



**ROYAL GOVERNMENT OF BHUTAN  
MINISTRY OF AGRICULTURE AND LIVESTOCK**

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**BUILDING RESILIENT COMMERCIAL SMALLHOLDER AGRICULTURE  
(BRECSA)**

**Environmental, Social, and Climate Management Plan (ESCMP)**

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Project Management Unit

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## Contents

1. Introduction .....	1
1.1 Project Background .....	1
1.2 Project Goal and Objectives.....	1
1.3 Project Landscape and Beneficiaries.....	1
1.4 Project Components and sub-components.....	1
1.4.1 Component 1: Resilient Production System .....	1
1.4.2 Component 2: Strengthened Value Chain Coordination and Market Linkages .....	2
1.4.3 Component 3: Innovative and competitive agri-food sector.....	2
1.5 Scope of ESCMP .....	2
1.6 Purpose of ESCMP .....	2
2. Policy and regulatory frameworks .....	3
3. Environmental, Social, and Climate Impact Assessment.....	5
3.1 Environmental Assessment.....	5
3.2 Climate Change Assessment .....	6
4. Social, Environmental and Climate Assessment Procedures (SECAP).....	8
4.1 Bhutan’s Environmental, Social, and Climate Assessment and Permitting.....	9
4.2 Procedures for screening, assessment, and management.....	10
4.3 Abbreviated environmental, social and climate management plans .....	13
5. Environmental, Social, and Climate Management Plan.....	22
6. ESCMP Implementation Arrangements.....	39
7. ESCMP Monitoring Arrangements.....	42
8. Compliance Monitoring.....	45
Bibliography .....	46
Annexure 1: IFAD screening checklist.....	47
Annexure 2: ESCMP Template for Livestock Systems (Piggery/Dairy/Poultry) .....	57
Annexure 3: ESCMP Template for Infrastructure / Market Facilities.....	59
Annexure 4: ESCMP Template for Irrigation Schemes .....	61
Annexure 5: ESCMP Template for Greenhouse.....	62
Annexure 6: ESCMP Template for Coffee & Vegetables.....	63
Annexure 7: ESCMP Template for Rural Access Roads (e-hubs internal-connectivity).....	64
Annexure 8: ESCMP Template for Fencing (All types of fencing promoted to address human-wildlife conflict).....	65

## List of Tables

TABLE 1: LOCATION-SPECIFIC RISKS AND IMPLICATIONS .....	7
TABLE 2: CLASSIFICATION OF CATEGORY THAT NEEDS TO HAVE ESC.....	9
TABLE 3: CATEGORIZATION OF PROJECTS AGAINST THRESHOLDS AND LEGAL REFERENCES.....	11
TABLE 4 ENVIRONMENTAL IMPACTS AND MITIGATION/ADAPTATION MEASURES FOR THE VALUE CHAIN .....	13
TABLE 5: SOCIAL IMPACTS AND MITIGATION/ADAPTATION MEASURES THE VALUE CHAIN .....	15
TABLE 6: CLIMATE IMPACTS AND MITIGATION/ADAPTATION MEASURES THE VALUE CHAIN .....	17
TABLE 7: ENVIRONMENTAL IMPACTS AND MITIGATION/ADAPTATION MEASURES FOR INFRASTRUCTURE AND SUPPORT FACILITIES .....	19
TABLE 8: SOCIAL IMPACTS AND MITIGATION/ADAPTATION MEASURES FOR INFRASTRUCTURE AND SUPPORT FACILITIES .....	20
TABLE 9: CLIMATE IMPACTS AND MITIGATION/ADAPTATION MEASURES FOR INFRASTRUCTURE AND SUPPORT FACILITIES .....	20
TABLE 10: OVERALL ENVIRONMENTAL, SOCIAL, AND CLIMATE MANAGEMENT PLAN .....	22
TABLE 11: RACI (RESPONSIBLE, ACCOUNTABLE, CONSULTED AND INFORMED) RESPONSIBILITY MATRIX .....	40
TABLE 12: LIST OF THEMATIC ACTIVITIES THAT REQUIRE ESCMP .....	41
TABLE 13: IMPLEMENTATION ARRANGEMENTS .....	42
TABLE 14: ACTION PLAN AND TIMEFRAME FOR ESCMP.....	43
TABLE 15: COMPLIANCE ACTIONS AND GOVERNANCE FRAMEWORK .....	45

# **Environmental, Social, and Climate Management Plan (ESCMP) for BRECSA**

## **1. Introduction**

### **1.1 Project Background**

The Ministry of Agriculture and Livestock (MoAL) of the Royal Government of Bhutan (RGoB) requested the International Fund for Agricultural Development (IFAD) and the World Food Program (WFP) to prepare a Concept Note for submission to the Sixth Call of the Global Agriculture and Food Security Program (GAFSP). IFAD is the Supervising Entity for Investment and the Lead Implementing Partner Agency, while WFP is the Supervising Entity for Technical Assistance and Implementation Support.

BRECSA will facilitate the transformation of Bhutan's agri-food sector by adopting a climate-resilient, nutrition-sensitive, and commercial value chain approach. It will focus on agro-ecological production, empowering farmers, youth groups and cooperatives, investing in production and marketing infrastructure, introducing internationally recognized food standards, and promoting an enabling financial, policy and innovative digital environment.

BRECSA is built on IFAD's prior and on-going projects and programs in Bhutan such as the Commercial Agriculture & Resilient Livelihood Enhancement Programme (CARLEP) in six eastern Dzongkhags and other donor funded projects. BRECSA will be implemented in four central and south-central Dzongkhags (Districts) of Sarpang, Tsirang, Trongsa and Zhemgang comprising 37 Gewogs and 539 villages. The total direct beneficiaries will be 12,074 farming households (47,088 beneficiaries), out of which 60% will be women and 30% youth. Six hundred differently abled persons will also benefit from the project.

### **1.2 Project Goal and Objectives**

- The Goal of BRECSA is to catalyze a 30% increase in resilient commercial agricultural production and improve food and nutrition security in the 4 target Dzongkhags by 2030.
- The developmental objective is to transform smallholder agriculture into inclusive and resilient agri-food systems that are increasingly profitable and food and nutrition secure.

### **1.3 Project Landscape and Beneficiaries**

- The BRECSA project will be implemented in all the 37 Gewogs of the three target districts of Trongsa, Tsirang and Zhemgang, and Gelephu Mindfulness City.
- BRECSA will target commercial, semi-commercial and subsistence farming households. The total direct beneficiaries of BRECSA interventions are 12,074 farming households (approximately 47,088 people), out of which 60% will be women and 30% youth.

### **1.4 Project Components and Sub-Components**

#### **1.4.1 Component 1: Resilient Production System**

This component focuses on building resilient production systems based on a regenerative model that increases resilience to climate and other shocks, and that contributes to food and nutrition security. Efforts will be taken to transition subsistence farmers to semi-commercial, semi-commercial farmers to more commercially oriented operations and commercial farmers to innovative and competitive

agri-entrepreneurs. This component will seek to increase capacities, household food and nutrition security, women's inclusion in the agriculture sector and income generation.

#### **1.4.2 Component 2: Strengthened Value Chain Coordination and Market Linkages**

This component will promote agricultural commercialization and foster exports through investing in post-harvest facilities within the established hubs. Efforts will be undertaken to build business linkages between producers, buyers, financiers and local stakeholders through multi-stakeholder platforms (MSP).

#### **1.4.3 Component 3: Innovative and competitive agri-food sector**

This component supports the creation of an enabling financial and policy environment to promote a competitive and modernized food sector. Under this component, activities will be supported to improve access to financial services, policy dialogue to support private enterprise development, and certification for meeting internationally recognized food standards.

### **1.5 Scope of ESCMP**

The preparation of this Environmental, Social and Climate Management Plan (ESCMP) was required in order to manage the environmental, social, and climate impacts through specific mitigation actions required to implement the project in accordance with the requirement of IFAD'S Social, Environmental, and Climate Assessment Procedure (SECAP), and the project's Environmental, Social and Climate Management Plan (ESCMP), and applicable national legislations and regulations.

The ESCMP provides an overview of the environmental, social and climate baseline conditions on the routes of the proposed second segment of the project, summarises the potential impacts associated with the proposed activities and sets out the management measures required to mitigate any potential negative impacts.

### **1.6 Purpose of ESCMP**

The purpose of this ESCMP is to minimise and mitigate the adverse impacts on the environmental, social, and climate protection. The ESCMP's primary purpose is to ensure that the environmental requirements, social commitments, and climate considerations associated with the project are carried forward into the implementation and operational phases of the project and are effectively managed. The specific objectives of this ESCMP are as here under:

- Minimize any adverse environmental, social, and climate impacts resulting from the project activities.
- Conduct all project activities in accordance with the relevant RGoB laws and IFAD Operational Procedure and Guidelines and the 2021 edition of IFAD's SECAP.
- Determine the project's risk category (Low, Medium, and High)
- Prevent environmental degradation, social disturbance, and climate impact as a result of either individual sub-project or their cumulative effect.
- Enhance the positive environmental, social, and climate outcomes of project activities
- Ensure that the proposed mitigation measures are feasible and cost-efficient.
- Determine the level of environmental, social, and climate assessment and management require to address potential risks and impacts.

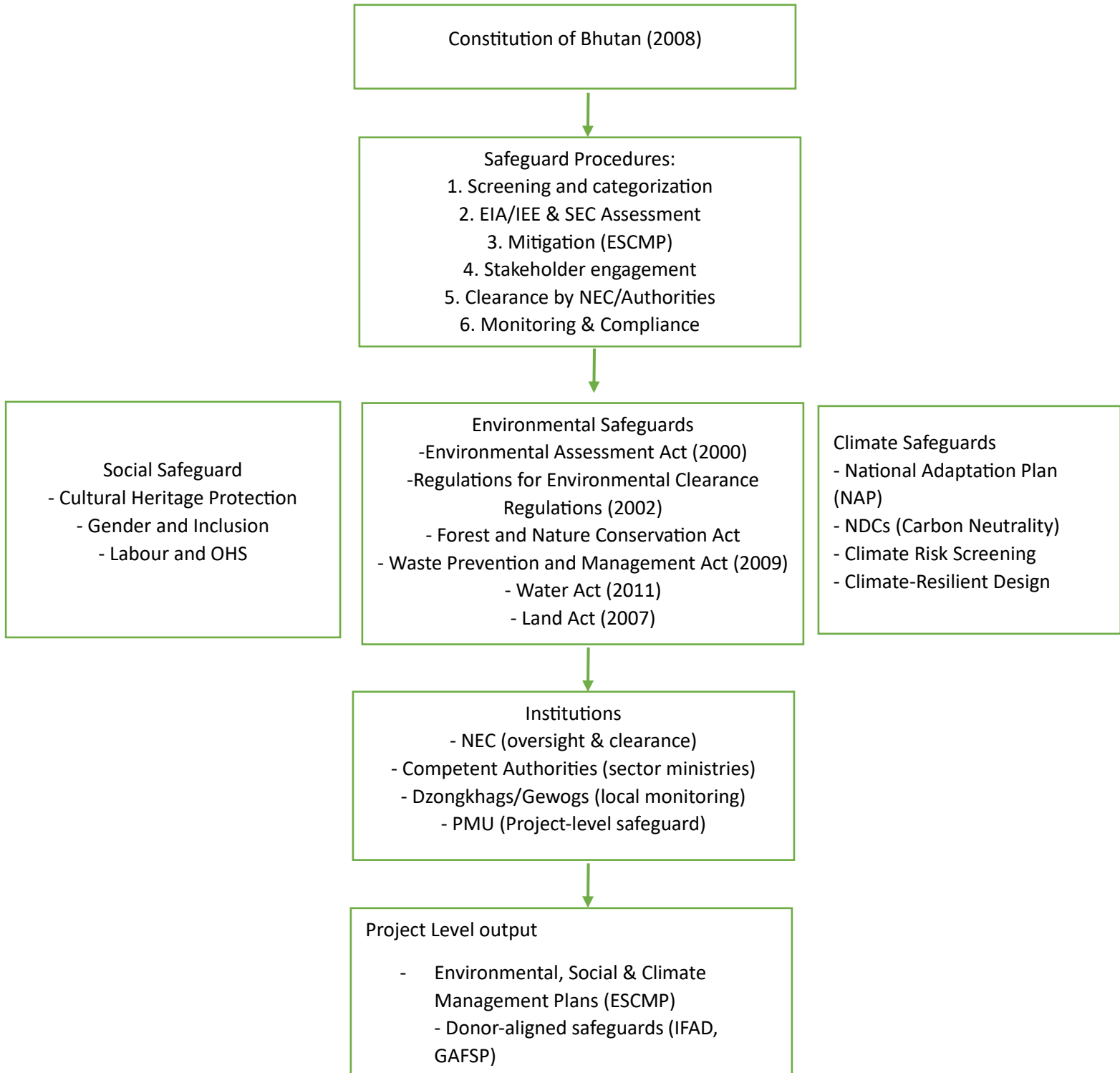
- Provide an action plan to ensure that the project impact mitigation measures are properly implemented and monitored
- Ensure that all stakeholders are engaged in the project activities' preparation and implementation, and their concerns are fully addressed.

