

Environmental Safeguard Due Diligence Report

June 2018

Cambodia: Water Resources Management Sector Development Project

Prepared by Ministry of Water Resources and Meteorology for the Royal Government of Cambodia and the Asian Development Bank.

This environmental safeguard due diligence report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

TABLE OF CONTENTS	Page
ABBREVIATIONS	3
I. Project Background	4
II. SUB-PROJECTS DESCRIPTION	4
III. ENVIRONMENTAL CATEGORIZATION	8
3.1 Sub-projects Category	8
3.2 Grievance Redress Mechanisms	8
IV. ASSESSMENT OF ENVIRONMENTAL IMPACTS	9
 Table 1: Matrix of Potential Environmental Impacts and Possible Mitigation Measures	 9
Table 2: Environmental Monitoring during Subproject Construction and Operation	14
 APPENDIX 1: RAPID ENVIRONMENTAL ASSESSMENT (REA) CHECKLIST	 16
APPENDIX 2: A CHECKLIST FOR PRELIMINARY CLIMATE RISK SCREENING	20
APPENDIX 3: THE CONSULTATION MEETINGS WITH PROJECTS BENEFICIARIES	22
APPENDIX 4: LIST OF PARTICIPANTS	23

LIST OF FIGURES

FIGURE 1: LAYOUT OF THE SUB-PROJECTS LOCATION	7
---	---

ABBREVIATIONS

ADB	—	Asian Development Bank
AF	—	Administration of Fisheries
APs	—	Affected Person (s)
DP	—	Displaced Person
EA	—	Executing Agency
EIA	—	Environmental Impact Assessment
EMP	—	Environmental Management Plan
FWUG	—	Farmer Water Users Group
GRM	—	Grievance Redress Mechanism
ha	—	hectare
IA	—	Implementing Agency
IEE	—	Initial Environmental Examination
IMO	—	Independent Monitoring Organization
IRC	—	Inter-ministerial Resettlement Committee
km	—	Kilo-meter
LAR	—	Land Acquisition and Resettlement
m	—	meter
MC	—	Main Canal
MEF	—	Ministry of Economy and Finance
mg/kg	—	milligram/kilogram
MoE	—	Ministry of Environment
MOWRAM	—	Ministry of Water Resources and Meteorology
NGOs	—	Non-Government Organizations
PAM	—	Project Administration Manual
PDLMUPC	—	Provincial Department of Land Management Urban Planning and Construction
PDoE	—	Provincial Department of Environment
PDoWRAM or PDWRAM	—	Provincial Department of Water Resources and Meteorology
PIU	—	Project Implementation Unit
PMO	—	Program Management Office
PMC	—	Program Management Consultant
PRA	—	Participatory Rural Appraisal
PRSC	—	Provincial Resettlement Sub-Committee
PSU	—	Project Support Unit
RIA	—	Resettlement Implementing Agency
ROW	—	Right of Way
RP	—	Resettlement Plan
SC	—	Supplementary Canal
TA	—	Technical Assistance
WRMSDP	—	Water Resources Management Sector Development Project
WRPU	—	Water Resources Program Unit

