

Environmental Assessment and Review Framework

Project No. 42285
September 2014

CAM: Integrated Urban Environmental Management in the Tonle Sap Basin Project – Output 3: Community Mobilization and Environmental Improvements¹

¹ Prepared by Ministry of Public Works and Transport for the Asian Development Bank

Currency Equivalent

(As of 23 January 2014)

Currency Unit	-	Riel (KHR)
USD 1.00	=	KHR 3,995
USD 0.0002503	=	KHR 1.00

Abbreviations

ADB	Asian Development Bank
AP	affected person
CMEI	Community Mobilization and Environmental Improvements
DPWT	Department of Public Works and Transport
EARF	environmental assessment and review framework
EIA	environmental impact assessment
EMP	environmental management plan
EMR	environmental monitoring report
ESS	environmental safeguard staff
IEE	initial environmental examination
IEIA	initial environmental impact assessment
IUEMSTBP	Integrated Urban Environmental Management in the Tonle Sap Basin Project
GRM	grievance redress mechanism
KHR	Cambodian Riel
MoE	Ministry of Environment
MPWT	Ministry of Public Works and Transport
MRC	Mekong River Commission
NGO	non-governmental organization
O&M	operation and maintenance
PCC	provincial coordinating committee
PDoe	Provincial Department of Environment
PIU	project implementing unit
PMIS	project management and implementation support
PMU	project management unit
PSC	project steering committee
REA	rapid environmental assessment
RGC	Royal Government of Cambodia
SPS	Safeguard Policy Statement
USD	United States Dollar
VDC	Village Development Committee
WHO	World Health Organization

NOTES

In this report, "\$" refers to US dollars.

This environmental assessment and review framework 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. The Final EARF will be uploaded upon ADB Board approval of the Project.

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I. Introduction

1. This document represents the Environmental Assessment and Review Framework (EARF or “The Framework”) for the Community Mobilization and Environmental Improvements (CMEI)—Output 3 of the Integrated Urban Environmental Management in the Tonle Sap Basin Project (IUEMTSBP or, “Project”). It outlines the procedures that will be followed in the environmental assessment and review of community-driven environmental improvements that will be supported under the CMEI in order to comply with the requirements of the Law on Environmental Protection and Natural Resource Management (Preah Reach Kram/NS-PKM-1296/36), 1996, and Sub-decree on EIA Process (Sub-decree No. 72 ANRK.BK), 1999, of the Government of Cambodia and the Safeguard Policy Statement (SPS 2009) of the Asian Development Bank (ADB). It is intended for use and reference primarily by the following key players of IUEMTSBP: (i) Ministry of Public Works and Transport; (ii) Departments of Public Works and Transport of Kampong Chhnang and Pursat Provinces; (iii) Kampong Chhnang Municipality; (iii) Pursat Municipality; and (iv) participating communities and their Village Development Committees.

II. The Project

A. Integrated Urban Environmental Management in the Tonle Sap Basin Project

2. The Integrated Urban Environmental Management in the Tonle Sap Basin Project (or, “Project”) will contribute to the increased economic activities and environmental protection in towns around the Tonle Sap Basin. It responds to the need of the municipal governments for integrated urban environmental management in urban areas around the Tonle Sap. The project will improve urban services and enhance climate change resilience in Kampong Chhnang (KCH) and Pursat (PST) municipalities through urban area environmental improvements; community mobilization and environmental improvements; strengthened sector coordination and operations; and strengthened capacity for project implementation, and operations and maintenance (O&M).² The project follows the Tonle Sap Urban Areas Development Framework (TSUADF) and KCH and PST urban development strategies to 2030.³

3. The impact of the proposed Project will be increased economic activities and environmental protection in towns around the Tonle Sap Basin. The outcome of the project will be improved urban services and enhanced climate change resilience in KCH and PST municipalities. The project will enhance the urban environment, improve public health, and contribute to better quality, coverage and reliability of services to more than 100,000 residents in the municipalities of KCH and PST. This will be achieved through an integrated program of physical and non-physical investments. The project incorporates climate resilience measures in infrastructure development, with support from the pilot program climate resilience.⁴

4. The five outputs include:

- **Output 1: Kampong Chhnang Urban Area Environment Improvements** includes: (i) upgrading of existing embankment and construction of new embankment with road; and (ii) solid waste management through the

² The Asian Development Bank (ADB) provided project preparatory technical assistance. ADB. 2011. *Technical Assistance to the Kingdom of Cambodia for Preparing the Integrated Urban Environmental Management in the Tonle Sap Basin Project*. Manila. (TA 7986-CAM, \$700,000, approved on 13 December 2011).

³ An inter-ministerial prakas for the TSUADF is pending. Urban strategies approved on 31 July 2014 (MPWT Letter No. 009 PMU/MPWT/IEUMTB/14/30 July 2014 for KCH and No. 008 PMU/MPWT/IEUMTB/14/30 July 2014 for PST).

⁴ It is a targeted program of the Strategic Climate Fund, which is one of two funds within the framework of the Climate Investment Fund. PPCR programs are country-led and build on NAPAs and other development plans.

development of a controlled landfill, provision of collection and landfill equipment, and remediation of the closed and existing dump sites.

- **Output 2: Pursat Urban Area Environment Improvements** includes: (i) drainage system improvements; (ii) riverbank protection on Pursat River; and (iii) solid waste management through the development of a controlled landfill, provision of collection and landfill equipment, and remediation of the closed and existing dump sites.
- **Output 3: Community Mobilization and Environmental Improvements** includes improved household sanitation for IDPoor 1 and 2 in the current municipality area; climate change and hygiene awareness and action; and community small-scale infrastructure improvements in pre-identified poor and vulnerable areas in each municipality. Small-scale infrastructure improvements will be prioritized by the communities and financed by the project, national government, and community.
- **Output 4: Strengthened Sector Coordination and Operations** supports MPWT to convene national urban development task force meetings (twice per year); strengthens climate change regulations focusing on improved building codes in provincial towns around the Tonle Sap, including appropriate sanitation; and supports the establishment of pilot USUs (or special operating agencies) for improved delivery and management of decentralized urban services. **Output 5: Strengthened Capacity for Project Implementation, Operation and Maintenance** includes project implementation support services for the project management unit (PMU) and project implementation units (PIUs) in design and supervision, safeguards implementation and monitoring, gender mainstreaming, community development, accounting and financial management, procurement, disbursement, review and expansion of existing strategies (flood mitigation, stormwater drainage, SWM, and disaster risk management), and skills enhancement and on-the-job training in urban planning and development, solid waste management, and O&M.

5. The Ministry of Public Works and Transport (MPWT) will be the executing agency of the Project. A Project Steering Committee, chaired by the MPWT, will oversee Project implementation and ensure coordination. The PSC will be chaired by MPWT and members will include representatives from Ministry of Economy and Finance (MEF), Tonle Sap Authority (TSA), MPWT, and Ministry of Land Management Urban Planning and Construction (MLMUPC). A Project Management Unit (PMU), comprising of staff from the MPWT will be responsible for day-to-day implementation, coordination and supervision of the Project activities. Provincial Coordinating Committees, headed by the Provincial Governor, will be set up in KCH and PST to coordinate and monitor activities at the town level and support the PIUs particularly in matters requiring the inputs of other provincial agencies. Project Implementing Units (PIUs), comprising of technically qualified staff from the DPWTs and Municipalities, will implement the Project, manage the day-to-day activities of the subprojects and report to the PMU. The Project will be implemented over a period of 7 years.

B. Output 3: Community Mobilization and Environmental Improvements (CMEI)

The Community Mobilization and Environmental Improvements (CMEI) output will translate Project principles into community action. This includes support for community planning and prioritization, and provision of community-driven climate-resilient urban environmental infrastructure. The involvement of local communities, including poor, vulnerable and ethnic Cham and Vietnamese, in planning, decision-making and supervision of the works will encourage local solutions and greater accountability of the services delivered. It will help to create ownership and provide benefits to those often marginalized and vulnerable.

6. The output includes the following sub-outputs and activities:
- Household sanitation grants for IDPoor 1 and IDPoor 2 households within the defined municipality area). Any proposal that triggers safeguard categorization of A or B will not be eligible. This sub-output will be 100% financed by the project (or as otherwise agreed to in advance with ADB and the Government);
 - Information, Education and Communication (IEC) activities to promote project awareness, hygiene awareness, initiate behavioral change and disseminate climate change information to men and women. The project area for the IEC efforts will include sangkats in the existing municipal boundary and adjacent urban sangkats. This sub-output will be 100% financed by the project (or as otherwise agreed to in advance with ADB and the Government). It will generate information and opportunities for knowledge management to further strengthen the knowledge management aspects of the project; and,
 - Small-scale infrastructure improvements in sangkats that are pre-identified by the project survey as being poor and vulnerable to poor urban environmental conditions (e.g., community sanitation, improved drainage with access roads, or community collection points for solid waste management). These components will connect directly with Output 1 and 2 investments to ensure that local communities are also direct beneficiaries. Communities residing in the urban sangkats of the existing municipal boundary area will be eligible for assistance. Proposal must be ADB safeguard categorization C for involuntary resettlement and environment and must benefit the poor, vulnerable and/or ethnic Cham and Vietnamese communities in order for it to qualify and be eligible for support. This sub-output will be 80% financed by the project, 10% by the government, and 10% by the community net of taxes. In case the communities are unable to provide the required cash, the government may fill the shortfall;

7. The sangkats that have been pre-identified for inclusion in the small-scale infrastructure improvements are listed in the Table below. Additional communities during implementation may be identified based on an in-depth needs assessment. The assessment and proposal will form part of the terms of reference of an international NGO (NGO), with experience in Cambodia, urban/environment/sanitation and community development. The NGO will be contracted for the implementation of this output.

