KINGDOM OF CAMBODIA
Nation Religion King

MINISTRY OF AGRICULTURE, FORESTRY AND FISHERIES

CAMBODIA INCLUSIVE LIVESTOCK VALUE CHAINS PROJECT (CILVCP) (P180535)

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

December 5, 2024

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Abbreviations and Acronyms

CFP	Chance Finds Procedure
COC	Code of Conduct
EA	Environmental Assessment
EIA	Environmental Impact Assessment
ESCOP	Environmental and Social Code of Practice
ESF	Environmental and Social Framework
ESIA	Environment and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESO	Environmental and Social Offices
ESS	Environmental and Social Standard
ESSAF	Environmental and Social Screening and Assessment Framework
FPIC	Free, Prior and Informed Consent
GBV	Gender Based Violence
GDAHP	General Department Directorate of Animal Heath and Production
GRM	Grievance Redress Mechanism
IEIA	Initial Environmental Impact Assessment
IP	Indigenous Peoples
IPP	Indigenous Peoples Plan
IPPF	Indigenous Peoples Planning Framework
LMP	Labor Management Procedures
MAFF	Ministry of Agriculture, Forestry and Fishery
MoE	Ministry of Environment
NGO	Non-Government Organization
PDO	Project Development Objective
PIT	Project Implementation Team
RGC	Royal Government of Cambodia
RPF	Resettlement Policy Framework
SEA	Sexual Exploitation and Abuse
SH	Sexual Harassment
SSEO	Safety, Social and Environment officer
UXO	Unexploded Ordinances
VAC	Violence Against Children
WB	World Bank

Executive Summary

Overview

The World Bank will be supporting the General Directorate of Animal Health and Production/ Ministry of Agriculture, Forestry and Fisheries (MAFF) in implementing the Cambodia Inclusive Livestock Value Chains Project (CILVCP). The objective of the project is to improve livestock-based livelihoods and food security of targeted communities, and to reduce priority animal disease risks and zoonoses in target project locations. The project will support the following activities: Component 1: Promote Inclusive and Sustainable Livestock Value Chains; Component 2: Enhance Animal Production and Health Services; Component 3: Project Management, Monitoring, Evaluation, and Learning. The project activities will take place in three provinces of Battambang, Tbong Khmum and Kampong Speu. Specific locations of subproject activities are not known at this stage. The CILVCP gets with a grant of $20 million from the Global Agriculture and Food Security Program (GAFSP). The expected approval date for this project is on 30 September 2024 and expected closing date is on 31 December 2030.

Purpose and Scope of the Environmental and Social Management Framework (ESMF)

This Environmental and Social Management Framework (ESMF) has been prepared by the General Directorate of Animal Health and Production/ Ministry of Agriculture, Forestry and Fisheries (MAFF) and this document aims to identify the potential environmental and social risks and impacts of proposed Project activities and propose suitable mitigation measures and procedural arrangement to manage these risks and impacts. It maps out the Kingdom of Cambodia's laws and regulations and the World Bank policies applicable to the Project, and describes the principles, approaches, implementation arrangements, and environmental and social mitigation measures to be followed.

Environmental and Social Baseline

Cambodia has a moist tropical monsoon climate and subtropical conditions at higher elevations, both with one rainy and dry season annually influenced interannually by El Niño Southern Oscillation (ENSO). Cambodia's annual average rainfall is 1,836 millimeters (mm) over the current climatology (1991–2020) at the national level. The wet monsoon-driven rainy season occurs from May to October with southwesterly winds ushering in clouds and moisture that account for 85% of annual rainfall. Land uses in Battambang and Pursat provinces are covered by rice field and cropland, while Tboung Khmum province is covered by rubber plantation and other plantations. There are protected areas and key biodiversity area in Cambodia and all target provinces have shared boundary with some of protected areas.

According to NCDDS 2022, 865,011 people in the target areas had farming as their primary occupation. Additionally, there were 435,044 vulnerable groups (VGs), including 98,578 women-headed households, 325,745 people older than 65 years old, 9,286 people with disabilities from nature, and 1,435 IPs, which is equal to 14% of the total population in the three provinces. According to the NCCDS, in 2023, there were 165,447 families raising cows in Kampong Spue, Battambang, and Tbong Khmom provinces. Kampong Spue had the highest number of cow-raising families, followed by Battambang and Tbong Khmom. There were 1,081 VAHWs providing veterinary services to cattle, pigs, and poultry in the target provinces of Battambang, Kampong Spue, and Tbong Khmum. There were 37 slaughterhouses in the target provinces of Battambang, Kampong Spue, and Tbong Khmom.

Potential Environmental and Social Risks and Impacts

Potential environmental risks include: (i) Risks of spreading zoonotic diseases and infections to people from inappropriate waste disposal and management, and worker and waste picker injuries from sharps (syringes, needles, blades etc.) disposed by animal vaccination programs; (ii) Community health and safety issues related to civil works, testing and operation works; (iii) Waste, noise, dust, vibration, OHS for workers associated with civil works; and (iv) Resource efficiency and pollution (waste water discharge, solid waste)

in slaughterhouses and markets during construction/renovation of infrastructure and their operation; and (vi) Community health and safety issues related to the handling, transportation and disposal of carcass and other biological materials, and in markets.

Social risks anticipated for this project are: (i) Risks of excluding vulnerable groups from project benefits ; (ii) Low risk of use of child labor as part of construction/renovation works and the project's engagement in the livestock sector, and risk related to OHS of workers and their working conditions during construction and operation; (iii) Risks related to temporary and minor community safety as caused by interaction between workers and communities, including SEA/SH risks from workers and their proximity to vulnerable groups, as well as other risks associated with community safety as a result of project construction and operations; (iv) Risks associated with engaging with indigenous communities (by construction workers/project technical service providers) present in project areas, in a culturally inappropriate manner; and (v) Community safety/health risks associated with impacts caused by waste/smells from labs/ livestock infrastructure and facilities. There is no risk related to land taking, as construction/renovation works, including value chain facilities, will take place on public land owned by MAFF, without resorting to any new land acquisition that involve resettlement impacts.

It is concluded that environmental risk is rated as substantial, social risk is rated as moderate and subsequent overall environmental and social risk classification is substantial.

Standard and Instruments for Managing the Risks and Impacts
Based on the project's scope and nature of project's activities, the following Environmental and Social Standards of the World Bank's Environmental and Social Framework are relevant to the project: ESS1, ESS2, ESS3, ESS4, ESS6, ESS7, ESS8 and ESS10.

In accordance with the World Bank's Environmental and Social Framework (ESF) and Environmental and Social Standards (ESS), the project has developed relevant ES instruments to address potential environmental and social impacts including ESMF, SEP and ESCP. Environmental and Social Code of Practices (ESCOP) will be prepared for rehabilitation/renovation works once the locations are confirmed and design finalized, which will serve as comprehensive tools to identify, assess, and manage environmental and social risks.

Mitigation measures have been proposed for the potential social and environmental risks and impacts, following the World Bank mitigation hierarchy to:

- Anticipate and avoid risks and impacts;
- Where avoidance is not possible, minimize or reduce risks and impacts to acceptable levels;
- Once risks and impacts have been minimized or reduced, mitigate; and
- Where significant residual impacts remain, compensate for or offset them, where technically and financially feasible (This last mitigation hierarchy is not applicable for this project).

The grant receivers will be expected to comply with the ESSs as set forth in this ESMF and other environmental and social documents of this project. As most may not be familiar with the requirements for compliance with the ESSs, this will be done through a combination of contractual obligations including an environmental and social code of practice (ESCOP), providing capacity assessment and training, requiring the grant receivers to have staff responsible for environmental and social management and compliance, and regular monitoring by the public provincial waterworks and the project E&S teams.

Institutional Arrangement
The General Directorate of Animal Health and Production (GDAHP) of the Ministry of Agriculture, Forestry and Fisheries (MAFF) will be the Implementing Agency of the project. GDAHP will draw on the technical expertise and advice of MAFF and other relevant ministries e.g. MoE and MoH to implement zoonotic

related aspects through the Z-TWG. Capacity building activities will be planned for Environmental and Social focal persons and other relevant colleagues on World Bank's ESF and instruments (ESMFand ESCOP) in order to manage the environmental and social risks effectively.

Grievance Redress Mechanism

The project will implement GRM with specific steps such as: 1) GRM implementation structure; 2) Grievance uptake; 3) Sorting and processing; 4) Acknowledgment and follow-up; 5) Verification, investigation, and action; 6) Monitoring and evaluation; 7) Provision of feedback; 8) GRM training, finally 9) If relevant, payment of reparations following complaint resolution.

The GRM will provide an appeal process if the complainant is not satisfied with the proposed resolution of the complaint. Once all possible means to resolve the complaint have been proposed and if the complainant is still not satisfied, then they should be advised of their right to legal recourse.

When relevant, the project will have other measures in place to handle sensitive and confidential complaints, including those related to Sexual Exploitation and Abuse/Harassment (SEA/SH) in line with the World Bank ESF Good Practice Note on SEA/SH.

There is a specific GRM for project workers. This considers culturally appropriate ways of handling the concerns of direct and contracted workers. The Labor GRM is described in detail in the Labor Management Procedures (LMP).

The World Bank and the Borrower do not tolerate reprisals and retaliation against project stakeholders who share their views about Bank-financed projects.

Monitoring and Reporting

Monitoring is the method of ensuring mitigation measures are being implemented and are effective. Monthly, quarterly- and semi-annual monitoring reports will need to be undertaken to:

- Improve environmental and social risk management practices;
- Improve environmental and social heath safety, incident/accident, SEA/SH;
- Ensure the efficiency and quality of the environmental and social assessment processes;
- Establish evidence- and results-based environmental and social impact assessment; and facilitate adaptive management and
- Provide an opportunity to report the results of the implementation of mitigation measures in future ESCOPs and other project related documents.

During the implementation, the Environmental & Social focal persons of the PIT within MAFF will conduct monthly internal monitoring of implementation of ESCOPs to determine how mitigation measures are being implemented and the extent of their effectiveness. The monitoring report will be reviewed by the project PIT and submitted to the World Bank for their review. The E&S focal persons will be assisted by the E&S consultants to be recruited by the PIT in this process.

The E&S focal persons and E&S consultants will monitor the required mitigation measures of the ESCOP and other applicable documents by ensuring that they are considered and implemented by the contractors in charge of renovation works.

The E&S focal persons and E&S consultants will also monitor grievance redress, ensuring indigenous peoples and other vulnerable groups are able to access project benefits, and the implementation of the SEP consultation and disclosures activities. Meanwhile, monitoring of environmental impacts should focus on ensuring that all environmental mitigation measures are implemented as per the ESCOP.

Public Consultation and Disclosure

A separate Stakeholder Engagement Plan (SEP) has been prepared for the Project, based on the World Bank's Environmental and Social Standard 10 on Stakeholder Engagement. The SEP can be found here: https://gdahp.maff.gov.kh/document/AWA30vmatK

ESMF Implementation Budget

The following table lists estimated cost items for the implementation for the ESMF, which have been included in the overall project budget:

Activity/Cost Item	Potential Cost (USD)
Trainings for staff (venue, travel, refreshments etc.)	10,000
Trainings for contractors (venue, travel, refreshments, etc.)	5,000
Printing of awareness raising materials / grievance redress materials	1000
Implementation of site-specific ESCOP and other site-specific plans	40,000
Environmental and social consultants (for different levels)	100,000
Travel and accommodation budget for site visits	10,000
Annual budget for stakeholder engagement	72,000
Contingency (10%)	23,800
TOTAL	261,800

ខ្លឹមសារសង្ខេប

ទិដ្ឋភាពទូទៅ

ធនាគារពិភពលោកនឹងគាំទ្រដល់អគ្គនាយកដ្ឋានសុខភាពសត្វ និងផលិតកម្ម នៃក្រសួងកសិកម្ម រុក្ខាប្រមាញ់ និងនេសាទ (MAFF) ក្នុងការអនុវត្តគម្រោងខ្សែសង្វាក់តម្លៃបសុសត្វនៅកម្ពុជា (CILVCP)។ គោលបំណងនៃគម្រោងនេះ គឺដើម្បីកែលម្អជីវភាពរស់នៅដោយការចិញ្ចឹមសត្វពាហនៈ និងសន្តិសុខស្បៀងរបស់សហគមន៍គោលដៅ និងកាត់បន្ថយហានិភ័យជំងឺសត្វជាអាទិភាព និងជំងឺសត្វឆ្លងនៅក្នុងទីតាំងគម្រោងគោលដៅ។ គម្រោងនេះនឹងគាំទ្រសកម្មភាពដូចខាងក្រោម៖ សមាសធាតុទី 1៖ លើកកម្ពស់ខ្សែសង្វាក់តម្លៃបសុសត្វដែលរួមបញ្ចូល ប្រកបដោយចីរភាព។ សមាសភាគទី 2: លើកកម្ពស់សេវាសុខភាព និងផលិតកម្មសត្វ; សមាសភាគទី 3៖ ការគ្រប់គ្រងគម្រោង ការត្រួតពិនិត្យ ការវាយតម្លៃ និងការសិក្សា។ សកម្មភាពគម្រោង នឹង ធ្វើ ឡើង ក្នុង ខេត្តចំនួនបី គឺ បាត់ដំបង ត្បូងឃ្មុំ និង កំពង់ស្ពឺ។ ទីតាំងជាក់លាក់នៃសកម្មភាពអនុគម្រោងមិនត្រូវបានគេ ដឹងនៅដំណាក់កាលនេះទេ។ CILVCP ទទួលបានជំនួយឥតសំណងចំនួន 20លានដុល្លារ ពីកម្មវិធីកសិកម្ម និងសន្តិសុខ ស្បៀងសកល (GAFSP)។ កាលបរិច្ឆេទអនុម័តដែលរំពឹងទុកសម្រាប់គម្រោងនេះគឺនៅថ្ងៃទី 30 ខែកញ្ញា ឆ្នាំ2024 ហើយកាលបរិច្ឆេទបិទគម្រោងរំពឹងទុកគឺនៅថ្ងៃទី 31 ខែធ្នូ ឆ្នាំ 2030។

គោលបំណង និងវិសាលភាពនៃក្របខ័ណ្ឌគ្រប់គ្រងបរិស្ថាន និងសង្គម (ESMF)

ក្របខ័ណ្ឌគ្រប់គ្រងបរិស្ថាន និងសង្គម (ESMF) ត្រូវបានរៀបចំឡើងដោយអគ្គនាយកដ្ឋានសុខភាពសត្វ និងផលិតកម្មសត្វ នៃក្រសួងកសិកម្ម រុក្ខាប្រមាញ់ និងនេសាទ (MAFF) ហើយឯកសារនេះមានគោលបំណងកំណត់អត្តសញ្ញាណហានិភ័យ និងផលប៉ះពាល់បរិស្ថាន និងសង្គមដែលអាចកើតមានដោយសារសកម្មភាពគម្រោងដែលបានស្នើឡើង និងស្នើវិធានការកាត់បន្ថយ និងការរៀបចំនីតិវិធីសមស្រប ដើម្បីគ្រប់គ្រងហានិភ័យ និងផលប៉ះពាល់ទាំងនេះ។ វាជាផែនទីចង្អុលពីច្បាប់ និងបទប្បញ្ញត្តិរបស់ព្រះរាជាណាចក្រកម្ពុជា និងគោលនយោបាយរបស់ធនាគារពិភពលោកដែលអនុវត្តចំពោះគម្រោងនេះ ហើយពិពណ៌នាអំពីគោលការណ៍ វិធីសាស្ត្រ ការរៀបចំការអនុវត្ត និងវិធានការកាត់បន្ថយបរិស្ថាន និងសង្គមដែលត្រូវ អនុវត្តតាម។

ទិន្នន័យមូលដ្ឋានបរិស្ថាន និងសង្គម

ប្រទេសកម្ពុជាមានអាកាសធាតុខ្យល់មូសុងត្រូពិចដែលមានសំណើម និងលក្ខខណ្ឌត្រូពិចនៅតំបន់ខ្ពង់រាប ទាំងរដូវវស្សា និងរដូវប្រាំងជារៀងរាល់ឆ្នាំ រងឥទ្ធិពលប្រចាំឆ្នាំដោយ El Niño Southern Oscillation (ENSO) ។ ទឹកភ្លៀងប្រចាំឆ្នាំជាមធ្យមរបស់ប្រទេសកម្ពុជាគឺ 1,836 មិល្លីម៉ែត្រ (mm) ធៀបនឹងអាកាសធាតុបច្ចុប្បន្ន (1991-2020) នៅកម្រិតជាតិ។ រដូវវស្សាដែលជំរុញដោយខ្យល់មូសុងសើម កើតឡើងពីខែឧសភា ដល់ខែតុលា ជាមួយនឹងខ្យល់បក់ពីទិសនិរតី បក់ពពក មក និងសំណើមដែលស្មើនឹង 85% នៃទឹកភ្លៀងប្រចាំឆ្នាំ។ ការប្រើប្រាស់ដីក្នុងខេត្តបាត់ដំបង និងខេត្តពោធិសាត់ គ្របដណ្តប់ដោយវាលស្រែ និងដំណាំរួមផ្សំ ចំណែកខេត្តត្បូងឃ្មុំ គ្របដណ្តប់ដោយចំការកៅស៊ូ និងចំការផ្សេងៗទៀត។ មានតំបន់ការពារ និងតំបន់ជីវចម្រុះសំខាន់ៗនៅក្នុងប្រទេសកម្ពុជា ហើយខេត្តគោលដៅទាំងអស់មានព្រំប្រទល់រួមគ្នាជាមួយតំបន់ការពារមួយចំនួន។

យោងតាម NCDDS ឆ្នាំ2022 ប្រជាជននៅក្នុងតំបន់គោលដៅមានចំនួន 865,011នាក់ មានកសិកម្មជាមុខរបរចម្បងរបស់ពួកគេ។ លើសពីនេះទៀត មានក្រុមងាយរងគ្រោះ (VGs) ចំនួន 435,044 ក្រុម ក្នុងនោះមានស្ត្រីជាមេគ្រួសារចំនួន 98,578, មនុស្សចាស់ជាង 65ឆ្នាំ ចំនួន 325,745 នាក់, ជនពិការពីធម្មជាតិចំនួន 9,286នាក់ និង IPs ចំនួន 1,435 ដែល ស្មើនឹង 14% នៃចំនួនប្រជាជនសរុបនៅក្នុងខេត្តទាំងបី។ យោងតាម NCCDS ក្នុងឆ្នាំ 2023 មានគ្រួសារចិញ្ចឹមគោចំនួន 165,447 គ្រួសារនៅក្នុងខេត្តកំពង់ស្ពឺ បាត់ដំបង និងខេត្តត្បូងឃ្មុំ។ កំពង់ស្ពឺមានគ្រួសារចិញ្ចឹមគោច្រើនជាងគេបន្ទាប់មកគឺខេត្តបាត់ដំបង និងត្បូងឃ្មុំ។ មានពេទ្យសត្វភូមិ(VAHW) ចំនួន 1,081 នាក់ ក្នុងនោះស្ត្រី ៤៦នាក់ ដែលផ្តល់សេវាបសុព្យាបាលដល់គោ ក្របី

ជ្រូក និងបសុបក្សី នៅក្នុងខេត្តគោលដៅដូចជា បាត់ដំបង កំពង់ស្ពឺ និងត្បូងឃ្មុំ។ មានទីសត្តឃាតចំនួន៣៧កន្លែងក្នុងខេត្តគោលដៅគឺបាត់ដំបង កំពង់ស្ពឺ និងត្បូងឃ្មុំ។

ហានិភ័យ និងផលប៉ះពាល់បរិស្ថាន និងសង្គមដែលអាចកើតមាន

ហានិភ័យ និងផលប៉ះពាល់បរិស្ថានដែលអាចកើតមានរួមមាន៖ (i)ហានិភ័យ និងផលប៉ះពាល់នៃការរីករាលដាលជំងឺឆ្លង zoonotic និងការឆ្លងដល់មនុស្សពីការចោលកាកសំណល់ និងការគ្រប់គ្រងមិនសមរម្យ និងការរងរបួសកម្មករ និងអ្នករើសកាកសំណល់ពីមុតស្រួច (ម្ជុល កាំបិតជាដើម) ដែលបោះចោលដោយម្ចាស់ជីចាក់ថ្នាំបង្ការសត្វ។ (ii) បញ្ហាសុខភាព និងសុវត្ថិភាពសហគមន៍ទាក់ទងនឹងការងារស៊ីវិល ការងារធ្វើតេស្ត និងប្រតិបត្តិការ។ (iii) កាកសំណល់ សំឡេង ធូលី រំញ័រ OHS សម្រាប់កម្មកររដែលទាក់ទងនឹងការងារស៊ីវិល។ (iv. ប្រសិទ្ធភាពនៃធនធាន ការគ្រប់គ្រងកាកសំណល់ ការប្រើប្រាស់ និងការចាត់ចែងសារធាតុគីមីនៅក្នុងមន្ទីរពិសោធន៍(v) ប្រសិទ្ធភាពធនធាន និងការបំពុល (ការបញ្ចេញទឹកសំណល់ សំណល់រឹង) នៅក្នុងទីសត្តឃាត និងទីផ្សារអំឡុងពេលសាងសង់/ជួសជុលហេដ្ឋារចនាសម្ព័ន្ធ និងប្រតិបត្តិការរបស់ពួកគេ។ និង(vi) បញ្ហាសុខភាព និងសុវត្ថិភាពសហគមន៍ទាក់ទងនឹងការចាត់ចែង ការដឹកជញ្ជូន និងការចោលគ្រោងឆ្អឹង និងសម្ភារៈជីវសាស្ត្រផ្សេងទៀត និងនៅក្នុងទីផ្សារ។