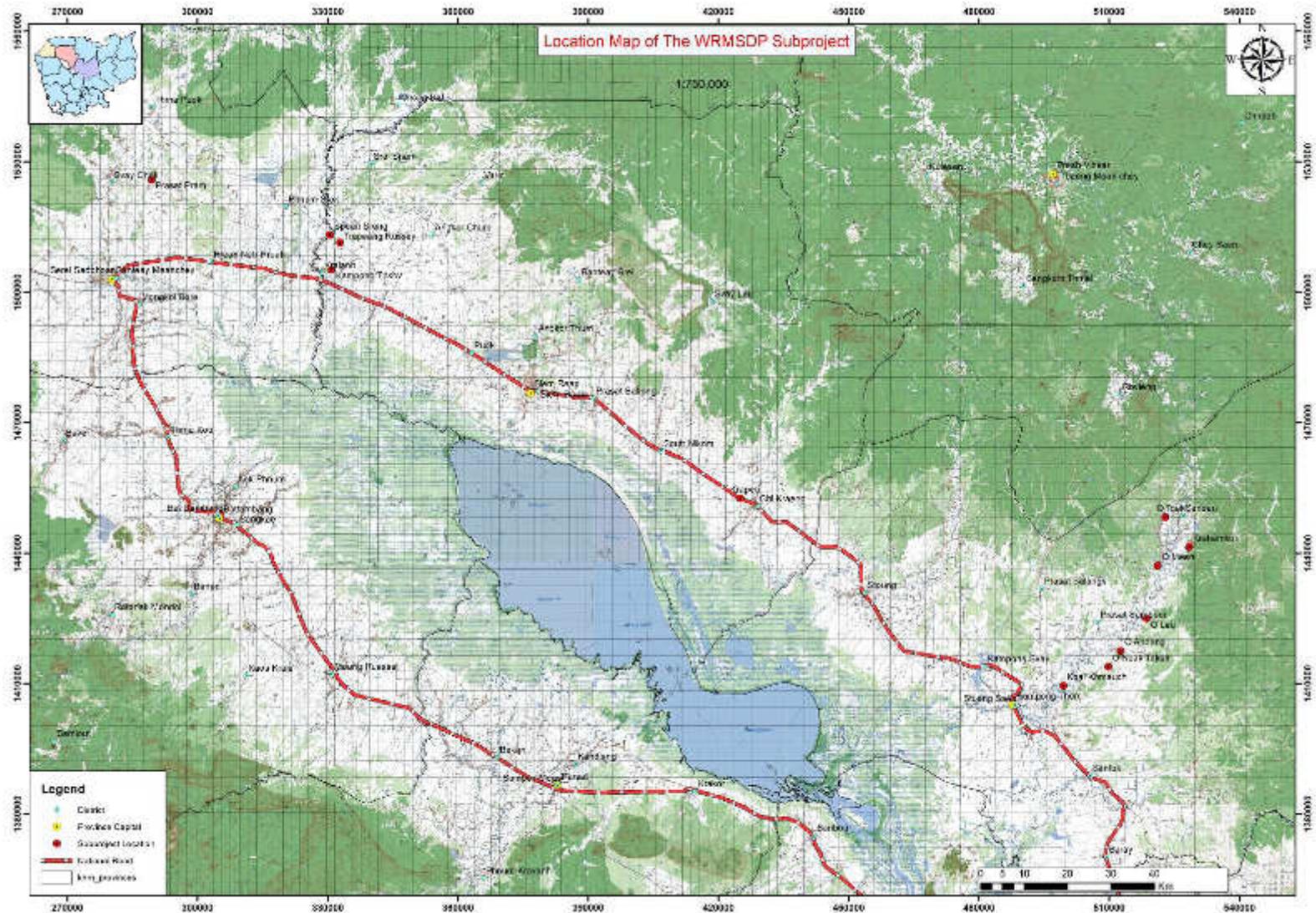
I. Project Background

1. The Water Resources Management Sector Development Program/Project (WRMSDP) is designed to address some of the key factors constraining poverty reduction and food security in Cambodia. The project is funded by loans and grants from the Asian Development Bank (ADB), aims to reduce poverty and enhance food security through rehabilitation of existing irrigation systems and enhancement of agriculture productivity of farmers in the command areas in the provinces of Kampong Thom, Siem Reap and Banteay Meanchey. The Project was approved on 23 September 2010. The Project became effective on 3 June 2011. The loan closing date is 30 June 2018 and extended up to 31 December 2018.
2. The Ministry of Water Resources and Meteorology (MOWRAM) is the Executing Agency of the Project. WRMSDP will (i) support the strengthening of provincial and district level administrative capacity to implement the Project; (ii) undertake a program of rehabilitation and improvement of about 15,000 hectares of existing irrigation schemes in the three provinces; (iii) enhance the technical skills, livelihood opportunities, and capacity of Farmer Water-Users' Communities (FWUCs) and farmers within the rehabilitated irrigation systems; and (iv) support MOWRAM, PDWRAMs, Provincial Departments of Agriculture (PDA), and FWUCs in managing investment activities effectively and efficiently at the national, provincial, district, and local levels to ensure that the Project is implemented on time and within budget.
3. This Project is one (Output C) of three key outputs of the WRMSDP (The Program). The objective of the Output C is to rehabilitate existing small and medium scale irrigation systems, form and strengthen farmer water user communities (FWUCs) for sustainable operation and maintenance (O&M) of completed system and strengthen of administrative capacity of provincial and district level staff.
4. To help ensure efficient use of irrigation water, in partnership with MAFF, WRMSDP has been provided agricultural extension support to farmer-beneficiaries, including training in on-farm water and soil management and supplementary agricultural production. This helped enhance food supply and eventually increase family income. To help instill a sense of ownership and participation in the operation and maintenance of secondary and tertiary distribution canals, communities will be organized into FWUCs.
5. While the program of land titling in the Project areas was cancelled from the project, the Ministry of Land Management, Urban Planning and Construction will continue the activity under the regular program of the government. The budget for this component was therefore reallocated to implementing additional civil works for Krapeu Main Canal extension and rehabilitation of O Leu irrigation system. The time extension to 31 December will allow to complete these tasks.

II. SUB-PROJECTS DESCRIPTION

6. This environmental safeguard due diligence report has been designed for Krapeu main canal in Siem Reap province and O Leu subproject in Kampong Thom province. The following is a description of each subproject:

Figure 1: Layout of the Sub-Projects



Location

III. ENVIRONMENTAL CATEGORIZATION

3.1 *Sub-projects Category*

9. Krapeu main canal and O Leu based on SPS 2009, a Project category is evaluated by the category of its most environmentally sensitive component, including direct, indirect, cumulative, and induced impacts in the project's area of influence. The subprojects are classified according to the following Categories:

- i. **Category A.** A proposed project is classified as category A if it is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works. An environmental impact assessment (EIA) is required.
- ii. **Category B.** A proposed project is classified as category B if its potential adverse environmental impacts are less adverse than those of category A projects. These impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed more readily than for category A projects. An initial environmental examination (IEE) is required.
- iii. **Category C.** A proposed project is classified as category C if it is likely to have minimal or no adverse environmental impacts. No environmental assessment is required although environmental implications need to be reviewed.

In order to categorize the project impact, environment specialist conducted transect walk through the proposed sub-project location and using environmental check list of ADB (See Appendix 1 – Screening of potential environmental impacts).

10. As it is screened and investigations of additional works of two subprojects showed that the rehabilitation of irrigation systems are negligible to minimal impacts, and hence confirms the C categorization for environment. as the impacts of proposed civil works will also be localized, temporary, and will have negligible impacts on the environment.
11. During construction phase, some short-term negative environmental impacts may occur in case of improper management. These impacts would include the mobilization of heavy equipment, location of worker's camps, and waste disposal. None of these impacts are expected to be significant. If any, the EMP attached in bidding document has to strictly implement and mitigating the environmental issue occurring from the civil works implementation, the EMP has to translate into Khmer version sending to PIUs, commune offices and particular to contract engineer's/site managers, and coordinate and facilitating by safeguards specialist.

3.2 *Grievance Redress Mechanisms*

12. Affected Person (APs) is entitled to lodge complaints regarding any aspect of the preparation and implementation of the EMP. A well-defined grievance redress and resolution mechanism is established to address Affected Person grievances and complaints in a timely and satisfactory manner. The objective is to resolve complaints as quickly as possible and at the local level through a process of conciliation; and, if that is not possible, to provide clear and transparent procedures for appeal. All APs will be made fully aware of their rights, and the detailed grievance redress procedures will be publicized through an effective public information campaign. GRM will be orientated to primary stakeholders and distribution the information booklet in the subprojects included commune offices and construction camp sites. EMP will also be oriented to site managers/engineers to understanding and strictly implementing. The grievance redress process includes three stages.

- a. **First stage:** APs will present their complaints and grievances verbally or in writing to the village chief, commune chief or field PIU staff. The receiving agent

will be obliged to provide immediate written confirmation of receiving the complaint. If after 7 days the aggrieved AP does not hear from the village and commune chiefs or the working groups, or if s/he is not satisfied with the decision taken in the first stage, the complaint may be brought to the District Office.

b. Second stage: The District Office has 15 days within which to resolve the complaint to the satisfaction of all concerned. If the complaint not be solved at this stage, the District Office will bring the case to the Provincial Grievance Redress Committee.

c. Third stage: The Provincial Grievance Redress Committee meets with the aggrieved party and tries to resolve the situation. Within 30 days of the submission of the grievance, the Committee must make a written decision and submit copies to the MOWRAM/PMO, PDOWRAM/PIU and the AP.

13. It is recognized that, in many cases, APs do not have the writing skills or being able to express their grievances verbally, however, APs are encouraged to seek assistance from the nominated local NGOs or other family members, village heads or community chiefs to have their grievances recorded in writing and to have access to other documentation, and to any survey or valuation of assets, to ensure that where disputes do occur all the details have been recorded accurately enabling all parties to be treated fairly.