## **2. Policy and regulatory frameworks**

- The Renewable Natural Resources (RNR) Strategy 2040, which covers the forest, agriculture, and livestock sectors, was adopted in 2021 covering the forests, agriculture, and livestock sectors, and also includes the AFOLU sector under the IPCC emissions source category. Building on the REDD+ Strategy, LEDS for Food Security 2021, and the National Strategy for Sustainable Socio-economic Development through the Commercialization of Organic Farming 2019, the RNR Strategy integrates climate change resilience and low-emission development as one of the key strategies to actualize transformational change in this integrated sector (NDC, 2021). 52.
- The Climate Change Policy of the Kingdom of Bhutan 2020 was adopted with a vision for “a prosperous, resilient and carbon neutral Bhutan where the pursuit of gross national happiness for the present and future generations is secure under a changing climate.” The policy aims to (i) provide strategic guidance to ensure that Bhutan remains carbon neutral and protect the wellbeing of the people of Bhutan by adapting to climate change in an efficient and effective manner, (ii) ensure 133 meaningful participation of all relevant stakeholders in climate change action in a coordinated and coherent manner with clear roles and responsibilities, and (iii) ensure that the challenges and opportunities of climate change are addressed at all appropriate levels, through adequate means of implementation (finance, technology, capacity building and awareness) and integration into relevant plans and policies (NDC, 2021).
- The national institutions for coordination of climate change actions across key agencies and stakeholder groups have been revitalized with the Climate Change Coordination Committee (C4) from the erstwhile Multisectoral Technical Committee on Climate Change. In addition, a climate change ‘one stop platform’ is being set up to help coordinate multi-stakeholder dialogue to develop and implement climate related work in Bhutan, with the aim to improve coordination between the different climate-sensitive sectors, enhance knowledge management and improve reporting and monitoring of all climate actions in Bhutan (NDC, 2021). 54.
- Other applicable RGoB laws and policies include the Constitution of the Kingdom of Bhutan, 2008; legislation on land and moveable property (Land Act of Bhutan 2007; Land Rules, 2007; The Moveable Cultural Property act of Bhutan, 2005); legislation and regulations on forests and protected areas (National Environment Protection Act, 2007; Forest and Nature Conservation Act of Bhutan, 1995; Forest and Nature Conservation Rules and Regulations of Bhutan, 2017; National Forest Policy, 2011); legislation on water and waste prevention (Water Act of Bhutan, 2011; Waste Prevention and Management Act, 2009); legislative requirements on environmental assessment (Environmental Assessment Act, 2000 and Regulations on the Environmental Clearance of Projects, 2001); and other relevant laws (The Local Government Act of Bhutan, 2009; Livestock Act

of Bhutan, 2001; The Biodiversity Act of Bhutan, 2003; The Pesticides Act of Bhutan, 2000; The Penal Code of Bhutan, 2004; National Access and Benefit Sharing (ABS) Policy (Draft), 2014), and National Biodiversity Strategies and Action Plan (NBSAP) 2025.

**Framework for Social, Environmental and Climate Management Plan**



### **3. Environmental, Social, and Climate Impact Assessment**

The BRECSA project is classified as having moderate environmental and social risks, with activities limited to existing agricultural and fallow lands, avoiding sensitive or high-risk areas. It promotes sustainable practices such as water source protection, agroecology, biofertilizers, integrated pest management, and renewable technologies. Waste from agriculture and livestock will be minimized and recycled where possible. Small-scale, climate-resilient infrastructure will be supported. The project also prioritizes social inclusion, actively involving women, youth, and differently abled persons in planning, decision-making, and capacity-building activities.

The BRECSA project has been classified as having moderate climate risk based on the SECAP screening tool. Key climate risks identified include floods, landslides, extreme heat, and wildfires. The project will use tools like CLEAR and Agricultural Resilience Plans (ARPs) to guide interventions and avoid climate hazard hotspots or apply adaptive measures. BRECSA addresses exposure through support for efficient irrigation, pest and disease control, and climate-resilient farming practices. While sensitivity due to multidimensional poverty is noted, BRECSA aims to improve livelihoods through value chain participation. The project enhances adaptive capacity by building community resilience, leveraging strong government support and infrastructure. Climate considerations have been integrated into the project's design to minimize impacts and strengthen local adaptation.

#### **3.1 Environmental Assessment**

The BRECSA project aims to increase resilient commercial agriculture production and enhance food and nutrition security across four target Dzongkhags by 2030. Achieving this goal requires access to sufficient cultivable land, fertile soil, adequate fodder, and water resources. However, without careful management, increased agricultural activities may exert significant pressure on the environment. Potential negative impacts include depletion of water resources, pollution from chemical inputs, soil degradation, erosion, landslides, and strain on forests for fodder and infrastructure. Wildlife depredation, already causing up to 55% crop loss in some areas, further challenges farming communities. The project will address these risks through specific mitigation strategies detailed in the ESCMP matrix.

To minimize land-related pressures, the project will focus on increasing cropping areas using currently abandoned agricultural land, ensuring proper management and wise utilization of fallow land. According to the 2019 RNR Census, Bhutan has a total of 66,120.28 acres of fallow land, of which 82.5% is dryland, 13.55% wetland, and 3.86% categorized as other types. The vast majority—about 65,116.92 acres—is under the ownership of individual households. Trongsa recorded the highest fallow land with 1499.68 acres, followed by Tsirang with 337.2 acres. Key reasons for land remaining fallow include shortages of farm labour, limited irrigation facilities, water scarcity, human-wildlife conflict, and poor accessibility. Fallow land also tends to attract wild animals, leading to increased crop and livestock damage, which in turn discourages active farmers from cultivating their plots.

BRECSA will support government efforts to engage youth in farming and will restrict value chain activities strictly to designated agricultural areas.

The project promotes sustainable agriculture and livestock practices by limiting agrochemical use, encouraging environmental stewardship, and improving the livelihoods of farming communities. Permaculture will be introduced, with dedicated sites and on-site support. In the dairy value chain, BRECSA will support practices like fodder plantation, stall feeding, and the use of dung and urine for producing manure, biofertilizers, and biopesticides—thus reducing reliance on chemical inputs. Integrated Pest Management (IPM) will also be promoted, enabling farmers to manage pests in environmentally friendly and cost-effective ways.

Given rising water scarcity, BRECSA will implement measures to enhance water access, availability, and distribution. This includes source protection, improved irrigation systems, and construction of water ponds. The project will focus on value chains that require less water and promote water-efficient technologies such as drip irrigation, micro-sprinklers, field catchment ponds, and mulching to retain soil moisture.

Only small-scale infrastructure development will be supported, with minimal localized environmental risks, all of which will be mitigated through measures outlined in the ESCMP. Crop selection will consider susceptibility to wildlife, and appropriate fencing—electric, hybrid, and vegetative (e.g., *Zanthoxylum* spp.)—will be installed to reduce crop damage. The project plans to fund 160 km of electric and hybrid fencing and pilot 32 km of chain-link fencing for potential scale-up.

To address increased waste and pollution from market centers, processing units, and farms, BRECSA will collaborate with organizations focused on recycling. Organic waste will be transformed into compost, turning a potential environmental issue into an income-generating opportunity. Additionally, the project will promote the use of renewable energy technologies for production, processing, and storage through support from local markets and commercial providers, contributing to pollution reduction. The table below summarizes the environmental impact of the priority list of commodities and the proposed solution measures.

### **3.2 Climate Change Assessment**

Bhutan's diverse topography and geographic location contribute to marked seasonal variations in climate. During summer (June to August), average temperatures range between 24°C and 29°C, while winter months (December to February) can see average temperatures near 0°C, based on the 1991–2020 climatology. Rainfall also follows a similar seasonal trend, with summer bringing approximately 240 mm of rainfall per month compared to around 90 mm during winter. Long-term data from 1976 to 2005 indicates that the country's mean temperature has risen by 0.8°C. This increase varied seasonally, with the highest rise of 1.3°C observed during December to February and lower increases of 0.6°C to 0.8°C during other months (NCHM, 2019; NCWC, 2020).

Among the four Dzongkhags targeted by the BRECSA project, Sarpang stands out as both the hottest and wettest. In 2020, Sarpang recorded average temperatures above 20°C, compared to around 17°C in the other Dzongkhags. It also received significant rainfall, peaking at 2,000 mm in July—nearly five times more than the rainfall levels in the other three Dzongkhags. Over the past five years, average

annual precipitation in Sarpang reached 5,613 mm, whereas in the other Dzongkhags, it remained below 1,500 mm (NSB, 2021).

Climate projections for Bhutan under both Representative Concentration Pathways (RCPs) indicate a consistent rise in temperature. Under RCP 4.5, temperature increases are projected between 0.8°C and 2.8°C by the end of the century, while RCP 8.5 suggests a rise of 0.8°C to over 3.2°C. Rainfall is also expected to increase, with annual precipitation projected to rise by 10%–30% under RCP 4.5 and by more than 30% under RCP 8.5. Summer rainfall is expected to increase by 5%–15%, and winter precipitation may also rise, although some northern regions could experience decreases.

Climate change is significantly undermining food and water security across many Gewogs in Bhutan. Shifting rainfall patterns and rising temperatures are disrupting cultivation schedules, reducing crop yields, and limiting food distribution. For instance, lack of rainfall in February and March delays or prevents maize planting in Gewogs like Senggyee, Gakidling, and Shompangkha (Sarpang), as well as Shinkhar and Bardo (Zhemgang). Similarly, delayed rainfall in June and July affects paddy cultivation across the project area, even where irrigation exists, as stream flow depends on rainfall. Gewogs such as Drakten and Langthel (Trongsa) and Sergithang and Tsirang Toed (Tsirang) face serious irrigation water shortages, forcing farmers to switch from paddy to alternative crops like vegetables and pulses. Additionally, drying water sources in places like Goshing Gewog are leading to drinking water scarcity, especially in winter. Climate hazards also disrupt food distribution; landslides triggered by heavy rainfall cut off transportation routes in remote Gewogs like Shingkar (Zhemgang), forcing communities to stockpile food ahead of the monsoon season (CLEAR Report).