Table: Pre-identified Sangkhats for Output 3 (iii)

Municipality	Village	Sangkat	No of Households (No. of People)	Pre-identified Need
Kampong Chhnang Municipality (Total 7,928 households or 40,360 people. Covers 26 villages in 4 sangkats)	Chong Kaoh	Phsar Chhnang	352 (1,862 people)	<ul style="list-style-type: none"> • Presence of vulnerable group: ethnic Cham • Top environmental issue identified by SES respondents is flooding, which coincides with the objectives of Output 1 of the Project. • Had specific request for small-scale infrastructure during project preparatory consultations (e.g., access road to mosque that they can use even during flood season) that is linked to Output 1 of the Project
	Kandal	Phsar Chhnang	<ul style="list-style-type: none"> • 211 (1,061 people) • According to Vietnamese: 685 HHs including them (approx. 3,425 people) 	<ul style="list-style-type: none"> • Presence of highly vulnerable group -- ethnic Vietnamese⁵ • Relatively high percentage of poor HHs (36%) identified by the SES during project preparation.
	Samroang	Phsar Chhnang	419 (2,188 people)	Highest percentage of poor among villages covered in the SES (38% of respondents are poor)
Pursat Municipality (Total 13,314 households or 63,773 people. Covers 66 villages in 7 sangkats)	Kbal Hong	Pteah Prey	220 (1,013 people)	<ul style="list-style-type: none"> • Highest percentage of poor among villages covered in the SES (45% of respondents are poor) • Top environmental issue identified by SES respondents is air pollution linked with garbage burning, which coincides with the objectives of Output 2 of the Project.
	Kaoh	Lolork Sar	219 (980 people)	Relatively high percentage of poor HHs (36%) identified
	Tuol Mkak	Roleap	301 (1,432 people)	<ul style="list-style-type: none"> • Relatively high percentage of poor HHs (27%) identified • Top environmental issue identified by SES Respondents is flooding, which coincides with the objectives of Output 2 of the Project.

Note: Based on existing municipal boundaries for Kampong Chhnang and Pursat.
Source: Asian Development Bank and Executing Agency.

III. Assessment of Legal Framework and Institutional Capacity

8. The environmental soundness of CMEI works must be ensured. It should comply with basic government guidelines related to environment, sanitation and safety.

A. Legal and Policy Framework

1. National Legislation

⁵ ADB's Tonle Sap Basin Strategy (2005) identifies the Vietnamese and Muslim Cham as the ethnic minorities present in the region. It further states that ethnic minorities are disadvantaged due to insufficient representation at management and legislative levels; with the Vietnamese floating village residents experiencing additional deprivation due their language barriers, their classification as immigrants, and their lack of property rights. PPTA activities including FGDs have supported this information.

9. The implementation of CMEI works will be governed by environmental laws, policies, and regulations of the Royal Government of Cambodia (RGC), as applicable including: (i) Law on Environmental Protection and Natural Resource Management (Preah Reach Kram/NS-PKM-1296/36), enacted on 18 November 1996; and (ii) Sub-decree on EIA Process (Sub-decree No. 72 ANRK.BK), dated 11 August 1999. Table 1 presents the environmental laws, policies and regulations that will be supported and/or observed by CMEI works. The relevant environmental quality standards, particularly during construction, are the: (i) Ambient Air Quality Standards, 2000; (ii) Maximum Standard of Noise Level Allowable in the Public and Residential Areas, 2000; (iii) Water Quality Standards in Public Waters for Biodiversity Conservation, 1999; (iv) Water Quality Standards in Public Waters for Public Health Protection, 1999; and (v) potentially in areas with open dug wells nearby, the Drinking Water Quality Standards, 2004. These are mentioned in Table 1 and presented in detail in **Annex A**.

Table 1. Relevant Environmental Laws and Regulations of Cambodia

Law/Regulation/Guideline	Year	Relevant Provisions to CMEI
<u>Specific to environmental assessment</u>		
Law on Environmental Protection and Natural Resource Management (<i>Preah Reach Kram/NS-PKM-1296/36</i>)	1996	Requires the conduct of environmental impact assessment on every private and public project, existing or proposed. (Arts. 6 & 7)
Sub-decree on EIA Process (<i>Sub-decree No. 72 ANRK.BK</i>)	1999	Prescribes the detailed guidelines for implementation of the EIA Process. Reference to its Annex, which lists down projects requiring IEIA or EIA, shows that: (i) Drainage systems covering $\geq 5,000$ ha will require IEIA or EIA. (ii) Construction or upgrading of household sanitation facilities is not in the list; hence, will not require IEIA or EIA. (iii) Local road is not in the list; hence, tertiary access road will not require IEIA or EIA. (iv) Provision of equipment for community-based segregation and primary collection of solid waste is not in the list; hence, it will not require IEIA or EIA.
Declaration on the Delegation of Power of Decision-Making on Project Development to the Provincial Department of Environment	2005	Provides for the PDoE as the reviewing and approving authority of IEIA/EIA reports for projects costing below USD 2 Million. With this Declaration, the PDoE will be responsible for reviewing environmental assessment reports for CMEI works.
Declaration on General Guideline for Preparing Initial Environmental Impact Assessment (IEIA) and EIA Reports	2009	Specifies the basic contents of IEIA/EIA Reports.
Joint Declaration between the MEF and the MoE on the Determination of Service Fee for EIA Reviewing and Monitoring	2012	Specifies five levels of fee for review and monitoring, i.e., a minimum of USD 500 and a maximum of USD 1,750.
<u>On environmental management</u>		

Law/Regulation/Guideline	Year	Relevant Provisions to CMEI
Law on the Protection of Cultural Heritage (NS/RKM/0196/26)	1996	In case of chance find of a cultural property during construction, work should be stopped and the person who found the property should immediately make a declaration to the local police, who shall, in turn, transmit the property to the Provincial Governor without delay. (Art. 37)
Sub-decree on Water Pollution Control (Sub-decree No. 27 ANRK/BK)	1999	Contains two water quality standards in public waters that would be relevant during construction of CMEI works close to water bodies: (i) Annex 4, for the purpose of biodiversity conservation; and (ii) Annex 5, for public health protection.
Sub-decree on Solid Waste Management (Sub-decree No. 36 ANK/BK),	1999	Regulates solid waste management to ensure the protection of human health and the conservation of biodiversity.
Sub-decree on Control of Air Pollution and Noise Disturbance (Sub-decree No. 42 ANK/BK)	2000	Contains the following standards that would be relevant during construction of CMEI works: (i) Annex 1, on ambient air quality; and (ii) Annex 6, on maximum allowable noise level in public & residential areas.
Drinking Water Quality Standards	2004	Applicable to CMEI works in areas with open dug wells as source of drinking water
Law on Water Resources Management	2007	Requires license/permit/written authorization for the extraction of sand, soil & gravel from the beds & banks of water courses, lakes, canals & reservoirs.

Note: Some laws and regulations may not be applicable because they embody thresholds that CMEI small-scale works may not trigger (e.g., there are project types and threshold that trigger the need for IEIA/EIAs).

B. International Environmental Agreements

10. Cambodia is party to the following international environmental agreements: (i) ASEAN Agreement on the Conservation of Nature and Natural Resources, 1985, for parties to, within their respective national laws, ensure that conservation and management of natural resources are integrated in development planning at all stages and at all levels; (ii) Convention on Biodiversity, 1995, for parties to require the environmental assessment of their proposed projects that are likely to have significant adverse effects on biological diversity with a view of avoiding or minimizing such effects; (iii) Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin” (or the Mekong Agreement), 1995, for parties to protect the environment, natural resources, aquatic life and conditions, and ecological balance of the Mekong River Basin from pollution or other harmful effects resulting from any development plan; and (iv) UN Framework Convention on Climate Change, 1995, and subsequent protocols, for parties to take precautionary measures to mitigate the adverse effects of climate change.

11. CMEI includes climate change awareness. CMEI includes the planning and provision of sustainable of sustainable and climate-resilient environmental infrastructure and services, particularly for the urban poor communities. Cambodia is also committed to the Millennium Development Goals, the seventh goal of which is to “ensure environmental sustainability” and CMEI works will cover provisions for/improvement of sanitation facilities.

C. National Environmental Assessment Requirement

12. The Sub-decree on EIA Process (Sub-decree No. 72 ANRK.BK), 1999, provides an Annex that lists down the projects requiring Initial Environmental Impact Assessment (IEIA) or Environmental Impact Assessment (EIA). Reference to the Annex shows that:

- Drainage systems covering < 5,000 ha will not require IEIA or EIA.

- Construction or upgrading of household sanitation facilities is not in the list; hence, will not require IEIA or EIA.
- Local road is not in the list; hence, tertiary access road will not require IEIA or EIA.
- Provision of equipment for community-based segregation and primary collection of solid waste is not in the list; hence, it will not require IEIA or EIA.

13. Based on the above, considering the small-scale nature of potential CMEI works, and based on a consultation with PDoE of Kampong Chhnang on 05 September 2013⁶, it is expected that RGC will not require the environmental assessment of CMEI works. However, to ensure environmental soundness of CMEI works and to ensure the support of CMEI works to overall environmental sustainability of the Project, it is recommended that basic environmental assessment will be applied in each CMEI proposal. The RGC has no prescribed guideline and procedure for basic environmental assessment. This EARF proposes the procedure for basic environmental assessment and review. This is discussed in Section V.

D. Institutional Capacity

14. The MoE, as the lead agency for environmental management and for implementing the EIA process in Cambodia, has wide experience in the review and approval of EIA reports, spot checks/random inspections of the environmental performance of projects, and environmental quality monitoring. Based on an assessment of the environmental management capacities of relevant PDoEs, the PDoE in Pursat has experienced coordinating the conduct of IEE and EIA of three IFI-funded projects. Both PDoEs have signified need to strengthen their capacity in environmental management. The PDoE will be responsible for the review of environmental assessment reports; and should IEIA be required, for the approval of said report.

15. The MPWT, DPWTs, Municipalities of Kampong Chhnang and Pursat, Sangkhats and Village Development Committees (VDCs) will be the key players of the CMEI. In the PMU, a national environmental officer will be positioned to focus on environmental management, i.e., ensuring that the ADB-cleared EARF is followed, and EMPs implemented, effectively. In the Project towns, PIUs will be set up, which together with the PMU will coordinate with the PDoE to support and participate in the environmental management of subprojects/works in respective jurisdictions. The PMU and PIUs will be supported by a project management and implementation support (PMIS) consulting firm, which includes an international and a national environmental specialist. At present, the skills and experiences of the key CMEI players in environmental management are limited. Technical assistance from environmental specialists and capacity development during the initial four years of loan implementation will be needed for institutional strengthening. Capacity development of the PMU and PIUs will be carried out under Output 5: Strengthened Capacity for Project Implementation, Operation and Maintenance of the Project. This is briefly described in Section VI.

⁶ This information was obtained from Mr. Pouv Bunthan, Director, PDoE of Kampong Chhnang, during a consultation by the PPTA National Environmental Specialist on 05 September 2013 on EA requirements for CMEI works.

IV. Anticipated Environmental Impacts

16. The CMEI will support small-scale improvements in village drainage, sanitation, access, and solid waste management, as presented in Section II-B. The potential impacts arising from these activities are unlikely adverse, highly local and site-specific and can be easily avoided or mitigated with simple good construction practices commonly know to contractors, as well as preventive maintenance practices. It is anticipated that small-scale improvements will be ADB environment category C, but in some cases, it may be category B. Such cases will be reviewed and considered on a case-by-case basis. See Table 2.

