

THE KINGDOM OF CAMBODIA



Ministry of Public Works and Transport (MPWT)

**Second Urban Environmental Management in the Tonle Sap Basin Project,
(ADB L3684/G0591CAM)**

**Fourth Greater Mekong Subregion Corridor Towns Development Project,
(ADB L3686/G0592/G0593 CAM)**

PROJECT MANAGEMENT CONSULTANT (PMC)

Inception Report

Version 0.4



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Abbreviations

ADB	-	Asian Development Bank
AASHTO	-	American Association of State Highway and Transportation Officials
ACI	-	American Concrete Institute
ADF	-	Asian Development Fund
AEC	-	ASEAN Economic Community
AISC	-	American Institute of Steel Construction
ANSI	-	American National Standards Institute
AP	-	Anaerobic Pond
ASCE	-	American Society of Civil Engineers
ASCEI	-	American Standard Code for Information Interchange
ASTM	-	American Society for Testing and Materials
AWWA	-	American Water Works Association
BER	-	Bid Evaluation Report
BOD	-	Biochemical Oxygen Demand
BOQ	-	Bill of Quantity
BSIW	-	British Water Industry Standards
BS	-	British Standard
CCAM	-	Conformal Cubic Atmospheric Model
CPHEEO	-	Central Public Health and Environmental Engineering Organisation
COD	-	Chemical Oxygen Demand
CTDP	-	Corridor Towns Development Project
DED	-	Detail Engineering Design
DPWT	-	Department of Public Works and Transport
DTM	-	Digital Terrain Model
DSM	-	Digital Surface Model
DLG	-	Digital Line Model
DN	-	Nominal Diameter
DIN	-	Deutsches Institute for Normung
DO	-	Dissolved Oxygen
EFM	-	Electromagnetic Flow Meter
EN	-	European Norms
EDC	-	Electricite Du Cambodge
ENAA	-	Engineering Advancement Association of Japan
EA	-	Executing Agency
EMP	-	Environmental Management Plan
FP	-	Facultative Pond
FC	-	Faecal Coliform
FIDIC MDB	-	International Federation of Consulting Engineers - Multilateral Development Banks
FP	-	Facultative Pond
GDPW	-	General Department of Public Works
GDR	-	General Department of Resettlement
GIS	-	Geographical Information Systems
GPS	-	Global Positioning System

GMS	-	Greater Mekong Subregion
HDPE	-	High-Density Polyethylene
ICT	-	Information and Communication Technology
IDF	-	Intensity Duration Frequency
IEC	-	Information Education Communication
IEE	-	Initial Environmental Examination
IEIA	-	Initial Environmental Impact Assessment
IPCC	-	Intergovernmental Panel on Climate Change
JIS	-	Japanese Industrial Standard
JSWA	-	Japan Sewage Works Association
JV	-	Join Venture
LAR	-	land acquisition and resettlement
MEF	-	Ministry of Economy and Finance
MP	-	Maturation Pond
MRC	-	Mekong River Commission
MOE	-	Ministry of Environment
MOI	-	Ministry of Interior
MLMUPC	-	Ministry of Land Management, Urban Planning and Construction
MPWT	-	Ministry of Public Works and Transport
NEMA	-	National Electrical Manufacturers Association
OCG	-	Oriental Consultant Global
O&M	-	Operation and Maintenance
PAM	-	Project Administration Manual
PCP	-	Primary Control Point
PCC	-	Plain Cement Concrete
PDPWT	-	Provincial Departments of Public Works and Transport
PIU	-	Project Implementation Unit
PLC	-	Programable Logic Control
PMIS	-	Project Management and Implementation Support
PMC	-	Project Management Consultant
PMU	-	Project Management Unit
PPTA	-	Project Preparatory Technical Assistance
PPMS	-	Project Performance Management System
PSC	-	Project Steering Committee
PS	-	Pump Station
PVC	-	Polyvinyl Chloride
RP	-	Resettlement Plans
RCU	-	Reinforce Concrete U
SBC	-	Soil Bearing Capacity
SDR	-	Standard Dimension Ratio
SPT	-	Standard Penetration Tests
SPCR	-	Strategic Program for Climate Reciliation
SRES	-	Special Report on Emissions Scenarios
SWM	-	Solid Waste Management
TP	-	Total Phosphorus
TS	-	Tonle Sap

TST	-	Total Station Theodolite
TSS	-	Total Suspended Solids
TOR	-	terms of reference
UAV	-	Unmanned Aerial Vehicle
UDMP	-	Urban Development Strategy and Master Plans
UNDP	-	United Nations Development Programme
UTM	-	Universal Transverse Mercator
USACE	-	United States Army Corps of Engineers
USBR	-	United States Bureau of Reclamation
USD	-	United States Dollar
USFHWA	-	United States Federal Highway Administration
uPVC	-	Un-plasticised Polyvinyl chloride
VFD	-	Variable Frequency Diode
VSS	-	Volatile Suspended Solids
WSP	-	Waste Stabilization Pond
WWTP	-	Wastewater Treatment Plant

Abbreviations of measurements

Distance and Length

mm	millimeter
m	meter
km	kilometer

Mass and Weight

mg	milligram
g	gram
kg	kilogram

Capacity and Volume

ml	milliliter
l	liter
m ³	cubic meter

Area

ha	hectare
m ²	square meter
km ²	square kilometer

Time

d	day
hr	hour
min	minute
s	second

Temperature

C	Celsius
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Others

lpcd	liter per capita per day
lps	liter per second
m/s	meter per second
m ³ /min	cubic meter per minute
m ³ /day	cubic meter per day

1 Introduction

The Royal Government of Cambodia has obtained a loan and grant from the Asian Development Bank (ADB) towards the cost of the Second Integrated Urban Environmental Management in the Tonle Sap Basin Project (Tonle Sap 2 or TS-2); and towards the cost of the Fourth Greater Mekong Subregion (GMS) Corridor Towns Development Project (GMS CTDP-4).

The TS-2 project will improve urban environmental services in Battambang, Serei Saophoan and Stung Saen, three of Cambodia’s provincial cities located around the Tonle Sap lake (Table 1). The project will also improve institutional effectiveness to provide sustainable services and support an improved policy and planning environment for wastewater, drainage and solid waste management. The project is aligned with the following impacts: sustainable, inclusive, equitable and resilient growth achieved. The outcome will be improved urban environmental services in participating cities.

The TS-2 project has three outputs:

1. Output 1: Improved public services (Table 1).
2. Output 2: Improved institutional effectiveness.
3. Output 3: Improved policy and regulatory environment.

The CTDP-4 will improve urban services and enhance regional economic connectivity in provincial capital towns of Kampong Cham, Kratie, and Stung Treng along the Greater Mekong Subregion (GMS) Central Corridor in Cambodia. The project will finance key urban environmental infrastructure and enhance institutional effectiveness with a focus on private sector engagement and information and communication technology (ICT) - based public management systems, and the policy and planning environment for regional economic connectivity. The project will also improve institutional effectiveness to provide sustainable services and support an improved policy and planning environment for wastewater and solid waste management. The project is aligned with the following impacts: sustainable, inclusive, equitable, and resilient growth achieved. The project’s outcome is improved urban services for enhancing regional economic connectivity in participating towns.

The CTDP-4 project has two outputs:

1. Output 1: Urban environmental infrastructure improved (Table 1).
2. Output 2: Institutional effectiveness, and policy and planning environment for regional economic connectivity enhanced.

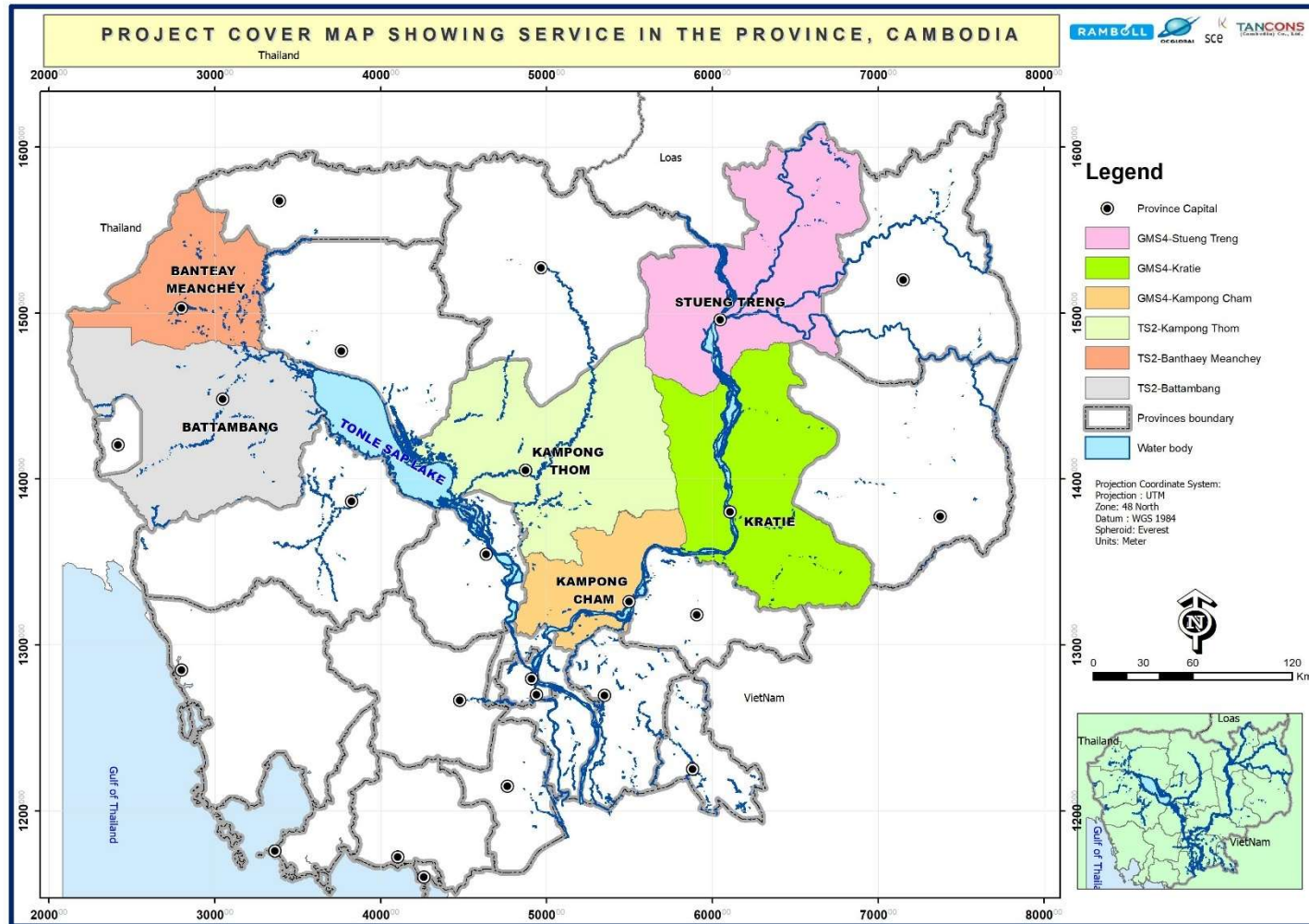
Table 1 : Improved public services and infrastructure for TS-2 and CTDP-4