ហានិភ័យ និងផលប៉ះពាល់សង្គមដែលរំពឹងទុកសម្រាប់គម្រោងនេះគឺ៖ (1) ហានិភ័យនៃការមិនរាប់បញ្ចូលក្រុមងាយរងគ្រោះពីអត្ថប្រយោជន៍គម្រោង; (2) ហានិភ័យទាបនៃការប្រើប្រាស់ពលកម្មកុមារជាផ្នែកនៃការសាងសង់ និងការចូលរួមរបស់គម្រោងក្នុងវិស័យបសុសត្វ និងហានិភ័យទាក់ទងនឹង OHS របស់កម្មករ និងលក្ខខណ្ឌការងាររបស់ពួកគេក្នុងអំឡុងពេលសាងសង់ និងប្រតិបត្តិការ។ (3) ហានិភ័យទាក់ទងនឹងសុវត្ថិភាពសហគមន៍បណ្តោះអាសន្ន និងអនីតិជនដែលបណ្តាលមកពីអន្តរកម្មរវាងកម្មករ និងសហគមន៍ រួមទាំងហានិភ័យ SEA/SH ពីកម្មករ និងភាពជិតស្និតរបស់ពួកគេ ចំពោះក្រុមងាយរងគ្រោះ ក៏ដូចជាហានិភ័យផ្សេងទៀតដែលទាក់ទងនឹងសុវត្ថិភាពសហគមន៍ ជាលទ្ធផលនៃការសាងសង់គម្រោង និងប្រតិបត្តិការ; (4) ហានិភ័យដែលទាក់ទងនឹងការចូលរួមជាមួយសហគមន៍ជនជាតិដើមភាគតិច (ដោយកម្មកសំណង់/អ្នកផ្តល់សេវាបច្ចេកទេសគម្រោង) ដែលមានវត្តមាននៅក្នុងតំបន់គម្រោង ក្នុងលក្ខណៈមិនសមរម្យខាងវប្បធម៌។ និង (5) សុវត្ថិភាពសហគមន៍/ហានិភ័យសុខភាពដែលទាក់ទងនឹងផលប៉ះពាល់ដែលបណ្តាលមកពីកាកសំណល់/ក្លិនពីមន្ទីរពិសោធន៍/ហេដ្ឋារចនាសម្ព័ន្ធបសុសត្វ និងគ្រឿងបរិក្ខារនានា។ មិនមានហានិភ័យទាក់ទងនឹងការយកដីទេ ព្រោះការងារសំណង់ រួមទាំងបរិក្ខារខ្សែសង្វាក់តម្លៃនឹងប្រព្រឹត្តទៅលើដីសាធារណៈដែលជាកម្មសិទ្ធិរបស់MAFF ដោយមិនងាកទៅរកការទិញដីថ្មីដែលពាក់ព័ន្ធនឹងផលប៉ះពាល់នៃការតាំងទីលំនៅថ្មីនោះទេ។
វាត្រូវបានសន្និដ្ឋានថាហានិភ័យបរិស្ថានត្រូវបានគេវាយតម្លៃថាជាចំនួនច្រើនបង្គួរ ហានិភ័យសង្គមត្រូវបានគេវាយតម្លៃថាជាកម្រិតមធ្យម ហើយការចាត់ថ្នាក់ហានិភ័យផ្នែកបរិស្ថាន និងសង្គមជារួមជាបន្តបន្ទាប់គឺមានច្រើនបង្គួរ។

ស្តង់ដារ និងឧបករណ៍សម្រាប់គ្រប់គ្រងហានិភ័យ និងហេតុប៉ះពាល់

ដោយផ្អែកលើវិសាលភាព និងលក្ខណៈនៃសកម្មភាពរបស់គម្រោង ស្តង់ដារបរិស្ថាន និងសង្គមខាងក្រោមនៃក្របខ័ណ្ឌ បរិស្ថាន និងសង្គមរបស់ធនាគារពិភពលោកគឺពាក់ព័ន្ធទៅនឹងគម្រោង៖ ESS1, ESS2, ESS3, ESS4, ESS6, ESS7, ESS8 និង ESS10។ អនុលោមតាមក្របខណ្ឌបរិស្ថាន និងសង្គម (ESF) របស់ធនាគារពិភពលោក និងស្តង់ដារបរិស្ថាន និងសង្គម (ESS) គម្រោងនេះបានបង្កើតឧបករណ៍ ES ដែលពាក់ព័ន្ធ ដើម្បីដោះស្រាយផលប៉ះពាល់បរិស្ថាន និងសង្គមដែលមានសក្តានុពលរួមមាន៖ ESMF, SEP និង ESCP ។ ក្រមប្រតិបត្តិបរិស្ថាន និងសង្គម (ESCOP) នឹងត្រូវបានរៀបចំសម្រាប់ការងារស្តារ/ជួសជុលឡើងវិញ នៅពេលដែលទីតាំងត្រូវបានបញ្ជាក់ និងការរចនាបានបញ្ចប់។

វិធានការកាត់បន្ថយត្រូវបានស្នើឡើងសម្រាប់ហានិភ័យ និងផលប៉ះពាល់សង្គម និងបរិស្ថានដែលអាចកើតមាន ដោយអនុវត្តតាមឋានានុក្រមកាត់បន្ថយរបស់ធនាគារពិភពលោកទៅ៖

- គិតទុកជាមុន និងជៀសវាងហានិភ័យ និងផលប៉ះពាល់។
- ក្នុងករណីដែលមិនអាចជៀសវាងបាន កាត់បន្ថយ ឬកាត់បន្ថយហានិភ័យ និងផលប៉ះពាល់ដល់កម្រិតដែលអាចទទួលយកបាន។
- នៅពេលដែលហានិភ័យ និងផលប៉ះពាល់ត្រូវបានកាត់បន្ថយ ឬកាត់បន្ថយ កាត់បន្ថយ។ និង
- នៅកន្លែងដែលផលប៉ះពាល់ដែលនៅសេសសល់សំខាន់ៗ ទូទាត់សំណង ឬទូទាត់សងពួកវា ដែលអាចធ្វើទៅបានតាមលក្ខណៈបច្ចេកទេស និងហិរញ្ញវត្ថុ (ឋានានុក្រមកាត់បន្ថយចុងក្រោយនេះមិនអាចអនុវត្តបានសម្រាប់គម្រោងនេះទេ)។

អ្នកទទួលជំនួយនឹងត្រូវបានគេរំពឹងថានឹងគោរពតាម ESSs ដូចមានចែងក្នុង ESMF នេះ និងឯកសារបរិស្ថាន និងសង្គមផ្សេងទៀតនៃគម្រោងនេះ។ ដោយសារភាគច្រើនប្រហែលជាមិនស៊ាំនឹងលក្ខខណ្ឌតម្រូវសម្រាប់ការអនុលោមតាម ESSs នេះនឹងត្រូវធ្វើឡើងតាមរយៈការរួមបញ្ចូលគ្នានៃកាតព្វកិច្ចកិច្ចសន្យា រួមទាំងក្រមប្រតិបត្តិបរិស្ថាន និងសង្គម (ESCOP) ការផ្តល់ការវាយតម្លៃសមត្ថភាព និងការបណ្តុះបណ្តាល ដោយតម្រូវឱ្យអ្នកទទួលជំនួយមានបុគ្គលិកទទួលខុសត្រូវ។ សម្រាប់ការគ្រប់គ្រង និងការអនុលោមតាមបរិស្ថាន និងសង្គម និងការត្រួតពិនិត្យជាប្រចាំដោយរដ្ឋាករទឹកខេត្ត និងក្រុមការងារ E&S នៃគម្រោង។ ការរៀបចំស្ថាប័នអគ្គនាយកដ្ឋានសុខភាពសត្វ និងផលិតកម្ម (GDAHP) នៃក្រសួងកសិកម្ម រុក្ខាប្រមាញ់ និងនេសាទ (MAFF) នឹងក្លាយជាភ្នាក់ងារអនុវត្តគម្រោងនេះ។ GDAHP នឹងស្រូបយកនូវជំនាញបច្ចេកទេស និងជំបូន្មានរបស់ MAFF និងក្រសួងពាក់ព័ន្ធផ្សេងទៀត ឧ. MoE និង MoH ដើម្បីអនុវត្តទិដ្ឋភាព ទាក់ទងនឹង zoonotic តាមរយៈ Z-TWG ។ សកម្មភាពកសាងសមត្ថភាពនឹងត្រូវបានគ្រោងទុកសម្រាប់មនុស្សផ្តោត សំខាន់ផ្នែកបរិស្ថាន និងសង្គម និងសហការីពាក់ព័ន្ធផ្សេងទៀតលើ ESF និងឧបករណ៍ (ESMF និង ESCoP) របស់ធនាគារពិភពលោក ដើម្បីគ្រប់គ្រងហានិភ័យបរិស្ថាន និងសង្គមប្រកបដោយប្រសិទ្ធភាព។

យន្តការដោះស្រាយបណ្តឹងសារទុក្ខ

គម្រោងនេះនឹងអនុវត្ត GRM ជាមួយនឹងដំហានជាក់លាក់ដូចជា៖ 1) រចនាសម្ព័ន្ធការអនុវត្ត GRM, 2) ការទទួលយកបណ្តឹងសារទុក្ខ, 3) ការតម្រៀបនិងដំណើរការ, 4) ការទទួលស្គាល់និងការតាមដាន, 5) ការផ្ទៀងផ្ទាត់ការស៊ើបអង្កេតនិងសកម្មភាព 6) ការត្រួតពិនិត្យនិងការវាយតម្លៃ។ 7) ការផ្តល់មតិកែលម្អ 8) ការបណ្តុះបណ្តាល GRM ចុងក្រោយ 9) ប្រសិនបើពាក់ព័ន្ធ ការបង់ប្រាក់សំណងបន្ទាប់ពីការដោះស្រាយបណ្តឹង។ GRM នឹងផ្តល់ដំណើរការបណ្តឹងឧទ្ធរណ៍ប្រសិនបើដើមបណ្តឹងមិនពេញចិត្តនឹងដំណោះស្រាយដែលបានស្នើឡើងនៃពាក្យបណ្តឹង។

នៅពេលដែលគ្រប់មធ្យោបាយដែលអាចធ្វើទៅបានដើម្បីដោះស្រាយបណ្តឹងត្រូវបានស្នើឡើង ហើយប្រសិនបើដើមបណ្តឹងនៅតែមិនពេញចិត្ត នោះពួកគេគួរតែត្រូវបានណែនាំអំពីសិទ្ធិរបស់ពួកគេក្នុងការដោះស្រាយតាមផ្លូវច្បាប់។ នៅពេល ពាក់ព័ន្ធគម្រោងនេះនឹងមានវិធានការផ្សេងទៀតដើម្បីដោះស្រាយបណ្តឹងរសើប និងការសម្ងាត់ រួមទាំងការកេងប្រវ័ញ្ច ផ្លូវភេទ និងការបំពាន/ការបៀតបៀនផ្លូវភេទ (SEA/SH) ស្របតាមកំណត់ចំណាំការអនុវត្តល្អ ESF របស់ធនាគារពិភព លោកស្តីពី SEA/SH។ មាន GRM ជាក់លាក់សម្រាប់កម្មករគម្រោង។ នេះចាត់ទុកថាជាវិធីសមស្របតាមវប្បធម៌ ក្នុងការដោះស្រាយកង្វល់របស់កម្មករផ្ទៅល់ និងជាប់កិច្ចសន្យា។ GRM ការងារត្រូវបានពិពណ៌នាលម្អិតនៅក្នុងនីតិវិធី គ្រប់គ្រងការងារ (LMP) ។

ការត្រួតពិនិត្យ និងការរាយការណ៍ ការត្រួតពិនិត្យគឺជាវិធីសាស្ត្រក្នុងការធានាថាវិធានការកាត់បន្ថយកំពុងត្រូវបានអនុវត្តនិងមានប្រសិទ្ធភាព។ របាយការណ៍ ត្រួតពិនិត្យប្រចាំខែ ត្រីមាស និងពាក់កណ្តាលឆ្នាំ នឹងត្រូវអនុវត្តចំពោះ៖

- កែលម្អការអនុវត្តការគ្រប់គ្រងហានិភ័យសង្គម និងបរិស្ថាន។
- កែលម្អសុវត្ថិភាពបរិស្ថាន និងសង្គម ឧបទ្ទវហេតុ/គ្រោះថ្នាក់ SEA/SH។
- ធានាបាននូវប្រសិទ្ធភាព និងគុណភាពនៃដំណើរការវាយតម្លៃបរិស្ថាន និងសង្គម។

- បង្កើតកស្តុតាង- និងការវាយតម្លៃផលប៉ះពាល់បរិស្ថាន និងសង្គមផ្អែកលើលទ្ធផល និងសម្របសម្រួល ការគ្រប់គ្រងការសម្របខ្លួន និង
- ផ្តល់ឱកាសមួយដើម្បីរាយការណ៍ពីលទ្ធផលនៃការអនុវត្តវិធានការកាត់បន្ថយនៅក្នុង ESCOPs នាពេលអនាគត និងឯកសារពាក់ព័ន្ធគម្រោងផ្សេងទៀត។

ក្នុងអំឡុងពេលនៃការអនុវត្ត បុគ្គលិកផ្នែកបរិស្ថាន និងសង្គមនៃ PIT នៅក្នុង MAFF នឹងធ្វើការត្រួតពិនិត្យផ្ទៃក្នុងប្រចាំខែនៃការអនុវត្ត ESCOPs ដើម្បីកំណត់ពីរបៀបដែលវិធានការកាត់បន្ថយកំពុងត្រូវបានអនុវត្ត និងវិសាលភាពនៃប្រសិទ្ធភាពរបស់ពួកគេ។ របាយការណ៍ត្រួតពិនិត្យនឹងត្រូវបានពិនិត្យដោយគម្រោង PIT ហើយដាក់ជូនធនាគារពិភពលោកសម្រាប់ការត្រួតពិនិត្យរបស់ពួកគេ។

មនុស្សសំខាន់ E&S នឹងត្រូវបានជួយដោយអ្នកប្រឹក្សា E&S ដែលត្រូវបានជ្រើសរើសដោយ PIT ក្នុងដំណើរការនេះ។ អ្នកសម្របសម្រួល E&S និងអ្នកប្រឹក្សា E&S នឹងត្រួតពិនិត្យវិធានការកាត់បន្ថយដែលត្រូវការនៃ ESCOP និងឯកសារដែលអាចអនុវត្តបានផ្សេងទៀត ដោយធានាថាពួកគេត្រូវបានពិចារណា និងអនុវត្តដោយអ្នកម៉ៅការទទួលបន្ទុកសាងសង់។ អ្នកសម្របសម្រួល E&S និងអ្នកប្រឹក្សា E&S ក៏នឹងតាមដានការដោះស្រាយបណ្តឹងសារទុក្ខ ដោយធានាថាជនជាតិដើមភាគតិច និងក្រុមដែលងាយរងគ្រោះផ្សេងទៀតអាចទទួលបានអត្ថប្រយោជន៍គម្រោង និងការអនុវត្តសកម្មភាពពិគ្រោះ និងបញ្ចេញមតិរបស់ SEP ។ ទន្ទឹមនឹងនេះ ការត្រួតពិនិត្យផលប៉ះពាល់បរិស្ថាន គួរតែផ្តោតលើការធានា ថាវិធានការកាត់បន្ថយបរិស្ថានទាំងអស់ត្រូវបានអនុវត្តស្របតាម ESCOP ។

ការប្រឹក្សាសាធារណៈ និងការផ្សព្វផ្សាយ
ផែនការការចូលរួមពីភាគីពាក់ព័ន្ធដាច់ដោយឡែក (SEP) ត្រូវបានរៀបចំសម្រាប់គម្រោងនេះ ដោយផ្អែកលើស្តង់ដារ បរិស្ថាន និងសង្គម 10 របស់ធនាគារពិភពលោកស្តីពីការចូលរួមរបស់អ្នកពាក់ព័ន្ធ។ SEP អាចរកបាននៅទីនេះ៖ https://gdahp.maff.gov.kh/document/AWA30vmatK

ថវិកាអនុវត្ត ESMF
តារាងខាងក្រោមរាយបញ្ជីតម្លៃប៉ាន់ស្មានសម្រាប់ការអនុវត្តសម្រាប់ESMF ដែលត្រូវបានដាក់បញ្ចូលក្នុងថវិកាគម្រោង ទាំងមូល៖

Activity/Cost Itemសកម្មភាព	តម្លៃ (USD)
ការបណ្តុះបណ្តាលបុគ្គលិក (ទីកន្លែង ការធ្វើដំណើរ អាហារសម្រន់។ល។)	10,000
ការបណ្តុះបណ្តាលសម្រាប់អ្នកម៉ៅការ (ទីកន្លែង ការធ្វើដំណើរ អាហារសម្រន់។ល។)	5,000
ការបោះពុម្ពសម្ភារៈលើកកំពស់ការយល់ដឹង / សម្ភារៈដោះស្រាយបណ្តឹងសារទុក្ខ	1000
ការអនុវត្ត ESCOP ជាក់លាក់ និងផែនការជាក់លាក់ផ្សេងទៀត។	40,000
ទីប្រឹក្សាបរិស្ថាន និងសង្គម (សម្រាប់កម្រិតផ្សេងៗគ្នា)	100,000
ថវិកាសម្រាប់ការធ្វើដំណើរ និងការស្នាក់នៅសម្រាប់ការចូលមើលការដ្ឋាន	10000
ថវិកាប្រចាំឆ្នាំសម្រាប់ការចូលរួមពីភាគីពាក់ព័ន្ធ[1]	72,000
ភាពអាសន្ន Contingency (10%)	23,800
សរុប	261,800

[1] Source: Table 3: Estimated SEP annual budget plan, Stakeholder Engagement Plan

I. Introduction

This Environmental and Social Management Framework (ESMF) is developed to guide environmental and social risk management of activities financed by the World Bank in the Cambodia Inclusive Livestock Value Chains Project. General Directorate of Animal Health and Production (GDAHP) of the Ministry of Agriculture, Forestry and Fisheries (MAFF) will be implementing the Project activities.

This ESMF follows the World Bank Environmental and Social Framework (ESF) as well as the national laws and regulations of Cambodia. The objective of the ESMF is to assess and mitigate potential negative environmental and social risks and impacts of the Project consistent with the Environmental and Social Standards (ESSs) of the World Bank ESF and national requirements. More specifically, the ESMF aims to (a) assess the potential environmental and social risks and impacts of the proposed Project and propose mitigation measures; (b) establish procedures for the environmental and social screening, review, approval, and implementation of activities; (c) specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social issues related to the activities; (d) identify the staffing requirements, as well as the training and capacity building needed to successfully implement the provisions of the ESMF; (e) address mechanisms for public consultation and disclosure of project documents as well as redress of possible grievances; and (f) establish the budget requirements for implementation of the ESMF.

This ESMF should be read together with other plans prepared for the project, including the Stakeholder Engagement Plan (SEP), the Environmental and Social Commitment Plan (ESCP).

II. Project Description

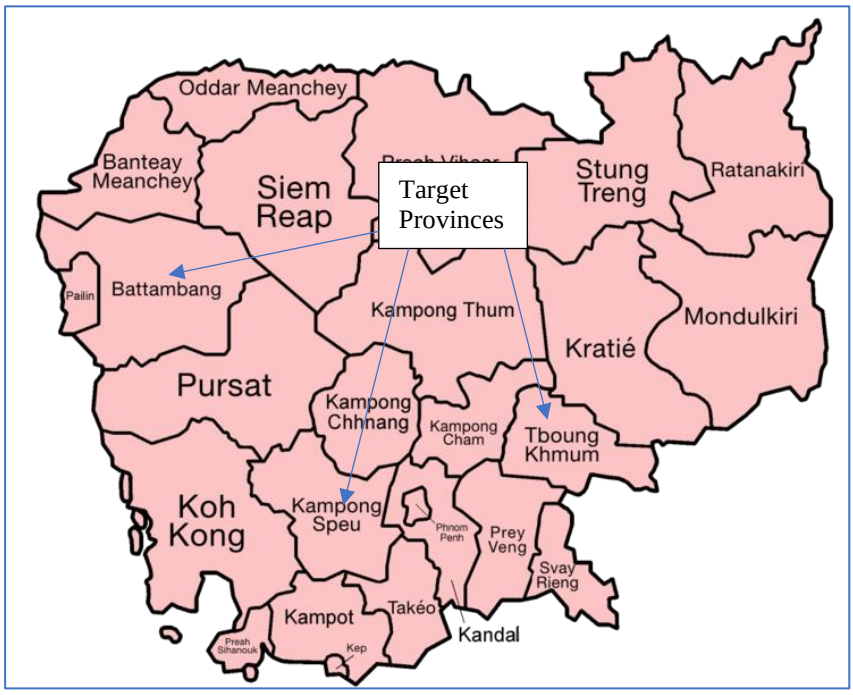
Cambodia sustainably produces meat about 82 percent of its overall local market demand. Animal husbandry at the household level is common nationwide. Nutrition of livestock in traditional systems is in most cases poor and animals suffer from frequent disease outbreaks. The livestock market system is largely informal and characterized by local buying and selling between farmers and middlemen traders, and transport to slaughterhouses. There are currently 225 public and private slaughterhouses nationwide, but only half of the public slaughterhouses meet the minimum requirements set by the national regulations. Current slaughterhouses do not conform to the requirements of local or regional livestock trade partners, and do not operate at an export standard. Animal slaughter practices do not comply with animal welfare guidelines, and carcass treatment after slaughter does not conform to the required national standards.

Cambodia has great growth potential in animal production; however, the country needs to address major constraints that include high costs and inefficiencies of local production, lack of access to quality breeding stock and endemic diseases, among others. Major disease outbreaks and high levels of parasitism are not effectively controlled, impairing the ability of producers to provide high quality and competitive products to markets. Cambodia is a source country for many wildlife species that may be consumed domestically or trafficked across nearby international borders. Illegal wildlife trade exposes human beings to transmission of new viruses and other pathogens through contacts in trade, slaughterhouses, and marketplaces.