Table 2. Potential Environmental Impacts/Issues/Concerns

Activity	Potential Impacts/Issues/Concerns
Surface drainage improvement	<p><u>Relative to siting, planning and design</u></p> <p>a) loss of plants, informal structures and/or parts of structures that may have encroached into road/drainage rights-of-way, expected to be avoided or mitigated with the choice of alignment incurring no loss or with least losses</p> <p>b) relocation of power supply poles and/or temporary displacement of water hoses that may have encroached into road ROWs, expected to be avoided through proper coordination with communities and authorities, and prior information to affected households</p> <hr/> <p><u>During construction</u></p> <p>a) impact on air quality – dust</p> <p>b) impact on acoustic environment – noise</p> <p>c) impact on water quality - sedimentation & contamination of nearby water body or open dug wells due to inadequate management of natural aggregate materials, spoils, wastes 7 hazardous substances</p> <p>d) access blocking or constraints</p> <p>e) during heavy rain, ponding or water pooling from poor management of excavated soil, stockpiles of natural aggregate materials, other construction materials and solid wastes &/or blocking of surface drainage route</p> <p>f) community and workers' health and safety hazards</p> <hr/> <p><u>During operation</u></p> <p>a) non-sustainability of the effectiveness of service of completed works due to poor solid waste management in the village/s and/or poor maintenance of drains</p>
Household sanitation facilities • Land-based sanitation facilities	<p><u>Relative to siting, planning and design</u></p> <p>a) inadequate consideration of distance &/or depth of discharge from septic tank/soak away pits from existing open dug or shallow well</p> <hr/> <p><u>During construction</u></p> <p>a) if dug well is present nearby, impact on water quality from sediments and construction debris</p> <hr/> <p><u>During operation</u></p> <p>a) non-sustainability of effectiveness of septic tank in primary sewage treatment due to poor maintenance/deferred desludging</p> <p>b) odor, health hazard due to inadequate cleaning caused by lack of access to water and/or low awareness on hygiene and sanitation</p>

Activity	Potential Impacts/Issues/Concerns
<ul style="list-style-type: none"> floating sanitation facilities, complemented with land-based composting unit & collection system for the semi-composted feces 	<p><u>Relative to siting, planning and design</u></p> <p>a) inadequate consideration of the vulnerability of the site for associated land-based feces management (if any, e.g., composting component) to flooding</p> <p><u>During construction/installation</u></p> <p>a) impact on river water quality from debris of constructing/installing floating toilet</p> <p><u>During operation</u></p> <p>a) non-sustainability of effectiveness of sanitation service of the floating facility due to: (i) inadequate management by households according to instructions (e.g., ensuring filled feces bucket is not intruded with water for 6 months), (ii) inadequate supply of drying material (wood ash/ash) to cover feces, and/or (iii) inadequate management/ maintenance of associated land-based composting unit and collection</p> <p>b) odor, pest, nuisance, health hazard due to poor maintenance leading to inefficient operation of associated land-based composting unit (if any)</p> <p>c) impact on river water quality from spill (accidental or during storm) of household stock of wood ash/ash</p> <p>d) overflow of incompletely composted/digested feces from land-based composting unit (if any) due to flooding or heavy rains</p>
<p>Activity</p>	<p>Potential Impacts/Issues/Concerns</p>
<ul style="list-style-type: none"> floating sanitation facilities, complemented floating bio-digesters 	<p>e) health and safety hazard involved in collection/hauling/handling of buckets of un- or semi-composted feces to/at the land-based composting unit</p> <p><u>Relative to siting, planning and design</u></p> <p>a) inadequate consideration in design (particularly of the connections among the toilet, bio-digester and the house kitchen area) of the water level fluctuations in the lake due to the natural change in flow directions by season & due to floods (normal & climate change-induced)</p> <p><u>During construction</u></p> <p>a) impact on river water quality from debris of constructing/installing floating toilet</p> <p><u>During operation</u></p> <p>a) health & safety hazards from potential gas leak &/or explosion of bio-digester</p>
<p>Tertiary access road (with drainage)</p>	<p><u>Prior to construction</u></p> <p>a) loss of plants, informal structures and/or parts of structures that may have encroached into road rights-of-way, expected to be avoided or mitigated with the choice of alignment incurring no loss or with least losses</p> <p>b) relocation of power supply poles and/or temporary displacement of water hoses that may have</p>

Activity	Potential Impacts/Issues/Concerns
	<p>encroached into road rights-of-way, expected to be avoided through proper coordination with communities and authorities, and prior information to affected households</p> <p><u>During construction</u></p> <p>a) impact on air quality – dust b) impact on acoustic environment – noise c) impact on water quality - sedimentation & contamination of nearby water body or open dug wells due to inadequate management of natural aggregate materials, spoils, wastes and hazardous substances d) access blocking and constraints e) during heavy rain, ponding or water pooling from poor management of excavated soil, stockpiles of natural aggregate materials, other construction materials and solid wastes &/or blocking of surface drainage route f) community and workers' health and safety hazards</p> <p><u>During operation</u></p> <p>b) non-sustainability of the effectiveness of service of completed works due to poor road maintenance</p>
Primary solid waste collection points	<p><u>During operation</u></p> <p>a) leachate, odor, pests, nuisance, health and safety hazards due to delayed secondary collection, poor cleaning of the equipment and the sites or places they are parked or stationed at. b) Land contribution shall be voluntarily contributed and/or compensated in accordance with each provincial resettlement plan.</p>

V. Environmental Assessment for CMEI Works

A. Environmental Criteria for Works Selection

17. For safeguarding purposes, some environmental criteria shall be applied when selecting works to be funded under the CMEI Output. Small-scale infrastructure works that will be planned and implemented under the CMEI Output shall be reviewed against this set of criteria and should not have adverse environmental impacts. However, exceptions that are not Category A and are generally consistent with the criteria will be considered on a case-by-case basis by ADB depending on the proposal. Small-scale infrastructure will not be selected if it is found to be an ADB environmental safeguard category A:

- Surface drainage, involving
 - village road drains and culverts, including the access roads alongside them to improve surface drainage,
 - less than, or equal to, 1 km in total length, and
 - should connect to an existing main drain or proposed main drain under Output 2 without the need for pumping.
- Sanitation improvement, involving the construction/installation or upgrading of household sanitation facilities:
 - floating toilets for floating communities, such as those supported by Lien Aid and Live and Learn Environmental Education Cambodia ⁷

⁷ See initiatives supported by: Lien Aid: <http://washtech.wordpress.com/2009/03/01/floting-toilets-for-floating-villages-on-cambodias-tole-sap-lake/> ; and *Phat Sanday Floating Communities on the Tonle Sap Lake, Cambodia*. Live and Learn Environmental Education Cambodia (L&L) and Engineers Without borders Australia with the support of the Ministry of Rural Development. <http://www.livelearn.org/projects/floating-latrine-design-project-ecosan-project>

- land-based household toilets with septic tank led to an existing or proposed road-side drain or soak-away pit in areas without road drains.
- Tertiary access road construction or improvement (with associated drainage), involving:
 - village roads in association with drainage improvements and/or to facilitate primary solid waste collection,
 - connects to a main road where a main drain exists or will be provided under Output 2; and/or for secondary solid waste collection
 - less than, or equal to, 1 km in total length.
- Primary solid waste collection points, involving local area for collection and associated provision of equipment (e.g., hand/push cart, and bins for manual waste segregation).

18. Works that will involve the following shall be **excluded**, unless discussed and agreed to with ADB and the MPWT in advance:

- ROW or land acquisition;
- involuntary resettlement elements (of any scale/magnitude) beyond the existing legal road/drainage rights-of-way, such as: (i) temporary or permanent displacement of people; and (ii) temporary or permanent loss of assets, income or sources of income.⁸
- surface drainage construction or improvement that will:
 - disturb or impact (permanently or on long-term basis) the existing service operations (e.g., drainage, access/roads, water sources) of adjacent village/s,
 - not have a main drain to receive its discharge
 - involve pumping for discharge,
 - cross a natural water body; and/or
 - be more than 1 km in total length.
- land-based sanitation improvement that will:
 - have at least 1 sanitation facility close to an existing open dug well of adjacent village; and/or
 - involve community/village-based sludge drying bed and/or secondary wastewater/ sewage treatment.
- floating sanitation facility that will:
 - have no associated feces management component, e.g., land-based composting and collection or floating bio-digester
 - have land-based feces management component in site prone to flooding.
- tertiary access road construction or improvement that will:
 - not be associated with drainage improvements and/or facilitating access for primary solid waste collection;
 - not connect to a main road with main drain and/or for secondary solid waste collection;
 - cross a natural water body; and/or
 - be more than 1 km in total length.

B. Environmental Assessment

19. Considering the: (i) types and scales of improvement works for CMEI (Sections II-B and V-A); and (ii) location of these works to be in the urban villages of the Project municipality and away from sensitive sites, CMEI works are unlikely to cause adverse impact on the environment. The potential impacts, issues and concerns from CMEI works, presented in Table 2, will not be adverse and can be mitigated without difficulty through: (i) adequate environmental considerations in siting, planning and design; and (ii) good and environmentally sound construction practices; and (iii) proper operation and maintenance.

⁸ The Resettlement Plan for Kampong Chhnang and Pursat incorporate screening criteria and selection for Output 3 works.

20. Under ADB's Safeguard Policy Statement (SPS) 2009, projects that are likely to have minimal or no adverse environmental impacts will not require an environmental assessment, instead a review of environmental implications. Based on a consultation with PDoE of Kampong Chhnang on 05 September 2013⁹, CMEI works will not require environmental assessment as their intended scopes are far below the thresholds requiring IEIA/EIA. In order to ensure the environmental soundness of CMEI works and to ensure the support of CMEI works toward overall environmental sustainability of the Project, it is recommended that basic environmental assessment will be applied in each CMEI proposal.

21. The MPWT through the PMU, with support from the PIU and technical guidance from the PMIS Environmental Specialists, will be responsible for the basic environmental assessment of CMEI works. It will be undertaken during the feasibility study stage of proposed CMEI works, following identification of the proposed small-scale works through NGO mobilization efforts. The household sanitation subcomponent may be part of a larger civil works feasibility study (e.g., drainage in Pursat) and may be included as part of a large contract package or may be a standalone contract, depending on the situation at the time of implementation.

