KINGDOM OF CAMBODIA

NATION RELIGION KING

Ministry of Industry, Science, Technology & Innovation
Ministry of Public Works and Transport

Water Supply and Sanitation Acceleration Project (WASAC) - P178417

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

September 2023

LIST OF ACRONYMS

ADRP	Abbreviated Detailed Resettlement Plan
CFP	Chance Finds Procedure
COC	Code of Conduct
CPF	Country Partnership Framework
DDIS	Detailed Design Implementation and Supervision
DRP	Detailed Resettlement Plan
EA	Environmental Assessment
ECOP	Environmental Code of Practice
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
ESMP	Environmental and Social Management Plan
ESO	Environmental and Social Office / Officers
ESS	Environmental and Social Standard
ESSAF	Environmental and Social Screening and Assessment Framework
FPIC	Free, Prior and Informed Consultations
GBV	Gender Based Violence
GDR	General Department of Resettlement
GRM	Grievance Redress Mechanism
IDA	International Development Association
IEIA	Initial Environmental Impact Assessment
IP	Indigenous People
IPDP	Indigenous People Development Plan
IPO	Indigenous People Organization
IPP	Indigenous People Planning
IPPF	Indigenous People Planning Framework
ISDS	Integrated Safeguards Data Sheet
LMP	Labor Management Procedures
MISTI	Ministry of Industry Science Technology & Innovation
MoE	Ministry of Environment
MPWT	Ministry of Public Works and Transport
NGO	Non-Government Organization
PAH	Project Affected Household
PAP	Project Affected People
PDO	Project Development Objective
PWO	Private Water Operator
PMU	Project Management Unit
RGC	Royal Government of Cambodia
RPF	Resettlement Policy Framework
ROW	Right of Way
RSS	Regional Safeguards Secretariat
SEA	Sexual Exploitation and Abuse
SH	Sexual Harassment
SMCD	Sewerage Management and Construction Department
SOP	Standard Operating Procedure
SOP-LAR	Standard Operating Procedure – Land Acquisition and Involuntary Resettlement
SSEO	Safety, Social and Environment officer
UXO	Unexploded Ordinances
VAC	Violence Against Children
WASAC	Water Supply and Sanitation Acceleration Project
WB	World Bank
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ខ្លឹមសារសង្ខេប

ទិដ្ឋភាពទូទៅរបស់គម្រោង

គម្រោងដែលបានស្នើឡើងគឺផ្តោតលើការជំរុញការផ្គត់ផ្គង់ទឹកស្អាត និងអនាម័យក្នុងប្រទេសកម្ពុជាតាមរយៈការវិនិយោគហិរញ្ញប្បទានទៅលើខេត្តគោលដៅអោយបានទូលំទូលាយ ព្រមទាំងជំរុញការគិតគូរលើបរិស្ថានក្នុងវិស័យទាំងនេះ ដើម្បីដោះស្រាយបញ្ហារាំងស្ទះ និងជំរុញវិឌ្ឍនភាពពេលប្រតិបត្តិការដើម្បីធានានិរន្តភាពនៃការវិនិយោគ។ ការវិនិយោគនេះនឹងជួយបំពេញបន្ថែមដល់គម្រោងវិនិយោគដែលមានស្រាប់ និងគម្រោងដែលកំពុងអនុវត្តតាមទីរួមខេត្តនានា និងជួយស្តារឡើងវិញនូវហេដ្ឋារចនាសម្ព័ន្ធដែលមានស្រាប់ និងបានគ្រោងទុកដើម្បីបង្កើនសមត្ថភាព និងពង្រីក ឬអភិវឌ្ឍន៍តំបន់ដែលមិនទាន់ទទួលបានសេវាកម្ម តាមទីរួមខេត្ត និងតំបន់ក្រៅទីរួមខេត្ត។

គម្រោងនឹងមានបីសមាសភាគ៖ (១)ការអភិវឌ្ឍការផ្គត់ផ្គង់ទឹកស្អាតទូទាំងខេត្ត (២)ការអភិវឌ្ឍអនាម័យនៅទីរួមខេត្ត និង(២)អង្គភាពឆ្លើយតបពេលមានអាសន្ន (CERC)។

សម្រាប់សមាសភាគការអភិវឌ្ឍការផ្គត់ផ្គង់ទឹកស្អាតទូទាំងខេត្ត វិធីសាស្ត្រអភិវឌ្ឍន៍ទូទាំងខេត្ត (a province-wide approach) នឹងត្រូវប្រើប្រាស់សម្រាប់ការវិនិយោគ និងពង្រីកការផ្គត់ផ្គង់បណ្តាញទឹកស្អាត នៅក្នុងខេត្តចំនួនបី រួមមានខេត្តបាត់ដំបង ខេត្តពោធិ៍សាត់ និងខេត្តមណ្ឌលគិរី ដោយផ្តោតទៅលើតំបន់ទីរួមខេត្ត និងទីរួមស្រុកនានានៃខេត្តទាំងនោះ។ សមាសភាគនេះ មានសមាសភាគរង ចំនួន៣ រួមមាន៖ (១)គាំទ្រដល់រដ្ឋាករទឹកសាធារណៈ ក្នុងទីរួមខេត្តបាត់ដំបង ខេត្តពោធិ៍សាត់ និងខេត្តមណ្ឌលគិរី (២)គាំទ្រដល់ការអភិវឌ្ឍ និងការធ្វើឱ្យប្រសើរឡើងប្រព័ន្ធផ្គត់ផ្គង់ទឹកស្អាតដំណើរការដោយប្រតិបត្តិករទឹកស្អាតឯកជនដែលស្ថិតនៅក្រៅទីរួមខេត្តបាត់ដំបងនិងខេត្តពោធិ៍សាត់ និង(៣)គាំទ្រការគ្រប់គ្រងគម្រោង និងអភិបាលកិច្ចកម្រិតវិស័យ។

សមាសភាគការអភិវឌ្ឍអនាម័យនៅតាមទីរួមខេត្ត នឹងវិនិយោគលើប្រព័ន្ធអនាម័យនៅក្នុងក្រុងបាត់ដំបង ក្រុងពោធិ៍សាត់ និងក្រុងតាខ្មៅ ដើម្បីធ្វើឱ្យមានភាពប្រសើរឡើង និងមាននិរន្តភាពក្នុងការផ្តល់នូវសេវាកម្ម តាមរយៈការវិនិយោគលើហេដ្ឋារចនាសម្ព័ន្ធ ជំនួយបច្ចេកទេស និងការកសាងសមត្ថភាព ក៏ដូចជាការធ្វើផែនការអនាម័យទូទាំងក្រុង (CWIS)។ សមាសភាគនេះ មានសមាសភាគរង ចំនួន២ រួមមាន៖ (១)ការអភិវឌ្ឍប្រព័ន្ធអនាម័យក្នុងទីក្រុង និង(២)ការគ្រប់គ្រងគម្រោង និងការគាំទ្រតាមវិស័យនៅថ្នាក់ជាតិ។

គោលបំណង និងវិសាលភាពនៃក្របខណ្ឌគ្រប់គ្រងបរិស្ថាន និងសង្គម (ESMF)

ក្របខណ្ឌគ្រប់គ្រងបរិស្ថាន និងសង្គម(ESMF) គ្របដណ្តប់ហេតុប៉ះពាល់ និងហានិភ័យផ្នែកបរិស្ថាន និងសង្គមដែលអាចបណ្តាលមកពីសកម្មភាពសាងសង់ប្រព័ន្ធផ្គត់ផ្គង់ទឹកស្អាត ដោយរួមបញ្ចូលទាំងស្ថានីយប្រព្រឹត្តកម្មទឹកស្អាត ស្ថានីយបូមទឹក បណ្តាញប្រមូលទឹកកខ្វក់ និងប្រព័ន្ធរំដោះទឹកភ្លៀង។ ហេតុប៉ះពាល់និងហានិភ័យបរិស្ថាន និងសង្គមចម្បងៗដែលមាននៅក្នុងឯកសារនេះដែលអាចនឹងកើតមានឡើង ដោយផ្អែកលើវិសាលភាពគម្រោង និងលក្ខណៈអនុគម្រោងក្នុងវិស័យទឹកស្អាត និងអនាម័យ។

ក្របខណ្ឌគ្រប់គ្រងបរិស្ថាន និងសង្គម (ESMF) ប្រៀបដូចជាឆត្រនៃបណ្តុំឯកសារ ដែលមានធាតុផ្សំដូចខាងក្រោម៖

- ទិដ្ឋភាពទូទៅរបស់គម្រោង(ហេតុផល, ទីតាំង, ជនរងហេតុប៉ះពាល់ពីគម្រោង, ការកំណត់បរិបទ, គោលបំណងអភិវឌ្ឍន៍គម្រោង, វិសាលភាព និងលក្ខណៈនៃការងារ ។ល។);

- ក្របខណ្ឌស្តាប់ន និងបទបញ្ញត្តិ រួមបញ្ចូលច្បាប់នានារបស់រាជរដ្ឋាភិបាលនៃព្រះរាជាណាចក្រកម្ពុជា ក្របខណ្ឌបរិស្ថាននិងសង្គមរបស់ធនាគាពិភពលោក(ព្រមទាំងការវិភាគលើគម្លាតនៃគោលលការណ៍ទាំងនេះ);
- ទិន្នន័យគោលបរិស្ថាន និងសង្គម;
- ហេតុប៉ះពាល់ និងហានិភ័យបរិស្ថាន និងសង្គមចម្បងៗ;
- វិធានការកាត់បន្ថយផលប៉ះពាល់;
- នីតិវិធីក្នុងការដោះស្រាយហេតុប៉ះពាល់ និងហានិភ័យបរិស្ថាន និងសង្គម;
- ការរៀបចំការអនុវត្ត
- ការចូលរួមពីភាគីពាក់ព័ន្ធ និងការផ្សព្វផ្សាយព័ត៌មាន;
- យន្តការដោះស្រាយបណ្តឹងតវ៉ា
- ការពិនិត្យតាមដាន និងការរៀបចំរបាយការណ៍;
- ការប៉ាន់ស្មានតម្លៃ និងការចំណាយ.

ឯកសារក្របខណ្ឌគ្រប់គ្រងបរិស្ថាន និងសង្គមនេះមានរួមបញ្ចូលឯកសារសំខាន់ៗ និងឧបសម្ព័ន្ធ មានដូចជា៖ ក្របខណ្ឌគោលនយោបាយដោះស្រាយផលប៉ះពាល់ ក្របខណ្ឌផែនការសំរាប់ជនជាតិដើមភាគតិច នីតិវិធីគ្រប់គ្រងកំលាំងពលកម្ម ជាមូលដ្ឋានសម្រាប់ការគ្រប់គ្រងប្រកបដោយប្រសិទ្ធភាពនៃហានិភ័យ និងហេតុប៉ះពាល់ប្រកបដោយសក្តានុពលដែលត្រូវបានកំណត់បាន ដោយផ្អែកលើលក្ខណៈ និងវិសាលភាពនៃអនុគម្រោង ដែលត្រូវជ្រើសរើស។ ឧបសម្ព័ន្ធ នៃឯកសារគ្រប់ខណ្ឌគ្រប់គ្រងបរិស្ថាន និងសង្គមក៏មានបញ្ជាក់ពីលក្ខខណ្ឌដែលមិនអាចទទួលបានមួយចំនួន (Ineligibility Criteria) សម្រាប់អនុគម្រោង មានន័យថា មានលក្ខខណ្ឌមួយចំនួនដែលត្រូវពិចារណា និងមានលក្ខខណ្ឌ មួយចំនួនទៀតដែលត្រូវចៀសវាង ហើយប្រសិនបើចាំបាច់ យើងត្រូវមានគំនូសបង្ហាញសម្រាប់រៀបចំ ផែនការគ្រប់គ្រងបរិស្ថាន និងសង្គម (ESMP) ជាក់លាក់មួយ គំនូសបង្ហាញសម្រាប់រៀបចំ ឯកសារវាយតម្លៃហេតុប៉ះពាល់បរិស្ថាន និងសង្គម (ESIA) នីតិវិធីសម្រាប់គ្រប់គ្រងធនធានបេតិកភណ្ឌបើប្រទះឃើញនៅពេលសាងសង់(Chance-Find Procedures) ទំរង់បែបបទសម្រាប់ការត្រួតពិនិត្យ និងរៀបចំទំហំការងារ ក្រមសីលធម៌បរិស្ថាន និងសង្គម សុខភាព និងសុវត្ថិភាពការងាររួមទាំងតម្រូវការសម្រាប់ការបោសសំអាតយុទ្ធភណ្ឌមិនទាន់ផ្ទុះ (UXO) និងបញ្ជីត្រួតពិនិត្យតាមដាន(Monitoring Checklists)។

ហេតុប៉ះពាល់ និងហានិភ័យបរិស្ថាន និងសង្គមសំខាន់ៗ

ហេតុប៉ះពាល់ និងហានិភ័យបរិស្ថាន និងសង្គមមួយចំនួនត្រូវបានកំណត់សម្រាប់ដំណាក់កាលសាងសង់ និងប្រតិបត្តិការ។ ហេតុប៉ះពាល់ និងហានិភ័យបរិស្ថាន និងសង្គមមួយចំនួនត្រូវបានកំណត់សម្រាប់ដំណាក់កាលសាងសង់ រួមមាន៖

- បញ្ហាទាក់ទងនឹងពលកម្ម
    - សុវត្ថិភាព និងសុខភាពការងារ បុគ្គលិក កម្មករ រួមបញ្ចូលលក្ខខណ្ឌការងារដែលមានគ្រោះថ្នាក់
    - លំហូរការងារ ដែលអាចនាំឱ្យមាន
        - ការធ្វើអាជីវកម្ម និង រំលោភបំពានផ្លូវភេទ និងការបៀតបៀនផ្លូវភេទ អំពើហឹង្សាលើស្ត្រី និងកុមារ ទាំងកម្មករ និងប្រជាជនមូលដ្ឋាន
        - ការរីករាតត្បាតនៃជំងឺឆ្លង ដូចជាជំងឺ Covid-19
    - ការប្រើប្រាស់កំលាំងពលកម្មកុមារ,
    - ការប្រើប្រាស់កម្លាំងដោយបង្ខំ,

- ការរើសបុគ្គលិក កម្មករដោយមិនមានកិច្ចសន្យាការពារត្រឹមត្រូវ
- កង្វះខាតនីតិវិធីដោះស្រាយបណ្តឹងសារទុក្ខ
- ការរើសអើងឬការមិនរាប់បញ្ចូលក្រុមងាយរងគ្រោះចូលបំបើការងារក្នុងគម្រោង
- ការខ្វះខាតអនាម័យ ទឹកស្អាត ឬបរិក្ខាមិនគ្រប់គ្រាន់នៅកន្លែងស្នាក់នៅរបស់កម្មករ។

- ក្នុងអំឡុងពេលសាងសង់ សុវត្ថិភាព និងសុខភាពសហគមន៍ពីគ្រោះថ្នាក់ រងរបួស ការប៉ះពាល់សារធាតុគីមី និងមេរោគក៏ដូចជាសំឡេងរំខាន ការបំពុលខ្យល់ ធូលី និងក្លិនមកពីសកម្មភាពសាងសង់។
- ហានិភ័យដែលមានសក្តានុពលទាក់ទងនឹងលទ្ធកម្មដី រួមមាន៖
  - ត្រូវរកដីឯកជន សម្រាប់ការសាងសង់ស្តានីយប្រព្រឹត្តកម្មទឹកស្អាត ស្តានីយប្រព្រឹត្តកម្មទឹកកខ្វក់
  - ស្តានីយបូម បើទោះបី ការប្រើប្រាស់ដីរដ្ឋជាជម្រើសអាទិភាពក៏ដោយ។
  - ផលប៉ះពាល់ទៅលើសកម្មភាពសេដ្ឋកិច្ច និងជីវភាពប្រចាំថ្ងៃដែលបណ្តាលមកពីការប្រើប្រាស់ដីធ្លីបណ្តោះអាសន្នសម្រាប់ការធ្វើជាកន្លែងស្នាក់នៅរបស់កម្មករ កន្លែងស្តុកសំភារៈសំណង់ និងសកម្មភាពផ្សេងៗ។
- ហេតុប៉ះពាល់ដែលអាចកើតមានឡើងលើសហគមន៍ជនជាតិដើមភាគតិច
- ហានិភ័យនៃការចូលរួមពីភាគីពាក់ព័ន្ធនិងការផ្សព្វផ្សាយព័ត៌មានមិនគ្រប់គ្រាន់ទាក់ទងនឹងផែនការការងារសាងសង់ និងហេតុប៉ះពាល់បរិស្ថាន និងសង្គមសំខាន់ៗក្នុងដំណាក់កាលសាងសង់ និងប្រតិបត្តិការ។ ជនងាយរងគ្រោះមានដូចជាជនក្រីក្រ ចាស់ជរា និងជនពិការ ដែលមិនអាច ឬ ពិបាកទទួលបានព័ត៌មានទូលំទូលាយពីគម្រោង។

ហេតុប៉ះពាល់ និងហានិភ័យបរិស្ថាន និងសង្គមចម្បងៗ ដែលបានកំណត់ក្នុងដំណាក់កាលសាងសង់៖

- វត្តមាននៃគ្រាប់យុទ្ធភណ្ឌមិនទាន់ផ្ទុះ (UXO) (ទោះជាតំបន់ដែលមានការអភិវឌ្ឍឬសាងសង់រួចហើយក៏ដោយ)
- ការបំពុលចម្បងៗក្នុងអំឡុងពេលសាងសង់រួមមាន៖
  - ធូលីហុយ សំឡេង និងរំញ័ររំខាន និងការបញ្ចេញផ្សែងពុល
  - ការបោះចោលសំណល់ពីការដ្ឋានសាងសង់មិនបានត្រឹមត្រូវ
  - ការលេចធ្លាយ បន្តិចបន្តួចនៃប្រេងសាំង និងប្រេងម៉ាស៊ីន ពីម៉ាស៊ីនការដ្ឋាន
  - ការបំពុលមកពីការកើនឡើងកំណាជាបណ្តោះអាសន្នក្នុងទឹក
  - ការស្តារឡើបចំកន្លែងការដ្ឋានរួមបញ្ចូលការសំអាត និងបិទបង្គន់មិនបានត្រឹមត្រូវក្រោយពីការបញ្ចប់ការងារសាងសង់ ។
- ហេតុប៉ះពាល់ទៅលើធនធានក្នុងទឹក ជាពិសេសការងារសាងសង់នៅក្បែរប្រភពទឹក
- ហេតុប៉ះពាល់ និងហានិភ័យលើជីវចម្រុះ និងនិរន្តភាពនៃធនធានធម្មជាតិមានជីវិត រួមទាំងតំបន់ដីសើម
- ហេតុប៉ះពាល់បេតិកភ័ណ្ឌវប្បធម៌ រួមទាំងទីតាំងគោរពសក្ការបូជារបស់សហគមន៍មូលដ្ឋាន រួមតាំងទីបញ្ចុះសព
- ការប្រទះឃើញវត្ថុបុរាណ ឬទីតាំងបេតិកភ័ណ្ឌវប្បធម៌នៅពេលអនុវត្តការងារ

ហេតុប៉ះពាល់ និងហានិភ័យបរិស្ថាន និងសង្គមសំខាន់ៗ ដែលបានកំណត់ក្នុងដំណាក់កាលប្រតិបត្តិការរួមមាន៖

- ការបំពុលទឹកលើដី និងទឹកក្រោមដីដោយសារធាតុគីមីពុលខ្លាំង
- សារធាតុពុល និងលោហពុលដែលមាននៅក្នុងសំណល់កក់ចេញពីប្រព័ន្ធប្រព្រឹត្តកម្មសំណល់រាវ
- ការលេចធ្លាយបណ្តាញនៃប្រព័ន្ធទឹកស្អាត ឬប្រព័ន្ធទឹកកខ្វក់
- ហេតុប៉ះពាល់លើធនធានក្នុងទឹកនៅតំបន់ក្នុងនិងក្បែរគម្រោង នៅពេលដែលទឹកនៅនីរ៉ូទាបក្នុងរដូវប្រាំង

បណ្តាលមកពីការបូមទឹកក្នុងបរិមាណច្រើនហួស និងការបញ្ចេញសំណល់រាវដ៏ច្រើនពីប្រព័ន្ធទឹកកខ្វក់។
- ហានិភ័យលើសុខភាព និងសុវត្ថិភាពរបស់សហគមន៍មូលដ្ឋាន ដោយការរំខានពី សំឡេងរំខាន ក្លិនស្អុយ និងការរាតត្បាតជំងឺឆ្លងមកពីកន្លែងស្តុកទឹកកខ្វក់ និងការគ្រប់គ្រងសំណល់កក់មិនបានត្រឹមត្រូវ។

វិធានការកាត់បន្ថយហេតុប៉ះពាល់បរិស្ថាននិងសង្គម

វិធានការកាត់បន្ថយហេតុប៉ះពាល់បរិស្ថាននិងសង្គម ត្រូវបានរៀបចំឡើងតាមហានុក្រមស្របតាមគោលការណ៍របស់ធនាគារពិភពលោកដូចខាងក្រោម:

- ការសញ្ជឹងគិតដល់ និង ចៀសវាងហេតុប៉ះពាល់ និងហានិភ័យ;
- ក្នុងករណីដែលមិនអាចបញ្ចៀសបាន ត្រូវកាត់បន្ថយហេតុប៉ះពាល់ និងហានិភ័យក្នុងកម្រិតដែលអាចទទួលយកបាន
- ក្រោយពេលហេតុប៉ះពាល់ និងហានិភ័យត្រូវបានកាត់បន្ថយ វិធានការកាត់បន្ថយនឹងត្រូវអនុវត្ត សម្រាប់ហេតុប៉ះពាល់ដែលនៅសេសសល់ វិធានការទូទាត់សំណងនឹងត្រូវបានអនុវត្តផ្អែកលើផ្នែកបច្ចេកទេស និងថវិកា។

បញ្ជីនៃលក្ខខណ្ឌមិនគ្រប់គ្រាន់ (Ineligible / Negative Criteria)ត្រូវបានរៀបចំដើម្បីបញ្ចៀសហេតុប៉ះពាល់ ឬហានិភ័យដែលធ្ងន់ធ្ងរ។

ការកាត់បន្ថយហេតុប៉ះពាល់ទាក់ទងនឹងពលកម្ម គឺមាននៅក្នុងវិធានការកាត់បន្ថយហេតុប៉ះពាល់លើពលកម្ម នៃកិច្ចសន្យាការងារដែលមានភ្ជាប់នៅក្នុងឧបសម្ព័ន្ធនៃផែនការគ្រប់គ្រងបរិស្ថាន និងសង្គម(ESMP) និងវិធានការគ្រប់គ្រងបរិស្ថាន និងសង្គម (ESCOP)។

ហេតុប៉ះពាល់ និងហានិភ័យទាក់ទងនឹងការបំពុលនឹងត្រូវដោះស្រាយតាមរយៈវិធានការផ្សេងៗគ្នា៖ ជំហានដំបូង ការពិនិត្យមើលបឋម (Screening) ដើម្បីបញ្ចៀសហេតុប៉ះពាល់មុនពេលការងាររចនាគម្រោងលម្អិត ជំហានបន្ទាប់គឺការរៀបចំផែនការគ្រប់គ្រងបរិស្ថាន និងសង្គម និងវិធានការគ្រប់គ្រងបរិស្ថាន និងសង្គម និងជំហានបន្ទាប់ទៀតគឺការងារតាមដានត្រួតពិនិត្យគម្រោង។ តាមរយៈនីតិវិធីទាំងនេះនឹងជួយដោះស្រាយបញ្ហាទាំង សុខភាព និងសុវត្ថិភាពសហគមន៍។

ហេតុប៉ះពាល់ដែលទាក់ទងនឹងលទ្ធកម្មដីធ្លី និងការហាមឃាត់ការប្រើប្រាស់ដី នឹងត្រូវដោះស្រាយតាមរយៈការការពិនិត្យមើលបឋម (Screening) ព្យាយាមបញ្ចៀសលើដីឯកជន។ ក្នុងករណីដែលមិនអាចបញ្ចៀសបាន ការដោះស្រាយបញ្ហាដីធ្លីនឹងត្រូវអនុវត្តតាមក្របខណ្ឌគោលនយោបាយដោះស្រាយផលប៉ះពាល់ (Resettlement Policy Framework)ដែលមាននៅក្នុងឧបសម្ព័ន្ធ ៣។

ការពិនិត្យមើលបឋម (Initial Screening) នឹងត្រូវប្រើប្រាស់ដើម្បីកំណត់រកសហគមន៍ជនជាតិដើមភាគតិចដែលរងហេតុប៉ះពាល់ពីគម្រោង ប្រសិនបើមាន គម្រោងនឹងធ្វើការជាមួយជនជាតិដើមភាគតិចតាមនីតិវិធីច្បាស់លាស់ ដែលមានរៀបរាប់នៅក្នុងគ្របខណ្ឌផែនការជនជាតិដើមភាគតិចក្នុងឧបសម្ព័ន្ធ៤ ក្នុងករណីដែលមានការរកឃើញថាក្រុម ឬសហគមន៍ដែលរងហេតុប៉ះពាល់ ។

ការពិនិត្យមើលបឋមនៃការរចនាគម្រោងនឹងអាចជួយបញ្ចៀសហេតុប៉ះពាល់លើទីតាំងដែលមានវត្ថុបុរាណ និងទីតាំងវប្បធម៌។ តាមរយៈនីតិវិធី Chance Finds Procedure នឹងលម្អិតពីដំណើរការត្រូវអនុវត្តតាមប្រសិនបើមានការរកឃើញវត្ថុបុរាណ និងទីតាំងវប្បធម៌សំខាន់ៗពេលអនុវត្តគម្រោង។

អនុគម្រោងខ្លះអាចត្រូវបានរំពឹងថានឹងភ្ជាប់ជាមួយបណ្តាញទឹកស្អាត និងអនាម័យដែលមានស្រាប់ឬកំពុងសាងសង់ ឬស្ថិតនៅក្រោមការស្នើឡើង ដែលទទួលបានជំនួយថវិកាពីដៃគូអភិវឌ្ឍន៍ផ្សេងៗ និងឯកជន។ ដំណើរការត្រួតពិនិត្យមើលបឋម(Screening) នឹងត្រូវធ្វើការបញ្ជាក់ពីការជាប់ពាក់ព័ន្ធហេដ្ឋារចនាសម្ព័ន្ធដែលមានស្រាប់ (Associated Facilities) នឹងការជានាពីការអនុវត្តតាមស្តង់ដារបរិស្ថាន និងសង្គម។

គម្រោងដែលអនុវត្តដោយប្រតិបត្តិករទឹកស្អាតឯកជនក្រោមជំនួយឥតសំណងក្នុងសមាសភាគទីមួយ នឹងត្រូវបានអនុវត្តតាមស្តង់ដារបរិស្ថាន និងសង្គមដែលមានរៀបរាប់នៅក្នុង ឯកសារបរិស្ថាន និងសង្គមរបស់គម្រោងនេះ។ ភាគច្រើន ដោយកង្វះខាតការយល់ដឹងនិងបទពិសោធន៍ក្នុងការអនុវត្តស្តង់ដារបរិស្ថាន និងសង្គមដែលមានចែងក្នុងឯកសារវិធានការគ្រប់គ្រងបរិស្ថាន និងសង្គម(ESCOP) ដូច្នេះការវាយតម្លៃសមត្ថភាព និងការរៀបចំវគ្គបណ្តុះបណ្តាល សម្រាប់ប្រតិបត្តិករទឹកស្អាតឯកជន និងការតម្រូវអោយមានបុគ្គលិកដែលទទួលខុសត្រូវលើផ្នែកបរិស្ថាន និងសង្គម ព្រមទាំងការត្រួតពិនិត្យតាមដានជាទៀងទាត់ដោយក្រុមការងារបរិស្ថាន និងសង្គមរបស់អង្គភាពរដ្ឋាករទឹកខេត្ត។ ក្នុងលក្ខណៈវិនិច្ឆ័យលើចំនុចអវិជ្ជមាន និងលក្ខខណ្ឌពុំទទួលបានសិទ្ធិក្នុងការអនុវត្តគម្រោង ក៏មានបញ្ចូលលក្ខខណ្ឌចំនួនពីរចំនុចដែលពាក់ព័ន្ធ ទៅនឹង ESS5 and ESS7 ដែលបានលម្អិតពីកម្មវិធីជំនួយឥតសំណង ដើម្បីបញ្ចៀសការធ្វើលទ្ធកម្មដីឯកជន និងហេតុប៉ះពាល់លើសហគមន៍ ឬជនជាតិដើមភាគិតិច។

ការចូលរួមរបស់ភាគីពាក់ព័ន្ធ និងការពិគ្រោះយោបល់

គម្រោង WASAC នឹងធ្វើសកម្មភាពពិគ្រោះយោបល់ និងការចូលរួមពីភាគីពាក់ព័ន្ធដែលមានរៀបរាប់នៅក្នុងផែនការចូលរួមភាគីពាក់ព័ន្ធ (SEP)។ ផែនការចូលរួមភាគីពាក់ព័ន្ធ (SEP) ជានារាល់អ្នកពាក់ព័ន្ធទៅនឹងគម្រោងដោយផ្ទាល់និងប្រយោល នឹងត្រូវបានផ្តល់ព័ត៌មាន និងមានការចូលរួមគ្រប់ដំណាក់កាលនៃគម្រោង។ គម្រោងទទួលស្គាល់ពីអ្នកតំណាង និងតួនាទីរបស់ស្ត្រី និងក្រុមងាយរងគ្រោះនៅគ្រប់ដំណាក់កាលនៃគម្រោង។ ផែនការចូលរួមភាគីពាក់ព័ន្ធ(SEP) មានគោលបំណងឆ្លើយតប និងអាចឲ្យក្រុមងាយរងគ្រោះនិងជនជាតិដើមភាគតិចទទួលបានផលប្រយោជន៍ពីគម្រោង។ គម្រោងទទួលស្គាល់ពីសារសំខាន់ នៃការជានាឱ្យមានការចូលរួមពីក្រុមងាយរងគ្រោះ នៅក្នុងវិធានការកាត់បន្ថយហេតុប៉ះពាល់ កម្មវិធីសុខភាព សុវត្ថិភាពបុគ្គលិក កម្មករ ក៏ដូចជាការបន្តត្រួតពិនិត្យសកម្មភាពគម្រោង។

ការចែកចាយព័ត៌មាន

ការចែកចាយព័ត៌មានសំដៅលើការដែលអាចទទួលបានព័ត៌មាន ដែលព័ត៌មានទាំងនោះងាយស្រួលយល់សម្រាប់ភាគីដែលចាប់អារម្មណ៍ និងភាគីងាយរងគ្រោះ។ ការចែកចាយព័ត៌មាន នឹងនៅតែបន្តចែកចាយក្នុងអំឡុងពេលអនុវត្តគម្រោងផងដែរ។

គ្រប់ដំណាក់កាលគម្រោងទាំងអស់ ព័ត៌មានគម្រោងនឹងត្រូវបានផ្សព្វផ្សាយដល់ភាគីពាក់ព័ន្ធទាំងអស់ទាំងជាភាសាខ្មែរនិងអង់គ្លេស ឱ្យបានសមរម្យ។ ប្រសិនបើមានជនជាតិដើមភាគតិចក្នុងតំបន់គម្រោង ការផ្សព្វផ្សាយត្រូវធ្វើឡើងក្នុងរបៀប និងភាសាដែលជនជាតិដើមភាគតិចអាចយល់បាន។

គោលការណ៍ណែនាំនឹងត្រូវ៖

- មានតម្លាភាព
- ផ្សព្វផ្សាយព័ត៌មានដែលមានខ្លឹមសារងាយយល់
- ចែកចាយព័ត៌មានឱ្យបានទូលំទូលាយតាំងតែពីដំណាក់កាលដំបូង។
- ចែកចាយព័ត៌មានដើម្បីគាំទ្រសកម្មភាពពិគ្រោះយោបល់

- ផ្តល់ព័ត៌មានដែលមានប្រយោជន៍ និងមានន័យពេញលេញ និង
- ជានាពីការទទួលព័ត៌មាន

ការពិនិត្យតាមដាន និងការរៀបចំរបាយការណ៍

ការពិនិត្យតាមដាន គឺជាវិធីសាស្ត្រមួយ ដែលអាចជានាពីប្រសិទ្ធិភាពនៃការអនុវត្តវិធានការកាត់បន្ថយហេតុប៉ះពាល់។ របាយការណ៍ត្រួតពិនិត្យប្រចាំខែ ត្រីមាស និងឆមាសនឹងត្រូវបានរៀបចំជាទៀងទាត់ ដើម្បី៖

- ធ្វើឱ្យប្រសើរឡើងវិធានការគ្រប់គ្រងហានិភ័យបរិស្ថាន និងសង្គម
- ជានាពីគុណភាព និងប្រសិទ្ធិភាពនៃដំណើរការវាយតម្លៃហេតុប៉ះពាល់បរិស្ថាន និងសង្គម
- ជានាលទ្ធផល និងភស្តុតាងដែលផ្អែកលើការវាយតម្លៃហេតុប៉ះពាល់បរិស្ថាន និងសង្គម;
- ផ្តល់ឱកាសក្នុងការធ្វើរបាយការណ៍លើលទ្ធផលនៃការវាយតម្លៃវិធានការហេតុប៉ះពាល់បរិស្ថាន និងសង្គមក្នុងពេលអនាគត។

នៅក្នុងដំណាក់កាលអនុវត្ត មន្ត្រីបរិស្ថាននិងសង្គម និងទីប្រឹក្សារបស់ក្រសួង MISTI និង MPWT នឹង ធ្វើការត្រួតពិនិត្យជាទៀងទាត់លើការអនុវត្តផែនការគ្រប់គ្រងបរិស្ថាននិងសង្គម (ESMPs) ដើម្បីជានាពីប្រសិទ្ធិភាព។ របាយការណ៍ត្រួតពិនិត្យតាមដាននឹងត្រូវបានត្រួតពិនិត្យដោយអង្គភាពគ្រប់គ្រងគម្រោង និងផ្ញើរជូនធនាគាពិភពលោកសម្រាប់ការពិនិត្យរបាយការណ៍បន្ថែម។

មន្ត្រីបរិស្ថាននិងសង្គម (ESOs) នឹងធ្វើការត្រួតពិនិត្យការដោះស្រាយបញ្ហា ដើម្បីជានាក្រុមងាយរងគ្រោះអាចទទួលបានអត្ថប្រយោជន៍ពីគម្រោង និងការអនុវត្តសកម្មភាពផ្សព្វផ្សាយ និងការពិគ្រោះយោបល់។ ការពិនិត្យតាមដានហេតុប៉ះពាល់បរិស្ថាន គួរផ្តោតលើការជានាពីការអនុវត្តវិធានការបរិស្ថានដែលមានចែងនៅក្នុង ESCOPs/ESMPs អោយបានត្រឹមត្រូវ។

កញ្ចប់ថវិកា

ថវិកាសម្រាប់ការអនុវត្ត ESMF នឹងត្រូវបញ្ចូលនៅពេលរៀបចំ ឯកសារបរិស្ថាន និងសង្គម ដោយបូកបញ្ចូល ការចំណាយលើបុគ្គលិក ការធ្វើដំណើរ សិក្ខាសាលាពិគ្រោះយោបល់ ការបកប្រែនិងវគ្គបណ្តុះបណ្តាល។ ថវិកាចំណាយសរុបត្រូវបានប៉ាន់ស្មានប្រមាណ USD ៤៣0 000 និងបូកបន្ថែមវិធានការកាត់បន្ថយហេតុប៉ះពាល់ជាក់លាក់សម្រាប់រយៈពេល៥ឆ្នាំ ដែលមានចែងនៅក្នុង ESCOP, ESMP, RPF និង IPPF (បើអាចធ្វើទៅរួច)។ កញ្ចប់ថវិកានឹងបានមកពីការបញ្ចូលគ្នានៃថវិកា ពី IDA និង GPE ពីអង្គភាពគ្រប់គ្រងគម្រោង។ ថវិកានេះនឹងត្រូវរៀបចំលម្អិតនៅពេលរៀបចំផែនការគ្រប់គ្រងបរិស្ថាន និងសង្គម។

EXECUTIVE SUMMARY

Overview

The proposed project focuses on accelerating the provision of water supply and sanitation (WSS) in Cambodia by financing investments in selected provinces with a province-wide approach, while also fostering an enabling environment at the sector level to unlock bottlenecks and accelerate progress and at the operational level to sustain long-lasting investment. The interventions will complement other previous or ongoing investment projects in selected provincial towns, retrofitting existing and/or planned infrastructure to optimize capacity, and to expand or develop services in unserved areas in provincial towns and in areas outside provincial towns.
The project will have three components: Province-wide Water Supply Development, Provincial Municipality Sanitation Development, and a Contingent Emergency Response Component (CERC).

Under the Province-wide Water Supply Development component, a province-wide approach will be adopted where investments will expand piped water supply in the three provinces of Mondul Kiri, Battambang and Pursat, focusing on both provincial municipalities and districts outside provincial municipalities. This component includes three sub-components covering: (a) support to public provincial waterworks in Mondul Kiri, Battambang and Pursat provincial municipalities; (b) support to develop and improve water supply systems owned and operated by Private Water Operators (PWOs) outside Battambang and Pursat provincial municipalities; and (c) support to sector-level governance and project management.

The Provincial Municipality Sanitation Development Component will support Battambang, Pursat and Ta Khmau municipalities with investment in sanitation system to increase access to and improve quality of sanitation service within the municipalities to support strengthening the sustainability of the sanitation investment through infrastructure investment, technical assistance, and capacity building, as well as City-Wide Inclusive Sanitation (CWIS) planning. This component consists of two sub-components including (a) provincial municipality sanitation system development, and (b) national sector support and project management.

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

The ESMF covers key identified environmental and social (E&S) risks and impacts anticipated as a result of construction of water supply systems, including water treatment plants, pumpstations and pipe networks, and of wastewater systems, including wastewater treatment plants, pumping stations, sewer lines and drainage. E&S risks and potential impacts anticipated in this ESMF are based on the scope and nature of water supply and wastewater subprojects.

The ESMF serves as an umbrella document, comprising the following elements:

- Project overview (rationale, locations, project affected people, contextual settings, project development objective, scope and nature of works, etc.);
- Applicable legal and institutional framework, including legislation of the RGC and WB's ESF, including analysis of policy gaps;
- Environmental and Social Baseline;
- Potential Environmental and Social Risks and Potential impacts;
- Proposed Mitigation Measures;
- Procedures to address identified potential Environmental and Social Risks and Potential impacts;
- Implementation arrangements;
- Stakeholder Engagement and Information Disclosure;
- Grievance Redress Mechanism;
- Monitoring and Reporting;
- Estimated Costs and Budget.

This ESMF includes, in its appendices, key important documents, including a Resettlement Policy Framework, an Indigenous Peoples Planning Framework, Labor Management Procedures which are, in aggregate, fundamental to effective management of risks and potential impacts identified based on the nature and scope of potential subprojects to be selected. The Appendices of this ESMF also have, among others, a list of Ineligibility Criteria for the subprojects, that is, conditions under which the subproject should not be considered or conditions that should be avoided; a suggested outline for a site-specific ESMP, a suggested outline for ESIAs if required, Chance-Find Procedures, a Screening & Scoping Form, Environmental and Social Codes of Conduct, Occupational Health and Safety including requirements for UXO clearance, and Monitoring Checklists.

Potential Environmental and Social Risks and Impacts

A number of potential environmental and social risks and impacts have been identified for the construction and operations phases.

Key social risks and impacts identified for the construction phase Include:

- Labor issues, among them
    - Occupational Health and Safety (OHS), including hazardous working conditions,
    - Labor Influx, which might lead to
        - Sexual Exploitation and Abuse, Sexual Harassment, Gender Based Violence and Violence against Children, of both fellow works and local residents
        - Spread of vector borne diseases such as Covid-19
    - Use of child labor,
    - Use of forced labor,
    - Engaging workers without contractual protections,
    - Lack of adequate worker grievance procedures,
    - Discrimination and Exclusion of Disadvantaged/ Vulnerable Groups in hiring, and
    - Lack of adequate sanitation, clean water, or other facilities in worker camps.
- Community health and safety during construction, from accidents, injuries, and exposure to chemicals and pathogens, as well as disturbances from noise, air, dust, and odors from construction activities.
- Potential risks related to land acquisition include:
    - Need to acquire private lands for the construction of water treatment plants, wastewater treatment plants, and pumping stations, though use of public lands will be first priority before considering the need to acquire private land.
    - temporary acquisition of lands, for workers camps, storage facilities, and other related activities, as well as temporary disruption of economic activities and livelihoods.
- Possible impacts on indigenous communities.
- Risk of inadequate stakeholder engagement and insufficient information disclosure on construction plans and on the potential environmental and social risks during construction and operation. Vulnerable persons, including poor, elderly, and disabled, may not be engaged or informed without additional effort.

Key environmental risks and impacts identified for the construction phase Include:

- Presence of land mines or UXO, even in built up areas.
- Potential pollution during civil works, including
    - generation of dust, noise, vibration and gas emissions
    - improper disposal of construction waste
    - minor spills of fuel and lubricants from the construction machinery
    - pollution from temporary increase in suspended solids in the water
    - improper restoration of construction sites, including cleaning and closing of old unhygienic outdoor pits at the end of the civil works.
- Impacts on aquatic life in the area, especially during construction at or near water sources.
- Risks and impacts to biodiversity and sustainability of living natural resources, including wetlands.
- Impacts on sites of important cultural heritage, including sites important to local communities, such as cemeteries.
- Chance finds of artefacts or sites of important cultural heritage

Key social and environmental risks identified during operations include:

- Surface water and groundwater contamination by potentially toxic substances
- Toxic metals and pollutants in the sludge of the wastewater treatment systems
- Leaks in pipes of the water supply system or in the wastewater system
- Impacts on aquatic life in the area, especially during dry season when water flow is low, from excess extraction by water supply systems and from discharges from wastewater treatment systems
- Community health and safety risks due to disturbances from noise and smell, and vector borne diseases from wastewater storage and failures in or inadequate sludge management.

Mitigation Measures

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.

A list of Ineligible / Negative Criteria has been prepared to help avoid serious risks or impacts.

Mitigation of many labor issues to be covered through labor management practices, required in environmental and social management plans and in environmental and social codes of practice for contractors, and in contracts and codes of practice for workers.

Potential pollution risks and impacts will also be addressed through a variety of measures, first by initial screening before detailed project design to try to avoid or minimize impacts, and then through the environmental and social management plans and in environmental and social codes of practice, as well as regular monitoring by the project. These will also address community health and safety risks.

Impacts relating to land acquisition and restrictions to land use will first be addressed through screening, to try to avoid impacts on private lands. If impacts cannot be avoided, they will be addressed through processes detailed in a Resettlement Policy Framework in Appendix 3.

Initial screening will also be used to determine if any indigenous communities are affected by any of the subprojects. If any communities or groups of indigenous peoples are found to be affected by a subproject, the project will need to work with those IPs through the processes detailed in the Indigenous Peoples Planning Framework in Appendix 4.

Initial screening of project design will help avoid impacts on any known sites of cultural heritage, while a chance finds procedure details the processes to follow if any artefacts or sites of cultural importance are discovered during project implementation.

Several of the subprojects are expected to be connected with other water supply or sanitation networks. Most are funded by donors, though a few are operated by private companies. Some of those networks already exist, others are under construction, and some being planned. A screening process will be used to determine if any of these other networks are considered as Associated Facilities, and if so how to assure compliance with the ESSs.

Projects implemented by private water operators under the proposed grant program in Component 1 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 PWOs 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. The Project's Ineligible/Negative Criteria include two conditions concerning ESS5 and ESS7 that are specific to the grant program, to avoid any acquisition of private lands and avoid any impacts on IP communities or groups.

Consultation and Stakeholder Engagement

The WASAC project will conduct consultation activities and stakeholder engagement as per the project's stakeholder engagement plan (SEP). The SEP seeks to ensure the Project communities, as well as other Project stakeholders both direct and indirect are informed and involved in all the stages of the Project. The Project recognizes the need to seek representative and inclusive feedback and the SEP looks to establish the role of women and vulnerable groups firmly within the consultation process. The SEP aims to be responsive and accessible to vulnerable groups and Indigenous Peoples to ensure they can access project benefits. The project also recognizes the importance of ensuring affected people are involved in mitigation measures, OHS program, as well as continuing monitoring of project activities.

Disclosure of Information

Disclosure of information refers to making information accessible, and in a manner that is appropriate and understandable to interested and affected parties. Disclosure of information will be an ongoing process in the WASAC project.

During all stages, project information will be disclosed in a way that is appropriate to the different range of stakeholders and in both English and Khmer as appropriate. If any IP groups and communities are identified, disclosure will also be in a language and manner accessible to them.

The guiding principles will be to:

- Be transparent
- Present information in a straight-forward manner
- Disclose documents as early as feasible
- Use disclosure to support consultation activities
- Provide meaningful and useful information, and
- Ensure information is accessible.