The Cambodia Inclusive Livestock Value Chains Project (CILVCP) gets a grant of $20 million from the Global Agriculture and Food Security Program (GAFSP). The expected approval date for this project is on 30 September 2024 and expected closing date is on 31 December 2030. The World Bank is supporting to prepare and implement this project.

The project's locations cover the three provinces of Battambang, Tbong Khmum, and Kampong Speu. These cross-border provinces provide early warning signs to the rest of the country against major disease outbreaks. Kampong Speu, with large livestock populations and major animal trade activities, is also a high-risk area for diseases. The project's expected beneficiaries total about 30,000 households including female (40%). About 90 percent of the beneficiaries will be smallholder farmers and small producers engaged in livestock value chains. Multiple criteria for targeting smallholder farmers and vulnerable households will be adopted, which includes gender (women and women-headed households), member of producer organization (producer groups or ACs), asset base (size land and/or livestock holding), geography (clusters) and exposure to climate challenge (drought, flood, forest fires, etc.).

Figure1: Target Provinces for the project



The Project Development Objective is to sustainably improve livestock-based livelihoods and strengthen animal health services in target project locations.

The CILVCP comprises three components: Promote Inclusive Livestock Value Chains; Enhance Animal Production and Health Services; and Project Management, Monitoring, Evaluation, and Learning.

Component 1: Promote Inclusive and Sustainable Livestock Value Chains
This component aims to sustainably improve the productivity of livestock production and orient farmers towards more commercialization. This will be done through: (i) access to climate-smart technologies and practices, (ii) technical assistance to improve the organization of farmers and strengthen the operation of producer group, (iii) the rehabilitation and upgrade of value chain infrastructures, and (iv) facilitation of the linkage between PGs and agribusinesses.

Sub-component 1.1: Enhancement of livestock productivity.
Activities under this sub-component will focus on improving livestock productivity and output volume while enhancing climate resilience and reducing the emission intensity of livestock production through; (i) ***Climate-smart technology and practice packages (PaTecs)***, which include improved breed, feed, and fodder production, rangeland management, GAHPs, manure management, and crop-livestock integration to increase productivity, build resilience of livestock, and reduce livestock GHG emissions

intensity; and (ii) ***Strengthening PGs***. The project will support the capacity building of producer organizations for climate-smart production and commercialization.

Sub-component 1.2: Promoting smallholder market access.
Activities under this sub-component will **focus on improving the commercialization of smallholder farmers through enhanced access to markets, aiming to increase livestock product sales and farmer incomes.** To achieve this, the project will finance (i) the establishment/strengthening of ***business partnerships*** between smallholder farmers and agribusiness to unleash market opportunities for smallholder livestock producers and (ii) ***the improvement of common post-harvest infrastructure*** such as slaughterhouses and market facilities to increase quality, aggregation, processing, and trade of livestock and livestock products of farmers and agribusinesses.

Component 2: Enhanced Animal Production and Health Services
This component seeks to strengthen national and subnational extension and animal health services. This will be achieved through; (i) demonstration farms to showcase PaTecs, (ii) TA for the development and dissemination of extension information through an information, education, and communication (IEC) approach, (iii) a capacity-building program for national, provincial, and grassroots-level animal health service providers (GDAHP, Provincial Offices of Animal Health and Production (POAHPs), VAHWs, etc.), and (iv) establishment of an enhanced local disease surveillance system.

Sub-component 2.1: Strengthening capacity in animal production services.
Activities under this sub-component will focus on improving farmers' access to extension information and training by enhancing national capacities to deliver and coordinate extension services. The project will finance two main extension approaches to achieve this: (i) field demonstrations and training to equip farmers with practical skills and encourage them to adopt PaTecs most suitable for them, and (ii) IEC, using various actors and media, including information and communication technologies (ICTs), to provide easy access to information and training materials for production and post-production.

Sub-component 2.2: Strengthening animal health service delivery capacity.
Under this sub-component, the project will focus on improving the capacities of national and subnational institutions to deliver animal health services and to perform disease surveillance and management in project locations. The project would finance (i) strengthening capacities of national and local institutions like MAFF, GDAHP, POAHPs, CAOs, and VAHWs to deliver veterinary services through bolstering the workforce, skills, and incentives for last-mile service providers, and (ii) the strengthening of disease surveillance and response capacities for prevalent TADs and zoonoses in project locations, through an enhanced local surveillance system.

Component 3: Project Management, Monitoring, Evaluation, and Learning
This component will finance operating costs, consultants, and training to carry out fiduciary, environmental, and social safeguards activities and report on the project's implementation progress and results. Particular attention will be paid to monitoring/evaluation and learning. The project will support developing and maintaining a management information system for results tracking and reporting. The project will support establishing a robust monitoring system to track project activities and measure impacts on productivity, value addition, and animal disease and zoonoses. The project will also integrate data collection to track the project's contribution to reducing GHG emission intensities of livestock as part of the monitoring system. The project will implement surveys to ensure systematic assessments of implementation experience and lessons learned. Qualitative assessments will also generate knowledge during implementation to make mid-course corrections. This component will finance mid-term review, final evaluation reports, and underlying analytical work. A consultant will lead the preparation of the mid-term review report in Year 3 of project implementation; an independent institution will carry out the final evaluation report.

The GDAHP of the MAFF, is the Project Implementing Agency (IA) and the IA will establish a project implementation team (PIT) with experts from relevant technical, administration, finance, procurement, environmental and social standard (ESS), and M&E unit of GDAHP/MAFF. The IA will draw on the technical expertise and advice of MAFF and other relevant ministries e.g. MoE and MoH to implement zoonotic related aspects through the Z-TWG. GDAHP will be responsible for ensuring close coordination with sub-national governments, particularly provincial and district offices. While no project financing will flow to sub-national governments, efforts will be made to promote alignment between project activities and sub-national government investments and programs.

A steering committee composed of senior officials from MAFF, and MEF will be established to provide the strategic direction of the project, including overseeing the implementation progress and overall good governance of the project. The steering committee will provide policy and strategic guidance, facilitate cross-sectoral coordination of project activities, and review the project's annual reports and assist in problem resolution. The final decision-making authority will rest with MAFF.

In each province covered by the project, a Provincial Project Coordination Office PPCO will be set up at the provincial department of agriculture, forestry, and fisheries (PDAFF). The PPCO will be composed of at least 3 persons including a Project Implementation Coordinator, an Admin/Accounting Officer, and a Marketing officer, to coordinate project activities related to the preparation of annual workplans and implementation progress reports. In addition, a Provincial Project Team (PPT) will be established to provide technical assistance, including on monitoring activities carried out by the service providers at the field level. The PPT will draw on technical expertise from provincial departments of animal health and production (POAHP), health, and environment.

III. Environmental and Social Policies, Regulations, and Laws

3.1 Legal Framework

In this chapter, the national legal framework that is applicable to the Project is briefly described. This national legal framework includes laws and regulations, such as Sub-Decrees, Prakas, Guidelines, Standards, and international conventions and treaties that are currently effective and are most relevant to the Project. These laws and regulations are presented in two sections – one for environmental issues and the other for social issues. The applicable Environmental and Social Standards of the WB ESF are also noted. The relevant legal frameworks are summarized in Table 1.

Table 1. Relevant Legal Framework for Environment

Law	Description and Relevance to Project Activities
Law on Environmental Protection and Natural Resource Management (1996)	This law is to protect and promote environment quality and public health through prevention, reduction and control of pollution and to assess the environmental impacts of all proposed projects prior to the issuance of a decision by the government.
Law on Protected Area (2008)	The law is to classify all types of the natural protected areas is specially explained with its characters and management.
Law on Forestry Management (2002)	This law defines the framework for management, harvesting, use, development and conservation of the forests in the Kingdom of Cambodia.
Law on Water Resources Management (2007)	The law covers on use and manage of water resources in Cambodia.
Environmental and Natural Resources Code (2023)	The Code sets out the rules to be followed and practiced in strengthening, modernizing, harmonizing and improving the management of environmental protection, conservation and restoration of natural resources, biodiversity, and ecosystem

	functions for survival and sustainable development in the Kingdom of Cambodia
Sub-Decree on Environmental Impact Assessment Process (1999)	The purpose of this Sub-decree is to make sure that the environmental impact assessment shall be done on every public and private project and activity and reviewed by Ministry of Environment before submission to royal government.
Sub-Decree on the Control of Air Pollution and Noise Disturbance (2000)	The Sub-decree regulates air and noise pollution from mobile and fixed sources through monitoring, curb and mitigation activities to protect the environmental quality and public health.
Sub-Decree on Water Pollution Control #27 (1999)	The Sub-decree regulates activities that cause pollution in public water areas in order to sustain good water quality so that the protection of human health and the conservation of biodiversity are ensured.
Sub-decree on Revision Article 4, 9, 11, 12,17 and Annex 2, 3, 4, 5 of Sub-decree No. 27	The Sub-decree regulates activities that cause pollution in public water areas in order to sustain good water quality so that the protection of human health and the conservation of biodiversity are ensured.
Sub-Decree on Solid Waste Management (1999)	The Sub-decree regulates the solid waste management with proper technical manner and safe way in order to ensure the protection of human health and the conservation of bio-diversity.
Royal Decree on the Establishment and Management of Tonle Sap Biosphere Reserve (Royal Decree (2001)	Establishes the Tonle Sap Biosphere Reserve (TSBR) in accordance with the statutory framework of the World Network of Biosphere Reserves. Divides the TSBR into 3 zones: (i) core areas; (ii) buffer zone and (iii) flexible transition zone.
Sub-decree 16 ANKr.BK: Sanitary inspection of animals and animal products	Sub-Decree is to prevent epidemics of animal diseases and to protect animals and public health by determining the examination for diseases or toxins caused by bacteria in animal products originating from animals and by implementing the rules of veterinary medicine on all imports, exports, transits and transports subject to the examination.
Sub-decree on Control of Slaughterhouse and Slaughtering Business and Primary Animal Product Processing Premises(2017)	Article 1: This Sub-decree determines the control of slaughterhouse and slaughtering business, examination of animal hygiene, meat and animal product at slaughterhouses, primary animal product processing premises and sale outlets aiming to prevent the spread of animal diseases, protect animal health, guarantee the product quality and protect public health in the Kingdom of Cambodia. This Sub-decree doesn't allow the slaughtering on any holy day at any slaughterhouse in compliance with what is enshrined in the Constitution of the Kingdom of Cambodia that Buddhism is the state's religion. This sub decree forbids slaughtering or killing of animals outside of slaughterhouses unless specific authorization as defined by Prakas. Article 2: The control of the slaughterhouse and slaughtering business, the examination of the slaughterhouse's hygiene, animal hygiene, meat and animal products at slaughterhouses, the control primary animal product and processed product, processing plant premises and sale outlets shall be under competency of Ministry of Agriculture, Forestry and Fisheries.
Sub-decree 36 ANKr.BK: Contract farming	This Sub-Decree defines the implementation framework of Contract-based Agricultural Production in Cambodia.

Prakas on Environmental Impact Assessment Classification for Development Projects (2020)	The Prakas determines the types and sizes of projects that are required to prepare environmental impact assessments.

In addition to the national legal framework, Cambodia has ratified the following international conventions related to environment:

- International Conventions and Agreements Kyoto Protocol ratified – 2002
- United Nations Framework Convention on Climate Change (UNFCCC) ratified – 1995; Initial National Communication – 2000; Second National Communication (2012)
- Convention on Biological Diversity (CBD) – 1995
- Cartagena Protocol on Biosafety – 2003
- Convention on International Trade in Endangered Species of Wild Fauna and
- Flora (CITES) – 1997
- World Heritage Convention – 1991
- Measures on prevention of climate change, ozone depletion, on freshwater resource protection and on sustainable forest ASEAN – 1999
- Convention on Wetlands of International Importance (RAMSAR) – 1999

The key laws, sub-decrees and regulations and international agreements related to social issues that are or might be relevant to this project are listed below.

Table 2: Relevant Legal Framework for Social

Law	Description and Relevance to Project Activities
Law on Protection of Cultural and National Heritage (1996)	The law Regulates the protection of national cultural heritage and cultural property in general against illegal destruction, modification, alteration, excavation, alienation, exportation or importation.
Labor Law (1997)	This is the overarching legal instrument that regulates and protects workers in Cambodia. The law governs relations between employers and workers.
Law on the Prevention of Domestic Violence and the Protection of Victims (2005)	The objective of the law is to prevent domestic violence, protect victims, and strengthen the culture of non-violence.
Law on Road Traffic (2015)	This law is intended to ensure road traffic safety and order, and protection of human and animal health and lives, properties and environment.
Law on the Protection and Promotion of the Rights of Persons with Disabilities (2009)	The goal of the law is to protect and promote the rights of persons with disabilities in the country, and prevent, reduce and eliminate discrimination Against persons with disabilities.
The Land Law (2001)	Provides that: (i) unless it is in the public interest, no person may be deprived of ownership of his immovable property; and (ii) ownership deprivation shall be carried out according to legal forms and procedures and after an advanced payment of fair and just compensation. (Article 5)
Expropriation Law (2010)	This is the main legal framework that governs land acquisition and involuntary resettlement.
The Organic Law on Administrative Management of Capital, Provinces, Municipalities, Districts and Khans (2008)	Councils at provincial and district levels (capital, municipal and khan levels in urban areas) are given authority to formulate development plans (including physical plans and socio-economic development plans) that identify the needs of vulnerable groups including indigenous peoples.
Policy on Registration and Right to Use of Indigenous Communities (2009)	This policy takes as its basis the recognition in the Land Law of 2001, of the right of indigenous communities to possess and use land as their collective ownership.

National Policy on the Development of Indigenous Peoples (2009)	The Policy sets out government policies related to indigenous peoples in the fields of culture, education, vocational training, health, environment, land, agriculture, water resources, infrastructure, justice, tourism, industry and mines and energy.
Prakas on the Prohibition of Hazardous Child Labour (2004)	The Prakas prohibits the employment of anyone under the age of 18 in any of the 38 scheduled hazardous works / activities listed in the Prakas.
Prakas on Light Work (2008)	Outlines 15 categories of light work that children between 12-15 years are allowed to do, limited to 12 hours per week outside of school time and 35 hours during periods of school holidays.
Standard Operating Procedures for Externally Financed Projects in Cambodia on Land Acquisition and Involuntary resettlement (2018)	The SOP reflects RGC's laws and regulations relating to the acquisition of land and the involuntary resettlement of affected households and the safeguard policies and procedures of Development Partners (DPs).

In addition to the national legal framework, Cambodia is a signatory to a number of international instruments concerning social issues that may be relevant to this project:

- The UN Declaration on the Right of Indigenous People (2007)
- The International Convention on the Elimination of all Forms of Racial Discrimination
- The International Covenant on Economic, Social and Cultural Rights
- The UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions (2005)
- The UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage.

3.2 National Environmental and Social Assessment and Permitting

National legal framework for environmental issues

Overall management of the environment is under the responsibility of the Ministry of Environment (MoE). The MoE is responsible for implementing the Law on Environmental Protection and Natural Resources Management.

The framework law calls for an initial environmental impact assessment (IEIA) or full environmental impact assessment (EIA), depending on type and activity and the site of the project (Sub-Decree on IEIA/EIA process (article 1 and 2 of Sub-Decree of IEIA/EIA process), to be conducted for every private or public project, to be reviewed by the MoE before submission to the Government for a final decision. The MoE is also responsible for monitoring implementation of Environmental Management Plans (EMP) throughout pre-construction, construction and operational phases of the projects. All project activities need to be aligned or comply with national regulation requirement.

National legal framework related to social issues

No single agency has overarching responsibility for social issues.

3.3 World Bank Standards and Key Gaps with the National Framework

The project will follow the World Bank Environmental and Social Standards (ESSs), as well as the World Bank Group Environmental, Health and Safety Guidelines2. Based on these policies, the overall environmental and social risk of the project is categorized as substantial[3]. Environmental risk classification is substantial as the project might bring negative impacts related to spreading zoonotic disease and infections to people from inappropriate waste disposal and management, construction

2 Source: https://documents1.worldbank.org/curated/en/157871484635724258/pdf/112110-WP-Final-General-EHS-Guidelines.pdf

[3] Based on the World Bank's Environmental and Social Review Summary report for this project.

wastes, noise, dust, vibration, occupational health and safety of workers, community health and safety, resource efficiency, waste management, handling chemicals. The social risk classification is moderate due to potential impacts related to exclusion of vulnerable and disadvantaged groups, labor and working conditions, minor community health and safety, and increasing gender-based violence (GBV).

The World Bank's ESSs applicable to project activities are summarized in Table below.

Table 3 Relevant World Bank ESS to the project

E&S Standard	Relevance
1. Assessment and Management of Environmental and Social Risks and Impacts	ESS1 is relevant for the project because project activities are expected to pose substantial environmental and moderate social risks. Overall, the environmental and social risks of project is classified as substantial.
2. Labor and Working Conditions	ESS2 is relevant for the project because there are certain labor risks for project workers. Labor-related risks include (i) security risks to project workers, (ii) traffic and road safety issues, (iii) inadequate terms and conditions of employment, and (iv) occupational health and safety risks.
3. Resource Efficiency and Pollution Prevention and Management	ESS3: is relevant for the project because (i) during project implementation, solid waste, wastewater and hazardous waste will be generate from construction/renovation sites and campsite; (ii) during project operation, water consumption, animal wastes, wastewater, hazardous waste will be generated more from animal farm, animal lab, slaughterhouse, livestock markets.
4. Community Health and Safety	ESS4: is relevant for the project because modernization of value chain infrastructure and market facilities might lead risks to public health associated with zoonoses, Emerging Infection Diseases (EIDs) and Antimicrobial Resistance (AMR) that originate in slaughterhouses, distribution and logistic and livestock market and water pollution.
6. Biodiversity Conservation and Sustainable Management of Living Natural Resources	ESS6: is relevant for the project because the technical assistance to increase livestock number and production (promoting animal welfare) may require intensification of agricultural land use, drive land use change from forests to agricultural lands, and pose consequent impacts including waste generation on habitats and biodiversity.
7. Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Community.	ESS7: is relevant for the project because the project will be implemented in three provinces, that are geographically considered to have indigenous peoples (IP). IP communities in the project areas are also project beneficiaries.
8. Cultural Heritage	ESS8: is relevant for the project as the project will involve civil works. There is the potential of discovering unknown cultural heritage during excavation activities for civil works.
10. Stakeholder Engagement and Information Disclosure	ESS10 is relevant for the projects because the project recognizes the need for effective and inclusive engagement with all the relevant stakeholders. It aims at involving a wide range of agencies (including the private sector, Small and Medium Enterprises (SMEs), and government organizations working in the field of animal health, veterinary services, livestock development, and meat production process, as well as livestock farmers).

The gap between World Bank's ESF and legislation/regulations of Royal Government of Cambodia is summarized in Annex 1.

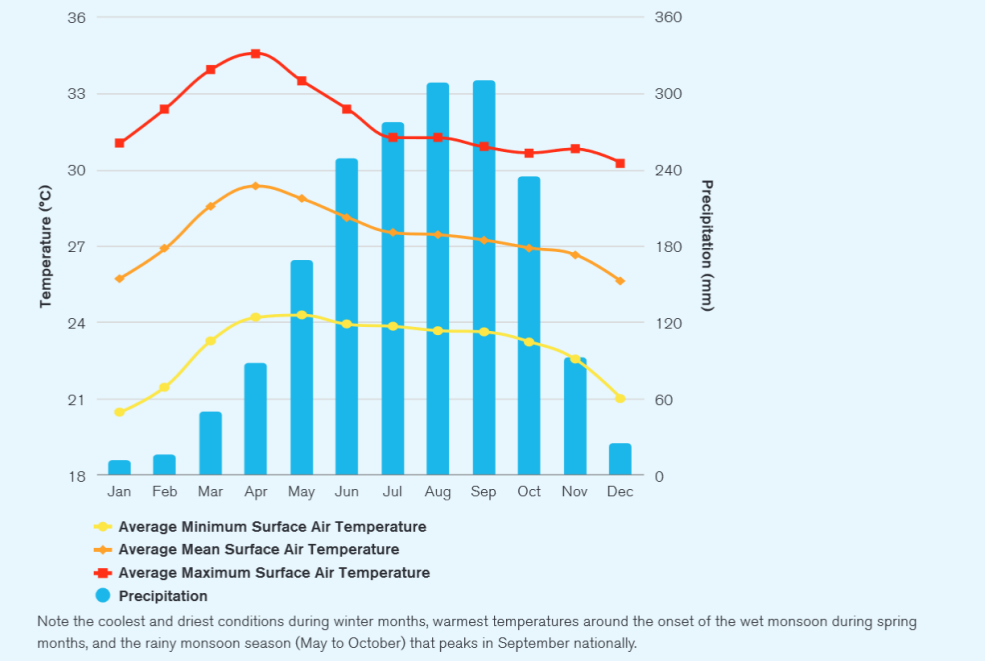
IV. Potential Environmental and Social Risk Impacts and Standard Mitigation Measures

4.1. Environmental and Social Baseline

Climate

Cambodia has a moist tropical monsoon climate and subtropical conditions at higher elevations, both with one rainy and dry season annually influenced interannually by El Niño Southern Oscillation (ENSO). Over the current climatology (1991–2020, see Figure below), Cambodia observed a mean annual temperature[4] of 27.41°C. During the 1991–2020 period, the warmest month of April ranged from an average minimum temperature of 24.18°C to an average maximum temperature of 34.59°C, while the coolest month of December ranged from a minimum average temperature of 20.99°C to a maximum average temperature of 30.27°C.

Figure 2: Observed monthly climatology of Cambodia's temperature and precipitation, 1991-2020



Source:https://climateknowledgeportal.worldbank.org/country/cambodia/climate-data-historical

Cambodia's annual average rainfall is 1,836 millimeters (mm) over the current climatology (1991–2020) at the national level. The wet monsoon-driven rainy season occurs from May to October with southwesterly winds ushering in clouds and moisture that account for 85% of annual rainfall. Precipitation volumes peak during August and September nationally (310.60 mm in September) on average, but maximum precipitation volumes occur earlier in the west and north and later in the south.