22. Basic environmental assessment will consist of three key activities:

- **Activity 1: Screening of proposed alternatives against the environmental criteria for selection of CMEI works**

This activity must be conducted in the pre-feasibility stage when alternatives are being evaluated for selection. Screening will ensure selected alternative will be within the threshold of activities that are unlikely to have adverse environmental impacts (Paragraph 17, Section V-A). In case the proposed activity is expected to have an adverse environmental impact, the proposal shall be flagged for ADB and EA consideration prior to proceeding to the next stage of development. **Annex B** recommends a checklist for this exercise.

- **Activity 2: Screening for categorization**

As soon as sufficient information on selected alternative is available, PMU will complete the ADB's rapid environmental assessment (REA) checklist in **Annex C**, based on site visit and consultations with PDoE, local authorities, some resident beneficiaries and other stakeholders. In case the proposed activity is expected to have an adverse environmental impact, the proposal shall be flagged for ADB and EA consideration prior to proceeding to the next stage of development.

The completed REA Checklist, along with a subproject description that provides sufficient information on the: (i) nature of the subproject as eligible under the CMEI Output, i.e., as participatory community/village-based environmental improvement/s; (ii) non-sensitiveness of the location and its immediate surroundings, supported by photos; and (iii) scope and scale of subproject as having met the environmental criteria for the selection of works under the CMEI Output, supported by the screening results in Step 1. The PMU will submit this information as part of the feasibility study for each CMEI intervention on community small-scale environmental improvements to the:

- ADB for review, category confirmation and approval; and

⁹ This information was obtained from with Mr. Pouv Bunthan, Director, PDoE of Kampong Chhnang, during a consultation by the PPTA National Environmental Specialist on 05 September 2013 on EA requirements for CMEI works.

- PDoE for information and to confirm that the proposed subproject is below the threshold of activities requiring environmental assessment.

- **Activity 3: Identification of environmental measures**

Identification of environmental measures will involve: (i) consideration and review of potential environmental impacts/implications of the CMEI community small-scale environmental improvement intervention; (ii) recommendation of prevention and mitigation measures; and (iii) engaging stakeholders to obtain their opinion on the environmental impacts/implications of the proposed subproject and comments on the environmental assessment report.

The basic environmental assessment report will be prepared in such manner that it will provide ADB and PDoE sufficient information to be able to carry out a good review for approval. **Annex D** proposes the minimum content of the basic environmental assessment report.

Should the subproject be categorized as Category B requiring an IEE/IEIA by the ADB or RGC, then the appropriate format and process will be followed, i.e., as prescribed in ADB's SPS 2009 or RGC's Sub-decree on the EIA Process, 1999. The Environmental Specialists of the Project Management and Implementation Support (PMIS) Team will provide technical guidance.

From consultation with MoE,¹⁰ the scope of ADB's IEE undertaking and the outline/contents of ADB's IEE Report agree with the requirements of Cambodia's Sub-decree on EIA Process. Hence, ADB IEE Reports, translated into Khmer, may serve as the IEIA Report for RGC review and approval. This would apply to proposed works that are covered by ADB IEE Reports and which would be assessed by PDoE as requiring RGC IEIA.

C. Review, Approval and Disclosure

23. The ADB will undertake review, approval and disclosure of an agreed number of environmental assessment reports prior to the issuance of a No-Objection Letter (NOL). Initially, subject to the agreement between the ADB and executing agency, it is recommended that ADB reviews, approves and discloses the first two environmental assessment reports each for surface drainage improvements, sanitation improvements (one for land-based and one for floating sanitation facilities), tertiary access road, and primary solid waste collection of each town. Disclosure of the final environmental assessment reports will be upon receipt but before fund release is approved by ADB.

24. Should the subproject be categorized as Category B requiring an IEE/IEIA by the ADB and RGC, the MoE/PDoE will review and approve IEIA reports for CMEI works.¹¹

25. For works whose environmental assessment reports will be reviewed by the ADB, the following will be a policy under the IUEMTSBP:

- If such works are required an IEIA by the RGC:
 - the IEIA Report must first be approved by MoE/PDoE before ADB can approve the environmental assessment report; and

¹⁰ Consultation of PPTA National Environmental Specialist with Mr. Danh Serei, Deputy Director, EIA-MoE, on 26 June 2013.

¹¹ From the consultation of PPTA National Environmental Specialist with Mr. Danh Serei, Deputy Director, EIA-MoE, on 26 June 2013, it was learned that MoE will be the approving authority for IEIA/EIA Reports of Subprojects under the IUEMTSBP. However, during implementation when the localized and small-scale nature of CMEI works is recognized, it is possible that the review and approval of IEIA Reports (if any required) may be delegated to the PDoE.

- funds for these works may only be released and their actual implementation may only be allowed after securing both an approved IEIA Report from the MoE/PDoE, and an approved report or NOL from ADB.
- If such works are not required an IEIA by the RGC:
 - funds for these activities may only be released and their actual implementation may only be allowed after securing an approved environmental assessment report or NOL from ADB.

26. Hard copies of approved environmental assessment reports shall be made available for public consultation/perusal at the offices of the PMU, PIUs and concerned VDCs.

VI. Consultation, Information Disclosure, and Grievance Redress Mechanism

A. Consultation

27. The SPS 2009 of the ADB has, as one of the principles of its environmental safeguards, to carry out meaningful consultation with affected people and facilitate their informed participation. The Policy clarifies meaningful consultation as a process that: (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle; (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.

28. Chapter VII of Cambodia's Law on Environmental Protection and Natural Resources Management provides for public participation in, and access to information pertaining to, environmental protection and management of natural resources. Article 1 of the country's Sub-Decree on EIA Process (No. 72 ANRK.BK) encourages public participation in the implementation of the EIA process to take into account the public's conceptual input and suggestions for reconsideration prior to the implementation of any project.

29. To comply with the requirements of the ADB and the RGC, public consultation, under the CMEI Output, shall be conducted at least once, in the early stages of the basic environmental assessment process to allow the affected communities and other interested parties to share their views on the proposed activity, environmental issues and concerns without and with the proposed activity, measures to address the issues and concerns, and their willingness to participate in the continuing consultation process throughout activity construction and operation and in environmental monitoring activities. Additional consultations will be held, when deemed necessary.

30. Public consultation shall ensure the participation of a fair representation of stakeholders: (i) those who will benefit from, and will be affected by, the activity; (ii) the vulnerable groups – the poor (those within the poverty threshold), ethnic minorities, informal settlers, people with disabilities, youth, migrants, women (especially women that are heads of household) and seniors; (iii) other interested groups, e.g, NGOs, religious groups, business associations, civil society, academe, etc. It shall be conducted, and its handouts shall be written, in the national language. The consultation process shall be well documented. All relevant views and concerns raised during the consultation shall be: (i) incorporated in the environmental assessment report; and (ii) considered in the design of the proposed activity. A summary of consultations and notes of informal and formal consultations shall be included in the basic environmental assessment report, with

attendance sheets (disaggregated by sex) maintained at the PIU office as proofs that consultation/s had been held. (**Annex E**)

31. The PMU, PIU and VDC should be open to contact for consultation by the public on environmental assessment matters during the conduct of basic environmental assessment.

B. Information Disclosure

32. The MPWT, through the PMU and PIUs, will be responsible for ensuring that all basic environmental assessment reports, environmental monitoring reports and grievance redress registrations and certificates of acceptance are properly kept as part of the Project and Subproject records. These documents shall be made available in the national and English language and at locations, i.e., offices of PMU, PIUs and VDCs, where these can be easily accessed by stakeholders, including the affected people.

33. The following documents will be posted on the ADB website: (i) draft EARF, before Project appraisal; (ii) Final or updated EARF, upon receipt; and (iii) should the subproject be categorized as Category B requiring an IEE/IEIA, then the IEE/IEIA upon receipt.

C. Grievance Redress Mechanism

1. Purpose of the Mechanism

34. The Project's grievance redress mechanism (GRM) is meant for persons seeking satisfactory resolution to their complaints on the social and environmental performance of subprojects under the Project. The mechanism will ensure that: (i) the basic rights and interests of every person adversely affected by the social and environmental performance of a Subproject are protected; and (ii) their concerns are effectively and timely addressed.

2. Proposed Set-Up

36. The MPWT, as executing agency of the Project, will establish the GRM, and its support system, including the setting up of the Grievance Redress Committee (GRC) at the subproject (provincial) level. The GRC will comprise of local sangkat or village leaders, representatives of the Municipality (involved in social and environmental concerns), and PIU social and environmental safeguard counterparts. The PMU's social and environmental safeguard staff will oversee the GRM implementation. Their counterparts in the PIUs will ensure the GRM implementation at the town level and will be responsible for keeping the PMU informed. Contractors and Operators will be required to designate their respective counterpart GRM staff. The village leaders, sangkat leaders and social and environmental safeguard staff of the Municipality will serve as grievance access points for APs preferring to approach their local leaders/government.

37. The GRM will accommodate both informally- and formally-lodged, but Project-related, valid grievances. The PMU, PIU and GRC will maintain records of all grievances received, whether informally- or formally-lodged, valid or invalid, and appealed. The PIU will immediately inform the PMU, as necessary, particularly when APs resort to appeal. The PMU will in turn immediately inform the ADB of the same. GRM implementation will be reported by the: (i) PIU in the Subproject's monthly progress reports, semi-annual monitoring reports during construction and annual monitoring reports during operation; and (ii) PMU in the Project's monthly progress report, semi-annual monitoring reports during construction and annual monitoring during operation.

38. Sufficient support system, including well GRM-oriented staff of Contractors and Operators, access point persons at the Municipality, villages and sangkats, communication

facilities, documentation/recording, and reporting system, funds, posters declaring contact details and displayed at strategic locations, among others, will be in place to sustain the effective implementation of the mechanism.

3. Access to the Mechanism

39. Any person who has environmental concerns/issues pertaining to the subprojects during detailed design, construction and operation phases will have access to the mechanism free of charge. The PMU, through its social and environmental safeguard staffs and their counterparts in the PIUs, will ensure that:

- the public, especially the residents and regular passers-by, in the main areas of influence of the subprojects, are aware of their rights to access, and will have access to, the GRM free of administrative and legal charges; and
- the GRM is fully disclosed prior to construction: (a) in public consultations and IECs or social/community preparations, (b) through posters displayed in the offices of the PMU, PIU, Municipality and concerned Villages/Sangkats and at strategic places within the main areas of influence of subprojects (posters to include names and contact details of the head and social and environmental safeguard staffs of the PMU and PIU).

