investigation.

(5) Appeal: In the event that the parties are unsatisfied with the response provided by the GRM, he/she will be able to submit an appeal to the Ministry of Agriculture and Forests within 10 days from the date of decision. Upon receipt of the grievance appeal, the Ministry shall refer the grievances to a committee consisting of: (1) Secretary of MoAF, as the Chairperson; (2) Head, DoFPS; (3) Head, DoA; (3) Head, DoL; (4) Legal Officer; and (5) One DoFPS official as Member Secretary. The MoAF GRC shall verify and investigate, if necessary, the grievance and render its decision within 15 working days. In the event that the parties are unsatisfied with the decision of the appeal committee, the parties can submit their grievances to the Court of Law for further adjudication.

(6) Monitoring and evaluation: PA/BC authorities shall submit a monthly report with full information on the grievances they received to the ESS Expert at the BFL PCU. The report shall contain a description of the grievances and their investigation status. A similar report should be prepared by the ESS Expert with regards to grievances that were submitted directly to the BFL PCU. Summarized GRM reports shall constitute part of the regular BFL progress reporting, and shall also be available on the websites of MoAF and WWF Bhutan.

Information about channels available for grievance redress shall be widely communicated in all project affected communities and to all relevant stakeholders. The contact details (name, phone number, mail and email address, etc.) of the PA/BC authorities and the BFL PCU shall be disseminated as part of all public hearings and consultations, in PA/BC offices, in the local media, in all public areas in affected communities, and on large billboards in the vicinity of project activity sites and workers' camps.

The GRM seeks complement, rather than substitute, the judicial system and other dispute resolution mechanisms. All complainants may therefore file their grievance in local courts

or approach mediators or arbitrators, in accordance with the legislation of the RGoB. Further, individuals may also opt for informally resolving their grievances with community Tshogpa or other trusted community members before approaching the BFL's formal GRM.

12. CAPACITY BUILDING

The informed consent of local communities to project objectives and activities is crucial for the effective implementation of the project. Thus, it is important to ensure that community representatives are sufficiently educated and trained with regards to project activities. In delivering prior informed consent. These representatives primarily constitute of the Chair of CF or NWFP groups, Tshogpa, and the Gup at the grassroots level. During the community consultations carried out as part of the ESMF preparation, participating communities identified the need to build the capacity of their local representatives in the following priority areas:

- Understanding the regulatory framework on grazing and pasture management, land acquisition, land leasing mechanisms;
- Understanding water rights and management;
- Understanding the Forest and nature Conservations Rules, 2017 (timber entitlement, watershed management, etc.);
- Learning about possible frameworks for the establishment and management of farmer groups;
- Carrying out environmental impacts assessment;
- Learning regarding natural resources management, in particular in the context of water source management, grazing, community forests and NWFP management;
- Participatory decision-making process and facilitation;
- Conflict resolution and management.

13. DISCLOSURE

During the preparation of the ESMF, consultations were held with relevant agencies and concerned officials from the Bhutan For Life Coordination team, the Policy and Planning Division, MoAF, the Nature Conservation Division, Department of Forests and Parks Services and the management of 8 PAs and 4 BCs. Geowg level consultation workshops were held in these PAs and BC.

All affected communities and relevant stakeholders shall be informed about the ESMF requirements and commitments. The executive summary of the ESMF will be translated into Dzongkha and made available on the websites of the MoAF and DoFPs, as well as the websites of the WWF US and WWF Bhutan. Hard copies of the ESMF will be placed in

appropriate public locations in all participating PAs and BCs. PA and BC management authorities will be responsible to raise community awareness regarding the requirements of the ESMF, and will also ensure that all external contractors and service providers are fully familiar and comply with the ESMF and other safeguards documents.

During the implementation of the BFL, activity-specific ESMPs shall be prepared in consultation with affected communities and disclosed to all stakeholders prior to project concept finalization. All draft ESMPs shall be reviewed and approved by the BFL PCU in consultation with the Transition Fund in advance of their public disclosure. The BFL PCU must also disclose to all affected parties any action plans prepared during project implementation, including gender mainstreaming.

Disclosure should be carried out in a manner that is meaningful and understandable to the affected people. For this purpose, the executive summary of ESMPs or the terms and conditions in environment clearances should be disclosed on MoAF and WWF web sites.

The disclosure requirements are summarized in Table 14 below.

Table 14: Disclosure framework for ESMF related documents

Documents to be disclosed	Frequency	Where
Environment and Social Management Framework	Once in the entire project cycle. Must remain on the website and other public locations throughout the project period.	On the website of MoAF and WWF, Bhutan Program. Copies at the PAs and BC Management Offices and at the PCU Office
Environmental Assessment Reports	Once in the entire project cycle for every activity that requires an EA. Must remain on the website and other public locations throughout the project period.	On the website of MoAF and WWF, Bhutan Program. Copies at the PAs and BC Management Offices and at the PCU Office
Environmental Management Plan/s	Once in the entire project cycle for every activity that requires EMP. Must remain on the website and other disclosure locations throughout the project period.	On the website of MoAF and WWF, Bhutan Program. Copies at the PAs and BC Management Offices and at the PCU Office
EMP - Monthly Progress Report	Monthly	PCU
Minutes of Formal Public Consultation Meetings	Within two weeks of meeting	On the website of the MoAF (PCU).
Grievance redress process	Throughout the project cycle	On the website of the MoAF (PCU). Hard copies available at the PAs and TFDs offices, Gewog Office and at the RNR Extension Centers

14. BUDGET

The EMSF implementation costs, including all costs related to compensation to project affected people, will be fully covered from the BFL budget. They will consist of the following key budget items:

Cost of environmental and social safeguards personnel (US\$180,000):

The costs of one full time Environment and Social Expert employed at the BFL PCU (overall costs of \$130,000 for the first ten years of project implementation, based on an annual salary of US\$13,000). The costs of an international environmental and social safeguards consultant is estimated at USD\$50,000 for the first ten years of project implementation. .

Overall: USD\$180,000

Cost of trainings, orientations, awareness programs and information dissemination (US\$230,000):

Trainings on the 8 issues identified in the “Capacity Building” section could be offered to the 85 Gups, 85 Mangmis, 340 Tshogpas, 311 Chairpersons of Community Forest Groups, 64 Chairpersons of Farmer groups and 88 Chairs of Farmer Cooperatives (970 persons). An estimate of two days per training on each of the topics during the first ten years of project implementation is US\$97,000 (based on an estimate of 970 persons from communities trained at US\$100 per person). Given natural turnover, such trainings could be repeated every five years. The overall costs of community training is **US\$194,000**.

More complex trainings (e.g., on issues such as tracking illegal wildlife trade) could be offered to 50 RGoB and PCU staff every 3 years, based on an estimate of US\$200 per person. The overall costs of such trainings are **US\$30,000**.

Additional travel expenses for expert who will be conducting the trainings is estimated to be **US\$6,000**.

The overall costs of trainings: US\$230,000.

Travel expenses for the PCU ESS Expert are estimated at US \$20,000 for the first ten years of project implementation. The travel expenses of the international environmental and social safeguards consultant are estimated at \$40,000 for the first ten years of project implementation. **Overall: \$60,000.**

Cost of the Socio-economic baseline surveys that may be required as part of the preparation of site-specific ESMP preparation is estimated at **US \$ 20,000**.

The total cost of ESMF implementation is estimated at **US \$490,000**. This estimate does not include the cost of compensation that may have to be paid to project affected people in accordance with this ESMF and site-specific ESMPs. Such compensation shall be fully covered by the BFL budget.

Annex 1: WWF BFL Environmental and Social Safeguards Categorization Memorandum

Project Title: BHUTAN FOR LIFE (BFL) – Climate Adaptive Natural Resource Management In Bhutan's Protected Areas System	Date: 1/17/2016
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Project Location and salient physical characteristics relevant to the safeguard analysis:	Project Categorization (A,B,C): B
<p>Project activities will be in 10 protected areas (and the Royal Botanical Park) and the 8 Biological corridors. There are 35,000 people (7,000 households) living within the protected area network, most of whom depend on natural resources for their livelihoods.</p> <p>Wangchuck Centennial Park Established in 2008 and located in central-northern Bhutan, it is the country's largest national park covering 4,914 square kilometers. It is source to headwaters of four major river systems: Punatsang chu, Mangde chu, Chamkhar chu and Kuri chu. The park is home to 693 species of vascular plants, 43 mammal species and 250 bird species. The Park is also home to 10588 people.</p> <p>Jigme Dorji National Park is Bhutan's second largest protected area covering 4,316 square kilometers. The park is a vital watershed covering almost half of northern Bhutan, and is an important natural conservatory of glaciers, alpine meadows and scrublands, sub-alpine and temperate conifer forests, warm and cool temperate broadleaf forests, and the flora and fauna that inhabit these ecosystems. Jigme Dorji National Park is home to about 6000 people.</p> <p>Jigme Singye Wangchuck National Park covers an area of 1,723 square kilometers and includes a wide range of habitat types, from broadleaf forests to coniferous forests, alpine pasture and lakes, to permanent ice. The park constitutes the largest, richest and most intact temperate forest reserve in the entire Himalaya. More than 270 species of birds are recorded in the park, including the vulnerable Black-necked crane. Approximately about 6,000 people resides within the park.</p> <p>Bumdelling Wildlife Sanctuary is located in the north-eastern part of Bhutan, covering an area of 1,520 square kilometers. The Sanctuary contains a rich diversity of flora and fauna as well as some of the most scenic alpine lakes. Sanctuary has several cultural and religious sites of international significance in terms of preservation of culture and traditional practices. Sanctuary has 343 bird species, 734 species of plant, 202 butterfly species, 18 species of Snakes and 7 species of fishes. The park has resident population of about 8047 people.</p> <p>Royal Manas National Park is the oldest park in Bhutan. Covering 1,057 square kilometers, it is home to megafauna like Royal Bengal Tiger, Elephant, and Gaur. It is also home to 426 species of birds and several flora species that are have commercial, medicinal, and religious significance. Park inhabited by about 5,331 people living in remote, isolated villages within the park.</p> <p>Phrumsengla National Park in central Bhutan covers 905 square kilometers and protects large tracts of old-growth fir forests. The Park has 361 species of Birds and of which, 6 are globally threatened. Phrumsengla is home to about 5600 people.</p> <p>Sakten Wildlife Sanctuary was established in 2003 and covers an area of 740 square kilometers. Sakten is designed to protect the country's eastern-most temperate ecosystems. Sanctuary has recorded 30 species of mammals, 227 species</p>	

<p>of birds and 63 species of Butterflies.</p> <p>Jigme Khesar Strict Nature Reserve, is the only strict nature reserve in Bhutan. The Reserve covers 609 square kilometers, protects the westernmost temperate forests of the country. Unlike Bhutan's other protected areas, Jigme Khesar Strict Nature Reserve has no resident human population within the park.</p> <p>Phibsoo Wildlife Sanctuary is Bhutan's second smallest park covering only 269 square kilometers area. It is the only area in Bhutan to have spotted deer, and the only remaining natural Sal (<i>Shorea robusta</i>) forests in the country. Phibsoo is home to Elephant, Royal Bengal Tiger and Gaur. The park has no human residents.</p> <p>Jomotshangkha Wildlife Sanctuary is situated in the south eastern most part of the country, it is the smallest park in the country. However, the park is an important habitat for Elephant, Gaur and other tropical wildlife species.</p> <p>The biological corridors in Bhutan were introduced in 1999 to connect all protected areas together into a single contiguous area providing free mobility to wild animals. Isolated populations of wildlife or plants are less genetically viable and at much greater risk than connected populations. The corridors' locations were chosen to balance many factors, including the risk of forest fires, migration patterns of keystone species, difficulty of terrain, habitat condition, human impacts, and the passage's shape, such as the width of narrowest constriction. The longest corridor is the North Corridor, with a total length of 76 km, and the shortest is the 16 km connection between Phrumsengla National Park and the North Corridor.</p>	
<p>Project Description:</p> <p>Bhutan for Life is 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.</p> <p>Component A: Mitigation: Increasing forestry and land use climate mitigation</p> <p>This component focuses on monitoring systems that detect forest cover change and ecological responses of forests and other systems to impacts of climate change. The findings will be used to develop climate resilient forest management practices and restoration of the degraded lands to conserve and enhance carbon stock.</p> <p>Component B: Adaptation I: Integrated adaptation in communities and ecosystems to improve natural resource management for livelihoods and climate resilience</p> <p>This component focuses on harnessing climate, hydrological, and natural resources information to design and implement resilience and adaptation measures in Bhutan's protected areas (PAs). This component will work to benefit nature and the livelihood of the population living both inside and in the vicinity of the PAs.</p> <p>Component C: Adaptation II: Climate-smart conservation to enhance provision of ecosystem services</p>	

This component focuses on harnessing climate, natural resource and biological information to design and implement ecosystem based adaptation management of Bhutan's PAs. This component will work to secure wildlife, habitat, and reduce human wildlife conflict in the changing climate while ensuring the sustainable flow of ecosystem services.