These changes pose significant risks to BRECSA interventions. Key concerns include water stress from changing rainfall patterns and drying water sources; heightened pest and disease incidence; declines in agricultural productivity and crop quality due to heat and moisture stress; and damage to infrastructure and agri-value chains caused by extreme weather events. However, climate change may also bring some opportunities. Warmer temperatures could enable the introduction of new crop varieties in higher altitudes, extend growing seasons, and enhance yields. Additionally, longer blooming periods may improve conditions for beekeeping, leading to increased honey production.

*Table 1: Location-specific risks and implications*

<b>Dzongkhag</b>	<b>Agro-ecological zone</b>	<b>Climate Risks</b>	<b>Ecological Sensitivity</b>	<b>Key Issues</b>	<b>Implications for Investments (VC commodities)</b>
<b>Sarpang</b>	Sub-tropical	Seasonal floods, pest outbreaks, heavy rainfall, heat stress,	Moderate	Poor drainage, waterlogging, crop damage, water scarcity, and wildlife conflict,	Dairy, vegetable, mushroom

		erratic rain, and landslides		long monsoon season.	
<b>Trongsa</b>	Sub-tropical	Heavy rainfall, heat stress, landslides, dry spells, frost	Moderate-High	Soil erosion on slopes, cultural issues, restricted access, and wildlife conflict, market access, climate variability, and limited mechanization	Dairy, vegetables
<b>Tsirang</b>	Sub-tropical	Flood risk, heavy monsoon, soil erosion, drought	Moderate	Crop damage during floods, landslides, water scarcity, and wildlife conflict, biosecurity issues, unpredictable rainfall, rise in temperature, pests and diseases	Piggery, poultry, and vegetables
<b>Zhemgang</b>	Temperate	Drought, erratic rain, heat stress,	Moderate-High	Wildlife conflict, water scarcity, and restricted expansion leading to isolation, fodder shortage, pest and diseases, limited market access	Coffee, and species

**Note: The detailed AEZ and risks will be covered in the ARP V 2.0**

#### **4. Social, Environmental and Climate Assessment Procedures (SECAP)**

The Social, Environmental and Climate Assessment Procedure (SECAP) background contributes to the formulation of the Building Resilient Commercial Smallholder Agriculture (BRECSA) project. The SECAP (2021 Edition) consists of 9 standards.

- Standard 1: Biodiversity conservation
- Standard 2: Resource efficiency and pollution prevention
- Standard 3: Cultural Heritage
- Standard 4: Indigenous people
- Standard 5: Labour and working conditions

- Standard 6: Community health and safety
- Standard 7: Physical and economic resettlement
- Standard 8: Financial intermediaries and direct investments
- Standard 9: Climate change

#### 4.1 Bhutan’s Environmental, Social, and Climate Assessment and Permitting

The National Environment Commission (NEC), now the Department of Environment and Climate Change (DECC), is the key agency overseeing environmental assessment and permitting in Bhutan. Bhutan’s environmental clearance categorizes projects into three groups based on potential ESC impacts, as shown below.

*Table 2: Classification of category that needs to have ESC*

<b>Category</b>	<b>Document Requirement</b>	<b>Responsible Authority to issue EC</b>	<b>Examples of a project</b>	<b>Potential sub-project under BRECSA</b>
Green category	None	No EC required	Small-scale activities such as the implementation of a small-scale water supply system, mitigation and permanent infrastructure work such as retaining walls, breast walls, and causeways, development of urban roads and drainage systems, monsoon damage restoration works;	Renovation of irrigation channels
Blue Category	Requires IEE to access potential impacts	Competent Authority or DECC	Construction of urban roads, irrigation channels, and recreational facilities, drainage, river training works, floriculture, horticulture, dump yards, commercial plantations of crops not involving use of GMOs and LMOs (medium and large scale), setting up dairy, poultry and piggery farms, setting up fisheries, pasture development, dog pound, establishment and operation of meat processing plant and slaughter house,	Construction of irrigation channels

			construction of bridge, farm road/feeder road, waste management facilities, and food processing	
Red Category	Requires a full EIA due to significant environmental, social, and climate impacts	DECC and sectoral CA may review or approve	Hydropower, national highways, and large-scale manufacturing	Construction of e-hubs

**4.2 Procedures for screening, assessment, and management**

1. Screening: Project activities are screened against safeguard criteria to determine potential risks/impacts.
2. Categorization- The project can be classified based on NEC categorization: green category, blue category, and red category or the main categories of sub-projects will be subject to environmental and social screening to ensure that they align with the overarching objectives of the projects and remain moderate risks, excluding substantial and high-risk investments and excluded ones. The screening process will identify potential risks and determine appropriate management strategies. Smaller grant projects will be screened thematically (for each main sector-type of investments). Further, the sub-projects will be categorized as follows based on the IFAD risk categorization (a screening checklist is provided in Annex 1):
  - Ineligible: part of IFAD exclusion list (annex 1)
  - Category A- High and substantial: Sub-projects with potential significant adverse environmental and social impacts that are irreversible, diverse, or unprecedented. These sub-projects will be excluded as the overall validated category of the project is moderate
  - Category B: Moderate risk: Sub-projects with potential moderate adverse environmental and social impacts that are site-specific and reversible. These sub-projects would require a specific Environmental and Social Management Plan (ESCMP).
  - Category C: low risk: Sub-projects with minimal or no adverse environmental and social impacts, including, among others, soft investment / technical assistance/research and capacity development activities. No further environmental and social assessment is required; however, the implementation of these activities should follow good practices.
3. Scoping and Terms of Reference (ToR): The project proponents develop a ToR for the SEC assessment, which must be approved by NEC or the relevant CA
4. Assessment: Based on category, the project must undergo an Initial Environmental Examination (IEE) or Environmental Impact Assessment (EIA)
5. Stakeholder Engagement: Hold public consultation during the assessment and mitigation planning.
6. ESCMP: All projects with moderate/high risks must conduct an ESC assessment detailing the mitigation and monitoring measures.

7. Clearance and Approval: NEC or CA either issues or denies environmental clearance based on compliance with the safeguards.
8. Monitoring and compliance: Regular monitoring, self-reporting by project proponents, and compliance checks by NEC/local authorities and PMU.

The screening will evaluate environmental impacts, social impacts, as well as compliance with relevant laws, regulations, and policy frameworks. Here is a sample of thresholds for category A / high-substantial, therefore these are the upper thresholds for projects acceptable;

The project shall first screen size and type of investments against Bhutan and IFAD SECAP thresholds to determine whether eligible and the type of investment required

*Table 3: Categorization of projects against Thresholds and Legal References*

<b>Activity / Investment</b>	<b>Type of risks</b>	<b>Bhutan Legal Requirements</b>	<b>IFAD SECAP Requirement</b>	<b>Other IFIs (WB/ADB) (exclusion)</b>
<b>Access Roads (only for Hubs)</b>	Erosion control, slope stabilization, community health & safety, wildlife-sensitive design.	Require EC and No Objection Certificates alongside Environmental Assessment, Forest Clearance, and Social Clearance	Screen all; ESMP for any; ESIA for sensitive zones.	ESIA for >10 km or near critical habitat.
<b>Irrigation</b>	Climate risk adaptation, sediment control, water use efficiency, land-use agreements, GRM.	Require EC and No Objection Certificates alongside Environmental Assessment, Forest Clearance, and Social Clearance	Climate risk screening; ESMP all; ESIA >20 ha.	ESIA >50 ha; ESMP for smaller schemes.
<b>Market &amp; processing Infrastructure</b>	Effluent treatment system, hygiene protocols, labour & OSH measures, gender-inclusive facilities.	Require EC and No Objection Certificates alongside Environmental Assessment, Forest Clearance, and Social Clearance	Screen all; ESMP with OSH & waste mgmt.	ESMP all; ESIA for large facilities.
<b>Livestock (Piggery/Dairy/Poultry)</b>	Waste Management (solid/liquid), One Health SOPs, PPE/OSH, gender inclusion, biosecurity checklists.	Require EC and No Objection Certificates alongside Environmental Assessment, Forest Clearance, and Social Clearance	Screen all; One Health measures mandatory.	ESIA for >500 animals; ESMP clusters.
<b>Coffee / Plantation (only in</b>	Agroforestry integration, IPM plan, soil erosion	Require EC and No Objection Certificates alongside Environmental	Screen all; agroforestry, IPM required.	ESMP >5 ha; ESIA if

<b>fallow land)</b>	prevention, biodiversity-friendly planting.	Assessment, Forest Clearance		replacing forest.
<b>Greenhouses and commercial crops</b>	Energy plan (solar), plastic waste recycling system, pesticide handling training.	Require EC and No Objection Certificates alongside Environmental Assessment, Forest Clearance, and Social Clearance	ESMP for all; plastic waste mgmt required.	ESMP clusters >5 ha.
<b>Fencing (All types of fencing)</b>	Eco-friendly fence design, wildlife impact assessment, FPIC documentation, maintenance guidelines	Require EC and No Objection Certificates alongside Environmental Assessment, Forest Clearance, and Social Clearance	Screen biodiversity risk; FPIC needed.	Restrict migratory routes; mitigation plans.
<b>Agro-processing</b>	Effluent treatment system, hygiene protocols, labour & OSH measures, gender-inclusive facilities	Require EC and No Objection Certificates alongside Environmental Assessment, Forest Clearance, and Social Clearance	Screen all; ESMP for waste/effluent.	ESIA >10 m <sup>3</sup> /day effluent; ESMP small units.

In Bhutan, just like IFAD, all subprojects are screened irrespective of size under the national regulatory system; however, several safeguard areas that are mandatory under IFAD’s Environmental, Social and Climate Assessment Procedures (ESCAP)—such as climate risk assessment, gender inclusion, and Free, Prior and Informed Consent (FPIC)—are not legal requirements under Bhutanese law, nor are provisions for One Health, Occupational Safety and Health (OSH), and plastic waste management. To address these gaps, the project will adopt a dual compliance approach, ensuring that all subprojects follow Bhutan’s established procedures while also applying IFAD’s safeguard standards. This will include systematic screening of climate and environmental risks, mainstreaming One Health and waste management practices (particularly in relation to animal production, processing, and pollution control), and strengthening gender responsiveness and community engagement, including FPIC where relevant. As the project is classified as moderate risk under IFAD, interventions assessed as substantial or high risk by Bhutan, IFAD, or other International Financial Institutions will be excluded, thereby ensuring alignment with both national processes and international safeguard requirements.

### 4.3 Abbreviated environmental, social and climate management plans

As identified above, the main projects will be screened, categorized, and those considered as moderate/medium risks will have a simple ESCMP integrated in procurement and guide the more detailed design and implementation of the investments. The table below summarizes the environmental impact of the priority list of commodities and the proposed overall solution measures that can provide an initial basis for such ESCMP.