Project	Town	Lagoon based WWTP	Sewer Systems	Drainage	Landfill
TS-2	Battambang	4,800 m ³ /day	86.8 km		350,000 m ³
	Stung Saen	2,500 m ³ /day	39.2 km	17.1 km	48,000 m ³
	Serei Saophoan	2,500 m ³ /day	78.2 km	8,5 km	130,000 m ³
CDT-4	Kampong Cham	5,050 m ³ /day	137 km	4,3 km	900,000 m ³
	Kratie	4,900 m ³ /day	143 km	12 km	433,500 m ³
	Stueng Treng	3,650 m ³ /day	147 km	12 km	291,000 m ³

Source: ToR

The Ministry of Public Works and Transport (MPWT) is the Project’s executing agency (EA) and will manage the implementation of the Project’s infrastructure subprojects through a Project Management Unit (PMU), in close collaboration with the project implementation units (PIU) embedded within the provincial Departments of Public Works and Transport (DPWT) for the different provinces.

Figure 1: Project Provincial cities (TS-2&CTDP-4).



Ramboll Danmark A/S in Joint Venture (JV) with Oriental Consultants Global Co., Ltd. (Japan) (OCG); SCE (France) and Tancons Co. Ltd. (Cambodia) as sub-consultants will act as the Project Management Consultants (PMC). The PMC will assist the Project Management Unit (PMU) and Project Implementation Units (PIUs) with:

- (i) support to project management;
- (ii) preparation of detailed engineering designs and bidding documents;
- (iii) construction supervision and contract administration;
- (iv) ensuring compliance with ADB Safeguards Policy Statement and mitigation of risks
- (v) ensuring compliance with ADB Gender and Development Policy and Guidelines for Gender Mainstreaming Categories of ADB projects.
- (vi) preparation of risk-sensitive urban development Master Plans;
- (vii) strengthening the institutions that will deliver the services;
- (viii) coordination and provision of training and
- (ix) information, education and communications activities.

1.1 The Objective of the Inception report

This Inception Report is intended to:

- Briefly summarise the project start up and organisation;
- Summarise the Consultants findings after the first assessment of studies/documentation as well as meetings, discussions and site visits;
- To review the current status of the wider project and present the Consultant’s revised schedule of activities subdivided into each component of the work;

1.2 Contents of the report

The report thus identifies the new issues that have been raised and some newly emerging risks. It reviews the risks and opportunities these new developments present. It proposes plans to mitigate these risks and in particular the delays they are likely to cause. These plans are related to the study’s TOR, the PMC’s methodology in its proposal and ADB and Client documents relating to the project.

This project is a complex number of work packages and different tasks. At the present time both the TOR of the study and the methodology the Consultant developed in its proposal remain valid in almost their entirety.

This Inception Report should therefore be read with these documents in mind that will continue to be referred to during the development of the project. Therefore, it is important that reporting by the PMC in this Inception Report, (and in other documents such as monthly and quarterly reports) focus on areas where changes have occurred or are likely to occur, and that may delay or disrupt the project and to proactively develop and propose solutions to mitigate these changes.

The report focuses on the delivery of the project components and the consultant’s tasks.

1.3 Layout of the report

The layout of the report reflects the PMC’s organization of the study.

At the highest level there is support to and coordination with the PMU and ADB mission through overall organization of the various components and diverse technical assistance with their implementation and the monitoring activities. § 2.1
§ 4

At the second level there is coordination with the six PIUs of the six towns covered by the study and the support to these towns through the various project components.

At the third level (planning) the towns are supported by the project components of

- Institutional Development,

- Training, and § 5
- Master Plans. § 6

§ 7

At the next level there is the delivery of the 16 work packages for each of the towns with responsibility for tasks divided between the various stakeholders and the PMC as set out in the TOR. Assistance with procurement and Construction supervision is in this level. § 8

1.4 The project start up

The contract for PMC (Contract No. PMU/MPWT/TS-2&CTP-4/CS01) has been signed on 26 June 2019 between the Ministry of Public Works and Transport (MPWT) (The Client) and Ramboll Danmark A/S in Joint Venture with Oriental Consultant Global Co., Ltd. and SCE in association with Tancons (Cambodia) Co., Ltd (The Consultant).

The PMC has been mobilized since 15 July 2019. The kick-off meeting took place at MPWT in Phnom Penh on 17th of July 2019 attended by key stakeholders which addressed the overall planning of the project describing the key issues including subproject land status, priorities, future plans and understanding risks in order to develop a clear strategy and work plan. A presentation was made to this effect by the Team Leader.

Between 15 July 2019 and 18 October 2019, the Consultant has been working on:

- (1) Inception tasks including, team mobilization, field missions, meetings with relevant stakeholders in the 6 project towns, review of relevant documents and information available;
- (2) Project Implementation tasks including, submission of one monthly report, two work schedule/plans, conduct surveys, submit design criteria for sewer systems, drainage networks and wastewater treatment plants (WWTP) and start the DED for two subprojects and preparatory tasks for the rest.

The needed experts were mobilized upon kick-off. The team that has work on the Inception tasks and started to work on the Project implementation comprises of the following experts and members:

Key Experts:

- Team Leader (Project Manager/Chief Engineer) (Int KE-1): Mr. Hugh McLachlan
- Wastewater / Civil Engineer 2 (Int. KE-3.2): Mr. Mr. James MacPherson
- Social Safeguards and Resettlement Specialist (Int. KE-6): Mr. Teemu Jantunen
- National Deputy Team Leader/ Civil Engineer – 2 (Nat. KE-1.2): Mr. Chhit Socheat
- Solid Waste Engineer (Nat. KE-2): Mr. Mao Vanchann
- Sanitation Engineer – 2 (Nat. KE-3.2): Mr. Mam Deth
- Social Safeguards and Resettlement Specialist – 2 (Nat. KE-6.2): Mr. Chan Narith

Non-Key Experts:

- Urban Development Specialist (Int. NKE-2): Mr. Howard Trett
- Urban and Regional Planner (Int. NKE-5): Ms. Hisako Kobayashi
- Project Performance and Monitoring Specialist (Int. NKE-15): Mr. Nils Gardek
- GIS Specialist -2 (Nat. NKE-12.2): Mr. Mao Socheat

Back Office Experts:

- Project Director: Dr. Jens Thøgersen
- Project Manager: Dr. Pau Prat Busquets

Support from Ramboll India Experts:

- Senior Design Engineer: Dhanesh Prasad
- Senior WWTP Engineer: Hariprasad C P
- Jagmohan Singh Rawat
- Purushothaman Palani
- Saravanakumar B
- Senior Network Engineer: Sorav Kumar Arora
- Process Engineer: Dhanesh Prasad
- Solid Waste Experts: Iftekhar Enayetullah

Preliminaries

- **Office:** Project office is located at MPWT, Corner Preah Norodom Blvd & Street 106, Sangkat Wat Phnom, Khan Daun Penh, Phnom Penh. The office space at MPWT is not large enough to perform several tasks of the Project, a second office space has been set up at Building 120, Street 51, Sangkat Chaktomuk, Khan Daun Penh, Phnom Penh.
- **Furniture and equipment provided to date:** The equipment purchased for the Project includes: 10 office desks (W1219XD660XH740mm), 3 office desks (W1800X700XH750mm), 22 chairs, 2 cabinets and 2 project cars.

Meetings during mobilization, inception period and Project implementation have been listed in Annex 11: Meetings conducted over the Inception period. PMC has also conducted several meetings to support PMU which haven't been recorded.

Over the inception mission, the PMC has started carrying out the review of the initial documents and data. All the documents and data have been recorded in our library and the gap analysis is currently ongoing. We will continue to collect more data and documents throughout the Project implementation.

It is important to note that the successful and timely completion of this Project, especially for Task 6: Preparation of Provincial Development Strategies and Urban Development Master Plan, will be in large part dependent on the speed, completeness and accuracy of data provided as part of the consultations.

Annex 6: Data Collection; summarizes the preliminary screening the Consultant has been performing on the relevant data deemed necessary for the implementation of all project tasks. The table includes information regarding existing documents related to socio-economic, infrastructure, technical and relevant national documents. The "Notes" column shows the requested data that the Consultant already officially received/found (as per status on 14/10/2019).