During the wet season, tropical cyclones, heavy monsoonal rains, and runoff from the highlands result in flooding along the Mekong River and Tonle Sap. The Observed Temperature and Precipitation Trends for 1991-2020 for project's target provinces are listed in the Table below.

[4] World Bank Climate Change Knowledge Portal (2023). Cambodia Climatology. URL: https://climateknowledgeportal.worldbank.org/country/cambodia/climate-data-historical

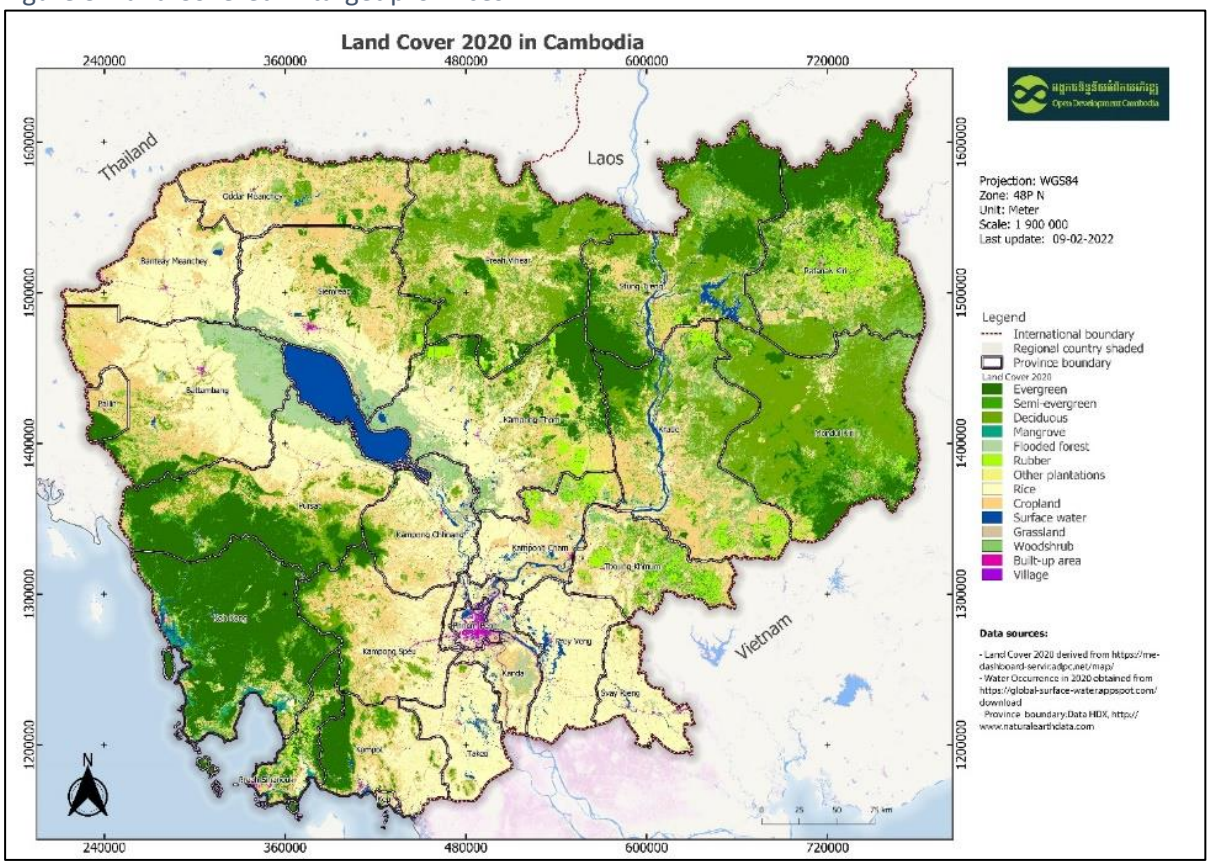
Table 4: Observed Temperature and Precipitation Trends for 1991-2020

Target Provinces	Observed Warmest (Top) and Coolest (Bottom) Months by Mean Temp.	Duration of Wet and Dry Seasons	Observed Wettest and Driest Months per Season	Observed Annual Precipitation
Battambang	Apr: 29.66°C (24.02°C, 35.35°C)	W: May-Oct	W: Sept. (331.88mm)	1,920.69 mm
	Dec: 26.09°C (21.22°C, 31.02°C)	D: Nov-Apr	D: Jan (11.66mm)	
Kampong Speu	Apr: 28.66°C (23.51°C, 33.86°C)	W: June–Oct	W: Aug (366.44 mm)	2,070.37 mm
	Dec: 26.12°C (21.96°C, 30.33°C)	D: Nov–Apr	D: Jan (18.38 mm)	
Tboung Khmum	Apr: 29.73°C (24.54°C, 34.97°C)	W: May–Nov	W: Sept (250.39 mm)	1,474.66 mm
	Dec: 26.18°C (21.85°C, 30.56°C)	D: Dec–Apr	D: Jan (6.75 mm)	

Landscape

Land uses in Battambang and Pursat provinces are covered by rice field and cropland, while Tboung Khmum province is covered by rubber plantation and other plantations.

Figure 3: Land Covered in target provinces

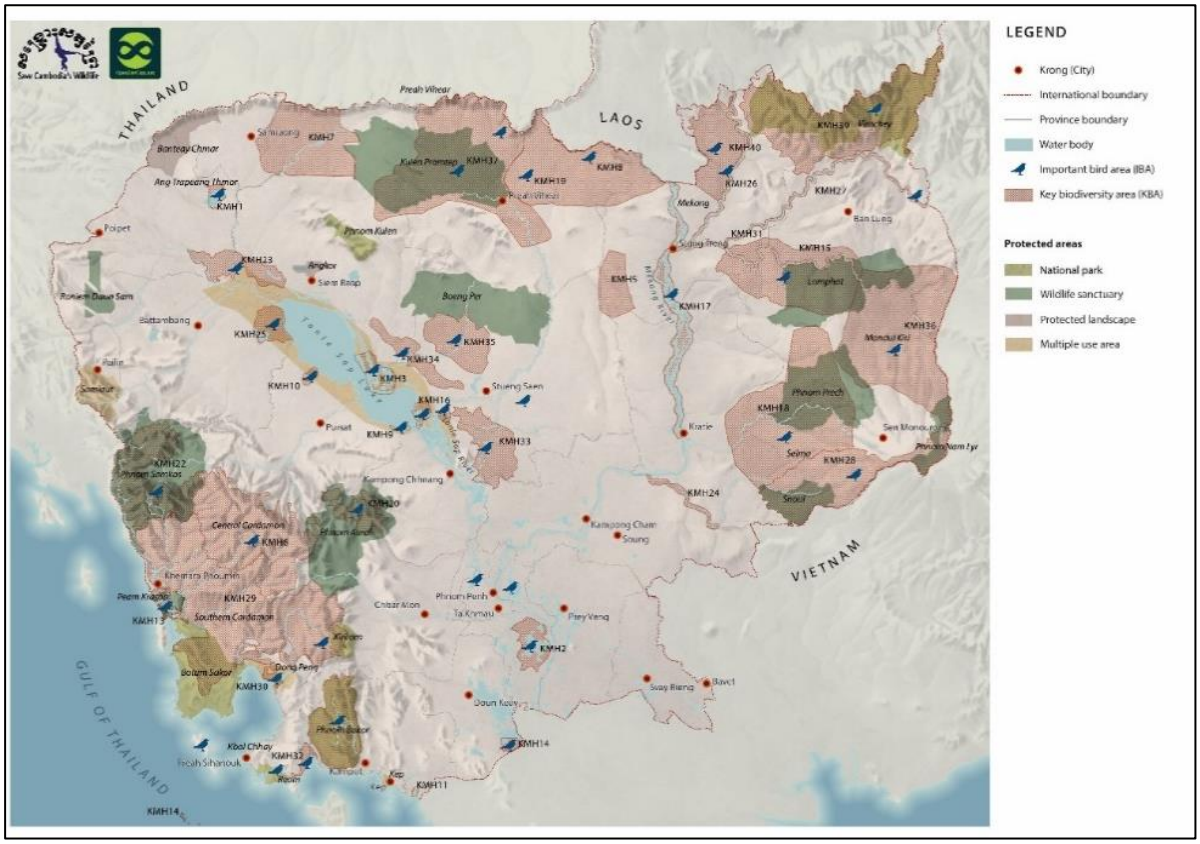


Source: Open Development Cambodia, 2024

Natural resources

There are protected areas and key biodiversity areas in Cambodia (seen figure below). Protected areas are classified as national park, wildlife sanctuary, protected landscape and multiple use area. Some of protected areas and key biodiversity areas shares boundary with target provinces.

Figure 4: List of protected areas and key biodiversity area



Source: Open Development Cambodia, 2024

Socioeconomics

The target project areas of Battambang, Tbong Khmum, and Kampong Speu covered 3.2 million people, with 701,133 families. According to NCDDS 2022, 865,011 people in the target areas had farming as their primary occupation. Additionally, there were 435,044 vulnerable groups (VGs), including 98,578

women-headed households, 325,745 people older than 65 years old, 9,286 people with disabilities from nature, and 1,435 IPs, which is equal to 14% of the total population in the three provinces. Noticeably, indigenous Charai and Suoy were located more in Battambang and Kampong Speu provinces (detail information is in Social Assessment Report).

According to the ID Poor RGC 2023[5], Battambang had the highest number of poor families among the three provinces, with 91,599 families holding ID Poor I and II, representing 31% of the total families. Tbong Khmum province was next, with 40,580 poor families, including ID Poor I and II, equal to 21%. Finally, Kampong Speu had 24,584 families or 13%.

Livestock production

According to the NCCDS, in 2023, there were 165,447 families raising cows in Kampong Spue, Battambang, and Tbong Khmom provinces. Kampong Spue had the highest number of cow-raising families, followed by Battambang and Tbong Khmom. Only 17,322 families raised pigs in the target provinces, with a negligible difference in the number of pig-raising families across the provinces. Finally, there were 383,044 families raising chickens, with Battambang and Kampong Speu being the leading chicken-producing provinces.

Despite the high number of families raising these animals, there were only two pig breeding stations located in Battambang province. Additionally, only 89 certified vet drug and animal feed shops were present in the target provinces.

Village Animal Health Workers

There were 1,081 VAHWs providing veterinary services to cattle, pigs, and poultry in the target provinces of Battambang, Kampong Spue, and Tbong Khmum. Of these, 513 were from Battambang, 483 were from Kampong Spue, and only 85 were from Tbong Khmum. This represents a significant disparity in the distribution of VAHWs, especially considering that 138,360 families in Tbong Khmum are raising livestock.

Slaughterhouse

There were 37 slaughterhouses in the target provinces of Battambang, Kampong Spue, and Tbong Khmom. Of these, 14 were located in Battambang, 15 in Kampong Spue, and 8 in Tbong Khmom. The slaughterhouses were mainly used for cows and pigs, and only 1 was specifically for chickens, located in Kampong Spue province.

Number of AC/Producer Group

There are 166 agricultural cooperatives (ACs) and producer groups engaged in agricultural production, including cultivation and livestock raising, within the target provinces.

4.2. ESS1: Assessment and Management of Environmental and Social Risks and Impacts

The project will finance some small-scale construction/renovation works for livestock-related infrastructure and grant co-financing of small-scale investments that will result in minor community safety/disturbance caused by interaction between workers and communities and environmental pollution. There are no any risks related to associated facilities because there is no Royal Government of Cambodia, ADB or other development partners financing of activities that are directly and significantly related to the project activities (and necessary for the project) at the same time and at the same target provinces.

[5] https://app.idpoor.gov.kh/public-data-query#publichouseholddata

Environmental risks have been assessed based on likelihood and potential impact/consequence. Key risks include: (i) High risk of impacts due to spreading zoonotic diseases and infections to people from inappropriate waste disposal and management (including from laboratories), and workers and waste pickers' injuries from sharps (syringes, needles, blades etc.) disposed by animal vaccination programs. The potential consequence is severe (regarding zoonotic disease), so although the likelihood is rare, this is still considered as high risk; (ii) Medium risk of impacts due to waste, noise, dust, vibration, OHS for workers, community health and safety associated with civil works. The potential consequence is moderate, and the likelihood is possible; (iii) Medium risk of impacts related to resource efficiency and pollution (waste water discharge, solid waste) in slaughterhouses and markets during construction/renovation of infrastructure and their operation. The potential consequence could be moderate and the likelihood is possible based on existing operation; and (iv) High risk of community health and safety issues (including transmission of zoonotic diseases) related to the handling, transportation and disposal of carcass and other biological materials, and in markets.

Social risks have been assessed based on likelihood and potential consequence: (i) Medium risks of excluding vulnerable groups from project benefits. The potential consequence is moderate, and the likelihood is rare; (ii) Low risk of use of child labor as part of construction and the project's engagement in the livestock sector, and risk related to OHS of workers and their working conditions during construction and operation. The potential consequence is moderate, and the likelihood is rare; (iii) Low risks related to temporary and minor community safety as caused by interaction between workers and communities, including low SEA/SH risks from workers and their proximity to vulnerable groups, as well as other risks associated with community safety as a result of project construction and operations. The potential consequence is moderate, and the likelihood is rare; (iv) Low risks associated with engaging with indigenous communities (by construction workers/project technical service providers) present in project areas, in a culturally appropriate manner. The potential consequence is moderate, and the likelihood is rare; and (v) Moderate risks of community safety/health associated with impacts caused by waste/smells from labs/ livestock infrastructure and facilities. The potential consequence is moderate, and the likelihood is possible. There is no risk related to land taking, as construction/renovation works, including value chain facilities, will take place on public land owned by MAFF, without resorting to any resettlement impacts.

Mitigation measures have been proposed for managing and mitigating the social and environmental risks and potential impacts, following the World Bank mitigation hierarchy to:

- Anticipate and avoid risks and impacts;
- Where avoidance is not possible, minimize or reduce risks and impacts to acceptable levels;
- Once risks and impacts have been minimized or reduced, mitigate; and
- Where significant residual impacts remain, compensate for or offset them, where technically and financially feasible (This last mitigation hierarchy is not applicable for this project).

The Exclusion list of Table 15 will be used during screening stage as part of avoidance measures.

Table 5: Risks and impacts and Mitigation Measures for ESS1

Activities	Risks and Impacts	Mitigation Hierarchy and Mitigation Measures
Inadequate environmental or social assessment prior to subproject design	Environmental or social risks not identified	Mitigating: Environmental and social assessments be conducted for each subproject prior to detailed planning and design and then mitigation hierarchy will be applied in order to avoid, to reduce and/or to mitigate the risks and impacts
Inadequate staffing or inadequate capacity of assigned E&S	Environmental or social risks not adequately identified	Mitigating: Competent staffs be assigned as E&S staffs for the

	implemented and mitigated, leading to potential harm to people and/or the environment	project, with additional consultants as needed. Staffs trained in ESF policies, instruments, etc.
Lack of or insufficient emergency response system	Cause injury or death to workers, plant operators, and/or community members	Mitigating: Prepare emergency response system for workers.
UXO contamination at project areas, including those of any Associated Facilities and of the PWOs	Injured workers or members of the publics	Reducing/Mitigating: Confirm all relevant areas are clear from UXO. - Cambodian Mine Action Centre (CMAC) to clear areas where necessary and provide evidence of clearance to PIT in advance of construction and Certificate of UXO Clearance obtained
Inadequate supervision of compliance with Environmental and Social mitigation measures	Environmental or social risks not adequately mitigated, leading to potential harm to people and/or the environment	Contractors appoint E&S focal persons in bid/contract documents. E&S consultants train E&S focal persons on supervision of compliance with ESCOP, and to key staff of contractors on implementation of ESCOP.

4.3. ESS2 Labor and Working Conditions

The engagement of construction workers, Village Animal Health workers and civil servants may cause some moderate risks linked to labor and working conditions including: (i) Labor discrimination, rights/labor disputes; (ii) Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH); (iii) Child labor in renovation work and livestock sector; (iv) Occupational health and safety for all workers from renovation works/operations due to a lack of personal protective equipment (PPE) and its proper enforcement and for workers working in slaughterhouses, and animal husbandry; (v) Traffic accidents for civil servants/consultants and risk to community residents due to travels to project sites, infection of both communicable diseases and vector-bone diseases during renovation works. These labor related risks will need to be managed through the development of labor management procedures (LMP).

Table 6: Risks and impacts and Mitigation Measures for ESS2 Labor and Working Conditions

Activities	Risks and Impacts	Mitigation Hierarchy and Mitigation Measures
Construction		
Renovating works	Risk of workers' health and safety that exposed to physical hazards, trip and fall hazards, exposure to chemicals, dust and noise, falling objects, ergonomic injuries, and zoonotic transmission during renovating slaughterhouse and markets.	- Can be minimized or reduced by conducting training of workers in the identification and management of occupational hazards including animal disease/zoonotic disease surveillance from animal to workers during renovating works at slaughterhouses and markets; -Can be minimized or reduced by requiring workers to adhere to guidelines relating to minimum distances for excavations, tools, and vehicles, - Can be mitigated by implementing fall protection systems for renovating works that include provision of hoisting equipment, safety belts, and secondary (backup) safety straps for workers.

		- Can be mitigated by providing first-aid facilities readily accessible to workers. - Can be mitigated by posting safety signs, reminders, or warning notices at visible areas onsite. - Can be minimized or reduced by strictly implementing a "No-Alcohol, No-Gambling and No-Dangerous Drug Policy" at the construction site. - Can be mitigated by providing PPEs and make wearing of PPEs mandatory. - Can be mitigated by developing and implementing incident reporting system -Detail mitigation measures should be adopted from the IFC's Environmental, Health, and Safety Guidelines (Occupational Health and Safety) -Can be mitigated by providing PPE and safety uniforms for preventing animal disease infection shall be provided to workers, visitors during renovating works. -Can be mitigated by requiring workers keeping washing hand all the time to ensure hygiene all the time. -Can be mitigated by preparing emergency responses for any outbreak disease.
Inadequate safety measures and sanitation at workers' campsites, Inadequate facilities provided in the workers' camps Conflicts between workers and local community	Increased risks of injuries and illness of workers (and any camp followers). Increased risk of contamination of water and soil from waste disposal. Conflicts between workers and local community due to misunderstanding, inappropriate behavior, etc.	- Mitigating: If a workers' camp is required, the contractor will set out a camp management plan in the C-ESCOP, with a location map and a site layout map indicating facilities and infrastructure. - Mitigating: Adequate and separate accommodation and sanitation facilities will be provided for male and female workers, meeting good standards of health, hygiene and comfort. - Mitigating: There will be adequate supply of clean and safe water, adequate waste and wastewater disposal systems, appropriate protection against heat, cold, noise, damp, fire and disease-carrying or poisonous animals (e.g. insects, rats, snakes) - Mitigating: All solid waste will be regularly collected and removed from the work camps and disposed to areas approved by local authorities. - Reducing/Minimizing: Relevant training on camp management will be provided to all staff. - Mitigating: All workers at the camp will be required to sign and follow a Code of Conduct (CoC) as part of their contract, on how to interact with the local residents. - Reducing/Minimizing: Training on gender-based violence shall be provided to contractor's workers and contractor's staffs.
Risk of workplace SEA/SH	Construction staff, workers can increase risks of SEA/SH, GBV, and VAC	- Reducing/Minimizing: Provide information (including workers signing code of conduct) / training prior to construction to contractors and workers on the risks of Gender-Based Violence, Sexual Exploitation and Abuse, Sexual Harassment and Violence Against Children at workplace. - Mitigating: Establish mechanisms to report GBV, VAC, SEA, and assure all are made aware of those mechanisms during training and in posters and other media.

Risk of communicable diseases, including STDs	Transmission of communicable diseases among workers and into the community, illness and possible deaths Transmission of STDs among workers and into the community	- Mitigating: Plan and execute work in compliance with country-specific Covid-19 regulations and directives, including directions of the Department of Labor. - Reducing/Minimizing: Conduct training and education of workers on infection prevention and control practices. - Reducing/Minimizing: Conduct training and education of workers on prevention of STDs - Reducing/Minimizing: Train all workers on contents of a Code of Conduct (CoC), and have them sign the CoC in acknowledgement
Child labor and forced labor	Engage workers under age 18 Compel people to work to repay debts Possible child labor or forced labor in supply chain	- Mitigating: Conduct age checks and other verification - Mitigating: Ensure all workers have contracts and are paid adhering to national labor laws. - Mitigating: Conduct due diligence related to child labor, forced labor and safety standards in the supply chain
Lack of or insufficient emergency response system	Cause injury or death to workers due to fire and any risks during constructing works	-Mitigating: Emergency response plan/system shall be prepared. -Mitigating: Provide training to workers on the emergency response system
GRM for Workers	Risks associated with Dissemination	- Mitigating: Contractor to nominate 'Contractor focal point' for GRM and develop complaints register and complaints form. - Mitigating: Erect sign boards with project details and GRM procedures/contact details at the entrance to each renovation site/camp. - Mitigating: PIT to provide contractor with GRM contact details which the contractor will use to print 'GRM contact cards' for its staff to hand to complainants and will keep cards with all vehicles, machinery and site managers/foremen. - Mitigating: Contractor to raise awareness of all workers on how to respond when an affected person or member of the public has a complaint i.e. direct the person to the most senior site manager present at the time and provide a 'GRM contact card'.
Operation Phase		
Disease transmission and infection between human and animals	Lack of hygiene and safety for personnel at animal farms, slaughterhouse, livestock market leads to disease transmission between human and animals	-Mitigating: PPE and safety uniforms shall be provided to workers, staff and visitors. -Mitigating: Emergency responses for any outbreak disease. -Mitigating: Training in procedures for hygiene and safety shall be provided to personnel at animal farms, slaughterhouse, and livestock market.
Gender-related issues, children abuse,	Facing with discrimination, limited access to resources (credit, training, veterinary care). Children involving in feed and water animals, collect manure and transport animal with exposing hazardous substances and working long hours in dangerous	-Mitigating: Agricultural Cooperative (AC), slaughterhouse, livestock market facilities, and lab shall not allow any child labor which against with the regulation. - Mitigating: Agricultural Cooperative (AC), slaughterhouse, livestock market facilities, and lab shall not allow to have gender discrimination, unfair pay between women and men workers for similar work.

	condition in cow and pig production.	- Mitigating: Ensure all workers have contracts and are paid adhering to national labor laws.