Component D: Protected Areas: Effective Management of Protected Areas

This component focuses on strengthening the organizational, institutional and resource capacity for effective management of PAs. This is a crucial component as the success of the initiative is dependent on fully equipped, well trained staff; full funding; essential infrastructures; and well organized system of managing the protected areas.

Component E: BFL program management: Management, Monitoring, Reporting & Evaluation, Policy Support, Contingencies

This component groups all the management activities necessary for the effective implementation of BFL. As such, its purpose is to ensure the efficient implementation of the BFL program.

Safeguard Policies Triggered	Yes	No
Natural Habitats	X	
Pest Management		X
Indigenous Peoples	X	
Involuntary Resettlement	X	

Summary of Key Safeguard Issues:

Natural Habitat: Overall activities of the project will derive significant conservation benefits and any potential adverse environmental impacts on human populations or environmentally important areas including forests, grasslands and other natural habitats are expected to be very limited. However, An environmental and social management framework will prepared to properly manage the risk of any unforeseen adverse environmental impact on natural habitats, including critical natural habitats, as well as measures to enhance the project's positive environmental outcomes.

Indigenous People: People in every valley/region in Bhutan can be considered indigenous people, with almost every valley/region having distinct dialects. For example in the Jigme Singye Wangchuck National Park has two groups – the Monpas in Trongsa and Olep in Wangdue could be considered IPs under WWF's Indigenous People policy given their distinct cultural practices and traditions. However, their social and cultural identity although distinct from dominant society, does not make them vulnerable or disadvantaged therefore a separate documentation does not need to be prepared but will be included in the safeguards documentation.

Involuntary Resettlement: No involuntary resettlement and land acquisition will take place under the proposed project. Even though involuntary land acquisition and resettlement of individuals and/or families will not take place due to project activities, ecosystem restoration and improved land use and conservation planning are likely to affect land use patterns of the communities. This will have an impact on their livelihoods should be included in the safeguards documentation.

Pest Management: The project will not involve the procurement and use of pesticides.	
Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area: The project expects to achieve improved conservation and sustainable use of natural resources as its long term impact of project interventions, which will be both environmentally and socially positive.	
Required actions: (type of ESIA, ESMP, IPP, IPMP, RAP, consultations, disclosure) An Environment Social Management Framework will be prepared before project concept finalization.	<hr/> Anushika Karunaratne Safeguards Coordinator <hr/> Brent Nordstrom, Senior Director, Public Sector Support

Annex 2a: Areas under different agro-ecological zones in Bhutan (in Ha)

	All dzongkhags					
Dzongkhag	Alpine	Cool Temperat e	Dry Subtropic al	Humid Subtropic al	Warm Temperat e	Wet Subtropic al
Bumthang	166,959	96,337	8	0	3,385	0
Chhukha	5,648	44,463	39,955	33,385	50,958	13,546
Dagana	6,825	28,417	32,630	32,479	43,939	26,980
Gasa	259,288	29,023	282	0	6,515	0
Haa	77,289	66,938	13,149	4,523	28,490	76
Lhuentse	116,574	87,218	19,587	2,898	58,798	0
Mongar	2,929	42,239	52,315	34,519	55,687	6,338
Paro	56,948	54,262	0	0	17,483	0
Pemagatshel	0	19	28,679	42,619	9,475	21,403
Punakha	17,928	32,571	19,492	204	40,762	0
Samdrupjongkhar	716	13,678	48,124	43,135	39,094	42,914
Samtse	941	9,231	27,860	34,843	26,435	26,300
Sarpang	554	4,689	40,839	41,505	35,022	42,895
Thimphu	113,824	54,170	0	0	11,178	0
Trashigang	41,369	71,813	32,542	9,635	64,165	240
Trashiyangtse	46,641	49,821	9,833	3,577	34,862	0
Trongsa	31,677	75,117	18,496	4,869	51,161	51
Tsirang	357	4,475	19,575	20,183	14,457	4,737
Wangdue	144,663	128,717	35,384	12,814	75,500	649
Zhemgang	5,488	23,956	64,716	71,511	47,188	28,790
Total	1,096,618	917,155	503,465	392,700	714,554	214,918

Annex 2b: Areas under different agro-ecological zones in PAs and BCs (in ha)

Dzongkhags under PAs/BCs					
Alpine	Cool Temperate	Dry Subtropical	Humid Subtropical	Warm Temperate	Wet Subtropical
166,959	96,337	8		3,385	
		1,447	7,368	24	15,659
171,202	24,525	282		6,344	
74,068	45,528	6,748	1,452	18,014	
116,502	87,218	19,587	2,898	58,798	
2,879	35,723	18,728	9,329	22,819	911
52,925	21,840			2,667	
17,883	29,698	11,897	2	30,947	
716	13,433	38,374	33,719	34,180	31,693
941	7,454	10,179	6,668	15,871	2,519
554	4,689	40,269	39,351	35,022	38,031
96,660	27,712			5,274	
40,373	54,948	3,465		26,084	
44,959	28,248	175		11,586	
31,677	75,117	18,496	4,869	51,161	51
357	4,475	14,167	13,459	13,715	2,782
144,661	102,661	28,041	11,816	66,487	649
5,488	21,912	49,981	52,076	39,962	21,862
968,803	681,519	261,845	183,006	442,340	114,157

Annex 3: Community Forest within BFL areas and across the country

	All dzongkhags			Dzongkhags under PAs/BCs		
Dzongkhag	Nos_ CF	CF_Are a_Ha	CF_HHs	Nos_CF	CF_Area_H a	CF_HHs
Bumthang	30	3,079	876	30	3,079	876
Chhukha	46	3,221	1,554	0	0	0
Dagana	25	1,843	942	0	0	0
Gasa	7	452	181	7	452	181
Haa	18	1,697	534	10	950	312
Lhuentse	23	1,608	721	23	1,608	721
Mongar	30	6,519	1,808	10	2,014	430
Paro	26	4,218	1,485	6	695	275
Pemagatshel	43	3,724	2,112	0	0	0
Punakha	39	3,623	1,305	19	1,757	635
Samdrupjongkhar	41	5,275	2,113	30	3,942	1,651
Samtse	50	4,556	2,024	9	563	349
Sarpang	31	3,164	1,192	22	2,138	826
Thimphu	21	2,750	837	10	984	361
Trashigang	50	9,229	2,818	5	1,189	224
Trashiyangtse	29	3,372	1,389	8	1,018	270
Trongsa	27	2,764	870	27	2,764	870
Tsirang	38	5,766	2,303	15	2,868	833
Wangdue	78	5,860	2,188	61	4,589	1,673
Zhemgang	25	2,671	1,037	19	1,582	673
Total	677	75,391	28,289	311	32,193	11,160

Annex 4: Farmer groups within BFL project areas and across the country

	All dzongkhags				Dzongkhags under PAs/BCs			
Dzongkhag	Nos. FGs	FG-Male	FG-Female	Total Members	Nos. FGs	FG-Male	FG-Female	Total Members
Bumthang	7	22	109	131	7	22	109	131
Chhukha	7	94	38	132	0	0	0	0
Dagana	2	91	30	121	0	0	0	0
Haa	4	34	60	94	2	14	26	40
Gasa	0	0	0	0	0	0	0	0
Lhuentse	9	93	88	181	9	93	88	181
Mongar	23	105	186	291	2	11	22	33
Paro	6	37	92	129	0	0	0	0
Pemagatshel	15	245	104	349	0	0	0	0
Punakha	10	78	139	217	6	45	67	112
Samdrupjongkhar	17	448	189	637	14	369	168	537
Samtse	25	292	205	497	0	0	0	0
Sarpang	4	99	38	137	3	49	16	65
Thimphu	4	67	66	133	1	8	4	12
Trashigang	34	346	267	613	6	72	36	108
Trashiyangtse	18	229	181	410	3	23	6	29
Trongsa	5	14	86	100	5	14	86	100
Tsirang	2	25	27	52	1	8	24	32
Wangdue	8	70	178	248	3	14	57	71
Zhemgang	2	38	36	74	2	38	36	74
Total	202	2,427	2,119	4,546	64	780	745	1,525

Annex 5a: Livestock Population in Bhutan (yaks included with cattle)

	All dzongkhags					
Dzongkhag	Improve d cattle	Local cattle	Horses	Sheep	Goats	Livestock grazing density (GLU/km ²)
Bumthang	5,975	8,723	121	694	5	5.6
Chhukha	4,403	16,897	569	620	5,779	12.3
Dagana	5,243	13,593	379	267	7,182	12.0
Gasa	495	6,796	2,268	6	68	3.0
Haa	3,266	10,922	1,081	2	13	8.1
Lhuentse	3,159	10,879	1,463	206	86	5.4
Mongar	8,150	18,213	1,465	16	82	14.2
Paro	5,983	9,540	1,408	10	662	13.4
Pemagatshel	5,053	2,786	450	6	78	8.0
Punakha	3,128	9,000	461	19	185	11.3
Samdrupjongkhar	6,148	10,756	624	90	2,305	9.5
Samtse	4,892	26,676	252	9,329	21,484	29.1
Sarpang	7,582	16,961	495	1,013	6,645	15.9
Thimphu	1,984	11,549	121	4	74	7.8
Trashigang	7,842	33,750	2,055	4,414	378	20.0
Trashiyangtse	3,279	8,278	1,184	4	334	8.7
Trongsa	3,693	7,711	406	161	137	6.5
Tsirang	6,778	5,861	115	356	11,813	23.7
Wangdue	4,882	20,427	596	1,124	757	6.7
Zhemgang	1,947	9,014	1,065	2	106	4.9
Total	93,882	258,332	16,578	18,343	58,173	9.9

Annex 5b: Livestock Population in PAs and BCs (yaks included with cattle)
Dzongkhags under PAs/BCs

Improved cattle	Local cattle	Horses	Sheep	Goats	Livestock grazing density (GLU/km ²)
5,975	8,723	121	694	5	5.6
0	0	0	0	0	0.0
1,917	2,035	6	0	1,135	2.4
495	3,200	757	6	68	1.4
1,716	7,853	802	0	12	5.5
3,159	10,879	1,463	206	81	5.4
1,940	3,420	212	16	10	2.8
666	4,224	952	7	10	4.5
0	0	0	0	0	0.0
1,357	4,826	431	19	132	5.9
4,230	7,707	547	90	2,301	6.8
866	6,893	58	1,366	4,929	6.9
6,071	15,640	495	955	5,456	14.0
627	7,088	121	0	0	4.5
730	21,565	1,532	4,383	258	11.1
334	1,954	184	0	0	1.7
3,693	7,711	340	161	137	6.4
1,880	2,338	101	144	3,431	7.8
3,821	16,853	431	1,124	698	5.5
1,481	6,693	537	1	96	3.6
40,958	139,602	9,090	9,172	18,759	5.0

Annex 6a: Agriculture production in Bhutan (MT)

	All dzongkhags					
Dzongkhag	Cereals	Potato	Spice s	Vegetables	Oilseeds	Fruits/Nuts
Bumthang	1,148	3,112	11	768	18	160
Chhukha	4,284	5,378	697	2,108	133	2,828
Dagana	7,160	171	134	1,078	156	5,620
Gasa	303	189	13	107	2	5
Haa	997	1,704	139	2,982	47	385
Lhuentse	5,289	1,106	96	830	17	616
Mongar	16,915	5,170	245	3,941	217	2,278
Paro	7,310	2,678	8	4,403	29	5,107
Pemagatshel	3,840	1,185	105	568	81	3,131
Punakha	8,938	91	62	1,600	36	812
Samdrupjongkhar	10,487	2,047	886	1,505	263	5,549
Samtse	7,576	108	2,012	850	99	3,758
Sarpang	7,158	93	478	448	248	8,243
Thimphu	483	1,058	14	1,492	1	911
Trashigang	9,893	6,400	238	2,546	193	1,258
Trashiyangtse	5,619	3,055	122	1,162	151	554
Trongsa	3,693	321	17	697	16	372
Tsirang	6,093	261	242	1,146	140	6,040
Wangdue	7,020	13,260	113	7,623	76	395
Zhemgang	4,575	137	59	259	39	1,570
Total	118,781	47,524	5,692	36,115	1,963	49,592

Annex 6b: Agriculture production in PA and BCs (MT)

	Dzongkhags under PAs/BCs					
Dzongkhag	Cereals	Potato	Spices	Vegetables	Oilseeds	Fruits/Nuts
Bumthang	1,148	3,112	11	768	18	160
Chhukha	0	0	0	0	0	0
Dagana	405	6	4	17	1	530
Gasa	239	180	13	83	2	5
Haa	709	792	106	1,678	32	132
Lhuentse	5,289	1,106	96	830	17	616
Mongar	1,656	334	52	360	13	327
Paro	1,178	483	3	204	2	475
Pemagatshel	0	0	0	0	0	0
Punakha	4,662	41	40	1,005	17	478
Samdrupjongkhar	8,936	1,637	867	1,321	247	3,204
Samtse	1,137	20	279	107	12	343
Sarpang	6,678	85	452	357	237	7,251
Thimphu	100	641	3	785	0	280
Trashigang	666	349	11	297	11	64
Trashiyangtse	575	388	5	153	2	27
Trongsa	3,693	321	17	697	16	372
Tsirang	1,877	97	86	543	91	1,600
Wangdue	3,665	12,335	67	6,865	28	233
Zhemgang	0	0	0	0	0	0
Total	42,614	21,927	2,114	16,071	745	16,099