The Consultant kindly asks PMU support our team with data and documents yet to be received or facilitate communication with the relevant stakeholder for the timely receipt of the requested input.

1.5 Assumptions and Risks

To ensure a good start of the assignment, the Client, the Beneficiary and the Consultant need to verify that they are aligned on the main assumptions (Table 2).

Table 2 : Assumptions and updated comments

Assumption	Comments
PPTA documents for TS-2	DED for WWTP, sewer and drainage network and landfills will be based on the information and data available (incl. population forecast, wastewater and solid waste produced) in the PPTA. The DED will be also based on the draft design described in the report and in the project sites indicated.
PPTA documents for CTD-4	DED for WWTP, sewer and drainage network and landfill will be based on the information and data available (incl. Population forecast, wastewater and solid waste produced) in the PPTA. PMC understands that the following changes from the PPTA may occur upon agreement of all parts: <ul style="list-style-type: none"> - Change on the wastewater collection system from combined sewer systems, as described in the PPTA, to separate sewer systems. - Change on the contract modality for the landfills from design & build method to employer’s design.
Confirmation of project sites and land availability	It is assumed that not all the project sites identified in the PPTA would be available or with the require permits (e.g. MoE and GDR clearance) to start with the design tasks. While PMC will support PIUs to identify new project sites. MPWT/PMU and PIUs will speed up the process. So, it is assumed PMU and PIUs will be proactive.
Active involvement of PMU	The PMC consultant is very much dependent on the proactive cooperation of the PMU for the delivery of the project by all stakeholders
Active involvement of PIU	The PMC consultant is very much dependent on the proactive cooperation of the PIU for the delivery of the project work packages by all stakeholders
GDR cooperation	It is assumed that cooperation with the GDR will be facilitated by PMU and PIU as required. It is assumed that the GDR process will be expedited by GDR.
MOE cooperation	It is assumed that cooperation with the MOE will be facilitated by PMU and PIU as required. It is assumed that the MOE approvals will be expedited by MOE.
Assignment language	To allow smooth communication between PMC, EA and IA, it will be very important that the appointed Project Manager on Client side has a good command of English language. <ul style="list-style-type: none"> • The PMC understands that the day to day language for the Project will be English, and that – except for stakeholder and citizen consultation - working session and workshops could be conducted in English. • Official deliverables and official progress reporting reports, as listed in TOR, they should be prepared in English.
Support for PMU activities	Due to high workload and complex bureaucratic environment support for PMU by PMC is considered critical for the overall project delivery. We assume that with the close relationship with the PMU that project approvals will be delivered within 10 working days.

1.6 Contrace variation

It has been agreed with ADB, MPWT and PMC to switch the approach for the following components of the project:

- Landfills under GSM4 Project: Under the existing contract, the landfills of Kampong Cham, Kratie, and Stung Treng have to be designed and tendered according to Design and Build. It has been agreed to change contract modality to Employer’s Design (Conventional Contract Modality) as the landfills under TS-2 subprojects.
- The sewer systems in Kampong Cham, Kratie, and Stung Treng will be designed as combined sewer systems. It has been agreed to design the sewer systems as separate sewer systems.

This change of scope implies an increase of cost for PMC. This increase of cost has been calculated based on PMC’s financial offer.

- For the landfills: In the financial offer, the average cost of the DED of landfills in Battambang, Serei Saophoan, and Stung Saen is USD 244.077. Therefore, the cost for the DED of the


landfills in Kampong Cham, Kratie, and Stung Treng would be approximately 244.077 USD per landfill. Additional cost for DED of landfills in all 6 project towns: USD 303.753

- For the sewer systems: In the financial offer, the cost for DED of Separate Sewer system in Serei Saophoan is USD 447.140. Therefore, the cost for the DED of separate sewer systems would be approximately USD 447.140. Additional cost for DED of Separate Sewer systems in all project towns: USD 546.338

A justification note for switching the approach in the Project was submitted on 24 September 2019 (REF: SCO-GMS4-GM4-PD-CLT-0020 Justification NOTE for switching the approach in the Project). In the note, the PMC committees to proceed with the change of the scope at cost neutral. The cost neutral is achieved by transferring some input from the time based to the lump sum as follows:

• Team Leader	12pm	USD 299.507
• Deputy TL	6 pm	USD 166.771
• Solid Waste	1,5 pm	USD 29.441
• WASH & Sanitation	1 pm	USD 15.883
• Per diem short term	60 days	USD 8.828
• Allowance long-term	18 months	USD 30.631
• NGO Services	50%	USD 98.000
• Contingency	63%	USD 201.089

After this change and using part of the contingency amounts for TS-2 and CTD-4, the TL and DTL will have 62 PM and 46 PM respectively, which will ensure proper project management for all the components, including construction supervision according to the procurement plan.


The DED of the subprojects under CTD-4 can not start until this change of the scope have been agreed and confirmed. To avoid delays on the project implementation, the change of scope should be finalized during November 2019. 

1.7 Contractual Reporting

Time-based deliverables are:

- Inception Report (this report)
- Project Management support (excl Inception Report)
 - Daily coordination of team and liaison with Client;
 - **Monthly reporting:** During the course of the study we will produce monthly progress reports which will be emailed to the PMU and to ADB. The monthly progress reports will report according to agreed format with PMU on administrative issues such as assignment progress, problems encountered, field work conducted, key meetings held, issues/problems identified and their proposed solutions, items that will require the Client's attention, etc. The Team Leader will be submitting these on the last day of each month.
 - **Quarterly reporting:** During the course of the study we will produce quarterly progress reports which will be submitted to PMU and to ADB one month after of each quarter. The quarterly progress reports will report according to agreed ADB format on administrative issues, loan status (contract awards and disbursements) and overall progress of the Project.
- Construction Supervision and Contract Administration
 - Contract management
 - Supervision of works
 - Support during DNP
 - Support during hand-over process
- Monitoring of Compliance with ADB Safeguards Policies
- Institutional Strengthening
- Landfill Operations Report (TS-2 – Serei Saophan)
- Training
- IEC and NGO services
- Draft Project Completion Report (incl O&M Manuals)
- Final Project Completion Report

Lump-sum deliverables for DED are:

- **Work Schedule / Plan:** This report defines the approach to the detailed engineering design (DED) for each design package.
- **Survey Report:** Topographical, geotechnical and aerial survey will be conducted within the project area. Once these surveys have been concluded, the survey report will be submitted.
- **Draft DED:** Once the survey has been concluded, draft detailed engineering design for the sewer network, drainage network, pump stations and WWTP will be prepared by the design team and submit to PMU for review.
- **Final DED:** After addressing the comments on the Draft DED, Final DED will be prepared.
- **Bidding Documents:** After DED have been completed, PMC will prepare the bidding documents, bidding documents including s of quantities, technical specifications and evaluation criteria.
- **Bid Evaluation Report:** PMC will assist PMU with examining and comparing bids to select the best offer in an effort to acquire goods, works and services necessary to achieve the goals of the project.

Lump-sum deliverables for Master Plan are:

- **Work Schedule / Plan:** This report defines the approach to the Master Plan and Five-Year Provincial Development Strategies.
- **Draft Master Plan:** Draft the provincial and Master Plans based on: a) the comprehensive reviews on socioeconomic profiles; b) the resilient and local development plans for the provinces and capital towns, and the strategic EIA; and c) the consultations with various provincial departments and agencies as well as the concerned local and rural communities.
- **Investment Plan:** Identify and prepare an investment program for priority projects that are to be implemented to support the development of the economy and orientations as elaborated under the sectoral development orientations/pathways, along with a financial plan (for each of the provincial 5-year plans) since substantial public investment may be required to fund a catalytic program of activities.
- **Final Master Plan:** Draft Master Plan will be presented and several consultative workshops will be organized to the representatives of the EA, IAs, ADB and project stakeholders for review and discussions. The Final Master Plan will incorporate the comments and suggestions made during the workshop in the final deliverables.



2 Project Organization

2.1 Project Stakeholders

Figure 2 and Figure 3 summarize the Project Organization for TS-2 and GSM-4, the organization is the same for both projects. ADB is the lender. The MPWT is the Executing Agency through the Project Management Unit (PMU). At Provincial/Municipal level there are the Implementing Agencies (IA) formed by the PIU within the PDPWT for each project town, i.e. Battambang, Stueng Saen, Serei Saophoan, Kampong Cham, Kratie, Stung Treng.

The Project Steering Committee includes the Ministry of Economic and Finance (MEF), the Ministry of Land Management, Urban Planning and Construction (MLMUPC), the Ministry of Public Works and Transport (MPWT), the Ministry of Environment (MOE), and the Ministry of Interior (MOI). The EA includes MPWT, PMU, and for each Project town Provincial Governments in each Project town, Department of Public Works and Transport (DPWT) in each Project town and PIUs in each Project town.

MPWT Parkas on PMU for TS-2&CTDP-4 has been included Annex 7: MPWT Parkas on PMU for TS-2&CTDP-4; and translated in Table 42.

MPWT Parkas on PIU for Second Urban Environmental Management in the Tonle Sap Basin Project (ADB L3684/G0591 CAM) for each town has been included in Annex 8: MPWT Parkas on PIU for TS-2.

MPWT Parkas on PIU for Fourth Greater Mekong Subregion Corridor Towns Development Project (ADB L3686/G0593 CAM) has been included in Annex 9: MPWT Parkas on PIU for CTDP-4.