4.4. ESS3 Resource Efficiency and Pollution Prevention and Management

The runoff from animal waste can flow into water bodies causing severe ecological harm, and decomposing waste can cause harm to the environment and threat to human health. In addition, large volumes of process water need to be sourced, and discharge of wastewater from slaughterhouses may pollute rivers or streams in the community and degrade the environment, including fish. This is further complicated if the law regulating these slaughterhouses is weak and poorly enforced, or that there is no pre-treatment standard applied. As a result of project activities promoting animal farming and production, there is a potential increased use of chemicals in livestock and poultry firms to manage pests and disease. Specifically, processing facilities, commercial livestock-raising as well as feed storage areas may need to control pest populations aby utilizing pesticides, insecticides or rodenticides. Since the project does not involve a direct investment in the livestock production, significant GHG emission is not expected directly from the project. The estimation of reduced GHG production is not yet under the scope of project, but the project will further explore the opportunity with experts during the project implementation.

Table 7: ESS3 Resource Efficiency and Pollution Prevention and Management

Activities	Risks and Impacts	Mitigation Hierarchy and Mitigation Measures
Construction phase		
Renovating works of slaughterhouse and wet market facilities	Risks of environmental quality associated with air, noise, water, soil caused by renovating the slaughterhouses, and wet market facilities.	- Mitigating: Cover and moisten soil and aggregate stockpiles. - Mitigating: Water sprinkling in areas prone to airborne dust. - Mitigating: Regularly clean and sweep dust and accumulated soil at roadsides - Mitigating: Regularly maintain vehicles and equipment to ensure emissions comply with standards. - Reducing/Minimizing: Prohibit burning of waste materials. - Mitigating: Cover materials with tarpaulin or other suitable materials during hauling. - Reducing/Minimizing: No renovation allowed from 22:00 to 06:00. - Position stationary equipment that produce high noise levels (i.e., diesel generators) as far as practical from sensitive receptors, and install noise suppression devices - Reducing or Minimizing: Erect temporary noise barriers around renovation sites.
Renovating works of slaughterhouse and wet market facilities	Risk associated with polluting the terrestrial and aquatic environments and harm the flora and fauna in those areas, including potential harm to local residents. It is impacted by Improper disposal of construction waste and	-Mitigating: Waste Management Plan shall be prepared to control waste properly as mentioned in ESCP. -Mitigating: Undertake waste reuse and recycling, where possible, and dispose only in approved sites. - Mitigating: Undertake segregation of hazardous and non-hazardous wastes, including properly labeled waste disposal bins.

	asbestos (if present) especially near the natural water sources (canals, streams, ponds, etc.), or minor operational or accidental spills of fuel and lubricants from the construction machinery	- Mitigating: Instruct workers not to indiscriminately dispose wastes particularly at surrounding areas, canals, rivers, agricultural field, and other public areas -Avoiding: Avoid the disposal of wash water with excessive chlorine residue into rivers or water bodies
Renovating works of slaughterhouse and wet market facilities	Risk to local environment impacted by improper restoration of renovation sites, including cleaning and closing of old unhygienic outdoor pits at the end of the civil works, and restoration of the workers' camp sites and related facilities	- Mitigating: All renovation sites and work areas will be rehabilitated to be close as possible to their previous condition and able to be used as before. - Mitigating: No waste will remain at the sites after work is completed. - Mitigating: At the workers' camps, all facilities, structures, installations and pavements (above ground and below ground, fixed and moveable) will be dismantled or demolished and removed (reused, sold/recycled, disposed of as waste) from the site. - Mitigating: All chemicals, waste and pollution will be removed and safely disposed of. - Mitigating: Septic tanks and other sanitary/waste disposal systems will be emptied, and the content disposed of in accordance with local regulations. The installations will be excavated and removed. - Mitigating: The renovation sites and workers' camps will be recontoured, depressions backfilled, topsoil will be applied, and the sites will be revegetated
Renovating works of slaughterhouse and wet market facilities	Risks of environmental quality associated with air caused by increased electricity use for plan operations leads to increased greenhouse gas emissions	- Mitigating: Use resource efficient equipment
Operation Phase		
Animal farming and animal production	Risks of environmental quality associated with air, water, soil caused by increasing animal wastes and wastes from animal feeding process	-Mitigating: Waste Management Plan shall be prepared to control waste properly as mentioned in ESCP and the plan shall comply with IFC's Environment, Health and Safety[6] and GIIP, including but not limited to: - Mitigating: Ensure production and manure storage facilities are constructed to prevent urine and manure contamination of surface water and groundwater - Reducing/Minimizing: Introducing biogas technology to manage manure and organic wastes from animal farms in order to minimize impacts on polluting surface water odor, emitting GHG into atmosphere

[6] https://www.ifc.org/content/dam/ifc/doc/2023/ifc-general-ehs-guidelines.pdf

		-Mitigating: Environmental Health and Safety Guidelines for Mammalian Livestock Production[7] and Poultry Production are used as references[8].
Slaughterhouses and livestock markets	Risks of environmental quality associated with water; soil caused by increasing wastewater discharge due to increasing water consumption	-Mitigating: Improvement in food hygiene, water and sanitation utilities in slaughterhouses and in livestock markets -Mitigating: Waste management procedures consistent with GIIP, including but not limited to: - Mitigating: Encourage the collection and processing of blood, to remove it from waste systems. - Mitigating: Improve collection facilities for animal wastes, in particular for blood and stomach contents. - Mitigating: Improve storage areas for solid wastes. - Mitigating: Formalize and regulate the slaughter waste re-use and recycling sector to improve occupational health and safety, public health, and minimize waste quantities for disposal. - Mitigating: Encourage the use of composting techniques for livestock and slaughter wastes. -Mitigating: Wastewater shall be treated properly onsite before discharging into public sewer or water body by complying with Sub-decree No. 27 on Water Pollution Control. - Mitigating: Improve drainage and provide catch-pits or interceptors for collecting solid material. Provide simple education and awareness training for all related industries with respect to waste, disease, and disease risks -Mitigating: Infected dead animals and waste from the slaughterhouses and markets should be disposed properly to avoid spread of disease and risks to public health. - Mitigating: For livestock market, improve facilities for the collection of animal waste (dung) and reducing pollution of local watercourses through the provision of appropriate hard-standing areas and drainage. -Mitigating: For livestock market, encourage waste collection and re-use, e.g. dung cakes for fuel, composting, and fertilizer. -Mitigating: Pest (rodents and so on) at slaughterhouses and markets shall be properly managed. -Mitigating: Environmental Health and Safety Guideline for meeting processing[9], poultry processing[10] are used as references
Animal feed processing	Risk Increasing pesticides, insecticides or rodenticides use for pest	- Reducing/Minimizing: In practice, there is rare to use pesticide for managing pest for animal feed crops.

[7] https://documents1.worldbank.org/curated/fr/840971484311896562/pdf/111934-WP-ENGLISH-Mammalian-Livestock-Production-PUBLIC.pdf

[8] https://documents1.worldbank.org/curated/pt/353101486566933704/pdf/112696-WP-ENGLISH-Poultry-Processing-PUBLIC.pdf

[9] Source : https://documents1.worldbank.org/curated/en/997831484217630732/pdf/111932-WP-ENGLISH-Meat-Processing-PUBLIC.pdf

[10] https://documents1.worldbank.org/curated/pt/353101486566933704/pdf/112696-WP-ENGLISH-Poultry-Processing-PUBLIC.pdf

	control leads to increasing chemical contamination in surface water and soil quality	The project advises that pesticide shall not be used in animal feed crops. However, Integrated Pest Management (IPM) will be prepared under sub-component 1.1 to control pest population in processing facilities, commercial livestock raising as well as feed storage areas11.

4.5. ESS4 Community Health and Safety

The project is expected to bring positive environmental and social impacts in terms of more sustainable livestock breeding and better animal welfare practices, efficient water conservation, reduced burden on pastures, increased food safety, and livelihood improvement. There are no significant risks or impacts to community health and safety associated with renovation as civil works will be minor and no labor influx is expected. However, there will be concerns and potential risks due to modernization of value chain infrastructure and market facilities. Public health risks are associated with zoonoses, Emerging Infectious Diseases (EIDs) and Antimicrobial Resistance (AMR) that originate in slaughterhouses, distribution and logistics and livestock markets, and water pollution due to poor sanitation utilities in slaughterhouses. Law on animal health and production and Sub-decree 108 on management of slaughterhouse and inspection of animal and animal products shall be complied for managing slaughterhouses and livestock market effectively.

Table 8: Risks and impacts and Mitigation Measures for ESS4

Activities	Risks and Impacts	Mitigation Hierarchy and Mitigation Measures
Lack/Insufficient assessment of environmental services that might be affected by the project	Potential impacts would be unique to and need to be determined for each subproject. Examples might be: Wastes could affect natural water sources used by other household for domestic use, or by others for agriculture.	▪ Mitigating: Conduct an assessment of environmental services that might be affected by the project, both potentially beneficial and potentially damaging. ▪ Avoiding: Adjust subproject design to avoid damaging impacts
Renovating works of slaughterhouses and wet market facilities	Increased risk of traffic accidents from transporting construction vehicles and equipment, trucks bringing supplies, etc.	▪ Reducing/Minimizing: Sign posting, warning signs, and barriers and flagman for control the traffic at between public road and entrance of renovation site.
Renovating works of slaughterhouses and wet market facilities	Riks to community health impacted by dust, noise, vibrations, and gas emanations from renovation activities	Refer to mitigation measures for same risk under ESS3 above
Renovating works of slaughterhouses and wet market facilities	Risk of accidents in or near renovation sites	▪ Reducing/Minimizing: Fencing and barriers, clearly posted warning signs ▪ Reducing/Minimizing: Guards to prevent access to renovation sites by outsiders (third parties) ▪ Reducing/Minimizing: Install explicit signs forbidding children to play in or near the renovation sites

11 Based on World Bank's Environmental and Social Framework, IPM refers to a mix of farmer-driven, ecologically based pest control practices that seeks to reduce reliance on synthetic chemical pesticides. It involves: (a) managing pests (keeping them below economically damaging levels) rather than seeking to eradicate them; (b) integrating multiple methods (relying, to the extent possible, on nonchemical measures) to keep pest populations low; and (c) selecting and applying pesticides, when they have to be used, in a way that minimizes adverse effects on beneficial organisms, humans, and the environment.

Renovating works of slaughterhouses and wet market facilities	Risks related to temporary and minor community safety as caused by contact with infected workers	▪ Reducing/Minimizing: Provide information to local community in easily accessible manners on how to prevent and treat various communicable diseases ▪ Reducing/Minimizing: Provide information to local residents on the workers' camps and their regulations.
Renovating works of slaughterhouses and wet market facilities	risks related to temporary and minor community safety as caused by interaction between workers and communities, including low SEA/SH risks from workers and their proximity to vulnerable groups, as well as other risks associated with community safety as a result of project construction	▪ Reducing/Minimizing: Provide information (including workers signing code of conduct) / training prior to construction to contractors and stakeholders and local community on the risks of Gender-Based Violence, Sexual Exploitation and Abuse, Sexual Harassment and Violence Against Children with influx of outside labour ▪ Reducing/Minimizing: Establish mechanisms to report GBV, VAC, SEA, and assure all are made aware of those mechanisms during training and in posters and other media.
Renovating works of slaughterhouses and wet market facilities	Risk to community health and safety caused by Lack of or insufficient emergency response system	▪ Mitigating: Emergency response plan/system shall be prepared ▪ Mitigating: Inform community of emergency response system ▪ Reducing/Minimizing: Provide training to selected members of community on how to respond to emergency
Operation Phase		
Daily operation works at slaughterhouses and livestock market facilities	Riks of environmental quality on water due to poor sanitation utilities in slaughterhouses	▪ Refer to ESS3 ▪ Mitigating: Operating slaughterhouse and livestock market shall comply with Sub-decree on Control of Slaughterhouse and Slaughtering Business and Primary Animal Product Processing Premises; Sub-decree on water pollution control; Good International Industry Practices (GIIP) animal welfare including International Finance Corporation (IFC).
Daily operation works at slaughterhouses and livestock market facilities and distribution of animals	Riks of community health and safety infected by animal disease/zoonotic disease surveillance at farming, slaughterhouses, distribution and logistics and livestock market	▪ Mitigating: a mobile application system for disease surveillance; disease mapping and emergency disease alter in target province will be set up. ▪ Mitigating: Strengthen capacity on animal health, disease detection and disease control to Village Animal Health Workers (VAHW), Provincial Office of Animal Health and Productions (POAHP) ▪ Mitigating: Capacity building

		programs for veterinary personnel, paraprofessionals, a cadre of Village Animal Health Workers (VAHW) from both the public and private sectors. ▪ Reducing/Minimizing: Developing appropriate legislation governing animal health, animal production, and veterinary services. ▪ Reducing/Minimizing: Vulnerability and risk assessment tool to identify animal health risks and prioritize veterinary services delivery in local areas. ▪ Reducing/Minimizing: Developing an IEC-based communications strategy, including a system of key messaging and alerts to stakeholders by using websites and social media. ▪ Mitigating: The implementation of surveillance and control programs for transboundary animal diseases early warning and zoonoses. ▪ Mitigating: Strengthening capacities of veterinary laboratories ▪ Mitigating: Production compartments in line with OIE guidelines will be piloted in the project provinces to identify best practices for mitigating disease risks. ▪ Mitigating: Setting up an integrated animal health and production information system (AHPIS) to capture and integrate data from a range of sources. ▪ Mitigating: Mitigation measures for controlling risks of transporting animals to slaughterhouse/market shall refer to FAO's guidelines for humane handling, transport and slaughter of livestock[12] or transport of slaughter animals[13] or other international/acceptable guidelines/standards.

4.6. ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

Although the project will not involve direct physical investments in livestock production, it will support technical assistance activities that include promoting productivity enhancement measures and techniques for animal breeding, genetics and animal nutrition. The project interventions will be

[12] https://www.fao.org/3/x6909e/x6909e.pdf
[13] https://www.fao.org/3/y5454e/y5454e05.pdf

consistent with Good International Industry Practices (GIIP) animal welfare including International Finance Corporation (IFC) Good Practice Note: Improving Animal Welfare in Livestock Operations, and GIIP in animal husbandry techniques with due consideration for religious and cultural principles.

Table 9: Risks and Impacts and Mitigation Measures for ESS6

Activities	Risks and Impacts	Mitigation Hierarchy and Mitigation Measures
Renovating works [NOTE: in mitigation measures for ESS3]	Risk associated with polluting the terrestrial and aquatic environments and harm the flora and fauna in those areas, including potential harm to local residents caused by Improper disposal of construction waste, especially near the natural water sources (canals, streams, ponds, etc.), or minor operational or accidental spills of fuel and lubricants from the construction machinery	- Mitigating: Undertake waste reuse and recycling, where possible, and dispose only in approved sites. - Mitigating: Undertake segregation of hazardous and non-hazardous wastes, including properly labeled waste disposal bins. - Mitigating: Instruct workers not to indiscriminately dispose wastes particularly at surrounding areas, canals, rivers, agricultural field, and other public areas
Grant co-funding to promote the uptake of climate smart technology and practice packages (PaTecs), including feed and fodder production	Risk associated with land use change due to increased feed and fodder production	Avoid: Activities that would lead to adverse impacts on natural habitats are included on the project Exclusion List
Promoting animal welfare aspects	Risk associated with Poor treatment of animals resulting in unnecessary harm, illness.	- Mitigating: Good International Industry Practices (GIIP) animal welfare including International Finance Corporation (IFC) Good Practice will be complied with. -Mitigating: Environmental Health and Safety Guidelines for Mammalian Livestock Production[14] and Poultry Production are used as references[15].
Technical assistance (policies, capacity building, promotion activities) to increase livestock number and production may increase demand and production of feed crops.	Risk of land use change due to Increasing intensification of agricultural land use, drive land use change from forests to agricultural lands, and pose consequent impacts on habitats and biodiversity.	Reducing/Minimizing: The ToR for such technical assistance will require due consideration of potential downstream ESS6 implications. This provision is be clearly mentioned in the ESCP.

[14] https://documents1.worldbank.org/curated/fr/840971484311896562/pdf/111934-WP-ENGLISH-Mammalian-Livestock-Production-PUBLIC.pdf

[15] https://documents1.worldbank.org/curated/pt/353101486566933704/pdf/112696-WP-ENGLISH-Poultry-Processing-PUBLIC.pdf

4.7. ESS 7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

The project will be implemented in three provinces, which are geographically considered as having indigenous peoples (IP).

Table 10: Risks and Impacts and Mitigation Measures for ESS7

Activities	Risks and Impacts	Mitigation Hierarchy and Mitigation Measures
Presence of Indigenous Communities in or near a sub-project	Riks of excluding IP communities in the project areas	▪ Reducing or Minimizing: The project needs to ensure that indigenous peoples are consulted in a culturally appropriate manner including using the languages appropriate to them. ▪ Reducing or Minimizing: The project is designed in a way that will benefit vulnerable and disadvantaged groups including ethnic minorities, and project activities are not expected to have any adverse impacts on IP communities' cultures, land, or their access to natural resources. However, given the presence of the IP communities in all project areas, the details of how the project will communicate and engage with affected IP communities has been provided as part of the SEP. ▪ Reducing or Minimizing: Consult with IP communities at all stages, including preparation of the IPP, if needed to ensure that their needs are met and communication with the IP communities are done y in a language and manner that is understood by them.
	There might be issues on IP caused by project activities	▪ Mitigating: GRM for IP will be established as part of GRM for the project. ▪ Mitigating: Members of the GRM committee at commune level (where there is IP) should include at least one representative of IP, selected by the IP community.

4.8. ESS8 Cultural Heritage

There is the potential of discovering unknown cultural heritage during excavation activities for civil works. A guidance for chance finds procedure is attached in Annex V.

Table 11: Risks and Impacts and Mitigation Measures for ESS8

Activities	Risks and Impacts	Mitigation Hierarchy and Mitigation Measures
Increasing land for livstock production and animal feed production	Risks for cultural heritage site disturbed by increasing land for livestock production and animal feed production.	-Reducing/Minimizing: During the stakeholder consultation process, efforts will be made to identify cultural heritage (both tangible and intangible) in coordination with communities, especially IP communities, and where necessary appropriate mitigation measures will be adopted to mitigate any risks to/preserve intangible cultural heritage.

		- Mitigating: As the renovation works occur in the existing reserved land by the Provincial Department of Agriculture, Fishery and Forestry, it is not expected to yield any important landmark, monument, grave or any other conservation findings of any significance. However, guidance for a chance finds procedure is included in Annex V.

4.9. ESS10 Stakeholder Engagement and Information Disclosure

Relevant stakeholders will be engaged throughout the project as described in Table below.

Table 12: Risks and Impacts and Mitigation Measures for ESS10

Activities	Risks and Impacts	Mitigation Hierarchy and Mitigation Measures
Community / Stakeholder Engagement	Insufficient information to local residents Insufficient knowledge of GRM process All can lead to potential conflicts between local community and project	▪ Mitigating: Regular consultation with direct stakeholders at all stages of the project, according to Stakeholder Engagement Plan (SEP) ▪ Mitigating: Consultation with indirect stakeholders as needed, according to Stakeholder Engagement Plan (SEP) ▪ Mitigating: Update SEP regularly to reflect new or different stakeholders and new or different conditions ▪ Mitigating: Assure all stakeholders are aware of Project's GRM to report any issues, complains, suggestions. ▪ Mitigating: Make available posters and other social media that explain the GRM process and their rights of any complainants.
Lack of access to a grievance redress process	Riks of conflicts caused by Potential for increased discontent of local residents and conflict with project.	• Mitigating: Establish a Grievance Redress Mechanism.

4.10. Risks and Mitigation Measures Specific to Disadvantaged and Vulnerable Groups

Many smallholder farmers did not have suitable land size, making it difficult to invest in their livestock businesses and improve their productivity. Additionally, many smallholder farmers were poor, limiting their ability to purchase inputs such as vet drugs and feeds, veterinary care, and transportation. This also makes them more vulnerable to shocks such as droughts and floods that create weather-borne diseases.

The social assessment study found that smallholder farmers, disabled, and women household heads were more involved with household chicken production than pig and cow production. This was due to the following factors:

- Chicken production requires a small investment amount, especially for household production.

- Chicken production is short-term, only 3.5 months, compared to pigs for 5 months and cows for 18 months.
- Finally, the risks of production loss due to unstable prices and diseases are low compared to pigs and cows.

These factors made chicken production a more attractive option for smallholder farmers with limited resources and looking for a way to reduce their risks.

The social assessment study suggested that promoting smallholder integration in commercial livestock value chains may take into account the three key elements: ability, opportunity, and dignity. Ability refers to whether the smallholder farmers have the capacity to participate in the project. This can be included through information dissemination and meetings, but it is important to note that many smallholder farmers may not be literate, especially in remote districts. Given this, a proper stakeholder engagement strategy is crucial to effectively communicate the project's benefits to smallholder farmers.

Opportunity refers to whether all farmers, including smallholder farmers, have equal access to the project's benefits. This can be challenging in a context where women may have more household responsibilities, disabled farmers may have limited mobility, and elderly farmers may need to care for grandchildren. The project should consider how to make its services more accessible to all farmers.