*Table 4: Environmental Impacts and mitigation/adaptation measures for the value chain*

<b>Commodity</b>	<b>Potential Impact on Environment</b>	<b>Risk Significance</b>	<b>Mitigation/Adaptation measures</b>
Dairy	Increase in number of cows may create additional pressure on natural resources for feed and farm pollution (Positive, if managed well: reduced pressure on natural environment, reduce pollution from waste, improved soil fertility, crop residues, and waste reduction, open grazing)	Medium	i) improved shed management to increase capture and reuse of both urine and dung as a manure, biofertilizer and biopesticide, ii) Increase the production of own feed resources by additional plantation of fodder and forage, iii) hay/silage production from crop residues, iv) use of wider availability of sexed semen for the better breed production and reduce the number of cattle, waste management plan
Mushroom	Mushroom production demands more natural resources base as production media (straw, animal dung, logs), parts of production practices may require more energy and water (sterilizing straw through boiling), increase the harvesting the forest products	Low	Multiple uses of natural resources, adequate management of reuse and recycle, exploring and using alternative energy sources. Use the mushrooms logs from private land or collect within the harvestable amount from the forest following the government norms
Spices (Ginger/Turmeric)	Monocropping – reducing local biodiversity and increasing disease risks, hence increased use of chemicals and pesticides, Encroachment or	Low	Intercropping mostly legume species, promotion of organic mulching, use of semi processing solar dryer. Collaborate with the land commission to monitor the forest boundary

	expansion of agriculture in forest areas		
	Increase use of Fertilizer and Pesticides	Medium	i) encourage farmer for bio inputs, ii) Training farmer on good agriculture practice and IPM
Poultry	Improper waste management leading to pollution		Use of waste to make bio compost, waste management plan on both solid and liquid, promote segregation of organic and non-organic wastes
	Smell pollution		Construction of farm in adequate distance from house/village/road and use of EM solution to suppress foul odor
	Over use of vaccination and antibiotics also leading to health problem,		Regulate use of vaccination and medicines
	increase number and impact of parasites/diseases and pests		Maintain hygiene and minimize import of live birds
Vegetables	Increase in chemical fertilizers and pesticides may pollute soil and water; excessive land use; increase water use, land, and soil degradation, encroachment or expansion of agriculture in forest areas	Medium	Promote permaculture and train on homemade bio inputs production, IPM trainings, avoid steep slopes to cultivation, minimization of tillage operation, mixed/intercropping, efficient water use technologies, value chain activities confined only in agricultural lands, mulching, promotion of organic fertilizers, increase production and use of organic inputs
Coffee	Removal of shrubs and small trees, monocropping	Low	Retain border trees; promote intercropping with native species and agroforestry
	Waste from processing (pulp, spoiled beans)		Develop and implement organic composting systems
	Use of agrochemicals, and		Promote bio-fertilizers and pesticides, and IPM adoption
Piggery	Solid and Liquid Waste Production	Low	Construction of safety tanks and a biological pit
	Air pollution-Bad odour		Use of EM solutions technology/biogas plants/proper

			waste management, and bio composting
	Water pollution		Proper sewage, proper waste management system (proper drainage system, construction of waste and biological pit)

Table 5: Social Impacts and Mitigation/adaptation measures the value chain

Commodity	Potential climate risk on the value chain	Risk significance	Mitigation/Adaptation measures
All identified value chain	Potential increase on the workload on women due to engagement in project activities	Moderate	(i) Providing water storage tanks, chain link fencing and appropriate tools to vulnerable households for kitchen gardens (ii) Facilitating access to labour reducing machinery on cost-sharing (iii) Promotion of permaculture which will result in eventual reduction of labour (iv) ensuring that capacity building activities are scheduled, in consultation with beneficiaries, at a time when agricultural activities are minimal.
All identified value chain	Women's and youth's needs and priorities not sufficiently addressed in Agriculture Resilience Plans (ARPs) and Strategic Investment Plans	Moderate	Study to identify the role of women and youth in BRECSA value chains to inform ARPs Skilled facilitation to ensure that the youth and women's needs and priorities are elicited and factored into the formulation of ARPs/SIP
All identified value chain	Limited participation of women and youth in decision-making forums in Multi-stakeholder Forums (MSPs)	Moderate	Gender and youth-sensitive facilitation of MSPs to ensure active participation
All identified value chain	Limited or less than optimal investment in land or enterprises led by women and youth	Moderate	BRECSA increases women's and youth's access to required investments on a cost-sharing basis for semi-subsistence farmers and as a grant for vulnerable households.

			BRECSA provides youth and women with financial literacy to enable them to make sound investment decisions
All identified value chains	Limited participation of youth in agricultural production and processing	Moderate	30 percent quota for youth in project activities/support Promotion of models of youth-friendly Agri-enterprises involving less physical labor and quicker returns Access to machinery through provision of machinery on a cost-sharing basis and through renting from 'hubs'
All identified value chains	Lack of nutritious food	Moderate	Promotion of kitchen garden, awareness of optimal nutrition practices. Gender and nutrition sensitive value chains,
Piggery	Religious sentiments, community conflict, public health risk, and Animal Welfare concern	Low	i) Follow due process and seek prior approval from the gewog and Dzongkhag ii) Capacity building, Advocacy and awareness, iii) Enhance farm biosecurity/timely vaccination iv) proper waste
Coffee	Land use conflicts, Access and benefit sharing, Community ownership and inclusion, Child labour, Labour shortage.	Low	Ensure land clearance with LG approval; participatory planning Promote cooperatives, fair pricing, and local processing Train women and youth groups; support local nurseries Proper monitoring creates awareness Promote the labour force, hiring of labour

Table 6: Climate Impacts and mitigation/adaptation measures the value chain

<b>Commodity</b>	<b>Potential climate risk on value chain</b>	<b>Risk significance</b>	<b>Mitigation/Adaptation measures</b>
Dairy	Increase in temperature may change in disease timing and outbreaks, decrease milk production in winter, flood and landslides	Medium	ii) Provision of improved shed and proper monitoring, ii) improved breed selection and good husbandry, iii) easy access and effective animal health services, iv) forage-based feeding, v) improved biosecurity via stall-based production system, exclude activities in flood and landslide prone areas, capacity building on climate proof infrastructure design and construction
Mushroom	Increase pest and diseases, flood and landslides,	Low	Integrated pest management, regular monitoring, adequate consultation with experts, exclude activities in flood and landslide prone areas, capacity building on climate proof infrastructure design and construction
Ginger/Tumeric	Water shortage due to irregular rainfall and long dry period, floods and landslides,	Medium	i) organic mulching to retain moisture, ii) provision for cover crops, iii) efficient water use and addition measures to increase water availability by promoting water catchment pond, and construction or maintenance of small-scale irrigation iv) use of compost and biochar to retain moisture around the root zone, capacity building on climate proof infrastructure design and construction, exclude activities in flood and landslide prone areas
	Increase in temperature and excess water during monsoon may cause disease outbreak of root rot	Low	i) adoption of integrated pest management practice, ii) promote a good soil health management by crop rotation, ridge making/

			proper drainage, intercropping, mulching, proper selection of varieties etc., iii) provision of crop insurance iv) site selection, including focus on clusters in higher elevations with prolonged cold periods to reduce disease load.
Poultry	High or low temperature may increase mortality and disease and pest outbreaks, and decrease production, flood and landslides	Low	i) proper (with climate-smart features) poultry house construction, ii) hygiene maintenance, iii) improve technical support to farmers, exclude activities in flood and landslide-prone areas, capacity building on climate proof infrastructure design and construction
	Prolonged dry spell, irregular rainfall, excessive temperature, increase diseases and pest	Medium	i)provision of efficient water use, ii) organic mulching, iii) mixed and intercropping, iv) right selection of vegetable as per season, v) protected agriculture: tunnel farming, vi) promotion of permaculture
Coffee	Climate vulnerability (erratic rainfall, drought)	Moderate	Promote climate-resilient varieties, shade trees, and agroforestry
	Carbon sequestration opportunity		Promote intercropping with native trees
	GHG emissions (processing/transport)	Low	Use of solar dryers, local processing, and improved logistics
Piggery	Green House Gas emission	Moderate	Installation of SISTEMA biogas plants and construction of climate climate-smart piggery shed.

Table 7: Environmental Impacts and mitigation/adaptation measures for infrastructure and support facilities

Facility/Activity	Potential Environmental Impact	Risk Significance	Mitigation/Adaptation Measures
Infrastructure/Market Facility	Land clearing leading to loss of vegetation and soil erosion; waste generation during construction; noise and dust pollution	Moderate	i) Site selection, avoiding sensitive areas ii) Retain trees where possible, replant lost vegetation. Dust suppression during construction, proper construction waste management) Noise control and scheduling work to minimize disturbance
Irrigation Systems	Altered water flow, waterlogging, reduced downstream availability, and soil erosion	Moderate	i) Conduct a feasibility assessment before construction. Design for efficient water use (drip, sprinkler) iii) Prevent erosion through bunds, check dams, and vegetative coverage. Regular maintenance of canals and pumps
Greenhouses	Energy and water consumption; disposal of plastic/covering materials; pesticide runoff	Low	i) Use renewable energy sources (solar, biogas) where possible. Promote rainwater harvesting and water recycling. Proper disposal/recycling of plastic sheets and other materials) IPM and controlled use of chemicals
Rural Access Roads (Only for hub/s)	Deforestation, soil erosion, landslides, dust, noise, and disturbance to wildlife	Moderate	i) Avoid environmentally sensitive zones; follow existing paths where possible. Construct drainage and retaining structures to prevent erosion and landslides. Replant trees along road edges) Dust control measures, limit construction hours
Fencing	Land disturbance, soil compaction, and disruption of wildlife corridors	Low	i) Use existing boundaries where possible. Design fences to allow wildlife movement. Minimize vegetation removal and restore affected areas
Water Harvesting Structures	Alteration of natural drainage, water stagnation, and soil erosion	Moderate	i) Conduct site-specific feasibility assessment ii) Ensure proper drainage and overflow design iii) Regular

			maintenance to prevent siltation and stagnation) Soil stabilization around structures
Land Development (terracing, leveling, reclamation)	Soil disturbance, erosion, sedimentation of water bodies, and habitat loss	Moderate	i) Conduct soil and topography assessment before works ii) Apply contouring, terracing, and sediment control measures iii. Re-vegetate disturbed areas. Avoid wetlands and ecologically sensitive areas

Table 8: Social Impacts and mitigation/adaptation measures for infrastructure and support facilities

Facility/Activity	Potential Social Risk	Risk Significance	Mitigation/Adaptation Measures
All facilities	Increased labor demands, particularly for women and youth, and safety risks during construction	Moderate	i) Provide labor-saving machinery, personal protective equipment, and safety training. Schedule construction to avoid peak agricultural periods. Promote local employment with gender and youth inclusion
All facilities	Land use conflicts or the displacement of community assets	Low	i) Conduct participatory planning with communities ii) Ensure fair compensation and grievance redressal mechanisms iii. Align construction with local regulations and approval processes
Market/Greenhouse/Irrigation	Resource use conflicts (water, land)	Low	i) Promote equitable water allocation systems ii) Raise community awareness on sustainable use) Monitor water consumption and crop patterns

Table 9: Climate Impacts and mitigation/adaptation measures for infrastructure and support facilities

<b>Facility/Activity</b>	<b>Potential Climate Risk</b>	<b>Risk Significance</b>	<b>Mitigation/Adaptation Measures</b>
All facilities	Exposure to extreme weather events (floods, landslides, storms)	Moderate	i) Climate-proof design (e.g., elevated foundations, reinforced structures) ii) Site selection avoiding hazard-prone areas iii) Use resilient materials and construction methods iv) Capacity building on climate-smart infrastructure management
Rural Access Roads (only for hub/s)	Increased risk of erosion, sedimentation, and landslides	Moderate	i) Proper drainage, retaining walls, and erosion control measures ii) Vegetative stabilization along road edges iii) Avoid construction in highly vulnerable areas
Water Harvesting Structures	Water overflow, siltation, and reduced drainage during extreme rainfall	Moderate	i) Design spillways/overflow channels ii) Ensure proper site selection and slope stabilization iii) Regular maintenance and desilting
Land Development (terracing, leveling, reclamation)	Soil erosion, sedimentation, and loss of vegetation	Moderate	i) Contour terracing and sediment control) ii. Re-vegetate disturbed areas iii) Avoid ecologically sensitive zones