The contact person at the ADB:

- Mr. Vijay Padmanabhan, Director, Urban Development and Water Division. Email: vpadmanabhan@adb.org; Telephone: +63 2 632 6379/5613.
- Mr. Alexander Nash, Responsible ADB Office for Second Urban Environmental Management in the Tonle Sap Basin Project, South East Asia Department. Email: anash@adb.org; Telephone: +63 (0) 2 632 5102.
- Ms. Wei Kim Swain, Responsible ADB Officer, South East Asia Department. Email: wswain@adb.org;

The contact person at the MPWT:

- H.E. Vong Pisith, Deputy Director General, Email: vong_pisith@yahoo.com; Telephone: +855 12 833 411.

The contact persons at PMU:

- Mr. Mao Dor, Financial expert. Email: dor_mg@yahoo.com; Telephone: +855 77669777
- Mr. Samol, Project Engineer. yasamol@yahoo.com; Telephone: +855 12291295
- Mr. Pheourn Pheang, Procurement Expert. necc.pheourn@gmail.com; Telephone: +855 77717209.

For the PIUs at the six towns the contact persons are listed below:

TS-2 – Battambang	Mrs. Kem Skuntheary Deputy General Director (PDPWT) PIU Director Tel: 092 818 017
TS-2 - Serei Saophoan	Mr. Chea Sovann Thoun Deputy General Director (PDPWT) PIU Director Tel: 012 220 015

TS-2 - Stueng Saen	Mr. Chou Kolla General Director (PDPWT) PIU Director Tel: 012 971 317
GMS-4 - Kampong Cham	Mr. Sok Srun General Director (PDPWT) PIU Director Tel: 017 457 777
GMS-4 - Kratie	Mr. Sang Bun Then General Director (PDPWT) PIU Director Tel: 097 666 3196
GMS-4 - Stung Treng	Mr. Kong Sothea Deputy General Director (PDPWT) PIU Director Tel: 012 609 735

The consulting services are provided by the PMC. PMC organization and contact information is in section 2.2. On Consultant's side, the primary contact person for the JV is the **Team Leader, Mr. Richard Mabbitt**, rgm@richardmabbitt.com (Ramboll), copying **Mr. Pau Prat**, ppbu@ramboll.dk (PM Ramboll).

2.1.1 Stakeholders and project delivery responsibilities

Smooth execution of the assignment requires that the Stakeholders and all the other parties involved clearly understand their respective responsibilities. The key responsibilities of the parties are set out in the Project Administration Manual and are reproduced in [Table 3](#).

Figure 2: Project Organization Structure for TS-2 (PAM, ADB 2018).

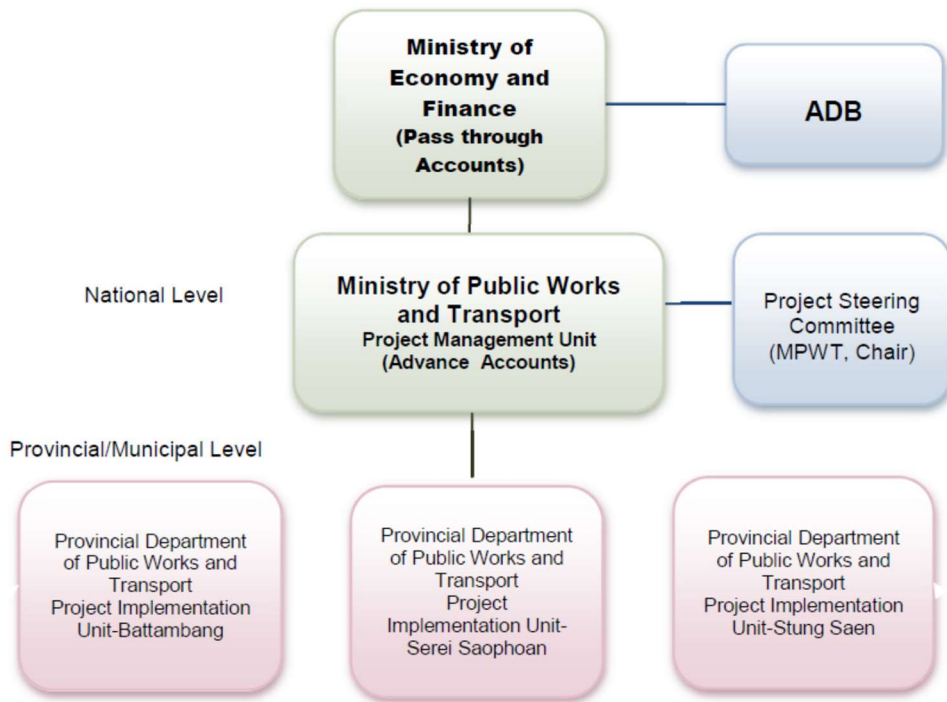


Figure 3: Project Organization Structure for GMS-CDPT-4 (PAM, ADB 2018).

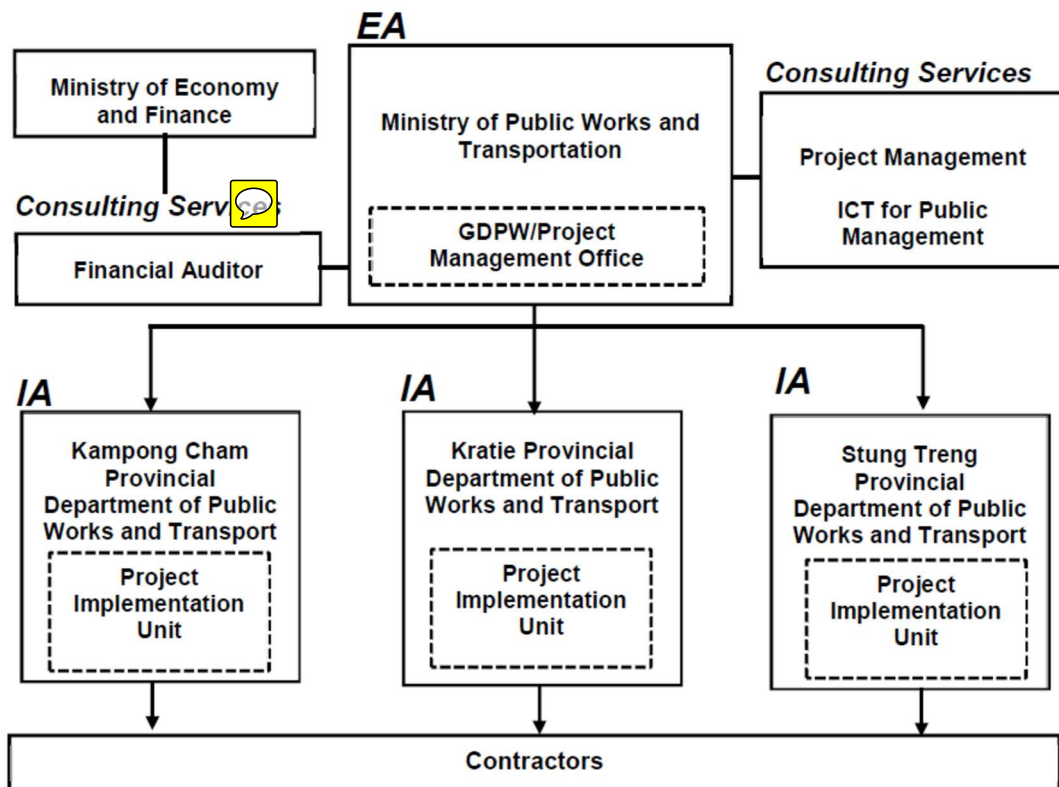


Table 3: Stakeholders and project delivery responsibilities

Project Implementation Organizations	Management Roles and Responsibilities
Project Steering Committee	<ul style="list-style-type: none"> - Comprises representatives of MEF, MLMUPC, MPWT, MOE, MOI, MOPT, MOC, and TSA - Hold periodic steering meeting to address project implementation issues - Provide strategic guidance and support to the PMUs, PIUs and GDR - Ensure compliance with loan covenants as agreed with ADB - Facilitate interagency and inter-ministerial coordination - Oversee project implementation and administration
Executing Agency	
Ministry of Public Works and Transport (MPWT)	<ul style="list-style-type: none"> - Provide policy guidance during implementation - Serve as focal agency to ADB and development partners, government offices whose coordination, endorsement or approval and monitoring activities are required and/or mandated by existing policies or laws - Coordination with other line ministries including MEF, MOPT, MOC, MOI, and MOE - Procurement of DB contracts, civil works and consulting services - Administration of loan disbursements - Assist Provincial PIUs as required
Project Management Unit (PMU)	<p>Project Management and Administration</p> <ul style="list-style-type: none"> - Responsible for project implementation and management - Liaison/coordination with ADB, GDR, MEF, provincial governments and local PIUs - Establish and oversee project accounting and auditing - Ensure adequate counterpart funds allocation - Budgeting and financial planning/management, disbursement - Provide to ADB all disbursement-related documentation (submit external auditor report to ADB) - Preparation of reports mandated under the loan agreements and the framework financing agreement to ADB - Establish, maintain and update the project performance monitoring system - Carry out periodic quality audits of the civil works contracts - Coordinate Project Steering Committee meetings