IV. ASSESSMENT OF ENVIRONMENTAL IMPACTS

14. Anticipated environmental impacts on the physical and biological environment arising from the construction of dam, canals, structures, main canals, and intake canal will only be temporary, localized, and will affect small area, that can be easily avoided or minimized. A Code of Practice (COP), detailing the potential impacts during rehabilitation of existing dam, canals, structures, main canals and intake canal as well as the institutional responsibilities to address the environmental impacts have to be incorporated in the contract agreement for contractors to follow.
15. With the information cited, The Water Resources Management Sector Development Project (WRMSDP) requests for “No Objection” from ADB for the Krapeu Main Canal in Siem Reap province and O Leu in Kampong Thom province award of civil works contracts under WRMSDP.

Table 1: Matrix of Potential Environmental Impacts and Possible Mitigation Measures

Potential impacts	Nature of impacts	Significance	Duration	Mitigation Measures	Cost	Responsibilities
1. Recommendation During Project Location and Design Phase						
UXO	- Project works will take place in areas that are already well trafficked. Thus, it is not likely to have a significant UXO risk. During the public consultation in April, May & June 2018, no one raised about the UXO risk at the proposed site as it was existing irrigation since previous Regime. However, a borrow pit site is unknown yet that it could be harmful on UXO.	D1	Short term	- To avoid any risks, On all sites where excavation or ground clearance needs to take place, where there is a reasonable doubt as to the safety of the area an approved landmines clearance agency should be engaged for an agreed package of verification, detection and clearance work, to ensure that all areas where excavation, or access construction will take place are clear of UXO.	In contract by Contractor	PMO/PIU TA/ Contractor Monitor: PMO/PIU/TA (environment, Engineer)
Protected areas	- The sub project is located outside all of the protected areas and TSBR Multiple use area. The surrounding land use is dominated by paddy field. Thus, the potential impact on local ecological features is not envisaged. The rehabilitation of these Krapeu and O Leu	D3+	Long term	N/A	N/A	PMO/PIU TA Monitor:

Potential impacts	Nature of impacts	Significance	Duration	Mitigation Measures	Cost	Responsibilities
	have been provided the additional moisture to the immediate watershed throughout the year and can improve the conditions of terrestrial habitats for the local flora and fauna.					PMO/PIU/TA (environment)
Fish migration	- The water control structure will be designed to control flooding during wet season and allow adequate water flows to downstream. Excess water during a wet season will flow over the weir and continue downstream. The preliminary study indicates blockage of fish movement due to spill way is not likely to be significant because (i) fish could bypass it by moving through the network of distribution canals and spillways.	D3	Medium Term	- To ensure no adverse impacts on fish movement, engineer's design should concern on fish resources and movement to upstream and downstream as the below: <ul style="list-style-type: none"> Consider in the design - mitigations to sustain the existing aquatic life. Fishes usually spawn from Early of May to October, in time for the rainy season. Dissipate spillage on the spillway during maximum flood occurrence – Turbulence of water during flood occurrence at the spillway exit will likely occur. 	Project Cost in Project Design Monitoring cost: to be included in monitoring plan (Table 11)	PMO/PIU TA: Engineer and Environment Monitor: PMO/PIU/TA (environment, engineer)
flooding and erosion	- Two irrigation systems of the project alignment will be lower affected by flooding and erosion.	D1	N/A	- The impacts therefore will be reduced or avoided by proper qualitative design and environmental consideration. - Together for reduction of the impacts. Tree plantation for strong dam embankment should also considered	Project Cost Cost of the plantation (presents in construction period)	TA: Engineer Monitor: PMO/PIU/TA (environment, engineer)
Encroachment of precious ecological areas.	- There is no protected area within any reasonable distance.	D1	N/A	As the proposed site is out of protected areas, but environmental consideration is still care about ecological species if there will happen during construction or operation.	Project cost	PMO/PIU TA: Engineer and Environment Monitor: PMO/PIU/TA (environment)
Historical/cultural monuments and values	- No historical or cultural monuments are located in the subproject area	D1	N/A	N/A	N/A	
Resettlement / Land Acquisition	- Minor affected a chunk of barren land along the dam, main canals and secondary canals	D1	N/A	- Consultation and discussion with likely affected people and household, and local authorities have been done before designating these irrigation systems	N/A	PMO/PIU Monitor: PMO/PIU/TA (Resettlement)
2. Impacts during Construction						
Dust from construction works	- An adverse environmental impact could occur during the construction phase in case of improper construction management but is not likely significant.	D1	Short Term	- The irrigation constructions are far away from the residential places and animal habitats. the civil work likely commencement during wet seasons	N/A	Contractor Monitor: PMO/PIU/TA (environment)
Dust and material Transportation	- An adverse environmental impact could occur during the construction phase in case of improper construction management but is not likely significant.	D2	Short Term	- Dry material handling and transport generate large amounts of dust thus: <ul style="list-style-type: none"> The Contractor shall prepare a dust control program. Water shall be sprayed where dry materials are handled, crushed and transported. - Vehicles transporting materials are to be covered to reduce spills and dust.	In contract of a contractor bidding package	Contractor Monitor: PMO/PIU/TA (environment)
Air pollution and noise	- An adverse environmental impact could occur during the construction phase in case of improper construction management but is not likely significant.	D2	Short Term	- Vehicle and equipment emissions cause air pollution and noise: Hence, vehicles and equipment are to be maintained to meet Cambodian emission and noise standards. - Construction within 100m of a village or town is to be limited to lunch hours and night time.	In contract of a contractor bidding package	Contractor Monitor: PMO/PIU/TA