## 5. Environmental, Social, and Climate Management Plan

Table 10: Overall Environmental, Social, and Climate Management Plan

Environmental, social and climate Impacts	Commodities as the main driver of risks	Risk rating	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution	Means of Verification			Cost Estimate & Source
						Indicators	Frequency	Source of data	
<b>1) Environmental</b>									
<b>Potential threat to forest and biodiversity resources, including:</b>									
Encroachment or expansion of agriculture in forest areas	Vegetable, Ginger, Turmeric, infrastructures	Low	Value chain activities will be confined only in agricultural lands. The project will support the government on youth engagement and fallow land use. Collaboration will be made with the land commission to monitor the forest boundary.	Meeting with farmers, youth, and government line agencies to identify and explore the use of fallow land; regular communication with the forest department and land commission on forest boundary.	PMU, forest office, land commission, youth, farmers	% Use of fallow land in Gewogs /Dzongkhags(ha)	Baseline/midterm/completion and annual.	(A) Reports department and land commission (B) Fallow land study report	Mainstream activity in comp. No incremental cost

Increase the harvesting of forest products and open grazing	Dairy, Mushroom	Low	The project will encourage stall feeding, and provision will be made to plant enough number/area of forage and fodder species in private and community lands; introduction of high-yielding breeds; Logs for mushrooms will be used from private land or collected within the harvestable amount from the forest, following government norms	Consultation with related communities	PMU, Farmers, project units	(a) % of farmers in Dairy value chains with stall feeding system (b) % of farmers using feed and log for mushrooms from sustainably managed fodder and forage sources	Annual	Annual Outcome Survey, Baseline/mid-term/final impact surveys,	No incremental cost, support for the stall feeding, and shed improvement are included in the respective activities
Human wildlife coexistence	Crops, infrastructure	Moderate to High	i) fencing-continuation of electric fencing with proper maintenance mechanism; trail and promotion of chain link fencing at certain places, ii) avoid palatable crops at high	Awareness, capacity building	Project units together with DoA	i) % increase in fencing length or % increase in area covered by fence	Annual	Annual Outcome Survey, Baseline/mid-term/final impact surveys; study reports on HWC and fencing	Proposed under component 1.4

			wildlife affected areas, iii) awareness on bio fencing						
Increased water pollution from agricultural runoff due to the use of fertilizers and pesticides	All value chains	Moderate	(i) Mulching, promotion of organic fertilizers; (ii) Use of waste water management system; (iii) increase production and use of organic inputs, (iv) promote permaculture	Awareness, capacity building, and easy access to new practices and technologies	WFP, BAFRA, DoA, RAMCO	(a) % of farmers with increased adoption of organic farming (b) Number of farmers trained in IPM (c) Number of farmers trained in permaculture		(a) Baseline/mid-term/final impact surveys; Farmers' diaries (b) Project training records	Covered in respective programs
Improper waste management	Dairy, poultry, aggregation/ Processing/ market centers	Moderate	(i) Waste management plan, both solid and liquid, necessary for project supported dairy, livestock, aggregation, processing and market centers; ii) promote segregation of organic and non-organic waste and support e bio	Awareness, capacity building and easy access to new practices	Project units	(a) % of project-supported aggregation, processing and markets with a waste management plan and an efficient	Annual	Project "infrastructure" records; Training reports; Reports from field inspection visits by PMU staff	Included in related infrastructure, no incremental cost

		<p>compost and liquid fertilizer/pesticide production from organic waste; (iii) work with market management committees and local authorities to recycle and reuse of waste generated during production to processing; (iv) Capacitate smallholders and micro entrepreneurs on sustainable waste management by easy and effective technologies and better hygiene.</p>	<p>and technologies</p>		<p>waste management system  (b) Number of capacity building events organized for smallholders and micro entrepreneurs  C) Number of awareness programs conducted</p>			
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Land and soil degradation	Crops	<p>Moderate</p> <p>(i) Tillage operation and grazing will be controlled in land with moderate to steep slopes (5<sup>0</sup>-30<sup>0</sup>). Conservation terraces will be promoted in such lands;  (ii) Cultivation will be discouraged in land with slope more than 30 degrees  (iii) Integrated Pest Management approach will be promoted to discourage use of chemical fertilizers and pesticides ;  (iv) Crop varieties which demands excessive use of fertilizer and water will be discouraged;  (v) Landslide prone areas will not be selected for any kind of value chain development;</p>	Awareness	project units	<p>(a) % of farmers using sound IPM practices  (b) % of Gewogs with an increase in the land area managed through IPM  (c) hectares of land under sustainable agricultural land management</p>	(a) Annual; (b) Baseline/mid-term/completion.	<p>(A) Secondary sources: Departmental reports; (B) Primary source: CLEAR tool analysis and APRs</p>	Mainstreamed in Comp 1: No incremental costs.
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			(vi) use of plastic mulching will be discouraged. If value chain activities are planned in proximity to such areas, adequate land cover practices such as grass, shrubs and trees with a root network to prevent soil erosion and maintain current levels of soil organic matter/carbon.						
Threat (such as chances of particular pathogens or pests, population declines of native species, altering key ecosystem processes like hydrology, nitrogen fixation, etc.) from the introduction of	Crops, Livestock	Moderate	Introduction of only certified/verified varieties from reliable sources		PMU, BAFRA	<i>Ex ante: Component 1 activities to ensure that only certified/verified seed suppliers are supported under the various Funds or capacity building activities.</i>	n/a	Secondary source: Departmental reports	No incremental cost

exotic varieties and breeds									
Soil and liquid waste production, Air pollution (Bad odor), water pollution, and use of natural resources.	Piggery	Low	Construction of safety tanks and biological pit, use of EM solution technology/ biogas plants /proper waste management and bio composting, proper sewage, proper waste management system(proper drainage system, construction of waste biological pit), Use of Metal fabrication for roofing instead of timber	Community meetings, Public education on bio composting and awareness. Consultation with the forestry agency.	PMU, Dzongkhag Livestock srctor, Dzongkhag environmental officer, forestry agency	No of waste management facilities constructed, No of farmers trained % reduction in timber consumption/utilization (number of sheds using metal instead of timber)	Annual	Waste management report, Training record, and procurement record	propose under Component 1, Sub-component 1.4, activity 1.4.2

Removal of shrubs and small trees, waste from processing (pulp, spoiled beans), and Monocropping	Coffee	Low to Medium	<p>Retain border trees and promote intercropping with native species through agroforestry practices.</p> <p>Develop and implement organic composting systems to enhance soil health.</p> <p>Promote the use of bio-fertilizers, bio-pesticides, and the adoption of Integrated Pest Management (IPM).</p> <p>Ensure proper drainage, manage waste runoff, and establish buffer zones to protect the environment.</p> <p>Encourage intercropping and diversified farming</p>	<p>Conduct community sensitization through meetings, trainings, and field schools.</p> <p>Use demo farms for awareness</p>	PMU, Dzongkhak agriculture sector, MoAF, Environmental officer	<p>% of farms with tree borders or agroforestry</p> <p>No. of composting units installed</p> <p>% of farms using bio-inputs</p> <p>No. of farms with soil/water management plan</p> <p>% of farms adopting intercropping</p> <p>% of farms using efficient irrigation</p>	Annual		propose under Component 1 Sub-component 1.4, activity 1.4..4
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			systems for resilience and sustainability.						
<b>2.Social</b>									
Potential increase on the workload on women due to engagement in project activities		Moderate	(i) Providing water storage tanks, chain link fencing and appropriate tools to vulnerable households for kitchen gardens (ii) Facilitating access to labour reducing machinery on cost-sharing (iii) Promotion of permaculture which will result in eventual reduction of labour (iv) ensuring that capacity building activities are scheduled, in consultation with beneficiaries, at a time when		Project management unit	(a) number of women receiving home garden packages (labour-saving machinery ) (b) number of women receiving training in permaculture	(a) and (b): Annual ; (c) baseline/mid-term/completion.	(a) List of home garden beneficiaries (b) Training records	No incremental costs

			agricultural activities are minimal.						
Women's and youth's needs and priorities not sufficiently addressed in Agriculture Resilience Plans (ARPs) and Strategic Investment Plans		Moderate	Study to identify the role of women and youth in BRECSA value chains to inform ARPs Skilled facilitation to ensure that the youth and women's needs and priorities are elicited and factored into the formulation of ARPs/SIP		PMU	Study on Women and Youth's involvement in BRECSA value chains completed Number of priorities/actions identified by women and youth in each ARP plan (37) and each SIP	NA	Study on Women and Youth's involvement in BRECSA value chains Minutes of ARP/SIP formulation Meetings	USD 1500 No incremental cost
Limited participation of women and youth in decision-making forums	All	Moderate	Gender and youth-sensitive facilitation of MSPs to ensure active participation		PMU	50% women and 30% youth members of MSPs. Number of suggestions	Annual	Progress reports, Minutes of MSP meetings	No incremental cost

in Multi-stakeholder Forums (MSPs)						contributed by women and youth			
Limited or less than optimal investment in land or enterprises led by women and youth	All	Moderate	BRECSA increases women's and youth's access to required investments on a cost-sharing basis for semi-subsistence farmers and as a grant for vulnerable households. BRECSA provides youth and women with financial literacy to enable them to make sound investment decisions		PMU	number of women and youth provided investments on a cost-sharing basis, number of women and youth provided with financial literacy training	Annual	Annual progress reports	No incremental cost
Limited participation of youth in agricultural production and processing	All	Moderate	30 percent quota for youth in project activities/support Promotion of models of youth-friendly Agri-enterprises involving less physical labor and quicker returns		PMU	% of youth beneficiaries in project Number of youths initiating Agri-enterprises Number of youths renting machinery from 'hubs' Number of youths receiving	Annual progress reports, mid-term, and completion reports	Project reports Baseline/mid-term/completion surveys;	No incremental cost

			Access to machinery through provision of machinery on a cost-sharing basis and through renting from 'hubs'			machinery on a cost-sharing basis			
Lack of nutritious food	All	Moderate	Promotion of kitchen garden, awareness of optimal nutrition practices. Gender and nutrition sensitive value chains,	Awareness, school feeding programs consultation	PMU and project units	% of households and women reporting minimum dietary diversity (MDDW)	Baseline, Midline, and Endline	Baseline/mid-term/completion surveys;	Included in the nutrition budget
Religious sentiments, community conflict, public health risk, and Animal Welfare concern	Piggery	Low	i) Follow due process and seek prior approval from the gewog and Dzongkhag ii) Capacity building, Advocacy and awareness, iii) Enhance farm biosecurity/timely vaccination iv) proper waste	i) Engaged local religious groups and raised community awareness on documentation and piggery management. ii) Conducted a feasibility	PMU, Gewog, Livestock sector, Department of Health, Environmental Officer	i) Number of acceptance levels from the religious group. ii) Number of community disputes/conflicts related to livestock management resolved or	Annual/Bi-annual	Annual report, Community Engagement Report, Veterinary and Community Health Report	propose under Component 1 Sub-Sub-component 1.4 activity 1.4.2

				<p>study, secured community clearance, and provided training.</p> <p>iii) Coordinated with health, veterinary, and animal welfare agencies for outreach and support.</p>	<p>reduced over time.</p> <p>iii) Number of reported animal disease outbreaks per year in project areas.(increase/decrease)</p> <p>iv)Percentage decrease in complaints related to farm hygiene and sanitation)</p> <p>v) Percentage of farms meeting basic animal welfare standards (e.g., space, cleanliness, access to water/feed).</p>			
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<p>Land use conflicts, Access and benefit sharing, Community ownership and inclusion, Child labour, Labour shortage.</p>	<p>Coffee</p>	<p>Low</p>	<p>Ensure land clearance with LG approval; participatory planning Promote cooperatives, fair pricing, and local processing Train women and youth groups; support local nurseries Proper monitoring creates awareness Promote the labour force, hiring of labour</p>	<p>Meetings with landowners and LG Stakeholder consultation Gender/youth-specific capacity programs Awareness and community sensitization Build collaboration between the communities</p>	<p>Gewog/Dzongkhag Land Commission PMU, Cooperative Development Division, DoA, CSOs</p>	<p>Number of approved plots without disputes % of coffee farmers in collectives % of trained women/youth % of child labour reduced % of increase in labour force</p>	<p>Annual</p>	<p>Complaint registry Co-op formation and market reports Gender &amp; youth tracking reports GRM, Annual report</p>	<p>propose under Component 1 Sub Component 1.4, activity 1.4.4</p>
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### 3. Climate change