Dignity refers to how farmers are treated when they participate in the project. Animal Health Service providers should pay attention to the needs of VGs and avoid discrimination.
The assessment also identified potential social risks for project implementation such as child labor and occupational safety. To prevent any potential for child labor and ensure worker safety throughout construction and operation, the project will implement robust mitigation measures, comprehensive Occupational Health and Safety (OHS) plans, and Labor Management Procedures (LMPs).

Given these three key elements such as ability, opportunity, and dignity, the project may target smallholder farmers with high productive and commercialization potential, while also supporting a smaller segment of lower capacity farmers to through producer organizations/Groups (POs/PGs) and/or cooperatives and showing potential and interest to develop their livestock business.

The project will address potential community safety and security risks during renovation works and operations by implementing awareness-raising programs for both workers and communities and establishing a grievance redress mechanism. This includes specifically mitigating risks of Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH).

Table 13: Risks and Mitigation Measures related to Disadvantages and Vulnerable Group

Risk	Mitigation Measures
The inclusion of VGs (IP, smallholder farmers, disabled, and women's household heads) in livestock production	The project should ensure that all people, regardless of their social group, are included in the project's activities. This will be done by: Recruiting a social development specialist who will work throughout the life cycle of the project. Ensuring meaningful consultation and quality of engagement with vulnerable and marginalized groups at all levels during project preparation and other project activities.

	Improving physical barriers for VGs by designing market construction facilities with inclusive accessibility. Conducting proper and regular screening to refer VGs to project services based on the screening results. If they are VG farmers, the project should integrate them with the livestock value chain through criteria-based in-kind support. VGs shall be informed about GRM access and process during the public consultation process throughout project implementation.
Gender issues and child abuses	Raise awareness among VMs, farmers, VAHWs, village/commune chiefs, and communities about gender-based issues and child abuse. Display the numbers of local authorities and police in accessible locations to report any gender issues and child abuse cases. Ensure that Project work, staff, and beneficiaries are trained and sign Codes of Conduct (CoCs) regarding Gender-Based Violence (GBV), Sexual Exploitation and Abuse (SEA), and Violence Against Children (VAC).

V. Procedures and Implementation Arrangements

5.1 Environmental and Social Risk Management Procedures

The environmental and social risk management procedures will be implemented through the Project's subproject selection process. In summary, the procedures aim to do the following:

Table 14: Project Cycle and E&S Management Procedures

Project Stage	E&S Stage	E&S Management Procedures	Implemented by
a. Assessment and Analysis: Subproject identification	Screening	- During subproject identification, ensure subproject eligibility by referring to the Exclusion List in table 13 below. - For all activities, use the Screening Form in Annex 2 to identify and assess potential environmental and social risks and impacts, and identify the appropriate mitigation measures for the subproject.	GDAHP
b. Formulation and Planning: Planning for subproject activities, including human and budgetary resources and monitoring measures	Planning	- Based on Screening Form adopt and/or prepare relevant environmental and social procedures and plans (ESCOP). - Ensure that the contents of the ESCOP are shared with relevant stakeholders in an accessible manner and consultations are held with the affected communities in accordance with the SEP. -ESCOP approved by PIT and reviewed by the World Bank - Incorporate relevant environmental and social procedures and plans (ESCOP) into contractor bidding documents; train contractors on implementation of ESCOP.	PIT/GDAHP with supporting from One Focal Environmental and One Focal Social staffs of PIT and One Environmental and One Social Consultants
c. Implementation and Monitoring: Implementation support and	Implementation	- Ensure implementation of ESCOP through site visits, regular reporting from the field, and other planned monitoring.	PIT/GDAHP with supporting from One

continuous monitoring for projects		- Track grievances, beneficiary feedback, and incidents. - Continue awareness raising and/or training for relevant staff, volunteers, contractors, communities.	Focal Environmental and One Focal Social staffs of PIT and One Environmental and One Social Consultants
d. Review and Evaluation: Qualitative, quantitative, and/or participatory data collection on a sample basis]	Completion	- Assess whether ESCOP have been effectively implemented. - Ensure that physical sites are properly restored.	PIT/GDAHP with supporting from One Focal Environmental and One Focal Social staffs of PIT and One Environmental and One Social Consultants

a. Subproject Assessment and Analysis – E&S Screening

As a first step, all proposed activities including grant co-financing of small-scale investments should be screened to ensure that they are within the boundaries of the Project's eligible activities, and they are not considered as activities listed on the E&S Exclusion List in the table below.

Table 15: Exclusion List

- The project with adverse impacts on IP access to natural resources, land or cultural resources should not be financed.
- Weapons, including but not limited to mines, guns, ammunition, and explosives
- Support of production of any hazardous good, including alcohol, tobacco, and controlled substances
- Any construction in protected areas or priority areas for biodiversity conservation, as defined in national law
- Activities or subproject that requires a full EIA according to national legislation.
- Activities that have the potential to cause any significant loss or degradation of critical natural habitats, whether directly or indirectly, or which would lead to adverse impacts on natural habitats
- Activities that involve extensive harvest and sale/trade of forest resources (post, timber, bamboo, charcoal, wildlife, etc.) for large-scale commercial purposes
- Activities involving changing forestland into agricultural land or logging activities in primary forest
- Purchase or use of banned/restricted pesticides, insecticides, herbicides, and other dangerous chemicals (banned under national law and World Health Organization (WHO) category 1A and 1B pesticides)
- Construction of any new dams or rehabilitation of existing dams including structural and or operational changes; or irrigation or water supply subprojects that will depend on the storage and operation of an existing dam, or a dam under construction for the supply of water
- Activities that involve the use of international waterways
- Any activity affecting physical cultural heritage such as graves, temples, churches, historical relics, archeological sites, or other cultural structures
- Activities that may cause or lead to forced labor or child abuse, child labor exploitation or human trafficking, or subprojects that employ or engage children, over the minimum age of 14 and under the age of 18, in connection with the project in a manner that is likely to be hazardous or interfere with

the child's education or be harmful to the child's health or physical, mental, spiritual, moral, or social development
- Any activity on land that has disputed ownership or tenure rights
- Any activity that will cause physical relocation of households or will require the use of eminent domain
- Any activity or subproject that has a higher risk than substantial as the project's overall risk is assessed as Substantial.
- Any activity that will have adverse impacts on IPs land, cultural heritage, or cause resettlement requiring Free, Prior and Informed Consent (FPIC) as defined in ESS7.

As a second step, the GDAHP will use the E&S Screening Form in Annex 2 to identify and assess relevant environmental and social risks specific to the activities, and identify the appropriate mitigation measures. The Screening Form lists the various mitigation measures and plans that may be relevant for the specific activities (such as the Environmental and Social Codes of Practice, the Labor Management Procedures, Chance Find Procedures, etc.).

b. Subproject Formulation and Planning – E&S Planning

ESCOP template in the Annex III respectively will be used and adapted to site specific conditions based on any site-specific risks (and associated mitigation measures) identified during the screening process.

If site-specific ESCOP are necessary, the GDAHP will prepare these ESCOP and other applicable documents as needed. The GDAHP will provide approval and compile ESCOP and other applicable forms. The contents of the ESCOP will be shared with relevant stakeholders in an accessible manner, and consultations will be held with the affected communities on the environmental and social risks and mitigation measures. If certain subprojects or contracts are being initiated at the same time or within a certain location, an overall ESCOP covering multiple subprojects or contracts can be prepared. Some moderate risk subprojects may also benefit from the preparation of a site-specific environmental and social assessment prior to the preparation of an ESCOP.

The GDAHP will also complete the documentation, permits and clearances required under the national environmental regulation before any project activities begin.

At this stage, staff who will be working on the various subproject activities should be trained in the environmental and social management plans relevant to the activities they work on. The GDAHP will provide such training to field staff.

The GDAHP will also ensure that all selected contractors, subcontractors, and vendors understand and incorporate environmental and social mitigation measures relevant to them as standard operating procedures for civil works. The GDAHP will provide training to selected contractors to ensure that they understand and incorporate environmental and social mitigation measures; and plan for cascading training to be delivered by contractors to subcontractors and vendors. The GDAHP will further ensure that the entities or communities responsible for ongoing operation and maintenance of the investment have received training on operations stage environmental and social management measures as applicable.

c. Implementation and Monitoring – E&S Implementation

During implementation, the GDAHP of MAFF as an Executive Agency will conduct regular monitoring visits. Describe the mechanisms, responsible parties, and the frequency for project supervision. Consider whether mobile devices can be used for monitoring of projects with numerous subproject locations. If there are contractors implementing subproject activities, the contractors will be

responsible for implementing the mitigation measures in the E&S risk management documents, with Project Implementation Team (PIT)/ GDAHP oversight.

The PIT/GDAHP working to implement the project will ensure that monitoring practices include the environmental and social risks identified in the ESMF and will monitor the implementation of E&S risk management mitigation plans as part of regular project monitoring.

At a minimum, the reporting will include (i) the overall implementation of E&S risk management instruments and measures, (ii) any environmental or social issues arising as a result of project activities and how these issues will be remedied or mitigated, including timelines, (iii) Occupational Health and Safety performance (including incidents and accidents), (iv) community health and safety, (v) stakeholder engagement updates, in line with the SEP, (vi) public notification and communications, (vii) progress on the implementation and completion of project works, and (viii) summary of grievances/beneficiary feedback received, actions taken, and complaints closed out, in line with the SEP. Reports from the local levels will be submitted to the [responsible party in the implementing agency] at the national level, where they will be aggregated and submitted to the World Bank on a six-month basis.

Throughout the Project implementation stage, the PIT/GDAHP will continue to provide training and awareness raising to relevant stakeholders, such as staff, selected contractors, and communities, to support the implementation of the environmental and social risk management mitigation measures. An initial list of training needs is proposed below, in Section 5.5.

The PIT/GDAHP will also track grievances/beneficiary feedback (in line with the SEP) during project implementation to use as a monitoring tool for implementation of project activities and environmental and social mitigation measures.

Last, if the PIT/GDAHP becomes aware of a serious incident in connection with the project, which may have significant adverse effects on the environment, the affected communities, the public, or workers, it should notify the World Bank within 48 hours of becoming aware of such incident. A fatality is automatically classified as a serious incident, as are incidents of forced or child labor, abuses of community members by project workers (including gender-based violence incidents/SEA/SH), violent community protests, or kidnappings.

Table 16: Monitoring Measures

Parameter to be monitored	Location	Mean of Monitoring	Schedule/ Frequency	Responsible agency for monitoring
Project's detailed design including civil works construction design in accordance with ESMF and SEP requirements	N/A	Review of detailed design documentation	Prior to approval of detailed design	Environmental & Social Consultants and PIT
Implementation of all mitigation measures specified in the ESCOP	At subproject site	Monitoring and supervisions visits are required to check contractor's facilities, environmental and social management practices, reviewing worker's contract arrangements, conducting focus group meetings with	As defined in ESCOP	Environmental & Social Consultants and PIT

		female workers, conducting focal groups in the community to inquire about contractor- community relation, etc		
Implementation of SEP	At subproject site	As defined in the SEP	As defined in the SEP	Environmental & Social Consultants and PIT
GRM efficacy and functioning monitoring and reflection	At subproject site	As defined in the ESCOP and SEP	As defined in the ESCOP and SEP	Environmental & Social Consultants and PIT
Implementation of all mitigation measures specified in other project documents that may be required, such as Social Assessment recommendation	At subproject site	As defined in Social Assessment recommendation	As defined in Social Assessment recommendation	Environmental & Social Consultants and PIT

d. Review and Evaluation – E&S Completion

Upon completion of Project activities, the GDAHP will review and evaluate progress and completion of project activities and all required environmental and social mitigation measures. Especially for civil works, the GDAHP will monitor activities with regard to site restoration and landscaping in the affected areas to ensure that the activities are done to an appropriate and acceptable standard before closing the contracts, in accordance with measures identified in the ESCOP and other plans. The sites must be restored to at least the same condition and standard that existed prior to commencement of works. Any pending issues must be resolved before a subproject is considered fully completed. The GDAHP will prepare the completion report describing the final status of compliance with the E&S risk management measures and submit it to the World Bank.

5.2 Technical Assistance Activities

The project will mainly support technical assistance activities to promote livestock production, improve the value chain and strengthen animal health services, and not invest in large scale infrastructure. The project will also support activities that may have moderate physical footprints resulting from support on animal vaccination to complement the government's vaccination program, improving food hygiene, and food safety in livestock processing, product handling, and marketing.

Downstream impacts occurring from technical assistance activities may not result in any direct environmental risks and impacts. However, promoting the livestock value chain and increased livestock production may have downstream environmental implications (e.g. intensive use of water and land resources for livestock production, change from food crop production to animal feed, pollution of rivers and streams from untreated animal waste if uncontrolled). These downstream impacts will be managed through project's technical assistance activities as well related to promoting effective and efficiency in livestock production by introducing operation and maintenance manual (O&M manual) of slaughterhouse, livestock market facilities and lab, effective resources use in livestock value chain, wastewater, waste and hazardous waste management to be shared and trained to agricultural cooperative, project's beneficiaries.

The GDAHP will ensure that the consultancies, studies (including feasibility studies, if applicable), capacity building, training, and any other technical assistance activities under the Project are carried out in accordance with Terms of Reference acceptable to the Bank, that are consistent with the ESSs. They will also ensure that the outputs of such activities comply with the Terms of Reference.

5.3 Grant Program for Co-financing

This framework is to outline a methodology for selection of grant receivers (accessing grant co-funding for investments) for support, through categorization based on performance. Grant receivers within each such bucket will expect to generate low or moderate risk only and as such ESCOP will be suggested, based on key indicators such as operational and financial performance, and environmental and social considerations. A screening form will be prepared to assess their ability and potential to comply with the ESSs. A draft screening form provided in Annex 2.

Adherence to ESSs for Grant program

The Grant receivers , who will receive the grant, will be expected to comply with the ESSs as set forth in this ESMF and other environmental and social documents of this project. As most may not be familiar with the requirements for compliance with the ESSs, this will be done through a combination of contractual obligations including an environmental and social code of practice (ESCOP), providing capacity assessment and training, requiring the grant receivers to have staff responsible for environmental and social management and compliance, and regular monitoring by the public provincial waterworks and the project E&S teams.

Proposed activities to be carried out by the grant receivers during the grant period will be reviewed by the project E&S team to determine what potential environmental and social risks may occur, using the Environmental and Social Screening Checklist in Annex 2. This is to cover all activities of the grant receivers during this period, including any that might be considered associated facilities (see Chapter VI above), even if not directly funded under the grant.

Contractual Obligations

The requirement for grant receivers to comply with the ESSs will be included as part of their grant contract as an Environmental and Social Code of Practice (ESCOP). An ESCOP should be used if the environmental and social risks are considered relatively minor and easily manageable. The ESCOP should be similar to those used for Contractors, but adjusted to fit the particular conditions of the grant receivers' proposed activities. The grant receivers will also be required to establish local level grievance redress mechanisms that are consistent with the initial stages of the Project's GRM. Any complaints or comments should be reported to the Project GRM staff, along with a description of any resolution or decision at the local level. Any appeals of those decisions by affected parties or the grant receivers would be handled under the appellate stages of the Project's GRM.

The ESCOPs will require the grant receivers to designate personnel and/or hire staff to be responsible for compliance with the ESSs, including all compliance reporting, as well as be responsible for stakeholder engagement and the grievance redress mechanism. The ESCOP is to be considered a "living document" that should be updated to reflect any changes in environmental or social conditions, risks, and needs to manage those risks.

Capacity Assessment and Training

Training will be provided to key staff of the grant receivers. A short (1-2 day) training course on the purpose of environmental and social risk assessment and management will be provided to leadership and management staff of the grant receivers, to help them understand the purpose and value of such activities, including how they could become part of the regular operations of the grant receivers even after the grant period. More detailed training will be provided to the staff designated and/or hired to

be responsible for implementing the ESSs. Continued assessment of the capacity of the grant receivers will be carried out through monitoring by the project E&S team, and additional training will be provided as needed.

Reporting and Monitoring
Regular monitoring reports will be submitted by the grant receivers designated E&S staff on compliance with the conditions and management plans in the ESCOP. The E&S personnel of grant receivers, with the assistance of the project E&S team, will make regular visits to monitor compliance, at least every 6 months for those grant receivers with relatively minor E&S risks, and more frequently (at least quarterly) for those facing more complex or difficult E&S risks.

Failure to comply with any of the conditions of an ESCOP will lead first to a warning, with suggestions how to improve compliance. If the failure to comply is deemed serious and corrective measures are not made, the project will consult with the World Bank on what steps need to be taken, including the possibility of canceling the grant.

5.3 Contingency Emergency Response Component

Contingency Emergency Response Component is not relevant for this project.

5.4 Implementation Arrangements

The General Department of Animal Health and Production (GDAHP) of the Ministry of Agriculture, Forestry and Fisheries (MAFF) will be the Implementing Agency of the project The IA will establish a project implementation team (PIT) with experts from relevant technical, administration, finance, procurement, environmental and social standard (ESS), and M&E unit of GDAHP and MAFF. The IA will draw on the technical expertise and advice of MAFF and other relevant ministries e.g., MoE and MoH to implement zoonotic related aspects through the Z-TWG. GDAHP will be responsible for ensuring close coordination with sub-national governments, particularly provincial and district offices. While no project financing will flow to sub-national governments, efforts will be made to promote alignment between project activities and sub-national government investments and programs.

The GDAHP has good experience in managing projects funded by international financial institutions. It has recently designed, and is currently implementing ADB, FAO, and World Bank[16]-financed projects. GDAHP has an official mandate and experience with working across multiple directorates and ministries as needed under the project. It has demonstrated its strong commitment to implement the environmental and social framework (ESF) requirements under ongoing World Bank-funded projects such as the LASED III and CASDP. However, the GDAHP has not yet built a strong capacity to implement an environmental and social framework (ESF) under a World Bank-financed projects and thus, would require significant capacity building in this area.

Private sector beneficiaries of the project have no experience in managing E&S risks nor knowledge of ESF. These include smallholders and other private agents who will receive grant-funding support for livestock production enhancement, commercialization, as well as for the modernization of value chain infrastructure (slaughterhouses, markets). Therefore, qualified E&S consultants will be hired to assist the client in the implementation of the ESF instruments. Additionally, capacity of Environmental and Social Focal Persons of GDAHP will be built through a series of ESF trainings related to World Bank's Environmental and Social Framework and Project's ESF instruments (ESMF, Site-Specific ESCOP) for managing E&S risks. The private sector will also require significant support during project implementation in preparing E&S documents including screening and management, monitoring and reporting on E&S risks to the Bank.

[16] Human health team

Table 17: Implementation Arrangements

Level/ Responsible Party	Roles and Responsibilities
The Project Director (PD) and Project Manager (PM) at PIT	• Effective communication between all stakeholders; • Recruiting consultants; • Finalizing detailed design, bidding documents, and contract awards; • Monitoring and evaluating project activities and outputs, including periodic reports; • Involving stakeholders in all stages of project design and implementation as per the SEP; • Conducting consultations and disclosure of project documents as per the SEP; • Assuring quality of works, and services of consultants and counterpart staff; • Establishing a strong financial management system and submit timely withdrawal applications to World Bank, conduct timely financial audits as per agreed timeframe and take recommended actions; • Establishing and monitoring project grievance redress mechanism in accordance with the SEP; • Providing monitoring reports to the World Bank on a quarterly basis, and a project evaluation at the end of the project.
One Focal Environmental and One Social Officers (ESO) at PIT	• Implementing and monitoring performance of environment and social mitigation measures, including health and safety; • Conducting screening and scoping on environment and social impacts; • Conducting trainings on health, safety, gender, SEA/SH, VAC, labor rights, HIV/AIDS, STDs and the grievance redress mechanism to project communities, and monitoring contractor's training for their workers on Workers' Code of Conduct which covers SEA/SH/VAC, HIV/AIDS, STDs, and the workers' grievance redress mechanism; • Monitoring environmental and social activities of the project, in particular the implementation of the ESCOPs for construction/renovating works subprojects, and any other relevant project documents; • Monitor, including ensuring effective functioning of project's Grievance Redress Mechanism and solve grievances submitted to the PIT level; • Leading all stakeholder engagement activities, including information disclosure, consultations, reporting back to stakeholders, according to the provisions in the SEP; • Working closely with relevant government agencies and local authorities; • Prepare monthly reports on E&S implementation and submit to the PM and PD.
One Focal Environmental and One Social Officers at each Provincial Department of Agriculture, Forestry and Fisheries	• Monitoring the civil works in the respective provinces; • Coordinating effectively with all project stakeholders, including Focal Environmental and Social Officers (ESO) at PIT, consultants, contractors, local authorities, provincial departments and project communities; • Supporting district-level project officers in monitoring and evaluating progress and performance of consultants and contractors; • Supporting PIT's ESO to conduct trainings on labor, gender, SEA, SH, VAC, HIV/AIDS, and safety; • Supporting PIT's ESO to disseminate project information and conduct consultation activities, as well as ensuring effective grievance redress resolution within their province; • Supporting PIT's ESO to conduct screening and scoping of the project, and identifying environment, social, land acquisition impacts and screening for presence of IPs in the subproject area;

	• Liaising with village authorities in subproject area to encourage vulnerable group to apply for jobs that may be offered by project's contractors; • Collaborating with relevant departments involved in land acquisition and/or other environment or social mitigation measures.
One Environmental Consultant & One Social Consultants	• Develop screening checklist to assess risks and potential environmental and social impacts for each subproject; • Take lead in building capacity for the project (based on list of potential training topics, including periodic provision of on-the-job training to contractors, ESO and PIT on the implementation and management of E&S risks and impact at subproject level; • Review C-ESCOP and ensure C-ESCOP is consistent and cover all risks and potential impacts identified in site-specific ESCOP, particularly risks related to OHS, CHS, SEA/SH/VAC taking into account local knowledge and experience in prevention and management of these risks. • Ensure C-ESCOP have actionable plan to addressed identified risks and potential impacts, including allocation of resources to implement fully such actions. • Make recommendation for improvement before PIT's and PIT's DISS Consultant's approval of C-ESCOP; • Conduct site visit to construction sites and worker camp and make above assessment as part of monitoring and reporting responsibility; • Develop E&S monitoring checklist and reporting template; • Participate and support ESO in monthly safeguard monitoring and reporting
Contractor	• Prepare and submit a construction and a construction site-specific Environmental and Social Code of Practice (C-ESCOP) for each contract package and submit to the PIT and consulting firm for review and clearance, as well as to the Bank for review to ensure the C-ESCOP is consistent with the requirements set out in the ESMF and in line with the scope and nature of the contract package, including environmental and social risks and potential impacts; • C-ESCOP will detail how the contractor will mitigate construction impacts and documents the contractor's response to inspecting, monitoring, verifying, internal auditing and rectifying or improving environmental and social performance. The C-ESCOP must be site-specific and include details on risks and impact management measures that will be adopted by the contractor at the assigned construction site to avoid/minimize potential environmental and social risks and impacts arising from the works and activities to be carried by the contractors, including the subcontract of the main contractors, if any. • If the proposed works and activities described in the C-ESCOP are changed during the contract liability period, the C-ESCOP shall be updated by the contractor to reflect such changes. • Prepare and submit a contractor's LMP to consulting firm for review and to the GDAHP for approval; • Ensure sufficient funding and human resources including Environmental and Social Staff are timely in place for effective implementation of the C-ESCOP including Contractor's LMP; • Ensure appropriate and timely implementation of required pre-construction and construction mitigation measures as described in the C-ESCOP; • Implement additional environmental and social mitigation measures as necessary.