Annex 7: Estimated population at the national level and within the PA & BCs

	All dzongkhags			Dzongkhags under PAs/BCs		
Dzongkhag Name	Est. hhs (2016)	Est. Pop (2016)	Pop densit y	Est. hhs (2016)	Est. Pop (2016)	Pop densit y
Bumthang	2,725	12,807	4.8	2,725	12,807	4.8
Chhukha	9,129	42,906	22.8	0	0	0.0
Dagana	5,113	24,030	14.0	595	2,796	1.6
Gasa	649	3,050	1.0	419	1,967	0.6
Haa	2,425	11,397	6.1	1,316	6,184	3.3
Lhuentse	3,350	15,747	5.6	3,350	15,747	5.6
Mongar	7,738	36,369	18.7	1,261	5,928	3.0
Paro	7,889	37,077	29.6	1,271	5,973	4.8
Pemagatshel	4,968	23,349	22.8	0	0	0.0
Punakha	4,978	23,398	21.1	2,004	9,419	8.5
SamdrupJongkhar	6,895	32,406	17.3	4,627	21,745	11.6
Samtse	12,500	58,752	45.0	2,987	14,038	10.8
Sarpang	6,203	29,155	17.5	4,967	23,345	14.0
Thimphu	3,025	14,219	8.1	1,514	7,118	4.1
Trashigang	10,035	47,163	21.4	1,469	6,905	3.1
Trashiyangtse	3,596	16,903	11.7	502	2,360	1.6
Trongsa	2,637	12,393	6.8	2,637	12,393	6.8
Tsirang	4,282	20,128	31.5	1,238	5,818	9.1
Wangdue	5,568	26,170	6.7	3,896	18,310	4.7
Zhemgang	3,555	16,707	6.9	2,484	11,674	4.8
Total	107,260	504,123	13.1	39,261	184,529	4.8

Annex 8: Summary Note of Field Notes from Community Consultations for preparation of ESMF, Bhutan For Life

1. Introduction:

A team comprising of the ESMF Consultant, Gender Consultant, Lawyer of the Ministry of Ministry of Agriculture and Forests, Representative of the Wildlife Conservation Division (now known as the Nature Conservation Division of the Department of Forests and Parks Services and a Representative of the BFL Coordination Office, WWF Program Officer in Thimphu visited 8 out of the 10 PAs, 4 out of the 8 BCs covering east, west, north and southern part of the country. During these visits, the team had community consultations in 12 Gewogs under the coordination and facilitation of the ESMF Consultant. Consultations were held with 239 community members (171 men and 68 women) from these 12 Gewogs. The process involved 51 officials of the concerned PAs and BCs.

The members of the team comprised of the following individuals;

1. Mr. Tandin Dorji, Senior Forester, Nature Conservation Division, DoFPS, MoAF
2. Mr. Ugyen Tshewring, Lawyer, Policy and Planning Division, MoAF
3. Ms. Jamyang C. Penjore, BFL Coordination Unit, WWF, Bhutan Program Office
4. Ms. Tshering Choden, Gender Safeguards Consultant
5. Mr. Nidup Peljor, ESMF Consultant, Bhutan Philanthropy Ventures Pvt. Ltd.

2. The Approach and Process of the Consultations

Major focus during the consultations were placed on achieving insights into Tenure and Rights over resources, Activities and Potential Impacts of BFL, FPIC Process preferred by the communities, Grievance Mechanism, Capacity needs and gender issues related to natural resources management. The field consultations were held in each location with participants divided into four group of men, women, elderly and youth. Each such group consultations were preceded by introduction of the BFL objectives, time frame, BFL partners and major activities.

3. Summary of Findings from the Consultations:

In general, the major observations from the field include

- High level of awareness among communities within the PAs and BCs on importance of nature and motivation to use resources sustainably
- Local level institutions such as Farmer Groups, local governance structures are deep rooted and are highly regarded as credible forms of organization and well accepted to represent the interests and stake of local communities. These include the Tshogpa, Mangmi, Gewog Administration, and Gewog Tshogde; these are considered formal mechanisms for community consent, grievance redress and conflict resolution.

- Informal and traditional forms of community consent and grievance redress are not commonly in practice
- Indigenous and cultural norms of using natural resources are fading (hemp fibres, nettle clothes, medicinal plants for treatment). However new forms of NWFP markets seem to emerge rapidly. Hence, popular aspirations for formalized and sustainable use of NWFPs to avoid over exploitation and for local benefits. This indicates that there is scope and acceptance among communities to start nature based enterprises to take off significantly.
- Most common community based activities preferred include protection of water sources for sustainable use; nature and NWFP based enterprise development; formalization of resource uses such as for NWFPs; Capacity development of communities and local institutions.
- Lack of awareness on grazing regulations and rights
- Overlap of one or more Park boundary over one Gewog causing administrative confusion in terms of access to services. There is need to rationalize the PAs and BCs boundaries in line with local administrative boundaries. Out of 85 Gewogs the 35 of these Gewogs fall under both a PA or a BC. Hence these Gewogs are subjected to two approaches of management. Gewogs such as Tang in Bumthang, Jigmechoeling in Sarpang, Khoma in Lhuentse, Kazhi in Wangdue and Trong in Zhemgang are examples.
- Data on number of households and of the population are reported differently in different sources of reports. While the PAs carry out socio-economic surveys for preparation of management plans, these surveys take place in different times depending on the termination of respective management plans. Moreover, there is no report of such surveys in the BCs. For BFL, there is need for a common baseline as PAs and BCs, particularly in terms of establishing a comprehensive socio-economic baseline.
- Preferred timing for consultations with communities is during the winter season.
- Preferred channel for community consent include the local institutions such as the Tsohogpa, Mangmi and the Gup.
- NWFP management is a growing concern amongst the communities in the PAs and BCs. The most common NWFPs and issues associated are as follows;
- The PAs and BC management comprise of professional foresters and natural resource experts. Therefore, they do have the expertise in environmental safeguards. However, the PAs and BCs would need technical support and capacity enhancement on the social safeguards.

Consultation with relevant civil society group comprising of the Bhutan Ecological Society (ECS), Clean Bhutan, Loden Foundation, the Youth Development Fund (YDF), the Royal Society for the Protection of Nature (RSPN) suggested that there is a need for deeper understanding of issues related to Indigenous Knowledge (IK) and Traditional Knowledge (TK) and that depletion of resources in the nature or their economic values could further result into decline in the practice of such IK and TK. It would be relevant for the civil societies to be engaged in such studies, promotion of ecotourism initiatives, capacity building and awareness and in establishment of potential youth or gender based and nature based enterprises.

4. Recommendations:

- During the community consultations, the communities identified need to train the local representatives in the field of:
 - Land and its regulations to understand regulatory framework on grazing and pasture management, land acquisition, land leasing mechanisms
 - Water Act and its regulations to understand water rights and management
 - Forest and nature Conservations Rules, 2017 to understand timber entitlement, watershed management
 - Frameworks for creation of farmer groups
 - Capacity for environmental impacts assessment
 - Training of natural resources management related to water source management, grazing, community forests and NWFP management
 - Participatory decision-making process and facilitation
 - Conflict resolution and management

These training activities should be included as BFL project's community capacity building for environment and social safeguards.

- Wherever possible community consultations should be conducted during winter season when agriculture activities are minimal.
- Within the first four months of the BFL project implementation, a common baseline should for the PAs and BCs or the BFL landscape areas should be established through a comprehensive socio-economic baseline survey.
- A priority list of NWFPs should be drawn for which sustainable management plans can be drawn for specific locations and communities to avoid over exploitation and to bring about local benefits.
- Most common community based activities preferred include protection of water sources for sustainable use; nature and NWFP based enterprise development; formalization of resource uses such as for NWFPs; Capacity development of communities and local institutions.
- Relevant civil society organizations could be could be engaged in promotion of ecotourism initiatives, capacity building and awareness and in establishment of potential youth or gender based and nature based enterprises.
- To provide technical assistance and support the PAs and BCs, a permanent Environmental and Social Safeguards Expert is recommended to be recruited by the Project at the BLF Coordination Unit. The expert will provide support to all PAs and BCs in terms of environment assessment for all field specific activities, preparation of ESMPs, monitoring of compliance and in reporting on overall safeguards to the BFL Board, Competent Authorities and to the NECs. In order to build safeguard capacity within the MoAF, a National Environment and Social Safeguards Officer shall be appointed by the MoAF as a counter part to the expert housed in BFL Coordination Unit. From the 6th year onwards, the National Environment and Social Safeguards Officer shall assume the full responsibility for technical support and further capacity development.

5. List of persons met

Biological Corridor 3 (BC3), Gakidling Gewog

S/ N	Name	Sex	Age	Occupation	Chiwog / Organization	Gewog	Group
1	Chada	M	65	Farmer	Geytemkha	Gakidling	Elderly
2	Wangdi	M	59	Farmer	Geytemkha	Gakidling	Elderly
3	Kumbu Tshadary	M	54	Farmer	Geytemkha	Gakidling	Men
4	Tika Ram Rai	M	62	Farmer	Geytemkha	Gakidling	Elderly
5	Karna Bdr Rai	M	48	Farmer	Geytemkha	Gakidling	Men
6	Ram Bhakta Rai	M	37	Tshogpa	Geytemkha	Gakidling	Men
7	Lhachu Man Thara	M	58	Farmer	Gagiling	Gakidling	Elderly
8	Man Bdr Rana	M	58	Farmer	Relangthang	Gakidling	Elderly
9	Indra Man Rana	M	47	Farmer	Relangthang	Gakidling	Men
10	Mohan Rana	M	28	Farmer	Relangthang	Gakidling	Youth
11	Dambar Bdr Rana	M	38	Tshogpa	Relangthang	Gakidling	Men
12	Portap Singh Rai	M	55	Farmer	Menchulam	Gakidling	Men
13	Dew Kumar Thara	M	34	Farmer	Sangkha	Gakidling	Youth
14	Biram Rai	M	34	Farmer	Gagiling	Gakidling	Youth
15	Pema Sherpa	M	36	Farmer	Sangkha	Gakidling	Men
16	Arjun Rai	M	47	Farmer	Menchulam	Gakidling	Men
17	Bhim Kr Raika	M	28	Thshogpa	Gagiling	Gakidling	Youth
18	Rajid Raika	M	30	Farmer	Gagiling	Gakidling	Youth
19	Padam Rai	M	53	Farmer	Gagiling	Gakidling	Men
20	Ratman Rave	M	30	Gaydrung	Gagiling	Gakidling	Youth
21	Karna Bdr Rai	M	48	Farmer		Gakidling	Men
22	Phub Dhendup	M		CFO	Sarpang TFD	Gakidling	Men
23	Pema Rinzin	M		FO	Sarpang TFD	Gakidling	Men
24	Karma Choki	M		FO	Sarpang TFD	Gakidling	Men

25	Singye Wangchuk	M		Sr. Ranger	Sarpang TFD	Gakidling	Resource
26	Karma Gyamtsho	M		Sr. Ranger	Sarpang TFD	Gakidling	Resource
27	Nim Dorji	M		Gup	Gewog Adm	Gakidling	Men
28	Ram Bdr Pilakoti	M		Mangmi	Gewog Adm	Gakidling	Men

Biological Corridor 4 (BC4), Nangkor Gewog

29	Dawa Zangpo	M	30	CF,Treasurer	KNC	Nangkor	Men
30	Ugyen Wangdi	M	30	Tshogpa	Duenmang	Nangkor	Men
40	Sonam Choden	F	30	Chipeon	Dhakpel-Tali	Nangkor	Women
41	Sonam	M	35	Member	Duenmang	Nangkor	Men
42	Tshering Wangchuk	M	49	CF, Chairman	CF, Naykhor	Nangkor	Men
43	Karpo	M	39	CF, Accountant	Naykhor	Nangkor	Men
44	Ugyen Phuntsho	M	31	GAO	Gewog Adm	Nangkor	Men
45	Tashi Dendup	M	44	Offg. CFO	Zhemgang	Nangkor	Resource
46	Norbu Zangmo	F	33	FO	Zhemgang	Nangkor	Women