Potential impacts	Nature of impacts	Significance	Duration	Mitigation Measures	Cost	Responsibilities
						(environment)
Human wastes from construction	- An adverse environmental impact could occur during the construction phase from workers feces. This will generate flies and transmitted diseases which will possibly result in sanitation in the areas.	D2	Short Term	- Provision of sanitary facilities (toilets, burying, etc.) with proper waste disposal will be provided by contractors	In contract of a contractor bidding package	Contractor Monitor: PMO/PIU/TA (environment)
Solid waste generation from construction camp, work sites and workers	- Solid waste can create nuisance and bad odor, encourage disease vectors (such as flies and rats), block drainage system and hazard to environment. Hence, sufficient garbage containers are to be provided in construction camps and at work site, and be emptied daily, the waste being disposed of in an approved dump site.	D3	Short Term	- Every camp and work site should be clean during stay and before moving to a new sites.	In contract of a contractor bidding package	Contractor Monitor: PMO/PIU/TA (environment)
Traffic accident and traffic jam of equipment transportation	- Some heavy equipment (heavy trucks, bulldozers, backhoes, etc.) will be brought to the construction areas for excavation and construction works. They will only be transported in and out during the construction period and in relatively small numbers. Even though the project area not heavily populated, no serious disturbance is envisaged; however it will possibly cause accidents to local communities, traffic jam and dust.	D3	Short Term	- Construction vehicles will comply with national speed limitation. - Construction vehicles will drive at low speeds, especially at market, school, hospital, populated areas... - Keep road space or bypass for travelers to avoid traffic jams. - Vehicle for construction should park at designated safe places.	In contract of a contractor bidding package	Contractor Monitor: PMO/PIU/TA (environment)
Soil erosion	- Soil erosion will occur during earthwork and clearing along the bank or existing irrigation. This will cause deterioration in water quality and impact on some aquatic resources.	D3	Medium	- Hence good construction practices shall help to mitigate soil erosion and siltation. Additionally re-planting of vegetation will also help to mitigate erosion.	50 trees including grass x 3.5 \$ = 175 \$ (in the potential erodible sections)	Contractor in corporation with local authority Monitor: PMU/PIU/TA (environment, Engineer)
Worker safety and health	- Some workers will be recruited for construction activities and workers' camp will be constructed. These will include non-skilled workers, operators and drivers as well as surveyors and construction supervisors. Since the works will be relatively small scale and expected to be completed within 5 months, large numbers of workers are not expected. However, safety and health impacts will be also expected.	D3	Short Term	- Workers should wear protection equipment during works to ensure that they are safe and good health. - A contractor should develop a guideline on working mechanism, health and safety during construction. Manager should educate his workers on health and safety projection.	In contract of a contractor bidding package	Contractor Monitor: PMO/PIU/TA (environment, Engineer)
Conflict	- Some workers will be recruited for construction activities and workers' camp will be constructed. These will include non-skilled workers, operators and drivers as well as surveyors and construction supervisors. Since the works will be relatively small scale and expected to be completed within 5 months, large numbers of workers are not expected. However, conflict will be also expected.	D2	Short Term	- A contractor should develop a guideline on staff management and policy. Manager should educate his workers to avoid any conflict may happen in advance.	In contract of a contractor bidding package	Contractor Local authority Monitor: PMO/PIU/TA (environment)
Transmitted diseases	- Some workers will be recruited for construction activities and workers' camp will be constructed. These will include non-skilled workers, operators and	D3	Short Term	- A contractor should develop a guideline on health and safety management during construction. - Manager should educate his workers on	In contract of a contractor bidding	Contractor

Potential impacts	Nature of impacts	Significance	Duration	Mitigation Measures	Cost	Responsibilities
	drivers as well as surveyors and construction supervisors with different gender. Hence, transmitted diseases, especially HIV, will be also expected.			health and HIV program.	package	Monitor: PMO /PIU/TA (environment)
Damage trees along the bank of existing irrigation	- Some trees along the bank of the existing irrigation dam will be affected during clearing activities. However there is not recommended to damage all trees along the bank except those are not avoidable.	D2	Long Term	- Re-growing trees thus they can protect erosion, reduction of evaporation and complementary to environment.	50 trees x 3.5 \$ = 175\$ (plantation and maintenance)	Contractor in cooperation with local authority Monitor: PMO/PIU/TA (environment, Engineer)
Pollution from fuels and black oil	- The impact is temporary, as the risk will be confined to the construction period.	D2	Medium Term	- Secure and controlled storage of all toxic and hazardous materials including fuels and black oil. Provide sanitation arrangements at work sites, to avoid no raw sewage released into drains or streams. Maintenance of vehicles and plant in sound operable condition, preventing oil leakages and excessive exhaust emissions. - Black oil should be stored for sale.	In contract of a contractor bidding package	Contractor Monitor: PMO/PIU/TA (environment)
3. Environmental Impacts during Operation						
Water pollution	- Currently, use of agricultural chemicals is low in the project area. Farmers do not use pesticides for wet season rice variety. The primary objective of the Project is to provide supplementary wet season irrigation and dry season irrigation. The additional irrigation area during dry season, however, will be about 10-20 ha. Therefore, it is not likely to highly significantly increase the use of agricultural chemicals. However environmental consideration, especially about the toxic chemical used must be considered.	D3	Long Term	- Educational program on the fertilizer uses and environmental impacts should be provided. - Environmental monitoring of a water quality is conducted by PDWRAM to assess any negative impact on the water bodies and collaborate with PDA to ensure appropriate use of agricultural chemicals.	Included in component of MAFF/PDAs 1000 \$ per year	Component MAFF/PDAs (of) Monitor: PMO/PIU/TA (environment)
Inadequate O&M	- Poor and inadequate operation and maintenance (O&M) of the improved irrigation systems could cause unintended adverse environmental impacts. Establishment and operation of FWUC is part of the project design and support. The PDWRAM has been providing a technical support to set up FWUCs and Farmers Water User Groups (FWUGs). A FWUC is the governing board, normally comprising chairman, deputy chairman, secretary and treasurer. A FWUG is charged with undertaking or ensuring the key activities - operation and maintenance and is also involved in collecting irrigation service fee. The proposed WRSDP provides support to PDWRAM and FWUCs through a technical assistance to strengthen overall water management capacity of FWUCs.	D3	Medium Term	- Acceptable and appropriate O & M should be developed for sustainable operation and maintenance. - Sufficient training to FWUGs must be also provided thus they will be able to manage, operate and maintain the irrigation in sustainability.	Project Cost (in design, capacity building and FWUG package)	TA: community development/Engineer/Environment/Capacity Building Specialists Monitor by: PMO/PIU/TA (environment, CD)
Accidence	- Irrigation system is away from residents and populated areas.	D1	Short Term	- However, safety management program should be provided by the project in cooperation with FWUC and local authority.	200 \$	PIU/FWUG/ Local authority Monitor by: PMO/PIU/TA (environment)
Conflict of water utilization	- This will occur between water users of downstream and upstream in case of unappropriate management and equitable share with understanding.	D3	Long Term	- It should be avoidable with support of FWUC and proper O&M manual. - Educational program for water saving uses should be also provided. Hence concepts of water equitable share and effective	200 \$ in cooperation with other packages	PIU/FWUG/ Local Authority /Environment/ CD Monitor by:

Potential impacts	Nature of impacts	Significance	Duration	Mitigation Measures	Cost	Responsibilities
				management should be applied.	such as capacity building and FWUC	PMO/PIU/TA (environment, Engineer, CD)
4. Environmental and Social Benefits						
Environment and social benefits	- Two significant environmental enhancement measures have been identified.	D2+	Long Term	- Strengthen capacity of FWUC and local authority for problem solution, management and maintenance of the irrigation.	Cost in package of FWUC and capacity building	PIU/FWUG/Local authority Monitor by: PMO/PIU/TA (environment)
Increasing agricultural activities and farmer's knowledge	- The improved water control and management as a result of the improved irrigation scheme will enable the communities to manage the flood and drought. Training on irrigated agriculture practice will improve farmers' knowledge on soils and appropriate responses, field improvement and preparation for irrigation, field water management, maintenance of water depth, level and timing, and role of drainage and its benefits, which strengthens the adaptive capacity of farmers to climatic variability.	D4+	Long Term	- Strengthen capacity of FWUC and local authority for flood control, management and maintenance of the irrigation.	Cost in package of FWUC and capacity building	PIU/FWUG/Local authority Monitor: PMO/PIU/TA (environment)
Employment	- Through the enhancement of agricultural activities and local incomes, in-migrant employment will benefit to local communities who will migrate for job. Additionally some of migrant employment will return home for improving their agricultures and will have a chance to find a job at the locality.	D3+	Long Term	- Strengthen capacity of FWUC and local authority for problem solution, management and maintenance of the irrigation.	Cost in package of FWUC and capacity building	PIU/FWUG/Local authority Monitor by: PMO/PIU/TA (environment)