Incident Reporting

The contractors are required to inform consulting firm and PIT any incidents listed below within agreed timeframe:

- Any violations to national laws, regulations or international agreements;

- Any serious accidents or fatalities;
- Significant impacts that cause losses to personal property such as traffic accidents, and other incidents;
- Serious surface/ground water pollution;
- Failures of embankments at disposal sites that cause serious pollutions to the surroundings;
- Life and fire safety incidents;
- Any claims related to SEA/SH/VAC, or any other incidents related to women or children;
- Receive a complaint about pollution or damages.

GDAHP must notify the Bank within 48 hours of learning about the incident, including the complete investigation form, complete Root Cause Analysis (proportionate to the severity of the incident), and undertake immediate mitigation measures as well as medium- and longer-term corrective actions to prevent the incident from reoccurring.

Reporting Arrangements

The ESOs and E&S consultants of the PIT are responsible for conducting E&S monitoring of E&S implementation by construction contractors, including consultations and feedback from relevant stakeholders involved as per principles and requirement prescribed in project's ESMF (including IPPF), LMP, and SEP.

E&S monitoring will be carried at interval mentioned in the Table below. An end-of-project review of E&S implementation process will be conducted by PIT to confirm whether the objectives set forth in the ESCOP (including IPP), LMP and SEP have been achieved.

Table 18: Environmental and Social Monitoring and Reporting Requirements of The Project

No.	Report Prepared by	Submitted to	Frequency of Reporting
1	Contractors to PIT	GDAHP's PIT	Once before construction commences and monthly thereafter
2	Consulting Firm	GDAHP's PIT	Monthly, as soon as possible, as required
3	ESO	GDAHP's PIT	Monthly, as soon as possible, as required
4	PIT	WB	Quarterly reports for providing brief updates on implementation progress. Bi-annually for safeguards monitoring report

5.5 Proposed Training and Capacity Building

GDAHP is strongly committed to ensuring environment and social risks and potential impacts under the Project are identified and mitigated effectively. It will be important to have a series of trainings on ESF from World Bank to PIT and PIT to Contractor to ensure the Focal Environmental and Social Officers can strengthen their skills and knowledge to be able to support effective implementation and management of environment and social management measures. The topics for the training are described in table below.

Table 19: Proposed Training and Capacity Building Approach

Level	Responsible Party	Audience	Topics/Themes that May Be Covered
National level	Environmental and Social Consultants	Focal Environmental and Social Officers	ESMF and approach: -Conducting environmental and social screen -Identification and assessment of E&S risks

			- Selection and application of relevant E&S risk management measures/instruments - E&S monitoring and reporting - Incident and accident reporting - Environmental, Social, Health and Safety (ESHS) - Occupational Health and Safety (OHS) - Application of LMP, including Code of Conduct, labor GRM, incident reporting, GBV, VAC, SEA/SH - Application of SEP and the grievance/beneficiary feedback mechanism - and social inclusion and social mapping including social assessment
Project level	Environmental and Social Consultants	Focal Environmental and Social Officers Contractors	ESMF and approach: - Conducting environmental and social screening - Identification and assessment of E&S risks - Selection and application of relevant E&S risk management measures - E&S monitoring and reporting - Incident and accident reporting - Application of LMP, including Code of Conduct, labor GRM, incident reporting, SEA/SH - Application of SEP and the grievance/beneficiary feedback mechanism - Implementation of SCoP and preparing C-ESCOP
Local/site level	Contractor	Community members Workers	- Basic OHS measures and Personal Protective Equipment - Community health and safety issues -Public consultation as part of SEP - Worker Code of Conduct - GBV, VAC, SEA/SH issues, prevention, measures - Grievance redress - Workers' grievance redress

5.6 Estimated Budget

The following table lists estimated cost items for the implementation for the ESMF, which have been included in the overall project budget:

Table 20: ESMF Implementation Budget

Activity/Cost Item	Potential Cost (USD)
Trainings for staff (venue, travel, refreshments etc.)	10,000
Trainings for contractors (venue, travel, refreshments, etc.)	5,000
Printing of awareness raising materials / grievance redress materials	1000
Implementation of site-specific ESCOP and other site-specific plans	40,000
Environmental and social consultants (for different levels)	100,000
Travel and accommodation budget for site visits	10000
Annual budget for stakeholder engagement17	72,000
Contingency (10%)	23,800
TOTAL	261,800

VI. Stakeholder Engagement, Disclosure, and Consultations

17 Source: Table 3: Estimated SEP annual budget plan, Stakeholder Engagement Plan

This ESMF, as well as the SEP and the Environmental and Social Commitment Plan (ESCP) that have been prepared for this project, have been disclosed in draft for stakeholder consultations on the GDAHP's website on 23 October 2023 as following:

- Environmental and Social Commitment Plan (ESCP): https://gdahp.maff.gov.kh/document/fLB70WAykG
- Environmental and Social Management Framework (ESMF): https://gdahp.maff.gov.kh/document/tnJ5xoKEPN
- SOCIAL ASSESSMENT REPORT (SAR): https://gdahp.maff.gov.kh/document/FQH1X8ET7v
- Stakeholder Engagement Plan (SEP): https://gdahp.maff.gov.kh/document/AWA30vmatK

During project preparation, the national level public consultation meeting was conducted at GDAHP to inform the purposes, nature and scale of the project and its components, including potential risks and impacts to local communities from an environmental and social perspective. Representatives of affected, interested, and vulnerable parties were invited to discuss and provide feedback in the meeting. Detail information related to the national consultation is described in the Annex of SEP.

The SEP outlines how the project team will communicate with stakeholders and includes a mechanism by which people can raise concerns, provide feedback, or complain about project activities or any activities related to the Project. Different engagement methods are proposed and cover different stakeholder needs as (i) site visits, (ii) one-on-one interviews, (iii) focus group meetings/discussions, (iv) consultations, and (v) Information and communication technologies (ICTs).

In order to meet best practice approaches, the Project will apply the following principles for stakeholder engagement:

- Openness and lifecycle approach: Public consultations for the Project will be arranged during the whole life cycle, carried out in an open manner, free of external manipulation, interference, coercion, or intimidation.
- Informed participation and feedback: Information will be provided to and widely distributed among all stakeholders in an appropriate format; opportunities are provided for communicating stakeholder feedback, and for analyzing and addressing comments and concerns.
- Inclusiveness and sensitivity: Stakeholder identification is undertaken to support better communications and build effective relationships. The participation process for the projects is inclusive. All stakeholders at all times are encouraged to be involved in the consultation process. Equal access to information is provided to all stakeholders. Sensitivity to stakeholders' needs is the key principle underlying the selection of engagement methods. Special attention is given to vulnerable groups that may be at risk of being left out of project benefits, particularly women, the elderly, persons with disabilities, displaced persons, and migrant workers and communities, and the cultural sensitivities of diverse ethnic groups.
- Flexibility: If social distancing, cultural context (for example, particular gender dynamics), or governance factors (for example, high risk of retaliation) inhibits traditional forms of face-to-face engagement, the methodology should adapt to other forms of engagement, including various forms of internet- or phone-based communication.

The environmental and social reports and plans were disclosed through the project website on October 27, 2023.

During project preparation, the national level public consultation meeting was conducted at GDAHP to inform the purposes, nature and scale of the Project and its components, including potential risks and impacts to local communities from an environmental and social perspective. Representatives of affected, interested, and vulnerable parties were invited to discuss and provide feedback in the meeting. Feedback received during consultations was to validate the key issues and mitigation measures in project design and was taken into account by GDAHP.

Annex I: Gap Analysis between RGC Environmental and Social Legislation and the WB Environmental and Social Framework

No.	Areas of Difference	RGC 's Relevant Regulations	WB's ESF	Key Gaps	Measures/Clarifications to Address Differences
1	Assessment of project impacts	RGC legislation focuses on project impacts from an environmental point of view and does not consider social, gender and labor impacts, among others, as well as cumulative and transboundary impacts. It does not consider the specific needs of vulnerable people (the smallholder farmers, elderly, female-headed households, people living with a disability, etc.)	ESS1 is comprehensive and considers the full scope of project impacts from an environmental and social perspective, integrating all these aspects. In addition, the ESF has particular standards that deal with labor, gender and community health and safety, among others, as well as ensuring disadvantaged and vulnerable people/ groups are not disproportionately affected by projects' adverse impacts or disadvantaged in sharing development benefits.	Lack of requirement to assess potential impact on people in such environment, particularly vulnerable groups.	This ESMF covers both direct, indirect and cumulative environment and social risks/impacts and proportionate mitigation measures, taking a holistic approach to the project and looking at impacts in an integrated way, including considering the needs of disadvantaged and vulnerable persons or groups. Future ESCOP will also detail how to conduct detailed impact and risk assessment and the definition of proportionate mitigation of measures
2	Mitigation hierarchy	There is no mitigation hierarchy in RGC legislation.	WB ESF, in particular ESS1 (and also ESS 5, 6 and 7), discusses the need to have a mitigation hierarchy when planning projects, in order to avoid, minimize or, if not possible, mitigate project impacts. Having a mitigation hierarchy allows project planners to plan their projects with potential for environment and social impacts in mind.	Lack of a framework that sets out pathway for limiting as far as possible risks and potential adverse impacts.	This ESMF discusses a mitigation hierarchy to be followed by project planners when choosing sites for renovation of slaughterhouse and other facilities and conducting detailed engineering designs.
3	Minimum working age	Minimum working age in Cambodia is 15 albeit children between 12-15 years can perform light work that does not conflict with schooling no hazardous work is permitted for children under 18.	ESS 2 (para 17, 19, and footnote 13) specifies that the minimum working age is 14 unless national law specifies a higher age. However, a child over the minimum age and under 18 may be employed or engaged in connection with the project if the work is not hazardous	Lack of legislative requirements to ensure screening, assessment, and monitoring are in place to ensure a child under 18 can	This ESMF will propose a minimum working age of 18 years due to the potential for hazardous work related in renovation of slaughterhouse. The ESMF will provide monitoring guidelines and requirements of the Borrower and

			or interfere with the child's education or be harmful to the child's health, and that appropriate risk assessment is conducted prior to engaging the labor and that Borrower conducts regular monitoring of health, working conditions, hours of work and the other requirements of ESS2.	participate in work that is not hazardous to their health and affect their schooling.	contractors (see LMP in separate document).
4	Traffic safety	No regulations in infrastructure projects to consider traffic safety.	Ensuring safety of the community, including minimizing risks related to traffic accidents in development projects is specified in ESS4.	Lack of requirements to ensure traffic safety measures are in place to ensure safety for community in vicinity of infrastructure projects	The ESMF will suggest measures to ensure safety for pedestrian/community, as well as all project workers and civil servants, and road traffic during construction and project operations.
5	Consultations and Stakeholder Engagement	• The SOP-LAR details the number of steps to carry out consultations at various stages of the land acquisition and resettlement process and compensation. • Para 126 mentions that the consultation is undertaken throughout the project cycle. • SOP-LAR provides for stakeholder engagement in respect of land acquisition and involuntary resettlement. The SOP-LAR provides for disclosure of the RPF to the stakeholders and public before the approval of the project. Similarly, the DRPs are also disclosed to stakeholders and public after approval by the GDR.	ESS1 requires that stakeholder engagement with affected and interested stakeholders will be conducted throughout the project cycle in line with the project's Stakeholder Engagement Plan (SEP), including ongoing consultations and document disclosure.	RGC requirements only for issues concerning involuntary land acquisition. Lack of requirements to ensure two-way and meaningful consultation.	The project will conduct meaningful consultations, which will be inclusive of all genders and vulnerable persons, as per WB ESS10. The project will pay particular attention to ensuring that consultation is a two-way process that allows for feedback from APs, and that they are informed how their feedback was incorporated into designs and implementation plan.

6	Procedures for implementing Indigenous Peoples Plan	No detailed regulations on how to avoid impacts to Indigenous Peoples or how to include them in project benefits.	Among others, WB ESS7 seeks to ensure that projects respect the rights and culture of IPs, adopt a mitigation hierarchy to impacts, ensure benefits to IPs and conduct meaningful consultation and FPIC when necessary and/or desirable.	Lack of requirement to consult IP(s) in a manner that is culturally appropriate and special disclosure and consultation requirements as described in ESS5, ESS7 and ESS8.	This ESMF includes key elements of IPPF on the basis of WB ESS7 considering relevant Cambodian policies and regulations. The ESMF details procedures for preparing IPP(s) and how to conduct meaningful and consultation that is culturally appropriate.
7	Protecting intangible cultural heritage	No provisions in the legislation to protect intangible cultural heritage	WB ESS8 also covers intangible cultural heritage, which includes practices, representations, expressions, knowledge, skills—as well as the instruments, objects, artefacts and cultural spaces, that communities associate as part of their cultural heritage.	Lack of provisions/ requirements for protection of intangible cultural heritage.	This ESMF provides a Chance Find Procedure (Annex 6) and consultation process should identify intangible cultural heritage in collaboration with communities in case any subproject is found to have impacts on local or national, tangible or intangible, cultural heritage.
8	Stakeholder Engagement	While there are provisions for stakeholder engagement in various legislation (including EIA and SOP), the processes are often conducted in a top-down manner.	WB ESS 10 stresses the importance of stakeholder engagement at all stages of the project cycle. Stakeholders must be meaningfully consulted and engaged, have opportunities to provide inputs to projects and be informed how this their concerns were considered, have avenues to voice their grievances and seek resolution, and receive information disclosed in an appropriate manner, place and language.	Lack of requirements to ensure stakeholder engagement process is maintained throughout project cycle to ensure appropriate information disclosure, meaningful consultations and effective grievance redress mechanism.	A Stakeholder Engagement Plan (SEP) has been developed following the guidelines of ESS10.

Annex II: Environmental and Social Screening Checklist

The Environmental and Social Screening should be conducted after the area to be covered and the proposed sites for major facilities are known, but before final designs are completed and certainly before any construction activities, even site preparations, are started.

The screening should be conducted by members of the project ESO or other persons adequately trained and familiar with the WB ESF, preferably one environmental specialist and one social specialist.

Each sub-project should be given a "Link No." which is noted on this and every other document related to that sub-project.

Province:	District:	Location – sketch map attached (Circle one)	
		YES	NO
Name of Subproject:		Link No. (to other screenings, documents):	
Date:	Persons Conducting Screening:	Position of Persons Conducting Screening:	
TYPE of works/activities			
Brief description of works/activities and project area: [i.e. type of construction, need/purpose of works, proposed works (list/explain activities), approximate area and number of households (approx. population) to benefit, describe site sensitivity based on ineligible/negative criteria in Annex 2.1]			

Guiding Question	Answer			Level of Risk (High, Substantial, Moderate, Low)	Remarks
	Yes	No	TBD		
ESS1: Assessment and Management of Environmental and Social Risks and Impacts (Please note all projects financed by the Bank through Investment Project Financing will apply ESS1)					

Guiding Question	Answer			Level of Risk (High, Substantial, Moderate, Low)	Remarks
	Yes	No	TBD		
Is the project in a sensitive location considering ecological, social, cultural, spiritual or other important values?					
Have alternative locations for project activities been evaluated that would avoid and/or reduce potential environmental or social risks and impacts?					
Is the project area within or adjacent to land mine or UXO areas?					
Will the project require cuts, fills, quarries or extraction of material (stone, gravel, aggregate, sand)?					
Will the project require rock crushing or use of explosives (blasting)?					
Will the project require the creation of temporary access or haul roads?					
Will the project require the creation of material stockpiles?					
Does the project present risks to and impacts on individuals or groups who, because of their circumstances, may be disadvantaged or vulnerable? (for example due to their age, gender, ethnicity, race, religion, dependence on unique natural resources, climate change, disabilities, land tenure, social or economic status, sexual orientation and identity)					
ESS2: Labor and Working Conditions					
Will skilled workers be available in local areas?					
Will unskilled workers be available in local areas?					

Guiding Question	Answer			Level of Risk (High, Substantial, Moderate, Low)	Remarks
	Yes	No	TBD		
Will there be Primary Supply Workers (providing materials for the construction)? If so, for what supplies (i.e., bricks, timber)					
Are adequate measures in place relating to Occupational Health and Safety (OHS) to protect workers from injuries, illness, risks, or impacts associated with exposure to hazards encountered in the workplace, including risks of communicable diseases?					
Are workers provided with adequate PPE relative to the potential risks and hazards associated with their work?					
Is there risk or potential for the employment of child labor (below age 18) and/or forced labor?					
Is there a risk that forced labor, child labor, or other harmful or exploitative forms of labor are involved in the primary supply chain?					
Is there a risk that women may be underpaid compared to men when working on the project construction?					
Is there potential for hazardous work conditions that may expose workers to unsafe work practices or exposure to hazardous substances or conditions?					
ESS3: Resource Efficiency and Pollution Prevention and Management					
Will the project generate dust or add pollutants to the air during construction?					
Will the project increase noise and/or vibration?					
Will the project increase the possibility of surface water pollution from renovating, constructing works?					
Will the project generate waste during construction?					

Guiding Question	Answer			Level of Risk (High, Substantial, Moderate, Low)	Remarks
	Yes	No	TBD		
During operation, will there be wastewater and waste generating from slaughterhouse, livestock market facilities and lab?					
During operation, will there be hazardous waste generating from lab?					
During operation, will there be more pesticide and chemical fertilizer for animal feed farming?					
Will the project increase soil erosion?					
ESS4: Community Health and Safety					
Is an influx of workers, from outside the community, expected?					
Would outside workers create pressures on existing community services (water, electricity, health, recreation, others?)					
Does the project involve a potential for community exposure to water-borne, water-based, water-related and vector-borne diseases?					
Does the project present risks of Gender-Based Violence (GBV), Sexual Exploitation and Abuse (SEA) and/or Violence against Children (VAC)?					
Is there a risk that HIV/AIDS, other sexually transmitted diseases or other contagious diseases may increase as a result of project works?					
Is there a risk that existing cases of GBV and/or VAC in communities may increase as a result of project works?					
Is there a risk of community transmission as a result of project works?					
Would project activities required setting up of a worker's camp?					

Guiding Question	Answer			Level of Risk (High, Substantial, Moderate, Low)	Remarks
	Yes	No	TBD		
Is there a risk that women, ethnic groups and/or other vulnerable groups may not benefit and/or be more adversely impacted by the project?					
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources					
Is the project area within or adjacent to a protected area?					
Are there any endangered flora or fauna species within or nearby the project area?					
Are there any wetlands within or nearby the project area?					
Will the project increase intensive use of water for livestock production?					
Will the project increase intensive use of land resources for livestock production?					
Will the project contribute in change from food crop production to animal feed?					
Will the project contribute in pollution of rivers and streams from untreated animal waste?					
NOTE: If the answer to any of the questions under ESS6 is “Yes” or “TBD”, refer to the Table 13 for Exclusion list, to determine if sub-project can proceed or requires significant revisions					
ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities					
Are there ethnic minorities living in the project area in line with ESS7 (see screening form for IP and other vulnerable people)?					

Guiding Question	Answer			Level of Risk (High, Substantial, Moderate, Low)	Remarks
	Yes	No	TBD		
Will any project activities be implemented on lands or territories which are under the customary control or ownership of such ethnic groups, or otherwise affect natural resources (including waters) used by such ethnic groups for their livelihoods?					
Will such ethnic groups be affected (positively or negatively) by project activities?					
Will any project activities affecting these groups meet the ESS 7 criteria for FPIC (i.e., impacts on land, resettlement of ethnic groups, or impacts on cultural heritage?)					
Noted: The project with impacts on IP access to natural resources, land or cultural resources should not be financed as referring to Tabel 13 Exclusion List					
ESS8: Cultural Heritage					
Are the works, located in or near a cultural/heritage area? Or located near graves, temples or other sacred sites?					
Are project activities likely to affect tangible and/or intangible cultural heritage as defined under ESS 8 (i.e., archaeological sites comprising any combination of structural remains, artifacts, human or ecological elements, and may be located entirely beneath, partially above, or entirely above the land or water surface)?					
Will the project activities involve excavations, demolitions, earth movements, flooding or changes to physical environment that could affect cultural heritage values?					
ESS10: Stakeholder Engagement and Information Disclosure (Please note all projects financed by the Bank through Investment Project Financing will apply ESS10)					
Is there a grievance redress mechanism in place for the project?					