Flood and landslide	All	Moderate  (i) CLEAR and APRs will guide value chain/infrastructure location/site selection which will exclude activities in flood and landslide prone areas and encourage to use land where farmers are traditionally doing farming; (ii) capacity building on climate proof infrastructure design and construction (iii) seek opportunity of crop, livestock and other value chain based enterprises insurance ;	Awareness, participatory implementation of the CLEAR tool and APRs formation	WFP, PMU, and project units	Include adaptation and mitigation measures identified by CLEAR and APRs	Upon value chain and beneficiaries' selection, mid-term and completion.	Baseline/mid-term/completion surveys	CLEAR and ARPs USD 800,000
Drought, water shortage	All	Moderate to high  (i) Improve management practices: Small irrigation, water efficient technologies, infield water harvesting,	Awareness	PMU and project units	% of household using improved water management practices	(a) Baseline/midterm/final ; (b) Annual	Baseline/mid-term/final impact surveys; CLEAR tool analysis, APRs	Included in component 1.4

			water recharge/catchment pond ; (ii) water source protection for irrigation, (iii) equitable water distribution mechanism to reduce social conflict						
Change in disease timing and outbreaks	All	Low to Medium	(i) Promotion of IPM; (ii) Capacity building and awareness events to maximize use of bio-chemicals and fertilizers (iii) Promotion of permaculture	Awareness	Province project units	(a) % of farmers using sound IPM practices (b) % of beneficiary households with a crop or livestock insurance	(a) Annual and baseline, midterm, and final;	Baseline/mid-term/final impact surveys	
Decrease milk production in the winter season	Dairy	Low	(i) Improve fodder and feeder production and feeding practices; (ii) improve shed management		PMU and project units	% of beneficiary farmers reporting an improved access to fodder and a shed	Baseline, midterm, final	Baseline/mid-term/final impact surveys	Included in the dairy value chain support

Greenhouse Gas(GHG) emission	Piggery	Low-moderate	Installation of biogas plants and construction of climate climate-smart piggery shed	Climate advocacy program	PMU, Environmental agencies, Department of Livestock	Number of Biogas installations and climate	Annual	Emission tracking report	propose under Component 1, Sub-component 1.4, activity 1.4.2
Climate vulnerability (erratic rainfall, drought), Carbon sequestration opportunity, GHG emissions (processing/transport)	Coffee	Low	i)Promote climate-resilient varieties, shade trees, and agroforestry ii) Promote intercropping with native trees Use of solar dryers, local processing, and improved logistics	i)Climate-smart agriculture sessions ii) Forestry-agriculture integrated training iii) Farmer-level post-harvest training	PMU, NEC, Climate Division, Forestry Dept.	% of farms using drought-tolerant methods Hectares under coffee-agroforestry	Annual	CSA Monitoring reports GIS & satellite data	propose under Component 1, Sub-component 1.4, activity 1.4.4

## 6. ESCMP Implementation Arrangements

The Social Inclusion and Nutrition Officer from the PMU, as a focal officer, will facilitate the implementation of ESCMP.

At the regional and Dzongkhag levels, responsibilities will be structured to ensure that both social and environmental–climate capacities are not overlooked:

- Officiating/Dzongkhag Environment Officer (DEO) in collaboration with Dzongkhag Agriculture Officer (DAO), Dzongkhag Livestock Officer (DLO), EDMO and Procurement Officer will implement the ESCMP, including obtaining necessary permits, approvals, and consent documents from relevant authorities or stakeholders. implementing agencies must carry out the social, environmental, and climate assessment for the proposed activities using the IFAD Screening Checklist (2021 edition) (refer Annexure 1). Further, based on the IFAD screening checklist results, a focal officer from the Dzongkhags will use the example of templates provided in the annexure and develop an ESCMP accordingly.
- To balance environmental and climate–NRM dimensions, the Dzongkhag Officiating/Environment Officer will provide technical guidance on integrating environmental safeguards and climate resilience measures into sub-projects. This ensures that climate adaptation and natural resource management capacities are not left out.

To ensure full institutionalization of ESCMP requirements, the Procurement Officer will play a cross-cutting role by ensuring that ESCMP obligations are reflected in the procurement process. This includes:

- Embedding relevant environmental, climate, and social safeguard requirements in bidding documents;
- Including safeguard-related criteria in evaluation and selection;
- Reviewing contractors' compliance plans; and
- Monitoring implementation during contract supervision.

This integration strengthens accountability across planning, procurement, and implementation, while also ensuring that both social inclusion and climate–NRM capacities are maintained.

Table 11: RACI (Responsible, Accountable, Consulted and Informed) Responsibility Matrix

<b>Project Stage / Function</b>	<b>PMU – Social Inclusion &amp; Nutrition Officer</b>	<b>Dzongkhag Agriculture / Livestock / Environment Officers</b>	<b>Procurement Officer</b>	<b>Other Stakeholders (contractors, gewogs, CBOs, etc.)</b>
<b>Screening &amp; Assessment (Planning Stage)</b>	<b>A</b> – Ensure social inclusion, GRM, stakeholder engagement are included. <b>C</b> – Support Dzongkhags to apply IFAD screening checklist.	<b>R</b> – Lead application of IFAD screening checklist at gewog/Dzongkhag level; identify risks. <b>A</b> – Ensure permits, approvals, clearances are obtained.	<b>I</b> – Informed of ESCMP requirements that will need to be built into procurement.	<b>C</b> – Provide ground-level information (e.g. communities, gewog admin).
<b>ESCMP Preparation (Sub-project level)</b>	<b>C</b> – Review ESCMP drafts to ensure social inclusion & GRM integration.	<b>R</b> – Draft ESCMPs for sub-projects. <b>A</b> – Submit to PMU for review/approval.	<b>I</b> – Receive draft ESCMPs for integration into procurement documents.	<b>C</b> – Input on local context, risks, mitigation measures.
<b>Procurement (Bidding &amp; Contracting)</b>	<b>I</b> – Informed of safeguard clauses in procurement.	<b>C</b> – Confirm safeguard requirements are realistic and aligned with ESCMP.	<b>R/A</b> – Ensure ESCMP requirements are embedded in bidding docs, selection criteria, and contract clauses; review compliance plans.	<b>C</b> – Contractors to review & accept safeguard obligations.
<b>Implementation (Execution Stage)</b>	<b>A</b> – Oversee social measures, stakeholder engagement, GRM functioning.	<b>R</b> – Supervise and monitor safeguard implementation at site level; ensure contractors comply.	<b>C</b> – Monitor contractual safeguard obligations during implementation.	<b>R</b> – Contractors implement ESCMP obligations (social, environmental, climate).
<b>Monitoring, Reporting &amp; GRM</b>	<b>A</b> – Consolidate safeguard monitoring; report to PMU/IFAD; ensure GRM is operational.	<b>R</b> – Submit compliance reports, document lessons.	<b>C</b> – Track contractor compliance and document procurement-related safeguards.	<b>C</b> – Communities/CBOs provide feedback via GRM; contractors provide reports.

The mitigation measures outlined in the ESCMP will not be separately included in the Annual Work Plan and Budget (AWPB), as their costs and schedules are already embedded within the respective activities, sub-activities, or contract items. This ensures that safeguard requirements are fully integrated into the implementation of project interventions rather than treated as stand-alone budget lines. Contractors will be responsible for incorporating relevant mitigation actions into their works, and where applicable, they will be required to provide a fixed cost estimate within the contract item.

This approach guarantees that mitigation responsibilities are contractually binding, cost-accounted, and directly linked to sub-project execution. At the same time, the AWPB will explicitly include key safeguard functions—such as monitoring, reporting, stakeholder engagement, capacity building, and grievance redress—which are essential for systematic oversight of ESCMP implementation.

Furthermore, the APWB will serve as a central reference point for screening proposed activities, using the IFAD Screening Checklist (2021 edition) to categorize activities by risk level. This ensures that higher-risk activities are flagged early, with dedicated ESCMPs developed where required, while also embedding safeguard actions into annual planning and budgeting.

To ensure accountability, the integration of mitigation measures into contracts and the inclusion of safeguard functions in the AWPB will be monitored through procurement and contract management processes, including during bidding, evaluation, contract award, and supervision stages. This provides an additional layer of assurance that both contractual safeguard obligations and programmatic safeguard actions are budgeted, tracked, and effectively implemented.

*Table 12: List of thematic activities that require ESCMP*

<b>Activity Type</b>	<b>Risks</b>	<b>Required ESCMP Components</b>
<b>Smallholder Livestock (Piggery/Dairy/Poultry)</b>	<b>Moderate</b>	Waste Management (solid/liquid), One Health SOPs, PPE/OSH, gender inclusion, biosecurity checklists.
<b>Irrigation Schemes</b>	<b>Moderate</b>	Climate risk adaptation, sediment control, water use efficiency, land-use agreements, GRM.
<b>Greenhouses &amp; commercial crops</b>	<b>Moderate</b>	Energy plan (solar), plastic waste recycling system, pesticide handling training.
<b>Coffee/Plantation (only in fallow land)</b>	<b>Moderate</b>	Agroforestry integration, IPM plan, soil erosion prevention, biodiversity-friendly planting.
<b>Market and processing Infrastructure</b>	<b>Moderate</b>	Effluent treatment system, hygiene protocols, labour & OSH measures, gender-inclusive facilities.

<b>Access Roads (only for Hubs)</b>	<b>Moderate</b>	Erosion control, slope stabilization, community health & safety, wildlife-sensitive design.
<b>Fencing</b>		Eco-friendly fence design, wildlife impact assessment, FPIC documentation, maintenance guidelines.

Table 13: Implementation arrangements

<b>Activity</b>	<b>Frequency</b>	<b>Responsibility</b>	<b>Cost estimate</b>
ESCMP monitoring, reporting and compliance	Quarterly	SINO, PE, M & E	500,000
Stakeholder engagement	Quarterly	CO, SINO	1,000,000
Capacity building and training	Quarterly	SINO	875,000
GRM		SINO	-
<b>Total</b>			<b>23,75,000</b>

**7. ESCMP Monitoring Arrangements**

The focal person from the PMU will closely monitor the implementation of all planned activities and the required mitigation measures, and ensure that they fully comply with the ESCMP, and with the terms and conditions included in the social and environmental clearances issued by RGoB’s national authorities.

The project’s M&E should well capture gender, socio-ethnicity, people with disability, youth and household poverty disaggregated data. All the project reports should reflect issues of gender, youth, marginalized and disadvantaged communities, and indigenous communities. The PMU will lead in the monitoring and evaluation process of the project together with implementing partners and stakeholders. BRECSA will adopt a strong focus on beneficiary-led collection and monitoring of project performance. Learning should be taken from CARLEP as it has a robust M&E system.