Monitoring and Reporting

Monitoring is the method of ensuring mitigation measures are being implemented and are effective. Regular monthly, quarterly and bi-annual monitoring reports will need to be undertaken in order to:

- Improve environmental and social risk management practices
- Ensure the efficiency and quality of the environmental and social impact assessment processes
- Ensure evidence and result based environmental and social impact assessment and;
- Provide an opportunity to report the results of the implementation of mitigation measures in future

During implementation, the Environmental and Social Offices (ESOs) and consultants of MISTI and MPWT will conduct regular monitoring activities on the ESMPs to determine how mitigation measures are being implemented and the extent of their effectiveness. The monitoring reports will be reviewed by the project PMUs and submitted to the World Bank for their review.

The ESOs will also monitor grievance redress, ensure vulnerable groups are able to access benefits, and implement 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 ESCOPs/ESMPs.

Indicative Budget

ESMF implementation cost will include the development of the generic environment and social instruments, including staff costs, travel, consultation workshops, translation and trainings. The total indicative cost is estimated at US$430,000 plus the costs of specific mitigation measures over 5 years in the ESCOP, ESMP, RPF and IPPF (if applicable). Funds will be sourced by a combination of IDA and GPE financing, from the project management component. This budget is indicative only and should be further refined during the preparation of generic ESMPs.

I. PROJECT DESCRIPTION

1.1. Project Rationale

According to Cambodia's Socio-Economic Survey (CSES) 2019, only around 33% of households in urban areas other than Phnom Penh had piped and only about 12% of households in those urban areas have toilets connected to sewer systems. Poor and other vulnerable households tend to have more limited access to these services than others.

The proposed project focuses on accelerating the provision of water supply and sanitation (WSS) in Cambodia by financing investments in selected provinces with a province-wide approach, while also fostering an enabling environment at the sector level to unlock bottlenecks and accelerate progress and at the operational level to sustain long-lasting investment. The interventions will complement other previous or ongoing investment projects in selected provincial towns, retrofitting existing and/or planned infrastructure to optimize capacity, and to expand or develop services in unserved areas in provincial towns and in areas outside provincial towns.

The project will have three components: Province-wide Water Supply Development, Provincial Municipality Sanitation Development, and Contingent Emergency Response Component (CERC).

1.2. Project Objectives

The Project Development Objective (PDO) is to increase access to safely managed water supply and sanitation services in selected areas, strengthen institutions for water supply and sanitation service delivery, and in case of an Eligible Crisis or Emergency, respond promptly and effectively to it.

1.3. Project Locations

The project locations are tentatively identified in four target provinces: Mondul Kiri, Battambang, Pursat and Ta Khmau of Kandal province. While towns of these provinces are classified as urban areas, access to piped water and sanitation in these provinces remains a challenge. The selection of sites for investment in districts/towns outside the provincial municipality will be carried out taking into account measures to minimize E&S risks and impacts arising from the investment.

1.4. Project Components

Component 1: Province-wide water supply development

Component 1: focuses on increasing access to safely managed water supply service through the development of piped water supply system across the selected provinces by supporting public provincial waterworks and private water operators to expand and improve their service, while at the same time bringing in professional water operators to the greenfield areas. Under this component, a province-wide approach will be adopted where investments will expand piped water supply[1] in the three provinces of Mondul Kiri, Battambang and Pursat, focusing on these provincial municipalities and districts outside provincial municipalities. This approach is expected to foster an enabling environment in the sector at the national level to accelerate progress, and at the operational level to sustain long-lasting investments. As water supply services outside provincial municipalities are provided by PWOs, this approach requires a clear framework to support them, including Technical Assistance (TA) for capacity building, regulatory enforcement, and water supply operations, as well as financial support. This component is proposed to include three sub-components covering: (a) support to public provincial waterworks in Mondul Kiri, Battambang and Pursat provincial municipalities; (b) support to develop and improve water supply systems owned and operated by PWOs outside Battambang and Pursat provincial municipalities; and (c) support to sector-level governance and project management.

(a) *Sub-Component 1.1: Water Supply Expansion and Modernization of Provincial Waterworks in Mondul Kiri, Battambang and Pursat Municipalities*. This sub-component will support water supply network expansion and water production infrastructure investments and provide TA and capacity building to improve operational efficiency and modernization of the Mondul Kiri, Battambang and Pursat provincial waterworks to support readiness for planned corporatization. Specifically, this sub-component will include the following activities:

(i) *Water Supply Infrastructure Expansion:* This activity will support Mondul Kiri, Battambang and Pursat provincial waterworks to extend the water supply networks and increase water supply production capacity to serve more customers including households, businesses, and health and school facilities, within the service areas. Specifically, the activity will finance works, goods, and consulting services for: (a) the construction of water treatment plants including intake stations, conveyance pipes, clear water reservoirs, and pumping stations; (b) the construction of pipe networks including transmission mains

[1] There are two types of piped water supply in Cambodia: one tariff-based run by operators (public or private), and another run by communities. The project only supports the former.

and distribution pipes; and (c) the installation of bulk and pressure meters and other necessary equipment to optimize operations.

(ii) *Optimization and Modernization of Provincial Waterworks:* This activity will support Mondul Kiri, Battambang and Pursat provincial waterworks to optimize their operational performance and facilitate peer learning among provincial waterworks within the country. It will finance TA and capacity building for the waterworks to improve in the areas of:

- *Strategy and planning*
- *Technical Operations*
- *Financial Management*
- *Customer Orientation*
- *Human Resource Management (HRM)*
- *Resilience*

(b) *Sub-component 1.2: Water Supply System Development and Improvement in Areas Outside Provincial Municipalities in Battambang and Pursat provinces.* This sub-component includes support to existing PWOs, and support to bring in qualified PWOs to remaining greenfield sites, i.e., areas where there is currently no clear interest from PWOs, in Battambang and Pursat provinces. Specific activities include:

(i) *Water supply improvement and expansion in existing PWO service areas:* Activities will finance TA to establish and implement a framework for supporting PWOs currently providing water supply services outside the provincial municipal cities to improve and expand the water supply service with investment in their water supply infrastructure, i.e. water production and pipe networks.

(ii) *Mobilizing PWOs' water supply development in greenfield areas:* The investment support grants will also be available for greenfield development, whereby qualified PWOs may apply for grant funding to provide water supply services to areas that are not yet under license, or where a license has been awarded but services have not yet been developed. TA and capacity building will be provided to MISTI in selecting and supporting viable and effective PWOs for greenfield development.

(iii) *Enhanced and continuous technical backstopping to PWOs:* The activities will support strengthening the capacity and establishing a mandate within the Battambang and Pursat public provincial waterworks to offer technical backstopping support to PWOs to improve service standards and operational performance of water supply services, as well as improve and streamline compliance reporting.

(c) *Sub-Component 1.3: Water Supply Institutional Strengthening, Capacity Building, and Project Management:* Activities under this sub-component will improve sector governance by strengthening the capacity of MISTI in water supply regulation through improved performance management, thereby strengthening the accountability of the public provincial waterworks and PWOs to their users and MISTI. Specific activities under this sub-component include:

(i) *Improving performance management through rolling out the water supply monitoring system (WSMS)*[2] *and limited technical audit*

(ii) *Regulatory Roadmap Study:* to identify medium-term and long-term pathways to promote strengthened regulation in the water supply sector.

(iii) *Coordination on water resource:* to coordinate closely with the proposed Bank-financed Cambodia Water Security Improvement Project (CWSIP) in water resource management to improve source water access and quality and contribute to sustainable water security and balanced allocation from source to end-user.

(iv) *Strengthening social accountability within provincial waterworks:* by implementing citizen engagement through facilitating social accountability between Battambang and Pursat provincial waterworks and customers.

(v) *Project Management*

Component 2: Provincial Municipality Sanitation Development

[2] WSMS is a web-based reporting system including a set of water quality parameters, owned and operated by the General Department of Potable Water at MISTI. It was developed with the support of the World Bank but is yet to be fully operational and utilized.

Component 2: Focuses on increasing access to safely managed sanitation service in selected provincial municipalities through development of wastewater treatment plant, sewerage network construction, and improvement of fecal sludge management service for parts of municipalities that cannot be served by sewerage. Each component above will be accompanied with support on improving sector governance and planning, strengthening institutional capacity, enhancing financial sustainability and sustaining operational management of the service. The component will support Battambang, Pursat and Ta Khmau municipalities with investment in sanitation system to increase access to and improve quality of sanitation service within the municipalities. The activities under the component will also support strengthening the sustainability of the sanitation investment. In addition to infrastructure investment, technical assistance and capacity building will be provided on City-Wide Inclusive Sanitation (CWIS) planning with strengthening service orientation concept (beyond infrastructure focused), capacity development for operational management of the sanitation system, and financial sustainability through setting up cost reflective sanitation tariff in supported provincial municipalities. This component consists of two sub-components including (a) provincial municipality sanitation system development, and (b) national sector support and project management.

(a) *Sub-component 2.1: Sanitation System Development in Battambang, Pursat, and Ta Khmau Municipalities:* This sub-component will finance works, goods, consultancy services and capacity building for planning, expansion of sanitation infrastructure, and sustainable operational management of sanitation system in the respective municipalities. Specifically, this sub-component will support the following activities:

(i) *Sanitation planning:* Across the three municipalities supported, technical assistance will be provided to develop city-wide sanitation plans to ensure that sanitation solutions are proposed for all parts of the municipalities and it will guide investments in sanitation within the municipality.

(ii) *Wastewater infrastructure development:* Based on the city-wide sanitation plan, the activity will finance works, goods and consulting services to support sanitation infrastructure investment in the three municipalities, including wastewater collection network, wastewater treatment plants, wastewater pumping stations, and house and service connections.[3]

(iii) *Institutional development and capacity for operational management of sanitation system:* Alongside infrastructure, the activity will provide technical assistance, capacity building and goods to each supported municipality on the following:

- *Institutional development*
- *Setting up cost-reflective tariff*[4]
- *Sanitation uptake program*
- *Strengthening social accountability*

(b) *Sub-Component 2.2: Sanitation Institutional Strengthening and Project Management.* This sub-component will consist of technical assistance and capacity building support to MPWT to promote city-wide inclusive sanitation and project management through the following activities:

(i) *City-wide inclusive sanitation framework:* to support technical assistance to prepare a framework for a city-wide sanitation approach in the country, and

(ii) *Project Management.*

Component 3: Contingent Emergency Response Component (CERC)

Component 3: Contingent emergency response component, this component is to enable response to unexpected crises and emergencies during the project implementation period. The CERC will be established and managed in accordance with the provisions of the World Bank Policy and World Bank Directive on Investment Project Financing.

1.5. Purpose and scope of the ESMF

The ESMF covers key identified environmental and social (E&S) risks and impacts anticipated as a result of construction of water supply systems, including water treatment plants, pumpstations and pipe networks, and of wastewater systems, including wastewater treatment plants, pumping stations, sewer lines and drainage. E&S risks and potential impacts anticipated in this ESMF are based on the scope and nature of water supply and wastewater subprojects.

The ESMF serves as an umbrella document, comprising the following elements:

[3] Service connections refer to sewerage connections to non-residential customers.

[4] The work on development of tariff framework is ongoing under the current WaSSIP Project (P163876)

- Project overview (rationale, locations, project affected people, contextual settings, project development objective, scope and nature of works, etc.);
- Applicable legal and institutional framework, including legislation of the RGC and WB's ESF, including analysis of policy gaps;
- Environmental and Social Baseline;
- Potential Environmental and Social Risks and Potential impacts;
- Proposed Mitigation Measures;
- Procedures to address identified potential Environmental and Social Risks and Potential impacts;
- Implementation arrangements;
- Stakeholder Engagement and Information Disclosure;
- Grievance Redress Mechanism;
- Monitoring and Reporting;
- Estimated Costs and Budget.

This ESMF includes, in its appendices, key important documents, including a Resettlement Policy Framework, an Indigenous Peoples Planning Framework, Labor Management Procedures which are, in aggregate, fundamental to effective management of risks and potential impacts identified based on the nature and scope of potential subprojects to be selected. The Appendices of this ESMF also have, among others, a list of Ineligibility Criteria for the subprojects, that is, conditions under which the subproject should not be considered or conditions that should be avoided; a suggested outline for a site-specific ESMP, a suggested outline for ESIAs if required, Chance-Find Procedures, a Screening & Scoping Form, Environmental and Social Codes of Conduct, and Monitoring Checklists.

1.6. Methodology of ESMF

The ESMF has been prepared following the standard methodology consisting of the following key steps:

- Review of the project concept note, previous MISTI and MPWT's similar project, and meeting/discussions with the MISTI and MPWT team;
- Review of relevant legal and institutional framework;
- Review and assess the risks and potential impacts of potential subprojects, including field visits to sites of several possible subprojects;
- Assessment of current E&S capacity of stakeholders directly involved in E&S management;
- Propose mitigation measures;
- Prepare an outline ESMP;
- Compile ESMF;
- Disclosure of draft ESMF (comprising RPF, IPPF, LMP as Appendices), SEP and ESCP; and
- Conduct public consultation with key stakeholders and update disclosed above disclosed documents based on feedback received during public consultation

1.7. Application of ESMF

This ESMF will be applied to all project activities carried out under the three components. The ESMF will be applied during sub-project planning and implementation, and subsequently during the operation and maintenance of the subprojects during project implementation and following project closure.

This ESMF also applies to Associated Facilities[5] that are, in the judgement of the World Bank, associated activities and/or facilities as defined in the WB ESS1 (Assessment and Management of Environmental and Social Risks and Impacts). When this is the case, the project will determine whether or not the associated facilities are being developed by their implementing agencies under requirements that are consistent with the WB Environmental and Social Framework. If they are found not to be consistent with the ESF in any aspects, this ESMF will be applied to the implementation of any such associated activities and/or facilities to be included with this project.

The ESMF is a 'living document' and is subject to revision, as needed, during project implementation. Any revisions would aim to reflect the adaptive management to changes in the project due to as yet unforeseen circumstances or in

[5] Associated facilities or activities are those that are not funded as part of the project and are: (a) directly and significantly related to the project; (b) carried out, or planned to be carried out, contemporaneously with the project; and (c) necessary for the project to be viable and would not have been constructed, expanded or conducted if the project did not exist. For facilities or activities to be Associated Facilities, they must meet all three criteria.

response to assessment of project performance with regards to actual environmental and social management measures. In case the ESMF is revised, the updated ESMF will be disclosed to stakeholders for consultation in a timely manner through the same channels that have been used by MISTI and MPWT to disclose any previous versions of the ESMF and other approved E&S documents. The revision and application of any updated ESMF is subject to the prior review and approval by the World Bank.

II. LEGAL AND INSTITUTIONAL FRAMEWORK

In this chapter, the national legal framework that is appliable to the Project are 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.

A detailed analysis of the legal and institutional framework, as well as a gap analysis between key aspects of the national legal framework and the WB ESF, are presented in Appendix 1.

2.1. National Legal Framework for Environmental Issues

Overall management of the environment is under the responsible 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.

Key environmental laws, sub-decrees and regulations and international agreements relevant to this project are listed below and described in detail in Appendix 1.

- Law on Environmental Protection and Natural Resource Management
- Sub-Decree on Environmental Impact Assessment Process
- Prakas on the Classification of Environmental and Social Impact Assessment for Development Projects
- Guidelines on the Delegation of Power to Municipal/Provincial Departments of Environment (2005)
- Protected Area Law (No. NS/RKM/0208/007)
- Law on Forestry Management
- Sub-Decree on the Control of Air Pollution and Noise Disturbance, #42 ANK/BK6 (2000)
- Sub-Decree on Water Pollution Control #27 ANRK.BK7 (1999)
- Sub-decree on Revision Article 4, 9, 11, 12,17 and Annex 2, 3, 4, 5 of Sub-decree No. 27
- Sub-decree on Management of Drainage and Wastewater Treatment Plant System
- Sub-Decree on Solid Waste Management (No. 36 ANRK.BK 2009)
- Draft Environmental and Natural Resources Code

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
- UN Convention to Combat Desertification (UNCCD) ratified – 1997
- Convention on International Trade in Endangered Species of Wild Fauna and
- Flora (CITES) – 1997
- World Heritage Convention – 1991
- ASEAN Heritage Convention (National Parks: Bokor and Virakchey) (regional) – 2003
- Convention on the Prevention of Marine Pollution from Ships – 1994
- 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
- Basel Convention on Control, Transport and Disposal of Trans-Boundary Hazardous Waste – 2001
- Stockholm Convention on Persistent Organic Pollutants – 2001
- Vienna Convention and Montreal Protocol on Substances that Deplete Ozone Layer – 2001

2.2. National Legal Framework Related to Social Issues

No single agency has overarching responsibility for social issues.
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 and described in detail in Appendix 1.

- Law on Protection of Cultural and National Heritage (1996)
- Labor Law (1997)
- Prakas on the Prohibition of Hazardous Child Labour (MoSALVY #106, April 28, 2004)
- Prakas on Light Work (2008)
- Law on the Prevention of Domestic Violence and the Protection of Victims, (NS/RPM/1005/031), 2005
- Law on Road Traffic, PREAH REACH KRAM NS/RKAM/0115/001, 2015
- Law on the Protection and Promotion of the Rights of Persons with Disabilities 2009 (Royal Kram NS/RKM/ 0709/010)
- The Land Law (2001)
- Expropriation Law (2010)
- Standard Operating Procedures for Externally Financed Projects in Cambodia on Land Acquisition and Involuntary Resettlement (2018), Sub-Decree No. 22 ANK/BK
- National Policy on the Development of Indigenous Peoples (2009)
- Policy on Registration and Right to Use of Indigenous Communities (2009)
- The Organic Law on Administrative Management of Capital, Provinces, Municipalities, Districts and Khans (2008)

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

2.3. Institutional Responsibilities

There are a number of different governmental departments responsible for the areas mentioned in the legislation and regulations reviewed above. In general, the Ministry of Industry, Science, Technology & Innovation (MISTI) has an overall responsibility for the construction, maintenance and rehabilitation of water supply systems while the Ministry of Public Works and Transport (MPWT) is responsible for the construction, maintenance and rehabilitation of wastewater management systems. The Ministry of Environment is responsible for approving EIAs and monitoring compliance on environmental matters as well as legal enforcement of issues covered under environment-related laws and regulations. Responsibility in water resources management rests with the Ministry of Water Resources and Meteorology (MOWRAM).

The Ministry of Women's Affairs (MOWA) is the leading agency responsible for promoting gender equality and preventing violence Against women. Other departments also play a contributing role such as the Cambodian National Council for Women (CNCW). The Ministry of Labor and Vocational Training (MLVT) is the leading agency in charge of labor and workforce-related matters, including minimum age of workers, wages and rights of laborer. The General Department of Resettlement (GDR) in the Ministry of Economy and Finance (MEF), is the main agency responsible for involuntary land acquisition, while the project itself and its implementing agencies, MISTI and MPWT, will be responsible for voluntary land donations, if needed. Meanwhile a number of government departments deal with issues relating to Indigenous Peoples.

In Cambodia, Ministries consist of technical provincial departments at the provincial level to oversight the task and support provincial authority and municipal administrations accordingly. Commune and Village chiefs are important links between national-, provincial-, and district-level government departments, and their local communities. Civil societies and NGOs may play important roles in supporting project and government in implementing mitigation measures that will be described in this ESMF. The project's SEP identifies and analyzes these stakeholders and proposes methods, schedules, and strategies for stakeholder engagement.

2.4. World Bank's Environment and Social Standards (ESS)

The following Environmental and Social Standards (ESS) of the World Bank's ESF are applied to the Project:

- ESS1 – Assessment and Management of Environmental and Social Risks and potential impacts;
- ESS2 – Labor and Working Conditions;
- ESS3 – Resource Efficiency and Pollution Prevention and Management;
- ESS4 – Community Health and Safety;
- ESS5 – Land Acquisition, Restrictions on Land Use and Involuntary Resettlement;
- ESS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources;
- ESS7 – Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities;
- ESS8 – Cultural Heritage; and
- ESS10 – Stakeholder Engagement and Information Disclosure.

ESS9 on Financial Intermediaries is not relevant to this Project and thus is not applied to the WASAC Project. In addition to the above ESSs, the World Bank's Guidance Note for above respective ESSs and Good Practice Notes are also referenced and applied during the preparation of agreed E&S documents. The Good Practice Notes include:

- Action Plan for Preventing and Addressing Sexual Harassment (FY19–FY21);
- Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing involving Major Civil Works (Second Edition, February 2020);
- Assessing and Managing the Risks of Adverse Impacts on Communities from Project-Related
- Labor Influx (Second Edition, June 2021);
- Non-Discrimination and Disability (First Edition, June 2018);
- Road Safety (First Edition, October 2019);
- IFC Environmental, Safety, and Health Standards on Wastewater and Ambient Water Quality (2007).

Detailed descriptions of the relevance of the various ESSs are provided in Appendix 1, along with a gap analysis of the World Bank's ESF and the RGC environmental and social legal framework. The main gaps were:

- **Assessment of project impacts:** RGC concentrates on environmental impacts. ESF requires a more comprehensive approach including social impacts, and the direct and indirect cumulative risks and impacts and mitigation measures.
- **Mitigation hierarchy:** There is no mitigation hierarchy in RGC laws or regulations.
- **Minimum working age:** RGC stipulates a minimum working age of 15, though children aged 12-14 can perform light work. ESF stipulates minimum working age of 14, though children below the age of 18 can be employed only under certain conditions.
- **Traffic safety:** RGC has no regulations in infrastructure projects to consider traffic safety.
- **Livelihood Restoration and Assistance:** RGC details specific measures to restore livelihoods which are land-based, employment-based and business-based. There is a lack of clear benchmark to assist monitoring and evaluation to confirm if affected households restore their livelihood to the level prevailing prior to the beginning of project implementation.
- **Grievance Redress Mechanism:** RGC requires a GRM for land acquisition and involuntary resettlement. There are no GRMs for non-land/resettlement issues.
- **Voluntary Donations:** Lack of GRC regulations on voluntary land donation and cases where land donation is acceptable.
- **Procedures for implementing Indigenous Peoples Plan:** Lack of requirement to consult IP(s) in a manner that is culturally appropriate and special disclosure and consultation requirements.
- **Protecting intangible cultural heritage:** RGC lacks provisions/ requirements for protection of intangible cultural heritage
- **Consultations and Stakeholder Engagement:** RGC requirement for consultation and stakeholder engagement only for issues concerning involuntary land acquisition and initial EIA process. Lack of requirements to ensure stakeholder engagement process is maintained throughout project cycle to ensure appropriate information disclosure, meaningful consultations and lack of requirements to ensure two-way and meaningful consultation.

III. ENVIRONMENTAL AND SOCIAL BASELINE

General Environmental and Social Impacts

Project locations have been tentatively identified in four target provinces: Battambang, Pursat, Mondul Kiri, and Ta Khmau of Kandal province. While towns of these provinces are classified as urban areas, access to piped water and sanitation in these provinces remains a challenge. The selection of sites for investment in districts/towns outside the provincial municipality will be carried out taking into account measures to minimize E&S risks and impacts arising from the investment.

All four target provinces have somewhat different environmental, geographical, and cultural characteristics. For example, some indigenous communities are located in remote areas of Mondul Kiri, Pursat and Battambang provinces. Battambang has areas of important cultural and natural heritage, including sensitive and protected biodiversity areas and habitats such as UNESCO's Tonle Sap Biosphere Reserve (TSBR) with a protected area of 1,483,339 ha, as well as the Ramsar site of the Boeung Chhmar and associated river system and floodplain.

An IBAT analysis determined that the water supply and sanitation investments are relatively far from these environmentally sensitive areas, thus the potential for project activities to have an impact on natural habitats is not significant. However, as the project locations are still provisional, a biodiversity and protected areas analysis will need to be conducted as part of a site specific environmental and social assessment once the locations for water treatment plants, wastewater treatment plants, and their networks is finalized.

The projects may require some land acquisition for treatment plants and other facilities and limited temporary land use for supplies, equipment and worker camps. Construction of the networks may also lead to some short-term disruptions to businesses and traffic, including briefly affecting access to residences and other properties. In addition, there is sensitivity around the nature of project activities which may induce impacts to nearby residents due to noise, smell, pollution, and overall community and health and safety.

Another related issue is the complex nature of the operation and management of the water supply and wastewater systems, which are financed by different international financial institutions, government agencies and the private sector operators. Thus, there might be potential involvement of "associated facilitie"". Even if not considered as "associated facilities" according to the WB criteria, if the WASAC subprojects are linked with other systems, a careful and prior E&S assessment and due diligence of E&S performance under those projects may be required. If those other systems have not managed E&S risks adequately according to the WB ESF, any links to those systems should be considered ineligible under the WASAC project.

3.1. Environmental Baseline

3.1.1. Geographical Location of the Proposed Project Areas

Battambang city is the provincial center of Battambang province. The area is dominated by the Tonle Sap Lake. The proposed water supply subproject is located mostly in the urban area, with some in agricultural lowlands. Being within the Tonle Sap Basin has affected soil characteristics of the subproject areas, which are dominated by alluvial soils. The town of Battambang is in an area of brown hydromorphic soil which is associated with prolonged water saturation from groundwater and impeded drainage.

Pursat, where a wastewater treatment plant and sanitation subproject is proposed, is the provincial capital of Pursat province. It lies midway between the Tonle Sap Lake in the east and Cardamom Mountains in the west, along the banks of the Pursat River.

Kandal, where Ta Khmau city is located, is a province in Cambodia located in the southern portion of the country. It surrounds the Cambodian capital of Phnom Penh in the northern part of the province, and borders the provinces of Kampong Speu and Takeo to the west, Kampong Chhnang and Kampong Cham to the north, Prey Veng to the east, and shares an international border with Vietnam to the south. It is the second largest populated province in the country. The capital city of Kandal is Ta Khmau, which is approximately eight kilometers south of Phnom Penh. Kandal is one of the wealthier provinces of Cambodia.

Mondul Kiri is the largest province in the country, and the most sparsely populated. Mostly hilly and mountainous, Mondul Kiri has a number of ethnic minorities, comprising about 80 percent of the total population, with Bunong (or Phnong) the largest of the groups. Mondul Kiri borders Kratie to the west, Ratanakiri and Stung Treng to the north, and Vietnam to the east and south. The provincial capital, Senmonorom, where the water supply system will be implemented, is populated primarily by ethnic Khmer and Chinese, as well as Bunong.

Locations of Battambang, Pursat, Mondul Kiri, and Kandal are shown in Figure 1.

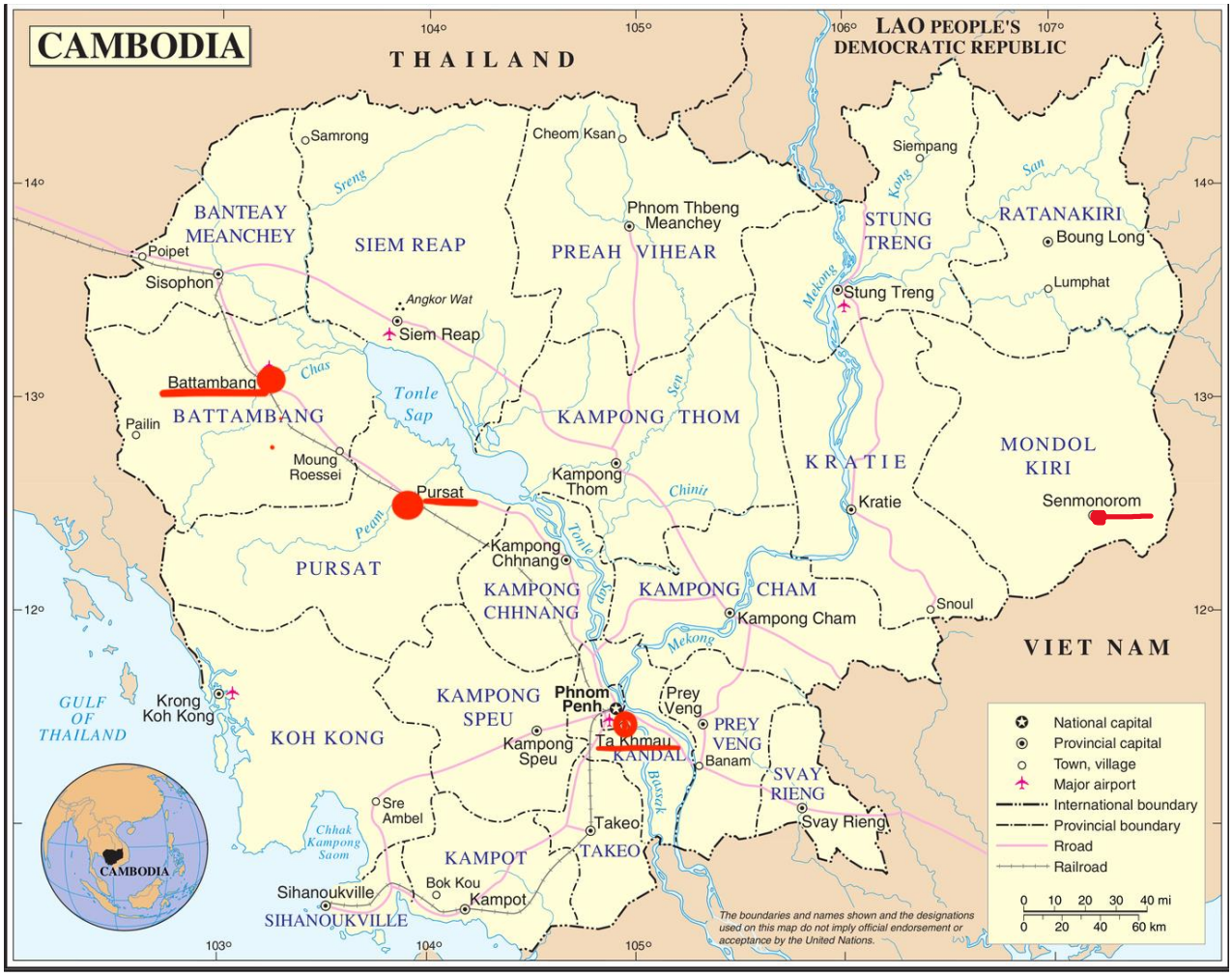


Figure 1: Geographical Location of Provinces and Provincial Capitals in Cambodia

3.1.2. Climate

Cambodia has a tropical climate: hot all year, with a rainy season from May to mid-November due to the south-west monsoon and a dry season from mid-November to April. For a typical year, the rainfall in the inland lowland areas is about 1,300 to 1,800 mm. The climate is a bit cooler in the highlands, where slopes are covered by an impermeable forest and are protected under nature reserves. The mountainous areas also have the most rain, up to 5,000 mm per year, and frequently have rain showers in the afternoon from February to April even before the monsoon season starts.

The proposed project sites in Battambang and Pursat provinces, and Ta Khmau municipality in Kandal province are in the inland lowlands and have similar climates. Senmonorom municipality, located at an elevation of about 800 m, has a slightly cooler climate than the other sites.

3.1.3. Topography

Cambodia is mostly characterized by low flat plains, with mountains in the north and southwestern part of the country. Its low-lying central plain is surrounded by uplands and low mountains. Forested transitional plains extend outward and rise to elevations of about 200 meters above sea level to the north.

The topography of Battambang, particularly the southern part, consists of typical plain wetland area covered with rice fields and other agricultural plantations, and extensive flooded forests, which is part of the Tonle Sap Biosphere Reserve. The northern part is undulating, covered with deep green forests.

The northeast half of Pursat consists of lowland wetlands with rice fields and other agricultural plantations, stretching from the Tonle Sap Biosphere Reserve to the middle of the province. The south and west of the province is made up of part of the Cardamom mountains.

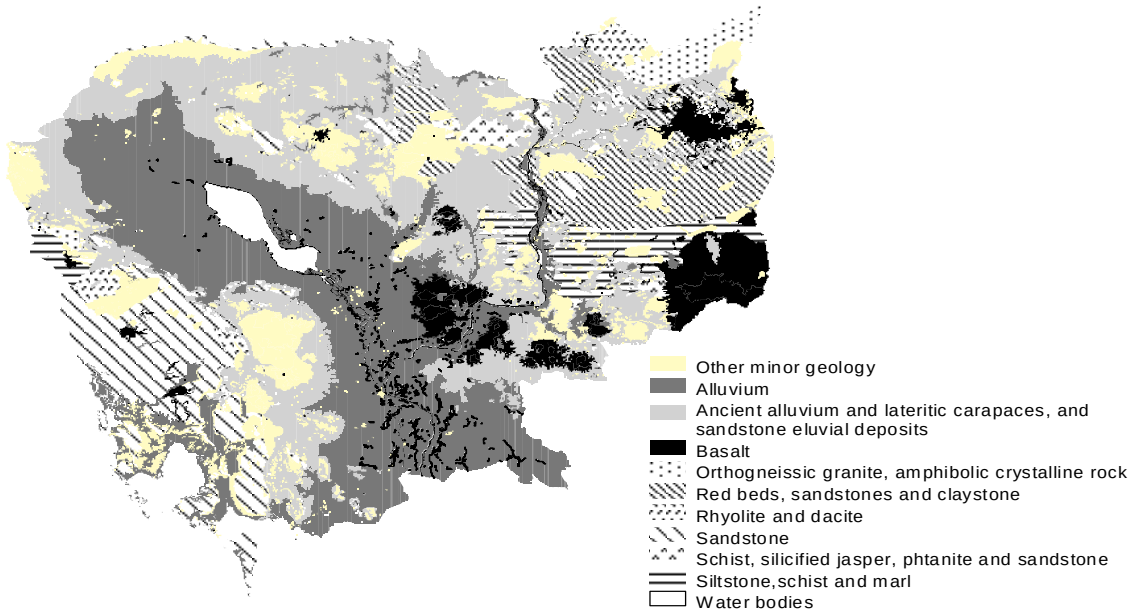
The province of Kandal, surrounding the city of Phnom Penh, has an average altitude of 10 meters above sea level. It consists of typical lowland plains, covered with rice fields and other agricultural plantations.

Mondul Kiri consists of hills and mountains interspersed with lower valleys. It ranges in elevation from 190 to 1,000 meters

3.1.4. Geology

Cambodia has few mineral resources, such as gold and non-metallic minerals. The area experienced tectonic activity and low-grade metamorphic rock formation throughout the Paleozoic era. A few rocks remain from the Cenozoic period. There is bauxite formed from laterite weathering, as well as phosphorite, iron, gems, limestone, and other minerals.

The geological description of Battambang and Pursat mainly consists of alluvium, ancient alluvium and lateritic carapaces and sandstone alluvial deposits, that of Mondul Kiri is mostly basalt, while Kandal is covered by alluvium and other minor geological features as seen in Figure 2 below.



Source: Mekong River Commission

Figure 2: Geological Map of Cambodia

3.1.5. Hydrology

Cambodia has abundant freshwater resources, with The Mekong River and the Tonle Sap Basin are the main sources of freshwater resources of Cambodia. The Tonle Sap Basin has 11 river basins: Stung (St.) Boribo, St. Chikreng, St. Chinit, St. Dauntry, St. Mongkol Borei, St. Pursat, St. Sangkar, St. Sen, St. Siem Reap, St. Sreng, and St. Staung. The total renewable water resources of the country is equated at 476.1 cu.km., while the freshwater withdrawal is currently around 4.08 cu.km. per year.

Despite the country being rich in water resources, Cambodia experiences drought, especially during the dry season, which can last for uncertain durations. The Tonle Sap Basin is also prone to flooding during the rainy season due to high variability in rainfall.

The province of Kandal features two (2) of the biggest rivers in Cambodia: the Basaac and Mekong rivers.

Mondul Kiri has numerous streams and waterways. It's 3 main rivers are the Srepok, Preaek Chhbaar, and Preaek te.

3.1.6. Ecological Environment

Cambodia has many types of ecosystems, with complex structures and a rich variety of species. The ecosystem types in Cambodia mainly include mountain forest, grassland, aquatic, agricultural, village, and urban ecosystems. The forest in the country is slowly being depleted due to illegal logging and strip mining, resulting to habitat loss and declining biodiversity.

The wildlife of Cambodia is very diverse with at least 162 mammal species, 600 bird species, 176 reptile species, 900 freshwater fish species, 670 invertebrate species, and more the 3,000 plant species identified. Many of the plant species are endemic to unique local ecosystems, such as the Tonle Sap floodplain, forests of the Cardamon and Damrel Mountains, and elevated plains. The ecological conditions of the subprojects is not yet known, as they are only in the early stages of selection or planning, so the ecological risks and impacts are not yet known. They are to be included in the subproject E&S documents.

3.2. Social Baseline

3.2.1. National Overview

According to the World Bank (2021), Cambodia has undergone a significant transition over the past two decades. The country reached lower middle-income status in 2015 and aspires to attain upper middle-income status by 2030. Driven by garment exports and tourism, Cambodia's economy sustained an average annual growth rate of 7.7 percent between 1998 and 2019, making the country one of the fastest-growing economies in the world. However, the recent COVID-19 pandemic slowed development, especially of the service, construction, and real estate sectors. Following a decline of GDP of -3.1 percent in 2020, the economy rebounded with 3 percent growth in 2021 and likely 4.8 percent growth in 2022.

Disruptions to economic activities due to stringent measures to curb the outbreak led to job losses or decreased working hours. However, with the reopening of the country and loosening of Covid-19 restrictions, employment rates are returning to their pre-COVID-19 levels. Schools throughout Cambodia have been reopened since late 2021 and children have been able to reassume their education, though issues of quality and equitable access remain important challenges for development priorities.

Cambodia has made considerable strides in improving maternal and child health, early childhood development, and primary education in rural areas. A recent report from the Ministry of Health has indicated that maternal, infant and neonatal mortality rates have decreased significantly.
Despite the progress in health and education outcomes, human capital indicators lag behind other lower middle-income countries. An estimated one in three children under the age of five suffer from stunted growth and only 36 percent of children between three and five years old are enrolled in nursery education. While net enrollment in primary education increased from 82 percent in 1997 to 97 percent in 2020, lower secondary completion rates were at 45 percent in 2019. The World Bank Group has been financing projects to improve education and health services.

3.2.2. Water Supply and Sanitation

Key to this project, Cambodia's Socio-Economic Survey (CSES) 2019 found that only around 33% of household in urban areas other than Phnom Penh have piped water in the dwelling, and only about 12% of households in these urban areas have toilets connected to sewerage. Poor and vulnerable households (estimated at 8.5% of total population) tend to have more limited access to these services, compared to other households. Their vulnerability has been particularly exacerbated by the impact of Covid-19, which has increased poverty level among these poor households.

Based on the findings through the direct interviews and public consultation with people during implementation of the current WaSSIP, some remain reluctant to make the household connections, even though the water supply pipelines have been already been laid out in their area. This is mostly due to poverty, as many ID-Poor holders (poor households) cannot afford the connection fee. This was found mostly in the Taing Krasaing subproject, while much less of a problem in the Stoung subproject where a promotion fee was offered for a period of time with a 50% discount for normal residents and an 80% discount for ID-Poor holders.

The findings also found high demand for household connections for the sanitation system in Siem Reap. There was much less reluctance to connect to the system, as no household connection fee was charged at the beginning, but instead included later in monthly bills. This has encouraged more households to connect and might be used in implementation of WASAC in the targeted provinces.

3.2.3. Sexual Exploitation and Abuse, and Sexual Harassment in Cambodia

At national levels, according to the 2015 National Survey on Women's Health and Life Experiences in Cambodia (n= 3,574) conducted by the National Institute of Statistics of the Ministry of Planning and Ministry of Women's Affairs), 20% of Cambodian women reported experiencing physical or sexual violence from an intimate partner. The report showed that of 53% of women who assessed their health condition following the incidence, 90% of them reported injuries that required healthcare. According to a study report conducted by UNICEF in 2017, over 20% of children aged 0 to 4 years in Cambodia live with a mother who experienced physical, sexual or emotional violence committed by a husband or partner.

Transgender women are particularly vulnerable to gender-based violence. A report published by the Cambodia Center for Human Rights in 2016 revealed alarming rates of abuse perpetrated against transgender women in public space, with 43% of respondents reporting experiences of physical violence, 31% reporting experiences of sexual assault, and 25% reporting having been raped.

3.2.3.1. Organizations Relevant to SEA/SH and GBV

The Ministry of Women's Affairs (MoWA) is the government agency responsible for women's issues, which has established a sub-working group on GBV under the Technical Working Group on Gender (TWG-G), to work in partnerships with other government ministries, development partners and non-governmental organization.

The Cambodian National Council for Women (CNCW) is a national mechanism, established in 2001, aimed at coordinating and providing advice to the RGC on matters related to the promotion of Cambodian women's status, roles and welfare of women to reduce and eliminate of all forms of discrimination against women.

Provincial and District Women's and Children Consultative Committees (WCCC) were established at the provincial, municipal, khan, and district levels in 2009, to provide advice to administrative agencies on issues related to gender equality, women, youth and children. These include GBV working groups established in seven provinces and eight districts. At the commune or sangkat level are the Commune/Sangkat Committee for Women and Children (CCWC), the lowest level and closest mechanism for GBV response close to local communities.

3.2.3.2. SEA/SH Service Providers

Below is a list of key SEA/SH service providers that may cover project provinces.

- **Cambodian Women's Crisis Center** (CWCC) works on prevention and provides comprehensive protection services for GBV survivors, including shelter, trauma and psychosocial counseling, health referral, legal consultation and support in court, and reintegration into the community. CWCC currently operates four (04) regional shelters with the head office in Phnom Penh. Each can accommodate up to 50 clients who can stay 1-3 months.
- **Cambodian Human Rights and Development Association (ADHOC)** focuses on GBV including rape, Intimate Partner Violence (IPV), human trafficking and migrant abuse. They conduct investigations and provide legal advice to survivors. They run a radio show to disseminate information to the public about their legal rights around migration, GBV and IPV. They support networks for survivors and encourage survivors to become human rights defenders in their community, who can advocate to local authorities and provide counseling to community members. They have produced materials and guidelines for women in the community to help them file complaints and seek support for legal aid.
- **Gender and Development for Cambodia (GADC)** works at the grassroots level through community outreach to ensure that women are able to speak out about their concerns and network, and to change men's attitudes and behaviors about gender and GBV. They also work with youth, placing them as interns in commune councils, to help link the CIP process with the needs of the community. GADC has programs in Kampong Chhnang, Kampong Speu, and Pursat provinces.
- **Women Peace Makers (WPM)** works on gender and women's issues in peace and conflict transformation and address GBV through capacity building for commune dispute resolution

committees and Commune Committees for Women and Children (CCWC) at Commune and District levels for more gender sensitive alternative dispute resolution and mediation, to ensure that service providers are more gender responsive when dealing with GBV. **WPM** has the office in Phnom Penh.

3.2.4. Violence against Children (VAC)

According to UNCEF (2018), findings from the Violence against Children Survey (CVAS) in Cambodia revealed that 53% of females and 54% of males aged 18–24 reported at least one incident of physical violence prior to age 18. Among 13–17 years old experiencing physical violence within the past 12 months, 15 % were girls and 13 percent of boys. Emotional violence in childhood is also widespread: Among those aged 18–24, 19% of females and 25% of males reported experiencing emotional violence before the age of 18. The percentage was smaller among 13–17 years-old: 10% of both boys and girls said they had experienced emotional violence in the past 12 months. Four percent of females and 6 percent of males aged 18–24 reported any type of sexual violence prior to age 18. Among those aged 13–17, 3 percent of girls and less than 1 percent of boys reported incidents of sexual violence in the previous 12 months. While the lifetime experience of violence is high, fewer children experienced violence in the last 12 months.

3.2.5. Child Labor

In Cambodia, the Labor Law (1997) allows children as young as 12 years old to work in light and non-hazardous employment that does not interfere with their education. The minimum legal age for general employment in the country is 15 years and 18 years for hazardous work (as defined in the law). Child labor takes many different forms. However, a priority is to eliminate without delay the worst forms of child labor as defined by Article 3 of ILO Convention No. 18: “labor that jeopardizes the physical, mental or moral well-being of a child, either because of its nature or because of the conditions in which it is carried out (also known as ‘hazardous work’)”. Consulting firm Verisk Maplecroft has ranked Cambodia 28th in the world and the highest risk in Southeast Asia for the use of child labor in its 2020 index.

According to ILO (2012), in Cambodia, 51% of children (generally from 5-17 years of age) work in agriculture, forestry and fishing, 20% in manufacturing, 12% in wholesale, retail trade, repair, and 6% in construction. Children from 15-18 years of age make up 47%, followed by 12-14 (35%). Of these 48% worked as employees, and 49% worked as unpaid family workers.

IV. ENVIRONMENTAL & SOCIAL RISKS AND POTENTIAL IMPACTS

This chapter elaborates environmental and social risks and impacts that are associated with planned project activities, particularly with construction of the civil works. The risks are presented according to the World Bank's Environmental and Social Standards.