Biological Corridor 6 (BC6), Kangpar Gewog

47	Tshering Laythro	M	56	CF Chair	Merdha	Kangpara	Elderly
48	Tshewang Tenzin	M	27	CF Secretary	Merdha	Kangpara	Youth
49	Thinley Gyeltshen	M	39	Farmer	Merdha	Kangpara	Men
50	Rinzin Lotey	M	31	Risup	Merdha	Kangpara	Men
51	Kunzang Tobgay	M	28	Tshogpa	Merdha	Kangpara	Men
52	Tandin Wangchu	M	38	Farmer	Merdha	Kangpara	Men
53	Nidup Norbu	M	21	Farmer	Merdha	Kangpara	Youth
54	Nima Tenzin	M	26	Farmer	Merdha	Kangpara	Youth
55	Melam Dorji	M	64	CF Chair	Pasaphu	Kangpara	Elderly
56	Ngajo Dorji	M	29	Farmer	Pasaphu	Kangpara	Men
57	Leki Tshering	M	35	CF Secretary	Pasaphu	Kangpara	Men
58	Melam Dorji	M	32	CF Chair	Pedung	Kangpara	Men
59	Sangay Wangpo	M	46	Farmer	Pedung	Kangpara	Men
60	Tshering Phuntsho	M	42	CF Secretary	Pedung	Kangpara	Men
61	Tshering Jamtsho	M	26	CF Chair	Pasaphu	Kangpara	Youth
62	Sangay Wangdi	M	62	CF Chair	Lamyong	Kangpara	Elderly
63	Jurmey	M	69	CF Secretary	Lamyong	Kangpara	Elderly
64	Tshering Tobgay	M	20	Farmer	Lamyong	Kangpara	Youth
65	Kinzang Peldon	F	21	Farmer	Lamyong	Kangpara	Youth
66	Ngagi Tshering	M	26	Farmer	Zorthung	Kangpara	Youth
67	Ugyen Tshwang	M	58	Tshogpa	Kangpara	Kangpara	Elderly
68	Wangda	M	48	Tshogpa	Maduwa	Kangpara	Men
69	Sangay Tenzin	M	28	Mangmi	Gewog	Kangpara	Men
70	Pema Dorji Moktan	M	25	Agr. EO	RNR EC	Kangpara	Resource
71	Phuntsho Wangdi	M	27	Beat Officer	Kangpara Beat Office	Kangpara	Resource
72	Sonam Dorji	M	39	Ranger	Kangpara Beat Office	Kangpara	Resource

73	Tshering Dorji	M		Ranger	Range, Thrimshing	Kangpara	Resource
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Bumdeling Wildlife Sanctuary (BWS), Khoma Gewog

74	Dorji	M	50	Farmer	Babtong	Khoma	Elderly
75	Choni Dorji	M	30	Farmer	Goenpa kap	Khoma	Youth
76	Karma Tshering	M	52	Farmer	Babtong	Khoma	Elderly
77	Mr.kelzang Tashi	M	50	Yak Herder	Ronmateng	Khoma	Elderly
78	Karma Yangku	M	40	Yak Herder	Ronmateng	Khoma	Men
79	Thinley Dorji	M	48	Yak Herder	Ronmateng	Khoma	Men
80	Kuenzang Lhamo	F	28	Weaving Group	Tsango	Khoma	Youth
81	Norzin Lhamo	F	37	Weaving Group	Tsango	Khoma	Women
82	Karma Tshomo	F	40	Weaving Group	Tsango	Khoma	Women
83	Guru Tshering	M	40	Agriculture – Group	Pangkhar	Khoma	Men
84	Sangay Dorji	M	54	Agriculture – Group	Pangkhar	Khoma	Elderly
85	Tshewang Choki	F	64	Weaving Group	Kemo Lukchu	Khoma	Elderly
86	Kinley Wangmo	F	50	Weaving Group	Kemo Lukchu	Khoma	Elderly
87	Rinzin Lhamo	F	37	Weaving Group	Kemo Lukchu	Khoma	Women
88	Sonam Drupchu	M	36	Farmer	Pangkhar	Khoma	Men
89	Sonam Tenzin	M	39	Electric Fencing Group	Babtong	Khoma	Men

Bumdeling Wildlife Sanctuary (BWS), Khoma Gewog...contd...

90	Thinley Tshomo	F	26	Lekchey Community Forest	Kemtsong	Khoma	Youth
91	Yangchen Lhamo	F	38	Farmer	Kemtsong	Khoma	Women
92	Kuenzang Wangmo	F	26	Farmer	Kemtsong	Khoma	Youth
93	Dema Yangchen	F	44	Yarn Group	Goenpa kap	Khoma	Women
94	Jimba Lhamo	F	25	Yarn Group	Goenpa kap	Khoma	Youth
95	Sherab Tharchen	M	32	Tshokpa	Goenpa kap	Khoma	Men

96	Sonam Darjay	M	41	Farmer	Khoma	Khoma	Men
97	Pema Dechen	F	35	Farmer	Khoma	Khoma	Women
98	Tashi Pemo	F	36	Farmer	Khoma	Khoma	Women
99	Namgay Zangmo	F	48	Farmer	Khoma	Khoma	Women
100	Chezom	F	57	Farmer	Khoma	Khoma	Elderly
101	Tshewang Dema	F	46	Farmer	Khoma	Khoma	Women
102	Sonam Tobgay	M	41	Tshokpa	Gangla khema	Khoma	Men
103	Phuntsho Wangdi	M	30	Tshokpa	Pangkhar	Khoma	Youth
104	Shacha Wangchuk	M	29	Tshokpa	Tsango	Khoma	Youth
105	Kelzang Wangdi	M	38	GAO	Gewog Adm	Khoma	Men
106	Pema Tshering	M		Mangme	Gewog Adm	Khoma	Men
107	Pema Wangchuk	M		Gedrung	Gewog Adm	Khoma	Men
108	Karma Tempa	M		CFO	BWS	HO	Resource
109	Norbu Wangchuk	M		FO	BWS	HO	Resource
110	Tempa Gyeltshen	M		FO	BWS	HO	Resource
111	Tshering Dendup	M		FO	BWS	HO	Resource
112	Tshering Dawa	M		Sr. FR III	BWS	HO	Resource
113	Kuenzang Thinley	M		RO	BWS	KPRO	Resource
114	Kumbu Dorji	M		Sr. Forester	BWS	KPRO	Resource
115	Sonam Wangmo	F		FR	BWS	KPRO	Resource

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11 6	Pema Wangchuk	M		Forester	BWS	KPRO	Resource
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11 7	Tashi Dhendup	M		Forester	BWS	KPRO	Resource
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11 8	Jigme Lhaden	F		Sr. Forester	BWS	KPRO	Resource
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Jigme Dorji Wangchuck National Park (IDNP), Khamoed Gewog

119	Karma	M	60	Farmer	Damji	Khame	Elderly
120	Kencho	M	48	Farmer	Damji	Khame	Men
121	Gyem Lham	F	32	Farmer	Damji	Khame	Youth
122	Nim Dorji	M	58	Farmer	Jabesa	Khame	Elderly
123	Kencho Zam	F	39	Farmer	Zomina	Khame	Women
124	Pem	F	42	Farmer	Zomina	Khame	Women
125	Pasang Dem	F	74	Farmer	Jabesa	Khame	Elderly
126	Phurb Dorji	M	37	Farmer	Barsha	Khame	Men
127	Ugyen Tshering	M	40	Farmer	Yemina	Khame	Men
128	Gyembo	M	38	Tshogpa	Yemina	Khame	Men
129	Kinley Dorji	M	36	Tshogpa	Damji	Khame	Youth
130	Lhamo	F	20	Farmer	Bara	Khame	Youth
131	Pem Dem	F	63	Farmer	Barsha	Khame	Elderly

Jigme Dorji Wangchuck National Park (IDNP).... Contd...

13 2	Thinley Pem	F	60	Farmer	Damji	Khame	Elderly
13 3	Dawa Pem	F	39	Farmer	Geyza	Khame	Women
13 4	Damcho Pem	F	28	Farmer	Barsha	Khame	Women
13 5	Deki	F	50	Farmer	Bara	Khame	Elderly
13 6	Shelkar	F	38	Farmer	Jabesa	Khame	Women
13 7	Pem	F	44	Farmer	Jabesa	Khame	Women
13 8	Kencho Wangdi	M	48	Farmer	Khailo	Khame	Men
13 9	Damchoe Dorji	M		Mangmi	Mangmi	Khame	Men
14 0	Yangka	F		GAO	Gewog	Khame	Women
14 1	Tenzin Rabgay	M	27	Range Officer	Laya Range		Resource
14 2	Karma Gyaltsen	M	39	Forester	Lunana Range		Resource
14 3	Ugyen Rinzin	M	35	Forester	Lunana Range		Resource
14 4	Kinga	M	37	Forester	Lunana Range		Resource
14 5	Sherab Tenzin	M	27	Forester	Laya Range		Resource
14 6	Sangay Tenzin	M	35	Forester	HQ, Damji		Resource
14 7	Janchub	M	50	Forester	Damji		Resource
14	Pema Dhendup	M	38	FO	HQ, Damji		Resource

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14 9	Jigme Gyeltshen	M	35	FR	HQ, Damji		Resource
15 0	Namgay	M	43	Parm Manager	HQ, Damji		Resource
15 1	Kado Drukpa	M	49	FR	Ramena		Resource
15 2	Tandin	M		FR	Ramena		Resource
15 3	Choden	F		FR	HQ		Resource
15 4	Wanhchuk	M		Farmer	HQ		Resource
15 5	Karma Jamtshe	M		FR-I	HQ		Resource
15 6	Tshering Dorji	M		FR-II			Resource

Jgme Khesar Strict Nature Reserve (JKSNR), Bjee Gewog

15 7	Sonam Zam	F	27	Farmer	Yangthang	Bjee	Youth
15 8	Gaki	F	61	Farmer	Yangthang	Bjee	Elderly
15 9	Wangmo	F	29	Tshokpa	Yangthang	Bjee	Women
16 0	Kaley	F	62	Farmer	Tokey	Bjee	Elderly
16 1	Tshering Gem	F	24	Farmer	Chempa	Bjee	Youth
16 2	Sonam Zangmo	F	23	Farmer	Gaychukha	Bjee	Youth
16 3	Tshering Gyem	F	19	Farmer	Chempa	Bjee	Women
16 4	Passang Dem	F	51	Farmer	Tokey	Bjee	Women

16 5	Chamchoe	F	80	Farmer	Tokey	Bjee	Elderly
16 6	Nidup Zangmo	F	27	Farmer	Tokey	Bjee	Youth
16 7	Passang	F	50	Farmer	Chempa	Bjee	Women
16 8	Youden	F	60	Farmer	Tokey	Bjee	Elderly
16 9	Karma Wangmo	F	36	Farmer	Tokey	Bjee	Women
17 0	Chundu Lham	F	41	Farmer	Tokey	Bjee	Women
17 1	Pema Lekzin	F	20	Farmer	Tokey	Bjee	Youth

Jgme Khesar Strict Nature Reserve (JKSNR) & BC 1. Bjee Gewog

17 2	Pasang	M	44	Tshokpa	Talung	Bjee	Men
17 3	Tsherinf Penjor	M	29	Farmer	Chumpa	Bjee	Men
17 4	Passang Dorji	M	33	Gup	Talung	Bjee	Men
17 5	Kencho Wangdi	M	36	Farmer	Chumpa	Bjee	Men
17 6	Karma Dorji	M	28	Farmer	Chumpa	Bjee	Men
17 7	Dawa Penjo	M	28	Farmer	Chumpa	Bjee	Men
17 8	Tshering	M	72	Farmer	Talung	Bjee	Elderly
17 9	kaka Tshering	M	18	Farmer	Yangthang	Bjee	Youth
18 0	Sonam Dorji	M	28	Farmer	Chumpa	Bjee	Men
18 1	Chundu Tshering	M	30	Tshokpa	Chumpa	Bjee	Men
18 2	Dorji	M	28	Farmer	Yangthang	Bjee	Men
18 3	Thsering Phuntsho	M	28	Farmer	Yangthang	Bjee	Men
18 4	Sangey Nidup	M	18	Farmer	Talung	Bjee	Youth
18 5	Kencho	M	28	Farmer	Talung	Bjee	Men
18 6	Pem Tenzin	M	63	Farmer	Talung	Bjee	Elderly
18 7	Tshering Wangchuk	M	50	Farmer	Tokey	Bjee	Men
18	Dorji	M	73	Farmer	Gyensa	Bjee	Elderly

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18 9	Tashi	M	55	Farmer	Gyensa	Bjee	Men
19 0	Nim	M	55	Farmer	Tokey	Bjee	Men
19 1	Ugyen	M	32	Farmer	Tokey	Bjee	Men
19 2	Tshering	M	58	Farmer	Tokey	Bjee	Men
19 3	Tshering	M	60	Farmer	Chempa	Bjee	Elderly
19 4	Tashi Tobgay	M	33	Farmer	Chempa	Bjee	Men
19 5	Chab Tshering	M	34	Tshokpa	Gyensa	Bjee	Men
19 6	Passang	M	69	Farmer	Tokey	Bjee	Elderly
19 7	Gado	M	40	Farmer	Tokey	Bjee	Men
19 8	Lengo	M	79	Farmer	Talung	Bjee	Elderly

Jigme Singye Wangchuck National Park (JSWNP), Langthel Gewog

19 9	Nyonthoe	M	36	Famer	Phumzor	Langthel	Men
20 0	Larthi	M	40	Famer	Phumzor	Langthel	Men
20 1	Bargo	M	30	Famer	Phumzor	Langthel	Men
20 2	Karma Dorji	M	30	Famer	Wangling	Langthel	Men
20 3	Nechung	M	40	Famer	Wangling	Langthel	Men
20 4	Tshagay	M	42	Chipon	Phumzor	Langthel	Men

20 5	Phurpala	M	29	Famer	Jangbi	Langthel	Men
20 6	Phurpa	M	45	Farmer	Phumzor	Langthel	Men
20 7	Nakphel	M	29	Farmer	Jangbi	Langthel	Men
20 8	Karma	M	27	Farmer	Phumzor	Langthel	Men
20 9	Pema Rinzin	M	34	Farmer	Wangling	Langthel	Men
21 0	Sherab	M	44	Farmer	Wangling	Langthel	Men
21 1	Lhagyel	M	38	Tshokpa	Jangbi	Langthel	Men
21 2	Sonam Dhendup	M	40	Gup	Gewog	Langthel	Men
21 3	Chimi Rinzin	M	28	Famer	Jangbi	Langthel	Men

Jigme Singye Wangchuck National Park (JSWNP), Langthel Gewog... contd...