Table 14: Action plan and timeframe for ESCMP

Material Measures and Actions	Timeframe	Responsibility
<b>Monitoring and Reporting</b>		
<p><b>Regular Reporting</b></p> <p>Prepare and submit to the IFAD regular reports on the ESCMP performance of the Project. The reports shall include:</p> <ul style="list-style-type: none"> <li>• Activities undertaken for protecting the environment, communities, and ensure systematic climate resilience.</li> <li>• Summary of stakeholder engagement activities carried out.</li> <li>• Complaints submitted to the grievance mechanism(s), the grievance log, and progress made in resolving them. Number and status of resolution of incidents and accidents reported.</li> <li>• Incident reporting</li> <li>• Any other relevant ESC issues</li> </ul>	Bi-annually	M& E officer, SI&NO
<p><b>Incidents and accidents</b></p> <p>Promptly notify the IFAD of any incident or accident related to the Project which has, or is likely to have, a significant adverse effect on the environment, the affected communities, the public or workers including, inter alia, cases of sexual exploitation and abuse (SEA), sexual harassment (SH), and accidents that result in death, serious or multiple injuries. Provide sufficient details regarding the scope, severity, and possible causes of the incident or accident, indicating immediate measures taken or that are planned to be taken to address it, and any information provided by any contractor and/or supervising firm, as appropriate.</p>	Notify about the incident within 24 hours of learning of the incident or accident	SINO
<b>Assessment of Social, Environmental and Climate risks and impacts</b>		
Adopt and implement the IFAD SECAP standard requirements checklist (2021 edition) and ESCMP to screen all activities supported under the project, and assess and mitigate any environmental, social, and climate risks and impacts from these activities. Develop a negative	Develop an ESCMP for the project and sub-project level, and thereafter	PIUs

list of activities that will be screened out from the project, which will have a significant impact on SEC risk and impact.	implement it throughout the project implementation	
<b>Stakeholder engagement plan and preparation and implementation</b>		
<p>Stakeholder engagement will be done continuously throughout the project implementation including provision of providing stakeholders with timely relevant, understandable and accessible information, and consult with them in a culturally appropriate manner, which is free from manipulation, interference, coercion, discrimination and intimidation.</p> <p>Identification of stakeholders, including the affected and interested parties (government and NGO, think tanks, beneficiaries, academics), the vulnerable and the disadvantaged to be made at Project level to ensure inclusion and access to information and services.</p> <p>Continuously engage and consult with the stakeholder at appropriate time and place to provide Project related information including ESC risks and impacts and seek their input and feedback in a culturally appropriate and safe manner without coercion, discrimination, intimidation or fear of retaliation.</p> <p>Design Project activities as per the stakeholder inputs and report back to them to complete the feedback loop in a culturally appropriate and timely manner. Remove obstacles to participation and ensure views of differently affected groups are captured. Ensure inclusion of the vulnerable and the disadvantaged in consultation and participation.</p>	Stakeholder consultation and engagement before beginning Project implementation and ensure continuation thereafter.	PMU, PIUs, Other stakeholders
<b>GRIEVANCE REDRESS MECHANISM (GRM)</b>		
The GRM form will be used to receive grievances. Implementing agencies will receive grievances from these sources and facilitate the prompt and effective resolution of concerns and grievances related to the Project in a transparent manner that is culturally appropriate and readily accessible to all Project-affected parties, at no cost and without retribution, including concerns and grievances filed anonymously. For SEA/SH related	Adopt the GRM before beginning Project implementation and ensure continued	SINO

complaints, implementing agencies will adopt existing systems of the National Commission for Women and Children (NCWC), One Stop Crisis Center; Respect, Educate, Nurture and Empower Women (RENEW) initiative, and Royal Bhutan Police (RBP), in a safe, confidential and survivor-centric manner; respecting the desire and decision of the survivor.	usage thereafter.	
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## 8. Compliance Monitoring

Compliance monitoring of the any project activities that cause adverse social, environmental and climate impacts will be implemented by the implementing agency, PIUs. It is expected that all social, environmental and climate impact activities outlined in the ESCMP are taken care of during the implementation by the project implementing agencies. At the national level, National Environment Commission (NEC) is responsible for compliance monitoring.

*Table 15: Compliance actions and governance framework*

Action Area	Specific Action	Responsible Agency
<b>Screening</b>	Screen interventions against Bhutan and IFAD threshold;	PMU, Dzongkhag Env. Officer
<b>Environmental Clearance</b>	Secure NEC & Dzongkhag approvals as needed	PMU, Dzongkhag Env. Officer
<b>Gender &amp; Inclusion</b>	Implement targeting strategy, Gender & Youth Action Plan (60% women and 30% youth)	PMU, DoA Gender Focal
<b>Sustainability</b>	Identify cost-benefit, viability & long-term operation & maintenance mechanisms	PMU, Dzongkhag Env. Officer, Engineer
<b>Waste &amp; pollution Management</b>	Screen & address any pollution risks (i.e. waste management, integrated pest management etc)	PMU, Dzongkhag Livestock
<b>One Health</b>	Train farmers on biosecurity & zoonotic disease prevention as well as food safety-chemical exposure	PMU, DoL, Health Dept.
<b>Climate Adaptation</b>	Screen climate risk (leveraging CLEAR+, ARP & other) and include adaptive features	PMU, DoL, DoA
<b>Grievance Redress Mechanism</b>	Implement agreed GRM	PMU, Gewog Admin
<b>Monitoring &amp; Evaluation</b>	Include key indicators in M&E safeguard section in reporting	PMU, NEC, IFAD M&E
<b>ESCMP writing</b>	Building on above, adapt tailored simple ESCMP that can be included in procurement package-contract-design of investments	

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## Annexure 1: IFAD screening checklist

Environmental and Social Safeguards Screening Checklist				
Environmental and Social Safeguards	No , Ye s, Un su re	If Yes or Unsure		If Relevant for Procurement` (include action) YES/NO
		Likelihood Likely/unlikely/p ossible/almost certain	Consequence Minor/Major/ Limited /Sevier/Mode rate	
<p>General data sources provide national and site specific information to support project delivery teams in identifying overall risks associated with project locations and targeted value chains.</p> <p>These are:</p> <p><b>The Global Map of Environmental &amp; Social Risk in Agro-commodity Production (GMAP)</b> enables users to conduct rapid environmental and social due diligence associated with trade and short-term finance, and to make responsible and strategic sourcing, financing, and risk management decisions.</p> <p><b>INFORM</b>, a global, open-source risk assessment for humanitarian crises and disasters developed by a collaboration between the Inter-Agency Standing Committee Task Team for Preparedness and Resilience and the European Commission. It can support decisions about prevention, preparedness and response.</p> <p><b>Universal Human Rights Index (UHRI)</b> offers an overview of national commitments to international Human Rights, as well as up-to-date observations and recommendations from international human rights bodies to improve human rights protection.</p> <p>The lists of sources provided are not exhaustive and other local databases/maps/tools may be available.</p>				
<b>1) Biodiversity</b>			<b>Yes/no/manu al trigger.</b>	
<p>Biodiversity is essential for the maintenance of ecosystem services, such as the provision of water and food, as well as other services that are important to both the ecosystems themselves and human life. Diversity in agroecological systems is a key element in building resilience capacities of rural families and their farming systems. 3 dataset are proposed to support the identification of risks and opportunity in the project area, these are:</p> <p><b>UN Biodiversity LAB</b> - a platform for building partnerships among data providers and data users to ensure that governments have access and capacity to use cutting-edge spatial data to make key conservation and development decisions.</p> <p><b>World Resource Institute</b> - Resource Watch features hundreds of data sets all in one place on the state of the planet's resources and citizens. Users can visualize challenges facing people and the planet, from climate change to poverty, water risk to state instability, air pollution to human migration, and more.</p> <p><b>Global Forest Watch</b> is an online platform that provides data and tools for monitoring forests. By harnessing</p>				

cutting-edge technology, this tool allows access to near real-time information about where and how forests are changing around the world.

1.1 Could the project potentially involve or lead to conversion or degradation of biodiversity, habitats (including modified habitat, natural habitat and critical natural habitat) and/or ecosystems and ecosystem services?				
1.2 Could the project involve or potentially lead to activities involving habitats that are legally protected, officially proposed for protection, or recognized as protected by traditional local communities and/or authoritative sources (e.g. National Park, Nature Conservancy, Indigenous Community Conserved Area, ICCA, etc.)?				
1.3 Could the project potentially involve or lead to an increase in the chance of human-wildlife encounters/conflict?				
1.4 Could the project potentially involve or lead to risks to endangered species (e.g. reduction, encroachment on habitat)?				
1.5 Could the project potentially involve or lead to impacts/risks to migratory wildlife?				
1.6 Could the project potentially involve or lead to introduction or utilization of any invasive alien species of flora and fauna, whether accidental or intentional?				
1.7 Could the project involve or lead to the handling or utilization of genetically modified organisms?				
1.8 Could the project involve or lead to procurement through primary suppliers of natural resource materials?				

2) Resource Efficiency and Pollution Prevention				Yes/no/manual trigger.
<p>Resource efficiency is necessary to avoid, minimize and manage the risks and impacts associated with hazardous substances and materials, including pesticides, together with the project-related emissions of short- and long-lived climate pollutants. These questions shall also identify, where feasible, project-related opportunities for improvements in resource efficiency. <b>The World Resource Institute</b> provides hundreds of data sets all in one place on the state of the planet’s resources and citizens. Users can visualize challenges facing people and the planet, from climate change to poverty, water risk to state instability, air pollution to human migration, and more.</p>				
2.1 Could the project involve or lead to the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?				
2.2 Could the project involve or lead to primary not environmentally sustainable production of living natural resources? (Note: this includes the cultivation or rearing of plants or animals, including annual and perennial crop farming, animal husbandry (including livestock), aquaculture, plantation forestry, etc )				
2.3 Could the project involve or lead to engagement in areas of forestry, including the harvesting of natural forests, plantation development, and/or reforestation?				
2.4 Could the project involve or lead to significant consumption of raw materials, energy, and/or water?				
2.5 Could the project involve or lead to significant extraction, diversion or containment of surface or ground water (e.g. construction of dams, reservoirs, river basin developments, groundwater extraction)?				

2.6 Could the project involve inputs of fertilizers and other modifying agents?				
2.7 Could the project involve or lead to procurement, supply and/or result in the use of pesticides on crops, livestock, aquaculture or forestry?				
2.8 Could the project be located in an area which is being, or has been, polluted by an external source (e.g. a mine, smelter, industry)?				
2.9 Could the project involve livestock – extensive and intensive systems and animal products (dairy, skins, meat, etc.)?				
<b>3) Cultural Heritage</b>				<b>Yes/no/manual trigger.</b>
<p>Preserve and safeguard Cultural Heritage requires that effective and active measures are taken to prevent IFAD-supported projects from altering, damaging, or removing any tangible or intangible Cultural Heritage. In order to identify the presence of Cultural heritage the following tools are provided:</p> <p><b>UNESCO World Heritage List</b> - The World Heritage Committee, the main body in charge of the implementation of the World Heritage Convention, has developed precise criteria for the inscription of properties on the World Heritage List and has mapped them in this tool, which could support the PDT to identify location and type of properties in the project affected area.</p> <p>UNESCO List of <b>Intangible Cultural Heritage</b> and Register of good safeguarding practices provides an overview of (internationally) recognized intangible cultural heritage.</p>				
3.1 Could the project be located in areas that are considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or contains features considered as critical cultural heritage?				
3.2 Could the project directly or indirectly affect indigenous peoples’ rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (tangible and intangible)?				

3.3 Could the project involve or lead to significant excavations, demolitions, movement of earth, flooding or other environmental changes?				
3.4 Could the project involve or lead to adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)				
3.5 Could the project involve or lead to alterations to landscapes and natural features with cultural significance?				
3.6 Could the project involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?				
<b>4) Indigenous peoples</b>				<b>Yes/no/manual trigger.</b>
<p>IFAD's comparative advantage in working with indigenous peoples lies in its core mission to empower poor rural people and in its targeting and people-centred approach, which takes into account the differentiated and context-specific conditions of poor rural people. In order to identify indigenous communities in the project affected area:</p> <p><b>International Work Group for Indigenous Affairs:</b> Provides country specific information on the presence of Indigenous communities, together with the challenges and progress they are currently facing</p> <p><b>UN Special Rapporteur on the rights of IP:</b> Reports on the human rights situations of indigenous peoples around the world, including updates on new laws, agreements and international standards, and recommendations on appropriate measures to ensure the rights of indigenous peoples.</p>				
4.1 Could the project be sited in areas where indigenous peoples are present (including the project area of influence)?				