4.1. Environmental and Social Risks and Potential Impacts Relating to ESS 1 Assessment and Management of Environmental Risks and Impacts

ESS1 is the umbrella standard covering all environmental and social risks and impacts, covered in greater detail in the other ESSs. It sets out the Borrower's responsibilities for assessing, managing and monitoring environmental and social risks and impacts associated with each stage of a project, and describes the processes and documentation required to identify, evaluate and manage the environment and social risks and impacts of the project in a manner consistent with the ESSs.

These include the requirements for environmental and social assessment, the Environmental and Social Commitment Plan which commits the Borrower to comply with environmental and social mitigation measures, preparation of Environmental and Social Management Plans to carry out the mitigation measures, organizational capacity and training needs of the implementing agencies, management of contractors, emergency response measures, and cumulative impacts.

Cumulative impact assessments of the subprojects will be carried out to assess impacts of other relevant past, present and reasonably foreseeable developments as well as unplanned but predictable activities enabled by the project that may occur later or at a different location. This assessment will need to consider, among other things, water intake from multiple sources and multiple discharges into the same recipient and also associated facilities.

Although most of the environmental and social risks and impacts are covered under discussions of the other ESSs below, a few other issues are not easily classified in any of the others.

Given the many years of armed conflict in Cambodia, there remain a number of areas where land mines or UXO can still be found. This might even be the case in built up areas, such as those where the project will be implemented.

The source of the raw materials for the subprojects should be identified, in particular for construction of the larger facilities such as the water treatment and wastewater treatment plants, such as stone, aggregate, gravel, or sand, and how those materials will be obtained and licensed.

As implementation of the environmental and social management plan will be the responsibility of the contractors, there is the risk of non-compliance with the plans or of particular mitigation measures needed to avoid or offset the risks or impacts.

Institutional capacity of the implementing agencies may prove inadequate to assess environmental and social risks and impacts, as well as cumulative impacts, and to assure compliance with mitigation measures, whether due to inadequate staffing or assignment of personnel with insufficient experience or training.

4.2. Environmental and Social Risks and Potential Impacts Relating to ESS 2 Labor and Working Conditions

Based on the nature and scope of potential civil works, and geographical characteristics of the proposed and potential construction sites, the following potential risks and impacts need to be addressed: a) Occupational Health and Safety (OHS), b) Labor Influx, c) Sexual Exploitation and Abuse, Sexual Harassment, Gender Based Violence, and Violence against Children, d) Child Labor, e) Forced Labor, f) Discrimination and Exclusion of Disadvantaged/ Vulnerable Groups, and g) Temporary Workers. Furthermore, potential risks and impacts related to workers' rights need to be covered, among them 1) working conditions, 2) right to organization, 3) right to contractual arrangements with fair wages and other support, and 4) a grievance redress mechanism

a) Labor influx

Project contractors are likely to bring their own staff, such as project managers, technicians and skilled workers, for the civil works. This labor influx might lead to:

- **Increased pressures to local inhabitants** due to increased demand for food, fuel, housing by the contractors' labor force, as well as non-local people who associate with the contractor's workforce. These may include camp followers such as workers' families, sex workers, and outside job seekers;
- **Potential social conflict**s with local people;
- **Increased health risks**, including contracting communicable diseases such as COVID-19, and HIV/AIDS and other STDs;
- **Increased risk** of traffic accidents, particularly for those living in the vicinity of the civil works and those who travel near the construction areas. Yes also under ESS4

b) Sexual Exploitation and Abuse, Sexual Harassment, Gender Based Violence, and Violence against Children

The presence of about 30-40 outside workers at each subproject runs risks of sexual abuse and exploitation (SEA), sexual harassment (SH), Gender Based Violence (GBV) and Violence against Children (VAC), both to the local population and to camp followers. This risk was assessed as low due to small number of workers and the fact that civil works take place in urban areas, where workers will be recruited from within communities.

c) Child Labor

Although the national Labor Law sets the minimum working age at 15 years old, ESS2 stipulates the minimum working age at 18 except under very specific conditions. The minimum age for workers in this project is to be 18. Therefore, there is a risk of contractors engaging children under the age of 18, mostly as unskilled workers.

d) Forced Labor

Forced or compulsory labor is forbidden under both national law and ESS2. Hiring people to work off their debts, a practice sometimes found in Cambodia, is considered forced labor, and is forbidden under this project, along with all other forms of forced or compulsory labor.

e) Discrimination and exclusion of disadvantaged/ vulnerable groups

Vulnerable/disadvantaged people, such the poor, indigenous peoples, women, etc., may be excluded from accessing temporary employment opportunities, such as those offered by construction contractors.

Local people, recruited as unskilled workers by project contractors, may not be offered a written working contract. As a result, there is a possibility that they may be underpaid for the nature, scope, and quantity of work that they undertake.

f) Occupational Health and Safety

Workers may also be asked to work under conditions that are hazardous to them, such as working without personal protective equipment as required for such work. Worker camps may not have adequate sanitation, clean water, or other facilities. An adequate OHS system may not be put in place, which should include accident reporting, and monitoring safe work conditions and procedures.

g) Workers' Rights

A number of workers' rights may be ignored, not implemented, or inadequately addressed. Working conditions may be unsafe or unsanitary. Workers may be prevented from organizing. Workers may be engaged informally, without contract and without the support provided under contracts, including accident insurance, fair wages, length of hiring. There may also not be a means for workers to raise grievances or other issues facing them.

4.3. Environmental and Social Risks and Potential Impacts Relating to ESS3 Resource Efficiency and Pollution Prevention and Management

During construction stage, there are a number of pollution risks and impacts associated with the civil works including: i) generation of dust, noise, vibration and gas emissions due to the operation and movement of construction vehicles and machinery; ii) 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; emission when digging and installing pipe network; iv) pollution from temporary increase in suspended solids in the water and impact on downstream users during construction; and v) improper restoration of construction sites, including cleaning and closing of old unhygienic outdoor pits at the end of the civil works.

During operation, potential environmental risks include surface water and groundwater contamination with potentially toxic substances of natural or anthropogenic origin, including pathogens and organic compounds. This contamination may result from natural sources, routine actions or discharges (e.g., releases within allowable limits), from accidents (e.g., spill), or even intentional (e.g., sabotage). Leaks in the water supply system can reduce system pressure, compromise the integrity of the system and its ability to protect water quality by allowing contaminated water to enter the system, and increase water supply demands, the amount of chemicals, and the amount of energy used for pumping and treatment. Leaks in the distribution system can result from improper installation or maintenance, inadequate corrosion protection, settling, traffic and vibration stresses and other factors.

Residual solid waste generated by water treatment includes process residues, used filtration membranes, used media and miscellaneous waste. Treatment residuals consist primarily of settled suspended solids from the source water and chemicals added during the treatment process, such as lime and coagulants. Pre-sedimentation, coagulation, lime softening, iron and manganese removal and slow sand and diatom filtration produce sludge.

For wastewater treatment, composition of the sludge depends on the treatment process and the characteristics of the source water, and can include toxic metals and pollutants, organic compounds, microorganisms, etc. Spent media may include filter media (including sand, coal, or diatomaceous earth from filtration plants), ion exchange resins, Granular Activated Carbon [GAC], etc. The biochemical treatment of sewage and sludge disposal can lead to greenhouse gas (GHG) emissions. Improper sludge disposal, even if treated, risks nutrient pollution from excess nitrogen and phosphorus, and chemical or biological contamination of the soil.

Water treatment may involve the use of chemicals for coagulation, disinfection and water conditioning. If suitable facilities for storage, handling and treatment of fecal sludge are not available, it may be indiscriminately dumped into the environment or used in an unhygienic manner in agriculture.

The systems will require electricity for operation, resulting in increased greenhouse gas emissions. Even more so, the anaerobic processes for wastewater treatment can generate significant amounts of methane and other biogases.

4.4. Environmental and Social Risks and Potential Impacts Relating to ESS4 Community Health and Safety

Community health and safety risks associated with the construction/expansion of water and sanitation infrastructure, including accidents, injuries, and exposure to chemicals and pathogens. Other community disturbances might occur as a result of civil works (noise, dust, air, odor from wastewater, possible accidents from transport of construction materials).

With an influx of labor during construction, there is the risk of SEA/SH and GBV of local residents. Though not likely, should the contractor engage a private security firm there is risk of conflict between the security staff and the community.

Community health and safety risks during operation of the water and wastewater treatment systems may be disturbances from noise and smell, and vector borne diseases from wastewater storage. For example, air emissions from water treatment operations will also need to be considered; these may include ozone (in the case of ozone disinfection) and gaseous or volatile chemicals used for disinfection processes (e.g., chlorine and ammonia).

Emergency situations cannot be restricted only to work sites or operating facilities, but are also likely to affect the local communities. There is risk that emergency response arrangements will not be extended to include the communities or will not be sufficient.

4.5. Environmental and Social Risks and Potential Impacts Relating to ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

Several of the subproject sites may require land acquisition for the construction of water treatment plants, wastewater treatment plants, and pumping stations for both project management units (PMU-1 under MISTI, PMU-2 under MPWT). Some of the specific subproject locations are not yet confirmed, so it is still not certain which will require land acquisition. Based on the suggestion from General Department of Resettlement (GDR)/MEF, public lands will be the first priority before considering the need to acquire private land.

For the first 2 sites, the Battambang Waterwork has already reserved its own land for building the water treatment plant, while the land for the wastewater treatment plant of the sanitation subproject in Ta Khmau (Kandal province) is likely to be on public land.

Since technical designs for the other specific sub-projects or specific site locations remain unknown, there is a likelihood for minimal land acquisition and resettlement. If resettlement is required, there may also be economic displacement of the households or businesses being moved. Voluntary land donations should be considered as a possible option for the acquisition of limited amounts of private lands, so long as the donors will directly benefit from the project, the donation does not have a negative impact on their livelihood, they are aware of other options such as compensation, are not coerced, are aware of their right to refuse, and make the donation in writing.

Should any pipes be required to go under private lands, permission to do so must be obtained from the land owners, with separate agreements between the landowners and utilities giving the utilities access to the pipes for repairs or maintenance, and prohibiting the landowners from planting large trees or building large structures above the pipes.

The construction activities may also lead to temporary acquisition of lands, for workers camps, storage facilities, and other related activities, as well as temporary disruption of economic activities and livelihoods.

The potential risks and impacts relating to ESS5 are covered in more detail in the Resettlement Policy Framework in Appendix 3.

4.6. Environmental and Social Risks and Potential Impacts Relating to ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

Since the water supply subprojects will require water intake from surface waters, some of the project activities may have direct impacts on the aquatic life in the area, especially during the dry season when water flow is low. Discharges from the wastewater treatment systems may have adverse impacts on local aquatic life, in particular if treatment is not sufficient and fecal matter or other pollutants are discharged into the waters. Improper disposal of sludge can have adverse impacts on local soil and environment. Though not likely, the project design of PWOs in more remote areas should assure there is no impact on critical natural habitats.

Project assessments also will take into account ecosystem services that could be impacted by the project. Subproject designs of both water supply systems and sanitation systems will take into account potential risks to local biodiversity and living natural resources, in particular hydrological changes, pollution risks, habitat loss or degradation, introduction of invasive species, and any climate change impacts.

The site specific ESIAs (if required) and ESMPs for the known locations will include an evaluation of the systems and verification practices to: (i) identify where the supply is coming from and the habitat type of the source area; and (ii) where possible, limit procurement to those suppliers that can demonstrate that they are not contributing to significant conversion or degradation of natural habitats.

Specific risks and impacts to biodiversity and living natural resources in the two subproject areas already designated are:

1) Battambang Subproject

The water source for this subproject is from Sangkae River. The Sangkae River is considered part of the Tonle Sap ecosystem, which is a UNESCO World Heritage site. The project plans indicate that the amounts of water to be used for the water supply system will have no adverse impacts on the Tonle Sap.

The water treatment site and water intake station of Battambang subproject are located in a highly disturbed environment dominated by agricultural land use, mostly rice cultivation. There are a few specific areas where trees are present. Typically, these are planted trees rather than natural growth, including a number of common species such as rattan (*Calamus* spp.), acacia (*Acacia Auriculiformis*) bamboo (*Bambusa arundinacea*), snowy orchid (*Bauhinia acuminata*). None of the observed species listed are threatened, critical or endangered. In the rural areas fruit orchards can be found in some of the communes; they will not be affected by the subproject activities. Also, water pipe network will be installed through some parts of Battambang City, where there are no natural stands of trees.

In summary, the entire subproject is located in a highly disturbed area, with no natural or critical habitats and no endangered or threatened flora or fauna affected.

Based on a preparatory study for the second Tonle Sap project (ADB-funded project) carried out in 2017[8], 34 fish species were identified, none of which are threatened, critical or endangered.

[8] ADB and Cities Development Initiative for Asia, 2017, (ADB TA 8556-REG), Pre-feasibility study for second Tonle Sap integrated urban environmental management project. Prepared by Eptisa Consultants.

The nearest protected bird habitat is some 40 km away from the Battambang subproject. In the JICA study[9] some 30 bird species were identified as being in the Battambang area all of which are common species except for the milky stork (*Mycteria cinerea* or ro neal sor in Khmer) which is classified as vulnerable. The milky stork's habitats are the core biodiversity zones in the Tonle Sap Biosphere as the birds prefers marshes, ponds and occasionally rice fields. Seeing that marshes are found only further downstream on the Sangkae River, rice paddies will continue to dominate in the region for the foreseeable future, and the preferred habitats of the milky stork will not be disturbed by the subproject.

2) Ta Khmau Subproject

The proposed subproject in Ta khmau city of Kandal province is located entirely in built-up urban areas, rice fields and other low land areas. There are shrub species and floating plant species, many of which were intentionally planted in the rice fields, while others are found in the other low lands. Species found are *Barringtonia micrantha*, *Combretum trifoliatum*, *Cynodon dactylon*, *Bridelia ovata*, Var. Curtisis, *Eichhornia carssipes*, *Phoenix paludosa*, *Ipomoea aquatica, Ludwigia adscendens*, *Pista stratiotes*, *Nymphaea nouchali*, *Nelumbo nucifera* and *Cyperus elatus*. The floodplain forest of the project area is highly degraded, which is dominantly with reeds and bushes, and there was no small vegetation at the understored layer. None of the species are considered vulnerable.

There are some bird species in the subproject area, most of which are endemic and wetland birds such as *Dendrocygna javanica, Macropygia unchall, Monticola solitarius, Myophonus caeruleus, Luscinia. Calliope, Hypsipetes leucocephalus, Cisticola juncidis, Cisticola exilis, and Coracias benghalensis.* These birds species are classified as Least of Concern in IUCN Red List.

4.7. Environmental and Social Risks and Potential Impacts Relating to ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

As most of the proposed subprojects are now expected to be in urban areas, far from the areas where indigenous peoples are mostly located, it is unlikely the project will impact any IPs. This holds true for Senmonorom in Mondul Kiri as well, since the population of the city consists mainly of ethnic Khmer and Chinese. Even so, once specific sites are selected, a screening process will determine if any IP communities are located in, near, or otherwise affected by the subproject. An Indigenous Peoples' Planning Framework has been prepared (Annex 4) in the event any IP communities are affected by a subproject, so that the indigenous peoples are consulted in a culturally appropriate manner and have opportunities to benefit from the project activities.

4.8. Environmental and Social Risks and Potential Impacts Relating to ESS8 Cultural Heritage

During project planning, potential sites of important cultural heritage should be identified, to avoid when preparing detailed designs of the subprojects. These should include sites that may be important to local communities, such as cemeteries, sites of religious significance, etc., including those of any IPs identified in or near the project area, as well as those sites important to national heritage.

For any works carried out in areas with known or suspected cultural heritage value, pre-construction site-specific assessments will be conducted, and cultural management plans will be prepared during project implementation. Construction activities may lead to the chance discovery of materials or of sites of important cultural heritage, with chance find procedures presented in Annex 5.1.

4.9. Environmental and Social Risks and Potential Impacts Relating to ESS10 Stakeholder Engagement and Information Disclosure

There is risk that the project will not identify all the affected or interested stakeholders, nor engage those identified as needed throughout the course of the project.

Even if identified, there is further risk that insufficient information may be provided to local residents on construction plans and on the potential environmental and social risks during construction and operation, as well as continued information on the on-going construction activities that might affect them, such as when pipes will be laid in their area and the potential types and duration of disturbances to be expected. Vulnerable persons, including poor, elderly, and disabled, may not be engaged or informed without additional effort.

An additional risk is that the project does not establish a Grievance Redress Mechanism, or even if it does, the GRM is not implemented adequately. Stakeholders may not be informed of the GRM or complaints are not dealt with in a timely manner.

[9] JICA, 2013, Preparatory Survey on the project on additional new water treatment plants for Kampong Cham and Battambang Water Works in Cambodia. Prepared by Nihon Suido Consultants

V. MITIGATION MEASURES

This section discusses the potential impacts and mitigations measures for the overall project's civil works (WASAC) for both PMUs including the construction of water treatment plants, water distribution networks, wastewater treatment plants, pumping stations, sewer line installation, and for developing and improving water supply systems operated by private water operators[10] and other construction that might happen during the project implementation, as well as potential risks and mitigation measures during operation of the water supply and sanitation systems.

The mitigation measures are presented here according to each of the Environmental and Social Standards.

[10] Under a sub-component 1.b of the project is to develop and improve water supply systems in areas outside the provincial towns in Battambang and Pursat provinces by private water operators. Risks and impacts analysis for this activity is provided in section VII, alongside some proposed risks/impacts management mechanism and mitigation measures

5.1. Mitigation Measures Relevant to ESS1 Assessment and Management of Environmental Risks and Impacts

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
Inadequate environmental or social assessment prior to subproject design	Environmental or social risks and impacts not identified	Environmental and social assessments be conducted for each subproject prior to detailed planning and design	Planning	MISTI and MPWT ESOs or focal persons	E&S consultants
Inadequate staffing or inadequate capacity of assigned E&S	Environmental or social impacts not adequately identified implemented and mitigated, leading to potential harm to people and/or the environment	Competent staff be assigned as E&S staff for the project, with additional consultants as needed. Staff trained in ESF policies, instruments, etc.	Planning	MISTI and MPWT	E&S consultants
Lack or inadequate assessment of cumulative impacts	Additional environmental or social risks not identified, such as increased water use from water supply leading to increased wastewater, possible associated facilities	Require each subproject to conduct a cumulative impact assessment	Planning	MISTI and MPWT ESOs or focal persons	E&S consultants
Lack of or insufficient emergency response system [additional measures under ESS2 and ESS4]	Cause injury or death to workers, plant operators, and/or community members	Prepare emergency response system for workers, operators and the community	Planning	MISTI and MPWT ESOs or focal persons	E&S consultants
UXO contamination at project areas, including those of any Associated Facilities and of the PWOs	Injured workers or members of the publics	Confirm all relevant areas are clear from UXO. - Cambodian Mine Action Centre (CMAC) to clear areas where necessary and provide evidence of clearance to PMUs in advance of construction and Certificate of UXO Clearance obtained	Pre-Construction	Contractors to engage CMAC	MISTI and MPWT E&S Officers or focal persons (henceforth referred to as "E&S Officers") E&S consultants

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
Inadequate supervision of compliance with Environmental and Social mitigation measures	Environmental or social impacts not adequately mitigated, leading to potential harm to people and/or the environment	Contractors appoint E&S focal persons prior to implementation. E&S consultants train E&S focal persons on supervision of compliance with ESMPs, and to key staff of contractors on implementation of ESMPs TA will be provided to the project, to assure it adheres to the requirements of the ESF, to conduct stakeholder engagement and environmental and social assessments for each subproject, and to assure no activities of the project will cause adverse impacts until relevant plans, measures or actions have been completed in accordance with ESCP, as stipulated in the World Bank ESS1, paragraphs 14-18.	Pre-Construction Construction Lifetime of the Project	Contractors E&S Consultants (for training) PMUs ESOs or focal persons E&S Consultants	E&S Officers E&S consultants E&S consultants

5.2. Mitigation Measures Relevant to ESS2 Labor and Working Conditions

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
Occupational Health and Safety	Workers exposed to risks due to physical hazards, trip and fall hazards, exposure to chemicals, dust and noise, falling objects, and ergonomic injuries	- Conduct training of workers in the identification and management of occupational hazards; -Require workers to adhere to guidelines relating to minimum distances for excavations, tools, vehicles, pruning/cutting of trees and other activities in the ROW of the water supply and the wastewater networks. - Implement fall protection systems for construction of treatment plants and other facilities that include provision of hoisting equipment, safety belts, and secondary (backup) safety straps for workers. - Provide first-aid facilities readily accessible to workers. - Post safety signs, reminders, or warning notices at visible areas onsite. - Strictly implement a “No-Alcohol, No-Gambling and No-Dangerous Drug Policy” at the construction site.	Pre-construction for training Construction	Contractors E&S focal persons	E&S officers E&S consultants E&S officers E&S consultants

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
		- Provide PPEs (including life vests/buoyancy devices for works at water sources). Make wearing of PPEs mandatory.			
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 behaviour, etc.	- If a workers' camp is required, the contractor will set out a camp management plan in the C-ESMP, with a location map and a site layout map indicating facilities and infrastructure. - Adequate and separate accommodation and sanitation facilities will be provided for male and female workers, meeting good standards of health, hygiene and comfort. - 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) - All solid waste will be regularly collected and removed from the work camps and disposed to areas approved by local authorities. - Relevant training on camp management will be provided to all staff. - 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.	Pre-construction Construction Post-construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants
Risk of communicable diseases, including Covid-19 and STDs	Transmission of Covid-19 among workers and into the community, illness and possible deaths Transmission of STDs among workers and into the community	- Plan and execute work in compliance with country-specific Covid-19 regulations and directives, including directions of the Department of Labour. - Conduct training and education of workers on infection prevention and control practices. - Conduct training and education of workers on prevention of STDs - Train all workers on contents of a Code of Conduct (CoC), and have them sign the CoC in acknowledgement	Pre-construction Construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
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	- Conduct age checks and other verification - Ensure all workers have contracts and are paid at least minimum wage - Conduct due diligence in the supply chain	Construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants
Lack of or insufficient emergency response system [additional measures under ESS1 and ESS4]	Cause injury or death to workers, plant operators, and/or community members	Provide training to workers on the emergency response system		Contractors and Contractors E&S focal persons	E&S officers E&S consultants
GRM for Workers	Dissemination	- Contractor to nominate 'Contractor focal point' for GRM and develop complaints register and complaints form. - Erect sign boards with project details and GRM procedures/contact details at the entrance to each construction site/camp. - PMUs 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. - 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'.	Construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants

5.3. Mitigation Measures Relevant to ESS3 Resource Efficiency and Pollution Prevention and Management

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
Generation of dust, noise, vibration and gas emissions due to the operation and movement of construction vehicles and machinery	Excessive dust, noise and vibrations, affecting local residents and workers, including potential long-term illness. Release of gas emissions polluting environment and affecting local residents and workers, including potential long-term illness.	- Cover and moisten soil and aggregate stockpiles. - Water sprinkling in areas prone to airborne dust. - Regularly clean and sweep dust and accumulated soil at roadsides - Regularly maintain vehicles and equipment to ensure emissions comply with standards. - Prohibit burning of waste materials. - Cover materials with tarpaulin or other suitable materials during hauling. - No construction 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 - Erect temporary noise barriers around construction sites.	Construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants
Improper disposal of construction waste and 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	Pollute the terrestrial and aquatic environments and harm the flora and fauna in those areas, including potential harm to local residents	- Undertake waste reuse and recycling, where possible, and dispose only in approved sites. - Undertake segregation of hazardous and non-hazardous wastes, including properly labeled waste disposal bins. - Instruct workers not to indiscriminately dispose wastes particularly at surrounding areas, canals, rivers, agricultural field, and other public areas - Avoid the disposal of wash water with excessive chlorine residue into rivers or water bodies	Construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants
Emissions when digging and installing pipe network	Air pollution, with potential harm to local residents	- Regularly maintain vehicles and equipment to ensure emissions comply with standards - Water sprinkling and sweeping to reduce dust	Construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants
Pollution from temporary increase in suspended solids in the water	Pollute the aquatic environment, with potential harm to	- During pipe installation, construction materials and wastes will not be dumped onto the rivers and streams. - Provide safe and stable scaffoldings.	Construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
	aquatic life and to users downstream	- Implement fall protection systems that include provision of hoisting equipment, safety belts, and secondary (backup) safety strap for workers. - Regularly inspect/maintain all drainage channels to keep free of obstructions.			
Erosion and soil runoff into waterbodies; dump excavated soil on agricultural lands	Water pollution, harm aquatic life, damage agricultural lands	- Choose location of stockpiles that will avoid blocking of drainage lines. - Excavation activities will be scheduled during the dry season to the extent possible. - Stockpile of excavated soil will be covered and stabilized to prevent runoff. - Provide sediment trap, trenches or barriers around stockpiles of materials to block runoff water and catch sediments and other debris entering the drain or waterbody. - Prohibit dumping of excess excavated soil on agricultural land	Construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants
Improper restoration of construction 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	Harm the local environment.	- All construction sites and work areas will be rehabilitated to be close as possible to their previous condition and able to be used as before. - No waste will remain at the sites after work is completed. - 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. - All chemicals, waste and pollution will be removed and safely disposed of. - 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. - The construction sites and workers' camps will be recontoured, depressions backfilled, topsoil will be applied, and the sites will be revegetated	Post-Construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
Inadequate water supply in dry season	Water supply system does not fully function; excess water leads to water depletion and dry rivers, harming aquatic life and other water users	- Installation of a river level data logger and allocation of responsibility to collect and record data. - Include sufficient clearwater storage tanks in the water supply system design - Provision for public awareness and O&M training to enable management of water shortages during droughts	Design Operation	MISTI / MPWT design teams Operators - Provincial Departments	E&S officers E&S consultants
Greenhouse gas emissions from electricity use	Increased electricity use for plan operations leads to increased greenhouse gas emissions	- Use resource efficient equipment	Design Operation	MISTI / MPWT design teams Operators - Provincial Departments	E&S officers E&S consultants
Greenhouse gas emissions from wastewater treatment	Methane and other biogases generated from the anaerobic processes	- Treatment ponds fitted with floating covers to enable capture of the emitted gases. - Initially biogas flared as the quantities are uncertain and operator skills levels are basic, but in the future consideration should be given to converting the biogas to reusable energy.	Design Operation	MISTI / MPWT design teams Operators - Provincial Departments	E&S officers E&S consultants
Improper treatment and/or release of wastewater	Pollution of aquatic environment, harm to aquatic life, harm to water users downstream	- Minimize the quantity of solids generated by the water treatment process through optimizing coagulation processes. - Dispose of lime sludge by land application, limiting application rates to about 20 dry metric tons per hectare to minimize the potential for mobilization of metals into plant tissue and groundwater. - Dispose of ferric and alum sludge by land application in accordance with IFC standards.	Operation	Operators	E&S officers E&S consultants
Improper storage and use of chemicals in water treatment and wastewater treatment	Leaks, emissions of hazardous chemicals, which can harm workers and the environment	- Store reagents such as sodium hypochlorite or calcium hypochlorite in cool dry, and dark conditions for no more than one year, and use equipment constructed of corrosion resistant materials. - Isolate ammonia storage and feed areas from chlorine and hypochlorite storage and feed areas.	Operation	Operators	E&S officers E&S consultants

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
		- Develop and implement a prevention program that includes identification of potential hazards, safe operating procedures and accident mitigation procedures. - Training to be provided in maintenance, and accident mitigation procedures.			
Inadequate control of water quality at source for water supply, and for water disposed by wastewater treatment	Water pollution, harm to aquatic life and to downstream users	- Periodically check water quality to avoid any contamination and maintain good quality of water supply quality. - Periodically check quality of wastewater to be disposed. - Prepare and comply with water safety plans.	Operation	Operators	MISTI / MPWT
Pipe failure	Water leakage and inadequate water supply; leakage of wastewater into surrounding area	- Regular inspection to monitor leaks and any blockages - Training in O&M, provision of site log books and help ensure regular inspection.	Operation	Provincial Department	MISTI / MPWT
Greenhouse gas emissions from electricity use	Increased electricity use for plan operations leads to increased greenhouse gas emissions	- Use resource efficient equipment	Operation		

5.4. Mitigation Measures Relevant to ESS4 Community Health and Safety

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
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: Wastewater discharge could affect natural water sources used by	▪ Conduct an assessment of environmental services that might be affected by the project, both potentially beneficial and potentially damaging. ▪ Adjust subproject design to avoid damaging impacts	Planning	E&S officers E&S consultants	E&S consultants

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
	other household for domestic use, or by others for agriculture. Intake for water supply might be proposed from a source that is of cultural significance.				
Traffic safety and accidents	Increased risk of traffic accidents from construction vehicles and equipment, trucks bringing supplies, etc. Increased risk of accidents in areas being excavated for water supply or sanitation system pipes	▪ Sign posting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards ▪ Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe passages and crossings for pedestrians where construction traffic interferes. ▪ Organize suitable parking, or docking and landing areas around the construction sites during site clearance and demolition. ▪ Adjustment of working hours to local traffic patterns (rush hours). ▪ Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public. ▪ Ensuring safe and continuous access to households, shops, stores, offices, and buildings if the buildings stay open for the public.	Construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants
Dust, noise, vibrations, and gas emanations from construction activities	Harm to local residents	Refer to mitigation measures for same risk under ESS3 above	Construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants
Safety at construction sites	Risk of accidents in or near construction sites	▪ Fencing and barriers, clearly posted warning signs ▪ Guards to prevent access to construction sites by outsiders (third parties) ▪ Install explicit signs forbidding children to play in or near the construction sites	Construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
Risk of communicable diseases, including Covid-19 and STDs, from workers	Spread of Covid-19, STDs or other communicable diseases from contact with infected workers	▪ Provide information to local community in easily accessible manners on how to prevent and treat various communicable diseases ▪ Provide information to local residents on the workers' camps and their regulations.	Construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants
Gender based violence (GBV), Sexual Exploitation and Abuse (SEA), Sexual Harassment (SH), and Violence against Children (VAC)	Influx of outside workers, other construction staff, can increase risks of SEA/SH, GBV, and VAC	▪ 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 labor ▪ Establish mechanisms to report GBV, VAC, SEA, and assure all are made aware of those mechanisms during training and in posters and other media. ▪ Depending on the case, work with project and relevant authorities to try to resolve the issue	Construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants
Lack of or insufficient emergency response system [additional measures under ESS1 and ESS2]	Cause injury or death to workers, plant operators, and/or community members	▪ Inform community of emergency response system ▪ Provide training to selected members of community on how to respond to emergency	Construction and Operation	Contractors and Contractors E&S focal persons Operators	E&S officers E&S consultants

5.5. Mitigation Measures Relevant to ESS5 Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement	Permanent or temporary loss of lands, or of structures and/or resources on lands such as economic trees, all or parts of buildings, fences, etc.	▪ Screen for possible land and resettlement issues and avoid if possible ▪ Determine of lands can be obtained through voluntary land donations. ▪ If land acquisition cannot be avoided and voluntary land donations not an option, contact General Department of Resettlement (GDR) of Ministry of	Planning	Contractor General Department of Resettlement (GDR) in case of	E&S officers E&S consultants

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
	Temporary loss of access to lands or economic activities on those lands during construction	Economy and Finance (MEF) to prepare an Abbreviated Detailed Resettlement Plan (A-DRP) according to guidelines set out in the RPF for the project as per ESS5 requirements		permanent land acquisition	
	Damage to individual or community facilities such as roads, street lights, power lines, canals, driveways to and pathways to agricultural areas during pipe laying	▪ Coordinate with Provincial and local authorities, electricity distribution company, and owners of affected properties and agricultural areas prior to commencement of pipe laying ▪ Replace damaged structures and facilities or provide adequate compensation for losses according to the processes in the RPf ▪ Inform affected parties in advance if there will be interruption of utility services.	Pre-Construction	Contractor	E&S officers E&S consultants

Notes: The term ESOs which is used all over the document is referred to a combination of ESO of MPTW that has been officially established and the E&S focal persons of MISTI. MITIS has shown the commitment to establish ESO in the near future.

5.6. Mitigation Measures Relevant to ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
Project encroaches or otherwise affects wetlands or other important biodiversity habitats	Damage to the biodiversity habitat, harm to flora and fauna of those areas	Assure design of the water supply and sanitation systems avoid any impact on natural wetlands or other natural habitats such as forests.	Planning	MISTI and MPWT	E&S consultants
Excessive fishing / destructive fishing methods	Affect the biodiversity of water sources	- Prohibit workers from drift net fishing and fine mesh net fishing that will affect biodiversity of the rivers	Construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants
Improper disposal of construction waste, especially near the natural water sources (canals, streams, ponds, etc.), or minor operational or accidental spills of fuel and	Pollute the terrestrial and aquatic environments and harm the flora and fauna in those areas, including potential harm to local residents	- Undertake waste reuse and recycling, where possible, and dispose only in approved sites. - Undertake segregation of hazardous and non-hazardous wastes, including properly labeled waste disposal bins.	Construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
lubricants from the construction machinery [NOTE: Also in mitigation measures for ESS3]		- Instruct workers not to indiscriminately dispose wastes particularly at surrounding areas, canals, rivers, agricultural field, and other public areas - Avoid the disposal of wash water with excessive chlorine residue into rivers or water bodies			
Pollution from temporary increase in suspended solids in the water [NOTE: Also in mitigation measures for ESS3]	Pollute the aquatic environment, with potential harm to aquatic life and to users downstream	- During pipe installation, construction materials and wastes will not be dumped onto the rivers and streams. - Provide safe and stable scaffoldings. - Implement fall protection systems that include provision of hoisting equipment, safety belts, and secondary (backup) safety strap for workers. - Regularly inspect/maintain all drainage channels to keep free of obstructions.	Construction	Contractors and Contractors E&S focal persons	E&S officers E&S consultants
Inadequate water supply in dry season [NOTE: Also in mitigation measures for ESS3]	Water supply system does not fully function; excess water leads to water depletion and dry rivers, harming aquatic life and other water users	- Installation of a river level data logger and allocation of responsibility to collect and record data. - Include sufficient clearwater storage tanks in the water supply system design - Provision for public awareness and O&M training to enable management of water shortages during droughts	Design Operation	MISTI / MPWT design teams Operators - Provincial Departments	E&S officers E&S consultants
Improper treatment and/or release of wastewater Improper disposal of sludge from wastewater plant [NOTE: Also in mitigation measures for ESS3]	Pollution of aquatic environment, harm to aquatic life, harm to water users downstream Terrestrial pollution, harm to soil, introduction of invasive plant species	- Minimize the quantity of solids generated by the water treatment process through optimizing coagulation processes. - Dispose of lime sludge by land application, limiting application rates to about 20 dry metric tons per hectare to minimize the potential for mobilization of metals into plant tissue and groundwater. - Dispose of ferric and alum sludge by land application in accordance with IFC standards.	Operation	Operators	E&S officers E&S consultants
Inadequate control of water quality at source for water supply, and for water disposed by wastewater treatment	Water pollution, harm to aquatic life and to downstream users	- Periodically check water quality to avoid any contamination and maintain good quality of water supply quality. - Periodically check quality of wastewater to be disposed.	Operation	Operators	MISTI / MPWT

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
[NOTE: Also in mitigation measures for ESS3]		- Prepare and comply with water safety plans.			

5.7. Mitigation Measures Relevant to ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
Presence of Indigenous Communities in or near a sub-project	Sub-project affects the traditional lands or other natural resources (including waters) used by the indigenous community	▪ Conduct scoping to determine if IP communities are found in the sub-project areas or otherwise impacted by the sub-project and cannot be avoided, prepare IPP if needed, following the procedures outlined in the IPPF in Appendix 4, and include consultation requirements with the IP communities as part of SEP. ▪ Consult with IP communities at all stages, including preparation of the IPP, if needed to assure their needs are met and communicate with the IP community in a language and manner they understand about the project ▪ If project directly affects the lands and other resources used by the IP communities, implement the sub-project with the free, prior and informed consent of the community if needed based on circumstances described in the SEP and ESS7	Sub-project Planning, Implementa-tion	PMU ESO and staff E&S consultants Implementation by Contractors	E&S officers E&S consultants World Bank

5.8. Mitigation Measures Relevant to ESS8 Cultural Heritage

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
Sites of important cultural heritage, whether national or for local communities, are affected by the project; or cultural artifacts or sites are discovered during project construction	Sites of important cultural heritage could be damaged or destroyed; cultural artifacts could be damaged, destroyed or lost.	▪ Any construction site close to a designated historic district, notify and obtain approval/permits from local authorities and relevant Ministries and address all construction activities in line with local and national legislation. ▪ Ensure that provisions are put in place so that artifacts or other possible "chance finds" encountered in excavation or clearing are noted, officials contacted, and works activities delayed or modified to account for such finds (a chance finds procedure is developed for WASAC and will be implemented in such cases). ▪ If the construction works occur in the existing reserved land by the Waterworks or provincial department of both MISTI and MPWT, it is not expected to yield any important landmark, monument, grave or any other conservation findings of any significance.		Contractor and Contractors E&S focal persons	E&S officers E&S consultants

5.9. Mitigation Measures Relevant to ESS10 Stakeholder Engagement and Information Disclosure

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
Community / Stakeholder Engagement	Insufficient information to local residents Insufficient input by local residents in project design / layout Insufficient knowledge of GRM process	▪ Regular consultation with direct stakeholders at all stages of the project, according to Stakeholder Engagement Plan (SEP) ▪ Consultation with indirect stakeholders as needed, according to Stakeholder Engagement Plan (SEP) ▪ Update SEP regularly to reflect new or different stakeholders and new or different conditions ▪ Assure all stakeholders are aware of Project's GRM to report any issues, complains, suggestions.	Planning, Implementation	Contractor and Contractors E&S focal persons	E&S officers E&S consultants

Type of Risks	Descriptions of Potential Impacts	Mitigation Measures	Project Phase	Responsibility	
				Implemented by	Monitored by
	All can lead to potential conflicts between local community and project	▪ Make available posters and other social media that explain the GRM process and their rights of any complainants.			
ID-Poor Households/ Vulnerable Households	Lack of involvement / participation of poor households and other vulnerable persons in the project	▪ Assure ID-Poor households and other vulnerable persons are involved in stakeholder engagement process and are aware of and have access to the GRM ▪ Assure that ID-Poor Households/ Vulnerable Households will benefit from the project. They should be specifically provided with very special rate of the household connection fee or free of charge or get them employed or involve in all stages of the project implementation, so that they will earn some skills and will be able to proceed with better opportunities for more and more employment.			
Lack of access to a grievance redress process	Potential for increased discontent of local residents and conflict with project.	▪ Establish a Grievance Redress Mechanism (details in Chapter X below)			

VI. LINKS WITH OTHER PROJECTS AND ASSOCIATED FACILITIES

Several of the subprojects are expected to be connected with other water supply or sanitation networks. Most are funded by donors, though a few are operated by private companies. Some of those networks already exist, others are under construction, and some are being planned.

6.1. Criteria to Determine if Linked Projects are Associated Facilities

Some of these linked projects might be considered "associated facilities" under the World Bank ESF. As defined by the WB,

"Associated Facilities are those facilities or activities that are not funded as part of the project and, in the judgment of the Bank, are: (a) directly and significantly related to the project; (b) carried out, or planned to be carried out, contemporaneously with the project; and (c) necessary for the project to be viable and would not have been constructed, expanded or conducted if the project did not exist. For facilities or activities to be Associated Facilities, *they must meet all three criteria*." (p. 103 of the WB ESF, glossary of terms) [italics and underline added]

Completed, ongoing, or planned projects with which some WASAC subprojects are potentially linked are provided below, in Table 1, with an initial assessment of whether or not they meet the 3 criteria to be considered as associated facilities.

Table 1: Assessment to Determine if Projects Potentially Linked to WASAC Subproject are Associated Facilities

Location	Type	Proposed Project Facilities	Development Partners (DP)	Determine if the Partner Facilities or Activities are: directly and significantly related to the project (explain)	Determine if the Partner Facilities or Activities are: carried out, or planned to be carried out, during the same period of time as the project (explain)	Determine if the Partner Facilities or Activities are: necessary for the project to be viable and would not be constructed, expanded or conducted if the project will not exist (explain)	Considered an Associated Facility Yes / No
Battambang Municipality	Water Supply	Network extension link to existing WTP of financed under JICA project, and to new WTP with financing from ADB Development of new water treatment plant	ADB and JICA: treatment plant and some network	The water network extension will also use the water produced by the other DP projects – therefore it is not an AP	The ADB-funded project for water supply in Battambang recently started construction. The JICA-funded project completed construction and is now in operation	Although linked, the projects do not depend upon each other. Each can operate independently.	No
Battambang Municipality	Sanitation	Wastewater collection network on west side to existing WWTP constructed with ADB financing	ADB: 2 wastewater treatment plants built on the east and west side of the municipality	The WASAC subproject would be connected to the ADB funded WWTP and network on the west side	The ADB-funded projects are under construction and expected to be finished in 2024	ADB funded WWTP on west side has only limited coverage due to funding constraints. Proposed WASAC subproject to expand network is dependent upon ADB funded WWTP. ADB funded WWTP can operate without the WASAC subproject; hence is not an associated facility. However, The proposed WASAC subproject could be considered an associated facility to the ADB project.	No

				Determine if the Partner Facilities or Activities are:			
Location	**Type**	**Proposed Project Facilities**	**Development Partners (DP)**	**directly and significantly related to the project (explain)**	**carried out, or planned to be carried out, during the same period of time as the project (explain)**	**necessary for the project to be viable and would not be constructed, expanded or conducted if the project will not exist (explain)**	**Considered an Associated Facility** **Yes / No**
Battambang, Other districts/towns	Water Supply	New piped water supply where no current service providers.	Either none, or perhaps involve private operators	Any component involving private operators would be directly related to the subprojects	To be determined	Any component involving private operators would need to be considered as an associated facility of the WASAC subproject	No
		Expansion of water supply system of existing small-scale private water operators	Private operators	Expansions would be dependent on the existing systems	Systems already completed	The existing systems would not be considered as associated facilities, as they exist and operate without the WASAC inputs	No
Pursat Municipality	Water Supply	Provide WTP, network extension, and other facilities	JICA: WTP and network ADB: Network replacement	WASAC subproject to link to JICA WTP	JICA WTP expected to be completed mid-2023 ADB project has completed construction	WASAC and JICA projects to be linked and interdependent. However, JICA project can operate even if the WASAC subproject is not implemented; hence cannot be considered an associated facility.	No
Pursat Municipality	Sanitation	Sewerage network and WWTP on the east side of river.	ADB: sewerage network and WWTP on the west side of river.	WASAC and ADB project facilities not interconnected. However, they will be related in operation and tariff set up	ADB-funded project just completed the construction	Construction and physical operation not related. Operations and tariff set up will be related.	No

				Determine if the Partner Facilities or Activities are:			
Location	**Type**	**Proposed Project Facilities**	**Development Partners (DP)**	**directly and significantly related to the project (explain)**	**carried out, or planned to be carried out, during the same period of time as the project (explain)**	**necessary for the project to be viable and would not be constructed, expanded or conducted if the project will not exist (explain)**	**Considered an Associated Facility** **Yes / No**
Ta Khmau Municipality	Sanitation	sewerage collection network in three Sangkats, and new WWTP co-located with the WWTP to be built by EDCF	Korean Exim Bank (EDCF) finances other 6 Sangkats, and WWTP.		EDCF-funded project will be constructed soon	WASAC subproject likely linked to ECDF project as location for WWTPs will be shared.	No

As can be seen from this initial assessment, even though many of the subprojects will be linked with other DP projects, nearly all those other projects cannot be considered as associated facilities. The other DP projects have already been built, are planned, or are under construction as water supply systems or sanitation systems that can operate even if the WASAC subprojects are not implemented.

6.2. Adherence to ESSs by Associated Facilities

During the planning phase of the WASAC subprojects, an assessment should be made as to whether or not any linked projects should be considered as Associated Facilities. A checklist to assist in this assessment is provided in Annex 1.3.

If any of those projects are deemed to be associated facilities, the project must assure their implementation "will meet the requirements of the ESSs, to the extent that the Borrower has control or influence over such Associated Facilities." (p. 5 of the WB ESF)

The PMU responsible for the subproject and those responsible for planning and implementing the associated facilities, together with the WB and the funding agency for the associated facilities, should meet to determine how compliance with the ESSs will be done, using one of these two approaches:

> "(a) A common approach has been agreed for the project, the common approach will apply to the Associated Facilities;
> (b) Associated Facilities are being funded by other multilateral or bilateral funding agencies, the Bank may agree to apply the requirements of such other agencies for the assessment and management of environmental and social risks and impacts of the Associated Facilities, provided that such requirements will enable the project to achieve objectives materially consistent with the ESSs." (p. 5 of the WB ESF)

If there is any reason the Associated Facilities cannot comply with the ESSs, "The Bank will require the Borrower to demonstrate the extent to which it cannot exercise control or influence over the Associated Facilities by providing details of the relevant considerations, which may include legal, regulatory and institutional factors." (Footnote 17, p. 5 of the WB ESF)

6.3. Assessing ESF Compliance of Other Linked Projects

Even if the linked projects are not considered associated facilities, an assessment would still be needed to determine if those projects have been implemented and/or are being operated in a manner materially consistent with the ESSs. A screening form is provided in Annex 2.4 to help make an initial determination.