Table 2: Environmental Monitoring during Subproject Construction and Operation

Potential Impacts	Environmental Performance Indicators	Frequency	Responsibility for Monitoring	Budget (US \$)
1. Subproject selection				
Availability of water and downstream impacts	River/stream flow	Wet season	PMO/PIU/TA (Environment, Engineer)	Included in the design cost
Life span of an irrigation building where has been damaged by flooding and erosion	Erosion and flooding	Wet season	Environment/Engineer design	Included in the design cost
Fish migration	Number and movement of fish	Up and down stream (This should be done 2 times per year during dry and wet season)	PIU/Engineer design/Environment/Provincial Department of Fishery	500 \$/Year
2. During Construction				
Dust of transportation and earth work	- Dust from transportation of construction materials to site and irrigation works during construction will be a problem to communities who live closing irrigation construction, especially during dry season. The dust will impact on aesthetics and public health through breathing and polluting water quality.	Monthly / bi-monthly	PMO/PIU TA: Environment	50 \$ per year
Human wastes from construction site	- Sources of the human waste will be generated by workers that will impact on environment and public health in the communities around the work site. - (Monitor should check at the site during construction and also interview with villagers, teacher etc.)	Monthly/bi-monthly	PMO/PIU TA: Environment	50 \$ per year
Solid waste	- Solid waste include residue from construction material and worker's eating food and drinking generating plastic bag, white plastic for food package, plastic bottle and glass bottle.	Monthly/bi-monthly	PMO/PIU TA: Environment	50 \$ per year
Traffic accident and traffic jam of equipment transportation	- Traffic accidents happen accidentally when driver will drive over speed, careless or unprofessional driving - The traffic congestion is normally occurred by illegal and disorder parking of equipment	Monthly/bi-monthly	PMO/PIU TA: Environment	50 per year
Worker safety and health	- Accidents inevitably happen and when they do work. The Contractor will need to have an effective Worker Health and Safety Plan that is supported by trained first aid personnel and emergency response facilities	Monthly/bi-monthly	PMO/PIU TA: Environment	50 \$ per year
Loss of tree	- Re-growing trees and grass along the proposed irrigation where can protect erosion and environmental enhancement - (monitor: number of trees compares to EMP)	During and after plantation	PMO/PIU TA: Environment	50 \$ per year
Transmitted diseases	- HIV/AIDS is still prevalent in Cambodia thus it may happen unexpectedly through workers.	Monthly/bi-monthly	PMO/PIU TA: Environment	50 \$ per year
Noisy	- Construction equipment may cause temporary and localized noise and vibration generation. Sources of noise include transportation of material, vehicle and equipment used at the irrigation work site	Monthly/bi-monthly	PMO/PIU TA: Environment	50 \$ per year
3. Operation				
Fish movement	- Fish surveys during dry and wet season during operation	Twice a year during project implementation	PDWRAM/PIU in cooperation with relevant technical agencies	(to be included in EMP section)
Water shortage downstream	- Downstream water use survey	Once a year in dry season during project implementation/operation	PDWRAM/PIU in cooperation with relevant technical agencies	\$300/year (to be adjusted)
Water quality/contamination	- water quality survey	Twice a year in wet and dry seasons with 5 parameters for rivers and 7 parameters for reservoirs stipulated in the water quality standard in public water areas, sub-decree on EIA and	PDWRAM/PIU in cooperation with relevant technical agencies with support from FWUGs	To be included in EMP above

		sub-decree of water pollution control standard.		
Inadequate O&M	Efficiency of management and operation	Twice a year	PDWRAM /PIU/FWUG in cooperation with relevant technical agencies	\$ 300 / year (to be adjusted)
Conflict of water utilization	Complaint mechanism – of downstream and upstream farmers	Twice a year	PDWRAM /PIU/FWUG in cooperation with relevant technical agencies	\$ 200 / year (to be adjusted)

Appendix 1: Rapid Environmental Assessment (REA) Checklist

Country/Project Title:

CAM Loan/Grant 2672-8253/0220_CAM (SF): Water Resources Management Sector Development Project-Krapeu Main Canal

Sector Division:

SEER

Screening Questions	Yes	No	Remarks
A. PROJECT SITING			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
▪ PROTECTED AREA		<input checked="" type="checkbox"/>	There is No protected area
▪ WETLAND		<input checked="" type="checkbox"/>	There is no wetlands in the project area.
▪ MANGROVE		<input checked="" type="checkbox"/>	The project site is not located in coastal zone, thus, no mangrove forests.
▪ ESTUARINE		<input checked="" type="checkbox"/>	No estuary exists at the project location.
▪ BUFFER ZONE OF PROTECTED AREA		<input checked="" type="checkbox"/>	No buffer zone or protected area within project location.
▪ SPECIAL AREA FOR PROTECTING BIODIVERSITY		<input checked="" type="checkbox"/>	No special area for protecting biodiversity located at project location
B. POTENTIAL ENVIRONMENTAL IMPACTS			
Will the Project cause...			
▪ Loss of precious ecological values (e.g. result of encroachment into forests/swamplands or historical/cultural buildings/areas, disruption of hydrology of natural waterways, regional flooding, and drainage hazards)?		<input checked="" type="checkbox"/>	None of these areas/locations
▪ Conflicts in water supply rights and related social conflicts?		<input checked="" type="checkbox"/>	MOWRAM has exist the Farmers Water User Community (FWUC) to organize and managing.
▪ Impediments to movements of people and animals?		<input checked="" type="checkbox"/>	None of these animals and people
▪ Potential ecological problems due to increased soil erosion and siltation, leading to decreased stream capacity?		<input checked="" type="checkbox"/>	Not anticipated
▪ Insufficient drainage leading to salinity intrusion?		<input checked="" type="checkbox"/>	Not anticipated
▪ Over pumping of groundwater, leading to salinization and ground subsidence?		<input checked="" type="checkbox"/>	No groundwater pumping, it's a surface irrigation project
▪ Impairment of downstream water quality and therefore, impairment of downstream beneficial uses of water?		<input checked="" type="checkbox"/>	No new construction is envisaged in the rivers, therefore downstream water quality is not going to be affected
▪ Dislocation or involuntary resettlement of people?		<input checked="" type="checkbox"/>	Previous project (FDERP) has categorized as C which is none impact or minor impact. At that stage the consultation with beneficiaries had made and they are voluntary donated to the subproject.
▪ Disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?		<input checked="" type="checkbox"/>	None of the poor, women and children, Indigenous Peoples or other vulnerable groups
▪ Potential social conflicts arising from land tenure and land use issues?		<input checked="" type="checkbox"/>	None of land tenure and land use issues
▪ Soil erosion before compaction and lining of canals?		<input checked="" type="checkbox"/>	None of these matters