4.2 Could the project result in activities located on lands and territories claimed by indigenous peoples?				
4.3 Could the project result in impacts on the rights of indigenous peoples or to the lands, territories and resources claimed by them?				
4.4 Could the project result in the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?				
4.5 Could the project lead to impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?				
<b>5) Labour and Working Conditions</b>				<b>Yes/no/manual trigger.</b>
<p>The pursuit of inclusive and sustainable economic growth, full and productive employment and decent work for all requires the protection of project workers' fundamental rights, their fair treatment, and the provision of safe and healthy working conditions. Two tools are suggested to appropriately identify labour risks:</p> <p><b>ILO Statistics and Databases:</b> ILO's central portal to labour statistics, overview of labour laws, standards and policies, and country profiles.</p> <p><b>US Department of Labor Findings on the Worst Forms of Child Labour :</b> provides country specific findings on worst forms of child and forced labour, together with prevalence and sectoral distribution, legal framework, enforcement of laws and available social programs to address child labour.</p>				
5.1 Could the project operate in sectors or value chains that are characterized by working conditions that do not meet national labour laws or international commitments? (Note: this may include discriminatory practices, high gender inequality and the lack of equal opportunities, denial of freedom of association and collective bargaining, labour migrants)				

<p>5.2 Could the project use or operate in a value chain where there have been reports of forced labour? (Note: Risks of forced labour may be increased for projects located in remote places or where the status of migrant workers is uncertain)</p>				
<p>5.3 Could the project involve children (a) below the nationally-defined minimum employment age (usually 15 years old) or (b) above the nationally-defined minimum employment age but below the age of 18 in supported activities or in value chains?</p>				
<p>5.4 Could the project: (a) operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks, and/or (b) promote or use technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general? (Note: OSH risks in agriculture might include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects. Psychosocial hazards might include violence and harassment.)</p>				
<p><b>6) Community Health, Safety and Security</b></p>				<p><b>Yes/no/manual trigger.</b></p>
<p><b>Community Health and Safety are crucial elements for consideration, particularly in low- to middle-income countries where there is a lack of knowledge about how farmers are affected by their exposure</b></p>				

**to the variety of health risks and impacts that they are confronted with every day.**

**INFORM**, the Hazard and exposure tab provides a detailed set of indexes for the most common health risks affecting rural communities at national level.

**UN Women Global database on violence against women:** provides easy access to comprehensive and up-to-date information on measures undertaken by United Nations Member States to address all forms of violence against women.

6.1 Could the project be at risk from water-borne or other vector-borne diseases (e.g. temporary breeding habitats), and/or communicable and non-communicable diseases?				
6.2 Could the project lead to unintended negative impacts on nutrition?				
6.3 Is there a possibility of harm or losses due to failure of structural elements of the project (e.g. collapse of buildings or infrastructure)?				
6.4 Could the project involve or lead to the construction or rehabilitation of dams?				
6.5 Could the project involve or lead to transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?				
6.6 Could the project lead to adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g. food, surface water purification, natural buffers from flooding)?				
6.7 Could the project lead to the potential for gender-based violence, including sexual harassment, exploitation and abuse, as a result of labour influx, land redistribution, or other actions that alter community dynamics?				

6.8 Could the project lead to increases in traffic or alteration in traffic flow?				
6.9 Could the project lead to an influx of project workers?				
6.10 Could the project involve or lead to the engagement of security personnel to protect facilities and property or to support project activities?				
<b>7) Resettlement</b>				<b>Yes/no/manual trigger.</b>
<b>Resettlement is not only as the physical relocation of people but also as economic, social and cultural displacement causing restrictions on, or loss of access to, people's means of livelihoods and culturally important sites. Questions of this standard are very specific to project activities and thus do not require external sources</b>				
7.1 Could the project result in temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?				
7.2 Could the project result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?				
7.3 Could the project present a risk of forced evictions?				
7.4 Could the project result in impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?				
<b>8) Financial intermediaries and direct investments</b>				<b>Yes/no/manual trigger.</b>
<b>Investments into financial intermediaries and private sector companies are a key instrument for promoting sustainable financial markets and provide financial products and services to farming businesses and to the rural micro, small and medium-sized enterprise sector. These questions are very specific to the selected private sector partner and thus do not require external sources</b>				
8.1 Could the investment be granted to an institution that does				

not have an environmental and social policies and an associated environmental and social management system (ESMS) in place (transparent, publicly available)?				
8.2 Could the investment be granted to an institution with insufficient capacities (i.e. unqualified personnel e.g. ES Officer) to implement the ESMS?				
8.3 Could the investment be granted to an institution that does not have an Exclusion List?				
8.4 According to the institution's portfolio classification: Could the institution have potential high-risk projects in their portfolio?				
8.5 Is there evidence that the institution does not comply with the local legal framework?				
8.6 Does the institution provide a stable communication channel with stakeholders and local communities (e.g. a Grievance Redress Mechanism)?				
8.7 Does the organization provide auxiliary or capacity building support services.				

## Annexure 2: ESCMP Template for Livestock Systems (Piggery/Dairy/Poultry)

### 1. Project Overview

Activity: Piggery/Dairy/Poultry Development

Location: \_\_\_\_\_

Implementing Agency: \_\_\_\_\_

Date: \_\_\_\_\_

### 2. Legal and Policy Framework

- Bhutan Environmental Assessment Act 2000: EC required
- Waste Prevention & Management Act 2009.
- Water Act 2011 (effluent discharge control).
- Livestock Act of Bhutan 2001 (biosecurity).
- IFAD SECAP Standards: Biodiversity, Pollution, Labour, Health, Climate.

### 3. Impact & Risk Assessment

Impact Area	Risk Level (depending on size-location)	Proposed Mitigation	Design Integration

*Note: Risk Level-(Low-moderate-high) based on IFAD Screening Checklist ;*

### 4. Solid & Liquid Waste Management Plan (SLWMP) – One Health Integrated

The SLWMP ensures environmental compliance, public health safety, and zoonotic disease prevention through differentiated designs for two piggery systems:

- Small-Scale Family Piggery (2–5 pigs)
- Medium/Large Piggery (>50 pigs)

### 5. Differentiated System Design

Component	Small-Scale Family Piggery (2–5 pigs)	Medium/Large Piggery (>10 pigs)

**6. Indicative Investment Costs by System**

<b>Item</b>	<b>Small-Scale Piggery (Nu)</b>	<b>Medium/Large Piggery (Nu)</b>

**7. Monitoring Indicators and system**

<b>Indicator</b>	<b>Target</b>	<b>Frequency</b>	<b>Source</b>

**8. Implementation mechanisms**

<b>Action Area</b>	<b>Specific Action</b>	<b>Timeline</b>	<b>Responsible Agency</b>

## Annexure 3: ESCMP Template for Infrastructure / Market Facilities

### 1. Project Overview

Activity: Market Infrastructure / Agro-Processing Unit

Location: \_\_\_\_\_

Implementing Agency: \_\_\_\_\_

Date: \_\_\_\_\_

### 2. Legal and Policy Framework

- Bhutan Environmental Assessment Act 2000: EC required
- Waste Prevention & Management Act 2009.
- Water Act 2011: effluent treatment mandatory.
- Public Health Act 2003: hygiene standards.
- IFAD SECAP Standards: Resource Efficiency, Labour, Community Safety, Climate.

### 3. Key Thresholds

Activity / Investment	Bhutan Legal Requirements	IFAD SECAP Requirement	Other IFIs (WB/ADB)
Rural Roads	EC, Forest Clearance, and Social Clearance required	Screen all; ESMP for any; ESIA for sensitive zones.	ESIA for >10 km or near critical habitat.
Irrigation	EC, Forest Clearance, and Social Clearance required	Climate risk screening; ESMP all; ESIA >20 ha.	ESIA >50 ha; ESMP for smaller schemes.
Market Infrastructure	EC, Forest Clearance, and Social Clearance required	Screen all; ESMP with OSH & waste mgmt.	ESMP all; ESIA for large facilities.

### 4. Impact & Risk Assessment

Impact Area	Risk Level	Proposed Mitigation	Design Integration

**5. Mitigation Action Plan**

Action	Responsibility	Timeline	Budget (Nu)

**6. Monitoring Indicators**

Indicator	Target	Frequency	Source

## Annexure 4: ESCMP Template for Irrigation Schemes

### 1. Project Overview

Activity: Irrigation Channel / Micro-Irrigation

Location: \_\_\_\_\_

Implementing Agency: \_\_\_\_\_

Date: \_\_\_\_\_

### 2. Legal and Policy Framework

- National Irrigation Policy (Revised 2012)

- Water Act of Bhutan 2011

- IFAD: Climate risk screening mandatory

### 3. Impact & Risk Assessment

Impact Area	Risk Level	Proposed Mitigation	Design Integration

### 4. Mitigation Action Plan

Action	Responsibility	Timeline	Budget (Nu)

### 5. Monitoring Indicators

Indicator	Target	Frequency	Source

## Annexure 5: ESCMP Template for Greenhouse

### 1. Project Overview

Activity: Greenhouse for Vegetables

Location: \_\_\_\_\_

Implementing Agency: \_\_\_\_\_

Date: \_\_\_\_\_

### 2. Legal and Policy Framework

- - IFAD: Plastic waste mgmt mandatory

### 3. Impact & Risk Assessment

Impact Area	Risk Level	Proposed Mitigation	Design Integration

### 4. Mitigation Action Plan

Action	Responsibility	Timeline	Budget (Nu)

### 5. Monitoring Indicators

Indicator	Target	Frequency	Source

## Annexure 6: ESCMP Template for Coffee & Vegetables

### 1. Project Overview

Activity: Coffee and vegetables

Location: \_\_\_\_\_

Implementing Agency: \_\_\_\_\_

Date: \_\_\_\_\_

### 2. Legal and Policy Framework

- IFAD: Agroforestry mandatory

### 3. Impact & Risk Assessment

Impact Area	Risk Level	Proposed Mitigation	Design Integration

### 4. Mitigation Action Plan

Action	Responsibility	Timeline	Budget (Nu)

### 5. Monitoring Indicators

Indicator	Target	Frequency	Source

## Annexure 7: ESCMP Template for Rural Access Roads (e-hubs internal-connectivity)

### 1. Project Overview

Activity: Farm Access Road

Location: \_\_\_\_\_

Implementing Agency: \_\_\_\_\_

Date: \_\_\_\_\_

### 2. Legal and Policy Framework

- Environmental Assessment Act of Bhutan

- IFAD: ESMP for all roads

### 3. Impact & Risk Assessment

Impact Area	Risk Level	Proposed Mitigation	Design Integration

### 4. Mitigation Action Plan

Action	Responsibility	Timeline	Budget (Nu)

### 5. Monitoring Indicators

Indicator	Target	Frequency	Source

**Annexure 8: ESCMP Template for Fencing (All types of fencing promoted to address human-wildlife conflict)**

**1. Project Overview**

Activity: Wildlife Protection Fence

Location: \_\_\_\_\_

Implementing Agency: \_\_\_\_\_

Date: \_\_\_\_\_

**2. Legal and Policy Framework**

- EC if in wildlife corridor (Bhutan)
- IFAD: Biodiversity screening mandatory

**3. Impact & Risk Assessment**

Impact Area	Risk Level	Proposed Mitigation	Design Integration

**4. Mitigation Action Plan**

Action	Responsibility	Timeline	Budget (Nu)

**5. Monitoring Indicators**

Indicator	Target	Frequency	Source