4. GRM Steps and Timeframe

40. **Informal Approach.** Informally, an affected person (AP) can lodge complaint directly to the Contractor during construction or Operator during operation. Contractor/Operator will immediately document and screen the complaint. If screening reveals the complaint as Project-related and valid, the Contractor/Operator will act within three days from receipt of complaint. Otherwise, the Contractor/Operator will direct the AP with non-Project-related and/or invalid complaint to the PIU for the formal approach. The Contractor/Operator will secure a confirmation of completion of action from the AP. For at least a week after confirmation of completion, the PIU will monitor the effectiveness of the action/resolution taken. After which, PIU will secure a written confirmation of satisfaction from the AP. The Contractor/Operator shall report to the PIU all complaints received, eligible or ineligible, actions agreed on and taken, and confirmation of completed action.

41. **Formal Approach.** If informally lodged complaint is valid but is not acted on within three days from receipt of complaint, or if AP is not satisfied with the resolution undertaken by the Contractor/Operator, AP can access the formal mechanism, which comprises of four stages.

First Stage. (Day 1) Complaint is filed at the subproject (town) level, verbally or in writing, with the PIU, village or sangkat resettlement sub-committee, or IRC working group. Complaint is screened if project-related and valid, and AP is immediately informed of the screening results. An AP with complaint screened as non-Project-related and/or invalid will be advised that he/she can raise his/her complaint to the second stage; and receiving agent will formally forward the complaint to the District Office. Project-related and valid will be attended to as follows:

- For social complaints, by the village or sangkat resettlement sub-committee or IRC working group. (Presented in the Resettlement Plan Kampong Chhnang.)
- For environmental complaint, by the PIU; and the steps and timeframe involved in addressing environmental complaint at the first stage are presented below.

Step 1	Investigation, Discussion and Agreement (Day1/Day2)
	PIU, together with the Contractor/Operator and AP, will investigate and discuss the complaint at the site within 2 days from filing of complaint. Agreement on actions and measures and time involved will be made with the AP. Agreement will be properly documented and filed; PIU, AP, Contractor/Operator will have copies.
Step 2	Implementing the Agreed-on Resolution
	<ul style="list-style-type: none"> - If required action is minor, i.e., not requiring further investigation and would be quick and easy to implement, the Contractor/Operator will immediately implement the agreed action. (starting Day2/Day3) - If required action is major, i.e., requiring further investigation and/or procurement of supplies/parts, the Contractor/Operator will: (i) immediately provide the most suitable interim measure to reduce the magnitude of the impact (starting Day 2/Day 3); and (ii) start work on the major action within 5 days from discussion (or not later than Day 8 since receipt of complaint). <p>AP will be advised by the PIU that his/her complaint may be raised to the second level of the GRM, if he/she so prefers when: (i) minor action is not implemented within 2 days from discussion; (ii) interim measure prior to major action is not implemented within 2 days from discussion; or (iii) major action is not started within 5 days from discussion.</p>
Step 3	Confirmation of Completed Action
	Contractor/Operator will secure a written confirmation of completed action from the AP and furnish the PIU a copy.
Step 4	Confirmation of Satisfaction (1 week after confirmation of completed action)
	The PIU will monitor the effectiveness of the resolution for at least a week after receipt of confirmation of completed action from the Contractor/Operator. After which, PIU will secure a written confirmation of satisfaction from the AP.

Second Stage. For actions not taken within the agreed timeframe and when AP is dissatisfied with the action taken at the First Stage, AP can raise his/her complaint to the District Office. The District Office has 15 days within which to resolve the complaint to the satisfaction of all concerned. If the complaint cannot be solved at this stage, the District Office will bring the case to the Provincial Grievance Redress Committee.

Third Stage. The Provincial Grievance Redress Committee meets with the aggrieved party and tries to resolve the complaint. The Committee may ask for a review by an external monitor (EMO). Within 30 days of the submission of the grievance, the Committee must make a written decision and submit copies to the MPWT, EMO, PRS/IRC and the AP.

Fourth Stage. If the aggrieved AP does not hear from the Provincial Grievance Redress Committee or is not satisfied with the decision, he/she can bring the case to Provincial Court. This is the final stage for adjudicating complaints. The Court will make a written decision and submit copies to MPWT, EMA, PRS/IRC and the AP. If any party is still unsatisfied with the Provincial Court judgment, he/she can bring the case to a higher-level court. The RGC will implement the decision of the Court.

42. The Project's GRM should not impede access to the country's jurisdiction or administrative remedies. Accessing to both of the country's legal system and GRM can be done at the same time. If efforts to resolve disputes using the grievance procedures remain unresolved or unsatisfactory, AP has the right to directly discuss his/her concern/complaint with the ADB's Urban Development and Water Division, Southeast Asia Department through the ADB Cambodia Resident Mission (CARM). If AP is still not satisfied with the responses of CARM, he/she can directly contact the ADB Office of the Special Project Facilitator. The Office of the Special Project Facilitator procedure can carry on based on the accountability mechanism in parallel with the project implementation.

43. The PMU, PIU and GRC will keep records of all lodged and documented/referenced complaints, actions/resolutions taken, AP's written confirmations of completed action and satisfaction, complaints raised to higher levels, lessons learned. The number of grievances recorded and resolved and the outcomes will be displayed at the offices of PIU, PMU and Municipality and reported in the monthly progress reports, semi-annual monitoring reports during construction and annual monitoring reports during operation, submitted to ADB.

44. The PMU will do periodic review of the effectiveness of the GRM in each town and record information on the effectiveness of the mechanism, especially on the project's ability to prevent and address complaints. All costs involved in resolving complaints (meetings, consultations, communication and reporting/information dissemination) will be borne by the PMU. In cases where AP does not have the writing skills or are unable to express their grievances verbally, he//she may seek third-party assistance of his/her choice.

5. Public Disclosure of the Mechanism

45. The GRM will be disclosed to and discussed with the potentially affected people in the framework of the consultation and information disclosure process. The PMU, through its Environmental Officer and his/her counterparts in the PIUs, will ensure that the GRM is fully disclosed prior to construction: (a) in public consultations and IECs or social/community preparations, (b) through posters displayed in the offices of the PMU, PIU, Municipality and VDC and at strategic places within the main areas of influence of subprojects (posters to include names and contact details of the PIU Director and PMU Director).

VII. Institutional Arrangement and Responsibilities

A. Institutions and Responsibilities

46. The key players in EARF implementation include the Ministry of Public Works and Transport (MPWT), Project Steering Committee (PSC), Project Management Unit (PMU), Provincial Coordinating Committees (PCCs), Project Implementation Units (PIUs), Project Management and Implementation support (PMIS), Ministry of Environment/Provincial Department of Environment (MoE/PDoE), Asian Development Bank (ADB), sangkhats and/or commune councils, Village Development Committees (VDCs) and the non-government organization (NGO) that will implement CMEI.

47. The MPWT, the executing agency of the Project, will be responsible for: (i) designating a staff to serve as full-time Environmental Officer in the PMU; (ii) firming up the necessary collaboration with the MoE and other relevant agencies to ensure compliance of CMEI works with environmental safeguard requirements and (iii) establish the Project GRM.

48. The PSC will be responsible for deciding on environmental matters that will require action from the senior/national management level and for ensuring the allocation and timely disbursement of adequate resources for the compliance of CMEI works with the environmental and social safeguards requirements as prescribed in this EARF.

49. The PMU will manage the day-to-day activities of the Project. Its full-time Environmental Officer will be responsible for EARF (and EMP) implementation, ensuring that the: (i) proposed CMEI works are selected according to the environmental criteria for selection; (ii) REA is conducted and the completed REA Checklist is submitted promptly to the ADB for category confirmation; (iii) coordination is made with ADB for the preparation of the agreed number of environmental assessment reports, and that these are submitted promptly to the ADB for review and clearance; (v) appropriate public consultations and disclosures are undertaken; (vi) the grievance redress mechanism is effectively

observed/operated; (vii) PMU's task in environmental monitoring is carried out accordingly; and (v) environmental monitoring reports are prepared accordingly and submitted promptly. Should the RGC require an IEIA for some works, the PMU Environment Officer will ensure that the required pre-FS and IEIA Reports are promptly prepared and submitted to the MoE/PDoE for review to secure approvals timely.

50. The PIUs will also be responsible for collaborating with the PDoE and other relevant provincial agencies on matters relevant to environmental management. The PIUs may seek assistance from the PCCs to support efforts in complying with the EARF requirements promptly and effectively.

51. The PIUs, composed of technically qualified staffs from the DPWTs and Municipalities, will be the implementing agencies. The PIUs will manage the environmental management requirements and activities of proposed CMEI works in their respective towns during preparation and implementation, with assistance from the Environmental Officer in the PMU and PMIS environmental consultants. The Municipalities of Kampong Chhnang and Pursat, as part of the PIUs will facilitate obtaining the necessary inputs from, and/or participation/cooperation of, concerned sangkhats, communes and villages for the: (i) prompt submission of required environmental assessment reports; (ii) successful consultations and information disclosure/dissemination; (iii) participatory environmental monitoring; and (iv) observance of the grievance redress mechanism.

52. The PMIS consultant team, which will be engaged under Output 5: Strengthened Capacity for Project Implementation and Operation and Maintenance, will have an international environmental specialist and a national environmental specialist on the team. These consultants will provide technical advice, guidance and support to the PMU (particularly the environmental officer) in EARF and EMP implementation and capacity development/training in environmental management. **Annex F**

53. Should some CMEI works require IEIA, the MoE/PDoE will review and approve the IEIA Reports¹², conduct random monitoring during works implementation and, as necessary, provide advice and guidance on policy compliance/requirements.

54. The ADB will: (i) review the completed REA Checklist and confirm categorization of proposed CMEI works; (ii) review updated EARF, if applicable, and environmental assessment reports of an agreed number of proposed works for clearance and disclosure; (iii) review periodic environmental monitoring reports; (iv) conduct environmental monitoring/review missions; (v) provide advice and guidance on the requirements of the ADB SPS 2009, as necessary; and (vi) disclose environmental assessment and monitoring reports on ADB's project website in accordance with ADB's disclosure policies.

55. The PMU and PIUs will work with the VDCs in organizing communities for consultations, disseminating information, and providing available baseline information that may be necessary for environmental assessment. VDCs will be encouraged to provide some inputs to environmental monitoring.

56. The NGO/s, as subproject implementer, will establish the GRM at the village level and ensure that this GRM at village level is well disclosed and observed.