Screening Questions	Yes	No	Remarks
▪ Noise from construction equipment?		<input checked="" type="checkbox"/>	No people who are living along the project site.
▪ Dust during construction?	<input checked="" type="checkbox"/>		Very minor issues of dust, as subproject area is far away from residential and animal habitats, and the civil work commencement during wet season. If any, the contractor has to apply water pouring at least two time a day
▪ Waterlogging and soil salinization due to inadequate drainage and farm management?		<input checked="" type="checkbox"/>	Not anticipated
▪ Leaching of soil nutrients and changes in soil characteristics due to excessive application of irrigation water?		<input checked="" type="checkbox"/>	Not anticipated
▪ Reduction of downstream water supply during peak seasons?		<input checked="" type="checkbox"/>	Irrigation efficiency will be increased so water flow regimes will not be affected.
▪ Soil pollution, polluted farm runoff and groundwater, and public health risks due to excessive application of fertilizers and pesticides?		<input checked="" type="checkbox"/>	Not anticipated
▪ Soil erosion (furrow, surface)?		<input checked="" type="checkbox"/>	Not anticipated
▪ Scouring of canals?		<input checked="" type="checkbox"/>	Not anticipated
▪ Clogging of canals by sediments?		<input checked="" type="checkbox"/>	Not anticipated
▪ Clogging of canals by weeds?		<input checked="" type="checkbox"/>	Not anticipated
▪ Seawater intrusion into downstream freshwater systems?		<input checked="" type="checkbox"/>	None of these
▪ Introduction of increase in incidence of waterborne or water related diseases?	<input checked="" type="checkbox"/>		During construction, sanitary facility for workers will be provided, so no increasing in incidence of waterborne or water related diseases.
▪ Dangers to a safe and healthy working environment due to physical, chemical and biological hazards during project construction and operation?		<input checked="" type="checkbox"/>	Not anticipated
▪ Large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?		<input checked="" type="checkbox"/>	Local labor is to be recruited as much as possible.
▪ Social conflicts if workers from other regions or countries are hired?		<input checked="" type="checkbox"/>	Only Cambodian worker will be hired as team or group works
▪ Risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?		<input checked="" type="checkbox"/>	The proposed project site does not have community who are living along the existing canal.
▪ Community safety risks due to both accidental and natural hazards, especially where the structural elements or components of the project (e.g., irrigation dams) are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?		<input checked="" type="checkbox"/>	The proposed project site does not have community who are living along the existing canal.

Country/Project Title:

CAM Loan/Grant 2672-8253/0220_CAM (SF): Water Resources Management Sector Development Project-O Leu

Sector Division:

SEER

Screening Questions	Yes	No	Remarks
C. PROJECT SITING Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
▪ PROTECTED AREA		<input checked="" type="checkbox"/>	There is No protected area
▪ WETLAND		<input checked="" type="checkbox"/>	There is no wetlands in the project area.
▪ MANGROVE		<input checked="" type="checkbox"/>	The project site is not located in coastal zone, thus, no mangrove forests.
▪ ESTUARINE		<input checked="" type="checkbox"/>	No estuary exists at the project location.
▪ BUFFER ZONE OF PROTECTED AREA		<input checked="" type="checkbox"/>	No buffer zone or protected area within project location.
▪ SPECIAL AREA FOR PROTECTING BIODIVERSITY		<input checked="" type="checkbox"/>	No special area for protecting biodiversity located at project location
D. POTENTIAL ENVIRONMENTAL IMPACTS Will the Project cause...			
▪ Loss of precious ecological values (e.g. result of encroachment into forests/swamplands or historical/cultural buildings/areas, disruption of hydrology of natural waterways, regional flooding, and drainage hazards)?		<input checked="" type="checkbox"/>	None of these areas/locations
▪ Conflicts in water supply rights and related social conflicts?		<input checked="" type="checkbox"/>	MOWRAM has to organize and managing the Farmers Water User Community (FWUC).
▪ Impediments to movements of people and animals?		<input checked="" type="checkbox"/>	None of these animals and people
▪ Potential ecological problems due to increased soil erosion and siltation, leading to decreased stream capacity?		<input checked="" type="checkbox"/>	Not anticipated
▪ Insufficient drainage leading to salinity intrusion?		<input checked="" type="checkbox"/>	Not anticipated
▪ Over pumping of groundwater, leading to salinization and ground subsidence?		<input checked="" type="checkbox"/>	No groundwater pumping, it's a surface irrigation project with perennial spring water
▪ Impairment of downstream water quality and therefore, impairment of downstream beneficial uses of water?		<input checked="" type="checkbox"/>	No new construction is envisaged in the rivers, therefore downstream water quality is not going to be affected
▪ Dislocation or involuntary resettlement of people?		<input checked="" type="checkbox"/>	Minor affected barren land/chunk of land along the dam and secondary canals
▪ Disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?		<input checked="" type="checkbox"/>	None of the poor, women and children, Indigenous Peoples or other vulnerable groups
▪ Potential social conflicts arising from land tenure and land use issues?		<input checked="" type="checkbox"/>	None of land tenure and land use issues
▪ Soil erosion before compaction and lining of canals?		<input checked="" type="checkbox"/>	None of these matters
▪ Noise from construction equipment?		<input checked="" type="checkbox"/>	No people who are living along the project site.