Project Implementation Organizations	Management Roles and Responsibilities
	<ul style="list-style-type: none"> - Prepare quarterly progress reports, and project completion report at the end of the project, with support of the project consultants.
Project Management Unit (PMU)	<p>Procurement of Goods, Works, and Services:</p> <ul style="list-style-type: none"> - Invite bids and evaluate/prepare bid evaluation reports for further approval - Conduct procurement and consulting service recruitment activities including advertisement, evaluation, negotiation and contract award. - Prepare updated procurement plans (18 month) in consultation and submit to ADB for review and approval - Provide support and guidance to provincial PIUs during contract management process - Submit annual contract award and disbursement projections by December of each year - Prepare for periodic ADB loan review missions
Project Management Unit (PMU)	<p>Technical Oversight and Support: Provide technical support and overall guidance to provincial PIUs</p> <ul style="list-style-type: none"> - Review and approve DED and estimates - Approve any variations during execution of works contracts - Carry out periodic technical quality audit of the civil works contracts <p>Capacity Building:</p> <ul style="list-style-type: none"> - Oversee governance improvement and performance - Approve and conduct training and capacity building programs - Oversee public relations - Oversee gender action plan and stakeholder communication strategy <p><i>Note: The PMU will be supported by the Project Management Consultants.</i></p>

Project Implementation Organizations	Management Roles and Responsibilities
Project Management Unit (PMU)	<p>Safeguards Compliance:</p> <ul style="list-style-type: none"> - Monitor and ensure compliance with ADB’s safeguards policy and government requirements - Obtain statutory clearances - Coordinate for obtaining right of way clearances - Review monthly provincial PIU monitoring reports and submit consolidated semi-annual safeguards monitoring report to ADB - Establish and manage project grievance redress mechanism and ensure project related grievances addressed satisfactorily within timely manner. - Provide capacity support to provincial PIUs <p>Capacity Building:</p> <ul style="list-style-type: none"> - Oversee governance improvement and performance - Approve and conduct training and capacity building programs - Oversee public relations - Oversee gender action plan and stakeholder communication strategy <p><i>Note: The PMU will be supported by the Project Management Consultants</i></p>
General Department of Resettlement (GDR)	<p>Resettlement Safeguards Compliance</p> <ul style="list-style-type: none"> - Implement and monitor safeguards compliance (Resettlement Framework and Resettlement Plans), prepare quarterly reports for submission to the PMU - Monitor compliance with Resettlement Plans, and coordinate with PMU and PIUs on any land acquisition or resettlement issues directly or indirectly relating to the project. - Prepare monthly monitoring reports and submit to PMU
Implementing Agencies	
Provincial Governments / DPWT (All towns)	<ul style="list-style-type: none"> - Approve and allocate counterpart budget for the PIUs - Assist interdepartmental coordination within the province - Communicate with the PMU for project implementation progress and activities - Provide support and coordination for land acquisition and resettlement activities
Project Implementation Units (PIUs)	Project Management and Administration:

Project Implementation Organizations	Management Roles and Responsibilities
	<ul style="list-style-type: none"> - Implement day-to-day project implementation in project towns - Liaise with PMU on project implementation - Open and maintain subproject account and contract level accounting - Manage detailed surveys, investigations, and engineering designs for all subcomponents - Prepare and submit quarterly reports to PMU - Implement and monitor safeguards compliance (Resettlement Plan, Environmental Management Plans) <p>Technical Support:</p> <ul style="list-style-type: none"> - Supervise contractors and ensure the quality of works - Work closely with consultants - Facilitate collection of data for DED - Prepare progress report on each contract and include <p>Implement and monitor safeguards compliance (Resettlement Plan, Environmental Management Plans)</p> <ul style="list-style-type: none"> - Obtain right of way clearances <p>Capacity Building:</p> <ul style="list-style-type: none"> - Propose and participate in training and capacity building programs - Ensure and participate in public awareness campaigns - Implement gender action plan and stakeholder communication strategy
Asian Development Bank	
ADB	Responsible for administering the project including, procurement review and support, public financial management, safeguards and social monitoring and supervision.

2.2 Project Management Consultants (PMC)

The consultant's organization remains the same as indicated in the proposal (Figure 4).

At negotiation and mobilization stage, the parties agreed on Key Experts and Non-Key Experts. The Project Management & Coordination team as well as most of the Key Experts remained unchanged compared to the proposal. However, the Team Leader resigned due to personal reasons and the Deputy Team Leader was unavailable at the start of the project. These changes have been reported to MPWT and PMU and a replacement proposal was submitted on 25 September 2019 (LET-GEN-TT-PM-CLT-0016 Replacement of Experts) and approved on 18 October 2019.

Table 4 includes the list of experts and positions according to the methodology. The Inception Report has assessed the Project schedule and has confirmed which experts are available. Unfortunately, few experts would not be available, and those have been marked in green. The replacements of those experts will start after submission of this report, and in agreement with MPWT/PMU in order to not interfere with the Project implementation. The reasons why those experts are not available, will be included in the replacement letters.

Table 4: List of Key Experts and Non-Key Experts

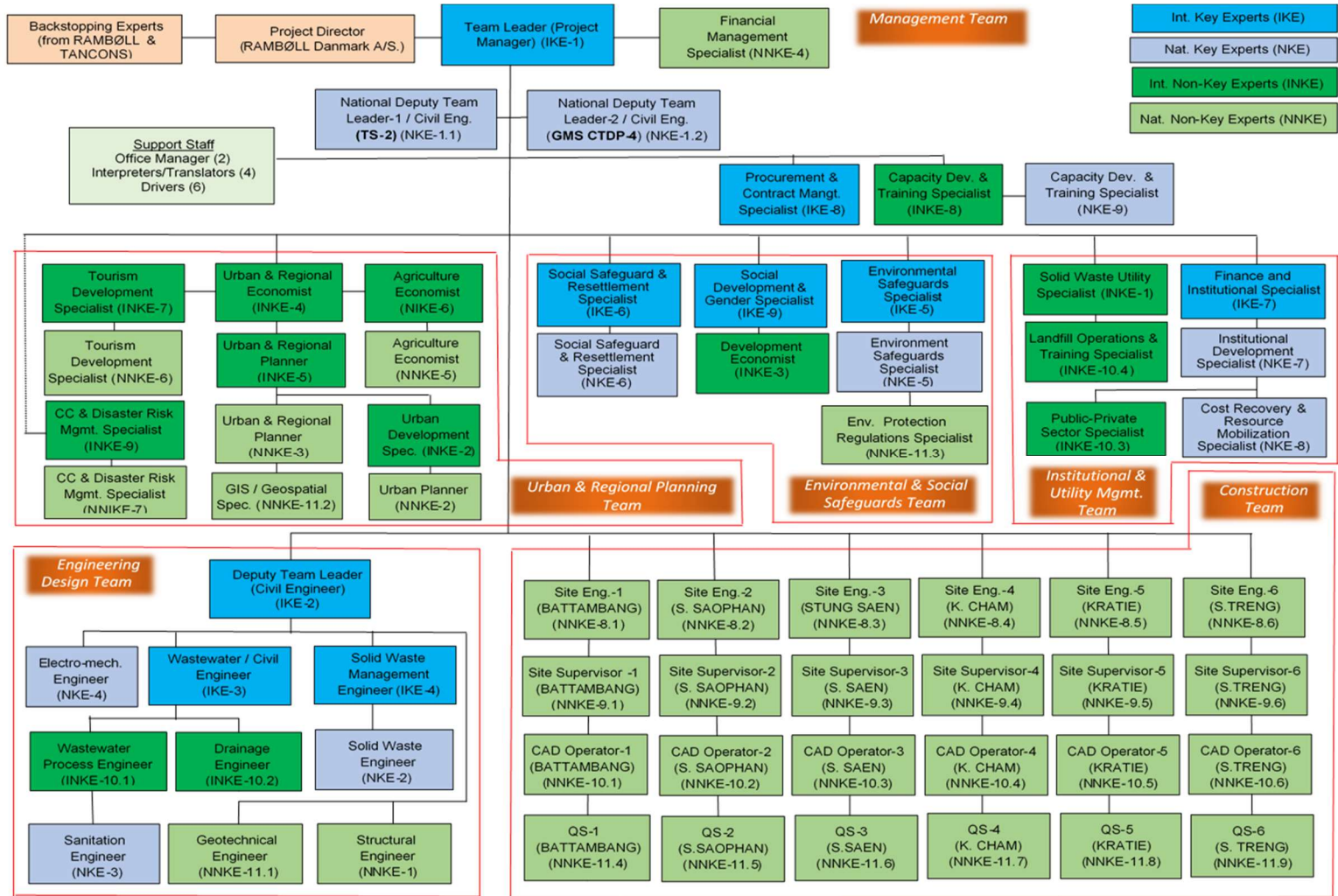
No.	Name	Position (as in TECH-6)
KEY EXPERTS (International)		
Int. KE-1	Mr. Richard Mabbitt	Team Leader (Project Manager/Chief Engineer)
Int. KE-2	Mr. Steve Kendricks	Deputy Team Leader (Civil Engineer) *
Int. KE-3.1	Mr. Fritz Jakma	Wastewater / Civil Engineer 1
Int. KE-3.2	Mr. James MacPherson	Wastewater / Civil Engineer 2
Int. KE-4	Mr. Udo Fisher	Solid Waste Management Engineer
Int. KE-5	Ms. Rachel Wildblood	Environmental Safeguards Specialist
Int. KE-6	Mr. Teemu Jantunen	Social Safeguards and Resettlement Specialist
Int. KE-7	Mr. Michael Sarter	Finance and Institutional Specialist *
Int. KE-8	Mr. Esa Sippola	Procurement and Contract Management Specialist
Int. KE-9	Mr. Nils Gardek	Social Development and Gender Specialist
KEY EXPERTS (National)		
Nat. KE-1.1	Mr. Ho Ratha	National Deputy Team Leader/ Civil Engineer - 1
Nat. KE-1.2	Mr. Chhit Socheat	National Deputy Team Leader/ Civil Engineer - 2
Nat. KE-2	Mr. Mao Vanchann	Solid Waste Engineer
Nat. KE-3.1	Mr. Visal Cheng	Sanitation Engineer - 1
Nat. KE-3.2	Mr. Mam Deth	Sanitation Engineer - 2
Nat. KE-4	Mr. Ky Senghun	Electromechanical Engineer
Nat. KE-5.1	Mr. Yim Chamnan	Environment Safeguards Specialist - 1
Nat. KE-5.2	Mr. Nang Phirum	Environment Safeguards Specialist - 2
Nat. KE-6.1	Mr. Mel Sophanna	Social Safeguards and Resettlement Specialist - 1
Nat. KE-6.2	Mr. Chan Narith	Social Safeguards and Resettlement Specialist - 2
Nat. KE-7	Mr. Men Chanvuth	Institutional Development Specialist
Nat. KE-8	Mr. Hem Socheth	Cost Recovery and Resource Mobilization Specialist
Nat. KE-9	Dr. Pech Darong	Capacity Development and Training Specialist
NON-KEY EXPERTS (International)		
Int. NKE-1	Mr. Mikael Boldt	Solid Waste Utility Specialist
Int. NKE-2	Mr. Howard Trett	Urban Development Specialist
Int. NKE-3	Mr. Richard Corsel	Development Economist
Int. NKE-4	Mr. Manabu Fujikawa	Urban and Regional Economist
Int. NKE-5	Ms. Hisako Kobayashi	Urban and Regional Planner
Int. NKE-6	Ms. Nerlita Manalisi	Agricultural Economist
Int. NKE-7	Mr. Yoshiki Hirabayashi	Tourism Development Specialist
Int. NKE-8	Mr. Richard Pope	Capacity Development and Training Specialist