Guiding Question	Answer			Level of Risk (High, Substantial, Moderate, Low)	Remarks
	Yes	No	TBD		
Has the consultation process identified all stakeholders including targeted beneficiaries, such as the poorest group, in particular women, ethnic groups and people with disabilities?					
Has there been meaningful public dialogue, engagement, consultation and disclosure in the past about the project and its associated E&S risks and impacts? If so, when?					

Annex III: Environmental and Social Code of Practices (ESCOP)

Below is a template for ESCOP to be updated to reflect with this ESMF, site specific aspects once the sub-projects have been identified and detail design are in place.

1. Objectives

This Environmental and Social Codes of Practice (ESCOP) is prepared to manage small environmental impacts during renovation. The ESCOP will apply to manage small scale infrastructure investments which to develop and support renovation of slaughterhouse. ESCOP will be a mandatory part of renovation contract or bidding documents so that contractor complies with environmental covenants. The PIT of GDAHP and construction supervisors will be responsible for monitoring of compliance with ESCOP and preparing the required reports.

2. Responsibilities

The PIT of GDAHP and Contractors are the key entities responsible for implementation of this ESCOP. Key responsibilities of the PIT of GDAHP and the contractors are as follows:

(a) The PIT of GDAHP

- The PIT of GDAHP are responsible for ensuring that the ESCOP is effectively implemented. The GDAHP will assign a qualified staff to be responsible for checking implementation compliance of Contractors, include the following: (a) monitoring the contractors' compliance with the environmental plan, (b) taking remedial actions in the event of non-compliance and/or adverse impacts occur, (c) investigating complaints, evaluating and identifying corrective measures; (d) advising to the Contractor on environment improvement, awareness, proactive pollution prevention measures; and (e) monitoring the activities of Contractors on replying to complaints.

(b) Contractor

- Contractor is responsible for carrying out civil works and informs PITs of GDAHP, local authority and community about construction plan and risks associated with civil works. As such, contractor is responsible for implementing agreed measures to mitigate environmental risks associated with its civil works.
- Contractor is required to obey other national relevant legal regulations and laws.

Part 1 – Contractor's Responsibilities

This is an example and is not necessarily a full treatment of all requirements for a specific project. For example, there might be reason to have contractor deal with STDs, pesticides and hazardous waste s (e.g.., oil from vehicle or furnace repair and similar, oily rags).

Issue	Environmental and Social Prevention and Mitigation Measures
Contractor Awareness of E&S Risk Management	All contractors will be responsible for conducting their work activities in consideration of these ESCOP. Failure to do so could result in penalties or dismissal.
Pre-Construction	
Initial Checklist	• That these ESCOP have been reviewed by management and all workers. • Ensure workers all have appropriate PPE and are trained on potential health and safety risks related to their works. • Workers have signed the worker code of conduct. • Workers fully understand all prohibitions (e.g. illegal dumping of demolition material, use of alcohol by workers, etc.). • Consultation has been completed with nearby community in regard to construction works and duration (working hours) or provide public information and site access. • All emergency procedures are developed and workers are well informed.

Site Clearing	• All vegetation must be stripped from the area of construction. This has to be done very carefully. The valuable or reusable materials from the renovating facilities should kept properly • The Contractor shall dispose of all construction materials/rubbish at properly landfill.
Unexploded Ordinance (UXO)	• Prior to initiation of construction, UXO risks will be assessed for all sites with the assistance of Cambodia Mines Action Centre / Cambodia Mines Action Authority and appropriate risk mitigation measures adopted.
Set out of Works	• The Contractor shall set out the location of the works and clearly mark the location of corners with timber pegs. Offset pegs shall also be located at one-meter offsets so that all corner points can be located again after excavation of soil for the correct construction of footings.
Construction	
Construction Activities	• When conducting construction activities, including any destruction, the Contractor shall consider the following measures: • Prepare a management plan (C-ESCOP) as how to avoid or minimize environmental and social impact during construction activities. • Maintain an adequate unoccupied buffer zone around the work areas to allow for construction traffic. • Ensure proper signage is in place alerting residents and the public to any construction related risk. • Post warning signs on barricades, construction zones, and other areas limiting access to authorized personnel only. • Implement adequate measures during demolition of existing infrastructure to protect workers and public from falling debris and flying objects. • Isolate work areas from occupied areas using physical barriers, negative pressurization of the construction or renovation area relative to occupied areas, and use HEPA or other filtration, where possible, to remove particulates. • Bag all construction debris and set aside a designated and restricted waste drop or discharge zones for safe movement of wastes. • Conduct sawing, cutting, grinding, sanding, chipping or chiseling with proper guards and anchoring as applicable. • Use of temporary fall protection measures in scaffolds and on edges of elevated work surfaces, such as handrails and toe boards to prevent materials from being dislodged. • Provide all workers with safety glasses with side shields, face shields, hard hats, and safety shoes. • Hearing protection shall be provided where excessive noise levels are present.
Supervision during construction	• The Project Engineer and E&S focal person will supervise compliance with these ESCOP specifications. • Major non-compliance of these ESCOP by the Contractor will be cause for suspension of works and other penalties until the non-compliance has been resolved to the satisfaction of the Project Engineer. Contractors are also required to comply with national and municipal regulations governing the environment, public health, and safety.
Dust Generation / Air Quality	• Use work practices and materials that result in little or no generation of airborne contaminants during construction or renovation activities, such as wet methods to suppress dust generation as well as paint and carpeting with low volatile organic compound emissions. • For indoor dust control, the Contractor may use air filters, purifiers, or vacuums. • Avoid burning or incineration of construction waste materials outside of the building. • Keep outdoor stockpile of aggregate/sand materials covered to avoid suspension or dispersal of fine soil particles during windy days or disturbance from stray animals.

	• Reduce the operation hours of generators /machines /equipment /vehicles as much as possible. • Undertake regular maintenance of generators, machinery and equipment and vehicles. • Control vehicle speed when driving through community areas so that dust dispersion from vehicle transport is minimized.
Water Quality and Availability	• Activities should not affect the availability of water for drinking and hygienic purposes. • No soiled materials, solid wastes, toxic or hazardous materials should be poured or thrown into water bodies for dilution or disposal. • Provide toilets with a temporary septic tank at the construction site. • The flow of natural waters should not be obstructed or diverted to another direction, which may lead to drying up of riverbeds or flooding of settlements. • Keep concrete mixing separate from any drainages leading to waterways.
Noise	• Plan activities in consultation with people living in the immediate vicinity so that noisiest activities are undertaken during periods that will result in least disturbance. • Use noise-control methods such as fences, barriers, etc. • Maintain a buffer zone (such as open spaces, row of trees or vegetated areas) between the project site and residential areas to lessen the impact of noise to the living quarters. • Avoid doing construction works at night-time.
Soil Erosion	• Disturb as little ground area as possible, stabilize that area as quickly as possible, control drainage through the area, and trap sediment onsite. • Erect erosion control barriers around perimeter of cuts, disposal pits, and roadways. Schedule construction activities during dry season as much as possible.
Construction Waste	• Waste management plan shall be prepared as required in ESS 3 of this ESMF and ESCP • Segregate construction waste as recyclable, hazardous and non-hazardous waste. • Collect, store and transport construction waste to appropriately designated/ controlled dump sites. • Enforce daily site clean-up and housekeeping procedures, including maintenance of adequate disposal facilities for construction debris. • On-site storage of wastes prior to final disposal should be at least 50 meters from rivers, streams, lakes and wetlands. • After each construction site is decommissioned, all debris and waste shall be cleared and recycled or disposed of in an approved location.
Hazardous Waste	• Prior to initiation of renovation activities, a hazardous building assessment should be conducted to assess the presence of asbestos, PCB, lead, mercury, and other potential contaminants that will need to be removed or isolated. • Collect and properly dispose of small amount of maintenance materials such as oily rags, oil filters, used oil, etc. • Never dispose spent oils on the ground and in water courses as it can contaminate soil and groundwater (including drinking water aquifer).
Storage of Fuels and Chemicals	• Store fuels, oils and chemicals safely in areas on an impermeable surface with berms to contain 110% of the maximum volume of the storage tank. • Train workers on correct transfer and handling of fuels and other substances and require the use of gloves, boots, aprons, eyewear, hearing protection, and other protective equipment for protection in handling highly hazardous materials. • Have adequate spill kits readily available and clearly labelled on the work site and train workers in their use, application and spill clean-up procedures.

Occupational Health and Safety	• Contractors shall conduct site specific OHS risk assessments based on outcomes OHS management plans in line with the local legal requirements and WBG EHS guidelines[18].
	• Set up the construction site with sufficient supplies of clean drinking water, power, and sanitation facilities.
	• Mandate the use of personal protective equipment for workers as necessary (gloves, dust masks, hard hats, boots, goggles, eye, and hearing protection).
	• Follow the below measures for construction involving work at height (e.g. 2 meters above ground).
	  ○ Do as much work as possible from the ground.
	  ○ Only allow people with sufficient skills, knowledge, and experience to perform the construction activity.
	  ○ Ensure that proper training and equipment for working at heights is provided. Check that the place where work at height is to be undertaken is safe.
	  ○ Where possible provide fall-protection measures e.g., safety harness, simple scaffolding/guard rail for works over 4 meters from ground.
	• Take precautions when working on or near fragile surfaces.
	• Clean up oil, grease, paint, and dirt immediately to prevent slipping and possible injury.
	• Keep worksite clean and free of debris on daily basis.
	• Provide an on-site first aid kit with bandages, alcohol or non-alcohol antiseptic wipes, dressings, etc. at the construction site.
	• Keep corrosive fluids and other toxic materials in properly sealed containers for collection and disposal in properly secured areas.
	• Ensure structural openings are covered/protected adequately. Secure loose or light material that is stored on roofs or open floors. During heavy rains or emergencies of any kind, suspend all work.
	• Apply electricity good practices such as use of safe extension cords, voltage regulators and circuit breakers, labels on electrical wiring for safety measures, awareness on identifying burning smell from wires, etc. at construction sites and provision of voltage detectors, multi-meters and receptacle testers as per necessary.
	• Ensure adequate toilet facilities for workers, at least one toilet compartment for every 25 workers, with separate facilities for males and females.
	• Make sure workers are aware of GRM and can access it.
	• As needed, necessary PPE equipment to minimize risks, hand sanitizer, physical distancing, etc. as per current government directives.

Incident Reporting	• All health and safety incidents must be formally investigated and reported to the PMD through an investigation report. • Lessons learnt must be identified and communicated promptly. All findings must have substantive documentation. As a minimum the investigation report must include: • Date and location of incident. Summary of events. Immediate cause of incident. Underlying cause of incident. Root cause of incident. Immediate action taken. • Human factors. Outcome of incident, e.g. severity of harm caused, death, injury, damage. • Corrective actions with clearly defined timelines and people responsible for implementation. • Recommendations for further improvement.
Community Health and Safety	• Rope off construction area and secure materials stockpiles/ storage areas from the public and display warning signs including at unsafe locations. • Do not allow children to play in and around construction areas.

[18] https://www.ifc.org/content/dam/ifc/doc/2023/ifc-general-ehs-guidelines.pdf

	• If school children are in the vicinity, include traffic safety personnel to direct traffic during school hours, if needed. • Control driving speed of vehicles particularly when passing through community or nearby school, health center or other sensitive areas. • Fill in all earth borrow-pits once construction is completed to avoid standing water, water-borne diseases and possible drowning. • Avoid occurring labor influx around construction sites. • Avoid working at night. • Recommend hiring construction labor from nearby communities. • Inform communities on the sexual exploitation and abuse (SEA), sexual harassment (SH), gender-based violence (GBV), and violence against children (VAC) policies. • Make sure that the community is aware of GRM and can access it.
Labor and hiring	• Wherever possible hire workers from the local community and encourage hiring of women, the poor, people with disabilities, and/or other vulnerable persons. • Ensure equal pay for the same job for both men and women. • Ensure minimum working age of 18 years. • No child (under 18 years) or forced labor to be hired for the project. • Train local workers within a reasonable time frame to meet project requirements. Costs for training will be borne by contractors. • Avoid and when avoidance is not possible, minimize and manage labor influx. • Prepare Code of Conduct (CoC), inform and train workers in the CoC and ensure it is signed by all workers. • Implement sexual exploitation and abuse (SEA), sexual harassment (SH), gender-based violence (GBV), and violence against children (VAC) training.
Workforce and Camps	• Provide adequate lavatory facilities for men and women at the worksite (toilets and washing areas) for the expected number of workers. Toilet facilities should also be provided with adequate supplies of hot and cold running water, soap, and hand drying devices. • Where needed, install, and maintain a temporary septic tank system for collection of sanitary waste without causing pollution of nearby watercourses. • Establish a method and system for storing and disposing of all solid wastes generated at the work site. • Do not allow the use of fuel wood for cooking or heating in any cooking or kitchen facilities and provide alternate fuels. • Ensure that site offices, depots, asphalt plants and workshops are located in appropriate areas as approved by the Project Engineer and not within 500 meters of existing residential settlements. • Ensure that site offices, depots and particularly storage areas for diesel fuel and bitumen and asphalt plants are not located within 500 meters of watercourses, and are operated so that no pollutants enter watercourses, either overland or through groundwater seepage, especially during periods of rain. Require lubricants to be recycled and a ditch to be constructed around the refueling area with an approved settling pond/oil trap at the outlet. • As needed, necessary PPE equipment to prevent disease transmission, hand sanitizer, physical distancing, etc. as per current government directives.
Cultural Heritage	• There shall be no disturbance to cultural or historic sites. • If any archaeological site, historical site, remains, or objects are found during excavation or construction, chance find procedures shall proceed immediately as follows: • Stop the construction activities in the area of the chance find. • Delineate the discovered site or area. • Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until

	the responsible local authorities or the National Culture Administration take over. • Notify the Project Engineer who in turn will notify the responsible local authorities and the National Culture Administration immediately (within 24 hours or less); • Responsible local authorities and the National Culture Administration will be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the archaeologists of National Culture Administration. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values. • Decisions on how to handle the finding shall be taken by the responsible authorities and National Culture Administration. This could include changes in the layout (such as when finding an irremovable remain of cultural or archaeological importance) conservation, preservation, restoration and salvage. • Implementation for the authority decision concerning the management of the finding shall be communicated in writing by relevant local authorities; and • Construction work could resume only after permission is given from the responsible local authorities or National Culture Administration concerning safeguard of the heritage.
Prohibitions	The following activities are prohibited on the construction site: • Cutting of trees for any reason outside the approved construction area. • Hunting, fishing, wildlife capture, or plant collection. • Use of unapproved toxic materials, including lead-based paints, asbestos, etc. • Disturbance to anything with architectural or historical value. • Building of fires. • Use of firearms (except authorized security guards, if any). • Use of alcohol or drugs by workers.
Post-Construction	
Site Decommissioning	• The contractor will clean the site carefully and remove all construction waste materials and dump it at a designated dumping site. • Open burning of waste should not be encouraged.
Slaughterhouses and market facilities management	• Slaughterhouses and market facilities management plan shall be prepared based on the national regulation, guideline and IFC's health and safety guideline • Operating slaughterhouse and livestock market shall comply with Sub-decree on Control of Slaughterhouse and Slaughtering Business and Primary Animal Product Processing Premises; Sub-decree on water pollution control; Good International Industry Practices (GIIP) animal welfare including International Finance Corporation (IFC). • Waste management plan shall be prepared for proper waste management as mentioned in ESS 3 of this ESMF and ESCP. • Mitigation measures for controlling risks of transporting animals to slaughterhouse/market shall refer to FAO's guidelines for humane handling, transport and slaughter of livestock[19] or transport of slaughter animals[20] or other international/acceptable guidelines/standards. • The implementation of surveillance and control programs for transboundary animal diseases early warning and zoonoses
livestock vaccination programs	• Wastes generating from livestock vaccination program shall be managed properly to comply with instruction Ministry of Health, MAFF and MoE. And waste management plan shall be prepared.

[19] https://www.fao.org/3/x6909e/x6909e.pdf
[20] https://www.fao.org/3/y5454e/y5454e05.pdf

	• Any outbreak of animal disease, operator shall contact GDAHP and take action accordingly.

Part 2 – Contractor's Workers Environmental Code of Conducts

This is an example for typical project, but that for a specific project, some other requirements might be relevant. For example, washing hands protocol, agreeing to attend STD workshops.

DO:	DO NOT
◆ USE THE TOILET FACILITIES PROVIDED – REPORT DIRTY OR FULL FACILITIES ◆ CLEAR YOUR WORK AREAS OF LITTER AND BUILDING RUBBISH AT THE END OF EACH DAY – use the waste bins provided and ensure that litter will not blow away. ◆ REPORT ALL FUEL OR OIL SPILLS IMMEDIATELY & STOP THE SPILL FROM CONTINUING. ◆ SMOKE IN DESIGNATED AREAS ONLY AND DISPOSE OF CIGARETTES AND MATCHES CAREFULLY. (Littering is an offence.) ◆ CONFINE WORK AND STORAGE OF EQUIPMENT TO WITHIN THE IMMEDIATE WORK AREA. ◆ USE ALL SAFETY EQUIPMENT AND COMPLY WITH ALL SAFETY PROCEDURES. ◆ PREVENT CONTAMINATION OR POLLUTION OF STREAMS AND WATER CHANNELS. ◆ ENSURE A WORKING FIRE EXTINGUISHER IS IMMEDIATELY AT HAND IF ANY "HOT WORK" IS UNDERTAKEN e.g. welding, grinding, gas cutting etc. ◆ REPORT ANY INJURY OF WORKERS OR ANIMALS. ◆ DRIVE ON DESIGNATED ROUTES ONLY. ◆ PREVENT EXCESSIVE DUST AND NOISE	◆ REMOVE OR DAMAGE VEGETATION WITHOUT DIRECT INSTRUCTION. ◆ MAKE ANY FIRES. ◆ POACH, INJURE, TRAP, FEED OR HARM ANY ANIMALS – this includes birds, frogs, snakes, etc. ◆ ENTER ANY FENCED OFF OR MARKED AREA. ◆ DRIVE RECKLESSLY OR ABOVE SPEED LIMIT ◆ ALLOW WASTE, LITTER, OILS OR FOREIGN MATERIALS INTO THE STREAM ◆ LITTER OR LEAVE FOOD LYING AROUND. ◆ CUT TREES FOR ANY REASON OUTSIDE THE APPROVED CONSTRUCTION AREA ◆ BUY ANY WILD ANIMALS FOR FOOD; ◆ USE UNAPPROVED TOXIC MATERIALS, INCLUDING LEAD-BASED PAINTS, ASBESTOS, ETC.; ◆ DISTURB ANYTHING WITH ARCHITECTURAL OR HISTORICAL VALUE ◆ USE OF FIREARMS (EXCEPT AUTHORIZED SECURITY GUARDS) ◆ USE OF ALCOHOL BY WORKERS DURING WORK HOURS ◆ WASH CARS OR MACHINERY IN STREAMS OR CREEK ◆ DO ANY MAINTENANCE (CHANGE OF OILS AND FILTERS) OF CARS AND EQUIPMENT OUTSIDE AUTHORIZED AREAS ◆ DISPOSE TRASH IN UNAUTHORIZED PLACES ◆ HAVE CAGED WILD ANIMALS (ESPECIALLY BIRDS) IN CAMPS ◆ WORK WITHOUT SAFETY EQUIPMENT (INCLUDING BOOTS AND HELMETS) ◆ CREATE NUISANCES AND DISTURBANCES IN OR NEAR COMMUNITIES ◆ USE RIVERS AND STREAMS FOR WASHING CLOTHES ◆ DISPOSE INDISCRIMINATELY RUBBISH OR CONSTRUCTION WASTES OR RUBBLE ◆ SPILL POTENTIAL POLLUTANTS, SUCH AS PETROLEUM PRODUCTS ◆ COLLECT FIREWOOD ◆ DO EXPLOSIVE AND CHEMICAL FISHING ◆ USE LATRINES OUTSIDE THE DESIGNATED FACILITIES; AND ◆ BURN WASTES AND/OR CLEARED VEGETATION.

Sample Monitoring Checklist

Inspection Participants: (insert names and positions)

ESCOP Items	Applies		Compliance			Issue (R)/(O)	Action Required/Taken	Target/Actual Date
	Yes	No						

Mitigation & Management Measures: Construction Phase								
Mitigation measures from ESCOP								
Mitigation & Management Measures: Operation and Maintenance Phase								

Compliance, Minor Non-compliance, Significant Non-compliance
Status: (R) Resolved Issues, (O) Ongoing Issues

Annex IV: Chance Find Procedure

Since Cambodia Inclusive Livestock Value Chains Project is to improve livestock-based livelihoods and food security of targeted communities, and to reduce priority animal disease risks and zoonoses in target project locations (Battambang, Tbong Khmum, and Kampong Speu provinces). However, there remains a possibility for (as yet undiscovered) sites of local cultural significance (i.e. sacred sites, cemeteries) and archaeological sites to exist with sub-project areas.

GDAHP will ensure that the bidding and contract documentation for civil works contractors will include a clause on chance find procedures and includes the following measures:

a) Stop construction activities in the area of the chance find;

b) Delineate the discovered site or area;

c) Secure the site to prevent any damage or loss of removable objects;

d) Notify the supervisory Engineer who, in turn, will notify the responsible local authorities;

e) Responsible local authorities would conduct a preliminary evaluation of the findings to be performed by archaeologists who will assess the significance and importance of the findings according to various criteria, including aesthetic, historic, scientific or research, social and economic values;

f) Decisions on how to handle the finding shall be taken by the responsible authorities which could result in changes in layout, conservation, preservation, restoration and salvage;

g) Implementation for the management of the finding communicated in writing; and

h) Construction work could resume only after permission is given from the responsible local authority concerning safeguard of the heritage.