For linked projects funded by donor partners, the screening should be done by reviewing E&S documents, to be followed by discussions with donor and IA E&S staff responsible for the projects, then field visits which should include random discussions with people living the project area.

If the linked projects are built and operated by private companies, WASAC should review with those companies if they applied any E&S safeguards and how, followed by field visits and discussions with people living in the project area. In all cases, the field visits should be done solely by the WASAC E&S teams and consultants, without the presence of personnel from the linked projects, to reduce the risks of bias when meeting with people in the local communities.

Following these more in-depth assessments, the WASAC E&S teams should consult with the World Bank to determine if those projects have been implemented and/or are being operated in a manner materially consistent with the ESSs.

If there are minor issues, WASAC should negotiate with the linked project on how to resolve them, to make it more consistent with the ESSs.

However, if any major issues are found, such as forced resettlement, lack of adequate compensation for loss of resources or impacts on livelihood, problems with SEA/SH or VAC during construction, insufficient pollution controls during construction and/or operations, or lack of adequate protection of the local aquatic environment, as well as any other possible serious environmental or social problems, the proposed WASAC subproject should be considered ineligible and cancelled. (see Ineligibility Criteria, Annex 1.1)

VII. GRANT PROGRAM FOR PRIVATE WATER OPERATORS

As described in Section 1.4, the WASAC Project includes a sub-component (1.b) to develop and improve water supply systems in areas outside the provincial towns in Battambang and Pursat provinces. This will involve financing technical assistance to establish and implement a framework for supporting Private Water Operators (PWOs) to improve and expand their water supply service. Under this framework, the project will provide investment support grants to eligible PWOs for investment in water production and pipe networks.

This framework is to outline a methodology for selection of PWOs for support, through categorization based on performance. The PWOs are proposed to first be grouped into four "buckets" based on the operating conditions in their service area. Among the suggested determinants are household density and poverty levels. PWOs within each such bucket will expect to generate low or moderate risk only and as such ESCOP[11] will be suggested, based on key indicators such as operational and financial performance, service coverage, and environmental and social considerations. Among these could include the quality of water supplied, the impact of the water system on the water source, whether or not water is provided to poor or other vulnerable households, and how land was acquired if required for project facilities. A screening form will be prepared to assess their ability and potential to comply with the ESSs. A draft screening form provided in Annex 2.5.

The type of support provided (investment support grants, TA, and/or capacity building) will be tailored to each PWO based on its performance categorization and the specific characteristics. Support will be provided to the public provincial waterworks to strengthen their capacity and establish a mandate to offer technical backstopping support to PWOs to improve service standards and operational performance of water supply services, as well as improve and streamline compliance reporting.

7.1. Adherence to ESSs by Private Waterworks Operators

The PWOs 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 PWOs 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 PWOs 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 2.2. This is to cover all activities of the PWOs during this period, including any that might be considered associated facilities (see Chapter VI above), even if not directly funded under the grant.

7.1.1. Adherence to ESS5

Acquisition of private lands can only be carried out through the willing buyer-willing seller process, as both the buyer (the PWO) and the seller would be private legal entities. Such transactions will still need to have proper documentation and be subject to review by the project and/or the World Bank, to assure the sales were done transparently and without coercion.

Any other impacts that would be covered under ESS5, such as temporary use of lands, temporary loss of livelihoods due to construction, compensation for loss of assets, will first need to be reviewed by the project E&S team. These would be mitigated through processes outlined in the Resettlement Policy Framework and stipulated in the ESCOP.

7.1.2. Indigenous Communities

The Project's Ineligible/Negative Criteria includes a condition concerning ESS7 specific to the grant program.
Because the PWOs operate outside the main provincial cities, and may also implement new water supply systems in greenfield areas, there is a possibility that indigenous communities are located near the proposed activities under a grant application. An initial screening will determine if any indigenous communities are located in or near the proposed activities of a PWO, and if so, a subsequent review, including field visits, by the project E&S team will then determine whether or not those communities or groups possess the characteristics that would designate them as indigenous communities under ESS7.

Given that (1) this grant program is a pilot program, (2) the PWOs and the provincial water agencies expected to provide TA are not expected to have adequate capacity in E&S risk assessment and management, and (3) the project E&S teams

[11] A draft ESCOP has been prepared as in Annex 5.4

have not had any experience in carrying out activities related to ESS7, the project will not provide grants to any PWO whose activities would require the application of ESS7.

7.2. Contractual Obligations

The requirement for PWOs 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 PWO's proposed activities. The PWOs 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 PWO would be handled under the appellate stages of the Project's GRM.

The ESCOPs will require the PWOs 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.

7.3. Capacity Assessment and Training

Training will be provided to key staff of the PWOs. 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 PWOs, to help them understand the purpose and value of such activities, including how they could become part of the regular operations of the PWOs 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 PWOS will be carried out through monitoring by the project E&S team, and additional training will be provided as needed.

Training will also be provided to designated E&S staff of the provincial public water supply agencies, who will provide technical assistance to the PWOs on the various E&S matters.

7.4. Reporting and Monitoring

Regular quarterly reports will be submitted by the PWO designated E&S staff on compliance with the conditions and management plans in the ESCOP or ESMP. The provincial public water supply E&S personnel, with the assistance of the project E&S team, will make regular visits to monitor compliance, at least every 6 months for those PWOs 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 or to implement any of the aspects of the ESMP 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.

VIII. PROCEDURES FOR ENVIRONMENTAL & SOCIAL MANAGEMENT

8.1. Screening and Scoping

Environmental and social screening is designed to identify and document risks and potential impacts arising from proposed sub-projects. The environmental and social screening informs decision-makers about the need to implement measures or actions which avoid, minimize, mitigate or compensate for adverse risks and potential impacts. Sub-projects are categorized according to the screening procedure based on the type, location, sensitivity and scale of the project and the nature and magnitude of its environmental and social risks and potential impacts, and whether or not the subproject is eligible for support under this project. A sub-project will be rated as of low, moderate, substantial or high risks by MISTI and MPWT in consultation with the World Bank.

MISTI and MPWT will conduct the environmental and social screening. Thus, water supply and sanitation that are found to have significant environment or social risks and potential impacts – such as going through a National Protected Area, new construction, requiring ESIA or IESIA according to national legislation – will not be considered by the MISTI and MPWT for financing under the WASAC. (see Ineligibility Criteria, Annex 1.1) This screening will be done on the basis of secondary data (such as population census, location of protected areas, location of schools and markets, etc.), and site visits and discussions with provincial, district and local authorities. The final selected list of water supply and wastewater sections, and expected impacts, to the World Bank for their Non-Objection.

Once the sites of water treatment plant and wastewater treatment plant are identified the MISTI and MPWT will conduct more detailed environment and social scoping, following environmental and social screening form (see Annex 1.4). Scoping confirms the key environmental and social issues, risks and potential impacts identified during the initial screening process. The scoping stage can highlight potential issues at an early phase of sub-project development so as to allow planners to design changes which will avoid, minimize or mitigate environmental and social risks and potential impacts.

Once the World Bank has provided the No-Objection to the selected site, the MISTI and MPWT and DDIS[12] will adopt a mitigation hierarchy to the design of the selected sites which will:

- Anticipate and avoid risks and potential impacts;
- Where avoidance is not possible, minimize or reduce risks and potential impacts to acceptable levels;
- Once risks and potential impacts have been minimized or reduced, mitigate, and
- Where significant residual impacts remain, compensate for or offset them, where technically and financially feasible.

Based on the environment and social scoping and mitigation hierarchy approach above, project planners will be able to understand in more detail the expected impacts of each site, and the need to prepare, consult and disclose site-specific Environment and Social Management Plans (ESMPs), and potentially site-specific RPs and IPPs, following the guidelines in this ESMF and RPF, IPPF, as well as the SEP.

[12] DDIS: Detailed Design Implementation and Supervision (Consultants)

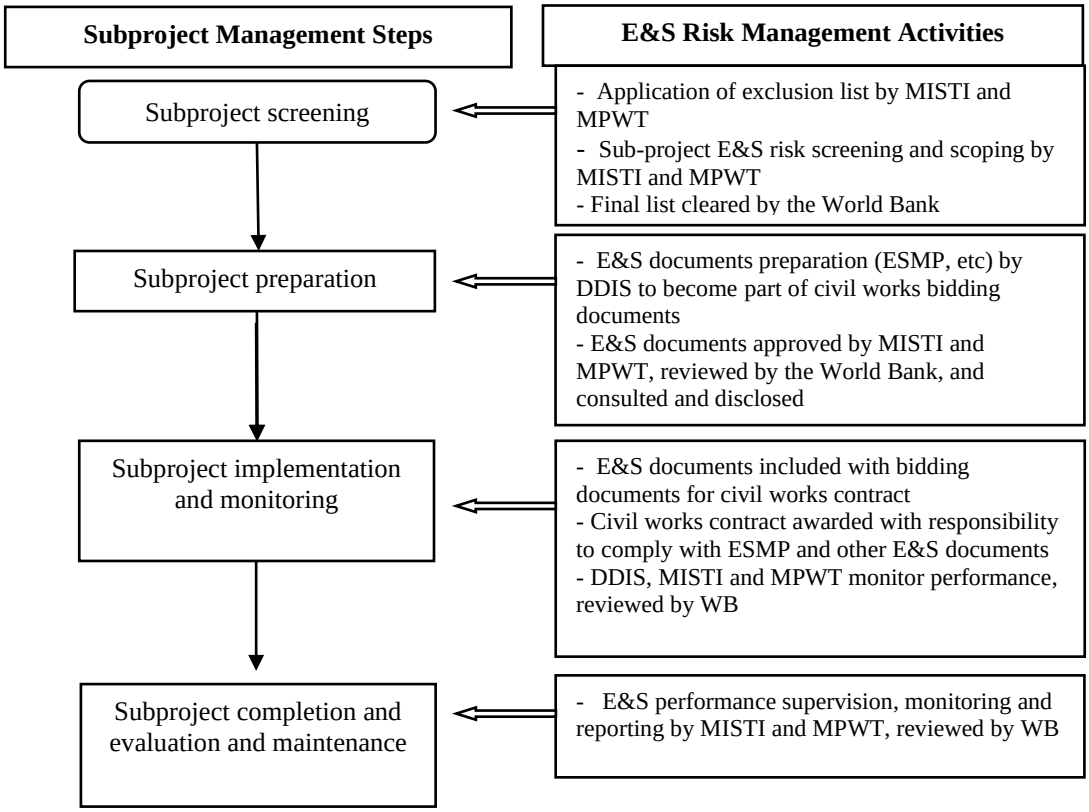


Figure 3: Presents the procedure for review, approval, scoping, and E&S plans for each management step.

8.2. Preparation of Site-Specific Environment and Social Management Plans

Site-specific ESMPs will be required once the location of site has been identified. ESMPs shall become part of the civil works contract. As part of the requirements in contractor's Work Contract, Contractor will prepare a C-ESMP based on the site-specific ESMP. The site-specific ESMP will establish the environmental and social standard and compliance mechanisms and serve as the basis for supervision and enforcement of good environmental and social practice during construction of the civil works. Preparation of ESMPs will be guided by this ESMF, including the risks and potential impacts and mitigation measures, which should be further detailed based on-site conditions to mitigate risks and potential impacts within specific locations and specific civil work activities or amended as needed, including by breaking them down into impacts/mitigation during pre-construction, construction, operations and maintenance.

The environmental and social analysis, design and preparation of an ESMP for sub-project or package must be conducted in close coordination with the feasibility and engineering design of each individual subproject/package. The analysis should concentrate on environmental and social issues associated with direct impacts along the pipe alignment, pumping station and wastewater/water treatment plant locations, and the management of construction impacts. The ESMP should be conducted in close connection with other documents, if any, such as Resettlement Plans (RP) or Indigenous Peoples Plans (IPP). The RP and IPP are part of site specific ESMP. Stakeholder engagement should follow the parameters outlined in the project's Stakeholder Engagement Plan (SEP) and ensure the SEP is updated based on actual circumstance. The MISTI and MPWT will make sure that the ESMPs (and other ESF tools if required) for each subproject/package are disclosed for consultation before beginning of the construction works. The MISTI and MPWT will ensures that a grievance mechanism is in place during the entire process to address any concern or suggestion for improvement coming from the stakeholders at local level.

8.2.1. Information Required in an ESMP

The ESMP will cover implementation aspects as detailed in RPs and IPPs, if any, and in SEP.

The ESMP shall include:

- A social and environmental baseline assessment with available information concerning the general population distribution, identification of vulnerable households, concentrations of indigenous peoples if applicable, concentrations of low-income communities if applicable, areas of significant ROW encroachment, sensitive and/or critical natural habitats, major rivers and waterways, recorded cultural heritage sites, and any other potentially sensitive areas, based on recent census, official data and information garnered from civil society organizations as well as detailed site visits, for the proposed site;
- Identification of all physical, environmental and social risks or impacts caused by each nature of civil work of each subproject;
- Identification of mitigation measures for all risks and potential impacts identified, by kilometres along the alignment;
- The environment and/or social instrument in which the mitigation measures will be included (i.e., RP, IPP, construction specifications, bidding documents, SEP, etc.);
- Agency responsible for implementation, including capacity needs training necessary;
- Timing for implementation of the mitigation measure (before construction, during construction, during planning, etc.);
- A budget for implementing the mitigation measure.

The ESMP should also identify specific community participation mechanisms, guided by the project's Stakeholder Engagement Plan, to address environment and social issues, as well as a detailed Grievance Redress Mechanism to deal with stakeholder's complaints or concerns.

The objectives of the ESMP will be to:

- Establish specific environmental and social criteria for subproject/package in WASAC;
- Identify environmental and social risks and potential impacts and define environmental and social criteria to avoid, minimize or mitigate such impacts, including working together with project planners to ensure designs can address these risks and potential impacts;
- Ensure that wastewater engineers, water supply engineers and technicians can find solutions for any problems arising during construction or maintenance activities; and
- Ensure project affected and interested stakeholders have necessary project information, are consulted and engaged, and have a mechanism to submit grievances.

A suggested outline and format for ESMPs in provided in Annex 4.2. The requirements of the ESMP, and this ESMF, and the MISTI and MPWT's commitment to implement the mitigation measures are included in the Environment and Social Commitment Plan (ESCP).

8.2.2. Responsibilities for Preparation and Bidding Documents

MISTI and MPWT will have overall responsibility for the preparation of site-specific ESMPs, and any other document required (RPs or IPPs for example). All documents will need to be disclosed and consulted upon with stakeholders before clearance is provided by the World Bank. Documents disclosed and consulted shall be publicly disclosed in Khmer and in English and included as part of bidding documents for civil works contractors. Contractors will be in charge of implementation of the mitigation measures during construction while the supervising engineer is in charge of monitoring the Contractor's implementation of mitigation plan.

These documents will be prepared by the Detailed Design Implementation and Supervision (DDIS) consultants. Therefore, this ESMF, and the RPF, IPPF, LMP as ESMF Annexes and SEP should be part of bidding documents for the DDIS as they will be tasked with the preparation of site-specific plans, including updating the SEP as required.

Figure 4 below presents the process of document preparation and approval required in this ESMF.

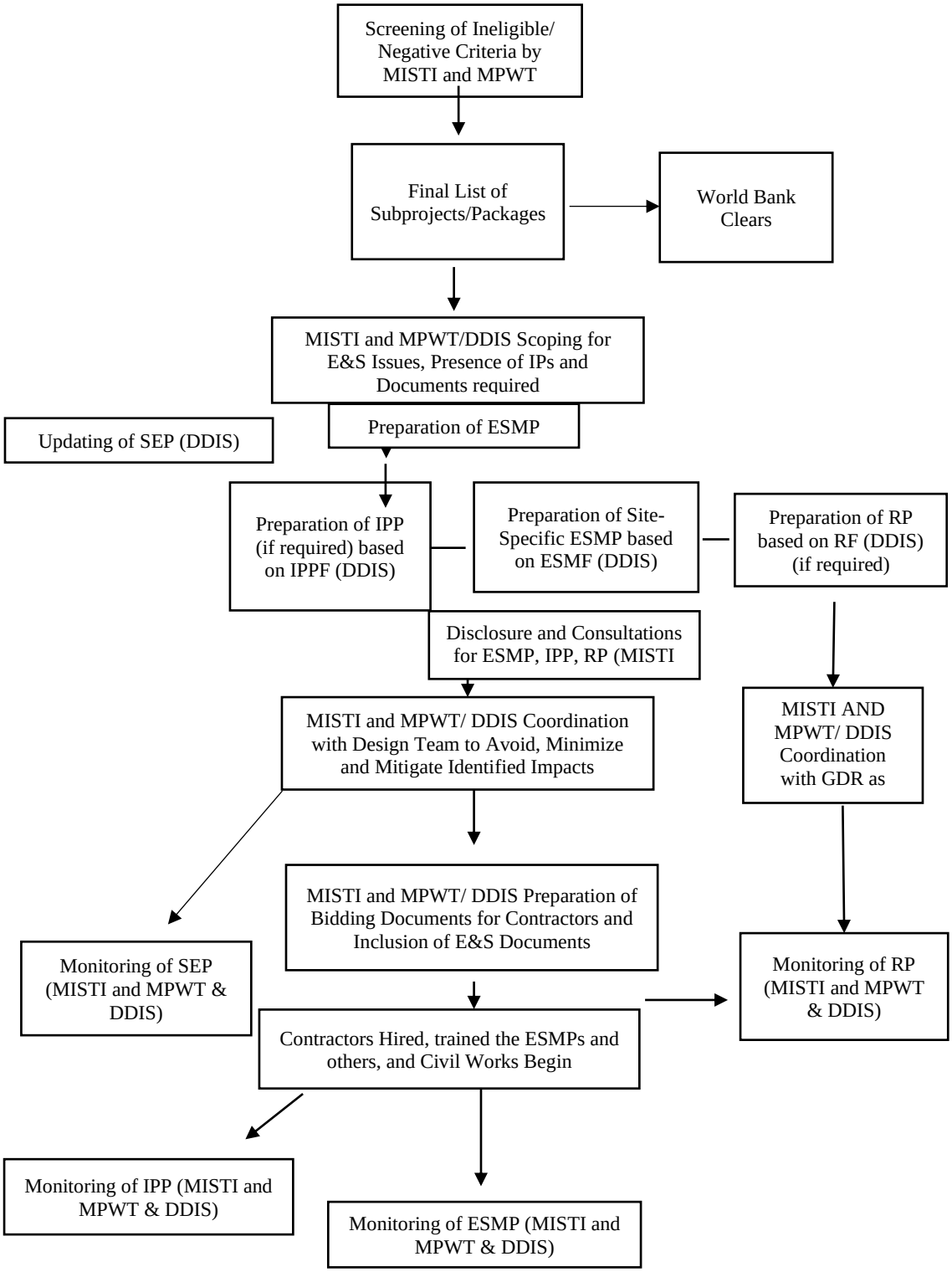


Figure 4: ESMF Process

8.3. Review and Approval for Site-Specific ESMP

- **Government's review and approval.**

If a subproject requires review and approval according to the government's declaration No.021 dated on 03 February, 2020 on the Classification of Environmental Impact Assessment for Development Project, the subproject owner will prepare and submit an Environmental Management Contract (with Site-Specific ESMP as attachment) or Initial Environmental Impact Assessment or Full Environmental Impact Assessment reports as required for review and to secure approval by the Department of Environmental Impact Assessment of the Ministry of Environment before

subproject appraisal. The Department of Environmental Impact Assessment of the Ministry of Environment will review and approve in accordance with the procedures and process for reviewing and comment.

A suggested outline for ESIAs in provided in Annex 4-3.

- **World Bank's review and clearance.**

All site-specific ESMPs will be subject to the World Bank's prior review before implementation.

8.4. Contractor's ESMP

The Contractor is responsible for preparing a contractor's Environmental and Social Management Plan (C-ESMP) for each contract package, to show how the contractor will implement the works activities in accordance with the ESMP. The C-ESMP will be based upon the particular activities under the contract package and the environmental risks, impacts and mitigation measures relating to those activities, and will also include the LMP and any other documentation relevant to the particular activities of the contract package.

The Contractor will submit the C-ESMP to the PMUs and the WB for review and clearance. This aims to ensure the C-ESMP is consistent with the requirements set out in the ESMF, the site specific ESMP prepared by the project, in line with the scope and nature of the contract package, including environmental and social risks and potential impacts and required mitigation measures.

IX. INSTITUTIONAL ARRANGEMENTS

The following institutional arrangements have been made between the Ministry of Industry, Science, Technology & Innovation (MISTI), Ministry of Public Works and Transport (MPWT) and the Ministry of Economy and Finance (MEF). More specific arrangement have been made in the Resettlement Policy Framework, Indigenous Peoples Planning Framework, Labor Management Procedures, and Stakeholder Engagement Plan. These institutional arrangements will be further defined based on specific works that may be additional identified in site-specific ESMPs, and any Resettlement Plan (RP) and Indigenous Peoples Plan (IPP) that may be required.

9.1. Ministry of Industry, Science, Technology & Innovation (MISTI) and Ministry of Public Works and Transport (MPWT)

The MISTI and MPWT are the Implementing Agencies (IAs). MISTI and MPWT will implement project activities based on the existing institutional arrangements and departments within the MISTI and MPWT. The MISTI and MPWT will ensure implementation of provisions set out in this ESMF are observed fully by all relevant parties, such as local authorities at sub-project level, contractors, sub-contractors, including environmental and social monitoring, evaluation and reporting.

The Project Director (PD) at MISTI and MPWT will be responsible for overall guidance, policy advice, internal coordination, discussion and resolution of project related matters with MISTI and MPWT's counterparts in other ministries and/or other government agencies, etc. The project manager (PM) at MISTI and MPWT will provide day-to-day support to the PD and are responsible for ensuring the Project Operation Manual (POM) is followed, environment and social activities are implemented, and all consultants follow their terms of reference and delivery schedule. The PM will also ensure project activities are carried out in accordance with implementation schedule and within the allocated budget, including ensuring that financial management reports are prepared and submitted on time. The MISTI and MPWT is each responsible for:

- Ensuring the project has adequate staffing (PD, PM, ESO, and consultants for each PMU);
- Provide agreed counterpart funds for project activities in a timely manner;
- Comply with the Environment and Social Commitment Plan (ESCP).

The PD and PM at MISTI and MPWT is each responsible for:

- Effective communication between all stakeholders;
- Recruiting consultants;
- Finalizing needed surveys, 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 WB, 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.

9.1.1. Environmental and Social Officers (ESO) of MISTI and MPWT

The MISTI and MPWT will appoint at least one Environmental Specialist, one Social Specialist, and one GRM Focal Point (hereinafter ESOs) for full time support for the project. The ESOs of MISTI and MPWT will be instrumental in ensuring the environmental and social performance of the project. The ESOs, who are supported by DDIS consultants and E&S consultants, will be responsible for ensuring effective environmental and social management for all project activities. The ESOs, DDIS consultants and E&S consultants will work together as a team in which ESOs play the lead role in E&S monitoring for the whole project. In particular, ESOs will review all related project and E&S documents which are

prepared by E&S consultants. Where necessary, ESO will conduct site visits, interview contractor, construction supervisors, workers, provincial-level government staff of MISTI and MPWT, local authorities and local communities to collect necessary E&S information for the purpose of internal monitoring. The ESO will monitor Contractors' compliance with C-ESMP and visit each subproject location at least once a month during construction. Upon completion of each site visit, the MISTI and MPWT'S ESOs should prepare a Monitoring Report reflecting main issues found, resolution arrangements and timing for the resolution.

The ESOs will be responsible for:

- Implementing and monitoring performance of environment and social mitigation measures, including health and safety;
- Conducting screening and scoping on environment and social impacts, including screening for land acquisition impacts based on the guidance in the RPF and presence of Indigenous Peoples based on the guidance in the IPPF;
- Conducting trainings on health, safety, gender, SEA/SH, VAC, labor rights, HIV/AIDS, STDs, Covid-19 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 Covid-19 and the workers' grievance redress mechanism;
- Monitoring environmental and social activities of the project, in particular the implementation of the ESMPs for wastewater and water supply subprojects, and any other relevant project documents such as RP and IPP;
- Monitor, including ensuring effective functioning of project's Grievance Redress Mechanism and solve grievances submitted to the PMUs level;
- Leading all stakeholder engagement activities, including information disclosure, consultations, reporting back to stakeholders, according to the provisions in the SEP;
- Working closely with Provincial Department of Rural Development, General Department of Resettlement, and other line ministries and/or relevant departments as necessary;
- Prepare monthly reports on E&S implementation and submit to the PM and PD.

9.1.2. Provincial Department of MISTI and MPWT (PDs)

The PDs will work closely with MISTI and MPWT in planning and implementation of wastewater and water supply subprojects located within their provinces, and are responsible for:

- Executing and monitoring wastewater and water supply civil works in the respective provinces;
- Coordinating effectively with all project stakeholders, including MISTI and MPWT's ESO, 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 MISTI and MPWT'S ESO to conduct trainings on COVID-19, labor, gender, SEA, SH, VAC, HIV/AIDS, and wastewater and water supply safety;
- Supporting MISTI and MPWT'S ESO to disseminate project information and conduct consultation activities, as well as ensuring effective grievance redress resolution within their province;
- Supporting MISTI and MPWT'S ESO to conduct screening and scoping of project wastewater and water supply, 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.

9.1.3. Detailed Design Implementation and Supervision (DDIS) Consultant

The DDIS consultant will be responsible for preparing detailed design, conducting construction supervision, monitoring project implementation, including monitoring and evaluation of the project. DDIS team will appoint Environment and Social officers on their team to be responsible for:

- Leading the drafting of required environment and social documents such as the site-specific ESMPs, RPs, IPPs and updating of the SEP as needed, and any other documents that may be required;
- Review and assess, on behalf of PMUs, of whether the construction design meets the requirements of the mitigation and management measures of the C-ESMP;
- Review and clear contractor's C-ESMP;
- Working closely with ESO to review environmental compliance at new proposed borrow pits and quarries and advise PMUs on whether these are eligible for use by the project;
- Supporting the MISTI and MPWT'S ESO to fulfil their roles, including by conducting capacity building training, helping with work plans, monitoring reports, conducting site visits, etc.;
- Working collaboratively with PDs and other related departments such as GDR as needed;
- Approving contractors' work statement, construction method, and implementation of subproject ESMPs;
- Monitoring the impact of construction works on the environment and local communities and assisting ESO in preparing monthly E&S implementation progress reports;
- Incorporating into the project design E&S mitigation measures identified in subproject ESMP during subproject design;
- Assisting Project PM and ESO in ensuring that all environmental and social requirements and mitigation measures in subproject ESMP are incorporated in the civil works bidding documents and contracts;
- Assist ESO in establishing the Grievance Redress Mechanism (as described in RPF, IPPF and LMP and summarized in SEP);
- Undertake environmental and social capacity building activities for the SEO;
- Undertake regular monitoring of the contractor's environmental and social performance as scheduled in subproject ESMP;
- Supervise Contractors' compliance with site-specific ESMPs and organize site visits to each subproject;
- Prepare Environmental and Social Monitoring Reports including Project Progress reports and details on the GRM for each ongoing sub-project;
- Review payment requests related to environmental mitigation costs if applicable;
- Support MISTI and MPWT in works related to implementation support missions conducted by the WB;

9.1.4. E&S Consultants

The E&S consultants are responsible for assisting the ESO in monitoring and reporting on the safeguard implementation performed by the contractors.

- 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 PMUs on the implementation and management of E&S risks and impact at subproject level;
- Review C-ESMP and ensure C-ESMP is consistent and cover all risks and potential impacts identified in site-specific ESMP, 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-ESMP have actionable plan to addressed identified risks and potential impacts, including allocation of resources to implement fully such actions.
- Make recommendation for improvement before PMU's and PMU's DISS Consultant's approval of C-ESMP;
- 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;

9.1.5. Contractors

The Civil Works contractor is responsible for implementing E&S mitigation measures set out in the C-ESMP prepared for the subproject, including relevant activities set out in respective RP and IPP (if any) as part of the SS-ESMP, and SEP. The contractor will:

- Prepare and submit a contractor's site- specific Environmental and Social Management Plan (C-ESMP) for each contract package and submit to the PMUs and PMUs's DDIS for review and clearance, as well as to the Bank

for review to ensure the C-ESMP 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-ESMP 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-ESMP 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-ESMP are changed during the contract liability period, the C-ESMP shall be updated by the contractor to reflect such changes. The C-ESMP should include the followings:
    i. A statement of policy, providing a definition of the contractor's environmental policy and an indication of commitment to the execution of its site-specific ESMP.
    ii. A brief document description, including date of issue; revision status; distribution list; and preparation personnel details and signatures;
    iii. Applicable laws and regulations associated with the requirements in the site-specific ESMP. Provision of contractor licenses, permits and approval associated with the C-ESMP.
    iv. Details on how environmental and social risks and impacts identified in site-specific -ESIA will be managed, including: 1) site-specific measures to mitigate identified risks and impacts during construction; 2) Workers' Code of Conduct; 3) Contractor's LMP (based on project's LMP);
    v. List of detailed environmental and social trainings that all contractor's personnel (including subcontractors) are required to undertake. As a minimum, all contractor's staff and workers mobilized to the subproject site should be: i) familiar and understand the requirements and mitigation measures proposed in the C-ESMP; ii) aware of the legal obligations of the contractors under the contracts, and their relevant responsibilities; and iii) provide the following training to all staff on site, including: occupational health and safety, risks related to SEA/SH/VAC, community health and safety (CHS), and emergency response;
    vi. Capabilities, support mechanisms, and financial resources to be allocated to ensure full and satisfactory implementation of the proposed C-ESMP. Detailed environmental and social responsibilities of contractor's personnel including subcontractors working on site, specific trainings to be provided to contractors and subcontractor's staff, including local peoples to be engaged as contracted workers, and training schedule;
    vii. The contractor shall be responsible for preparing monthly environmental reports (as required in Word Contract), including reporting accident and incident, if any, to MISTI and MPWT within 24 hours. The contents of these reports include the followings:
    viii. Implementation of the Contractor's C-ESMP complying with the agreed program;
        - Activities that have been carried by the contractor during the reporting period to ensure their compliance with the C-ESMP;
        - Difficulties encountered during C-ESMP implementation, including proposed remedial actions for improvement;
        - Highlight the number and the type of non-compliances and proposed corrective actions;
        - Reports activities/actions that have been carried out by Subcontractors involved that contribute to achieving the objective of the C- ESMP, including minutes of meetings and discussions held by the main contractor;
        - Minutes of meeting from discussions held with MISTI and MPWT regarding-ESMP implementation;
        - Implementation of the Worker's and Manager's Code of Conduct, Occupational Health and Safety Management Plan, including Community Health and Safety;
- Prepare and submit a contractor's LMP to DDIS for review and to the MISTI and MPWT for approval;
- Ensure sufficient funding and human resources are timely in place for effective implementation of the C-ESMP including Contractor's LMP;
- Ensure appropriate and timely implementation of required pre-construction and construction mitigation measures as described in the C-ESMP;
- Implement additional environmental and social mitigation measures as necessary. This may include, for instance, clearing and grubbing for subproject COI after land acquisition have been completed and handed over to the Contractor;

9.1.6. Contractor's Safety, Social and Environment Officer

The contractor shall appoint competent staff(s) as the contractor's on-site safety, social and environment officer (SSEO). The SSEO must be appropriately trained in environmental management and must possess skills necessary to effectively and efficiently all contractor's and subcontractors' personnel engaged under the subproject. The SSEO will be responsible for monitoring and reporting on the contractor's compliance with the C-ESMP requirements. The SSEO's responsibility include, but not be limited to, the followings:

- Supervise subcontractors' construction works, including their implementation of the Contractor's LMP and C-ESMP;
- Submit Contractors' LMP and C-ESMP to PMUs/DDIS for review and approval prior to commencing staff mobilization to the project site for the awarded assignments;
- Carry out environmental and social site inspections to assess and audit the contractors' site practices, equipment and work methods with respect to pollution control and adequacy of environmental mitigation measures being implemented;
- Monitor E&S compliance with approved C-ESMP and contractual requirements;
- Monitor implementation of environmental and social mitigation measures;
- Prepare audit reports for the site environmental and social conditions;
- Investigate complaints and recommend corrective measures;
- Advise the contractor on environmental and social management improvement;
- Recommend mitigation measures in the case of non-compliance;
- Carry out additional monitoring of noncompliance as instructed by PMUs and DDIS;
- Inform the contractor, PMUs and DDIS of any environmental and social issues/problems, submit contractor's ESMP Implementation Plan to PMUs and DDIS, including relevant authorities, if required by PMUs;
- Maintain detailed recording of all site activities related to environment and social issues;
- Appoint qualified staff to undertake necessary actions and measures to ensure labor related issues;
- Work closely with the appointed staff in charge of labor issues to prepare a Labor Management Procedures (Contractor's LMP) and a C-ESMP (Contractor's ESMP) including OHS regulations) which will apply to their contracted workers who work on the projects;
- Maintain recruitment and employment records for contracted workers (including subcontractors), including documentation that verifies minimum labor age as set forth in the Contractor's LMP as well as copies of signed Workers' Code of Conduct (CoC;)
- Provide regular training to contracted workers on issues, but not limited to, such as occupational safety and health, and other social risks such as SEA/SH/VAC, code of conduct to maintain good relationship with local community, etc;
- Require primary supplier to identify and address risks of SEA/SH/VAC, child labor, forced labor, and occupational safety and health for primary supply workers;
- Develop and implement the contractor grievance mechanism based on the GRM set forth in the project's LMP for contracted workers, including ensuring that grievances received from contracted workers are resolved promptly, and reporting the status of grievances and resolutions to PMUs/SEO. This grievance mechanism will be part of the Contractor's LMP.
- Ensure that all contractor and subcontractor workers understand and sign the Code of Conduct prior to commencement of the works; maintain them as a record and report on it
- Implement all necessary measures to address the risks of sexual exploitation and abuse (SEA)/sexual harassment (SH) as specified in the contractor's LMP, C-ESMP and ensure full implementation of these measures;
- Develop plans and take actions for prevention and mitigation of COVID-19 outbreaks.

9.1.7. Incident reporting

The contractors are required to inform DDIS and MPU 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;
- Fire related to worker's behavior;
- Any claims related to SEA/SH/VAC, or any other incidents related to women or children;
- Receive a complaint about pollution or damages.

MISTI/MPWT 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.

9.1.8. Reporting Arrangements

The ESOs and E&S consultants of the MISTI and MPWT PMUs 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 RPF, 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 PMUSs to confirm whether the objectives set forth in the ESMP (including RPF and IPPF), LMP and SEP have been achieved.

Regular E&S monitoring and reporting requirements are summarized Table 2.

Table 2: Environmental and Social Monitoring and Reporting Requirements of WASAC

No.	Report Prepared by	Submitted to	Frequency of Reporting
1	Contractors to PMUS	MISTI and MPWT's PMUs	Once before construction commences and monthly thereafter
2	DDIS	MISTI and MPWT's PMUs	Monthly, as soon as possible, as required
3	ESO	MISTI and MPWT's PMUs	Monthly, as soon as possible, as required
4	MISTI and MPWT's PMUs	WB	Quarterly reports for providing brief updates on implementation progress. Bi-annually for M&E report

In addition to the regular reporting schedule, special reporting arrangements are needed for serious incidents, causing death, injury, or other major problems. MISTI/MPWT must notify the World 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.

9.2. Ministry of Economy and Finance

The Ministry of Economy and Finance (MEF), through its Inter-Ministerial Resettlement Committee (IRC), is responsible for land acquisition activities which are described in the project's RPF. The permanent Secretariat of the IRC is the General Department of Resettlement (GDR) which is the lead agency for preparation, implementation, and monitoring and reporting of land acquisition and resettlement activities. There is also an IRC-Working Group at the provincial level and Provincial Resettlement Sub-Committees (PRSC) and their working groups which are established when there are land acquisition activities. The MISTI and MPWT'S ESO, DDIS, and the contractor will work closely with these agencies in case land acquisition is required, as detailed in the RPF.

9.3. Capacity Assessment and Capacity Building

9.3.1. Capacity Assessment

MISTI and MPWT have significant experience in application of the World Bank ESF and the Asian Development Bank safeguards policy through a number of similar wastewater and water supply projects over the past several years.

Currently, MISTI and MPWT are implementing the World Bank financed Water Supply and Sanitation Improvement Project (WaSSIP). Through this project, MISTI and MPWT have maintained a proven track record for safeguards compliance. MISTI and MPWT keep improving their capacities, through continued capacity development of staff of the Environmental and Social Office (ESO). Some of the staff within the ESO have solid working experience in engineering, community development, environment, social and public administration, engaging with indigenous people, and most have been trained by the World Bank on various topics related to environment and social management in rural development projects. The ESO with MISTI and MPWT have a total of 7 staff (4 are female) who are assigned to different projects. The ESO will need additional technical support during the WASAC project implementation from E&S specialized staffs. MISTI and MPWT will engage additional national consultants to work alongside staff of ESO to support the PMUs of MISTI and MPWT in day-to-day E&S implementation and management.

Review of MISTI and MPWT/PMUs capacity in prevention of SEA/SH risks

The MISTI and MPWT PMUs have experience in identifying SEA/SH risks and prevention of SEA/SH based on lessons learned from several previous projects. Under this project, based on identified risks of SEA/SH, an approach and framework for management of SEA/SH risks has been proposed, and further addressed in the Labor Management Procedures. The LMP will be applied for all project workers, with a focus on Contractors' workers that will be engaged for reconstruction of wastewater and water supply during. PMUs will appoint one social officer and one GRM officer to ensure the SEA/SH risks are monitored and reported. In addition, the MISTI and MPWT PMUs have assigned a gender focal point to provide on-the-job training to the Contractors.

At an early stage of project implementation, MISTI and MPWT PMUs will recruit E&S consultants, and engage a consultant specialized in SEA/SH to carry out SEA/SH trainings for PMU members and relevant members of MISTI and MPWT, ESOs. MISTI and MPWT also ensure that SEA/SH risks will be updated based on local experience and site conduct at respective wastewater and water supply subprojects. Accordingly, actions to be taken to prevent SEA/SH will be updated and included as part of the wastewater and water supply ESMPs, and which will be subsequently applied as part of construction Contractor responsibilities (as prescribed in the Contractors' Work Contract). Budget will also be allocated (in Contractor's bill-of-quantity) to ensure the Contractor has budget in place to recruit a SEA/SH consultant to conduct public awareness raising on SEA/SH at wastewater and water supply subprojects, and to undertake SEA/SH management measures on the part of Contractors' workers and staff to minimize the risks of SEA/SH. In case where SEA/SH incidence is frequent or a significant episode has occurred.

9.3.2. Capacity Building

MISTI and MPWT are strongly committed to ensuring environment and social risks and potential impacts under the Project are identified and mitigated effectively. It will be important that E&S specialized staff, to be engaged by MISTI and MPWT, will provide additional training of staff within the ESO to ensure they the ESO staff can strengthen their skills and knowledge to be able to support effective implementation and management of environment and social management measures. The E&S specialized staffs may need to conduct a capacity assessment to identify knowledge gaps, particularly gaps in relation to the World Bank's new Environmental and Social Framework, and provide training support as needed through hands-on training and through working closely with ESO staff throughout project implementation.

At this stage, it is envisaged that the following topics are existing knowledge gaps ESO staff may need to strengthen, particularly in relation to the ESF requirements:

- Implementation of ESMP;
- Monitoring of E&S compliance, including report writing;
- SEA/SH/VAC, including how to conduct public awareness raising activities;
- HIV/AIDS awareness, including how to conduct public awareness raising activities;
- Occupational Health & Safety, including monitoring and enforcement;
- Labor Management Procedures, including monitoring and enforcement;

- Grievance Redress, including monitoring and implementing GRM;
- Health and Safety, including how to conduct public awareness raising activities;
- Indigenous Peoples, including how to identify IPs as per WB's ESS7.

Land acquisition and voluntary donations training will be conducted by the E&S Consultant. It is expected this training could be started as soon as E&S specialized staff are engaged by MISTI and MPWT. Additional support from E&S staffs will be needed monthly or bimonthly during the construction phase, and quarterly or biannually during maintenance phase based on the need for support for the select wastewater and water supply subprojects. These training will be carried out face-to-faced. In case COVID-19 restrictions return, virtual training will be conducted. Zoom or Webex will be used for online training, The training will have knowledge session combined with discussion/exercises/role plays/quiz with Questions & Answers session at the end of each day. The training will be delivered in different time format, depending on the topics, number of participants, time availability, and may typically range from one day to three days. MISTI and MPWT and PMUs will engage qualified trainers for the above training topics. For new topics, MISTI and MPWT can ask support from the World Bank to support in terms of sharing training material, references, and assist in training facilitation, if possible, to provided MISTI and MPWT PMUs with practical, hands-on experience at the first stage of project implementation, particularly soon after project effectiveness.

X. STAKEHOLDER ENGAGEMENT & INFORMATION DISCLOSURE

10.1. Stakeholder Engagement

To encourage the participation of project stakeholders, particularly those who are affected, during consultation to provide meaningful feedback to contribute to effective E&S management, key project stakeholders have been identified in the project's SEP. The SEP also describes institutional arrangements that have been made by MISTI/MPWT to ensure project stakeholders are engaged effectively during project preparation and project implementation, particularly under water supply and wastewater subprojects. The project will pay special attention to disadvantaged/ vulnerable groups (as identified in SEP) such as women, indigenous peoples, elderlies, and people with disabilities. Since these groups may be affected disproportionately by the project, the SEP has set out plans to ensure these groups can participate in consultation meeting before subproject implementation and provide feedback for effective E&S implementation. The SEP also aims to ensure project stakeholders, especially those potentially negatively affected, can participate in monitoring environmental and social risks and impacts that affect them during construction process, as well as during operation phase.

10.1.1. Consultations during Project Preparation

a. An effort has been made to inform the PAPs and relevant stakeholders about the project, its potential negative impacts which would affect their livelihoods and well-being. MISTI and MPWT, throughout the period of the project (WaSSAC) preparation conducted two major rounds of technical discussion with relevant provincial departments of MISTI and MPWT at target provinces, water supply and wastewater related exegetists, water and sanitation operators, Private Water operators (PWO), and conducted rapid field reconnaissance to existing facilities, newly proposed locations for treatment plants, existing and new network system within target municipalities/provinces, and random discussion with villagers/water users. A site visit was conducted to consult with stakeholders for the Battambang Water Supply Subproject in Battambang Town, Battambang province on July 14, 2022. The purpose of the visit was to collect available data and visit the proposed sites of Water Treatment Plant and coverage area, to discuss with Battambang Waterworks in Battambang Town to understand more about coverage area, and to consult with commune/Sangkat chiefs and local people in coverage area. A subsequent visit was carried out on October 3 2022, aimed at understanding an overview of the water supply status throughout the province, as well as challenges and opportunities in water and sanitation investment, Battambang waterworks operations, institutional set up, HR capacity, staffing, finance, revenue and expenditure, and the operations of 2 private water operators in the province (one small and one medium size).

Furthermore, a full and formal virtual based consultation was held on April 10, 2023 in the provinces combined, namely Battambang and Pursat. Virtual public consultation was held with two sessions, MPWT (PMU-2) for the morning session and MISTI (PMU-1) for the afternoon one. The participants included representatives from the provincial and municipal administrations, Provincial Departments of the Environment, Tourism, Health, Water Supply, Public Works and Transport, Planning, Electricity, Posts and Telecommunication, Land Management, Urban Planning and Construction, Water Resources and Meteorology, Agriculture, Forestry and Fisheries and Local Authorities. Neither NGOs, independent experts, researchers nor PAHs were invited because of constraints in inviting them at short notice. However, these groups of people/agencies will be further engaged, as per SEP, during project implementation and once all the detailed design and information for the project formulation is made available.

In general, a majority of relevant department staff/management expressed strong support to the proposed project (WaSSAP). However, there are some specific concerns raised on possible disturbance to local livelihoods and businesses during the installation of network pipelines in the city centers. MISTI and MPWT acknowledged the concerns are valid and realistic. ESMF (and ESMP) provided technical pleasures to address this matter including working hours, period for excavation and reinstatement, prior consultation with households, etc. Others asked the procedure and mechanism for compensation of losses from the activities. However, MISTI and MPWT confirmed that no road widening would be expected. The activities will be limited to the existing right-of-Way (RoW). However, further detailed assessment will be carried out once the design is in place, and all relevant ESF instruments will be updated. See full minutes of consultation in Appendix 8.