¹² According to Mr. Pouv Bunthan, Director, PDoE of Kampong Chhnang during a consultation by PPTA National Environmental Specialist on 05 September 2013, CMEI works will not require environmental assessment as their scopes are far below the thresholds requiring IEIA/EIA.

B. Institutional Capacity Development

57. Capacity development will be undertaken under Output 5: Strengthened Capacity for Project Implementation and Operation and Maintenance. It will aim to ensure effective implementation of the EARF and EMP. It is proposed to be implemented through the PMIS Environmental Specialists (consultants). While carrying out technical assistance, the PMIS Environmental Specialists will conduct training sessions for PMU and PIU staff on environmental topics. A proposed capacity development program on environmental considerations is in Table 3, and may be adjusted as required during implementation.

C. Staffing Requirement and Budget

58. Staffing requirement will include the: (i) Environmental Officer in the PMU; (ii) PMIU Environmental Specialists (one international and one national consultant) to provide technical assistance and support and capacity development/training.

59. The EARF implementation is part of the overall project cost estimates for preparing, implementing and monitoring the environmental documents. The costs will be funded under Output 5: Strengthened Capacity for Project Implementation and Operation and Maintenance Output of the Project. Government staff time is part of counterpart financing. Should a subproject be environmental category B and require an IEE/IEIA, MOE's approval will be necessary and an administration fee will be levied (estimated at \$1,750 per approval). See Table 4.

VIII. Monitoring and Reporting

60. Monitoring of CMEI activities will be conducted prior to construction, during construction, and during operation. The MPWT, through the PMU, shall monitor the performance of CMEI activities in terms of: (i) conforming to the EARF; and (ii) implementation of environmental management measures/EMP.

61. Environmental monitoring reports shall be prepared by the MPWT, through the PMU and PIU, prior to construction, during construction and during operation until loan closure or as agreed, as follows: (i) environmental monitoring updates, as part of quarterly project progress reports; (ii) semi-annually, as part of the Project Safeguard Monitoring Report to be submitted to the ADB during construction; and (iii) annually, as part of the Project Safeguard Monitoring Report to be submitted to the ADB during operation. The environmental monitoring shall also document the effectiveness and lessons learned in environmental mitigation and environmental effects monitoring, as well as grievances received and resolved. **Annex G** presents an outline for an environmental monitoring report, which shall be finalized according to applicability during the detailed design stage.

Table 3. Proposed Topics for Capacity Development/Training in Environmental Safeguards

Topic	Target Participants	Timing	Duration	Estimated Cost (US\$)	
				Trainer	Venue & Attendance
1. By PMIS Environmental Specialists					
1.1 Legal Framework <ul style="list-style-type: none"> ▪ Relevant national laws, regulations & standards on environmental assessment & management ▪ ADB SPS 2009 ▪ Environmental assessment & review procedure under the CMEI-EARF 1.2 Environmental Assessment <ul style="list-style-type: none"> ▪ Rapid environmental assessment ▪ Initial environmental examination 1.3 Some Aspects of EA Process & Environmental Management <ul style="list-style-type: none"> ▪ Meaningful consultation & info disclosure ▪ Grievance redress mechanism ▪ Environmentally responsible procurement ▪ Occupational & community health and safety 	PMU, PIUs PDoE, others Interested (min 4, max 10)	Early stage of PMIS	1 day	c/o PMIS consultants	* 1,600
1.4 EMP Implementation, part 1 <ul style="list-style-type: none"> ▪ Institution arrangements & responsibilities ▪ Environmental quality monitoring ▪ Emergency response 1.5 EMP Implementation, part 2 <ul style="list-style-type: none"> ▪ Performance monitoring & indicators ▪ Environmental monitoring report 1.6 Other relevant topics, such as: <ul style="list-style-type: none"> A Good engineering and construction practices as mitigation measures B Climate change adaptation (applicable to eligible activities/works under the Project) <ul style="list-style-type: none"> B.1 Climate change impacts on infrastructure B.2 Climate-proofing of infrastructures C Other relevant topics that may be requested by the MPWT/PMU/PIUs 	PMU, PIUs, PDoE, others interested (min 4, max 10)	Early stage of PMIS	1 day	c/o PMIS consultants	* 1,600
	MPWT, DPWT, PIUs, PMU Others Interested (max 30)	During Project's	2-3 days	^ 1,500 PMIS consultants	** 14,000
Sub-Total				1,500	17,200
Grand Total				\$18,700	

* Estimated max. \$150 per participant, to cover: (i) \$100 for venue & meals; (ii) \$60 for --- \$30 per diem, \$20 allowance for attendance, and 2-way share taxi transport --- participants coming from outside the venue city/town; and (iii) \$20 allowance for attendance of participants from the venue city/town. Assumes at least 2 participants from venue city/town.

** Assumes at least 10 participants or one-third of max. no. of participants are from the venue city/town.

^ Includes fee, per diem and transport.

Note: Part 1 – Lectures by the PMIS Environmental Specialists may be held at the conference room of the office of the PMU or PIUs. In this case, there will no cost for venue.

Table 4 Estimated Costs for Implementation *

Activity	Estimated Cost and Funding Source	
	RGC Counterpart	Output 5
Oversee environmental safeguards^a		
• PMU Environmental Officer	Assigned	
Capacity development^b		
• PMIS International Environmental specialist		4 person-months
• PMIS National Environmental specialist		12 person-months
Environmental reviews, assessments and approvals^c		
• Public consultations ^d		, Costs are of the overall PMIS consulting services (Package I)
• Local transport		
• Report translation		
• Report reproduction		
• IEE/IEIA review and approval ^e	Only if necessary	

^a Assigned in the PMU and is reflected in total project costs.

^b Part of the PMIS consulting services (Package I). Reflected in the total project costs.

^c Part of the total project implementation costs (e.g., PMIS consulting budget, workshops, incremental administration costs). The costs for implementing the EARF for an estimated 6 subproject in Kampong Chhnang and Pursat is part of the overall project costs. The proposed costs are based on the assumption that all 6 subprojects will be an environmental category C.

^d Total of \$900 (assumes 1 environment-specific consultation for each subproject at rate of \$150 per consultation).

^e Total of \$1750 per approval, should a subproject be a category B and an IEE/IEIA is required.

ANNEX A

Relevant Environmental Quality Standards

(Note: International Guidelines are presented, where applicable, to show comparison and will be useful if evaluation of quality monitoring results include checking of how subproject's environmental performance fare with international standards.)

A.1 Ambient Air Quality Standards

Parameter	Averaging Period	Cambodia's Ambient Air Quality Standard (mg/m ³) *	WHO Air Quality Guidelines (mg/m ³)	
			Global Update 2005	1999
CO	8-hour	20	-	10
	1-hour	40	-	30
	30-minute	-	-	60
	15-minute	-	-	100
NO ₂	1-year	-	0.04	-
	24-hour	0.1	-	-
	1-hour	0.3	0.2	-
SO ₂	1-year	0.1	-	-
	24-hour	0.3	0.02	-
	1-hour	0.5	-	-
	10-minute	-	0.5	-
TSP	1-year	0.1	-	-
	24-hour	0.33	-	-
PM ₁₀	1-year	-	0.02	-
	24-hour	-	0.05	-
PM _{2.5}	1-year	-	0.01	-
	24-hour	-	0.025	-
O ₃	8-hour daily max.	-	0.1	-
	1-hour	0.2	-	-
Pb	1-year	-	-	0.0005
	24-hour	0.005	-	-

* Annex 1 of Sub-decree on Control of Air Pollution and Noise Disturbance (No. 42/ANK/BK of 10 July 2000)

A.2 Noise Level Standards

Receptor	Cambodia's		WHO	
	Max. Standard of Noise Level Allowable in Public and Residential Areas (dB(A)) *		Guidelines for Community Noise (dB(A))	
Quiet areas: (hospital, library, school, kindergarten)	06:00 - 18:00	45	07:00 - 22:00	55
	18:00 - 22:00	40		
	22:00 - 06:00	35		
Residential areas: (hotel, administrative office, villa, flat)	06:00 - 18:00	60	07:00 - 22:00	55
	18:00 - 22:00	50		
	22:00 - 06:00	45		
Commercial/service areas & areas of multiple business	06:00 - 18:00	70	07:00 - 22:00	70
	18:00 - 22:00	65		
	22:00 - 06:00	50		
Small industrial factories mingling in residential area	06:00 - 18:00	75	07:00 - 22:00	70
	18:00 - 22:00	70		
	22:00 - 06:00	50		

* Annex 6 of Sub-decree on Control of Air Pollution and Noise Disturbance (No. 42/ANK/BK of 10 July 2000)

A.3 Surface Water Quality Standards for Biodiversity Conservation

Parameter	Unit	Cambodia's Standard Value *		MRC Guidelines
		River	Lake & Reservoir	
pH	-	6.5 - 8.5	6.5 - 8.5	6.5 - 8.5
BOD ₅	mg/l	1 - 10	-	-
COD	mg/l	-	1 - 8	< 4
SS	mg/l	25 - 100	1 - 15	-
DO	mg/l	2.0 - 7.5	2.0 - 7.5	> 5.0
Total N	mg/l	-	0.1 - 0.6	< 0.7
Total P	mg/l	-	0.005 - 0.05	0.13
Coliform	MPN/100 ml	< 5000	< 1000	-

* Annex 4 of Sub-decree on Water Pollution Control (No. 27/ANR/BK of 06 April 1999)

A.4 Surface Water Quality Standards for Public Health Protection

Parameter	Unit	Cambodia's Standard Value *
Carbon tetrachloride	µg/l	< 12
Hexachloro benzene	µg/l	< 0.03
DDT	µg/l	< 10
Endrin	µg/l	< 0.01
Dieldrin	µg/l	< 0.01
Aldrin	µg/l	< 0.005
Isodrin	µg/l	< 0.005
Perchloro ethylene	µg/l	< 10
Hexachloro butadiene	µg/l	< 0.1
Chloroform	µg/l	< 12
1,2 Trichloroethylene	µg/l	< 10
Trichloro ethylene	µg/l	< 10
Trichloro benzene	µg/l	0.4
Hexachloroethylene	µg/l	< 0.05
Benzene	µg/l	< 10
Tetrachloroethylene	µg/l	< 10
Cd	µg/l	< 1
Total Hg	µg/l	< 0.5
Organic Hg	µg/l	0
Pb	µg/l	< 10
Cr ⁺⁶	µg/l	< 50
As	µg/l	< 10
Se	µg/l	< 10
Polychlorobiohenyl	µg/l	0
CN	µg/l	< 0.005