Int. NKE-9	Mr. Alvaro Fonseca	Climate Change and Disaster Risk Management Specialist
Int. NKE-10	Mr. Golam Mustafa	Structural Engineer
Int. NKE-11	Mr. Mudiyansele Dissanayake	Water Supply Engineer
Int. NKE-12	Mr. Damian Cronin	Urban Designer
Int. NKE-13	Mr. Monyrath Kov	Transport Planner
Int. NKE-14	Mr. Per Gradin	Public-Private Sector Specialist (PPP)
Int. NKE-15	Mr. Nils Gardek	Project Performance and Monitoring Specialist
Int. NKE-16	Mr. Tajmilur Rahman	WASH & Sanitation Marketing Specialist
NON-KEY EXPERTS (National)		
Nat. NKE-1	Mr. Long Sina	Structural Engineer
Nat. NKE-2	Mr. Lim Dalika	Urban Planner
Nat. NKE-3	Mr. Vuth Sivorn	Urban and Regional Planner
Nat. NKE-4	Ms. Sakrya Kol	Financial Management Specialist
Nat. NKE-5	Mr. Chin Koeun	Agricultural Economist
Nat. NKE-6	Ms. So Rothavy	Tourism Development Specialist
Nat. NKE-7	Mr. Min Vannak	Climate Change and Disaster Risk Management Specialist
Nat. NKE-8.1	Mr. Sem Chenda	Site Engineers 1 - All Works & Contracts (BATTAMBANG)
Nat. NKE-8.2	Mr. Korb Chanthou	Site Engineers 2 - All Works & Contracts (S.SAOPHAN)
Nat. NKE-8.3	Mr. Path Phou	Site Engineers 3 - All Works & Contracts (STUNG SAEN)
Nat. NKE-8.4	Mr. Math Sokot	Site Engineers 4 - All Works & Contracts (KAMPONG CHAM)
Nat. NKE-8.5	Mr. Lang Len	Site Engineers 5 - All Works & Contracts (KRATIE)
Nat. NKE-8.6	Mr. Kong Sam Ath	Site Engineers 6 - All Works & Contracts (STUNG TRENG)
Nat. NKE-9.1	Mr. Chan Det	Site Supervisors 1 - All Works & Contracts (BATTAMBANG)
Nat. NKE-9.2	Mr. Chan Saroeun	Site Supervisors 2 - All Works & Contracts (S.SAOPHAN)
Nat. NKE-9.3	Mr. Reach Savuth	Site Supervisors 3 - All Works & Contracts (STUNG SAEN)
Nat. NKE-9.4	Mr. Sun Chantola	Site Supervisors 4 - All Works & Contracts (KAMPONG CHAM)
Nat. NKE-9.5	Mr. Hour Chamroeun	Site Supervisors 5 - All Works & Contracts (KRATIE)
Nat. NKE-9.6	Mr. Tep Chanthy	Site Supervisors 6 - All Works & Contracts (STUNG TRENG)
Nat. NKE-10.1	Mr. Vun Sonita	AutoCAD Operator 1 - All Works & Contracts (BATTAMBANG)
Nat. NKE-10.2	Mr. Mao Phearun	AutoCAD Operator 2 - All Works & Contracts (S.SAOPHAN)
Nat. NKE-10.3	Mr. In Tola	AutoCAD Operator 3 - All Works & Contracts (STUNG SAEN)
Nat. NKE-10.4	Mr. Phan Phara	AutoCAD Operator 4 - All Works & Contracts (KAMPONG CHAM)
Nat. NKE-10.5	Ms. Yem Vichny	AutoCAD Operator 5 - All Works & Contracts (KRATIE)
Nat. NKE-10.6	Mr. Vuth Ratha	AutoCAD Operator 6 - All Works & Contracts (STUNG TRENG)
Nat. NKE-11	Mr. Ly Bunthi	Geotechnical Engineer
Nat. NKE-12.1	Mr. Oul Kim Sear	GIS Specialist -1
Nat. NKE-12.2	Mr. Mao Socheat	GIS Specialist -2



Nat. NKE-13	Ms. David Chandavin	Land Use Management Specialist
Nat. NKE-14	Mr. Sim Sokha	Topographics Survey Manager
Nat. NKE-15	Mr. Chea Ketia	Geotechnics Survey Manager
Nat. NKE-16	Mr. So Im Monichoth	Hydrologics Survey Manager
Nat. NKE-17	Ms. Ky Sovathana	Socio-Economics Survey Manager
Nat. NKE-18	Mr. Tan Try	Legal/PPP Expert

Figure 4: Consultant (PMC) Organizational Chart



In order to deliver the design packages on time, the PMC have decided to mobilize extra resources from Ramboll Engineering Centre (REC). These resources were presented to Project Director and approved (Letter Reference: LET-GEN-TT-PM-CLT-0013 India Ramboll Office Support).

The support of REC at the PMC is divided in two teams:

- (1) WWTP, sewer and drainage networks teams (Figure 5) and
- (2) solid waste teams (Figure 6).

While more resources can be mobilized from REC according to the Project needs, the design manager remains in the PMC, Project Office in Phnom Penh, including the international and national team experts, as well as Design Engineer Coordinator who liaises with REC to ensure the quality of the deliverables proceed by REC.