21 4	Delang	M	36	Famer	Phumzor	Langthel	Men
21 5	Norbu	M		Principal	Jangey CS	Langthel	Men
21 6	Sonam Dorji	M	43	FO	HO, Tshangka	JSWNP	Resource
21 7	Dorji Duba	M	40	Forester	HO, Tshangka	JSWNP	Resource
21 8	Namgay Tenzin	M	42	Forester	Lagnthil Range	JSWNP	Resource
21 9	Kado Rinchen	M	42	Sr. Forester	Lagnthil Range	JSWNP	Resource
22 0	Choki Dorji	M	48	Sr. Forester II	HO, Tshangka	JSWNP	Resource
22 1	Pankay Dukpa	M		CFO	HO, Tshangka	JSWNP	Resource

Phrumsengla National Park (PNP), Medtsho Gewog

22 2	Pema Norbu	M	52	Farmer	Ungar	Metsho	Men
22 3	Tshering Dorji	M	59	Farmer	Ungar	Metsho	Elderly
22 4	Tobgay	M	67	Farmer	Ungar	Metsho	Elderly
22 5	Sonam Wangchuk	M	60	Farmer	Ungar	Metsho	Elderly
22 6	Tshering Dorji	M	27	Farmer	Ungar	Metsho	Youth
22 7	Sherub Gyeltshen	M	28	Farmer	Ungar	Metsho	Youth
22 8	Rinchen Nidup	M	30	Farmer	Ungar	Metsho	Men

22 9	Pemala	M	58	Farmer	Ungar	Metsho	Men
23 0	Sithar la	M	65	Farmer	Ungar	Metsho	Elderly
23 1	Chimi Dorji	M	40	Farmer	Paang	Metsho	Men
23 2	Chimi Dorji	M	40	Farmer	Chambu	Metsho	Men
23 3	Donma Lhamo	F	45	Farmer	Ungar	Metsho	Women
23 4	Sonam Pelzom	F	33	Farmer	Ungar	Metsho	Women
23 5	Ugyen Zangmo	F	28	Farmer	Ungar	Metsho	Youth
23 6	Tshering Wangmo	F	54	Farmer	Ungar	Metsho	Women
23 7	Pema Chezom	F	52	Farmer	Ungar	Metsho	Women
23 8	Sonam Wangmo	F	25	Farmer	Ungar	Metsho	Youth
23 9	Tshering Tshomo	F	29	Farmer	Ungar	Metsho	Women
24 0	Pema Seldon	F	29	Farmer	Ungar	Metsho	Women
24 1	Kunzang Tshomo	F	53	Farmer	Ungar	Metsho	Women
24 1	Minjur Dema	F	62	Farmer	Ungar	Metsho	Elderly
24 3	Tandin Wangmo	F	35	Farmer	Ungar	Metsho	Women
24 4	Donma Lhamo	F	37	Farmer	Ungar	Metsho	Women
24 5	Kache Wangmo	F	27	Farmer	Ungar	Metsho	Youth
24 6	Lhazom	F	60	Farmer	Ungar	Metsho	Elderly

24 7	Jamyangmo	F	28	Farmer	Ungar	Metsho	Youth
24 8	Dondrup Zangmo	F	34	Farmer	Ungar	Metsho	Women
24 9	Kelzang Tshomo	F	43	Tshogpa	Ungar	Metsho	Women
25 0	Kunzang Jurme	M	32	Gup	Ungar	Metsho	Men
25 1	Gembo	M	37	Farmer	Ungar	Metsho	Men
25 2	Tshewang	M	72	Farmer	Ungar	Metsho	Elderly
25 3	Phurba	M		FO	PNP		Resource
25 4	Kezang	M		FO	PNP		Resource

Phisoo Wildlife Sanctuary (PWS), Nichula Gewog

25 5	Dilip Kr	M	38	Gup	Nichula	Male
25 6	Laxman	M	33	RO	Nichula	Resource
25 7	Chogyal Tenzin	M	37	GAO	Nichula	Male
25 8	Kencho Rigzin	M	27	FO	Nichula	Youth
25 9	Rajesh Mongar	M	31	Farmer	Nichula	Male
26 0	Tshering Nidup	M	40	Farmer	Nichula	Male
26 1	Kumar Karki	M	42	Tshogpa	Nichula	Elderly
26 2	Ash Bdr Tang	M	30	Tshogpa	Nichula	Male
26 3	Didi Ram Adhilari	M	38	Farmer	Nichula	Male
26 4	Tanka Bdr Kanki	M	26	Farmer	Nichula	Youth
26 5	Rudra Bdr Bista	M	68	Farmer	Nichula	Male
26 6	Kharga Bdr Chhetri	M	49	Tshogpa	Nichula	Elderly
26 7	Kalina Bdr Powrel	M	49	Farmer	Nichula	Elderly
26 8	Tshering Wangdi	M	29	Farmer	Nichula	Youth
26 9	Tshewang Tenzin	M	31	Farmer	Nichula	Male
27 0	Kuenley gyeltshen	M	41	Farmer	Nichula	Male
27	Kinga Norbu	M	40	Farmer	Nichula	Male

Sagteng Wildlife Sanctuary (SWS), Merak & Sakteng Gewogs

27 8	Phurba	M	36	Mangmi	Merak	Merak	Men
27 9	Lhuendrup	M	60	Mangmi	Sakteng	Sakteng	Men
28 0	Tenzin Dorji	M	27	Tshogpa	Merak	Merak	Men
28 1	Leki Tshering	M	31	Farmer	Sakteng	Sakteng	Men
28 2	Dorji Norbu	M	24	Chipon	Sakteng	Sakteng	Men
28 3	Rinchen Chophel	M	23	Gewog Caretaker	Sakteng	Sakteng	Men
28 4	Nima	M	37	Farmer	Merak	Merak	Men
28 5	Jurmey	M	54	Tshogpa	Merak	Merak	Men
28 6	Tenzin Norbu	M	61	Farmer	Merak	Merak	Men
28 7	Lobzang	M	43	Farmer	Merak	Merak	Men
28 8	Karchung	M	41	Chipon	Sakteng	Sakteng	Men
28 9	Tashi	M	50	Tshogpa	Sakteng	Sakteng	Men
29 0	Sangey Eden	F	22	Farmer	Joenkhar	Sakteng	Women
29 1	Thukten Yangzom	F	71	Farmer	Joenkhar	Sakteng	Women
29 2	Dorji Phuntsho	M	46	Farmer	Merak	Merak	Men
29 3	Nima Yangzom	F	30	Farmer	Merak	Merak	Women

29 4	Pema Lhaden	F	50	Farmer	Merak	Merak	Women
29 5	Rinchen Wangdi	M	31	Tshogpa	Merak	Merak	Men
29 6	Kezang Dorji	M	46	Sr. FR	SWS	HO	Men
29 7	Tenzin Lhuendup	M	42	Sr. FR	SWS	HO	Men
29 8	Pema Rinzin	M	37	Sr. FR	SWS	Sakteng Range	Resource
29 9	Dorji	M	43	Sr. FR	SWS	Merak Range	Resource
30 0	Jamtsho	M	37	Forester	SWS	Merak Range	Resource
30 1	Pema Tshewang	M	37	Sr. Forester	SWS	Merak Range	Resource

Sagteng Wildlife Sanctuary (SWS), Merak and Sakteng Gewogs

30 2	Kezang Norbu	M	25	Caretaker	SWS	Merak Range	Resource
30 3	Lhundrup Pema Chojey	M	49	Adm.	SWS	HO	Resource
30 4	Dechen Druba	M	28	Act	SWS	HO	Resource
30 5	Sangey Chophel	M	28	FR	SWS	Joenkhar Range	Resource

Annex 9: Review of RGOB's Policies, laws, Regulations Guidelines

The Constitution of the Kingdom of Bhutan, 2008: That Constitution of Bhutan has the following provisions relating to the BFL activities;

Article 1.12: The rights over mineral resources, rivers, lakes and forests shall vest in the State and are the properties of the State, which shall be regulated by law.

Article 4: The State shall endeavor to preserve, protect and promote the cultural heritage of the country, including monuments, places and objects of artistic or historic interest, Dzongs, Lhakhangs, Goendeys, Ten-sum, Nyes, language, literature, music, visual arts and religion to enrich society and the cultural life of the citizens.

Article 4.3: The State shall conserve and encourage research on local arts, custom, knowledge and culture.

Article 5.1: It is the fundamental duty of every citizen to contribute to the protection of the natural environment, conservation of the rich biodiversity of Bhutan and prevention of all forms of ecological degradation including noise, visual and physical pollution through the adoption and support of environment friendly practices and policies

Article 5.2: The Royal Government shall:

- (a) Protect, conserve and improve the pristine environment and safeguard the biodiversity of the country;
- (b) Prevent pollution and ecological degradation;
- (c) Secure ecologically balanced sustainable development while promoting justifiable economic and social development; and
- (d) Ensure a safe and healthy environment.

Article 5.3: The Government shall ensure that, in order to conserve the country's natural resources and to prevent degradation of the ecosystem, a minimum of sixty percent of Bhutan's total land shall be maintained under forest cover for all time.

Article 5.4: Parliament may enact environmental legislation to ensure sustainable use of natural resources and maintain intergenerational equity and reaffirm the sovereign rights of the State over its own biological resources.

Article 5.5: Parliament may, by law, declare any part of the country to be a National Park, Wildlife Reserve, Nature Reserve, Protected Forest, Biosphere Reserve, Critical Watershed and such other categories meriting protection.

Article 22.3: Local Governments shall ensure that local interests are taken into account in the national sphere of governance by providing a forum for public consideration on issues affecting the local territory.

Article 7: Fundamental Rights states that a person shall not be deprived of property by acquisition or requisition, except for public purpose and on payment of fair compensation in accordance with the provisions of the law. This clause may apply to construction of helipads and installation of wind profiler depending on the location selection and the ownership status of the land in question.

Land Act of Bhutan 2007: Defines legal framework to manage, regulate and administer the ownership and use of land for socio-economic development and environmental well-being of the country. The Act clarifies that trees, either naturally grown or planted, belong to the landowner when grown on registered land.

The act provides for effective land administration, security of land tenure, operation of land market, effective use of land resources and conservation of the ecosystem. It enables leasing of government reserved forestland for economic and various other activities.

The act defines removal of Tsamdro (grazing land registered in individual names – with usufruct rights only) from the individual ownership. Such grazing land will be reverted and maintained as Government land in towns and Government Reserved Forests land in rural areas. However, the Tsamdro can be leased contingent to eligibility clauses.

An individual household or community owning livestock shall be eligible to lease the reverted Tsamdro which have been converted to Government Reserved Forests land for use as Tsamdro based on herd size. However, preference shall be given to the previous rights holders and community. Highlanders who are directly dependent on Tsamdro may retain their Tsamdro rights under lease irrespective of possession of livestock and their herd size. Grazing and pasture development on Tsamdro shall be permitted based on a Tsamdro management plan. The Department of Forests, Department of Livestock, and the lessee shall be responsible to prepare Tsamdro management plan. The following shall be the basic profile of a Tsamdro management plan.

The Act also states that any mineral resources found in registered land belongs to the state and will be governed by the Mines and Minerals Management Act for its extraction (Section 69).

A right of way established over a land through local customs by uninterrupted use for a period of more than 5 years shall be respected and the landowner shall not object to its use (Section 268).

Forest and Nature Conservation Act of Bhutan, 1995: This Act ensures the protection and sustainable utilization of forests, fauna, and other natural resources of Bhutan to benefit present and the future generations. The Department of Forests and Parks Services is fully responsible for sustainably managing, protecting, producing, and regulating all natural

resources within Government Reserved Forests as well as outside. The Royal Government is empowered to declare any land in the country as a National Park, Wildlife Sanctuary, Wildlife Reserve, Nature Reserve, Strict Nature Reserve, Protected Forest, Research Forest, Conservation Area, Cultural or Natural Heritage Site, Biosphere Reserve, Critical Watershed or other category of Protected Area for the preservation of areas of natural beauty of national importance, protection of biological diversity, management of wildlife, conservation of soil and water and related purposes.

Wild animals and plants listed in the Schedule I are declared as totally protected. The Forest and Nature Conservation Rules of Bhutan 2017 has been formulated to support the implementation of this Act.