* Annex 5 of Sub-decree on Water Pollution Control (No. 27/ANR/BK of 06 April 1999)

A.5 Groundwater Quality Standards

Parameter	Cambodia's		WHO	
	Drinking Water Quality Standards, 2004		Guidelines for Drinking-water Quality *	
	Unit	Maximum Value	Unit	Guideline Value
<u>Physical/chemical</u>				
Taste	-	Acceptable	-	-
Odor	-	Acceptable	-	-
Color	TCU	5	-	-
Turbidity	NTU	5	-	-
Residual Cl	mg/l	0.2 - 0.5	mg/l	0.2 (min. residual)
pH	-	6.5 - 8.5	-	None established
Al	mg/l	0.2	-	None established
NH ₃	mg/l	1.5	-	None established
Chloride	mg/l	250	-	None established
Cu	mg/l	1	mg/l	2
Hardness (CaCO ₃)	mg/l	300	-	None established
H ₂ S	mg/l	0.05	-	None established
Fe	mg/l	0.3	-	None established
Mn	mg/l	0.1	-	None established
Na	mg/l	200	-	None established
SO ₄	mg/l	250	-	None established
TDS **	mg/l	800	-	None established
Zn	mg/l	3	-	None established
<u>Inorganic constituents</u>				
As	mg/l	0.05	mg/l	0.01
Ba	mg/l	0.7	mg/l	0.7
Cd	mg/l	0.003	mg/l	0.003
Cr	mg/l	0.05	mg/l	0.05
CN	mg/l	0.07	-	None established
Fe	mg/l	1.5	-	None established
Pb	mg/l	0.01	mg/l	0.01
Hg	mg/l	0.001	mg/l	0.006
Ni	mg/l	0.02	mg/l	0.07
NO ₃	mg/l	50	mg/l	50
NO ₂	mg/l	3	mg/l	3
Se	mg/l	0.01	mg/l	0.04
<u>Bacteriological</u>				
Thermotolerant (Fecal Coliform or E. Coli)	MPN/100 ml	0	MPN/100 ml	Must not be detectable in any 100 ml sample.
Total coliform	MPN/100 ml	0	MPN/100 ml	

* Fourth Edition, 2011

* Conductivity (μS/cm) can also be measured and is roughly equivalent to twice the TDS value.

ANNEX B

Checklist for Screening against Environmental Criteria for Selection of CMEI Works

Name of Subproject _____

Location _____

- Area/s of proposed environmental improvement**
- Surface drainage
 - Household Sanitation
 - Tertiary access road improvement (with associated drainage)
 - Primary solid waste collection point
 - Other

Area/s of Proposed Environmental Improvement / Environmental Criteria	For Inclusion	For Exclusion
Surface drainage		
Will involve ROW acquisition.	___ No	___ Yes
Will involve involuntary resettlement beyond the existing legal road/drainage ROW. temporary or permanent displacement of people	___ No	___ Yes
temporary or permanent loss of assets	
temporary or permanent loss of income	
Will disturb or impact (permanently or on long-term basis) the existing service operations (e.g., drainage, access/roads, water sources) of adjacent village/s	___ No	___ Yes
Will connect to a main drain for its discharge.	___ Yes	___ No
Will involve pumping for discharge to main drain.	___ No	___ Yes
Will cross a natural water body.	___ No	___ Yes
Will involve a total length of more than 1 km.	___ No	___ Yes
Household Sanitation improvement		
Will involve land acquisition.	___ No	___ Yes
Will involve involuntary resettlement beyond the existing legal road/drainage ROW. temporary or permanent displacement of people	___ No	___ Yes
temporary or permanent loss of assets	
temporary or permanent loss of income	
For land-based sanitation improvement, will involve community/village-based sludge drying and/or communal secondary wastewater/sewage treatment.	___ No	___ Yes
For floating sanitation facility, will have associated feces management component e.g., land-based composting and collection or floating bio-digester	___ Yes	___ No
For floating sanitation facility, will have land-based feces management component site that is prone to flooding.	___ No	___ Yes
Tertiary access road improvement (with associated drainage)		
Will involve ROW acquisition.	___ No	___ Yes
Will involve involuntary resettlement beyond the existing legal road/drainage ROW. temporary or permanent displacement of people	___ No	___ Yes
temporary or permanent loss of assets	
temporary or permanent loss of income	
Will be associated with drainage improvements and/or facilitating access for primary solid waste collection.	___ Yes	___ No
Will cross a natural water body.	___ No	___ Yes
Will involve a total length of more than 1 km.	___ No	___ Yes
Primary solid waste collection point		
Will involve land acquisition for the collection point, parking/station of hand/push carts and/or recycling bins.	___ No	___ Yes
	___	___
	___	___
Other	___	___
Please consult PMU and ADB for details	___	___

ANNEX C

Rapid Environmental Assessment (REA) Checklist - Urban Development

Instructions:

- (i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (RSES) for endorsement by the Director, RSES and for approval by the Chief Compliance Officer.
- (ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.
- (iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project

Sector Division:

Screening Questions	Yes	No	Remarks
A. Project Siting Is the project area...			
▪ Densely populated?			
▪ Heavy with development activities?			
▪ Adjacent to or within any environmentally sensitive areas?			
• Cultural heritage site			
• Protected Area			
• Wetland			
• Mangrove			
• Estuarine			
• Buffer zone of protected area			
• Special area for protecting biodiversity			
• Bay			
B. Potential Environmental Impacts Will the Project cause...			
▪ impacts on the sustainability of associated sanitation and solid waste disposal systems and their interactions with other urban services.			

Screening Questions	Yes	No	Remarks
▪ deterioration of surrounding environmental conditions due to rapid urban population growth, commercial and industrial activity, and increased waste generation to the point that both manmade and natural systems are overloaded and the capacities to manage these systems are overwhelmed?			
▪ degradation of land and ecosystems (e.g. loss of wetlands and wild lands, coastal zones, watersheds and forests)?			
▪ dislocation or involuntary resettlement of people?			
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable group?			
▪ degradation of cultural property, and loss of cultural heritage and tourism revenues?			
▪ occupation of low-lying lands, floodplains and steep hillsides by squatters and low-income groups, and their exposure to increased health hazards and risks due to pollutive industries?			
▪ water resource problems (e.g. depletion/degradation of available water supply, deterioration for surface and ground water quality , and pollution of receiving waters)?			
▪ air pollution due to urban emissions?			
▪ risks and vulnerabilities related to occupational health and safety due to physical, chemical and biological hazards during project construction and operation?			
▪ road blocking and temporary flooding due to land excavation during rainy season?			
▪ noise and dust from construction activities?			
▪ traffic disturbances due to construction material transport and wastes?			
▪ temporary silt runoff due to construction?			
▪ hazards to public health due to ambient, household and occupational pollution, thermal inversion, and smog formation?			
▪ water depletion and/or degradation?			
▪ overpaying of ground water, leading to land subsidence, lowered ground water table, and salinization?			
▪ contamination of surface and ground waters due to improper waste disposal?			
▪ pollution of receiving waters resulting in amenity losses, fisheries and marine resource depletion, and health problems?			

Screening Questions	Yes	No	Remarks
<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)? 			
<ul style="list-style-type: none"> ▪ social conflicts if workers from other regions or countries are hired? 			
<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 operation and construction? 			
<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 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? 			

A Checklist for Preliminary Climate Risk Screening

Country/Project Title:

Sector :

Subsector:

Division/Department:

Screening Questions		Score	Remarks ¹³
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?		
	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)?		
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)?		
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s) ?		
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?		

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 0 will be considered low risk project. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the project will be assigned a medium risk category. A total score of 5 or more (which include 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): _____

Other Comments: _____

Prepared by: _____

¹³ 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.

ANNEX D
Outline of a Basic Environmental Assessment Report
(Sub-sections may not necessarily be in the order as shown)

I. Introduction

The Project (IUEMTSBP) --- *a concise background on the Project*
Purpose of the basic environmental assessment
Need for the subproject
Overview of the subproject

II. Description of the Subproject

The Subproject --- *define the activity, include layout*
Subproject location --- *include maps, delineate subproject area*
Description of subproject site and its surroundings --- *physical, biological and socio-economic conditions; include vicinity map and photo coverage*

III. Anticipated Environmental Impacts and Mitigation Measures

Positive environmental impacts and benefits
Negative impacts (*on physical, ecological, physical/cultural and socio-economic environment*)
Mitigation measures (provide a table of impacts and mitigation measures and responsible entity for implementation and monitoring)

IV. Information Disclosure, Consultation, and Participation

(summarizes the process taken in engaging stakeholders and the comments and concerns received and how these comments/concerns have been addressed in planning, design and mitigation measures. Include attendance sheets, notes and photos of consultations)

V. Conclusion and Recommendation

This section provides the conclusions drawn from the assessment and provides recommendations.

ANNEX E
Proposed Format for Attendance Sheet and Notes of Consultation

Community Mobilization and Environmental Improvements
Integrated Urban Environmental Management in the Tonle Sap Basin Project
ADB Loan No. XXXX
Attendance Sheet

Date	
Venue/Location	
Consulted Group	
Consulting Group	

No.	Name	Address	Gender	Age	Occupation	Representation *
1						
2						
3						
4						
5						

* Examples: resident, youth, NGO, small businesses, etc.