Figure 5: Design Teams for WWTP, sewer and drainage networks

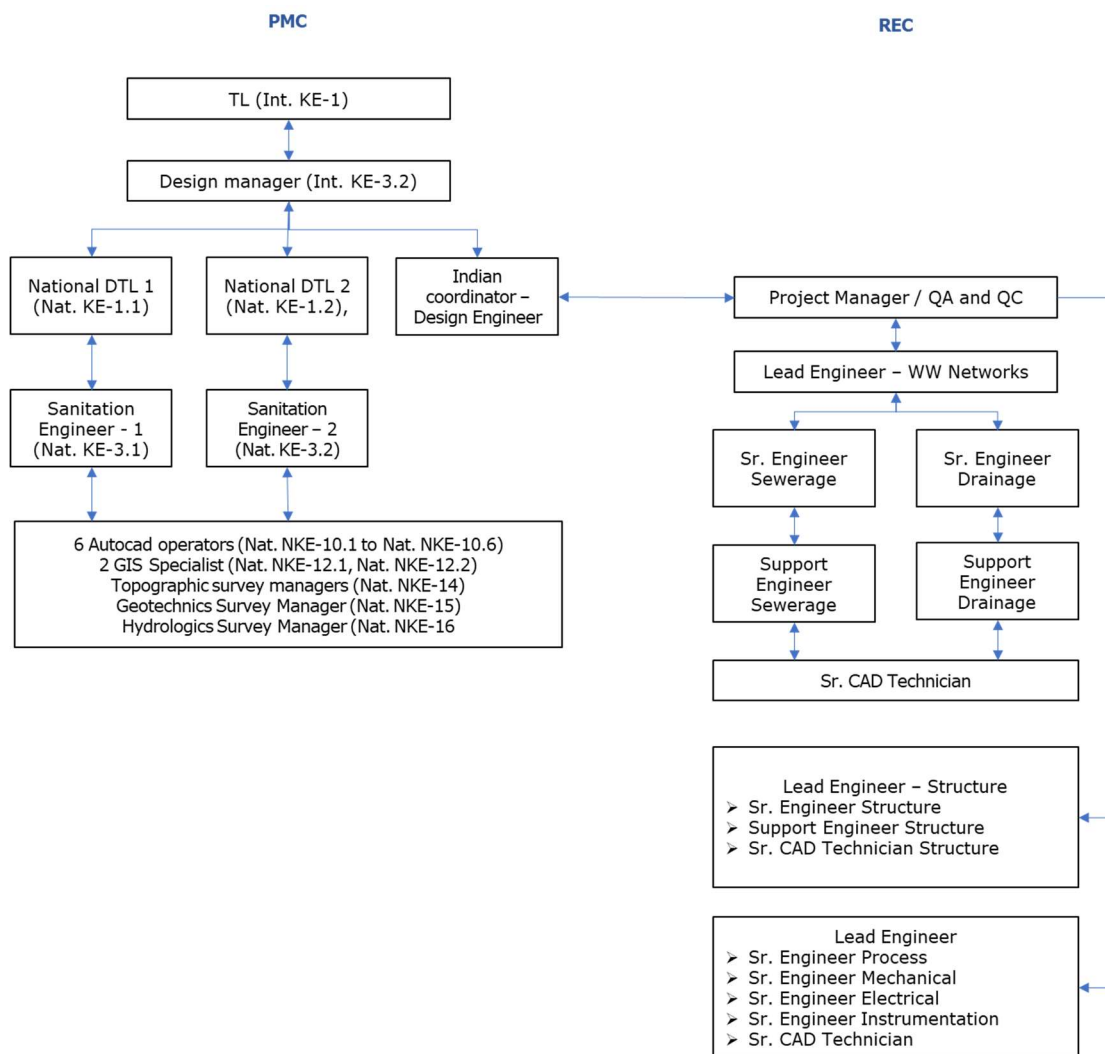
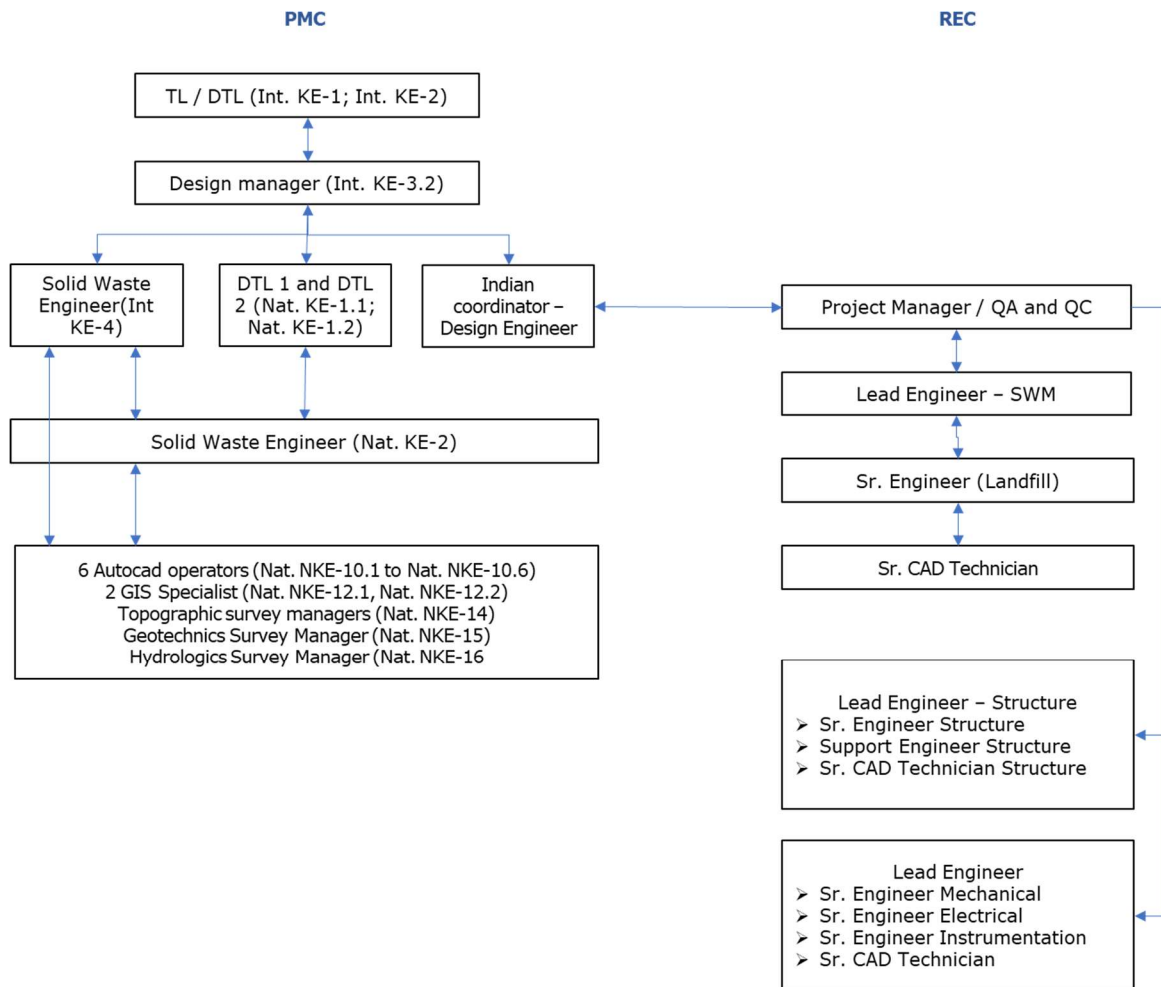


Figure 6: Design Teams Solid Waste



2.3 Communication with Stakeholders

We recommend that communication to stakeholders should be made in the following ways:

- PMU should provide a Letter of Introduction and facilitate the collection of data directly from stakeholders and;
- The Consultant should contact stakeholders directly.

The consultant recommends that the PIUs should actively participate in the process of data and information collection.

2.4 Project Schedule

The project schedule has been split into manageable parts. The overall planning is detailed in the Table 5. This planning is the same as the one give in the PMC’s methodology. The overall planning remains valid and more details have been included for the 16 Work Packages (Table 6 and Table 7) and Master Planning (Figure 7). More details of these plans are given in the relevant sections.

Table 6 and Table 7 summarize the plan for the work packages under TS-2 and CTDp-4 respectively. These tables include the status of each work package in relation to (i) site selection after PPTA; (ii) Environment post PPTA; (iii) Resettlement ; (iv) Engineering; (v) Procurement; and (vi) construction supervision. Those components have been further divided with other relevant tasks (see section 8).

The light green color indicates when the activity is scheduled, and the dark green color indicates if that the activity has started and for how long. The percentage of completion will be indicated for each task.

Table 5: Project Schedule excluding work packages.