The Biodiversity Act of Bhutan 2003: The Act enables equitable sharing of benefits derived from the use of genetic resources, protects Traditional Knowledge, innovation and practices of local communities associated with biodiversity, prevents illegal access to genetic and biochemical resources and associated Traditional Knowledge. It provides for the conservation and sustainable use of biological and genetic resources, the equitable sharing of benefits from the use of genetic resources, as well as the transfer of technology and capacity-building at national and local levels on conservation and the use of biological diversity. Access covered by this Act shall be subject to the prior informed consent of the Competent Authority of Bhutan, representing national interests and the interests of the local communities, harbouring, cultivating, developing and maintaining the biological diversity concerned. Therefore, this act recognizes and protects Traditional Knowledge, innovation and practices of local communities associated with biodiversity. It supports the prevention of illegal access to genetic and biochemical resources and associated Traditional Knowledge.

National Access and Benefit Sharing (ABS) Policy (Draft), 2014: The National Access and Benefit Sharing (ABS) Policy is developed to guide access to Bhutan's genetic resources and associated traditional knowledge and ensure the fair and equitable sharing of benefits arising from their research and commercial utilization. The policy provides for security and trusteeship of the Bhutanese people over their biological resources and associated traditional knowledge and promote long term mutually supportive relationships based on trust between the providers and users of Bhutan's genetic resources and associated traditional knowledge.

The Water Act of Bhutan, 2011: The Act accords priorities for allocation of water for drinking, agriculture, energy, and industrial use, tourism and recreation and for other uses. It requires location of water to be based on the principle that water is a resource owned by the State and that every citizen has equal right to these resources. The Act stipulates that use of water should not result in denial of water to any individual or community, including downstream and upstream needs or discharge of any effluent directly or indirectly to any water resource unless the discharge is in compliance with the Effluent Discharge Standard. At the Dzongkhag level, the Act accords the Dzongkhag Environment Committee to function

as the Dzongkhag Water Management committee for the purpose of proper and effective protection and management of water resources.

The Water Act clarifies that the relevant local Governments in collaboration with religious bodies and Ministry of Home and Cultural Affairs have the responsibility for protection of therapeutical waters such as Menchhu, Drupchhu, Tshachhu and Neychhu. Blocking or otherwise altering an irrigation channel flowing through one's property shall not be allowed without the consent of the users of that channel, even where the channel is not required by the property owner. This Act is relevant in enabling safeguard measures in use of water for the project activities as well as for management of drinking and irrigation water within communities that are part of the project areas.

Livestock Act of Bhutan, 2001: An Act to regulate livestock breeding, health and production aimed at enhancing their productivity and preventing diseases so as to enhance rural income and livelihood. The Act facilitates only quality and appropriate breeds of livestock, poultry and fish to be introduced and requires that introduction and spread of diseases, particularly the notifiable and zoonotic diseases are prevented;

Waste Prevention and Management Act, 2009: Precautionary Principle of the Act, under section 8 defines that every person shall take all precautionary measures in maintaining a clean and healthy environment and further in its section 10, the Act prescribes that a person polluting the environment or causing ecological harm shall be responsible for the costs of avoidance, contamination, abatement, medical compensation, mitigation, remediation and restoration in application of the Polluter Pays Principle. The lead implementing agencies shall make arrangements (sections 22) for dealing with waste. This clause is applicable in management of waste in the protected areas in general and at locations of eco-tourism enterprises in the project areas.

National Environment Protection Act, 2007: This Act outlines principles and a legal framework that have implications for forest governance and management. It requires that a person taking natural resources from the environment, or deriving economic benefits from it, should ensure sustainable use and management of the resources and ecosystems.

Environment Assessment Act, 2000: This Act requires the government to ensure that environmental concerns are considered when formulating, renewing, modifying and implementing any policy, plan or programme. Issuance of an environmental clearance is to be a prerequisite to the issuance of a development consent. A project of the Royal Government that does not require development consent may commence only after receiving an environmental clearance from the Secretariat, which shall set out environmental terms for the project. An environment clearance is issued when the effects of a proposed project on the environment are foreseeable and acceptable; the applicant is capable of carrying out the terms of the environmental clearance; the project, alone or in connection with other programs or activities, contributes to the sustainable development of the Kingdom and the conservation of its natural and cultural heritage. It should also be clear that adequate attention has been paid to the interests of concerned people and that

the project is consistent with the environmental commitments of Bhutan.

When a decision on the environmental clearance has been taken, the Secretariat or the competent authority shall make a public announcement of the decision and make the following information available to the public:

- A description of the project;
- The environmental terms;
- A description of measures to avoid or mitigate potential adverse impacts and enhance positive impacts of the project;
- The main reasons and considerations on which the decision is based, including the basis for the acceptance or rejection of views and arguments presented by other authorities and concerned people;
- A non-technical summary of the information of the items included in the public announcement

However, information specified by the by the applicant to cause substantial harm to their commercial and industrial interests can be maintained confidential.

The act and ensuing notifications from the NECS identifies sectors that do not require environment clearances and delegates identified competent authorities to issue environment clearances for specified sectors. The act accords the secretariat or competent authority shall monitor and control compliance with the terms of environmental clearances. The competent authorities shall report annually to the Secretariat on implementation, monitoring and enforcement and the Secretariat shall report annually to the Commission.

The competent authority shall monitor, control and enforce the terms of the environmental clearance attached to development consents including ordering sanctions and compensation for environmental damage. The CA shall report annually to the NECs on implementation, monitoring and enforcement and the NECs shall report annually to the NEC.

The Regulations for Issuance of Environment Clearance for developmental activities requires that all developmental activities must undergo ESIA and obtain EC from the NECS or the designated CAs. According to the EA Act and its regulations, the ESIA demands public consultation, wherein consent of the affected families and individuals is required whenever there are impacts. The laws are also specific for conforming compensations and replacement of the properties if land acquisition and property displacement is involved (NEPA and EA Act). This may be applicable to the construction of infrastructure for park management, for promotion of ecotourism and minor maintenance and rehabilitation of existing facilities in the project areas. An EC issued by the CA or the NECS would include terms to ensure that the project is managed in an environmentally sound and sustainable way.

The Penal Code of Bhutan, 2004: A principle under the Penal Code of Bhutan define that one (victim) is considered capable of consent when the consent is not obtained by fraud,

duress, compulsion, or coercion; or one (victim) giving consent has authority to do so. This aspect is relevant as a principle in obtaining free and prior informed consent from local communities and stakeholders for BFL project activities affect or associate with community use.

The Water Policy, 2002: This Act recognizes that the sustained flow of good quality water depends on the integrity of the watersheds. It places an emphasis on water resource management within river basins and aquifers, including upstream and downstream water users. It calls for an integrated approach to the management of water resources and provides a directive to protect all forms of these resources. The policy seeks sound watershed management through extensive soil conservation, watershed area treatment, conservation of forests and increasing the extent of forest cover in order to reduce the incidence and intensity of floods.

National Forest Policy, 2011;The policy is based on the principles of equity and justice in access, optimal utilization, conservation of forest resources and its ecosystem services; contribution of forest products and services to poverty reduction; people centred forest management practices and application of good science and indigenous knowledge in all aspects of forest planning and management. It empower rural communities to manage forests sustainably for socio-economic benefits, poverty reduction and to contribute to overall sustainable forest management at national level. The policy envisions the network of PAs and BCs to maintain species persistence and ensure long term sustainability of Bhutan's biodiversity, ecosystem services, natural habitats and cultural heritage for positive environmental outcomes. It calls for integration of conservation of cultural/sacred, heritage sites, local water supply sources and riparian reserves, soil protection, specific wild floral/faunal habitat and species protection, historical/cultural sites and local traditions in PA management. The policy provides an enabling environment for promotion of nature-based tourism to bring benefits to local communities and enhance conservation in the PAs and BCs. It also include enabling creation of public recreational areas and/or facilities that should managed based on code of best practices. It allows regulated grazing in multiple-use and buffer zones although not in the core zone and requires development and implementation of measures to protect natural ecosystems against invasive alien plant species.

Forest and Nature Conservation Rules and Regulations of Bhutan, 2017: It restricts allotment of land within the PAs except to the local residents and for public service facility. Land allotment in such cases can happen only when nearby the existing inhabited area; gradient is less than 45 degrees of 100%; land is located beyond 30 meters of the bank or edge of any river and 15 meters of stream or water source; when not within 180 meters uphill or 90meters downhill of national highway. Such lands should be located beyond 500 meters of existing monastery or dzong. The regulations restricts livestock grazing shall in the area fenced for natural regeneration for a specified period and in the plantation area whether fenced or not till the seedlings are well established. It allows goat grazing only within a confined area and not freely in SRF. However, the regulations provides right of

ways to existing “tsalam” and ‘chulam”, traditionally used during the migration, provided, such routes are not lawfully closed by the Government.

The regulations requires that that PAs must prepare Management Plans in consultation with local community, local authority and other member of the public who are affected by the Protected Area as well as other relevant stakeholder or recognized Civil Society Organization (CSO).

Land Rules, 2007: The land rule specifies details on land acquisition and lease. It requires private registered lands shall be acquired only under unavoidable circumstances and not without providing appropriate compensation based on valuation by the PAVA. Land under acquisition shall be taken over only after registering the substitute land in the name of the affected landowner or cash compensation has been made to the landowner.

It allows the lease of land from the SRF. However such land should be used based on an approved management plan. This requirement covers land leased for commercial agriculture, grazing and sokhshing. Lease of SRF for commercial farms and sokshing should not be for a period beyond 30 yrs while that of grazing should be renewed every 10 years.

Lease of SRF for grazing is based on livestock ownership and herd size while that for agriculture is based on ownership and size of agriculture land. However, highlanders shall be eligible for Tsamdro on lease, irrespective of possession of livestock and herd size. They are also eligible to sub-leased the leased Tsamdro.

The Moveable Cultural Property act of Bhutan, 2005: Requires that all cultural properties shall be registered in the name of the Dratshang, the Government, Community or private individuals based on their ownership. Cultural Property registered in a Thram shall not be sold, used for personal means, exchanged, gifted or damaged. Considering that foreign visitors are often not familiar with the Cultural Property Act of Bhutan, it is the legal responsibility of the concerned agency/host/guide to brief the visitor on the Act where applicable.

If any items considered to be Valuable Cultural Property, as mentioned under Section 59, are discovered during the construction of roads or buildings or any other related works, this discovery shall be immediately reported to the Department of Culture through the concerned Dzongkhag.

Regulation for the Environmental Clearance of Projects, 2001; The regulations require that environmental clearance shall be issued only after screening and assessing the environmental impacts of such projects. For the environmental screening process should include, the applicant should submit complete environmental information comprising of

- The potential adverse effects of the project on the environment including the direct, indirect and cumulative effects;
- Compliance with relevant sectoral guidelines or code of best practices, if any, issued by the Secretariat or Competent Authorities;
- How impacts of the project will be avoided, minimized or reduced; and
- The environmental benefits of the project, including how the project will benefit

concerned people and use clean and sustainable technologies.

The Secretariat or Competent Authority shall screen the application for environmental clearance as per sectoral guidelines. The Secretariat or Competent Authority may issue an environmental clearance for the project on the basis of the environmental application with terms and conditions or may ask the applicant to carry out environmental assessment or issue a blanket denial to the project. If an EC is issued, the NECs or the CA shall issue a public notification.

If the NECs or CA requires the applicant to conduct the environmental assessment, the following procedure applies;

1. The applicant is shall draw up terms of reference for the environmental assessment report which has to be approved by the NECs or CA
2. Applicant shall prepare an environmental assessment report consistent with the terms of reference approved by the Secretariat or Competent Authority
3. In the process of the EA report preparation, a public consultation must be held

Upon receipt of complete environmental assessment report and completion of the public notice procedures, the NECs or the CA may issue an environmental clearance with binding mitigation and compliance measures as well as appropriate monitoring, recording and reporting requirements.