Screening Questions	Yes	No	Remarks
<ul style="list-style-type: none"> ▪ Dust during construction? 	<input checked="" type="checkbox"/>		Very minor issues of dust, as subproject area is far away from residential and animal habitats and the civil work commencement during wet season. If any, the contractor has to apply water pouring at least two time a day
<ul style="list-style-type: none"> ▪ Waterlogging and soil salinization due to inadequate drainage and farm management? 		<input checked="" type="checkbox"/>	Not anticipated
<ul style="list-style-type: none"> ▪ Leaching of soil nutrients and changes in soil characteristics due to excessive application of irrigation water? 		<input checked="" type="checkbox"/>	Not anticipated
<ul style="list-style-type: none"> ▪ Reduction of downstream water supply during peak seasons? 		<input checked="" type="checkbox"/>	Irrigation efficiency will be increased so water flow regimes will not be affected.
<ul style="list-style-type: none"> ▪ Soil pollution, polluted farm runoff and groundwater, and public health risks due to excessive application of fertilizers and pesticides? 		<input checked="" type="checkbox"/>	Not anticipated
<ul style="list-style-type: none"> ▪ Soil erosion (furrow, surface)? 		<input checked="" type="checkbox"/>	Not anticipated
<ul style="list-style-type: none"> ▪ Scouring of canals? 		<input checked="" type="checkbox"/>	Not anticipated
<ul style="list-style-type: none"> ▪ Clogging of canals by sediments? 		<input checked="" type="checkbox"/>	Not anticipated
<ul style="list-style-type: none"> ▪ Clogging of canals by weeds? 		<input checked="" type="checkbox"/>	Not anticipated
<ul style="list-style-type: none"> ▪ Seawater intrusion into downstream freshwater systems? 		<input checked="" type="checkbox"/>	None of these
<ul style="list-style-type: none"> ▪ Introduction of increase in incidence of waterborne or water related diseases? 	<input checked="" type="checkbox"/>		During construction, sanitary facility for workers will be provided, so no increasing in incidence of waterborne or water related diseases.
<ul style="list-style-type: none"> ▪ Dangers to a safe and healthy working environment due to physical, chemical and biological hazards during project construction and operation? 		<input checked="" type="checkbox"/>	Not anticipated.
<ul style="list-style-type: none"> ▪ Large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)? 		<input checked="" type="checkbox"/>	Local labor is to be recruited as much as possible.
<ul style="list-style-type: none"> ▪ Social conflicts if workers from other regions or countries are hired? 		<input checked="" type="checkbox"/>	Only Cambodian worker will be hired as team or group works
<ul style="list-style-type: none"> ▪ Risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation? 		<input checked="" type="checkbox"/>	The proposed project site does not have community who are living along the existing canal.
<ul style="list-style-type: none"> ▪ Community safety risks due to both accidental and natural hazards, especially where the structural elements or components of the project (e.g., irrigation dams) are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning? 		<input checked="" type="checkbox"/>	The proposed project site does not have community who are living along the existing canal.

Appendix 2: A Checklist for Preliminary Climate Risk Screening

Country/Project Title: CAM: Water Resources Management Sector Development Project

Sector: Agriculture, natural resources and rural development

Subsector: Irrigation, Water-based natural resources management

Division/Department: SEER/SERD

Screening Questions		Score	Remarks ¹
Location and Design of Project	Is siting and/or routing of the Project (or its components) likely to be affected by climate conditions including extreme weather related events such as floods, droughts, storms, landslides?	0	Not anticipated
	Would the project design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc.)?	0	Not anticipated
Materials and Maintenance	Would weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of project inputs over the life of project outputs (e.g. construction material)?	0	Not anticipated
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s)?	0	Not anticipated
Performance of project outputs	Would weather/climate conditions and related extreme events likely affect the performance (e.g. annual power production) of project output(s) (e.g. hydro-power generation facilities) throughout their design life time?	0	Not anticipated

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

Responses when added that provide a score of zero (0) will be considered low risk project/subproject. If adding all responses will result to a score of 1–4 and that no score of 2 and 1 were given to any single response, the project will be assigned a low risk category. A total score of 5 or more (which include

¹ If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the siting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.

providing a score of 1 in all responses) or a 2 in any single response will be categorized as high risk project.

Result of Initial Screening (Low, Medium, High): Low

Other Comments: Small scale irrigation systems in villages to irrigate rice fields during the onset of dried seasons

Prepared by: SAO BOTUMROATH
SAFEGUARDS Specialist

SEEN AND AGREED BY: In Poly/PIU

Signature: _____ 
Date: 19-21 June 2018

Signature: Inpo
Date: 20 June 2018

Appendix 3: The consultation meetings with projects beneficiaries

The minutes of meetings of the two subprojects could concise summary as follows:

Safeguards consultant together with PIUs involved staff conducted consultation meetings with subprojects beneficiaries and local authorities regarding the environmental issues of Krapeu subproject, safeguards consultant introducing the background of the subproject to participants in the meeting and discussing about the environmental issue that would occurring during civil work implementing the subproject of Krapeu is far away from residents so the environmental issue could not impact. And Krapeu main canal is the existing canal so there is none environmentally sensitive area and potential environmental impact.

Similarly, safeguards consultant introducing the background of O Leu subproject to participants in the meeting and discussing about the environmental issue that would occurring during civil work implementing the subproject of O Leu is away from residents so the environmental issue could not impact. And O Leu is the existing canals and dam so there is none environmentally sensitive area and potential environmental impact. Beneficiaries in the meeting wished to have a rehabilitation of O Leus' dam and canals sooner in order to have water to irrigate their paddy during the onset of dried season, because in this community is regular flooded during rainy season that villagers could not grow their paddy.

		
<p>(1). Consultation meeting in O Leu</p>	<p>(2). Consultation meeting in Krapeu</p>	<p>(3). O Leu existing Intake canal</p>
		
<p>(5). O Leu existing Dam</p>	<p>(4). Krapeu main canal</p>	<p>(6). O Leu subproject</p>

Appendix 4: List of participants

កម្មវិធីអភិវឌ្ឍន៍វិស័យគ្រប់គ្រងធនធានទឹក

ADB Loan/Grant 2672/0220_CAM(SF)

បញ្ជីចេញវិញ្ញាបនបត្រ (Attendance List)

ស្ថិតិ (On) ៖ ...ការប្រជុំពិភាក្សាហេតុប៉ះពាល់បរិស្ថាន.....

ទីកន្លែង (Place) ៖ ភោគដ្ឋាន ព្រះសីហនុ និង ផ្ទះលេខ ១៧ ផ្លូវលេខ ១.....