Before appraisal, all documents will be disclosed through the two PMU' websites. The main purpose of disclosing project information during project preparation is to inform the project stakeholders of key project information, such as project purpose, project activities, risks and potential impacts, proposed mitigation measures, and redress mechanism. Based on the information disclosed, the project will consult with people who are potentially affected, including those who are interested, to collect their feedback on the disclosed draft environmental and social documents. Draft documents disclosed for consultation during this stage include Environmental and Social Management Framework (ESMF) (which include Resettlement Policy Framework (RPF), Indigenous Peoples Planning Framework (IPPF), Labor Management Procedures (LMP) as ESMF's Appendices, Stakeholder Engagement Plan (SEP) and Environmental and Social Commitment Plan (ESCP). Based on the feedback of the consulted people, the draft project documents have been updated and re-disclosed in its final version through the same channels to keep project stakeholder informed/ updated.

10.1.2. Consultations during Project Implementation

During project implementation, when water supply and wastewater subprojects are identified, additional documents, including site-specific ESMPs, and RPs and IPPs if relevant, will be prepared. These documents will be disclosed for consultation as per guidance provided in project's SEP.

10.2. Information Disclosure

Information Disclosure refers to making information accessible, and in a manner that is appropriate and understandable to interested and affected parties. Information. During all stages, project information will be disclosed in a way that is appropriate to the different range of stakeholders and in both English and Khmer as appropriate. For IP groups and communities, information disclosure will also be in a language and manner accessible to them, as deemed necessary, based on the guidance in the IPPF.

The following guiding principles will be used:

- Project information, including project/subproject purpose, activities, environmental and social risks and potential impacts, proposed mitigation measures, complaint handling procedures, etc, will be disclosed at the earlier stage of project/ subproject preparation;
- Information will be disclosed to the target group well ahead of consultations to promote understanding about the project and allow meaningful feedback of stakeholders;
- Project information will be disclosed in the local languages of the target audience;
- In case IP communities are identified in a sub-project area or affected by the sub-project, and the target IPs do not have a written language, the national language (Khmer) will be used in Project Information Booklet to be distributed to them. However, consultations will be conducted in their native language using verbal translations to promote communication and feedback of the IP during consultation;
- Project information will be disclosed in the written form, and in various formats for convenient use of various project stakeholders, including Project Information Booklet, Executive Summary, and full documents;
- Project information will be disclosed through different channels for convenient access of various project stakeholders. Project's dedicated channels for information disclosure include webpage and Facebook fan page of MISTI/MPWT. Public billboard located at commune office in project area, Department of Rural Development of project provinces;
- A dedicated hotline is available at MISTI/MPWT to provide guidance and project information to affected and interested stakeholders.

10.2.1. Before WB Project Appraisal

To prepare for consultation, the draft ESMF (including RPF, IPPF, and LMP as its Annexes), SEP and ESCP were disclosed on MISTI/MPWT's website including full English version and Khmer executive summary.

10.2.2. During Project Implementation

The ESMP including RP(s), and IPP(s) as required for subprojects will be disclosed in the local language and in English during subproject preparation and before subproject appraisal for consultation with local affected and interested people.

XI. GRIEVANCE REDRESS MECHANISMS (GRMs)

The Project will establish a Grievance Redress Mechanism (GRM) for complaints, suggestions, or other matters concerning the project. Another GRM will be set up by the General Department of Resettlement for any subproject that requires involuntary land acquisition, and presented in the RPF. A separate GRM will be available to workers for any labor issues that may arise, and presented in the LMP. Finally, procedures will also be made available for any reports of SEA/SH or VAC. The different GRMs are described below.

11.1. Redress Procedure of Complaints Concerning the Project

The project GRM will be established to respond to all complaints or suggestions concerning social or environmental impacts of the project, except for those involving involuntary land acquisition, labor issues, or SEA/SH or VAC.

- ◊ **Step 1 – Village level.** In communities where APs are affected directly or indirectly, all complaints shall be discussed in the presence of local leaders and negotiations carried out with representatives of the project in the community where the AP lives. The project representatives will keep a record of the complaint, the decision how to resolve the grievance, and whether or not the aggrieved person(s) agree to the decision. The project representatives will send the record of the complaint to the project ESO, for the central GRM database.

- ◊ **Step 2 – Commune level.** An aggrieved AP may bring his/her complaint, either in writing or verbally, to the commune chief directly. The commune chief is responsible for keeping a log and documenting all complaints received. The commune chief will call for a meeting of the Commune GRC within 15 days of the complaint being lodged, to decide how to resolve the complaint. If after 15 days a decision has not been made or delivered to the AP, or if the AP is not satisfied with the decision taken at this stage, the complaint may be brought to the District Office either in writing or verbally. The commune chief will send the record of the complaint to the project ESO, for the central GRM database.

- ◊ **Step 3 – District level.** The District GRC will convene within 15 days after receiving a complaint, to meet with the aggrieved party and decide how to resolve the issue. The District GRC will appoint one of its members to be responsible for keeping a log and documenting all complaints received by the committee. If the grievance cannot be resolved at this stage, either the District GRC or the AP can take the complaint in writing to the Provincial GRC. The District GRC will send the record of the complaint to the project ESO, for the central GRM database.

- ◊ **Step 4 – Provincial level.** The Provincial GRC will convene within 30 days after receiving a complaint, to meet with the aggrieved party and decide how to resolve the issue. The Provincial GRC will appoint one of its members to be responsible for keeping a log and documenting all complaints received by the committee. A decision must be made and informed to the AP in writing within 30 days of the submission of the grievance to the Provincial GRC. The Provincial GRC will send the record of the complaint to the project ESO, for the central GRM database.

There are no fees or charges levied on the AP for lodging the complaint or processing of the complaint up to this stage. If the AP is not satisfied with the decision of the Provincial GRC, the aggrieved AP can file a suit at the Provincial Court to seek a resolution. The AP will be made fully aware that such actions will be at the cost of the AP.

- ◊ **Step 5 – Provincial Court.** If the aggrieved AP is not satisfied with the decision of the Provincial GRC, the AP can bring the case to the Provincial court, at the cost of the AP. The project will no longer be involved in the process, unless there is a judicial order from the court. During litigation of the case, RGC will request to the court that the project proceed without disruption while the case is being heard. If any party is dissatisfied with the ruling of the provincial court, that party can bring the case to a higher court. The RGC shall implement the decision of the court.

11.2. Redress Procedure for Complaints related to Involuntary Land Acquisition

For any area where there is to be land acquisition or resettlement, a separate GRM for such matters is required to be established and implemented by the General Resettlement Department (GRD) of the Ministry of Economy and Finance (MEF). A summary of this GRM is presented here, with a more details provided in the Resettlement Policy Framework.

In provinces where the GEIP requires acquisition of land or loss of other livelihood assets, a Provincial Grievance Redress Committee (PGRC) will be established by the Provincial Governor in consultation with and facilitated by the GRD through the Inter-Ministerial Resettlement Committee (IRC) of the MEF and its working group (IRC-WG).

Steps in the GRD Grievance Redress Mechanism

Detailed information about the Grievance Redress Mechanism (GRM) for land acquisition and resettlement issues is presented in section 5 of the main report, including the timing required to complete the process at each stage.

There are 4 stages to the GRM, the first informal and the next 3 the formal GRM. Prior to submitting a formal complaint, affected persons with a grievance will be encouraged first to try to resolve their issues directly with the Provincial Grievance Redress Committee Working Group (PRSC-WG) with the assistance of local leaders. If the grievance is not resolved at this stage, the affected person (AP) can submit a written complaint to the formal GRM.

The First Step of the formal process, the AP can lodge a complaint to the Head of the District Office where the subproject is located. The IRC-WG will appraise the Head of the District Office about the issue. A conciliation meeting must be held, and the IRC-WG will inform the GDR Department of Internal Monitoring and Data Management (DIMDM), which will review and seek the approval of the Director General, GDR for appropriate remedial action. The AP will be informed in writing by the GDR of the decision. If the AP is not satisfied with the result, the AP can proceed to the next step and lodge a written complaint to the GDR for resolution. In this Second Step, the GDR through its DIMDM will carry out a holistic review of the complaint and submit a report on its findings with the relevant recommendations to the Director General of the GDR for a decision. In the event that the subject matter requires policy level intervention, it will be referred to the IRC for a decision.

If the AP does not agree with the decision at the second step, the AP will submit a written complaint to the Provincial Grievance Redress Committee (PGRC). In this Third Step, the AP or a representative will be given an opportunity to present the case during the meeting, and the PGRC may consider any compelling and special circumstances of the AP when reaching a decision. The GDR will send a representative, as a non-voting member, to provide an explanation of the decision by the GDR in the second step. The decision of the PGRC must be reached on a consensus basis and will be final and binding except when the matter relates to any policy of the Government. Decisions on Government policy matters on land acquisition and resettlement are decided by the IRC. The decision of the PGRC will be sent to the IRC through the GDR for endorsement before taking any remedial action.

The handling of the complaint under the GRM ends at the Third Step. There are no fees or charges levied on the AP for lodging the complaint or processing of the complaint under the First, Second and Third Steps. If the AP is not satisfied with the decision at the Third Step, the aggrieved AP can file a suit at the Provincial/Municipal Courts. The AP will be made fully aware that such actions will be at the cost of the AP. At this stage, the GDR, PRSC, and IRC-WG will not be involved, unless there is a judicial order from the competent courts.

11.3. Redress Procedure for Complaints related to Labor and Working Conditions

There will be a specific Grievance Redress Mechanism (GRM) for project workers as per the process outlined below. This considers culturally appropriate ways of handling the concerns of direct and contracted workers. Processes for documenting complaints and concerns have been specified, including time commitments to resolve issues.

All project workers will be informed of the Grievance Mechanism process for workers:
Workers will be informed that they can choose where to submit their complaint:

If it concerns working conditions, camp conditions, community relations, or other matters they feel can be handled at the local level, that they can present their complaints at the first stage, the Commune Level.

If, however, they wish to remain anonymous or have a complaint that concerns their contract (such as not getting paid or other violation of the conditions of the contract), they can present their complaints directly to the relevant PMU at the second stage.

First stage at Commune level: affected persons (AP) will present their complaints and grievances to the Commune Chief directly or through local project representative, depending on who the AP feels most comfortable to contact. The commune chief will call for a meeting of the group to decide the course of action to resolve the complaint within 15 days, following the lodging of complaint by the AP. The meeting of the group would consist of the commune chief, and several of the following as considered appropriate given the nature of the complaint: a representative from the project, a representative from the construction company, a representative from the workers, the supervision engineer, and representative(s) from community including a local leader. The commune chief is responsible for documenting and keeping file of all complaints that are directed through him/her. If after 15 days, the aggrieved AP did not hear from commune chief or if the AP is not satisfied with the decision taken in the first stage, the complaint may be brought to the District Office either in written form or verbal.

Second stage to the Project Management Unit (PMU) of relevant ministries: If the any party in the dispute is not satisfied with the decision, they can appeal directly to the project ESO. Within 30 days, the ESO will investigate and, in consultation with the Project Manager and other members of the Project Management Team, recommend a course of action to resolve the dispute.

Final stage at Provincial court level: If the either party does is not satisfied with the decision by the ESO, they can bring the case to Provincial or Municipal Court, understanding that all costs at this stage will be borne by the aggrieved party. The project will no longer be involved, unless requested by the court. During the litigation of the case, the RGC will request to the court that the project proceed without disruption while the case is being heard. If any party is still unsatisfied with the ruling of the Provincial Court, he/she can bring the case to a higher-level court. The RGC shall implement the decision of the court.

11.4. Redress Procedure for Complaints related to Gender-Based Violence, Sexual Exploitation and Abuse, Sexual Harassment, and Violence Against Children

Complaints concerning gender-based violence, sexual exploitation and abuse, sexual harassment, and violence against children and similar issues may require a different process, depending on the AP. The AP can first raise the matter anonymously with a person with whom they feel confident with, and then have it taken up either under the project GRM, as described in Section 11.1 above, or raised directly with the ESO of the relevant PMU, who will then work with the AP to find a solution appropriate to the case. If the AP prefers to remain anonymous, the grievance can be submitted through a confidential third party. In such cases, documentation will be maintained at the PMU as with other grievances, but not available to the public. The procedures for making complaints concerning these matters will be presented to the community through a variety of means: in consultations, posters, and brochures.

11.5. Recording Grievances

GRM logbooks will be kept at each level. Information of each grievance will be sent to the ESO to be maintained in a central database.

Each grievance record should be allocated a unique number reflecting year and sequence of received complaint (for example 2023-01, 2023-02, 2023-03, etc.). Complaint records (letter, email, record of conversation) should be stored together, electronically or in hard copy. The ESO will be responsible for undertaking a regular (at least quarterly) review of grievances to analyze and determine if there are any common issues that arise and should be dealt with systematically. The ESO is also responsible for oversight of this GRM.

The GRM logbooks will include the following information:

- Name(s) of the AP (or if the complaint is submitted anonymously)
- Status of AP
- Date complaint, suggestion, etc., was received
- How complaint, etc., was received (verbally, by email, letter, etc.)
- Location received (for central database only)
- Type of issue (grievance, concern, suggestion, etc.)
- Summary of issue
- Category of Issue (Access, Exclusion, Safety, Construction, Pollution, etc.)
- Date decision made
- Date decision reported to AP
- Decision accepted by AP or not
- Actions to be undertaken, including if sent to next level
- Who is responsible to carry out the actions
- Date actions completed
- Actions as completed accepted by AP or not
- Additional actions required, if any

XII. MONITORING AND REPORTING

12.1. Monitoring

The purpose of E&S monitoring is to determine if E&S implementation under the project is in full compliance with the principles and requirements set forth in respective project's E&S documents. The MISTI and MPWT are responsible for overall monitoring of E&S implementation under the project. Monitoring by MISTI and MPWT will cover all risks and potential impacts that were identified in ESMF (including RPF, IPPF, LMP), SEP, ESCP and those identified at subproject level as in site-specific ESMP, C-ESMP, RP(s), IPP(s), including how these risks and potential impacts are avoided or mitigated by relevant project stakeholders, particularly contractors, consultants engaged to carry out trainings or conducting studies to support effective project implementation, and relevant project stakeholders.

To ensure effective E&S monitoring, MISTI and MPWT will put in place a technical team within MISTI and MPWT PMUs to support E&S monitoring. This team, hereinafter referred to as the ESF Compliance Team of PMUs will consist of existing staff of MISTI and MPWT ESOs, and individual E&S and DDIS consultants which PMUs will engage to support the PMUs in E&S implementation and monitoring. The ESF Compliance Team of PMUs is responsible for E&S monitoring at sub-project level and will oversee the E&S performance of all relevant stakeholders, especially construction contractors and E&S consultant who will be engaged for different activities as required in the project's ESMF (including RPF, IPPF, LMP) SEP, ESCP and those identified at subproject level as in site-specific ESMP, RP(s), IPP(s), and C-ESMP.

Key performance indicators, suggested in respective ESMF, RPF, IPPF and SEP, will be used for monitoring. During sub-project implementation, the Safeguard Team of PMUs will conduct monthly monitoring of implementation of the ESMPs, RPs, and IPPs (to be prepared for subprojects) to determine if mitigation measures are implemented satisfactorily, including assessment the level of compliance in accordance with respective E&S documents. The ESF Compliance Team of PMUs will also monitor to ensure effective functioning of project's grievance redress mechanism. This includes grievances that may arise in relation to land acquisition, voluntary land donation, labor and working conditions, SEA/SH and VAC. The PMUs Safeguard Team will collect information from various sources, such as Contractors, Consultants, and other stakeholders to prepare monthly, quarterly and bi-annual Internal Monitoring Reports which will be reviewed by Project Manager and Project Director and will be submitted to the World Bank.

12.2. Reporting to Stakeholders

PMUs' ESF Compliance Team will ensure feedback from affected and interested parties as well as grievances submitted by affected persons will be appropriately recorded in the Project Grievance Logbook (PGL) and are processed, resolved timely, and are reported back to affected parties. The method of reporting back to stakeholders will depend on the stakeholders. There are essentially two main methods:

- For national-, provincial-level stakeholders, emails and/or official letters will be sent to stakeholders following consultation workshops to inform stakeholders of how their comments, concerns, suggestions were considered and taken into account in project design and implementation;
- For stakeholders at commune/village level, follow-up meetings will be conducted to inform the consulted stakeholders about how their comments, concerns, suggestions were considered and taken into account for implementation.

For Indigenous Peoples consultations and reporting back to IP on their concerns and suggestions will be in line with the IPPF and SEP to ensure IPs' opinions are incorporated into subproject design and implementation, and that they are informed of these.

XIII. IMPLEMENTATION BUDGET

This section of the ESMF consolidates and presents the estimated budget needed for MPWT and MISTI to implement the ESMF. The ESMF implementation cost will include the development of the specific site-specific safeguards' instruments, including consultant costs, travel, consultation workshops, translation and trainings. The total indicative cost reviewed by the World Bank, MPWT and MISTI is estimated at USD430,000 (Table 3), which will be supported by the project. The costs of specific mitigation measures in the ESMPs, RAPs and IPP (if applicable) are separate and are to be borne primarily by the sub-project contractors. This budget is indicative only and should be further refined after the design of the sub-projects and preparation of the ESMPs.

Table 3: ESMF implementation costs

No.	Description	Indicative Cost (USD)
1.	National Environment Safeguards Specialist/consultant (full time first 3 years, part time after)	120,000
2.	National Social Safeguards Specialist/consultant (full time first 3 years, part time after)	120,000
3.	Travel to provinces to supervise E&S compliance (at least 4 times a year for each sub-project)	80,000
4.	Travel for stakeholder engagement in provinces	40,000
5.	National Training Workshops in Phnom Penh and provinces on E&S Compliance, Labor Management, etc	20,000
6.	Training Workshops for contractors and workers on SEA/SH, GBV, VAC (includes engaging external experts)	20,000
7.	Contingency	30,000
TOTAL		**430,000**

Appendix 1: Legal and Institutional Framework and Gap Analysis

List of Tables

1. National Legal Framework for Environmental Issues

Overall management of the environment is under the responsible of the Ministry of Environment (MoE), which was created in 1993. The MoE is responsible for implementation of the Law on Environmental Protection and Natural Resources Management. At the provincial and city levels, there are corresponding provincial/city environment departments. These local departments have the responsibility of enforcing the environmental legislation coming under the competence of the MoE. However, the daily operation functions of these departments would normally be under the direct control of the provincial authorities.

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. All proposed and existing activities are to be covered under this requirement. The Declaration on General Guidance, N 376 BRK.BST, for conducting initial and full environmental impact assessment has been signed and enacted on September 02, 2008 by the Minister of Environment. The goal of the guidance is to implement initial environmental impact assessment (IEIA), full environmental impact assessment (EIA), and to provide general guidelines and checklists. Articles 1 and 2 of the Sub-Decree on IEIA/EIA process stipulate the requirement for IEIA or EIA, depending on type and activity and the site of the project. The Ministry of Environment is responsible for reviewing the EIA reports, the required follow-up, and monitoring.
Aside from the Constitution, the Government of Cambodia has established specific laws and regulations for forests, protected areas, and land law to ensure sustainable development. The national agencies that oversee environment and natural resources management are listed below:

- Ministry of Environment (MOE)
- Ministry of Agriculture, Forestry and Fisheries (MAFF)
- Ministry of Water Resources and Meteorology (MOWRAM)
- Ministry of Mines and Energy (MOME)
- Ministry of Industry, Science, Technology & Innovation (MISTI)
- Ministry of Land Management, Urban Planning and Construction (MLMUPC)
- Ministry of Tourism (MOT)
- Ministry of Public Works and Transport (MPWT)
- National Climate Change Committee (NCCC)

The ministries are technically and administratively represented and supported at the provincial, municipal, and district/commune levels by its line departments and technical offices. The provincial departments are responsible and accountable to extend and implement the mandate of their parent ministries to the sub-national administrations including province, district/municipality, and commune/Sangkat level.

The MOE is the primary agency tasked to promote environmental protection and conservation of natural resources, thus contributing to improvement of environmental quality, public welfare, and the economy. The EIA Department of the MOE oversees and regulates the Environmental and Social Impact Assessment (ESIA) process, quality control on ESIA report and coordinates the implementation of projects in collaboration with project executive agencies and concerned ministries. The MOE has the following responsibilities:

- Review, evaluate, and approve submitted environmental impact assessments in collaboration with other concerned ministries; and
- Monitor to ensure a project owner (the executing agency of the project) satisfactorily implements the Environment Management Plan (EMP) throughout pre-construction, construction and operational phases of the projects.

1.1. Law on Environmental Protection and Natural Resource Management

The Environmental Protection and Natural Resources Management Law was enacted by the National Assembly and launched by the Preah Reach Kram/NS-RKM-1296/36. It was enacted on November 18, 1996. This law has the following objectives:

(a) To protect and promote environment quality and public health through prevention, reduction and control of pollution,
(b) To assess the environmental impacts of all proposed projects prior to the issuance of a decision by the Royal Government,
(c) To ensure the rational and sustainable conservation, development, management and use of the natural resources of the Kingdom of Cambodia,

(d) To encourage and provide possibilities for the public to participate in the protection of environment and the management of the natural resources, and
(e) To suppress any acts that cause harm to the environment.

Under this law the developers or project owners need to prepare an IEIA or EIA report for their proposed or existing development projects.

1.2. Sub-Decree on Environmental Impact Assessment Process

The sub-decree No 72 ANRK.BK on Environmental Impact Assessment Process dated 11 August 1999. The key relevant articles are as follows: The main objectives of this sub-decree are:

(a) To determine an Environmental Impact Assessment (EIA) upon every private and public project or activity, it must be reviewed by the Ministry of Environment (MoE), prior to the submission for a decision from the Royal Government.
(b) To determine the type and size of the proposed project(s) and activities, including existing and ongoing activities in both private and public sector prior to undertaking the process of EIA.
(c) Encourage public participation in the implementation of the EIA process and take into account their conceptual input and suggestions for re-consideration prior to the implementation of any project.

1.3. Prakas on the Classification of Environmental and Social Impact Assessment for Development Projects

The Prakas on Classification of Environmental and Social Impact Assessment for Development Project[13] issued on 03 February 2020, classifies the types of development projects, the sizes that require assessments, and the types of assessments required. The classification includes clean water production and its distribution, and natural and mechanical wastewater treatment plants and sewer lines (Table 1). The guidance for preparing reports, whether IEIA, EIA or EPA, is provided in the Prakas on General Guideline for Preparing IEIA and Full EIA, 2009 N. 376 BRK.BST.

Table1. Classification of ESIA for water supply and wastewater

Code	Project's Name	ESIA Required	IESIA Required	EPA Required
77	Clean water production and distribution stations			All sizes
172	Mechanical Wastewater Treatment Plant and Sewer lines	All sizes		
187	Natural Wastewater Treatment Plant and Sewer Lines		All sizes	

Source: Prakas No.021 dated on 03 February, 2020 on Classification of Environmental and Social Impact Assessment for Development Project

1.4. Guidelines on the Delegation of Power to Municipal/Provincial Departments of Environment (2005)

Guidelines stipulate that the provisional and municipal authorities shall review EIAs for all investment capital less than US$2 million as well as "follow up, monitor, and take appropriate measures to ensure that Project's Owner will follow the EMP during project construction, operation and closure as stated in the EIA report approved."

1.5. Protected Area Law (No. NS/RKM/0208/007)

Cambodia has a network of 23 natural Protected Areas managed through the MOE. These areas cover 2.2 million hectares, or 18% of Cambodia's land area, and include most of its important habitats. The Protected Area Law defines the framework of management, conservation and development of protected areas to ensure the conservation of biodiversity and sustainable use of natural resources in protected areas.

[13] https://data.opendevelopmentcambodia.net/laws_record/prakas-no-021-on-the-classification-of-environmental-impact-assessment-for-development-projects

Article 11 divides the protected area into 4 zones namely, core zone, conservation zone, sustainable use zone and community zone.

Article 36 strictly prohibits all types of public infrastructure in the core zone and conservation zone; allows development of public infrastructures in the sustainable use zone and community zone with approval from the Royal Government at MOE's request.

Article 41 provides for the protection of each protected area Against destructive/harmful practices such as destroying water quality in all forms, poisoning, using of chemical substances and disposing of solid and liquid wastes into water or on land.

Article 44 requires all proposals and investments within or adjacent to protected area boundary, to conduct an Environmental and Social Impact Assessment.

Each protected area shall be divided into four (4) management zoning systems:

- Core zone: management area(s) of high conservation values containing threatened and critically endangered species, and fragile ecosystems. Access to the zone is prohibited except the Nature Conservation and Protection Administration's officials and researchers who, with prior permission from the MOE, conduct nature and scientific studies for the purpose of preservation and protection of biological resources and natural environment with the exception of national security and defense sectors.
- Conservation zone: management area(s) of high conservation values containing natural resources, ecosystems, watershed areas and natural landscape located adjacent to the core zone. Access to the zone is allowed only with prior consent of the Nature Conservation and Protection Administration at the area with the exception of national security and defense sectors. Small-scale community uses of Non-Timber Forest Products to support local ethnic minorities' livelihood may be allowed under strict control, provided that they do not present serious adverse impacts on biodiversity within the zone.
- Sustainable use zone: management area(s) of high economic values for national economic development and management, and conservation of the protected area(s) itself thus contributing to the local community, and indigenous ethnic minorities' livelihood improvement. After consulting with relevant ministries and institutions, local authorities, and local communities in accordance with relevant laws and procedures, the Royal Government of Cambodia may permit development and investment activities in this zone in accordance with the request from the MOE.
- Community zone: management area(s) for socio-economic development of the local communities and indigenous ethnic minorities and may contain existing residential lands, paddy field and field garden or swidden (Chamkar).

1.6. Law on Forestry Management

The Law on Forestry Management prohibits the hunting of wildlife within protected areas. Aside from maintaining check points and providing rangers, the MOE has an active community education program to promote environmental awareness especially within the rural communities.

1.7. Sub-Decree on the Control of Air Pollution and Noise Disturbance, #42 ANK/BK14 (2000)

This sub-decree outlines the measures for protecting environment quality and public health from air pollutants and noise disturbance through monitoring, curbing and mitigating activities. It lists air quality standards and noise emission levels. For dust control, there should no visible emissions from stockpiles of materials, crushers or batching plants. At locations with sensitive receptors, the standard of total suspended particulates should be < 0.33 milligrams/cubic meter, PM10 <0.05 and PM2.5 <0.025, at 24-hour average (see Table 2). All vehicles should be well maintained and comply with the air quality regulations. The noise regulations do not stipulate a level of noise from construction sites but refer to mixed commercial and/or industrial and residential property or type of land use in the immediate vicinity that may be affected by noise (see Tables 3 and 4).

[14] http://www.bigpond.com.kh/Council_of_Jurists/a00-Anukret/ANK00_07_42_E.htm80

Table 2. Ambient Air Quality Standard

Parameter	1-Hour Average (mg/m3)	8-Hour Average (mg/m3)	24-Hour Average (mg/m3)	1-Year Average (mg/m3)
Carbon monoxide		20.0	-	-
Nitrogen dioxide		-	0.1	-
Sulphur dioxide		-	0.3	0.1
Ozone	0.2	-	-	-
Lead	-	-	0.005	-
Total Suspended Particulate	-	-	0.33	0.1
PM10			0.05	
PM2.5			0.025	

Source: Prakas 120 dated on 11 April, 2018 on the Implementation of the Term of Reference for Infrastructure and Tourism Development Project

Table 3. Maximum Permitted Vehicle Noise in Public and Residential Areas

Category of Vehicle	Maximum Noise Level Permitted [dB(A)]
Motorcycles, cylinder capacity of the engine does not exceed 125cm3	85
Motorcycles, cylinder capacity of the engine exceeds 125cm3	90
Motorized tricycles	90
Cars, taxis, passenger vehicle of not more than 12 passengers	90
Passenger vehicle constructed for carriage of more than 12 passengers	85
Truck permitted maximum weight does not exceed 3.5 tons	85
Truck permitted maximum weight exceeds 3.5 tons	85
Truck engine is more than 150 kilowatts	89
Tractor or any other truck not classified here	91

Source: Prakas 120 dated on 11 April, 2018 on the Implementation of the Term of Reference for Infrastructure and Tourism Development Project

Table 4. Maximum Permitted Ambient Noise [dB(A)]

Area	Period of Time (hours)		
	6:00-18:00	18:00-22:00	22:00-06:00
Quiet areas: hospitals, libraries, school, kindergarten	45	40	45
Residential area: hotels, administration offices, houses	60	50	45
Commercial and service areas and mix	70	65	50
Small industrial factoring intermingling in residential areas	75	70	50

Source: Prakas 120 dated on 11 April, 2018 on the Implementation of the Terms of Reference for Infrastructure and Tourism Development Project

1.8. Sub-Decree on Water Pollution Control #27 ANRK.BK15 (1999)

This sub-decree regulates water pollution control measures in order to prevent and reduce the water pollution of the public water areas. As a minimum, all discharges of liquid wastes from construction camps, work sites or operations, to streams or water courses should conform to standards listed in Table 5.

Table 5. Selected Effluent Standard for Pollution Sources Discharging Wastewater to Public Areas or Sewer Access

Parameter	Unit	Allowable limits for pollutant substance discharging to	
		Protected public water area	Public water area and sewer
Biochemical oxygen demand	mg/l	<30	<80
Chemical oxygen demand	mg/l	<50	<100

[15] http://www.cambodiainvestment.gov.kh/wp-content/uploads/2011/09/Sub-Degree-27-on-Water-Pollution-Control_990406.pdf

Total suspended solids	mg/l	<50	<80
Detergent	mg/l	<5.0	<15
Total dissolved solids	mg/l	<1,000	<2,000
Temperature	°C	<45	<45
pH		6-9	5-9
Oil and grease	mg/l	<5.0	<15
Dissolved oxygen	mg/l	>2.0	>1.0

Source: Prakas 120 dated on 11 April, 2018 on the Implementation of the Term of Reference for Infrastructure and Tourism Development Project

1.9. Sub-decree on Revision Article 4, 9, 11, 12,17 and Annex 2, 3, 4, 5 of Sub-decree No. 27

The sub-decree specifies a new general effluent standard. A different standard is set for discharge to
Category 1 water body (closed water environment)
Category 2 water body (non-stagnant open water body)
Piping network connected to the central wastewater treatment plant.

1.10. Sub-decree on Management of Drainage and Wastewater Treatment Plant System

The sub-decree on management of drainage system and wastewater treatment plant system entered into forced on 25 December 2017. The purpose of this sub-decree is to improve the management of drainage systems and wastewater treatment plants in an effective manner, transparently and with accountability, in order to ensure safety, public health and biodiversity conservation.

However, based on the instructions of Ministry of Environment, standard Discharge of Wastewater from Business Building, Resident, City and Resort or Creation Center into Sewer System Connection to Wastewater Treatment Plant shall be complied with the sub-decree No. 103 ANKR.BK on Water Pollution Control.

1.11 Sub-Decree on Solid Waste Management (No. 36 ANRK.BK 2009)

Under Article 7 of the Sub-Decree on Solid Waste Management, "the disposal of waste in public sites or anywhere that is not allowed by authorities shall be strictly prohibited". While the Sub-Decree on Waste Management has no quantitative parameters, sensible practice is expected as detailed in this ESMF. Such practices would include (i) all general waste and food waste should be removed to a government approved landfill; (ii) all demolition waste must be removed to a government-approved location; (iii) all waste oil and grease should be disposed by a registered sub-contractor; (iv) the final destination of the oily wastes should be established.

1.12. Draft Environmental and Natural Resources Code

A new Environmental and Natural Resources Code of Cambodia is being developed in Cambodia (10th draft after rounds of internal consultations). The draft Code includes general principles, environmental impact assessment, strategic environmental assessment, and biodiversity and protection of endangered species. It establishes biodiversity conservation corridors to provide linkages and protection for high-conservation areas. It also addresses protection of cultural heritage, public participation and access to information, a collaborative management process and dispute resolution procedures. The Code is, however, still pending approval.

1.13. Additional Environmental Standards

There is no standard for vibration in Cambodia, therefore the vibration levels at any vibration sensitive property or location should be less than 1 millimeter/second (mm/s) peak particle velocity (PPV). The level of 1 mm/s PPV is a good "standard" derived from the United States Bureau of Mines publications for avoidance of damage and the United Kingdom Greater London Council standard for avoidance of nuisance.

There is also no specific regulation for hazardous waste management and substances in Cambodia. However, this aspect is in the Sub-Decree on Water Pollution Control Annex 1, and Sub-Decree on Solid Waste Management, which give details of classifications of what are defined as hazardous wastes and substances. Any hazardous wastes and substances must be stored correctly and only disposed in a manner approved by MOE.

1.14. International Conventions and Treaties on the Environment

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
- UN Convention to Combat Desertification (UNCCD) ratified – 1997
- Convention on International Trade in Endangered Species of Wild Fauna and
- Flora (CITES) – 1997
- World Heritage Convention – 1991
- ASEAN Heritage Convention (National Parks: Bokor and Virakchey) (regional) – 2003
- Convention on the Prevention of Marine Pollution from Ships – 1994
- 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
- Basel Convention on Control, Transport and Disposal of Trans-Boundary Hazardous Waste – 2001
- Stockholm Convention on Persistent Organic Pollutants – 2001
- Vienna Convention and Montreal Protocol on Substances that Deplete Ozone Layer – 2001

2. National Legal Framework Related to Social Issues

2.1 Law on Protection of Cultural and National Heritage (1996)

This is the general law in Cambodia covering the protection of national culture. The law widely recognizes the value of cultural heritage as an asset for development and an integral part of people's identity. The purpose of this law is to protect national cultural heritage and cultural property in general against illegal destruction, modification, alteration, excavation, alienation, exportation or importation. The law also provides a procedure for chance finds of any items of cultural heritage.

2.2 Labor Law (1997)

This is the overarching legal instrument that regulates and protects workers in Cambodia. The law governs relations between employers and workers. The Law considers that the rules, obligations and rights are the same for casual or permanent workers. The law prohibits discrimination in any forms, including by sex, religion, social origin, or ethnicity (art 12). Employers are required to make available a copy of the Law to workers at all business locations/ operations (art 15) and forced compulsory or the hiring of workers to pay off debts is prohibited (art 16). The Law defines the role and nature of labor contracts be they are written or verbal, and sets out the acceptable working terms and conditions. Article 106 reaffirms equal conditions and wage for all work regardless of origin, age and sex for the same types of work. The Law establishes the limit for working hours to 8 hours per day and 48 hours per week as well as rates for working overtime and on public holidays.

The allowable minimum age for wage employment is set at 15 years (art 177). Children from 12-15 years of age can be hired to do light work (see Section 2.24) provided that (a) the work is not hazardous to their health or mental and physical development, and (b) the work will not affect their regular school attendance, their participation in guidance program or vocational training approved by a competent authority. The Law recognizes statutory maternity leave on half wages (art 183), and for the performance of light duties for a further two months. Employers are prohibited from laying off women during their maternity leave (art 182).

Chapter eight of the Labor Law covers the health and safety of workers and requires maintaining standards of hygiene and sanitation in working environments and requirements for individual protective instrument and work clothes, lighting and noise levels (art.229). Machinery, mechanisms, transmission apparatus, tools, equipment and machines must be installed and maintained in the best possible safety conditions. The Ministry of Labor and Vocational Training (MoLVT) shall monitor working conditions and enforce compliance notices. All enterprises and establishments that are covered by this Law and employ more than fifty workers must have a permanent infirmary on the premises/workshop/ or work sites (art.242). Workplaces/ sites with more than 200 workers must have a health care station for injured or sick workers before transferring to a health facility and must be able to handle two per cent of the workers at the site. The Law requires that every manager at a workplace shall have someone in charge to take all appropriate measures to prevent work related accidents (art. 248). Workplaces must provide the primary health care to their workers and the

levels of this vary according to the numbers employed (with 50 and 200 workers thresholds being specifically mentioned). The Law also mandates that a general insurance system obligatory for workers shall be set up and this system shall be managed under the insurance of the National Social Security Fund (art. 256).

2.3 Prakas on the Prohibition of Hazardous Child Labour (MoSALVY #106, April 28, 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. Eleven (11) of the 38 are likely related to some aspects of construction of Water Treatment Plants, Wastewater Treatment Plants and Installation of Sewers and Water Pipe Distribution Networks including:

- Operating cranes, hoists, scaffold winches or other lifting machines
- Lifting, carrying, handling and moving of heavy loads;
- Operating or assisting to operate transportation equipment such as bulldozers, pile driving equipment, trailers, road rollers, tractor lifting appliances, excavators, loading machines, trucks, buses, and taxis;
- Maintenance of heavy machinery;
- Operating or assisting to operate (including starting, stopping, adjusting, feeding, or any other activity involving physical contact associated with the operation) transportation equipment such as bulldozers, pile driving equipment, trailers, road rollers, tractor lifting appliances, excavators, loading machines, trucks, buses, and taxis
- Work carried out at construction sites, except in designated and safe areas for a child as permitted by a labour inspector;
- Demolition work;
- Work carried out on a ladder or scaffold at a height of over 2.5 meters;
- Work involving exposure to harmful chemical, physical, electromagnetic or ionizing agents, including tar, asphalt or bitumen;
- Operating power-driven spinning and winding machine.
- Work carried out under conditions of excessive heat, cold, vibration, sound and abnormal lighting that could endanger.

2.4 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. It prohibits hazardous labor as noted above.

2.5 Law on the Prevention of Domestic Violence and the Protection of Victims, (NS/RPM/1005/031), 2005
The objective of the law is to prevent domestic violence, protect victims, and strengthen the culture of non-violence.

2.6 Law on Road Traffic, PREAH REACH KRAM NS/RKAM/0115/001, 2015
This law is intended to ensure road traffic safety and order, and protection of human and animal health and lives, properties and environment. Its establishment a requirement for all motor vehicles, trailers, and semi-trailers moving on the road to obtain a technical inspection certificate. It also outlines road safety requirements.

2.7 Law on the Protection and Promotion of the Rights of Persons with Disabilities 2009 (Royal Kram NS/RKM/ 0709/010))
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 law also seeks to ensure that persons with disabilities are able to participate fully and equally in activities within society and provide equal opportunities for employment.

2.8 Expropriation Law (2010)
This is the main legal framework that governs land acquisition and involuntary resettlement. It lists the development of public infrastructure as one of its objectives. The expropriation of the ownership of immovable property and real right to immovable property can be exercised only if the Expropriation Committee has paid fair and just compensation in advance to the owner and/or holder of real right.
Key articles include:

- Article 2: The law has the following purposes: (i) ensure reasonable and just deprivation of a legal right to ownership of private property; (ii) ensure payment of reasonable and just prior compensation; (iii) serve the public and national interests, and (iv) development of public physical infrastructure;

- Article 7: Only the State may carry out an expropriation for use in the public and national interests;
- Article 22: An amount of compensation to be paid to the owner of and/or holder of rights in the real property shall be based on the market value of the real property or the alternative value as of the date of the issuance of the Prakas on the expropriation scheme. The market value or the alternative value shall be determined by an independent commission or agent appointed by the expropriation committee;
- Article 29: For the expropriation of a location that is operating business activities, the owner of the immovable property shall be entitled to additional fair and just compensation for the value of the property actually affected by the expropriation as of the date of the issuance of the declaration on the expropriation project. A tenant of the immovable property who is operating a business shall be entitled to compensation for the impact on their business operation and to additional assistance at fair and just compensation to the capital value actually invested for the business operation activities as of the date of the issuance of the declaration on the expropriation project.

2.9 Standard Operating Procedures for Externally Financed Projects in Cambodia on Land Acquisition and Involuntary Resettlement (2018), Sub-Decree No. 22 ANK/BK

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). Where appropriate, the SOP includes references to international good practices in resettlement planning, implementation, monitoring and reporting. It includes details on how land acquisition must be conducted, consultation procedures, provision of entitlements and disclosure of information, among others. The SOP applies to all externally financed projects in the Kingdom of Cambodia, such as the proposed WASAC.

2.10 The Land Law (2001)

The Land Law sets out the legal rights of natural persons and legal entities in land ownership. The government can acquire private land for public purposes but has to pay a fair and just compensation in advance of the land acquisition. The law recognizes the right of indigenous communities in Cambodia to own immovable property - their land - with collective title.
Other provisions of the Land Law that may be relevant include:

- Article 6: Legal possession as defined by the Law is the sole basis for ownership, and all transfers or changes of rights of ownership shall be carried out in accordance with the required general rules for sale, succession, exchange and gift or by court decision;
- Article 15: State public land includes, among other categories, any property a) that has a natural origin, such as forests, courses and banks of navigable and floatable rivers or natural lakes; b) that is made available for public use such as roads, tracks, oxcart ways, pathways, gardens, public parks and reserved land, or c) that is allocated to render a public service, such as public schools, public hospitals or administrative buildings;
- Article 26: Ownership of the lands is granted by the State to indigenous communities as collective ownership, including all the rights and protections enjoyed by private owners. The exercise of collective ownership rights are the responsibility of the traditional authorities and decision-making mechanisms of the indigenous community, according to their customs and subject to laws such as the law on environmental protection;
- Article 28: No authority outside the community may acquire any rights to immovable properties belonging to an indigenous community;

2.11 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. It is an umbrella document that defines principles for formal registration of indigenous communities as legal entities with their own by laws and enables their participation in economic development that affects their lives and cultures. The Policy calls for the conduct of impact assessments for all infrastructure projects affecting indigenous peoples.

2.12 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. The policy states that the registration of indigenous communities as collective ownership is different from the registration of individual privately-owned land parcels because the land registration of the indigenous communities is the registration of all land parcels belonging to the communities as a whole, consisting of both State Public Land and State Private Land in accordance with the articles 25, 26, and 229 of the Land Law and related Sub-decrees. These land parcels are different in size and can be located within the same or different communes/sangkat. Therefore, the registration of land parcels of indigenous communities requires a separate Sub-decree supplementing existing procedure of sporadic and systematic land registration.

2.13 The Organic Law on Administrative Management of Capital, Provinces, Municipalities, Districts and Khans (2008)

Recognizes indigenous peoples' vulnerability. 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. Certain functions are being delegated from national government (ministries) to sub-national level, such as in health, education, land management and urban planning aspects, and basic services to be delivered to local citizens.

2.14 Relevant International Agreements on Indigenous Peoples

Cambodia is a signatory to a number of international instruments that protect the rights of indigenous peoples, as well as the Convention on Biological Diversity (1992), which recognizes the role of indigenous people in protecting biodiversity. In 1992, the Cambodian Government ratified the International Covenant on Economic, Social and Cultural Rights. This includes the rights to practice specific culture and the rights to means of livelihoods, NGO Forum on Cambodia. Other relevant international agreements Cambodia has signed up to include:

- 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. Institutional Responsibilities

There are a number of different governmental departments responsible for the areas mentioned in the legislation and regulations reviewed above. In general, the Ministry of Industry, Science, Technology & Innovation (MISTI) has an overall responsibility for the construction, maintenance and rehabilitation of water supply systems while the Ministry of Public Works and Transport (MPWT) is responsible for the construction, maintenance and rehabilitation of wastewater management systems. The Ministry of Environment is responsible for approving EIAs and monitoring compliance on environmental matters as well as legal enforcement of issues covered under environment -related laws and regulations. Responsibility in water resources management rests with the Ministry of Water Resources and Meteorology (MOWRAM).

The Ministry of Women's Affairs (MOWA) is the leading agency responsible for promoting gender equality and preventing violence Against women16. Other departments also play a contributing role such as the Cambodian National Council for Women (CNCW). The Ministry of Labor and Vocational Training (MLVT) is the leading agency in charge of labor and workforce-related matters, including minimum age of workers, wages and rights of laborer. Concerning land acquisition, the General Department of Resettlement (GDR) in the Ministry of Economy and Finance (MEF), is the main agency responsible for involuntary land acquisition. The project itself and its implementing agencies, MISTI and MPWT, will be responsible for voluntary land donations, if needed. Meanwhile a number of government departments deal with issues relating to Indigenous Peoples, mainly the Ministry of Industry, Science, Technology & Innovation and Ministry of Public Works and Transport, the Ministry of Interior (MOI) and the Ministry of Land Management, Urban Planning and Construction (MLMUPC).

[16] See National Action Plan to Prevent Violence Among Women (2014-18).

In Cambodia, Ministries have departments at the provincial level. For instance, MISTI has the Department of Industry, Science, Technology & Innovation established at provincial levels, while MPWT has the Provincial Department of Public Works and Transport. MISTI and MPWT will liaise with its provincial departments to keep them appraised of and involved in the project activities, including risks and potential impacts, mitigation measures, and consultation that are required to collect feedback of those who are potentially affected, including those who are interested in project activities. MISTI and MPWT will also coordinate with relevant government stakeholders, such as Commune and Village chiefs, who are important links between national-, provincial-, and district-level government departments, and local communities. For instance, the commune and village level will be essential for the effective management of issues that may affect communities, such as those related to SEA/SH, etc. At the commune level, there may also be various important committees, such as the Commune Committee for Women and Children who are responsible for maintaining the welfare of women and children in their commune. Civil societies and NGOs may play important roles in supporting project and government in implementing mitigation measures that will be described in this ESMF. The project's SEP identifies and analyze these stakeholders and propose methods, schedule, and strategy for effective stakeholder engagement.