Community Mobilization and Environmental Improvements
Integrated Urban Environmental Management in the Tonle Sap Basin Project
ADB Loan No. XXXX
Notes of Consultations

Date	Location	Consulting Group	Consulted Group	No. of Participants				Discussion/Responses/ Outcomes
				Total	F	M	Ethnic group consulted	
							-	-

ANNEX F

Terms of Reference for PMIS Environmental Specialists (International and National Consultants)

Person & Task	Person-Months	Minimum Qualifications	Minimum Work Experience
International Environment Specialist	4	Masters Degree in environmental science, engineering, planning or equivalent	10 years' experience in environmental management & assessment in developing countries. Experience in south east Asia and of urban development or related projects financed by multilateral development funding agencies is required.
Environment Specialist	12	Degree in environmental science, engineering, planning or a related discipline	5 years of experience in environmental management, safeguards or environmental impact assessments. Experience on urban development or related assignments funded by multilateral development financing institutions would be beneficial. Fluency in written and spoken English is required

Environment Specialist (International, 4 person months)

- Assist the PMU in the conduct of the following for proposed Community Mobilization and Environmental Improvements (CMEI) subprojects, to include the: (i) review, finalization and confirmation of the results of the rapid environmental assessment (REA) and categorization; and (ii) basic environmental assessment and preparation of report for compliance with EARF and RGC requirements.
- Ensure ADB Environment safeguard category remains B.
- Assist the PMU in ensuring the incorporation of relevant mitigation measures in the detailed designs, coordinated public consultations and disclosure/information dissemination with the social/resettlement team, and that the RGC's environmental assessment requirements will not cause delay in the commencement of the construction phase.
- Finalize and update the IEEs and EMPs, as necessary, based on the detailed engineering designs, and ensure consistency, where applicable, with other safeguard plans.
- In coordination with the Solid Waste Management Specialist, finalize remediation and closure plans for all three dumpsites in coordination with the government/Municipality and monitor implementation. Assist the PMU in preparing for procurement by: (i) ensuring that the SPS-compliant EMP is part of the tender documents and civil works contracts; and (ii) establishing and incorporating environmental criteria, scoring and weight in the evaluation of bids in coordination and agreement with the procurement committee.
- Assist the PMU in ensuring that contractors prepare their respective contractor's EMP (C-EMP) based on the SPS-compliant EMP and actual site conditions and in evaluating the contractor's EMPs (C-EMPs).
- Assist the PMU in preparing for the activation of the grievance redress mechanism, undertaking pre-construction environmental quality monitoring as recommended in the EMP, and reviewing/evaluating Contractor's EMPs to ensure they are fully responsive to the SPS-compliant EMPs.
- Design a tool or system to facilitate effective consultations, monitoring/inspection and reporting by the PMU.
- Coordinate with the MOE and TSA on regulatory compliance issues—for water quality in the the Tonle Sap, noise and dust from construction sites, sanitation in workers campsite, etc.

- Provide training lectures/seminars on the EMP and its implementation.
- During construction and operation, guide the PMU in supervising, monitoring, and reporting EMP implementation.
- Assess the operation/observance of the grievance redress mechanism, and recommend improvements.
- Review the results of the environmental effects monitoring. Recommend investigations and recommend corrective actions, as necessary
- Assist the PMU and PIUs in follow up consultations.
- Conduct visits to work sites to provide guidance to, and advise the PIUs and operators on environmental management concerns arising during project construction and operation, respectively, and recommend corrective measures.
- Prepare the necessary status reports for compliance with the conditions set out in approved Royal Government of Cambodia's IEE/IEIA Reports.
- Assist in the preparation of semi-annual environmental monitoring reports (EMRs) and finalize the monthly EMRs for input to the PMU's semi-annual safeguards monitoring report for submission to the ADB.
- Recommend measures to ensure effective EARF and EMP compliance/ implementation, as necessary.
- Ensure that capacity development in environmental management is carried out through "hands on" training during the implementation of the EARF and EMPs.

Environment Specialist (National, 12 person months)

The national consultant will support the international consultant in carrying out the tasks below:

- Support the PMU in the conduct of the following for proposed Community Mobilization and Environmental Improvements (CMEI) subprojects, to include the: (i) review, finalization and confirmation of the results of the rapid environmental assessment (REA) and categorization; and (ii) basic environmental assessment and preparation of report for compliance with EARF and RGC requirements.
- Support the PMU in ensuring the incorporation of relevant mitigation measures in the detailed designs, coordinated public consultations and disclosure/information dissemination with the social/resettlement team, and that the RGC's environmental assessment requirements will not cause delay in the commencement of the construction phase.
- Finalize and update the IEEs and EMPs, as necessary, based on the detailed engineering designs, and ensure consistency, where applicable, with other safeguard plans.
- With the international specialist, finalize remediation and closure plans for all three dumpsites in coordination with the government/Municipality and monitor implementation
- Support the PMU in preparing for procurement by: (i) ensuring that the SPS-compliant EMP is part of the tender documents and civil works contracts; and (ii) establishing and incorporating environmental criteria, scoring and weight in the evaluation of bids in coordination and agreement with the procurement committee.
- Support the PMU in ensuring that contractors prepare their respective contractor's EMP (C-EMP) based on the SPS-compliant EMP and actual site conditions and in evaluating the contractor's EMPs (C-EMPs).
- Support the PMU in preparing for the activation of the grievance redress mechanism, undertaking pre-construction environmental quality monitoring as recommended in the EMP, and reviewing/evaluating Contractor's EMPs to ensure they are fully responsive to the SPS-compliant EMPs.
- Design a tool or system to facilitate effective consultations, monitoring/inspection and reporting by the PMU.

- Coordinate with the MOE and TSA on regulatory compliance issues—for water quality in the the Tonle Sap, noise and dust from construction sites, sanitation in workers campsite, etc.
- Provide training lectures/seminars on the EMP and its implementation.
- During construction and operation, guide the PMU in supervising, monitoring, and reporting EMP implementation.
- Assess the operation/observance of the grievance redress mechanism, and recommend improvements.
- Review the results of the environmental effects monitoring. Recommend investigations and recommend corrective actions, as necessary
- Support the PMU and PIUs in follow up consultations.
- Conduct visits to work sites to provide guidance to, and advise the PIUs and operators on environmental management concerns arising during project construction and operation, respectively, and recommend corrective measures.
- Prepare the necessary status reports for compliance with the conditions set out in approved Royal Government of Cambodia's IEE/IEIA Reports.
- Assist in the preparation of semi-annual environmental monitoring reports (EMRs) and finalize the monthly EMRs for input to the PMU's semi-annual safeguards monitoring report for submission to the ADB.
- Ensure that ADB's environment safeguard categorization remains B. Recommend measures to ensure effective EARF and EMP compliance/ implementation, as necessary.
- Ensure that capacity development in environmental management is carried out through "hands on" training during the implementation of the EARF and EMPs.

ANNEX G

Draft Outline for the PMU's Environmental Monitoring Report

This outline and the performance assessment and rating are mainly suggested and will be finalized according to applicability during the detailed design stage. The level of detail and comprehensiveness would depend on the degree of complexity of social and environmental impacts.

- 1. Introduction**
 - 1.1 Purpose of the Report
 - 1.2 Project Overview
 - 1.3 Physical Progress of the Project
- 2. Environmental Requirements in Project Loan and Grant Agreements & Subproject Contractual Arrangements**
- 3. Conformance to the EARF**

(This section reports on CMEI Output's conformance to the EARF.)
- 4. Environmental Mitigation ^a**

(This section reports on the implementation of the Environmental Mitigation Plan. Of the EMP)
- 5. Environmental Monitoring ^b**

(This section reports on the implementation of the Environmental Monitoring Plan of the EMP.)

 - 5.1 Environmental Effects Monitoring
 - 5.2 Environmental Performance Monitoring
- 6. Grievance Redress ^c**

(This section reports on the number of grievances received and acted on, and the performance in observing the GRM.)
- 7. Emergency Response ^d**

(This section reports on the incidence of emergency situation, emergency response level, and, if applicable, the casualties encountered.)
- 8. Preparation and Submission of EMRs ^e**

(This section reports on the performance in reporting by respective parties.)
- 9. Overall Environmental Performance ^f**
- 10. Summary of Key Issues, Actions and Lessons Learned**
 - 10.1 Key Issues Identified
 - 10.2 Actions Taken/To be Taken
 - 10.3 Lesson Learned
- 11. Conclusion & Recommendations**

Annexes

- A Environmental Impacts Monitoring Results
- B Performance Monitoring/Inspection Reports
(To include regular site monitoring/inspection and unannounced spot check reports, random informal public consultations on site, photographs)
- C Other supporting documents/information

^a Assessment of/rating for:

- (i) performance in mitigation measures implementation

5	Very good	100% of EMP/CEMP mitigation carried out
4	Good	76-99% of EMP/CEMP mitigation carried out
3	Fair	51-75% of EMP/CEMP mitigations carried out
2	Poor	26-50% of EMP/CEMP mitigations carried out
1	Very poor	0-25% of EMP/CEMP mitigations carried out

(ii) effectiveness of implemented mitigation *

5	Very good	100% effective
4	Good	76-99% effective
3	Fair	51-75% effective
2	Poor	26-50% effective
1	Very poor	0-25% effective

* Use state of received grievances, findings from regular monitoring/inspections, unannounced spot checks, informal random public consultations on site, state of workers health and safety, and (every quarter) the results of environmental impacts monitoring --- as bases for assessing effectiveness.

b

Assessment of/rating for:

(i) performance in environmental effects monitoring

5	Very good	100% of required environmental impacts monitoring carried out
4	Good	76-99% of required environmental impacts monitoring carried out
3	Fair	51-75% of environmental impacts monitoring carried out
2	Poor	26-50% of environmental impacts monitoring carried out
1	Very poor	0-25% of environmental impacts monitoring carried out

(ii) results environmental effects monitoring

5	Very good	within the more stringent value between international and national standards
4	Good	within the less stringent value between international and national standards
3	Fair	in excess of the less stringent value between international and national standards, but equal or less than the baseline value
2	Poor	1-3% in excess of the baseline value
1	Very poor	>3% in excess of the baseline value

(iii) performance of the PMU in monitoring

5	Very good	All target regular site monitoring/inspections, unannounced spot checks, informal public consultations carried out
3	Fair	Not all target regular site monitoring/inspections, unannounced spot checks, informal public consultations carried out
1	Very poor	No regular site monitoring/inspections, unannounced spot checks, informal public consultations carried out

c

Assessment of/rating for:

(i) performance in grievance redress

5	Very good	100% closed promptly
4	Good	76-99% closed promptly
3	Fair	51-75% closed promptly, no appeal
2	Poor	26-50% closed promptly, 1-3 appeals
1	Very poor	0-25% closed promptly, >3 appeals

(ii) number of grievances received

5	Very good	0 or no valid grievance received
4	Good	1-3 valid grievance/s received
3	Fair	4-5 valid grievances received
2	Poor	6-10 valid grievances received
1	Very poor	>10 valid grievances received

d

Assessment of/rating for emergency response:

5	Very good	no emergency case, no emergency response necessary
4	Good	1 st response, no injury, no casualty
3	Fair	1 st response/ultimate response, 1-3 injured
2	Poor	1 st response/ultimate response, >3 injured, no casualty
1	Very poor	1 st response/ultimate response, with casualty

e

Assessment of/rating for EMR preparation/submission:

5	Very good	submitted promptly on prescribed deadline
3	Fair	submitted after prescribed deadline, but before overall Project Progress Report submission
1	Very poor	not submitted and therefore not incorporated in Project Progress Report

f

Overall performance could be described in qualitative terms by subproject, town and Project. Or, rating system could be applied. This would require weights to be assigned to each indicator, each subproject and each city to arrive at the overall Project performance.