Annex 10: Chance Find Procedure

Mitigation/Monitoring Action	Responsibility	Schedule
i) If operating machinery or equipment: stop work ii) Identify the site with flag tape iii) Determine GPS position if possible iv) Report findings to Site In-charge	Person who comes across archaeological or heritage material	As and when observed
v) Report findings, site location and actions taken to the PA/BC Management vi) Hold any works in immediate vicinity	Site In-charge	As and when reported by the person who has observed archaeological or heritage material
vii) Site and determine whether work can proceed without damage to findings viii) Determine and mark exclusion boundary ix) Site location on the map and add other of the place for field confirmation by archaeologist or cultural experts from the Dzongkhag	Park Manager or CFO of concerned Biological Corridor	As soon as the report by the Site In-charge
x) Inspect site theDzongdag, Concerned Gup and Dzongkhsg Cultural Office; xi) Confirm additional information and location on the map xii) Advise the Dzongkhag Culture Officer and request written permission	Archaeologist, Dzongdag, Gip/Dzongkhag Culture Officer, PM/CFO	As soon as the confirmation by archaeologist
xiii) Report to the Department of Culture	Dzongdag	

Annex 11: Procedural guidance for land user rights

Steps	Actions	Time line	Responsible
1	<p>Submission of application (letter of intent) to the Dzongkhag or Thromde Administration (Dzongkhag/Thromde Land Acquisition Committee). The application should contain:</p> <ul style="list-style-type: none"> • Purpose of the land • Area required • Owner detail (in case of private land) • Location of the proposed land • Avoid selecting Chhuzhing or land belonging to Dratshang • Include private land only under unavoidable circumstance • Clearance from the Ministry of Agriculture and Forests in case of Government land 		PA/BC Management
2	The Dzongkhag Administration submits the application for preliminary approval to the NLC		Dzongkhag Land Records Officer
3	Preliminary approval by NLCS	2 weeks after receipt of the application	NLCS
4	If feasible, the Secretariat shall instruct the Dzongkhag/Thromde Committee to submit a detailed report or informs the applicant otherwise, stating the reasons.		
5	Dzongkhag/Thromde submits the detail report to the NLCS		
6	Upon final decision (from the NLC) the NLCS shall convey to Dzongkhag Committee	Within 1 month from date of receipt	
7	Release of the government land in case of acquiring government land as per the decision of NLC	Within 30 days from the decision of the Commission	DFO/Park Manager/Thromde

Annex 12: Procedures for a Pest Management

Pest Management under the PFL project will follow the national system and preference for integrated pest management approach. The popular pest and likely integrated pest management options is presented on the following table. The pest management process will include the following process:

- Adopt the integrated pest management options presented in the table of recommendations that does not include use of chemicals. This is based on recommendations from the NPPC.
- Adopt chemical applications recommended in the list of recommendations, if the non-chemical methods fail. This should be done in consultation with the local agriculture extension officer.
- Refer to the National Plant Protection Center through the local agriculture extension officer.

Note: The Project will not support the procurement or use of any pesticides categorized IA, IB, or II by the World Health Organization or other agricultural chemicals, or lead to the increased use of such chemicals.

Type	Recommended Action (based on NPPC technical recommendation)
● Entomology	
Army worm	Flooding seedbed, cut grass weeds
	Plough or dig a deep ditch
	Prevent the caterpillars and chemical spray
Chinese Citrus Fruitfly	Fruit drop collection and burying
	Bait splashing with malathion and a bait of protein
Potato Tuber Moth	Use of healthy tubers as seeds and plant deep
	Harvest when tubers are ripe
	Use pheromone traps
	Clean stores and use closed stores
Chili Pod Borer	Deep ploughing
	Flooding the field

	Collecting and destroying the infested chilli pods
Cabbage White Butterfly	Grow cabbage as an early crop
	Hand-picked the eggs and destroy
	Spray Cypermethrin in case of serious problem
Lichens in Apple	Mechanical control: Use a gunny bag or a cloth to scrub the lichens right after rainfall
	Control using Lime + Water
Super Grain bag	Do not over fill the super bag
	Do not puncture or damage the bag
	Always use the outer bag for carrying
	Seal properly
	Do not use Hooks to hang the bags
Diamondback Moth	Weed control and tillage
	Consider insecticide application when larvae are visible
Red spotted long horn beetle	Check the lower two feet of citrus trees regularly for tiny wet or swollen spots. Scrape the bark open with a small knife and kill the small larvae. Remove weeds around the trunk to make checking easier
Red Palm Weevil	Avoid injuries on stems of arecanut
	The entire heavily affected tree should be destroyed immediately
	Mass trapping by using pheromone traps has been used to reduce red palm weevil densities.
	Trunk injection and prophylactic spray of dimethoate
Woolly Aphid	Removed colonies from the tree with the jet power sprayer filled with plain water
	Application of tree spray oil
	Spray Chlorpyrifos or Cypermethrin if seriously infested
Insect Pheromones	Use Pheromones traps
Gals	Hand collection and destroying
	Monitor movement of vehicles, agricultural, forestry and livestock goods, construction materials, and furniture at Checkpoints

San Jose Scale in Apple	Badly affected twigs or branches should be pruned and burnt
	Use Tree Spray Oil in winter
Shield Bug	Spot or selective spraying early in the morning
	Protect Red Tree Ants and even increase the number of tree ants by placing ant nests from forest trees in the mandarin trees
● Pathology	
TLB and GLS	Cultural: plough stubbles right after harvesting for decomposition
	Avoid planting in the same areas if possible
	Chemical: Spray fungicide
Powdery Mildew	Follow the recommended spacing between the plants for each crop
	Plant in sunny area as much as possible
	Use nitrogen rich fertilizer only sparingly and when absolutely necessary
	Separate or isolate infested plants from healthy ones
	Prune infected shoots and destroy fallen and infected leaves
	Chemical: Apply sulphur or copper-based fungicides
Late Blight in Potato	Good site selection, crop rotation and proper irrigation
	Spray mancozeb or zineb
	Cultivate recommended varieties
Citrus Huanglongbing	Regulation and quarantine
	Reduction of inoculum by removing infected trees
	Vector monitoring and control Citrus HLB is a vector borne disease.
Chilli Blight	Use healthy seedlings, transplant seedlings on raised beds, do not leave any depression around plant base
	Use furrow irrigation
Apple Rust	First spray of Hexaconazole during the pink bud stage
	Second spray of Hexaconazole after petal fall
	Third spray of Hexaconazole 14 days after second spray

Downy Mildew in Cabbage	Practice crop rotation with non-brasslike species
	After harvest, collect and burn debris, or plough the remains into the soil
	Use seed treated with hot water or seedlings raised from such treatment
Anthracnose in Beans	Use disease-free seeds, intercrop with maize and plant in widely spaced rows
White blister in Broccoli	Destroy brassica crops soon after harvest to remove the host plants, apply adequate phosphorus and potassium nutrition
<p style="text-align: center;">● Weeds & Vertebrate Pests</p>	
Alternanthera sessilis	Cultural control: Flooding, hand weeding or tillage at the early stage.
Cyperus diformis	Early continuous flooding in rice field to a depth of 20 cm strongly suppress the growth. Hand weeding, proper tillage and trampling in puddled fields
Cyperus rotundus	Stale seed bed; suppressive crop with narrow rows; high plant density and flooding
Ischaemum rugosum	Early continuous flooding and early removal by hand weeding or hoeing
Parthenium hysterophorus	Uprooting or hoeing the plants out, collecting and burning the weeds before flowering
Paspalum distigum	Early continuous flooding and deep burial and tillage during dry season
Potamogeton-distinctus	Dry ploughing some time ahead of transplanting, the flooding and wet-ploughing immediately before transplanting and hand weeding
Scirpus-juncoides	Wet or dry cultivation, early flooding; dry field to stop re-growth after rice harvest
Trifolium-repens	Dry tillage after harvest to desiccate rhizomes
Scurrula-elata	Pruning the branches of the fruit tree on which it occurs and also destroying infestation so far as possible in neighboring wild trees to reduce the risk of spread into the crop

Annex 13: Format for Safeguard Eligibility and Impacts Screening for Sub-components

PART 1: BASIC INFORMATION

1	BFL Activity Name	
2	Type of Activity:	New activity <input type="checkbox"/> Rehabilitate <input type="checkbox"/>
3	Project location:	
	Chiwog/Village:	
	Gewog:	
	Dzongkhag:	
	PA/BC	
4	Design Parameters (area/length)	
5	Preparation period	
6	Construction	
7	Project completion and operation	
8	Is construction carried out in rainy season?	
9	Acquired land area (acres)	
10	Total investment capital	

(Move to Part 2 after filling in all information in the table above)

PART 2: ELIGIBILITY SCREENING

No.	Screening Questions	Yes	No	Comments/ Explanation
	<i>Would the project activity be?</i>			
1.	Located or disturb a land area located within 5 kilometers from any primary forest, core zone of any protected areas, specialized forest, areas biologically importance?			
2	Located or disturb areas of critical natural habitats, breeding ground of known rare/endangered species?			
3	Disturb areas having landscape or historical values?			
4	Require relocation of any known physical cultural resources such as			
a	<i>Lhakhangs, Chortens, Mani Dungkors</i>			
b	<i>Duthrues</i> (Cremation grounds)			
c	Statues, monuments, historical sites,			
d	Community cultural centre			
e	Buildings, sacred trees or objects having spiritual values to local communities			

Notes:

- If all answers are “No”, project activity is eligible and move to Part 3
- If at least one question answered as “yes”, the project activity is ineligible and the proponent can reselect the site of project activity and do screening again.

PART 3: IMPACTS SCREENING

Answer the questions below and follow the guidance to provide basic information regarding the suggested activity and describe its potential impacts.

General Information

Name of the suggested activity:

Proposal for new project/expansion of existing project:

Name of the project proponent with following details

Name of the applicant:

Address:

Phone/Fax:

Email:

Location of the project (Dzongkhags/ Geogs/ Thromdeys):

Geographical details

i) Latitude

ii) Longitude

iii) Elevation above Mean Sea Level

Cost of the project:

Does the project falls in Notified Industrial Area/Estate (Yes/No):

If yes, then:

Total land required for the project (in ha):

If no, then:

Describe the total land requirement as well as the current land use pattern of the proposed project site under the following headings:

Agricultural

Government

Forest

Private

Others

Total

If it is private land, and if land acquisition is involved then

Number of families or households likely to be displaced: *NA*

Number of houses likely to be demolished: *NA*

Alternative sites considered (not applicable for projects coming in notified industrial area/state)

i) *None*

ii) _____

iii) _____

iv) _____

State the reasons for selecting the proposed site:

Describe whether proposed land use is as per approved Master Plan/ Development plan of the area. If there is no approved plan, the consent from appropriate authority should be taken and should be submitted along with the screening form or at the time of Environmental Clearance. If an area is outside municipal limits/ outside planning area, a full justification for the proposed development should be provided.

Describe the terrain characteristic at the project site and in surrounding area:

Presence of any of the following within the study area (core and buffer area) of the project

River

Spring, stream, water crossing

Flood plain, if applicable

Forest, then status of forest

Wildlife Habitat

Habitat of endangered/threatened/endemic species

Others

Presence of any of the following within the study area (core and buffer area) of the project

Historical site

Defense installation

Hospital

Presence of religious site or archaeological site

Any others sensitive receptors

Note: The Study area will be decided by NECS/CA

Is the proposed site located in a low-lying area?

Yes No

If yes,

Level before filling (above MSL, in meters)_____

Level after filling (above MSL in meters)_____

Quantity of Fill Material required (in cum.)	Source

Does the project require cutting of trees?

Yes No

If yes, please furnish the following details:

How many trees are proposed to be cut?

Species of the above trees

Are there any protected/endangered species?

Yes

No

If yes, provide details:

Numbers of vehicles likely to be increased during project's construction/operation, if applicable:

Description of existing infrastructure such as, roads, educational facility, health centre, other industries, commercial area etc. in the project study area

Project details

Type of project (industrial/commercial/residential/ waste management etc)

Describe the project activities

Technology to be used

Provide the following details, wherever it is applicable

Total site area: ---sq feet

Total built up area (provide area details) and total activity area:

Source of water and total water requirement (m^3/day)

Source of energy and total energy requirement

Parking/Stockyard requirements

Describe the list of raw materials to be used in the manufacturing process, their daily consumption, sourcing, and methods of storage.

Describe list of hazardous chemicals, toxic or inflammable substances (including carcinogenic materials) to be used in the process, if yes, then specify

Type of material

Daily requirements

Storage methods

Details of waste types (solid/liquid and gas) including the quantity and characteristic of waste, if any.

Employment potential in term of numbers, during construction and operational stage including the daily or average working hour:

Table 1: Sensitivity of the project site and adjoining areas

S.No	Information/Checklist confirmation	Yes/No	Provide explanation and supporting documents wherever applicable
	The suggested activity is located in an area protected under international conventions, national or local legislation for their ecological importance		
	The suggested activity will affect the access of people to common resources. For example, the site was initially used as common grazing land, or fishing pond, or source of revenue for local community/ community forests etc.)		
	The suggested activity entails risk to aquatic flora and fauna due to release of wastewater		
	The suggested activity's site or adjoining areas used as routes by the public/tourists /pilgrims to access recreational/tourist site or pilgrimage areas in the vicinity		
	The suggested activity's site or adjoining areas occupied by sensitive man-made land user (<i>schools, park, playground/religious site/community facilities</i>)		
	The suggested activity's site or adjoining areas already subjected to pollution or environmental damage. (<i>Where existing legal environmental standards have exceeded</i>)		
	The suggested activity is located in an area susceptible		

	to natural hazard such as <i>earthquakes, subsidence landslides, erosion, flooding or extreme or adverse climatic conditions</i>		
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Table 2: Change in physical structure (topography, land use, changes in water bodies, etc.) due to construction and operation of the development project

S.No	Information/Checklist confirmation	Yes/No	Provide explanation and supporting documents wherever applicable
	Potential to cause permanent or temporary change in land use, land cover or topography.		
	Will the suggested activity involve clearance of existing land vegetation?		<p>Number of trees to be cut down:</p> <p>Total land area of vegetation cover removed:</p> <p>Estimated economic value of the trees, crops and vegetation to be cut down / removed and any replacement costs (e.g., fees, registration, taxes):</p>
	Will the suggested activity involve demolition of existing structures?		
	Will the suggested activity trigger land disturbance, erosion, subsidence and instability		
	Will the suggested activity involve construction of new roads during construction and operation?		
	Will the suggested activity involve closure or diversion or realignment of existing natural drain?		
	Will the suggested activity have potential to increase influx of people either temporarily (workers) or permanently to an area?		