4. World Bank's Environment and Social Standards (ESS)

The following WB's Environmental and Social Standards (ESS) are applied to the Project:

- ESS1 – Assessment and Management of Environmental and Social Risks and potential impacts;
- ESS2 – Labor and Working Conditions;
- ESS3 – Resource Efficiency and Pollution Prevention and Management;
- ESS4 – Community Health and Safety;
- ESS5 – Land Acquisition, Restrictions on Land Use and Involuntary Resettlement;
- ESS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources;
- ESS7 – Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities;
- ESS8 – Cultural Heritage; and
- ESS10 – Stakeholder Engagement and Information Disclosure.

ESS9 on Financial Intermediaries is not relevant to this Project and thus is not applied to the WASAC Project. In addition to the above ESSs, the World Bank's Guidance Note for above respective ESSs and Good Practice Notes are also referenced and applied during the preparation of agreed E&S documents. The Good Practice Notes include:

- Action Plan for Preventing and Addressing Sexual Harassment (FY19–FY21);
- Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing involving Major Civil Works (Second Edition, February 2020);
- Assessing and Managing the Risks of Adverse Impacts on Communities from Project-Related
- Labor Influx (Second Edition, June 2021);
- Non-Discrimination and Disability (First Edition, June 2018);
- Road Safety (First Edition, October 2019);
- IFC Environmental, Safety, and Health Standards on Wastewater and Ambient Water Quality (2007).

4.1 ESS1: Assessment and Management of Environmental and Social Risks and potential impacts

According to the nature of the civil work activities, nine standards are relevant under the WASAC project. These are the ESS1, ESS2, ESS3, ESS4, ESS5, ESS6, ESS7, ESS8, and ESS10. The environmental and social risks have both been rated "Substantial", in part due to the capacity of the implementing agencies as well as the many potential risks.

The proposed project will be implemented in the provinces of Mondul Kiri, Battambang and Pursat and in Ta Khmau municipality in Kandal. Additional sites may be added in future. The selection of specific sites for investment in districts/towns outside the provincial municipality will be carried out during the implementation of the project based on selection criteria with due considerations to technical, environmental and social aspects minimizing risks and impacts arising from the investment. The E&S impacts from the activities funded under the proposed project are expected to be substantially widespread, direct and indirect at all stages of construction, operation and maintenance, and ultimately at decommissioning stages. In addition, the connection of water supply systems and water treatment capacity in areas

currently served by private operators could also result in impacts on the associated facilities. The environmental risks and impacts at construction stage are likely temporary and site specific. While the projects are in urban areas where the natural environment has already been disturbed, due to the nature of the project, attention must be paid to the impacts on the aquatic ecosystem. Attention must be paid to downstream of the project to understand where there might be areas of high biodiversity value, critical or sensitive natural habitats affected by the project, nearby protected areas, and any protected plant or animal species in the area.

Screening for potential social impacts and risks has been informed by lessons from the ongoing Bank financed projects implemented by MISTI and MPWT. Social risks and impacts anticipated for this project are: (1) risks of excluding project benefits to vulnerable groups; (2) risk of use of child labor as part of construction and risk related to OHS of workers and their working conditions during construction and operation; (3) risks related to temporary labor influx of workers including increased SEA/SH from workers and their proximity to vulnerable groups, as well as other risks associated with project construction and operation ; (4) risks associated with land acquisition and economic displacement and possible loss of access to properties and assets; (5) risks associated with engaging with indigenous communities present in project areas and risks/impacts on their land, culture and access to resources; and (6) risk associated with engaging with relevant stakeholders deemed having an interest in this project.

4.2 ESS2: Labor and Working Conditions

The project is expected to finance construction of civil works (water and wastewater systems and facilities) that will bring a limited influx of labor due to the nature of the works. From experience of the current WaSSIP project and other projects of similar nature, such kinds of works are likely to bring labor influx (contracted workers) from nearby neighborhoods, including foreign and local technical consultants and staff. Each site may employ workers ranging between 30 to 40 people, with the potential to require worker camps. The project will involve employment of civil servants (government staff), direct workers (consultants and technical experts), contracted workers and primary supply workers (workers from major suppliers of goods and equipment). Since, the project will adopt a similar approach to the existing WaSSIP, it is very unlikely that communities will be involved in providing labor to the project.

Labor related risks include: (i) employment discrimination, (ii) labor related disputes, (iv) SEA/SH, (v) child labor in construction work, (vi) inadequate workers accommodation; and (vii) occupational health and safety or OHS related issues such as inadequate personal protective equipment (PPE), sanitation facilities for workers at construction sites, and infection of Covid-19. The labor management procedures (LMP), included as Appendix 6 to this document, is in line with the national Labor Law and ESS2. It also takes into account the needs of women workers including female apprentices and providing a safe working environment.

4.3 ESS3: Resource Efficiency and Pollution Prevention and Management

Water and energy efficiency, pollution prevention and management, as required by ESS3, are essential to achieving the objectives of the proposed project. Therefore, the borrower will consider measures that are technically and financially feasible to reduce the negative impact on surrounding communities, environment and other ecosystem services. Also complying with ESS3, a water resource management plan in and around the proposed treatment facilities will be developed as part of sub-project project feasibility studies and update of ESF instruments would be done if needed.

Pollution prevention measures will be proposed for the construction and operation phases of the project in accordance with the mitigation hierarchy.

Since the project will promote water intake from surface waters, some of the project activities may have direct impacts, requiring careful design and feasibility studies of water supply infrastructure to assess any unintended upstream and downstream impacts and implement adequate mitigation measures, for example construction of water gates to store/retain water for dry season use.

The project also aims to develop alternative water supply solutions for communities that cannot be connected to water supply systems, such as rainwater harvesting systems, infiltration pits, 'cap and trade' licensing system, protection zones for water supply management, as well as a hybrid approach integrating nature-based solutions to integrate sustainability aspects in the provision of water supply and sanitation services. This approach will contribute to environmental sustainability by reducing the application and use of non-natural materials and promoting resource efficiency.

4.4 ESS4: Community Health and Safety

The project has a substantial potential to improve the environmental, social, and health conditions of the communities in selected towns and communes. However, project activities are likely to induce moderate risks/impacts to communities living nearby subproject sites during construction and operations of civil works. Based on the experience of the current WaSSIP project and other similar projects, plausible risks and impacts on health and safety of communities during construction may include: community disturbance as a result of civil works (noise, dust, air, odor from waste water, possible accidents from transport of construction materials), disturbance/disruption to community in their access to home/business, SEA/SH as a result of influx of labor. During operation phase, community health and safety risks may include community disturbance as result of operation of water/waste water treatment (i.e. noise, odors), vector borne diseases from waste water storage.

Design of facilities, where appropriate, should take into consideration universal access.

Furthermore, the Project also has a potential risk of spreading COVID-19 to communities and the ESMF will also need to take into account the latest COVID-safe guidelines mandated by the government and/or best practice in the country.

4.5 ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

The project is expected to require limited land acquisition. This could include residential, commercial and agricultural lands. Some land acquisition may be permanent, for construction of key facilities; other land acquisition may be temporary, for use during construction (such as worker camps, storage facilities). There may also be economic displacement, especially during construction. To minimize potential impacts and avoid involuntary land acquisition, the project will select sites in lands owned by the government and/or sites that do not lead to demolition or relocation of households or commercial premises. Works will not be approved that require physical relocation, which is also possible, but should be minimal, with all efforts made to eliminate such impacts through technical design changes and redesign of alternative sites and routes to be made to avoid any relocation. An E&S screening process will need to be conducted to select sites with minimal land acquisition and resettlement impacts.

A Resettlement Policy Framework (RPF) has been prepared and approved by the General Department of Resettlement (GDR). In addition to the process of involuntary land acquisition under the responsibility of the GDR, the RPF includes measures to address temporary economic impacts, as well as the application of voluntary land donations in line with ESS5 and requirements for any willing buyer-willing seller arrangement.

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

Project activities are not in the vicinity of any protected areas, and most of the construction and civil works will be carried out on land already disturbed by humans and therefore should not have any impact on terrestrial biodiversity. However, due to the nature of the project, special attention must be paid to the aquatic ecosystem, and the impact must be properly assessed and managed. when the site of the subproject is known, subproject-relevant areas, including downstream areas, prior to project execution should be screened to understand the presence of areas of high biodiversity values, critical or sensitive natural habitats within project areas, protected areas, and endemic flora and fauna including protected animal or plant species. The ESMPs will include provisions for biodiversity assessment management and conservation measures to manage risks and impacts to any natural habitats consistent with the requirements of ESS6. To address ESS6 issues, the ESMF includes ineligibility criteria, screening requirements, generic

risk assessment and biodiversity conservation measures associated with each type of project supported activities during both construction and operation. The ESIAs/ESMPs prepared for each subproject will provide for appropriate risk assessments and mitigation measures to avoid damaging natural habitats and ecological and hydrological systems.

4.7 ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

The project will be implemented in 3 provinces/municipalities. According to data of the Department of Indigenous Peoples of Cambodia two of the provinces have ethnic minority populations that could be considered as indigenous peoples (IP) under the criteria of ESS7.

The two subprojects already identified are in the towns of Battambang and Ta Khmau, both of which are quite urban and with no presence of IP communities. However, as the remaining subprojects have not yet been identified, an Indigenous Peoples Planning Framework (IPPF) has been prepared, which lays out provisions with regard to how indigenous peoples are consulted and how they can access project benefits should any IP communities be located in or near the subproject areas. The IPPF includes a methodology for screening for the presence of indigenous groups in the area of project influence, to assess the expected direct or indirect social risks they may face, as well as to propose measures to mitigate potential cumulative adverse environmental and social risks and impacts affecting them.

4.8 ESS8: Cultural Heritage

The provinces of Mondul Kiri, Battambang and Pursat are rich with sites of tangible cultural heritage, some officially listed as endangered, from early Khmer history to buildings from the French protectorate between 1853-1953 in Battambang municipality. The value of tangible and intangible cultural heritage as an asset for development and an integral part of people's identity were recognized by the Royal Government of Cambodia in 1996 Law on the Protection of Cultural Heritage. Currently there is no indication of potential impacts on cultural heritage. However, this will be thoroughly assessed as part of the ESIA/ESMP process for all specific investments. The project design would exclude any activities that result in significant adverse impacts on cultural heritage. The project's ESMF and site specific ESIA/ESMP for known locations will produce a chance finds procedure for physical cultural heritage that may be affected during project implementation, as well as a screening process to minimize possible impacts on cultural heritage. For any works carried out in areas with known or suspected cultural heritage value, pre-construction site-specific assessments will be conducted, and cultural management plans will be prepared during project implementation. Presence of UXOs will be assessed and clients will acquire support from certified government agency for safe removal if any.

4.9 ESS9: Financial Intermediaries

Financial intermediaries are not applied to the project.

4.10 ESS10: Stakeholder Engagement and Information Disclosure

A Stakeholder Engagement Plan (SEP) including a Grievance Redress Mechanism (GRM) will be prepared prior to appraisal to guide the Borrower to identify stakeholders (which will include amongst others disadvantaged groups, local authorities, local communities, indigenous peoples), build and maintain a constructive relationship with them, and to meet communication and disclosure requirements, with a particular focus on project-affected parties. The SEP will also guide how to meaningfully engage impacted people, including vulnerable groups, engaging them in an inclusive manner on issues that could potentially affect them, including their access to project benefit and issues related to project specific locations, as well as engagement with respect to cultural and spiritual places. Further details are provided under ESS10.

The SEP will be implemented, updated, and disclosed by MISTI/MPWT throughout the different phases of the project life cycle. It will be developed early in the project preparation process to inform engagement to address key risks and develop communication and engagement strategies and materials to effectively reach out to affected and interested stakeholders to ensure accessibility and cultural appropriateness. Stakeholder identification, analysis and engagement will inform assessment of both the processes and practices prescribed in the ESMF. The approach to engagement activities will take into account the needs of vulnerability, language, literacy as well as consent, and child protection

measures, both as part of engagement and also the assessment process. The engagement will ensure not only risks are managed but benefits are accessible to all and that views of interested stakeholders are taken into consideration for subproject designs, as well as the environmental and social performance. Given the sensitivity around potential sites for wastewater treatment, the SEP will need to carefully assess the risks and identify pertinent stakeholders and propose engagement strategies that entail constructive relationship with them, particularly project affected people and those living around the project sites.

At this early stage various affected and interested stakeholders have been identified: (a) line ministries: MISTI/MPWT, General Department of Resettlement (MEF), Ministry of Culture, (b) vulnerable groups including disabled people, poor households, ethnic minorities (c) local individuals or groups: local authorities and village chiefs, indigenous peoples and their leaders, (d) Community Based Organizations (CBOs), women organizations and religious leaders, (e) street vendors, businesses/companies in the project areas, (f) academia, environmental organizations, (g) CBOs, and Non-Governmental Organizations (NGOs) working in areas of water supplies, waste water; (h) private sector: water supply operators, construction companies and (i) development partners at the central level. Consultations with local communities and gathering of information from cultural heritage authorities will help to both identify cultural heritage present in project areas and understand the nature and significance of potential project- identified heritage. Consultations with local communities will be important to identify cultural and spiritual spaces and understand the values and significance attached to these by different stakeholders. Any consultation will need to take into consideration the different interpretations of cultural heritage by different communities and the importance they place on them. Women and girls have a different attachment to spaces and their own cultural and spiritual spaces than men and boys and this should inform engagement to identify and understand impacts, and to develop appropriate measures.

The SEP will guide how beneficiaries and affected communities will be engaged, as per ESS10. The SEP will include specific engagement requirements to reach out stakeholders to ensure accessibility and culturally-appropriateness effectively. The SEP will include a Project Grievance Mechanism. It will be informed publicly, and it will address compliances coming from project-affected peoples and groups.

Furthermore, as part of the information disclosure arrangements, the drafts of the site specific ESMPs of Ta Khmau, Mondul Kiri and Battambang facilities and ESIA reports the project's ESMF (which include RPF, IPPF), SEP, and ESCP will be disclosed publicly on the website of MISTI and MPWT and hard copies made available at participating provincial MISTI/MPWT's offices, with directly affected households meaningfully consulted. Meetings will be consistent with applicable government guidance on COVID-19 measures for public gatherings. Meaningful consultation with relevant stakeholders will be conducted before appraisal, and its results adequately recorded and disclosed.

5 Gap Analysis – WB's ESF and RGC Legislation

While Cambodia has relatively strong environmental and social regulations and planning framework, some gaps exist between relevant national E&S regulations and the World Bank Environmental and Social Standards, identified in Table 6, along with clarifications or measures proposed to address the identified gaps.

Table 6: 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 poor, 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 ESMPs 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 water treatment plants, wastewater treatment plants, pipelines and other facilities in the water supply and sanitation systems 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	Lack of legislative requirements to ensure screening, assessment, and monitoring are in	This ESMF will propose a minimum working age of 18 years due to the potential for hazardous work related in construction of the water

No.	Areas of Difference	RGC 's Relevant Regulations	WB's ESF	Key Gaps	Measures/Clarifications to Address Differences
			engaged in connection with the project if the work is not hazardous 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.	place to ensure a child under 18 can participate in work that is not hazardous to their health and affect their schooling.	supply and wastewater treatment systems. The ESMF will provide monitoring guidelines and requirements of the Borrower and contractors (see LMP in Appendix 6).
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	**Livelihood Restoration and Assistance**	SOP-LAR details specific measures to restore livelihoods which are land-based, employment-based and business-based.	Provision of livelihood restoration and assistance to achieve WB's ESS5 objectives in cases of significant loss of livelihood to assist displaced persons in their efforts to improve, or at least restore, their livelihoods and living standards.	Lack of clear benchmark to assist monitoring and evaluation to confirm if affected households restore their livelihood to the level prevailing prior to the beginning of project implementation	Based on the RGC SOP-LAR, an Income Restoration Program would be provided in order to re-establish sources of livelihoods for those APs who have permanently lost their sources of livelihood. If applicable in WASAC, the implementing agencies will include provisions to ensure livelihood restoration programs are robust and can accurately meet the livelihood restoration objectives in line with WB ESS5.

No.	Areas of Difference	RGC 's Relevant Regulations	WB's ESF	Key Gaps	Measures/Clarifications to Address Differences
6	**Grievance Redress Mechanism**	Appendix 8 of the SOP-LAR provides the structure and details on operating guidelines and procedures for effective functioning of Grievance Redress Mechanism. It provides a 3-step process, including the registration and recording of complaints and the judicial process for complainant's use if complaints remain unresolved at the administrative level. The detailed procedures for at each step are provided in the SOP-LAR. However, this GRM is only for issues regarding involuntary land acquisition.	Annex 1 of ESS10 includes details of administrative and judicial process on Grievances Redress Mechanisms to handle grievances under all ESS. This includes participation in planning and implementation, including in developing appropriate Grievances Redress Mechanisms that are useful and accessible to local people.	Lack of requirements for grievances to be resolved in a manner that is culturally appropriate. Lack of GRM for issues other than involuntary land resettlement.	For the GRM concerning involuntary resettlement, the process is provided in the Resettlement Policy Framework, attached as appendix 3. GRMs are also being established under the project (1) for issues in general, whether complaints or suggestions, (2) for issues concerning labor management, and (3) for matters concerning SEA/SH, GBV, VAC. The procedures for these GRMs are presented in the SEP.
7	**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.
8	**Voluntary Donations**	RGC's SOP deals with land acquisition and *involuntary* resettlement and therefore	According to footnote 10 of ESS5, voluntary land donations are acceptable if:	Lack of GRC regulations on	The RPF developed provides guidance on when voluntary

No.	Areas of Difference	RGC 's Relevant Regulations	WB's ESF	Key Gaps	Measures/Clarifications to Address Differences
		does not provide guidance on voluntary donations.	(a) the potential donor or donors have been appropriately informed and consulted about the project and the choices available to them; (b) potential land donors are aware that refusal is an option, and have confirmed in writing their willingness to proceed with the donation; (c) the amount of land being donated is minor and will not reduce the donor's remaining land area below that required to maintain the land donor's livelihood at current levels; (d) no land donors are relocated; (e) the land donor is expected to benefit directly from the project; and (f) for community or collective land, donation can only occur with the consent of individuals using or occupying the land.	voluntary land donation and cases where land donation is acceptable	donations would be appropriate and the process of carrying out the donations, including documentation which will need to be followed by MISTI and MPWT.
9	**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.	An IPPF has been prepared on the basis of WB ESS7 considering relevant Cambodian policies and regulations. The IPPF details procedures for preparing IPP(s) and how to conduct meaningful and consultation that is culturally appropriate.
10	**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 5.1) in case any subproject is found to have impacts on local or national, tangible or intangible, cultural heritage.

No.	Areas of Difference	RGC 's Relevant Regulations	WB's ESF	Key Gaps	Measures/Clarifications to Address Differences
11	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.

Appendix 2: Environmental and Social Screening Documents

Annex 2.1: Ineligible/Negative Criteria List for Project Selection / Siting of Project Facilities

The exclusion criteria are established to avoid or minimize environment and social risks and potential impacts:

- New WWTP / retentions / water treatment facilities / networks requiring a full EIA according to national legislation;
- The facilities (WWTP / retentions / water treatment facilities / networks) under this project requiring physical relocation and/or demolition of residential structures of over 50 households;
- Any works that would significantly adversely impact the integrity or productivity of geographically distinct habitats, ancestral territories, or areas of seasonal use or occupation of Indigenous Peoples (IP), as well as to the natural resources in these areas (including waters), would be carefully screened for and excluded. Works may be undertaken near those lands, habitats, or other natural resources if they do not impact the integrity or productivity of those resources and if the IP communities are consulted and give their consent as required under IPP7.
- The facilities (WWTP / retentions / water treatment facilities / network) that cause serious damage to or loss of cultural property, including sites having archaeological (prehistoric), paleontological, historical, religious, cultural and unique natural values;
- The facilities (WWTP / retentions / water treatment facilities / network) that are adjacent to/go through Protected Areas or other biodiversity conservation areas, and/or that would have significant negative impacts on flora or fauna or the degradation of natural resources or habitats, including aquatic habitats.
- The facilities (WWTP / retentions / water treatment facilities / network) that are to be linked with planned or existing facilities funded by development partners, in which those facilities face serious environmental or social problems or are planned, implemented or operated in a manner that is not materially consistent with the conditions of the Environmental and Social Standards (ESS). Works may be considered to be linked with those facilities if the problems are mitigated and/or the conditions of the ESSs are met to the satisfaction of the local population, the implementing agency (MISTI or MPWT) and the WB.
- The facilities (WWTP / retentions / water treatment facilities / network) that are to be linked with planned or existing facilities operated by private companies, in which those facilities face serious environmental or social problems or are planned, implemented or operated in a manner that is not materially consistent with the conditions of the Environmental and Social Standards (ESS). Works may be considered to be linked with those facilities if the problems are mitigated and/or the conditions of the ESSs are met to the satisfaction of the local population, the implementing agency (MISTI or MPWT) and the WB, and if the implementing agency agrees to monitor compliance of the private company with conditions of the ESSs.

- Under the grant program for Private Water Operators:
    - Grants will not be provided to any proposed PWO grant project that would require the application of ESS7.

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 another 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**			**ESF Instrument Required** *(can be input later)*	**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)***						
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?						

Guiding Question	Answer			ESF Instrument Required *(can be input later)*	Level of Risk (High, Substantial, Moderate, Low)	Remarks
	Yes	**No**	**TBD**			
Will the project alter surface water hydrology of waterways or streams?						
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?						
For proposed wastewater treatment plants, is there enough land available to assure an adequate buffer zone to nearby residences and businesses?						
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)						
Will the proposed project be located in an area where climate risk and/or natural hazards (i.e., earthquake, land or mudslides, floods, volcanos, storms,						

Guiding Question	Answer			ESF Instrument Required *(can be input later)*	Level of Risk (High, Substantial, Moderate, Low)	Remarks
	Yes	**No**	**TBD**			
storm surge, etc.) could affect project viability, exacerbate environmental impacts and/or present an increased safety concern to project-affected communities?						
ESS2: Labor and Working Conditions						
Will skilled workers be available in local areas?						
Will unskilled workers be available in local areas?						
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 Covid-19 and other 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?						

Guiding Question	Answer			ESF Instrument Required *(can be input later)*	Level of Risk (High, Substantial, Moderate, Low)	Remarks
	Yes	**No**	**TBD**			
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 ground water pollution?						
Will the project increase the possibility of surface water pollution?						
Will the project generate waste during construction?						
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?						

Guiding Question	Answer			ESF Instrument Required *(can be input later)*	Level of Risk (High, Substantial, Moderate, Low)	Remarks
	Yes	**No**	**TBD**			
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 COVID-19 community transmission as a result of project works?						
Would any public facilities, such as existing school buildings, health centers or religious buildings be negatively affected by construction?						
Will project activities result in increases in, or changes to the type of, traffic in the project area?						
Would project activities required setting up of a worker's camp?						
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?						
ESS5: Land Acquisition, Restrictions on land Use and Involuntary Resettlement						
Will the project involve the acquisition of land, or the loss of assets, or the loss of or interference in						

Guiding Question	Answer			ESF Instrument Required *(can be input later)*	Level of Risk (High, Substantial, Moderate, Low)	Remarks
	Yes	**No**	**TBD**			
livelihoods of any persons, either permanently or temporarily?						
Will the project require the involuntary relocation of any individuals or households (including squatters on government lands or people using other public spaces, such as roadsides)?						
Will the use of land for project activities lead to adverse impacts on livelihoods?						
Will the project affect land rights or land use rights whether or not individuals or groups are relocated?						
Will the project require a removal of vegetation cover or cutting down of economic trees during clearance for construction?						
Is sufficient land being acquired to meet the requirements of all the ESSs?						
NOTE: If the sub-project requires physical relocation or destruction of residential structures of 50 or more households, the sub-project either cannot proceed or requires significant revisions.						
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, including in the waterways used for water supply intake or for wastewater discharge?						
Are there any wetlands within or nearby the project area?						

Guiding Question	Answer			ESF Instrument Required *(can be input later)*	Level of Risk (High, Substantial, Moderate, Low)	Remarks
	Yes	**No**	**TBD**			
NOTE: If the answer to any of the questions under ESS6 is "Yes" or "TBD", refer to the "Ineligible/Negative Criteria List" in Annex 2.1, 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)?						
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?)						
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,						

Guiding Question	Answer			ESF Instrument Required *(can be input later)*	Level of Risk (High, Substantial, Moderate, Low)	Remarks
	Yes	**No**	**TBD**			
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?						
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 2.3: Checklist to Determine if Linked Projects are Associated Facilities

Province:	**District:**	**Location – sketch map attached (circle one)**	
		YES	**NO**
Name of WASAC Subproject:		**Link No. (to other screenings, documents):**	
Name of Potentially Linked Project:		**Development Partner, Private Company, or Other Organization Funding Linked Project:**	
Date:	**Person Conducting Screening:**	**Position of Person Conducting Screening:**	

1) Is the potentially linked project directly and significantly related to the WASAC subproject?	Yes ☐	No ☐
Explain how they are related:		
2) Is the potentially linked project being implemented, or planned to be implemented, contemporaneously (around the same time) as the WASAC subproject?	Yes ☐	No ☐
Describe timing of the project relative to WASAC subproject:		
3a) Is the potentially linked project necessary, in order for the WASAC subproject to be viable?	Yes ☐	No ☐
Explain why the potentially linked project is needed for the WASAC subproject; or if not, why not?		
3b) Is the WASAC subproject necessary for the potentially linked project to be built or be implemented?	Yes ☐	No ☐
Explain why the WASAC subproject is necessary for the potentially linked project; or if not, why not?		

To be an Associated Facility, the potentially linked project must meet all 3 criteria set by the World Bank, and the answers to all the questions should be "Yes".

If the answers to any of the questions is "No", the potentially linked project will likely not be considered as an Associated Facility.

However, the WASAC project should still consult with the World Bank E&S team to confirm whether or not the potentially linked project still should be considered as an Associated Facility.

If determined that the potentially linked project is an Associated Facility, the World Bank will recommend how the WASAC project is to proceed with the donors and implementers of the Associated Facility.

Annex 2.4: Screening Form on Environmental and Social Safeguards of Linked Projects

Province:	**District:**	**Location – sketch map attached (circle one)**	
		YES	**NO**
Name of WASAC Subproject:		**Link No. (to other screenings, documents):**	
Name of Potentially Linked Project:		**Development Partner, Private Company, or Other Organization Funding Linked Project:**	
Date:	**Person Conducting Screening:**	**Position of Person Conducting Screening:**	

1) Did the linked project conduct an environmental assessment?	Yes ☐	No ☐
If not, reasons why not.		
2) Were any major environmental risks or impacts identified?	Yes ☐	No ☐
Describe		
3) Did the linked project conduct a social assessment?	Yes ☐	No ☐
If not, reasons why not.		
4) Were any major social risks or impacts identified?	Yes ☐	No ☐
Describe		
5) Does the project have environmental and social codes of practice for contractors?	Yes ☐	No ☐
If not, reasons why not.		
6) Does the project have regulations to protect the rights and safety of workers?	Yes ☐	No ☐
Describe		
7) Does the project have regulations concerning child labor, forced labor, and primary suppliers?	Yes ☐	No ☐
Describe		
8) Does the project have any regulations to protect the health and safety of the community?	Yes ☐	No ☐
Describe		
9) Does the project have any regulations or mechanism to deal with GBV, SEA/SH, VAC?	Yes ☐	No ☐
Describe		
10) Has the project faced any serious issues with pollution or use of resources?	Yes ☐	No ☐
If so, describe how they have been dealt with		
11) Are any pollution problems persisting?	Yes ☐	No ☐
If so, describe		
12) Did the project adversely affect any protected areas, forests, waters, or any flora or fauna?	Yes ☐	No ☐
If so, describe what was affected. Also describe if any mitigation measures were taken.		

13) Did the project require any acquisition of land?	Yes ☐	No ☐
If so, was there a resettlement plan? How much land was acquired, from how many people, and how was it acquired?		
14) Did the project adversely affect the livelihoods or incomes of any households? Or adversely affect the conduct of any businesses?	Yes ☐	No ☐
If so, how were the households compensated? How were the businesses compensated?		
15) Were there any persons using, but not owning, the acquired lands or affected sites, whose lives or livelihoods were adversely affected by the project?	Yes ☐	No ☐
If so, were they compensated? And how?		
16) Were any ethnic minority groups identified in the project area?	Yes ☐	No ☐
If so, could they be considered as IPs? How were they affected? And how were they engaged?		
17) Did the project have an impact on any tangible or intangible cultural resources?	Yes ☐	No ☐
If so, did was there a procedure how to handle the issue?		
18) Was there a process of stakeholder engagement?	Yes ☐	No ☐
If not, why not? If so, was it similar to the process required by the World Bank?		
19) Were vulnerable groups identified and consulted?	Yes ☐	No ☐
If not, why not? If so, was it similar to that required by the World Bank?		
20) Is there a grievance redress mechanism?	Yes ☐	No ☐
If not, why not? If so, is the process easily accessible to people? Have there been many complaints? About what? Are they handled adequately?		
21) Is there a monitoring system?	Yes ☐	No ☐
If not, why not? If so, describe who is responsible		

After completing the screening form, consult with the World Bank Environmental and Social team to

1) determine if the WASAC subproject can link with the other project, or if there are serious environmental and/or social problems that would make the subproject ineligible for World Bank funding; and
2) if the WASAC subproject can be linked with the other project, are there any environmental or social issues that should first be clarified or resolved before proceeding.

Annex 2.5: Draft Screening Form to Assess Environmental and Social Capacity of Private Water Operators

[Note: this Screen Form should be revised as appropriate prior to implementation of Sub-Component 1.1]

Province:	**District:**	**Location – sketch map attached (circle one)**	
		YES	**NO**
Name of Private Water Operator:		**Link No. (to other screenings, documents [i.e., grant application]):**	
Date:	**Person Conducting Screening:**	**Position of Person Conducting Screening:**	

1) Will the proposed project use the existing water source and water intake infrastructure?	Yes ☐	No ☐
If "No", explain:		
2) Is the available water in the dry season sufficient for the planned expansion?	Yes ☐	No ☐
Describe:		
3) Have there been any problems with water supply? (review reports and ask water users)	Yes ☐	No ☐
If "Yes", explain:		
4) Have there been any problems with water quality? (review reports and ask water users)	Yes ☐	No ☐
If "Yes", explain:		
5) Has the water supply system caused any other problems to the water source, such as impacts on aquatic life, bank erosion.	Yes ☐	No ☐
If "Yes", explain:		
6) Does the system provide water to poor households?	Yes ☐	No ☐
If "Yes", describe any special arrangements to include poor households: If "No", explain why not:		
7) Does the system provide water to other vulnerable households (elderly, with disabled, etc.)	Yes ☐	No ☐
If "Yes", describe any special arrangements to include poor households: If "No", explain why not:		
8) Was any privately-owned land acquired for the water supply system?	Yes ☐	No ☐
If "Yes", describe what lands, and how acquired:		
9) Does the proposed project need to acquire additional lands?	Yes ☐	No ☐
If "Yes", for what purposes:		
10) Is any of the land to be acquired privately owned?	Yes ☐	No ☐
If "Yes", how much and where:		
11) Are there any undisturbed natural areas (wetlands, forests, etc.) near the project area?	Yes ☐	No ☐
If "Yes", what and where:		
12) Are there any ethnic minority groups in or near the project area?	Yes ☐	No ☐
If "Yes", what groups and where:		

Appendix 3: Resettlement Policy Framework

Annex 3.1: Preliminary Screening Form for Land Acquisition and Resettlement
Annex 3.2: Voluntary Assets Donation Form

The Resettlement Policy Framework document is available online at:

[insert website link where RPF will be disclosed]

or can be requested from:

Mr. SRENG Sokvung
Director of Department of Technics & Project Management (D/TPM), General Department of Potable Water (GD/WAT), MISTI
Project Coordinator Officer, CMU-1
Tel: +855 77 891 121
Email: sokvung@gmail.com
Address: #45, Preah Norodom Boulevard, Sangkat Phsar Thmey II, Khan Daun Penh, Phnom Penh

Appendix 4: Indigenous Peoples Planning Framework

Annex 4.1: Technical Guidelines for Consultation, and Preparation of IPP and Other Safeguard Documents
Annex 4.2: Preliminary Screening of Indigenous Peoples
Annex 4.3: Guidance on the Criteria in ESS7 to Determine IPs

The Indigenous Peoples Planning Framework document is available online at:

[insert website link where IPPF will be disclosed]

or can be requested from:

Mr. SRENG Sokvung
Director of Department of Technics & Project Management (D/TPM), General Department of Potable Water (GD/WAT), MISTI
Project Coordinator Officer, CMU-1
Tel: +855 77 891 121
Email: sokvung@gmail.com
Address: #45, Preah Norodom Boulevard, Sangkat Phsar Thmey II, Khan Daun Penh, Phnom Penh

Appendix 5: Documentation for Construction Activities

Annex 5.1: Chance Find Procedures

Since WASAC is focusing on accelerating the progress of water supply and sanitation (WSS) in Cambodia by financing investments in selected provinces taking a province-wide approach (considering provincial towns and other potential districts outside provincial towns), and fostering an enabling environment at the sector level to unlock bottlenecks and accelerate progress, and at the operational level to sustain long-lasting investment. 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.

MISTI and MPWT 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.

Annex 5.2: Outline for ESMP

An Environmental and Social Management Plan (ESMP) consists of a set of mitigation, monitoring, and institutional measures to be taken during implementation and operation of a project to eliminate adverse environmental and social risks and potential impacts, offset them, or reduce them to acceptable levels.

The ESMP also includes the measures and actions needed to implement these measures. Site-specific ESMPs will be needed for all water treatment plant and wastewater treatment plant with its facilities subprojects financed under the WASAC. The ESMPs will be prepared by MISTI and MPWT with the assistance of E&S Supervision Consultants.

The ESMP will consist of:

a) Brief Project description

b) Overview of the Project location, including socioeconomic and environmental baseline information

c) Legislative Framework (RGC laws and regulations, WB ESF and Gap Analysis)

d) Identifying all anticipated adverse environmental and social impacts, including those involving indigenous people or involuntary resettlement (and making relevant links to RPs and IPPs), and any relevant direct, indirect or cumulative impact;

e) Describing in detail each mitigation measure, including the type of impact to which it relates to, including Labor Management Procedures, Occupational Health and Safety Procedures, Community Health and Safety Plan, Child Labor Prevention Plan, Labor Influx Plan, SEA/SH and other plans that may be necessary (cultural heritage, biodiversity management, etc.)

f) Monitoring objectives and the type of monitoring, with linkages to the impacts assessed, including a description of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements and monitoring and reporting procedures;

g) Stakeholder Engagement, aligned with the project's SEP, and summary of consultations conducted on the ESMP;

h) Description of the Grievance Redress Mechanism, including a specific Labor-GRM for workers;

i) Description of institutional arrangements, identifying which party is responsible for carrying out the mitigation and monitoring measures (i.e. for operation, supervision, enforcement, monitoring, staff training, etc.), capacity assessment of the Borrower (MISTI and MPWT) and a training plan for the MISTI and MPWT'S SEO;

j) Implementation Schedule and Cost Estimates, showing coordination with overall project implementation plans, costs and sources of funds.

SAMPLE TABLE FOR ESMP MONITORING

Potential Negative Impact	Environmental and Social Mitigation Measures	Location	Estimated Mitigation Costs	Executing Agency	Supervising/Monitoring Agency
Detailed Design/Pre-construction mobilization stage					
Construction Stage					
Operation and Maintenance Stage					

Annex 5.3: Outline for ESIA

I. Executive Summary

- Concisely discusses significant findings and recommended actions.

II. Legal and Institutional Framework

- Analyzes the legal and institutional framework for the project, within which the environmental and social assessment is carried out, including:
  (a) the country's applicable policy framework, national laws and regulations, and institutional capabilities (including implementation) relating to environment and social issues; variations in country conditions and project context; country environmental or social studies; national environmental or social action plans; and obligations of the country directly applicable to the project under relevant international treaties and agreements;
  (b) applicable requirements under the Environmental and Social Standards (ESSs); and
  (c) the [World Bank Group Environmental, Health and Safety Guidelines (EHSGs)], and other relevant [Good International Industry Practice (GIIP)].
- Compares the Borrower's existing environmental and social framework and the ESSs and identifies the gaps between them.
- Identifies and assesses the environmental and social requirements of any co-financiers.

III. Project Description

- Concisely describes the proposed project and its geographic, environmental, social, and temporal context, including any offsite investments that may be required (e.g., dedicated pipelines, access roads, power supply, water supply, housing, and raw material and product storage facilities), as well as the project's primary suppliers.
- Through consideration of the details of the project, indicates the need for any plan to meet the requirements of ESS1 through 10.
- Includes a map of sufficient detail, showing the project site and the area that may be affected by the project's direct, indirect, and cumulative impacts.

IV. Baseline Data

- Sets out in detail the baseline data that is relevant to decisions about project location, design, operation, or mitigation measures. This should include a discussion of the accuracy, reliability, and sources of the data as well as information about dates surrounding project identification, planning and implementation.
- Identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions.
- Based on current information, assesses the scope of the area to be studied and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences.
- Takes into account current and proposed development activities within the project area but not directly connected to the project.

V. Environmental and Social Risks and Impacts

- Takes into account all relevant environmental and social risks and impacts of the project. This will include the environmental and social risks and impacts specifically identified in ESS2–8, and any other environmental and social risks and impacts arising as a consequence of the specific nature and context of the project.
  (a) Environmental risks and impacts, including:
    (i) those defined by the EHSGs;
    (ii) those related to community safety (including dam safety and safe use of pesticides);
    (iii) those related to climate change and other transboundary or global risks and impacts;
    (iv) any material threat to the protection, conservation, maintenance and restoration of natural habitats and biodiversity; and
    (v) those related to ecosystem services and the use of living natural resources, such as fisheries and forests;

  (b) Social risks and impacts, including:
    (i) threats to human security through the escalation of personal, communal or inter-state conflict, crime or violence;
    (ii) risks that project impacts fall disproportionately on individuals and groups who, because of their particular circumstances, may be disadvantaged or vulnerable;

(iii) any prejudice or discrimination toward individuals or groups in providing access to development resources and project benefits, particularly in the case of those who may be disadvantaged or vulnerable;
(iv) negative economic and social impacts relating to the involuntary taking of land or restrictions on land use;
(v) risks or impacts associated with land and natural resource tenure and use, including (as relevant) potential project impacts on local land use patterns and tenurial arrangements, land access and availability, food security and land values, and any corresponding risks related to conflict or contestation over land and natural resources;
(vi) impacts on the health, safety and well-being of workers and project- affected communities; and
(vii) risks to cultural heritage.

VI. Mitigation Measures

• Identifies mitigation measures and significant residual negative impacts that cannot be mitigated and, to the extent possible, assesses the acceptability of those residual negative impacts.
• Identifies differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable.
• Assesses the feasibility of mitigating the environmental and social impacts; the capital and recurrent costs of proposed mitigation measures, and their suitability under local conditions; and the institutional, training, and monitoring requirements for the proposed mitigation measures.
• Specifies issues that do not require further attention, providing the basis for this determination.

VII. Analysis of Alternatives

• Systematically compares feasible alternatives to the proposed project site, technology, design, and operation—including the "without project" situation—in terms of their potential environmental and social impacts.
• Assesses the alternatives 'feasibility of mitigating the environmental and social impacts; the capital and recurrent costs of alternative mitigation measures, and their suitability under local conditions; and the institutional, training, and monitoring requirements for the alternative mitigation measures.
• For each of the alternatives, quantifies the environmental and social impacts to the extent possible, and attaches economic values where feasible.

VIII. Design Measures

• Sets out the basis for selecting the particular project design proposed and specifies the applicable levels and approaches to pollution prevention and abatement that are consistent with GIIP.

IX. Key Measures and Actions for the Environmental and Social Commitment Plan (ESCP)

• Summarizes key measures and actions and the timeframe required for the project to meet the requirements of the ESSs. This will be used in developing the [ESCP].

X. Appendices

• List of the individuals or organizations that prepared or contributed to the environmental and social assessment.
• References—setting out the written materials both published and unpublished, that have been used.
• Record of meetings, consultations and surveys with stakeholders, including those with affected people and other interested parties. The record specifies the means of such stakeholder engagement that were used to obtain the views of affected people and other interested parties.
• Tables presenting the relevant data referred to or summarized in the main text.
• List of associated reports or plans.

ANNEX 5.4: Environmental and Social Code of Practices (ESCOP)

1. Objectives

This Environmental and Social Codes of Practice (ESCOP) is prepared to manage small environmental impacts during construction. The ESCOPs will apply to manage small scale infrastructure investments which to develop and support water supply system operated by Private Water Operators. ESCOP will be a mandatory part of construction contract or bidding documents so that contractor complies with environmental covenants. The PMUs of MISTI and MPWT and construction supervisors will be responsible for monitoring of compliance with ESCOP and preparing the required reports.

2. Responsibilities

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

(a) The PMUs of MISTI and MPWT

- The PMUs of MISTI and MPWT are responsible for ensuring that the ESCOP is effectively implemented. The MISTI and MPWT 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 PMUs of MISTI and MPWT, 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, medical 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 ESCOPs. Failure to do so could result in penalties or dismissal.
Pre-Construction	
Initial Checklist	• That these ESCOPs 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 demolished construction should kept as property of the health facility (health center or referral hospital) and shall be stored in the storage area provided. • The Contractor shall dispose of all construction materials/rubbish from the demolition/construction away from the hospital property.

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 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 chiselling 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 ESCOPs 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. • Controlvehiclespeedwhendrivingthroughcommunityareassothatdustdispersion 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	• 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, mould, 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.
	• 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).
	  o Do as much work as possible from the ground.
	  o Only allow people with sufficient skills, knowledge, and experience to perform the construction activity.
	  o 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.
	  o 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 prevent COVID transmission, hand sanitizer, physical distancing, etc. as per current government directives.
Incident Reporting	• All Class 1 and Class 2 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. • 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. Implementation of COVID-19 prevention measures following government directives.
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 refuelling area with an approved settling pond/oil trap at the outlet. • As needed, necessary PPE equipment to prevent COVID transmission, hand sanitizer, physical distancing, etc. as per current government directives.
COVID-19 Measures for Workers	• Develop a COVID-19 protocol and management system. • Conduct pre-employment health checks. Implement COVID-19 screening questions and conduct temperature checks if required. • Control entry and exit from site/workplace. • Review accommodation arrangements, to see if they are adequate and designed to reduce contact with the community. • Review contract durations, to reduce the frequency of workers entering/exiting the work site. • Rearrange work tasks or reducing numbers on the worksite to allow social/physical distancing, or rotating workers through a 24-hour schedule. • Provide appropriate forms of personal protective equipment (PPE) – masks, face shields, gloves. • Train workers on hygiene and other preventative measures and implement a communication strategy for regular updates on COVID-19 related issues and the status of affected workers. • Ensure hand washing facilities are available and supplied with soap, disposable paper towels and closed waste bins. Place these at key places throughout the work site, including at entrances/exits to work areas; where there is a toilet, canteen or food distribution, or provision of drinking water; in worker accommodation; at waste stations; at stores; and in common spaces. • Where hand washing facilities do not exist or are not adequate, arrangements should be made to set them up. Alcohol based sanitizer (if available, 60-95% alcohol) can also be used. • Provide treatment for workers who are or should be self-isolating and/or are displaying symptoms. • Put in place alternatives to direct contact, like tele-medicine appointments and live streaming of instructions. • Assess risks to continuity of supplies of medicine, water, fuel, food and PPE, taking into account international, national, and local supply chains. • Ensure safe storage and disposal of all COVID-19 related waste.
COVID-19 Measures for Consultations	• Observe Public Health Protocols
Cultural Heritage	• There shall be 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.

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	◆ 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)

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	◆ 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.

Annex 5.5: Sample Monitoring Checklist

Inspection Participants: (insert names and positions)

ESMP Items	Applies		Compliance			Issue (R)/(O)	Action Required/Taken	Target/Actual Date
	Yes	No						
Mitigation & Management Measures: Construction Phase								
Mitigation measures from ESMP								
Mitigation & Management Measures: Operation and Maintenance Phase								

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

Appendix 6: Labor Management Procedures

Annex 6.1: Labor Management Procedures

[insert LMP document]

Annex 6.2: Outline of Contractor LMP as Part of C-ESMP

Annex 6.3: OHS Guidelines

The objecive of the Occupational Health and Safety (OHS) guideline is to provide guidance on the:

- Key principles involved in ensuring the health and safety of workers is protected;
- Preparation of Health and Safety plans

The key reference document for this Guideline is the World Bank Group's *Environmental, Health, and Safety (EHS) Guidelines* (April 2007)[17] and the World Bank's ESS 4.