កាលបរិច្ឆេទ (Date) ៖ ថ្ងៃទី ២០ ខែ វិច្ឆិកា ឆ្នាំ ២០១៩

ល.រ No	គោត្តនាម និង នាម Name	ភេទ Sex	តួនាទី Position	ស្ថាប័ន Organization	លេខទូរស័ព្ទ Phone/F-mail	ហត្ថលេខា/ស្នាម មេដៃ Signature
១	សៀម សៀម	ប	សេនាបតី	ស្ថាប័ន	០១៧៦៦២៣១៥១	
២	ស៊ុន សារ៉ា	ប	សេនាបតី	ស្ថាប័ន	០១៧៧៥៥៨០៤៤៨	
៣	ស៊ុន សារ៉ា	ប	សេនាបតី	ស្ថាប័ន	០១១១៥៥១៤៤៨	
៤	ស៊ុន សារ៉ា	ប	សេនាបតី	ស្ថាប័ន		
៥	ស៊ុន សារ៉ា	ប	សេនាបតី	ស្ថាប័ន		
៦	ស៊ុន សារ៉ា	ប	សេនាបតី	ស្ថាប័ន		
៧	ស៊ុន សារ៉ា	ប	សេនាបតី	ស្ថាប័ន		
៨	ស៊ុន សារ៉ា	ប	សេនាបតី	ស្ថាប័ន		
៩	ស៊ុន សារ៉ា	ប	សេនាបតី	ស្ថាប័ន		
១០	ស៊ុន សារ៉ា	ប	សេនាបតី	ស្ថាប័ន		
១១	ស៊ុន សារ៉ា	ប	សេនាបតី	ស្ថាប័ន	០៩៩ ២១៨០១១	
១២	ស៊ុន សារ៉ា	ប	សេនាបតី	ស្ថាប័ន		
១៣	ស៊ុន សារ៉ា	ប	សេនាបតី	ស្ថាប័ន		
១៤	ស៊ុន សារ៉ា	ប	សេនាបតី	ស្ថាប័ន		
១៥	ស៊ុន សារ៉ា	ប	សេនាបតី	ស្ថាប័ន		

អ្នកចូលរួមសរុប: ១៥នាក់ (ប្រុស: ១៥នាក់, ស្រី: ០នាក់) រៀបចំដោយ:

បញ្ជីបង្ហាញ (Attendance List)

ស្ថិតិ (On) : ...ការប្រជុំពិភាក្សាហេតុប៉ះពាល់បរិស្ថាន.....

ទីកន្លែង (Place) : *ភ្នាក់ងារ ភ្នំពេញ*.....

កាលបរិច្ឆេទ(Date) : ថ្ងៃទី *២០* ខែ *មិថុនា* ឆ្នាំ *២០១៩*

ល.រ No	គោត្តនាម និង នាម Name	ភេទ Sex	តួនាទី Position	ស្ថាប័ន Organization	លេខទូរស័ព្ទ Phone/E-mail	ហត្ថលេខា/ស្នាម មេដៃ Signature
១	<i>លោក គុណ</i>	<i>ប</i>	<i>កម្មវិធី</i>	<i>ក្រុមហ៊ុន</i>		<i>[Signature]</i>
២	<i>លោក/ឧ គារ</i>	<i>-</i>	<i>-</i>	<i>-</i>		<i>[Signature]</i>
៣	<i>លោក គារ</i>	<i>ប</i>	<i>-</i>	<i>-</i>		<i>[Signature]</i>
៤						
៥						
៦						

បញ្ជីចំណុះ (Attendance List)

ស្ថិតិ (On) : ...ការប្រជុំពិភាក្សាហេតុប៉ះពាល់បរិស្ថាន.....

ទីកន្លែង (Place) : ... ក្រសួងសុខាភិបាលកម្ពុជា

កាលបរិច្ឆេទ(Date) : ថ្ងៃទី 21 ខែ វិច្ឆិកា ឆ្នាំ ២០១៩

ល.រ No.	គោត្តនាម និង នាម Name	ភេទ Sex	តួនាទី Position	ស្ថាប័ន Organization	លេខទូរស័ព្ទ Phone/E-mail	ហត្ថលេខា/ស្នាម មេដៃ Signature
១	វង់ ឌី	ប្រុស	ប្រធានគម្រោង	អង្គការស្រី	០១៦៣១២៦៧	
២	សារី គុណ្ណា	ប្រុស	និស្សិតស្រី	ក្រសួងសុខាភិបាល	០៩១៧៤០៩៤	
៣	ស៊ី ឌី ឌី	ស្រី	គេ ឌី ឌី	ក្រសួងសុខាភិបាល	០១២៣៤៥៦៧	
៤	ស៊ី ឌី ឌី	ស្រី	គេ ឌី ឌី	ក្រសួងសុខាភិបាល	០១៧៤០៤៥៦៧	
៥	ស៊ី ឌី ឌី	ស្រី	គេ ឌី ឌី	- - -	- - -	
៦	ស៊ី ឌី ឌី	ស្រី	គេ ឌី ឌី	- - -	- - -	
៧	ស៊ី ឌី ឌី	ស្រី	គេ ឌី ឌី	- - -	- - -	
៨	ស៊ី ឌី ឌី	ស្រី	គេ ឌី ឌី	- - -	- - -	
៩	ស៊ី ឌី ឌី	ស្រី	គេ ឌី ឌី	- - -	- - -	
១០	ស៊ី ឌី ឌី	ស្រី	គេ ឌី ឌី	- - -	- - -	
១១	ស៊ី ឌី ឌី	ស្រី	គេ ឌី ឌី	- - -	- - -	
១២	ស៊ី ឌី ឌី	ស្រី	គេ ឌី ឌី	- - -	- - -	
១៣	ស៊ី ឌី ឌី	ស្រី	គេ ឌី ឌី	- - -	- - -	
១៤	ស៊ី ឌី ឌី	ស្រី	គេ ឌី ឌី	- - -	- - -	
១៥	ស៊ី ឌី ឌី	ស្រី	គេ ឌី ឌី	- - -	- - -	

អ្នកបញ្ជូនស្នាមមេដៃ..... នាគ (ប្រុស.....នាគ , ស្រី.....នាគ)

រៀបចំដោយ:

បញ្ជីចុះឈ្មោះ (Attendance List)

ស្ថិតិ (On) ៖ ...ការប្រជុំពិភាក្សាហេតុប៉ះពាល់បរិស្ថាន.....

ទីកន្លែង (Place) ៖ សាលា វិជ្ជា គោកគ្រួសារ.....

កាលបរិច្ឆេទ (Date) ៖ ថ្ងៃទី 21 ខែ វិច្ឆិកា ឆ្នាំ ២០១៩

ល.រ No.	គោត្តនាម និង នាម Name	ភេទ Sex	តួនាទី Position	ស្ថាប័ន Organization	លេខទូរស័ព្ទ Phone/E-mail	ហត្ថលេខា/ស្នាម មេដៃ Signature
១	លី សារ៉ាត	ស្រី	ស្រី	ស្រី		
២	លី សារ៉ាត	ស្រី	ស្រី	ស្រី		
៣	លី សារ៉ាត	ស្រី	ស្រី	ស្រី		
៤	លី សារ៉ាត	ស្រី	ស្រី	ស្រី		
៥	លី សារ៉ាត	ស្រី	ស្រី	ស្រី		
៦	លី សារ៉ាត	ស្រី	ស្រី	ស្រី		
៧						
៨						