	Will the project involve abstraction or transfers of water from ground or surface water?		
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Table 3: Use of resources for construction or operation of the project (such as land, water, materials or energy)

S.No	Information/Checklist confirmation	Yes/No	Provide explanation and supporting documents wherever applicable
	Expected quantity of water to be used by the project during construction and operation including source of water		
	Expected Quantity of construction materials to be used – stone, aggregates and soil (in MT) and mode and place of sourcing.		
	Energy requirement – electrical energy (in kWh) and fuel (coal, gas, diesel others in tons) and mode of sourcing.		
	Will the suggested activity interrupt with power line right of way, irrigation canals, drains, roads, etc. exist, they may be affected or cause any other blockage?		
	Any other resources (use appropriate standard units)		

Table: 4 Production of solid wastes and liquid during project construction and operation

S.No	Information/Checklist confirmation	Yes/No	Provide explanation and supporting documents wherever applicable
	Will the suggested activity have potential to generate solid wastes, if yes, then specify types and quantity of wastes, wherever it is applicable		

	Will the suggested activity have potential to generate sewage sludge, wastes such as domestic and commercial wastes		
	Will the suggested activity have potential to produce hazardous waste from process, treatment plant and other allied activities?		
	Any other wastes (specify)		

Table: 5 Air pollution and emissions

S.No	Information/Checklist confirmation	Yes/No	Provide explanation and supporting documents wherever applicable
	Will the suggested activity have potential to alter ambient air quality during construction and operation?		
	Emissions from production processes and/or utilities, specify the type of pollutants, if applicable.		
	Potential to generate odour from handling, storage, process and operation of pollution control equipment.		
	Emissions from incineration of waste, if applicable. If yes, specify the type of pollutants.		
	Potential to generate fugitive emissions		
	Potential to release gaseous pollutants, if yes, then specify		
	Will the suggested activity have potential to release toxic gas from handling, transport, storage and its use?		
	Any other emissions, specify		

Table 6: Generation of noise

S.No	Information/Checklist confirmation	Yes/No	Provide explanation and supporting documents wherever applicable
	Will the suggested activity have potential to alter the ambient noise due to the following listed activities Construction of project Plant operations Increase in traffic		
	Will the suggested activity have potential to increase the risk of occupational noise hazard or cause disturbance to adjoining human settlements?		
	Any other potential sources that may cause occupational hazard specify.		

Table 7: Risks of contamination of land or water from release of pollutants into the sewers, surface waters and groundwater

S.No	Information/checklist confirmation	Yes/No	Provide explanation and supporting documents wherever applicable
	Located in potential erosion/landslide prone area		
	Will project activities increase the sediment load in the local water bodies?		
	Potential to contaminate land and water due to handling, transport, storage of raw material/chemical or hazardous substances		
	Discharge of sewage or other effluents to water or land (Expected mode and place of discharge)		
	Will the suggested activity change on-site or downstream water flows (including increases or decreases in peak and flood flows, low flows through extraction diversion or containment of surface of ground water e.g. through dams, reservoirs, canals, levees, river basin developments, ground water extraction) or through other activities?		
	Will the suggested activity affect water quality of waterways (e.g. through diffuse water pollution from agricultural run off or other activities?		
	Is there a risk that the suggested activity negatively affects water dynamics, river connectivity or the hydrological cycle in ways other than direct changes of water flows (e.g. water filtration and aquifer recharge, sedimentation)? Also consider		

	reforestation activities as originators of such impacts.		
	From any other sources, specify		

Table 8: Negative Impacts on Species

S.No	Information/checklist confirmation	Yes/No	Details thereof (with Approximate quantities /rates, wherever possible) with source of information data/ provide explanations, Wherever applicable.
	<p>Will the suggested activity result in negative impacts to any endemic, rare or threatened species; species that have been identified as significant through global, regional, national, or local laws, treaties, or processes; species with a narrow range?</p> <p>Does the suggested activity introduce or use potentially invasive, non-indigenous, species?</p> <p>Will the suggested activity have negative impacts on other native species?</p>		

Table 9: Climate Change

S.No	Information/checklist confirmation	Yes/No	Details thereof (with Approximate quantities /rates, wherever possible) with source of information data/ provide explanations, Wherever applicable.
	<p>Have historical, current, and future trends in climate variability and climate change in the suggested activity area been taken into consideration?</p> <p>Is the suggested activity area prone to specific climate hazards (e.g., floods, droughts, wildfires, landslides, cyclones, storm surges, etc.)?</p> <p>Are changes in biophysical conditions in the suggested activity area triggered by</p>		

	<p>climate change expected to impact people's livelihoods?</p> <p>Is there a risk that current or projected climate variability and changes might affect the implementation of the suggested activity or its effectiveness and the sustainability of the project (e.g., through risk and events such as landslides, erosion, flooding, or droughts)?</p> <p>Could the suggested activity potentially increase the vulnerability of local communities and the ecosystem to current or future climate variability and changes (e.g., through risks and events such as landslides, erosion, flooding or droughts)?</p> <p>Does the suggested activity seek opportunities to enhance the adaptive capacity of communities and ecosystem to climate change?</p> <p>Will the suggested activity lead to significant increases of greenhouse gas emissions?</p>		
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Table 10: Pest Management

S.No	Information/checklist confirmation	Yes/No	Details thereof (with Approximate quantities /rates, wherever possible) with source of information data/ provide explanations, Wherever applicable.
	<p>Does the suggested activity use or promote the use of any substances listed under the Stockholm Convention on Persistent Organic Pollutants?</p> <p>Will the suggested activity involve or promote the use of pesticides and/or fertilizers?</p> <p>If pesticides/fertilizers are to be used, what pesticides or fertilizers will be used?</p> <p>Are they a product classified by the World Health Organization as Classes IA, IB, or II?</p> <p>Will the procurement of the pesticides, procurement of suitable protective and application equipment, and intended usage comply with the FAO International Code of Conduct on the Distribution and Use of Pesticides?</p>		

	Has full consideration been given to the transport, storage, application, distribution, and disposal of the pesticides and fertilizer?		
	Has full and due consideration been given to the potential impacts of that use of pesticides/fertilizers on the health of project executors and nearby communities?		

Table 11: Risk and disaster

S.No	Information/checklist confirmation	Yes/No	Details thereof (with Approximate quantities /rates, wherever possible) with source of information data/ provide explanations, Wherever applicable.
	Activities/operations or processes leads to fire risk/ explosion/ electrocution and others.		
	Risk of road accident		
	Any other risk, specify		

Table 9: Information on Socio-economic environment

S.No	Information/checklist confirmation	Yes/No	Provide explanation and supporting documents wherever applicable
	Will the suggested activity involve land acquisition?		
	<p>Access to livelihoods</p> <p>Will the suggested activity introduce restrictions on access to natural resources (e.g., watersheds or rivers, grazing areas, forestry, NWFP) or restrict the way natural resources are used, in ways that will impact livelihoods? This may be the result of new legal restrictions (e.g., on hunting) or law enforcement activities; creation or enforcement of new protected areas; demarcation of land boundaries, etc.</p> <p>Does the suggested activity involve restriction of access to sacred sites of indigenous communities or other local communities' and/or places relevant for women's or men's religious or cultural practices?</p>		

	<p>Cultural heritage Is the suggested activity located in or near a site officially designated or proposed as a cultural heritage site (e.g. UNESCO World Cultural or Mixed Heritage Sites or Cultural Landscapes) or a nationally designated site for cultural heritage protection?</p> <p>Does the suggested activity area harbor cultural resources such as tangible, movable or immovable cultural resources with archeological, historical, cultural, artistic, religious, spiritual or symbolic value for a national, people or community. This could include burial grounds, buildings, monuments or cultural landscapes.</p> <p>Will the suggested activity involve excavation or movement of earth, flooding or physical environmental changes (e.g., as part of ecosystem restorations? Will this physical intervention affect known or unknown (buried) cultural resources?)</p>		
	<p>Impacts on local culture due to construction If construction takes place agriculture area, construction materials, waste, wastewater and surface runoff from construction sites, camps may enter rice or plantation nearby disturbed areas and cause loss or harm to plants, trees</p> <p>Dust, noise, vibration from construction or interactions between workers with local people may cause nuisance and conflict between the workers and local community. In some cases, workers may also involved in “social evils” in the project areas such as gambling, drinking, drugging, etc. to have bad impacts on local people, particularly where ethnic minority groups present.</p>		
	<p>Occupational health and safety Will the suggested activity involve any risks related to transportation and loading of construction materials, working high above the ground or in canals where slopes are unstable, machinery operations, electrical uses for office, camp and construction</p>		
	<p>Community health and safety If local people presence at or near construction site, they would be exposed to safety risks related to construction (e.g., loading and unloading of construction materials, excavated areas, fuel storage and usage, electrical use, machinery operations etc, adequacy of accommodation etc.).</p>		
	<p>Participation and consultation Does the project respect the rights of local communities with customary rights to lands and resources to free, prior, informed consent to interventions directly affecting their lands, territories or resources? Does the project support traditional conservation initiatives and/or promote related</p>		

	enabling policies, legislation, and participation in broader processes?		
	Vulnerability Is there a risk that the project might negatively affect vulnerable groups in terms of material or non-material livelihood conditions or contribute to their discrimination or marginalisation (only issues not captured in any of the sections above)?		
	Community conflicts Is there a risk that the project would stir or exacerbate conflicts among communities, groups or individuals? Also consider dynamics of recent or expected migration including displaced people		
	<i>Identify and describe site-specific and type-specific issues, concerns, risks, potential impacts</i>		

List of documents to be attached with this IESE form:

1	Layout plan of the project
2	Summary of the project proposal
3	No objection certificate from various departments and others relevant stakeholders (applicable if EA is not required)
4	Environment Management Plan (applicable if EA is not required)

Screening Conclusions.

- i. Main environmental issues are:.....
- ii. Permits/ clearance needed are:
- iii. Main social issues are.
- iv. Land acquisition and involuntary resettlement (permanent or temporary) if any;
- v. Further assessment/ investigation needed and next step.
 - a. Need for any special study:.....
 - b. Preparation ESMP (main issue to be addressed by the ESMP):.....
 - c. Any other requirements/ need/ issue etc:

Screening Tool Completed by:

Signed:

Name: _____

Title and Date: _____

Screening Tool Reviewed by:

Signed:

Name: _____

Title and Date: _____

Annex 14: Format for Environmental and Social Compliance Monitoring

Project Activity/Contract package:

Monitoring Officer:

Name: Mobile phone number email

Date reporting:

	Environmental issues	Description of Mitigation Measures/Grievance redress implemented	Evaluation 1=good; 0 = acceptable; -1 = bad
1	Dust, smoke		
2	Noise, vibration		
3	Disturb vegetation cover, cut trees		
4	Waste generation		
5	Water pollution		
6	Localized flooding		
7	Traffic disturbance		
8	Public health and safety		
9	Damages or disrupt operations of existing infrastructure		
10	Disturb Socio economic activities		

11	Social impacts related to mobilization of workers to the site		
12	Impacts on physical cultural objects		
13	Allegations of fraud		
14	Complainst/grievances from workers in the project activities		
15	Others (specify)		

Signature

Name and Designation

Name of the CA

Annex 15: Environmental Assessment Report Format

- (i) **Title Page** - Name and location of the project/activity, the name of the proponent, the name, qualification and address of the preparer;
- (ii) **Table of Contents**
- (iii) **Terms of Reference** - A copy of terms of reference approved by NECs of the CA
- (iv) **Project Summary**
 - Name and location of the project
 - List of any development permit or public financial assistance and summary of the current status of each application
 - Summary of alternatives to the project/activity
 - Summary of potential environmental impacts
 - List of mitigation measures for the project
- (v) **Project Description**
 - Type, size, and proposed use of the project
 - Objectives and anticipated benefits
 - Physical characteristics of the project and its surroundings location map and site plan,
 - Timetable, approximate cost, and the methods and timing of establishment
- (vi) **Alternatives to the Project**
 - Feasible alternatives and analysis of the feasible alternatives
 - Principal differences among the feasible alternatives regarding potential environmental impacts;
 - Alternative of not undertaking the project and alternatives not considered with reasons
 - Environmental management
- (vii) **Existing Environment** - Physical, biological, chemical, economic, and social conditions of the project site
- (viii) **Assessment of Impacts**
 - Negative and positive potential environmental impacts (in quantitative terms, to the maximum extent practicable)
- (ix) **Mitigation Measures**
 - Assessment of physical, biological and chemical measures and management techniques designed to limit negative environmental impacts or to cause positive environmental impacts during development and operation
- (x) **Compliance** - with relevant sectoral guidelines of best practices
- (xi) **Response to Comments** - received from NECs or the CA
- (xii) **Appendices.**

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