1. Principles

Employers must take all reasonably practicable steps to protect the health and safety of workers and provide and maintain a safe and healthy working environment. The following key principles are relevant to maintaining worker health and safety:

1.1 Identification and assessment of hazards

Each employer must establish and maintain effective methods for:

- Systematically identifying existing and potential hazards to employees;
- Systematically identifying, at the earliest practicable time, new hazards to employees;
- Regularly assessing the extent to which a hazard poses a risk to employees.

1.2 Management of identified hazards

Each employer must apply prevention and control measures to control hazards which are identified and assessed as posing a threat to the safety, health or welfare of employees, and where practicable, the hazard shall he eliminated. The following preventive and protective measures must be implemented order of priority:

- Eliminating the hazard by removing the activity from the work process;
- Controlling the hazard at its source through engineering controls;
- Minimizing the hazard through design of safe work systems;
- Providing appropriate personal protective equipment (PPE).

The application of prevention and control measures to occupational hazards should be based on comprehensive job safety analyses (JSA). The results of these analyses should be prioritized as part of an action plan based on the likelihood and severity of the consequence of exposure to the identified hazards.

1.3 Training and supervision

Each employer must take all reasonably practicable steps to provide to employees (in appropriate languages) the necessary information, instruction, training and supervision to protect each employee's health and to manage emergencies that might reasonably be expected to arise in the course of work. Training and supervision include the correct use of PPE and providing employees with appropriate incentives to use PPE.

1.4 General duty of employees

Each employee shall:

- Take all reasonable care to protect their own and fellow workers health and safety at the workplace and, as appropriate, other persons in the vicinity of the workplace;
- Use PPE and other safety equipment supplied as required; and
- Not use PPE or other safety equipment for any purpose not directly related to the work for which it is provided.

1.5 Protective clothing and equipment

Each employer shall:

- Provide, maintain and make accessible to employees the PPE necessary to avoid injury and damage to their health;
- Take all reasonably practicable steps to ensure that employees use that PPE in the circumstances for which it is provided; and
- Make provision at the workplace for PPE to be cleaned and securely stored without risk of damage when not required.

2. Design

[17] www.ifc.org/ehsguidelines

Effective management of health and safety issues requires the inclusion of health and safety considerations during design processes in an organized, hierarchical manner that includes the following steps:

- Identifying project health and safety hazards and associated risks as early as possible in the project cycle including the incorporation of health and safety considerations into the worksite selection process and construction methodologies;
- Involving health and safety professionals who have the experience, competence, and training necessary to assess and manage health and safety risks;
- Understanding the likelihood and magnitude of health and safety risks, based on:
    - The nature of the project activities, such as whether the project will involve hazardous materials or processes;
    - The potential consequences to workers if hazards are not adequately managed;
- Designing and implementing risk management strategies with the objective of reducing the risk to human health;
- Prioritizing strategies that eliminate the cause of the hazard at its source by selecting less hazardous materials or processes that avoid the need for health and safety controls;
- When impact avoidance is not feasible, incorporating engineering and management controls to reduce or minimize the possibility and magnitude of undesired consequences;
- Preparing workers and nearby communities to respond to accidents, including providing technical resources to control such events effectively and safely, in particular relating to traffic;
- Improving health and safety performance through a combination of ongoing monitoring of facility performance and effective accountability.

3. Implementation

3.1 Documentation

A Health and Safety Plan must be prepared and approved prior to any works commencing on site. The H&S Plan must demonstrate the Contractor's understanding of how to manage safety and a commitment to providing a workplace that enables all work activities to be carried out safely. The H&S Plan must detail reasonably practicable measures to eliminate or minimize risks to the health, safety and welfare of workers, contractors, visitors, and anyone else who may be affected by the operations. The H&S Plan must be prepared in accordance with the World Bank's EH&S Guidelines and the relevant country health and safety legislation.

3.2 Training and Awareness

Provisions should be made to provide health and safety orientation training to all new employees to ensure they are apprised of the basic site rules of work at / on the site and of personal protection and preventing injury to fellow employees. Training should consist of basic hazard awareness, site-specific hazards, safe work practices, and emergency procedures for fire, evacuation, and natural disaster, as appropriate. Training should also include HIV/AIDS awareness training. Visitors are not permitted to access to areas where hazardous conditions or substances may be present, unless appropriately inducted.

3.3 Personal Protective Equipment (PPE)

Personal Protective Equipment (PPE) provides additional protection to workers exposed to workplace hazards in conjunction with other facility controls and safety systems. PPE is considered to be a last resort that is above and beyond the other facility controls and provides the worker with an extra level of personal protection. The table below presents general examples of occupational hazards and types of PPE available for different purposes. Recommended measures for use of PPE in the workplace include:

- Active use of PPE if alternative technologies, work plans or procedures cannot eliminate, or sufficiently reduce, a hazard or exposure;
- Identification and provision of appropriate PPE that offers adequate protection to the worker, coworkers, and occasional visitors, without incurring unnecessary inconvenience to the individual;
- Proper maintenance of PPE, including cleaning when dirty and replacement when damaged or worn out. Proper use of PPE should be part of the recurrent training programs for Employees
- Selection of PPE should be based on the hazard and risk ranking described earlier in this section, and selected according to criteria on performance and testing established.

Objective	Workplace Hazards	Suggested PPE
Eye and face protection	Flying particles, molten metal, liquid chemicals, gases or vapors, light radiation.	Safety Glasses with side-shields, protective shades, etc.
Head protection	Falling objects, inadequate height clearance, and overhead power cords.	Plastic Helmets with top and side impact protection.

Hearing protection	Noise, ultra-sound.	Hearing protectors (ear plugs or ear muffs).
Foot protection	Falling or rolling objects, pointed objects. Corrosive or hot liquids.	Safety shoes and boots for protection Against moving & falling objects, liquids and chemicals.
Hand protection	Hazardous materials, cuts or lacerations, vibrations, extreme temperatures.	Gloves made of rubber or synthetic materials (Neoprene), leather, steel, insulating materials, etc.
Respiratory protection	Dust, fogs, fumes, mists, gases, smokes, vapors.	Facemasks with appropriate filters for dust removal and air purification (chemicals, mists, vapors and gases). Single or multi-gas personal monitors, if available.
	Oxygen deficiency	Portable or supplied air (fixed lines). On-site rescue equipment.
Body/leg protection	Extreme temperatures, hazardous materials, biological agents, cutting and laceration.	Insulating clothing, body suits aprons etc. of appropriate materials.

4. Monitoring

Occupational health and safety monitoring programs should verify the effectiveness of prevention and control strategies. The selected indicators should be representative of the most significant occupational, health, and safety hazards, and the implementation of prevention and control strategies. The occupational health and safety monitoring program should include:

- **Safety inspection, testing and calibration**: This should include regular inspection and testing of all safety features and hazard control measures focusing on engineering and personal protective features, work procedures, places of work, installations, equipment, and tools used. The inspection should verify that issued PPE continues to provide adequate protection and is being worn as required.
- **Surveillance of the working environment**: Employers should document compliance using an appropriate combination of portable and stationary sampling and monitoring instruments. Monitoring and analyses should be conducted according to internationally recognized methods and standards.
- **Surveillance of workers health**: When extraordinary protective measures are required (for example, Against hazardous compounds), workers should be provided appropriate and relevant health surveillance prior to first exposure, and at regular intervals thereafter.
- **Training**: Training activities for employees and visitors should be adequately monitored and documented (curriculum, duration, and participants). Emergency exercises, including fire drills, should be documented adequately.
- **Accidents and Diseases monitoring**. The employer should establish procedures and systems for reporting and recording:
    - Occupational accidents and diseases
    - Dangerous occurrences and incidents

These systems should enable workers to report immediately to their immediate supervisor any situation they believe presents a serious danger to life or health. Each month, the contractor shall supply data on trainings delivered, safety incidents prevented and any accidents to the Client's Consulting Engineer for reporting to the MISTI/MPWT. These data are to also include incidents related to any sub-contractors working directly, or indirectly, for the Contractor.

5. Incidents Procedure

The MISTI/MPWT and DDIS shall be notified of any incident in accordance with the standards below:

Incident Severity Class	Incident Classification	Notification Timeframe
Class 1	Fatality	As soon as possible
	Notifiable injury, illness or incident	Notification Timeframe
Class 2	Lost time injury	As soon as possible
	Medical treatment	Within 72 hours

MISTI/MPWT 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.

Thus, all Class 1 and Class 2 health and safety incidents must be formally investigated and reported to the MISTI/MPWT and the World Bank through an investigation report. This report shall be based on a sufficient level of investigation by the Contractor so that all the essential factors are recorded. 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, injury, damage;
- Corrective actions with clearly defined timelines and people responsible for implementation;
- Recommendations for further improvement.

Appendix 7: Contingency Emergency Response Component

See a standalone CERC which is developed and disclosed for the project.

Appendix 8: Water Supply and Sanitation Acceleration Project (WASAC)

Virtual Public Consultation held on April 10,2023

April 10,2023: Virtual public consultation was held with two sessions, MPWT (PMU-2) for the morning session and MISTI (PMU-1) for the afternoon one. The participants included representatives from the provincial and municipal administrations, Provincial Departments of the Environment, Tourism, Health, Water Supply, Public Works and Transport, Planning, Electricity, Posts and Telecommunication, Land Management, Urban Planning and Construction, Water Resources and Meteorology, Agriculture, Forestry and Fisheries and Local Authorities.

Process of the full consultation

The consultation started with the opening remarks by PMU-2's Project Director (Morning Session) and PMU-1's Project Manager (Afternoon Session) who welcomed all the participants and stressed with the main purposes of today's consultation with the highlights of the significance and needs for the consultation for WASAC's ESF instruments with relevant stakeholders including the brief of the project's background, the status, the benefit and encouraged for the full participation from all the participants followed by the self-introduction and slide presentation conducted by the Project's E&S Safeguards Consultants on the project's background , each subproject's locations, the project's benefit, beneficiaries, the requirements for the WB's ESF including the 10 WB's ESS, the necessary safeguards documents required during the project's preparation stage and how the impacts are classified by the WB's ES standards (High, Substantial, Moderate and Low), positive and negative impacts during the construction works, the impact mitigation measures, compensation of the AP's affected assets, consideration on the vulnerable APs and IPs if any, the process of the Grievance Redress Mechanism (GRM) dealing with any complaint during the construction works and the full discussion with Q and A were recorded in the below tables (Table-1 for PMU-2 and Table -2 for PMU-1) and the consultation was closed at 11.30 am (morning session) by Mr. Lun Heng, the PMU-2's Project Manager and at 4:30 pm (Afternoon Session) by PMU-1's Project Manager who wrapped up with the key topics/purposes and the fruitful results that were consulted and thanked all the participants for their full participation with questions, concerns, suggestions and ended up with the 4 Buddha's Blessings to all participants and wished everyone with the enjoyment of the upcoming Khmer New Year.

Table 1: The Full Discussion for Sanitation under PMU-2

Participants	Questions/Impressions	Answers/Responses
Mr. Keo Savy, Deputy Director of DoRAM from Kandal Province	Regarding to the compensation on the affected assets including the structures, fruit trees and crops on right of way or land use on the river bank, will the project compensate for the soil used for backfilling the land use on the river bank?	Safeguard Consultant: The RoW or Land Use belongs to the state and from our practice, land use (ROW) is not compensated. However, referring to compensation of the soil used for backfilling the land use, it will be responsible and carried out by GDR of MEF, so is not under the responsibility of the project Mrs. Kem Sokuntheary, Deputy Director, Battambang Provincial Department of Public Works and Transport: The experience with national budget, there is no compensation on soil used for backfilling the land use/RoW as it is illegal to do that because it blocks the water flow and makes the river narrower. The owner can take the soil back before the project commences the civil work. Safeguard Consultant: As you said, it is illegal but based on WB safeguards policy, it is slightly different.
Battambang Provincial Administration	The experience from the improvement of 6km-long canal for five Sangkats in Battambang city with 17 AHs, there was no compensation for them under the national budget. My question is: Will there be any compensation for such a case?	Safeguard Consultant: That project was not under the WB-financed project, it was under the government's one, for such a case, there is no compensation. But if it is under the scope of WB or any DP-financed project, the compensation will be applied.
Deputy Director of Provincial Department of MISTI in Kandal	In Sangkat Svay Rolum, in Takhmau, I think there will be many impacts of the sewerage installing that will affect the existing water supply pipe lines.	Wastewater Engineer: We would like to inform that there is a separate storm drainage and sewerage system. There will be a consulting firm to conduct the detailed engineering design (DED) to avoid the damage on existing water pipe lines and other existing utilities.
Chief of Technical office from Pursat DPWT	Will it be a separate system or combined system? And what is the status of this project?	Wastewater Engineer: The project will focus on a separate system between the storm drainage and sewerage with the sewer connection from households to tertiary/secondary sewers/main trunk and to WWTP with a different storm drainage line.
	Will the installation of sewerage and storm drainage lines be at the same time or different? Because we do not want to have repeated disturbance to	Wastewater Engineer: Both sewerage and storm drainage lines are in one package, so it will be installed at the same time. As the WWTP will be around 5km away from the town and if we use the gravity flow, we need at least 10 m depth which will be

	local people. Will the system use the pumping or gravity flow? We prefer gravity flow as there will be erosion and the damage while using the pumping system.	costly and hard for maintenance, so pumping stations are still needed, but we will minimize the number of pumping stations and we will try to have one only.
	For the subproject in Pursat town, I heard that the natural lake (Krang Takao Lake) has been proposed for WWTP. However, the lake is being used by local farmers (rice/crop planting and fishing). I am afraid that these farmers will be adversely impacted. Will there be an alternative which can be a further one?	Safeguard Consultant: The land use at the lake does not belong to those farmers, it belongs to the state. However, under our project, if WWTP has to be there, we will try to minimize the impacts during the DED and if cannot be avoided, there will be compensation or allowance for the affected rice/crops and business over there. Wastewater Engineer: We will consider on finding an alternative place for WWTP beside that lake if there are impacts as mentioned, anyway, we have not visited that lake yet. To select the land site, the site should be not too far, not too low, not too muddy as it will increase the construction cost for raising the level of the land (backfilling). We will visit that lake later and keep you informed.
Pursat Provincial Administration	We support the project and safeguards policies. Also, we would like to request for specific assessment papers and design on location, network and so on.	Safeguard Consultant: As we informed, our project is under the preparation stage. So, currently we do not have any specific assessment papers and others as you suggested, it will take some more time to proceed further.

Table 2: The Full Discussion for Water Supply under PMU-1

Participants	Questions/Impressions	Answers/Responses
Chairman of Pusat DISTI	We have had our experiences with ADB and JICA's projects and we are happy to have World Bank's project in our province and we will fully support the project through sharing information and coordination, especially the coordination works related to resettlement and compensation to affected persons (APs) if any.	Safeguard Consultant: Thank you very much for your commitment in assistance and coordination with our project.
Pursat Provincial Department of Environment	We understand that there is limited information related to specific sites of the project as now the project is in the preparation stage, we would like to request for detailed assessment papers or	Safeguard Consultant: Thank you so much for raising this suggestion. As you know that our project is now in the preparation stage, so there is limited assessment to be shared as the specific sites and service area have not been confirmed. We will share and

	concrete information to be shared with us if available.	seek for comments when there is a concrete assessment in the implementation stage and there will be more discussion meetings and consultation to be held later as well.
Chairman from Pusat DoRAM	We would like to share our experiences related to project under MoRAM. It is related to compensation issue which affected persons did not have full amount compensation as confirmed in the agreements. Thus, more efforts for coordination were put to solve the issues. Thus, we suggest that there will be no this kind of issues for World Bank's project.	Safeguard Consultant: Thank you for sharing your experiences. For sure, the project will stick to the WB's Policies. However, we would like to stress that the project will be financed by the WB, but the compensation to the affected assets belonging to the APs will be responsible by GDR of MEF before the commencement of the civil works and any compensation arises during the construction works will be responsible by the contractor. As principle, the project will not start if the compensation to the affected assets is not yet paid.
Chairman of Pusat DISTI	Is it true that the project will not start if the compensation is not yet done?	Safeguard Consultant: Based on World Bank's Framework, also ADB and other DPs, the civil works will not be permitted to start if the compensation is not yet done.
	Based on experiences, the remaining land parcel after compensation, it takes years to get new land title, so local people have challenges with getting a loan without land title of their remaining land.	Safeguard Consultant: We will take note on this issue. We strongly hope that our project will be much better in dealing with similar situation if it arises.
	We found out with another project that the water pipe has been attached to the inner part of the bridge and it might cause impacts to the bridge with more weight or might cause some accidents or incidents. Will our project practice the same technique?	Water Engineering Consultant: From my experience, the water pipe should be hung outside or under the bridge and not directly attached to the bridge. Such a practice will not have any impacts to the bridge.
	We would like also to request for consideration that during the construction and installation of water pipe, drainage, sewer lines, road construction and other utilities that these works always disturb the residents with the traffic flow, local business disruption, access roads to households. It would nice if these works could be done at the same time to avoid repeated disturbance and disruption.	Safeguard Consultant: Thank for raising this concern, but the budget sources and availability for these constructions and installation comes from different sources of loan, fund and implemented under different IA/NGOs or Ministries that is why they could not be implemented together at once.

Representative from Pursat Fisheries Administration	It seems that there is no specific site for the study and assessment yet related to the project. Any update from the project?	Safeguard Consultant: As been informed that it is now at the beginning stage/preparation stage. As seen in the slide presentation, the coverage area of the water supply's subproject will be on the eastern side of Pursat river within 03 Sangats as mentioned earlier for the water pipe distribution. It seems the state land for WTP will not be available. So, the private land will be applied and we need to further study for the selected site and to procure the private land will be carried out and done by the GDR of MEF and after the land site is confirmed, the DED will be then carried out by the engineer.
Battambang Deputy Governor	Based on experiences with ADB, JICA (NR5), Korea, we would like to suggest to improve as follows (1) Contractor shall share a construction schedule with local authorities and local people and any digging should be done on the same day; (2) more public consultations.	Safeguard Consultant: Following ESCOP/ESMP, the contract shall complete the digging work and backfilling work on the same day and there will be more discussion meetings and public consultation to be conducted with relevant stakeholders for the information disclosure and also to get their feedback, suggestion and their support before the civil work commencement.
Representative from Battambang Fisheries Administration	Local people at upstream of Sangkae river have been encouraged by Provincial Fisheries Administration to raise fishes (Aquaculture) inside the Sangkae river and about 50 families are raising fish. There was a request from Battambang Waterwork to the Provincial Administration to ask them stop raising fishes inside the river as it badly causes water pollution, especially in the dry season. Moreover, The Provincial Governor and his subordinates visited the site and decided not to allow those families to raise fish inside the river anymore by the end of this year. Will those families be compensated for losing their fish farms? As they will need the budget for moving to a new location plus the cost of the materials.	Representative from Battambang Administration: We have discussed and issued a letter to ask those families to stop raising fish inside the river (Aquaculture) and they agreed with us, but they later changed their mind not to sign or give the thumbprint on the papers. Battambang Deputy Governor: Actually, there was no permission for raising fish inside the river, this is an illegal activity and it does not make sense as now the water is being polluted all the way down from the upstream which has impacted thousands of families downstream. So, for sure, there will be no compensation and they have been given time to remove the farms by the end of this year.

Annex 1: PC Leaflet under PMU-2

ខិត្តប័ណ្ណព័ត៌មានស្តីពី
គម្រោងជំរុញការផ្គត់ផ្គង់ទឹកស្អាត និងអនាម័យ

THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

សាវតាររបស់គម្រោង

គម្រោងជំរុញការផ្គត់ផ្គង់ទឹកស្អាត និងអនាម័យ មានគោលបំណងដើម្បីបង្កើនលទ្ធភាពផ្គត់ផ្គង់ទឹកស្អាត សេវាកម្មអនាម័យ និងពង្រឹងដំណើរការប្រត្តិបត្តិការរបស់អ្នកផ្តល់សេវាកម្មនៅតាមទីក្រុង ឬតំបន់ដែលបានជ្រើសរើស។

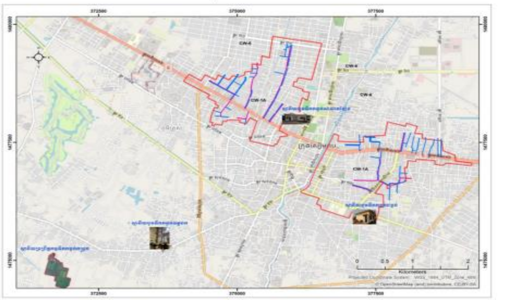
គម្រោងនេះមានសមាសភាគពីរគឺៈ (១) គាំទ្រដល់ការផ្គត់ផ្គង់ទឹកស្អាតនៅតាមខេត្ត ក្រុង និងឃុំសង្កាត់នានា (២) គាំទ្រដល់ការលើកកម្ពស់អនាម័យក្នុងក្រុងសៀមរាប និងតំបន់ផ្សេងៗទៀត។ សមាសភាគនីមួយៗត្រូវបានបែងចែកទៅជាក្រុមវិនិយោគលើហេដ្ឋារចនាសម្ព័ន្ធរូបវ័ន្ត និងក្រុមពង្រឹងសមត្ថភាពស្ថាប័នពាក់ព័ន្ធ ការអនុវត្តគោលនយោបាយ និងគម្រោង។

សមាសភាគទី១ៈ ការផ្គត់ផ្គង់ទឹកស្អាត

សមាសភាគទី២ៈ ការលើកកម្ពស់អនាម័យក្នុងក្រុងសៀមរាប (ថវិការសរុប ២៥,៥លានដុល្លារអាមេរិក)

សមាសភាគទី២នេះ ផ្តោតលើការផ្តល់នូវប្រព័ន្ធបណ្តាញលូទឹកកខ្វក់ តំណរភ្ជាប់ពីលំនៅដ្ឋានទៅបណ្តាញលូសាធារណៈ ការកែលម្អស្ថានីយបូមទឹកកខ្វក់ដែលមានស្រាប់ ចំនួន៣កន្លែង និងសាងសង់ថ្មីចំនួន២កន្លែង និងការកែលម្អស្ថានីយប្រព្រឹត្តកម្មទឹកកខ្វក់បច្ចុប្បន្ន។

ផែនទីចង្អុលទីតាំងរបស់គម្រោង



ទីតាំងគម្រោង

ទីតាំងដែលនឹងត្រូវអនុវត្តគម្រោង គ្របដណ្តប់ចំនួន ០៤សង្កាត់ៈ សង្កាត់គោកចក សង្កាត់ស្វាយដង្គំ សង្កាត់ស្លក្រាម និងសង្កាត់សាលាកំរើក។

រយៈពេលនៃការសាងសង់

គម្រោងនេះបានចាប់ផ្តើមការសាងសង់នៅដើមខែកញ្ញា ឆ្នាំ២០២២ ហើយគ្រោងនឹងបញ្ចប់ការសាងសង់នៅដើមឆ្នាំ២០២៤។

គោលនយោបាយគាំពាររបស់ធនាគារពិភពលោក

រាជរដ្ឋាភិបាលកម្ពុជាបានស្នើសុំកិច្ចសហការពីធនាគារពិភពលោក សម្រាប់ផ្តល់មូលនិធិដល់ការអនុវត្តគម្រោងអនាម័យនេះតាមរយៈកម្ចីសម្បទាន។ គោលនយោបាយគាំពាររបស់ធនាគារពិភពលោក (World Bank) មានគោលបំណងដើម្បីធានាថា គម្រោងអភិវឌ្ឍន៍នានាដែលទទួលបានការគាំទ្រពីធនាគារពិភពលោក គឺត្រូវប្រកាន់ខ្ជាប់នូវកិច្ចការពារបរិស្ថាន និងសង្គមឱ្យបានប្រសើរ។ ការអនុវត្តគោលនយោបាយការពារហេតុប៉ះពាល់ប្រកបដោយប្រសិទ្ធភាព នោះវានឹងបណ្តាលឱ្យគម្រោងនេះ ឆ្លើយតបទៅនឹងតម្រូវការផ្នែកបរិស្ថាន និងសង្គម ហើយស្របទៅនឹងយុទ្ធសាស្ត្រអភិវឌ្ឍន៍ប្រកបដោយចីរភាពរបស់ប្រទេសទៀតផង។

ការប្រជុំផ្សព្វផ្សាយក្នុងតំបន់គម្រោង

អ្នកជំនាញផ្នែកបរិស្ថាន និងសង្គម រួមជាមួយវិស្វករដែលកំពុងធ្វើការក្នុងដំណាក់កាលអនុវត្តគម្រោង បាននឹងកំពុងធ្វើការប្រជុំផ្សព្វផ្សាយជាសាធារណៈ ជាមួយប្រជាពលរដ្ឋ និងភាគីពាក់ព័ន្ធទាំងអស់នៅក្នុងតំបន់គម្រោង ដែលមានការចូលរួមពីតំណាងរដ្ឋបាលឃុំ មេភូមិ និងប្រជាពលរដ្ឋមកពីតំបន់គោលដៅ។ អ្នកចូលរួមទាំងអស់អាចសាកសួររាល់សំណួរ និងចម្ងល់ផ្សេងៗ ឬកង្វល់របស់ពួកគេទាក់ទងនឹងគម្រោងទៅកាន់ក្រុមកាងារអនុវត្តគម្រោង។ គោលបំណងនៃកិច្ចប្រជុំនេះ គឺដើម្បីផ្សព្វផ្សាយ និងប្រមូលព័ត៌មានសំខាន់ៗ ពីប្រជាពលរដ្ឋដែលរងហេតុប៉ះពាល់ក៏ដូចជាអាជ្ញាធរមូលដ្ឋានអំពីបញ្ហានានាទាក់ទងនឹងបរិស្ថាន និងសង្គមក៏ដូចជាផ្នែកបច្ចេកទេស និងដើម្បីពិភាក្សាអំពីហេតុប៉ះពាល់គម្រោងដែលអាចកើតមាន ក៏ដូចជាតម្រូវការចាំបាច់នៃវិធានការកាត់បន្ថយនឹងត្រូវបានអនុម័ត និងអនុវត្តរួមជាមួយនឹងបណ្តឹងសារទុក្ខ និងលេខទូរស័ព្ទសម្រាប់ទំនាក់ទំនងក្នុងករណីមានទំនាស់ណាមួយកើតឡើង។

ហេតុប៉ះពាល់វិជ្ជមាន និងអវិជ្ជមាននៃគម្រោង

ចំពោះហេដ្ឋារចនាសម្ព័ន្ធអនាម័យ ដែលនឹងត្រូវសាងសង់សម្រាប់អនុគម្រោងនេះ គឺមានការសាងសង់ជីកកប់បំពង់លូខ្នែង ខ្នែងរង អណ្តូងលូ និងរចនាសម្ព័ន្ធដទៃទៀត ការតបណ្តាញលូភ្ជាប់ពីលំនៅដ្ឋាននីមួយៗទៅបណ្តាញលូសាធារណៈ។ នៅតាមបណ្តោយផ្លូវ នឹងមានការជីកដាក់បំពង់លូខ្នែង ខ្នែងរង និងមានការជីកដាក់លូភ្ជាប់ពីលំនៅដ្ឋាននៅតាមបិញ្ជើមផ្លូវ។

ហេតុប៉ះពាល់វិជ្ជមានៈ គម្រោងនឹងផ្តល់អត្ថប្រយោជន៍ជាច្រើន ជាពិសេសសោភ័ណភាព និងសុខុមាលភាពសាធារណៈ កែលម្អជីវភាពរស់នៅ និងបរិស្ថាននៅក្នុងទីក្រុង។ គេរំពឹងថា ការភ្ជាប់បណ្តាញលូទឹកកខ្វក់សាធារណៈសម្រាប់គ្រប់លំនៅដ្ឋាននឹងកាត់បន្ថយបាននូវការឆ្លងនូវជំងឺផ្សេងៗ ដែលធ្វើឱ្យប្រជាពលរដ្ឋសន្សំបាននូវថវិការមួយចំនួន។ ការភ្ជាប់បណ្តាញលូទឹកកខ្វក់សាធារណៈ សម្រាប់គ្រប់លំនៅដ្ឋាន និងលើកកម្ពស់សោភ័ណភាពទីក្រុង ដែលទាក់ទាញឱ្យមានកំណើនភ្ញៀវទេសចរ ដែលជាប្រភពចំណូលរបស់ប្រជាពលរដ្ឋក្នុងតំបន់។

ហេតុប៉ះពាល់អវិជ្ជមានៈ នឹងមានហេតុប៉ះពាល់អវិជ្ជមានបន្តិចបន្តួច និងមានលក្ខណៈជាបណ្តោះអាសន្នទៅលើផ្នែកបរិស្ថាន និងសង្គម ដែលបណ្តាលមកពីការអនុវត្តអនុគម្រោងនេះ។ ហេតុប៉ះពាល់នេះបណ្តាលមកពីសកម្មភាពនៃការសាងសង់ ប៉ុន្តែហេតុប៉ះពាល់អាចកាត់បន្ថយបាន ដោយអនុវត្តវិធានការបទដ្ឋានកិច្ចការសំណង់ ដូចជាការគ្រប់គ្រងធូលីតាមរយៈការស្រោចទឹក ការគ្រប់គ្រងការព្រោះបាក់ដី ការសម្អាតផ្លូវ និងផ្តល់នូវផ្លូវឆ្លងបណ្តោះអាសន្ន។ ហេតុប៉ះពាល់ក្នុងពេលសាងសង់ និងការប្រត្តិបត្តិ ត្រូវត្រួតពិនិត្យ និងពិគ្រោះយោបល់ជាមួយក្រុមហ៊ុនសាងសង់ និងភាគីពាក់ពន្ធ័ជាមួយវិធានការកាត់បន្ថយហេតុប៉ះពាល់ និងផែនការគ្រប់គ្រងបរិស្ថាន និងសង្គម។

ហេតុប៉ះពាល់ដំណាក់ការសាងសង់ និងវិធានការកាត់បន្ថយ
ហេតុប៉ះពាល់ដែលអាចកើតឡើងក្នុងពេលសាងសង់មានដូចខាងក្រោមៈ

- សំលេងរំខាន និងរំញ័រពីគ្រឿងចក្រ ចំពោះទីតាំងដែលនៅក្បែរ ឬជិតការដ្ឋាន ដូចជាអគារមន្ទីរពេទ្យ សាលារៀន និងលំនៅដ្ឋាន
- អាចបង្កឱ្យប៉ះពាល់ដល់គុណភាពខ្យល់ ហុយដោយសារការប្រើប្រាស់គ្រឿងចក្រ ឧ. ផ្សែង និងធូលីដី
- អាចមានការហាមឃាត់ការចូលទៅកាន់បរិវេណការដ្ឋានជាបណ្តោះអាសន្ន ក្នុងអំឡុងពេលសាងសង់
- អាចបង្កឱ្យមានការខូចខាតរបង ឬដំបូលសំយាបបន្តិចបន្តួច ។ល។
- អាចបង្កើតឱ្យមានសំណល់រឹង សំណល់រាវនានា
- អាចបង្កឱ្យមានទំនាស់រវាងកម្មករ និងកម្មករ ឬ កម្មករ ជាមួយសហគមន៍មូលដ្ឋាន
- អាចប៉ះសុខភាព សុវត្ថិភាពរបស់បុគ្គលិក កម្មករ និងសហគមន៍

ប្រតិបត្តិតាមវិធានការកាត់បន្ថយ ដើម្បីកាត់បន្ថយហេតុប៉ះពាល់រួមមានៈ

- ការអនុម័តម៉ោងធ្វើការតាមបទដ្ឋាន និងកំណត់រយៈពេលនៃសកម្មភាពដែលបង្កមានសំឡេងរំខាន នៅពេលចាំបាច់
- ការយកចិត្តទុកដាក់ដើម្បីកាត់បន្ថយសម្លេងរំខានទាំងនេះឱ្យអស់លទ្ធភាពតាមដែលអាចធ្វើបាន
- ការថែទាំគ្រឿងចក្រឱ្យបានស្អាត បាញ់ទឹកស្រោចដីក្នុងការដ្ឋាននៅពេលចាំបាច់
- ការរក្សាទុកផ្លូវបណ្តោះអាសន្ន អាចចេញចូលទៅទីកន្លែងសំខាន់ដូចជា ទីតាំងអាជីវកម្ម និងលំនៅដ្ឋានក្នុងអំឡុងពេលសាងសង់ និងត្រូវមានអ្នកបញ្ជាចរាចរណ៍ប្រចាំការ
- បរិមាណការងារ និងចំណាយទាក់ទងនឹងការជួសជុលរបង និងទីធ្លាមុខផ្ទះ ការចំណាយនឹងត្រូវដាក់បញ្ចូលក្នុងកិច្ចសន្យាការងារសាងសង់ ដើម្បីធានាថាក្រុមហ៊ុនសាងសង់នឹងជួសជុលឱ្យបានល្អឡើងវិញ ឬល្អប្រសើរជាងមុនប្រៀបធៀបទៅមុនពេលចាប់ផ្តើមការសាងសង់
- ការស្តុកទុកសំណល់រឹងនៅក្នុងធុង និងការកប់សំរាមនៅទីតាំងដែលមានការអនុញ្ញាតត្រឹមត្រូវ។
- ក្រុមហ៊ុនសាងសង់ត្រូវគ្រប់គ្រងកម្មករឱ្យបានល្អ ជៀសវាង មានទំនាស់រវាងកម្មករ និងកម្មករ ឬ កម្មករ ជាមួយសហគមន៍មូលដ្ឋាន
- ក្រុមហ៊ុនសាងសង់ត្រូវមានវិធានការ ការពារកម្មករ និងបុគ្គលិក ផ្អែកតាមច្បាប់ការងាររបស់ព្រះរាជាណាចក្រកម្ពុជា
- ក្រុមហ៊ុនសាងសង់ត្រូវមានវិធានការទប់ស្កាត់ការឆ្លងជំងឺផ្សេងៗ ជាពិសេស កូវីដ១៩។

យន្តការដោះស្រាយបណ្តឹងសារទុក្ខ

យន្តការដោះស្រាយបណ្តឹងសារទុក្ខ ត្រូវបានបង្កើតក្រោមគម្រោង ក្នុងគោលបំណងដើម្បីដោះស្រាយរាល់បញ្ហាដែលទាក់ទងនឹងបរិស្ថាន និងសង្គម ក្នុងដំណាក់មុន និងក្នុងអំឡុងពេលសាងសង់។

ដំណាក់កាលទី១ៈ

គ្រួសាររងប៉ះពាល់ត្រូវដាក់ពាក្យបណ្តឹង ឬសំណូមពរទៅកាន់ក្រុមហ៊ុនសាងសង់ ឬ អាជ្ញាធរថ្នាក់ភូមិ ឬ គណៈកម្មការដោះស្រាយបណ្តឹងសារទុក្ខថ្នាក់ឃុំ/សង្កាត់។ គណៈកម្មការនេះនឹងផ្តល់ការបញ្ជាក់ជាលាយលក្ខណ៍អក្សរភ្លាមៗនៅពេលទទួលពាក្យបណ្តឹង។

ប្រសិនបើក្នុងរយៈពេល ១៥ ថ្ងៃ អ្នកទទួលរងផលប៉ះពាល់មិនមានដំណោះស្រាយពីក្រុមហ៊ុនសាងសង់ មេភូមិ មេឃុំ ឬមិនពេញចិត្តចំពោះការសម្រេចចិត្តនៅក្នុងដំណាក់កាលទីនេះទេ ពាក្យបណ្តឹងត្រូវបានដាក់ទៅកាន់គណៈកម្មការដោះស្រាយបណ្តឹងសារទុកថ្នាក់ស្រុក/ខណ្ឌ ឬក្រុមការងារគម្រោងថ្នាក់ខេត្ត ដើម្បីដោះស្រាយបន្ត។

ដំណាក់កាលទី២ៈ

ថ្នាក់ស្រុក ឬ ក្រុមការងារគម្រោងថ្នាក់ខេត្ត មានរយៈពេល១៥ថ្ងៃ ក្នុងការដោះស្រាយពាក្យបណ្តឹងនេះ ដើម្បីបំពេញចិត្តអ្នកដែលពាក់ព័ន្ធទាំងអស់។ ប្រសិនបើពាក្យបណ្តឹងមិនអាចដោះស្រាយបាននៅក្នុងដំណាក់កាលនេះទេ បណ្តឹងនឹងត្រូវបញ្ជូនទៅដោះស្រាយបន្តនៅគណៈកម្មការដោះស្រាយបណ្តឹងតវ៉ាថ្នាក់ខេត្ត ឬ អង្គភាពគ្រប់គ្រងសមាសភាគគម្រោង-២។

ដំណាក់កាលទី៣ៈ

គណៈកម្មការដោះស្រាយបណ្តឹងសារទុក្ខថ្នាក់ខេត្ត ឬ អង្គភាពគ្រប់គ្រងសមាសភាគគម្រោង-២ នៃក្រសួងសាធារណការ និងដឹកជញ្ជូន ជួបជាមួយភាគីដែលមានបញ្ហាហើយព្យាយាមដោះស្រាយបញ្ហានេះក្នុងរយៈពេល១៥ ថ្ងៃ បន្ទាប់ពីការដាក់ពាក្យបណ្តឹង។

ដំណាក់កាលទី៤ៈ

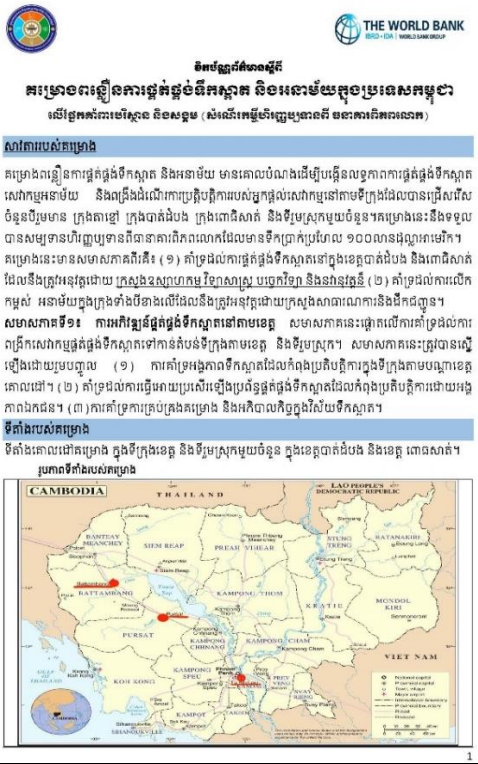
ជាដំណាក់កាលចុងក្រោយជាមួយនឹងនីតិវិធីតុលាការ។ ប្រសិនបើភាគីគ្រួសារដែលរងផលប៉ះពាល់ដោយសារគម្រោងមិនពេញចិត្តចំពោះដំណោះស្រាយ ដែលបានស្នើឡើងដោយគណៈកម្មាធិការដោះស្រាយបណ្តឹងតវ៉ាថ្នាក់ខេត្ត ដោយផ្អែកលើគោលនយោបាយបានព្រមព្រៀងគ្នា គណៈកម្មាធិការត្រូវរៀបចំនីតិវិធីរដ្ឋបាលបញ្ជូនបណ្តឹងរបស់គ្រួសារដែលរងផលប៉ះពាល់ដោយសារគម្រោងទៅកាន់ ការិយាល័យព្រះរាជអាជ្ញាខេត្ត។ សំណុំរឿងនេះនឹងដាក់បញ្ជូនទៅតុលាការខេត្ត ហើយសំណុំរឿងនេះស្ថិតនៅក្រោមការវិនិច្ឆ័យរបស់តុលាការ។ ទន្ទឹមគ្នានោះដែរ គ្រួសារដែលរងហេតុប៉ះពាល់ដោយសារគម្រោងអាចប្តឹងទៅកាន់

តុលាការខេត្ត។ ក្នុងអំឡុងពេលប្តឹងនេះរាជរដ្ឋាភិបាលកម្ពុជានឹងស្នើសុំទៅតុលាការឱ្យដំណើរការគម្រោងប្រកបទៅដោយគ្មានការរំខានខណៈសំណុំរឿងនេះស្ថិតក្នុងដំណាក់កាលជំនុំជម្រះ។ ប្រសិនបើភាគីណាមួយមិនពេញចិត្តនឹងសេចក្តីសម្រេចរបស់សាលាដំបូងខេត្ត ភាគីនោះអាចប្តឹងបន្តទៅសាលាឧទ្ធរណ៍ជាបន្តទៀត។ រាជរដ្ឋាភិបាលកម្ពុជា នឹងអនុវត្តតាមសេចក្តីសម្រេចរបស់សាលដីកាតុលាការ។

សម្គាល់៖ ព័ត៌មានស្តីពីគម្រោង និងយន្តការដោះស្រាយបណ្តឹងសារទុក្ខ នឹងត្រូវបិទផ្សាយនៅទីតាំងសាងសង់ និងសាលាឃុំដោយភ្ជាប់ជាមួយលេខទំនាក់ទំនង។

Annex 2. Project Information Booklet and Slide Presentation under PMU-1

Project Information Booklet



ឯកសារណែនាំគម្រោង

គម្រោងពង្រឹងការផ្គត់ផ្គង់ទឹកស្អាត និងអនាម័យក្នុងប្រទេសកម្ពុជា

លើផ្នែកគាំពារមហិស្ថាន និងសង្គម (សំណើរកម្មវិធីជួយទ្រាន់ពី ធនាគារពិភពលោក)

សារាវរបស់គម្រោង

គម្រោងពង្រឹងការផ្គត់ផ្គង់ទឹកស្អាត និងអនាម័យ មានគោលបំណងដើម្បីបង្កើនលទ្ធភាពការផ្គត់ផ្គង់ទឹកស្អាត សេវាកម្មអនាម័យ និងលទ្ធភាពប្រតិបត្តិការរបស់អ្នកផ្គត់ផ្គង់សេវាកម្មនៅតាមទីក្រុងដែលបានជ្រើសរើស ចំនួនបីរួមមាន ក្រុងតាខ្មៅ ក្រុងបាត់ដំបង ក្រុងពោធិសាត់ និងទីរួមស្រុកមួយចំនួន។ គម្រោងនេះនឹងទទួលបានសម្ភារៈហិរញ្ញប្បទានពីធនាគារពិភពលោកដែលមានទឹកប្រាក់ប្រហែល ១០០លានដុល្លារអាមេរិក។ គម្រោងនេះមានសមាសភាគពីរគឺ៖ (១) គាំទ្រដល់ការផ្គត់ផ្គង់ទឹកស្អាតនៅក្នុងខេត្តបាត់ដំបង និងពោធិសាត់ ដែលនឹងត្រូវអនុវត្តដោយ ក្រសួងឧស្សាហកម្ម វិទ្យាសាស្ត្រ បច្ចេកវិទ្យា និងនវានុវត្តន៍ (ឧ) និង (២) គាំទ្រដល់ការលើកកម្ពស់ អនាម័យក្នុងក្រុងទាំងបីខាងលើដែលនឹងត្រូវអនុវត្តដោយក្រសួងសាធារណការនិងដឹកជញ្ជូន។

សមាសភាគទី១៖ ការអភិវឌ្ឍន៍ផ្គត់ផ្គង់ទឹកស្អាតនៅតាមខេត្ត សមាសភាគនេះផ្តោតលើការគាំទ្រដល់ការពង្រីកសេវាកម្មផ្គត់ផ្គង់ទឹកស្អាតទៅកាន់តំបន់ទីក្រុងតាមខេត្ត និងទីប្រជុំស្រុក។ សមាសភាគនេះត្រូវបានស្នើឡើងដោយម្រេបញ្ចូល (១) ការគាំទ្រអង្គភាពទឹកស្អាតដែលកំពុងប្រតិបត្តិការក្នុងទីក្រុងតាមបណ្តាខេត្តគោលដៅ។ (២) គាំទ្រដល់ការធ្វើអោយប្រសើរឡើងប្រព័ន្ធផ្គត់ផ្គង់ទឹកស្អាតដែលកំពុងប្រតិបត្តិការដោយអង្គភាពឯកជន។ (៣) ការគាំទ្រការគ្រប់គ្រងគម្រោង និងអភិបាលកិច្ចក្នុងវិស័យទឹកស្អាត។

ទីតាំងរបស់គម្រោង

ទីតាំងគោលដៅគម្រោង ក្នុងទីក្រុងខេត្ត និងទីរួមស្រុកមួយចំនួន ក្នុងខេត្តបាត់ដំបង និងខេត្ត ពោធសាត់។

រូបភាពទីតាំងរបស់គម្រោង

1

រយៈពេលនៃការសាងសង់

គម្រោងនេះត្រូវនឹងចាប់ផ្តើមការអនុវត្តចាប់ពីឆ្នាំ ២០២៨ និងមានរយៈពេល ៦ឆ្នាំ។

គោលនយោបាយតាំពាររបស់ធនាគារពិភពលោក

រាជរដ្ឋាភិបាលកម្ពុជាបានស្នើសុំការពីធនាគារពិភពលោក សម្រាប់ផ្តល់មូលនិធិដល់ការអនុវត្តគម្រោងពង្រឹងការផ្គត់ផ្គង់ទឹកស្អាត និងអនាម័យ តាមរយៈកម្ចីសម្បទាន។ គោលនយោបាយតាំពាររបស់ធនាគារពិភពលោក (World Bank) ដើម្បីធានាថាគម្រោងអភិវឌ្ឍន៍ធានាដែលទទួលបានការតាំទ្រពីធនាគារពិភពលោក គឺប្រកាន់ខ្ជាប់នូវកិច្ចការពារបរិស្ថាននិងសង្គមឱ្យបានប្រសើរ។ ការអនុវត្តគោលនយោបាយការពារផលប៉ះពាល់ប្រកបដោយប្រសិទ្ធភាព នោះវានឹងបណ្តាលឱ្យគម្រោងនោះឆ្លើយតបទៅនឹងតម្រូវការផ្នែកបរិស្ថាន និងសង្គម ហើយស្របគ្នានឹងបទពិសោធន៍ការងារ និងគោលការណ៍ណែនាំរបស់ប្រទេសទៀតផង។

ប្រជុំផ្សព្វផ្សាយក្នុងតំបន់គម្រោង

អ្នកជំនាញផ្នែកបរិស្ថាននិងសង្គម ដែលកំពុងធ្វើការនៅជំណាក់កាលអនុវត្តគម្រោង ក៏បានកំណត់នឹងធ្វើការប្រជុំផ្សព្វផ្សាយជាសាធារណៈជាមួយភាគីពាក់ព័ន្ធទាំងអស់នៅក្នុងតំបន់តំបន់គោលដៅគម្រោង ដែលមានការចូលរួមពីតំណាងរដ្ឋបាលខេត្ត ក្រុង សង្កាត់/ឃុំ អង្គភាពទឹកស្អាត សេវាកម្ម និងអង្គការក្រៅរដ្ឋាភិបាល។ អ្នកចូលរួមទាំងអស់អាចសួរាសាំ យល់ព្រម និងចូលរួមផ្សេងៗ ប្រកងុងប់របស់ពួកគេទាក់ទងនឹងគម្រោងនៅការក្រុមការងារអនុវត្តគម្រោង។ គោលបំណងនៃកិច្ចប្រជុំនេះគឺដើម្បីប្រមូលព័ត៌មានសំខាន់ៗពីប្រជាពលរដ្ឋដែលអាចទាក់ទងនឹងផលប៉ះពាល់ និងអត្ថប្រយោជន៍ពីបញ្ហានានាទាក់ទងនឹងបរិស្ថាននិងសង្គម និងដើម្បីពិភាក្សាពីវិធីលប៉ះពាល់គម្រោងដែលអាចកើតមាន ក៏ដូចជាតម្រូវការចាំបាច់នៃផែនការកាត់បន្ថយនិងត្រូវបានអនុម័ត និងអនុវត្ត។

ហេតុប៉ះពាល់ដែលមាន និងអវិជ្ជមាននៃគម្រោង

ចំពោះហេដ្ឋារចនាសម្ព័ន្ធផ្គត់ផ្គង់ទឹកស្អាត និងការតភ្ជាប់បណ្តាញតាមផ្ទះសម្បែងនៅក្នុងតំបន់គោលដៅគម្រោងនេះនឹងសាងសង់បណ្តាញចែកចាយបន្ថែម ការពង្រីកបំពង់អេសម្រាប់ផ្គត់ផ្គង់ទឹកស្អាត នៅតាមបណ្តាយផ្លូវចំទៅកាន់តំបន់ដែលនៅក្បែរនោះ សាងសង់ស្ថានីយចែកចាយទឹក និងប្រព័ន្ធផ្គត់ផ្គង់ទឹកស្អាតខ្នាតតូចថ្មី ស្តុនីយ៍ប្រព្រឹត្តកម្មទឹកនិងបណ្តាញចែកចាយ ។ ការងារនេះប្រមានការជីកដីបង្កប់បំពង់ចែកចាយទឹកស្អាតតាមដងផ្លូវ និងរកដីសម្រាប់សាងសង់រោងចក្រប្រព្រឹត្តកម្មទឹក ។

ហេតុប៉ះពាល់វិជ្ជមាន៖ គម្រោងនេះ ផ្តល់អត្ថប្រយោជន៍ជាច្រើនជាតិសេសសុខភាពសាធារណៈនិងការរួមចំណែកជួយសម្រេចគោលនយោបាយរដ្ឋាភិបាលលើវិស័យទឹកស្អាត។ គេរំពឹងថាការផ្តល់ទឹកស្អាតសម្រាប់បរិភោគនឹងមានផលជាវិជ្ជមានសំខាន់ទៅលើការកែលម្អដីវភាពរស់នៅ និងបរិស្ថានក្នុងទីក្រុងនិងតាមតំបន់ជនបទ។ អត្ថប្រយោជន៍ទាំងនេះ រួមមាន ការផ្តល់សេវាមូលដ្ឋានក្នុងទម្រង់ផ្គត់ផ្គង់ទឹកស្អាត ជុះប្លុះ ពលរដ្ឋនៅទីនោះនឹងមានសុខភាពល្អ។ ការផ្គត់ផ្គង់ទឹកស្អាតទៅដល់លំនៅដ្ឋាន ពិតការសម្រួលការងារជីកដប្លុងទឹកជាមួយទៅការងារនេះជាបន្ទុករបស់ស្ត្រីដែលជាសមាជិកគ្រួសារ។ ផលវិជ្ជមានមានដូចជា៖ (i) បរិមាណ និងគុណភាពនៃទឹកស្អាតសម្រាប់បរិភោគកាន់តែល្អប្រសើរ (ii) កាត់បន្ថយជំងឺដែលបណ្តាលមកពីការប្រើប្រាស់ទឹកមិនស្អាត ដូចជា រំងឺរាគស្ទស ពាក្យល ការឆ្លងរោគ ត្រុនកោះហ៊ិន និងជួយកាត់បន្ថយចំណាយលើសុខភាពរបស់គ្រួសារ (iii) កាត់បន្ថយអត្រាមណៈរបស់មាតា ទារក និងជំងឺកុមារ ដោយសារតែមានសុខភាពល្អ និង

2

មានសេវាកម្មផ្នែកអនាម័យ (iv) កាត់បន្ថយចំងាយទៅកន្លែងដែលមានទឹក ផ្ទុយទៅវិញវានឹងបង្កើនផលិតភាពការងាររបស់ស្ត្រី និងក្មេងស្រី។

ហេតុប៉ះពាល់អវិជ្ជមាន៖ ហេតុប៉ះពាល់អវិជ្ជមានបន្ទិចបន្ទួច និងគ្រាន់តែជាឥយណ្ណោះអាសន្នលើបរិស្ថាននិងសង្គម បណ្តាលមកពីគម្រោងនេះ អាចកើតមានដោយសារតែសកម្មភាពសាងសង់ មានដូចជាសម្លេងរំខាន ធូលីហ៊ុយ សំរាម សុវត្ថិភាពកម្មករ និងសហគមន៍ ជម្លោះផ្សេងៗ ការចម្លងជំងឺ ជាពិសេសជំងឺកូវីដ១៩ជាដើម។ ហេតុប៉ះពាល់ទាំងនេះអាចគ្រប់គ្រងបានយ៉ាងងាយស្រួល ដោយក្រុមហ៊ុនម៉ៅការសាងសង់អនុវត្តតាមវិធានការកាត់បន្ថយហេតុប៉ះពាល់ដែលមានចែងនៅក្នុងផែនការគ្រប់គ្រងបរិស្ថាន និងសង្គម(ESMP)។ វិធានការទាំងនោះមាន ដូចជាការដាក់កម្រិតលើម៉ោងធ្វើការ ការគ្រប់គ្រងធូលីតាមរយៈការបាញ់ទឹកធ្វើម និងការគ្រប់គ្រងការព្រោះដី និងការគ្រប់គ្រងកកស្ទុះ(នៅផ្លូវក្រៀង)។

ហេតុប៉ះពាល់ជំណាក់កាលសាងសង់ និងវិធានការកាត់បន្ថយហេតុប៉ះពាល់

ហេតុប៉ះពាល់ដែលអាចកើតឡើងក្នុងជំណាក់កាលសាងសង់មានដូចខាងក្រោម៖

- សំលេងរំខានពីគ្រឿងចក្រក្នុងការដ្ឋានសំណង់។ បើមានអគារ ជាពិសេស មន្ទីរពេទ្យ សាលរៀន និងផ្ទះសម្បែងនៅជិតការដ្ឋាននោះ គេត្រូវតែយកចិត្តទុកដាក់ដើម្បីធានាពុំមានសម្លេងរំខានប៉ះពាល់ដល់អ្នកប្រើប្រាស់អគារទាំងនោះឡើយ
- ប៉ះពាល់ដល់គុណភាពខ្យល់ដោយសារការប្រើប្រាស់គ្រឿងចក្រ(ឧ.ផ្សែង)និងធូលីដី
- មានការហាមឃាត់ចូលទៅកាន់បរិវេណជាបណ្តោះអាសន្នក្នុងអំឡុងពេលតម្លើងបណ្តាញ និងហេដ្ឋារចនាសម្ព័ន្ធផ្សេងៗ
- សំណល់បឹង និងវ៉ែ កើតចេញពីសម្ភារៈចន្លប់សម្ភារៈ ដែលគេកាត់ចោល និងប្រេងគន្លះ និងប្រេងស្រាក់ចេញពីគ្រឿងចក្រ និងពីឡាំង
- អាចប៉ះពាល់របងផ្ទះ ដែលនៅខាងមុខផ្ទះពេលដឹកកប់បណ្តាញទឹកស្អាត។

ប្រតិបត្តិការវិធានការកាត់បន្ថយ ដើម្បីកាត់បន្ថយហេតុប៉ះពាល់រួមមាន៖

- ការអនុម័តម៉ោងធ្វើការតាមបទដ្ឋាន និងកំណត់រយៈពេលនៃសកម្មភាពដែលបង្កមានសំឡេងរំខាននៅពេលចាំបាច់
- ការថែទាំគ្រឿងចក្រឱ្យស្អាតបាត បាញ់ទឹកស្រោចធូលីក្នុងការដ្ឋាននៅពេលចាំបាច់
- ការខុកផ្លូវបណ្តោះអាសន្នអាចចេញចូលទៅទីកន្លែងសំខាន់ៗ អាជីវកម្ម និងផ្ទះ៖សម្បែងក្នុងអំឡុងពេលសាងសង់
- បរិមាណការងារនិងចំណាយទាក់ទងនឹងការជួសជុលបង និងទីធ្លានៅមុខផ្ទះ ការចំណាយនឹងត្រូវដាក់បញ្ចូលនៅក្នុងកិច្ចសន្យាការងារសាងសង់ដើម្បីធានាថាក្រុមហ៊ុនម៉ៅការនឹងជួសជុលប្រសើរឡើងវិញ ឱ្យបានល្អដូចពេលចាប់ផ្តើមការងារសាងសង់ ឬល្អប្រសើរជាងមុនពេលសាងសង់
- ការស្អុកខុកសំណល់បឹងនៅក្នុងធុង និងការកប់សម្ភារៈនៅទីតាំងដោយមានការអនុញ្ញាតត្រឹមត្រូវ
- សម្របសម្រួលចរាចរណ៍ខុទៅសម្រាប់អ្នកដំណើរឆ្លងកាត់ក្នុងនិងក្បែរតំបន់ការដ្ឋាន
- ត្រូវមានវិធានការ ការពារ ពីការឆ្លងជំងឺផ្សេងៗ ជាពិសេស ជំងឺ កូវីដ១៩ ជាដើម។

3

យន្តការដោះស្រាយបណ្តឹងតវ៉ា

យន្តការដោះស្រាយបណ្តឹងសារទុក្ខ នឹងត្រូវបានបង្កើតសម្រាប់គម្រោង ក្នុងគោលបំណងដើម្បីដោះស្រាយរាល់បញ្ហាដែលទាក់ទងនឹងបរិស្ថាន និងសង្គម ក្នុងជំណាក់មុន និងក្នុងអំឡុងពេលសាងសង់។

ជំណាក់កាលទី១៖

គ្រួសាររងហេតុប៉ះពាល់ត្រូវជាក់ពាក្យបណ្តឹង ឬសំណូមពរទៅកាន់ក្រុមហ៊ុនសាងសង់ គណៈកម្មការដោះស្រាយបណ្តឹងសារទុក្ខថ្នាក់ឃុំ/សង្កាត់។ គណៈកម្មការនេះនឹងផ្តល់ការបញ្ជាក់ជាលាយលក្ខណ៍អក្សរភ្លាមៗនៅពេលទទួលពាក្យបណ្តឹង។

ប្រសិនបើក្នុងរយៈពេល ១៥ ថ្ងៃ អ្នកទទួលរងហេតុប៉ះពាល់មិនមានជំណោះស្រាយពីក្រុមហ៊ុនសាងសង់ មេឃុំ ឬមិនពេញចិត្តចំពោះការសម្រេចចិត្តនៅក្នុងជំណាក់កាលទីនេះទេ ពាក្យបណ្តឹង ត្រូវបានដាក់ទៅកាន់គណៈកម្មការដោះស្រាយបណ្តឹងសារទុកថ្នាក់ស្រុក/ខណ្ឌ។

ជំណាក់កាលទី២៖

ថ្នាក់ស្រុក ឬ ក្រុមការងារគម្រោងថ្នាក់ខេត្ត មានរយៈពេល១៥ថ្ងៃ ក្នុងការដោះស្រាយពាក្យបណ្តឹងនេះ ដើម្បីបំពេញចិត្តអ្នកដែលពាក់ព័ន្ធទាំងអស់។ ប្រសិនបើពាក្យបណ្តឹងមិនអាចដោះស្រាយបាននៅក្នុងជំណាក់កាលនេះទេ បណ្តឹងនឹងត្រូវបញ្ជូនទៅដោះស្រាយបន្តនៅគណៈកម្មការដោះស្រាយបណ្តឹងតវ៉ាថ្នាក់ខេត្ត ឬ អង្គភាពគ្រប់គ្រងសមាសភាគគម្រោង-១។

ជំណាក់កាលទី៣៖

គណៈកម្មការដោះស្រាយបណ្តឹងសារទុក្ខថ្នាក់ខេត្ត ឬ អង្គភាពគ្រប់គ្រងសមាសភាគគម្រោង-១ នៃក្រសួងឧស្សាហកម្ម វិទ្យាសាស្ត្រ បច្ចេកវិទ្យា និងនវានុវត្តន៍ ជួបជាមួយភាគីដែលមានបញ្ហាហើយព្យាយាមដោះស្រាយបញ្ហានេះ ក្នុងរយៈពេល១៥ ថ្ងៃ បន្ទាប់ពីការដាក់ពាក្យបណ្តឹង។

ជំណាក់កាលទី៤៖

ជាជំណាក់កាលចុងក្រោយជាមួយនឹងនីតិវិធីតុលាការ។ ប្រសិនបើគាំគ្រួសារដែលរងហេតុប៉ះពាល់ដោយសារគម្រោងមិនពេញចិត្តចំពោះជំណោះស្រាយ ដែលបានស្នើឡើងដោយគណៈកម្មាធិការដោះស្រាយ បណ្តឹងតវ៉ាថ្នាក់ខេត្ត ដោយផ្អែកលើគោលនយោបាយបានព្រមព្រៀងគ្នា គណៈកម្មាធិការត្រូវរៀបចំនីតិវិធីរដ្ឋាបាលបញ្ជូនបណ្តឹងរបស់គ្រួសារដែលរងហេតុប៉ះពាល់ដោយសារគម្រោងទៅកាន់ ការិយាល័យព្រះរាជអាជ្ញាខេត្ត។ សំណុំរឿងនេះនឹងដាក់បញ្ជូនទៅតុលាការខេត្ត ហើយសំណុំរឿងនេះស្ថិតនៅក្រោមការវិនិច្ឆ័យរបស់តុលាការ។ ទន្ទឹមគ្នានោះដែរ គ្រួសារដែលរងហេតុប៉ះពាល់ដោយសារគម្រោងអាចប្តឹងទៅកាន់តុលាការខេត្ត។ ក្នុងអំឡុងពេលប្តឹងនេះពាក់ព័ន្ធរាជរដ្ឋាភិបាលកម្ពុជានឹងស្នើសុំទៅតុលាការឱ្យផ្តំណើរការគម្រោងប្រកបទៅដោយគ្មានការខ្វាន ខណៈសំណុំរឿងនេះស្ថិតក្នុងដំណាក់កាលដំនុំជម្រះ។ ប្រសិនបើភាគីណាមួយមិនពេញចិត្តនឹងសេចក្តីសម្រេចរបស់សាលាដំបូងខេត្ត ភាគីនោះអាចប្តឹងបន្តទៅសាលាឧទ្ធរណ៍ជាបន្តទៀត។ រាជរដ្ឋាភិបាលកម្ពុជានឹងអនុវត្តតាមសេចក្តីសម្រេចរបស់សាលដីការតុលាការ។

សំគាល់ ព័ត៌មានស្តីពីគម្រោង និងយន្តការដោះស្រាយបណ្តឹងតវ៉ា និងត្រូវបិតផ្សាយនៅទីតាំងសាងសង់ និងសាលឃុំដោយភ្ជាប់ជាមួយលេខទំនាក់ទំនង។

4

Slide Presentation

WORLD BANK GROUP
Water

សិក្ខាសាលាពិគ្រោះយោបល់ស្តីពីការផ្គត់ផ្គង់ទឹកស្អាត
សម្រាប់ខេត្តបាត់ដំបង និង ពោធិសាត់

ក្របខ័ណ្ឌបរិស្ថាន និងសង្គម
សម្រាប់គម្រោងដំណើរការផ្គត់ផ្គង់ទឹកស្អាត និងអនាម័យនៅប្រទេសកម្ពុជា

ថ្ងៃទី១០ មីនា ២០២៣

គោលបំណងនៃសិក្ខាសាលា

- ដើម្បីជូនព័ត៌មានបស់គម្រោងដល់ភាគីពាក់ព័ន្ធ នូវព័ត៌មានអំពីគម្រោង វិសាលភាពនៃគម្រោង អត្ថប្រយោជន៍នៃគម្រោង ក្របខ័ណ្ឌបរិស្ថាន និងសង្គម (ESF)របស់ធនាគារពិភពលោក ហានិភ័យ និងហេតុប៉ះពាល់ផ្នែកបរិស្ថាននិងសង្គម ដែលនឹងអាចកើតមានឡើងនៅពេលអនុវត្តគម្រោង និងវិធានការគ្រប់គ្រងហានិភ័យ និងហេតុប៉ះពាល់។
- ដើម្បីទទួលបានមតិយោបល់ ទស្សនៈ ក្តីកង្វល់ សំណូមពរ និងការផ្តល់យោបល់ពីអ្នកចូលរួមទាំងអស់។

ក្របខ័ណ្ឌបរិស្ថាន និងសង្គមរបស់ធនាគារពិភពលោក

- ក្របខ័ណ្ឌបរិស្ថាន និងសង្គម ដើម្បីជានាដល់ការអភិវឌ្ឍន៍ប្រកបដោយចីរភាព តាមរយៈគោលនយោបាយរបស់ធនាគារពិភពលោក និងបទដ្ឋានបរិស្ថាន និងសង្គម

បទដ្ឋានបរិស្ថាន និងសង្គមចាំង១០របស់ធនាគារពិភពលោក

- **បទដ្ឋានទី១**៖ ការវាយតម្លៃ និងការគ្រប់គ្រងហានិភ័យ និងហេតុប៉ះពាល់បរិស្ថាន និងសង្គម
- **បទដ្ឋានទី២**៖ លក្ខខណ្ឌពលកម្ម និងលក្ខខណ្ឌការងារ
- **បទដ្ឋានទី៣**៖ ប្រសិទ្ធភាពធនធាន ការបង្ការ និងការគ្រប់គ្រងបំពុល
- **បទដ្ឋានទី៤**៖ សុខភាព និង សុវត្ថិភាពសហគមន៍
- **បទដ្ឋានទី៥**៖ លទ្ធកម្មដីធ្លី ការដោក់កំហិតលើ ការប្រើប្រាស់ដីអាស្រ័យផល និងការតោងទីលំនៅដោយមិនស្ម័គ្រចិត្ត

បទដ្ឋានបរិស្ថាន និងសង្គមចាំង១០របស់ធនាគារពិភពលោក (ត)

- **បទដ្ឋានទី៦**៖ ការអភិរក្សជីវចម្រុះ និងការគ្រប់គ្រងធនធានធម្មជាតិដោយនិរន្តរភាព
- **បទដ្ឋានទី៧**៖ ជនជាតិដើមភាគតិច
- **បទដ្ឋានទី៨**៖ បេតិកភណ្ឌវប្បធម៌
- **បទដ្ឋានទី៩**៖ អន្តរការីហិរញ្ញវត្ថុ
- **បទដ្ឋានទី១០**៖ ការចូលរួមរបស់ភាគីពាក់ព័ន្ធ និងការផ្សព្វផ្សាយព័ត៌មាន

ទីតាំងគម្រោងដំណើរការផ្គត់ផ្គង់ទឹកស្អាត និងអនាម័យ

សមាសភាគទី ១

- ការពង្រីកប្រព័ន្ធផ្គត់ផ្គង់ទឹកស្អាតរួមមាន ការពង្រីកបណ្តាញផ្គត់ផ្គង់ទឹកស្អាត និងការពង្រីកក៏ដូចជាការសាងសង់ស្តានីយចម្រោះទឹកស្អាត

ការធ្វើចំណាត់ថ្នាក់ ហេតុប៉ះពាល់ ឬហានិភ័យគម្រោង

- រាល់គម្រោងដែលទទួលកម្ចីពីធនាគារពិភពលោក ត្រូវបានធ្វើចំណាត់ថ្នាក់ហេតុប៉ះពាល់ឬហានិភ័យជា៤កំរិត រួមមាន៖ ខ្ពស់ បង្គួរ មធ្យម ទាប។
- ផ្អែកលើវិសាលភាពនិងលក្ខណៈនៃគម្រោង និងការវាយតម្លៃជាបឋមគម្រោងត្រូវបានធ្វើចំណាត់ថ្នាក់ហេតុប៉ះពាល់ឬហានិភ័យ **បង្គួរ**

ហេតុប៉ះពាល់បរិស្ថាន និងសង្គម និងវិធានការគ្រប់គ្រង

មុនពេលសាងសង់និងកំឡុងពេលសាងសង់ត្រូវសិក្សានិងផ្តោតការយកចិត្តទុកដាក់លើ៖
- ធនធានប្រៃសាស្ត្រ (ទឹក ដី ខ្យល់)
- ធនធានជីវសាស្ត្រ (សត្វព្រៃ តំបន់ការពារធម្មជាតិ)
- ជនជាតិដើមភាគតិច (បើពាក់ព័ន្ធ)
- បេតិកណ្ឌវប្បធម៌
- បុគ្គលិក កម្មករ និងអ្នកពាក់ព័ន្ធ(សុខភាព និងសុវត្ថិភាពការងារ)
- សហគមន៍មូលដ្ឋាន (សុខភាព សុវត្ថិភាព សំណង់លើទ្រព្យសម្បត្តិដែលរងហេតុប៉ះពាល់ និងការស្តារជីវភាពរស់នៅ)

ក្រោយពេលសាងសង់ ឬដំណាក់កាលប្រតិបត្តិការ
- សំណល់
- សុខភាពសាធារណៈ និង សុវត្ថិភាព

ការត្រួតពិនិត្យ តាមតំលៃ និងការដោះស្រាយបណ្តឹងតវ៉ា

- ការត្រួតពិនិត្យតាមដានជាទៀងទាត់និងការវាយតំលៃជារួមលើការអនុវត្តលើផ្នែកបរិស្ថាននិងសង្គមដែលអនុវត្តដោយក្រុមហ៊ុនម៉ៅការសាងសង់
- ការបង្កើតគណៈកម្មការដោះស្រាយបណ្តឹងតវ៉ាពេលកំពុងអនុវត្តគម្រោង

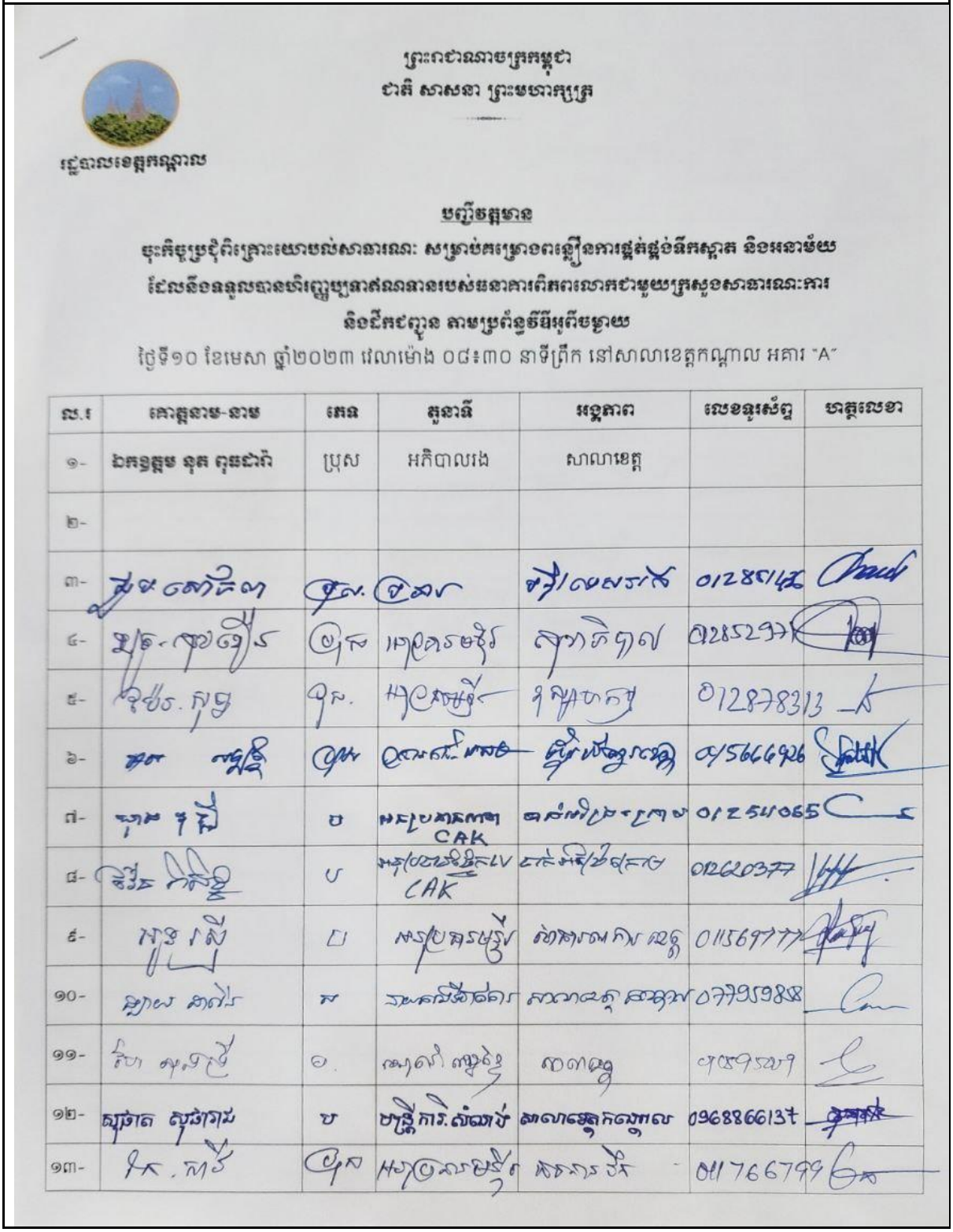
ឯកសារក្របខណ្ឌបរិស្ថាន និងសង្គមសម្រាប់គម្រោងWASAC

ឯកសារពាក់ព័ន្ធសម្រាប់គម្រោងមានដូចជា៖

- ក្របខណ្ឌគ្រប់គ្រងបរិស្ថាន និងសង្គម (ESMF)
- ផែនការជំរុញការចូលរួមរបស់ភាគីពាក់ព័ន្ធ (SEP)
- នីតិវិធីគ្រប់គ្រងពលកម្ម (LMP)
- ក្របខ័ណ្ឌគោលនយោបាយជនជាតិដើមភាគតិច (IPPF)
- ក្របខ័ណ្ឌគោលនយោបាយលើការតាំងទីលំនៅ (RPF)
- ផែនការបង្ហាញពីការប្តេជ្ញាចិត្តផ្នែកបរិស្ថាន និងសង្គម (ESCP)

សូមអរគុណ

Annex 3. List of participants



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

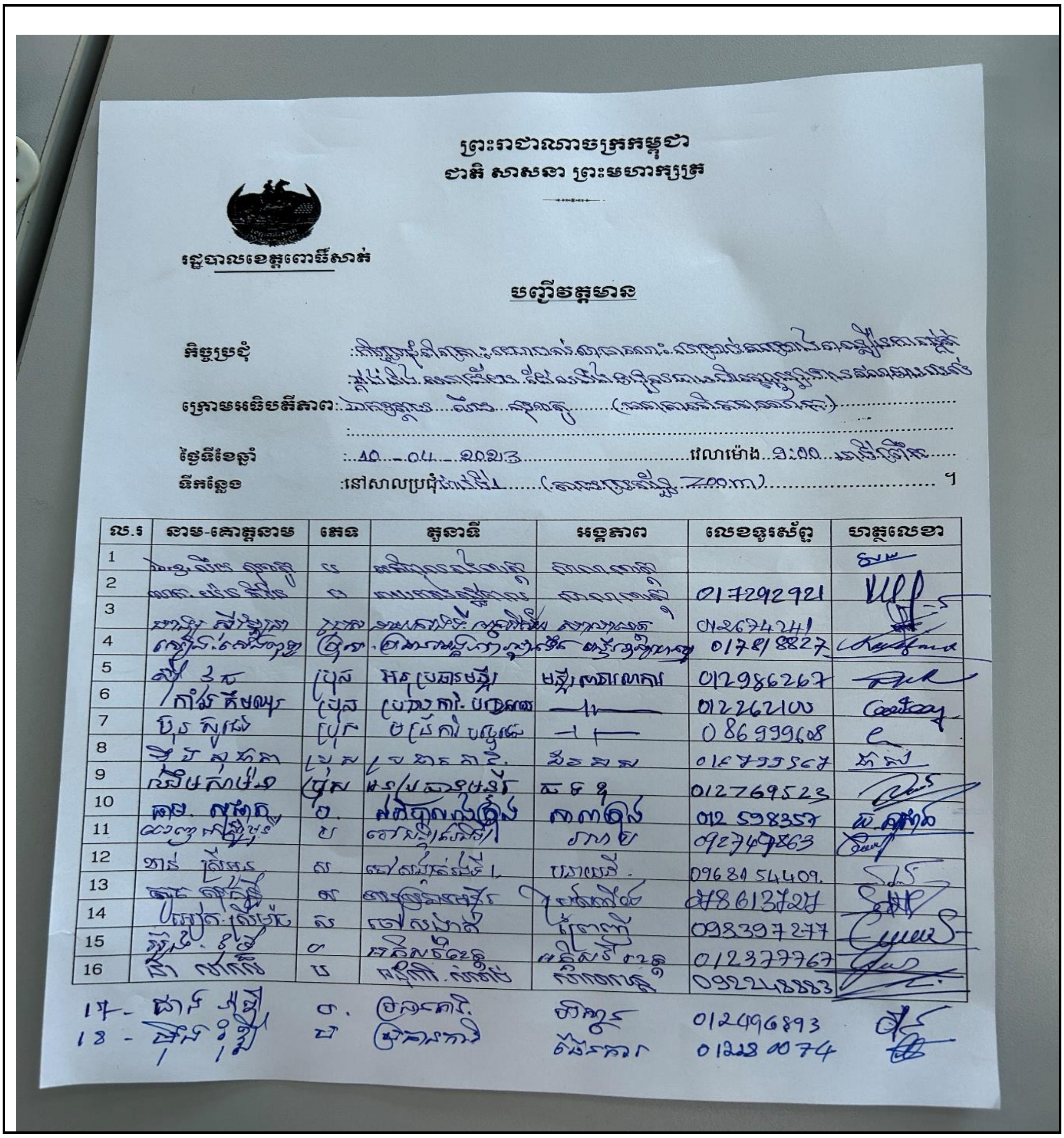
រដ្ឋបាលខេត្តកណ្តាល

បញ្ជីវត្តមាន

ចុះកិច្ចប្រជុំពិគ្រោះយោបល់សាធារណៈ សម្រាប់គម្រោងពង្រឹងការផ្តត់ផ្តង់ទឹកស្អាត និងអនាម័យ ដែលទទួលបានហិរញ្ញប្បទានពីធនាគារពិភពលោកជាមួយក្រសួងសាធារណៈការ និងដឹកជញ្ជូន តាមប្រព័ន្ធវីដេអូពីចម្ងាយ

ថ្ងៃទី១០ ខែមេសា ឆ្នាំ២០២៣ វេលាម៉ោង ០៨:៣០ នាទីព្រឹក នៅសាលាខេត្តកណ្តាល អគារ "A"

ល.រ	គោត្តនាម-នាម	ភេទ	តួនាទី	អង្គភាព	លេខទូរស័ព្ទ	ហត្ថលេខា
១-	ឯកឧត្តម នុត ពុធជារ៉ា	ប្រុស	អភិបាលរង	សាលាខេត្ត		
២-						
៣-						
៤-						
៥-						
៦-						
៧-						
៨-						
៩-						
១០-						
១១-						
១២-						
១៣-						



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

រដ្ឋបាលខេត្តពោធិ៍សាត់

បញ្ជីវត្តមាន

កិច្ចប្រជុំ :[illegible]

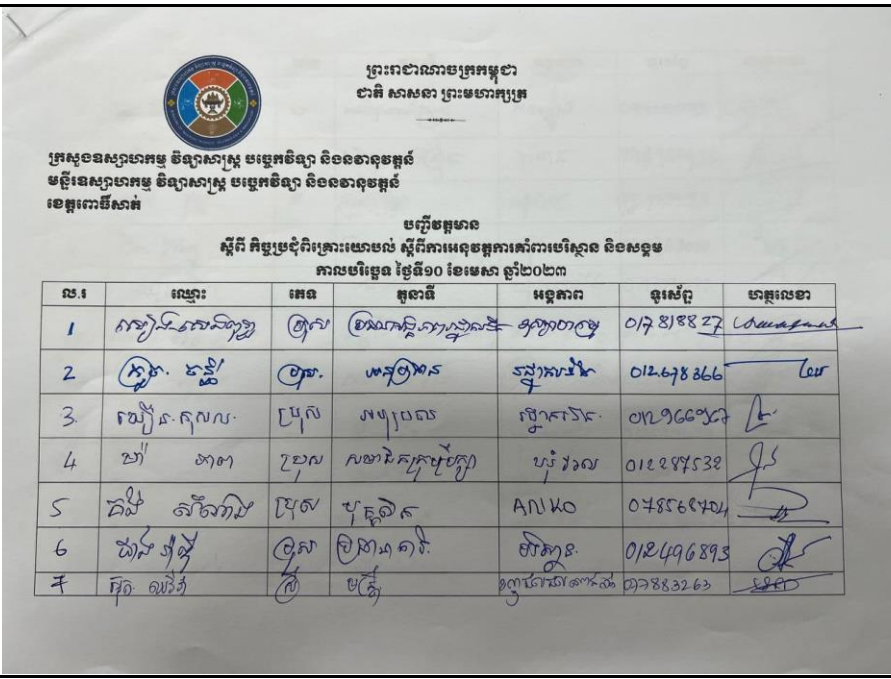
ក្រោមអធិបតីភាព :[illegible]

ថ្ងៃទីខែឆ្នាំ :10-04-2023 វេលាម៉ោង 9:00 [illegible]

ទីកន្លែង :នៅសាលប្រជុំ[illegible] (Zoom)

ល.រ	នាម-គោត្តនាម	ភេទ	តួនាទី	អង្គភាព	លេខទូរស័ព្ទ	ហត្ថលេខា
1	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	017292921	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	012674241	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	017818827	[illegible]
5	[illegible]	ប្រុស	[illegible]	[illegible]	012986267	[illegible]
6	[illegible]	ប្រុស	[illegible]	—"—	012262100	[illegible]
7	[illegible]	[illegible]	[illegible]	—"—	086999608	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	016799567	[illegible]
9	[illegible]	ប្រុស	[illegible]	[illegible]	012769523	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	012 598357	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	092749863	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	09681 54409	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	078613727	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	098397277	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	012377767	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	092248883	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	012496893	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	012280074	[illegible]

Participants list from Pusat (PMU1)

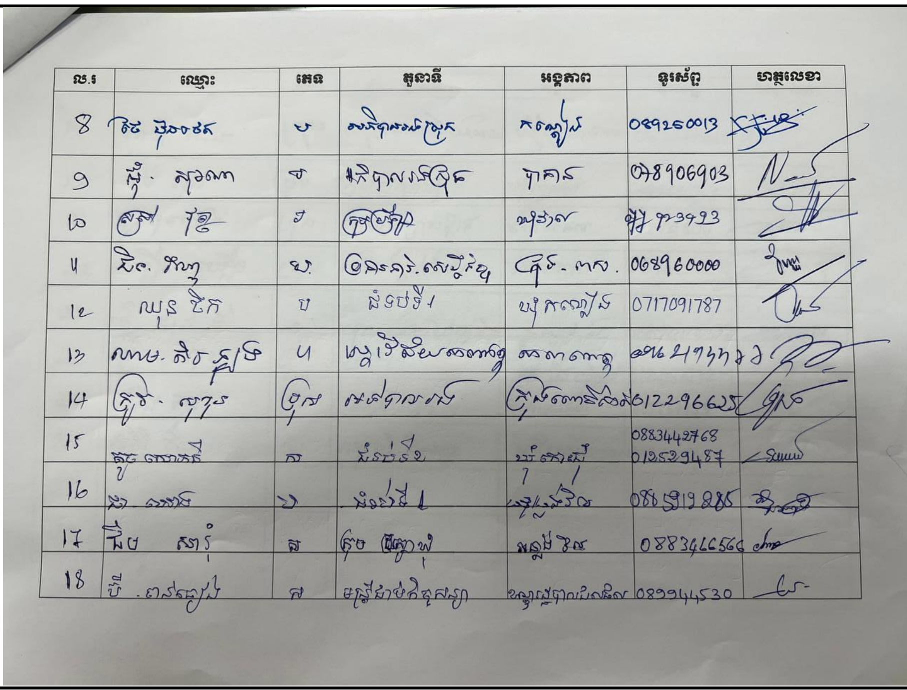


ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

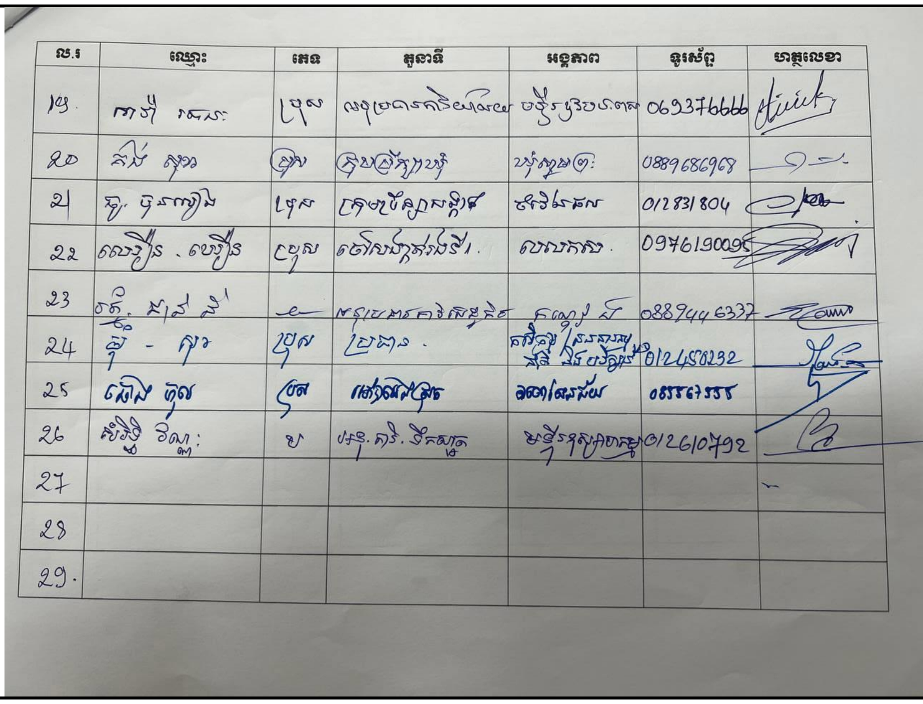
ក្រសួងឧស្សាហកម្ម វិទ្យាសាស្ត្រ បច្ចេកវិទ្យា និងនវានុវត្តន៍
មន្ទីរឧស្សាហកម្ម វិទ្យាសាស្ត្រ បច្ចេកវិទ្យា និងនវានុវត្តន៍
ខេត្តពោធិ៍សាត់

បញ្ជីវត្តមាន
ស្តីពី កិច្ចប្រជុំពិគ្រោះយោបល់ ស្តីពីការអនុវត្តការគាំពារបរិស្ថាន និងសង្គម
កាលបរិច្ឆេទ ថ្ងៃទី១០ ខែមេសា ឆ្នាំ២០២៣

ល.រ	ឈ្មោះ	ភេទ	តួនាទី	អង្គភាព	ទូរស័ព្ទ	ហត្ថលេខា
1	[illegible]	[illegible]	[illegible]	[illegible]	017 818827	
2	[illegible]	[illegible]	[illegible]	[illegible]	012678366	
3	[illegible]	ប្រុស	[illegible]	[illegible]	012966967	
4	[illegible]	ប្រុស	[illegible]	[illegible]	012287532	
5	[illegible]	ប្រុស	[illegible]	ANKO	078568404	
6	[illegible]	[illegible]	[illegible]	[illegible]	012496893	
7	[illegible]	[illegible]	[illegible]	[illegible]	097883263	



ល.រ	ឈ្មោះ	ភេទ	តួនាទី	អង្គភាព	ទូរស័ព្ទ	ហត្ថលេខា
8	[illegible]	ប	[illegible]	[illegible]	089260013	
9	[illegible]	ប	[illegible]	[illegible]	078906903	
១០	[illegible]	ប	[illegible]	[illegible]	[illegible]	
១១	[illegible]	ប	[illegible]	[illegible]	068960000	
១២	[illegible]	ប	[illegible]	[illegible]	0717091787	
១៣	[illegible]	ប	[illegible]	[illegible]	[illegible]	
14	[illegible]	[illegible]	[illegible]	[illegible]	012296625	
15	[illegible]	ស	[illegible]	[illegible]	0883442768 012529487	
16	[illegible]	[illegible]	[illegible]	[illegible]	085919285	
17	[illegible]	ស	[illegible]	[illegible]	0883466566	
18	[illegible]	ស	[illegible]	[illegible]	089944530	



ល.រ	ឈ្មោះ	ភេទ	តួនាទី	អង្គភាព	ទូរស័ព្ទ	ហត្ថលេខា
19	[illegible]	[illegible]	[illegible]	[illegible]	069376666	[signature]
20	[illegible]	[illegible]	[illegible]	[illegible]	0889686968	[signature]
21	[illegible]	[illegible]	[illegible]	[illegible]	012831804	[signature]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[signature]
23	[illegible]	[illegible]	[illegible]	[illegible]	0889446337	[signature]
24	[illegible]	[illegible]	[illegible]	[illegible]	012458232	[signature]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[signature]
26	[illegible]	[illegible]	[illegible]	[illegible]	012610792	[signature]
27						
28						
29.						

Participants list from Battambang (PMU1)

មន្ទីរឧស្សាហកម្ម វិទ្យាសាស្ត្រ បច្ចេកវិទ្យា និងនវានុវត្តន៍ខេត្តបាត់ដំបង៖

១ លោក រស់ វិសិទ្ធ៖ អនុប្រធានមន្ទីរ

២ លោក ឈឿម សុភា៖ ប្រធានការិយាល័យទឹកស្អាត

៣ លោក ប៉ែន ឃាន៖ អនុប្រធានការិយាល័យទឹកស្អាត

៤ កញ្ញា ឈឿម លីនេះ មន្ត្រីកិច្ចសន្យា

អង្គភាពរដ្ឋាករទឹកបាត់ដំបង ៖

១ លោក សុទ្ធ ច័ន្ទរ៉ាដា ៖ ជំនួយការប្រធានអង្គភាព

២ លោក ឃន ណារិទ្ធ ៖ ប្រធានផ្នែករដ្ឋបាលនិងធនធានមនុស្ស

៣ លោក សេត្ថា រស្មី៖ បុគ្គលិក ផ្នែកបណ្តាញនិងសេវាកម្មទឹកស្អាត

Annex 4: Photo of virtual meeting