No.	ACTIVITIES	DELIVERABLES	Year																																																																													
			Quarter	Year 1					Year 2					Year 3					Year 4					Year 5																																																								
			Month	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	See Work Plan Schedules as presented in the Inception report																																																									
TASK 1 PROJECT MANAGEMENT SUPPORT																																																																																
Sub-Task 1.1 PROJECT MANAGEMENT AND COORDINATION, TECHNICAL REVIEW, ADMINISTRATION AND RESULTS																																																																																
1.1.1	Mobilization and Inception	D-1-1 (a) - Inception Report	Draft and final Inception Report																																																																													
1.1.2	Quality Assurance and Risk Management		Quality Assurance Plan & Risk Management Plan																																																																													
1.1.3	Coordination & Management of Meetings	D-1-1 (b) - Monthly Management and Progress Report	Monthly Management and Progress Reports																																																																													
1.1.4	Contract Management / Administration	D-1-1 (c) - Quarterly Progress Reports	Quarterly Progress Reports																																																																													
1.1.5	Monitoring, Evaluation & Reporting (Results Monitoring)	D-1-1 (d) - Updated PPMS and Baseline Benchmarks / Performance Indicators D-1-1 (e) - Background Material for ADB Loan Administration Reports/Aide-Memoires D-1-1 (f) - Draft Final Report to include the Operation and Maintenance Manuals D-1-1 (g) - Final Report	Updated PPMS, Aide-memoires material, Draft Final Report, Final Report																																																																													
Sub-Task 1.2 FINANCIAL MANAGEMENT SUPPORT																																																																																
1.2.1	Update Project Administration Manual (PAM) & Procedures	D-1-2 (a) - Financial management systems (FMS) incorporated in the PAMs	Financial management system																																																																													
1.2.2	Support PMU/PIUs in setting up a Financial Management System (FMS) for the Project	D-1-2 (b) - Project financial reports (as part of the quarterly)	Project financial reports																																																																													
1.2.3	PMU/PIUs in Financial Management and Disbursements Activities	D-1-2 (c) - Other reports, e.g. Semi-annual Interim Financial Reports (IFRS), audit reports, etc.	Semi-annual Interim Financial Reports, audit reports, etc.																																																																													
TASK 2 DETAILED ENGINEERING DESIGNS AND BIDDING DOCUMENTS																																																																																
Sub-Task 2.1 DETAILED ENGINEERING DESIGNS																																																																																
Sub-Task 2.2 BIDDING DOCUMENTS & PROCESS																																																																																
TASK 3 CONSTRUCTION SUPERVISION AND CONTRACT ADMINISTRATION																																																																																
Sub-Task 3.1 CONSTRUCTION SUPERVISION																																																																																
TASK 4 COMPLIANCE WITH ADB SAFEGUARDS POLICY STATEMENT, RISK MITIGATION AND ADB GENDER AND DEVELOPMENT POLICY REQUIREMENTS																																																																																
Sub-Task 4.1 UPDATED DOMESTIC IEIA & IEEs (DESIG STAGE) AND ENV. COMPLIANCE MONITORING (IMPLEMENTATION)																																																																																
4.1.1	Preparation of Domestic IEIA/EIA Documents and Redrafting of IEE Reports	D-4-1 (a) - Domestic IEIA / EIA Documents (by Province, with Baseline Survey Reports)	Domestic IEIA / EIA Documents																																																																													
4.1.2	Public and Stakeholder Consultations & Approval of IEIA/EIA & IEE Documents	D-4-1 (b) - Updated IEE Reports (by Subproject)	Updated IEE Reports																																																																													
4.1.3	Capacity Building of PMU/PIUs, Contractors and Others on Environmental Management	D-4-1 (c) - Updated EMP (for incorporation in civil works bidding & contract documents)	Updated EMP																																																																													
4.1.4	Review and validation of Contractor's EMP (at pre-construction stage)	D-4-1 (d) - Verified Contractor's CEMP & related Sub-Plans	Verified Contractor's CEMP & related Sub-Plans																																																																													
4.1.5	Environmental compliance monitoring during construction	D-4-1 (e) - Semi-Annual (Env.) Safeguards Monitoring Reports	Semi-Annual (Env.) Safeguards Monitoring Reports																																																																													
Approval of Domestic IEIA/EIA, Updated IEEs and related EMP (by MPWT, MOE & ADB)																																																																																
Sub-Task 4.2 SUPPORT FOR ADB SAFEGUARD POLICIES & SOCIAL & GENDER REQUIREMENTS (DESIGN & IMPLEMENTATION)																																																																																
4.2.1	Preparation of Resettlement Framework/Plans and Compliance with IFC Guidelines	D-4-2 (a) - Updated Resettlement Framework (RF) & Resettlement Plans (RPs)	Updated Resettlement Framework (RF) & Resettlement Plans (RPs)																																																																													
4.2.2	Capacity Building of PMU/PIUs on Social Safeguards based on SPRSS, GAP & SCS	D-4-2 (a) - Semi-annual (Social) Safeguards Monitoring Reports	Semi-annual (Social) Safeguards Monitoring Reports																																																																													
4.2.3	Capacity Building of PMU/PIUs on Compliance monitoring of Social, Gender & Safeguards Issues	D-4-2 (b) - Updated Gender Action Plan (GAP)	Updated Gender Action Plan (GAP)																																																																													
4.2.4	Monitoring of GAP Implementation	D-4-2 (c) - Reports on GAP Implementation and Gender Awareness Activities	Reports on GAP Implementation																																																																													
4.2.5	Information, Education and Communication (IEC) Activities	D-4-2 (d) - Detailed Communication Plan and Sanitation Marketing Strategy	Detailed Communication Plan and Sanitation Marketing Strategy																																																																													
Approval of Resettlement Plans & Updated GAP (by MPWT/GRD & ADB)																																																																																
TASK 5 INSTITUTIONAL STRENGTHENING																																																																																
Sub-Task 5.1 SELECTION OF INSTITUTIONAL ARRANGEMENTS																																																																																
5.1.1	Analysis of Institutional Options		Analysis of Institutional Options																																																																													
5.1.2	Establishment of Urban Management Units (Urban Service Units or Wastewater Units)	D-5-1 (a) - Recommendation Report on Institutional Arrangement for Urban Utility Services	Recommendation Report on Institutional Arrangement for Urban Utility Services																																																																													
5.1.3	Renegotiating and/or Setting-up PPP Contracts for Solid Waste Management	D-5-1 (b) - Renegotiated and New Service Contracts for SWM	Renegotiated and New Service Contracts for SWM																																																																													
5.1.4	Assistance in Setting-up Tariffs and Billing Mechanisms		Assistance in Setting-up Tariffs and Billing Mechanisms																																																																													
Sub-Task 5.2 FINANCIAL SUSTAINABILITY ROADMAP FOR URBAN UTILITY SERVICES																																																																																
5.2.1	Analysis of Regulation and Institutional Aspects of Urban Services Delivery	D-5-2 (a) - Recommendation Report on Tariff schemes and collection mechanisms	Recommendation Report on Tariff schemes and collection mechanisms																																																																													
5.2.2	Lessons Learnt from Current Models and Practice of Urban Utility Services	D-5-2 (b) - Financial Stability Roadmap for urban Services (each project town)	Financial Stability Roadmap for urban Services																																																																													
5.2.3	Financial Management, Tariffs, Billing and Commercial Business Management		Financial Management, Tariffs, Billing and Commercial Business Management																																																																													
TASK 6 PREPARATION OF PROVINCIAL DEVELOPMENT STRATEGIES AND URBAN DEVELOPMENT MASTER PLANS																																																																																
Sub-Task 6.1 PREPARATION OF FIVE-YEAR PROVINCIAL DEVELOPMENT STRATEGIES																																																																																
6.1.1	Provincial Social and Economic Analysis		Provincial Social and Economic Analysis																																																																													
6.1.2	Resilient Planning and Strategic Environmental Impact Assessment	D-6-1 (a) - Five-Year Provincial Development Strategy & Plan for KAMPONG CHAM, KRATIE and STUNG TRENG (GMS CTDP-4)	Five-Year Provincial Development Strategy & Plan																																																																													
6.1.3	Public Consultations		Public Consultations																																																																													
6.1.4	Provincial Development Strategies		Provincial Development Strategies Reports																																																																													
Sub-Task 6.2 PREPARATION OF URBAN DEVELOPMENT MASTER PLANS																																																																																
6.2.1	Agreeing on the Urban Strategy & Objectives	D-6-2 (a) - Urban Development Strategy and Master Plan for BATTAMBANG, SEREI SAOPHOAN and STUNG SAEN for TS-2 (incl. medium & long-term investment programs)	Urban Development Strategy and Master Plan																																																																													
6.2.2	Review of the Development Context		Review of the Development Context																																																																													
6.2.3	Development Issues & Needs	D-6-2 (b) - Urban Development Strategy and Master Plan for KAMPONG CHAM, KRATIE and STUNG TRENG for GMS CTDP-4; (incl. medium & long-term investment programs)	Urban Development Strategy and Master Plan																																																																													
6.2.4	Phased Development Strategy		Phased Development Strategy																																																																													
6.2.5	Consensus Building (Step 4) and UDMP Reports		UDMP Draft Reports, Final UDMP Reports																																																																													
TASK 7 TRAINING																																																																																
Sub-Task 7.1 PREPARATION OF A TRAINING PLAN																																																																																
7.1.1	Development of a Performance Evaluation System	D-7-1 (a) - Training Need Assessment (TNA) Report	Training Need Assessment (TNA) Report																																																																													
7.1.2	Assisting in Training Need Assessment	D-7-1 (b) - Detailed Training Plan	Detailed Training Plan																																																																													
7.1.3	Assist in the Designing of Training Needs Assessment (TNA)	D-7-1 (c) - Development of Training Materials, Agenda and Participation List (each course)	Development of Training Materials, Agenda and Participation List																																																																													
7.1.4	Assist in Detailed Planning of the Training		Assist in Detailed Planning of the Training																																																																													
Sub-Task 7.2 IMPLEMENTATION OF TRAINING ACTIVITIES																																																																																
7.2.1	Project Management Training	D-7-2 (a) - Training Curriculums & Training Report on Project Management	Training Curriculums & Training Report on Project Management																																																																													
7.2.2	Training in Environmental Management & Safeguards	D-7-2 (b) - Training Curriculums & Training Report on Env. Management & Safeguards	Training Curriculums & Training Report on Env. Management & Safeguards																																																																													
7.2.3	Training in Management of Urban Infrastructure Assets	D-7-2 (c) - Training Curriculums & Report on Management on Urban Infrastructure Assets	Training Curriculums & Report on Management on Urban Infrastructure Assets																																																																													
7.2.4	Training in Management of Urban Utility Services	D-7-2 (d) - O&M Manuals for Landfills (as part of Draft Final Reports)	O&M Manuals for Landfills																																																																													
7.2.5	Final Training Report		Final Training Report																																																																													

See Work Plan Schedules as presented in the Inception report

Table 6: Work Package Schedule (collated) TS-2.

Task (% completion)	2019												2020												2021												2022												2023												2024												2025											
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12						
Mobilisation, preparation of surveys ToR, inception	[Green bar]																																																																																			
TS-2	[Yellow bar]																																																																																			
Battambang WW Lot 1	[Yellow bar]																																																																																			
Site selection after PPTA	[Green bar]																																																																																			
Environment post PPTA	[Green bar]																																																																																			
Resettlement	[Green bar]																																																																																			
Engineering	[Green bar]																																																																																			
Procurement (in progress)	[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]																							
Construction and supervision	[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]																							
Steung Saen WW Lot 2	[Yellow bar]																																																																																			
Site selection after PPTA	[Green bar]																																																																																			
Environment post PPTA	[Green bar]																																																																																			
Resettlement	[Green bar]																																																																																			
Engineering	[Green bar]																																																																																			
Procurement (in progress)	[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]																							
Construction and supervision	[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]																							
Serei Saophaon WW Lot 3	[Yellow bar]																																																																																			
Site selection after PPTA (TBC)	[Green bar]																																																																																			
Environment post PPTA	[Green bar]																																																																																			
Resettlement	[Green bar]																																																																																			
Engineering	[Green bar]																																																																																			
Procurement	[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]																							
Construction and supervision	[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]																							
Battambang SWM Lot 1	[Yellow bar]																																																																																			
Site selection after PPTA (TBC)	[Green bar]																																																																																			
Environment post PPTA	[Green bar]																																																																																			
Resettlement	[Green bar]																																																																																			
Engineering	[Green bar]																																																																																			
Procurement	[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]																							
Construction and supervision	[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]																							
Serei Saophaon SWM Lot 2	[Yellow bar]																																																																																			
Site selection after PPTA (done)	[Green bar]																																																																																			
Environment post PPTA	[Green bar]																																																																																			
Resettlement	[Green bar]																																																																																			
Engineering	[Green bar]																																																																																			
Procurement	[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]																							
Construction and supervision	[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]																							
Steun Saen SWM Lot 3	[Yellow bar]																																																																																			
Site selection after PPTA (done)	[Green bar]																																																																																			
Environment post PPTA	[Green bar]																																																																																			
Resettlement	[Green bar]																																																																																			
Engineering	[Green bar]																																																																																			
Procurement	[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]																							
Construction and supervision	[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]																							
Landfill equipment G01	[Yellow bar]																																																																																			
Engineering	[Green bar]																																																																																			
Procurement	[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]																							
Delivery and supervision	[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]												[Green bar]																							

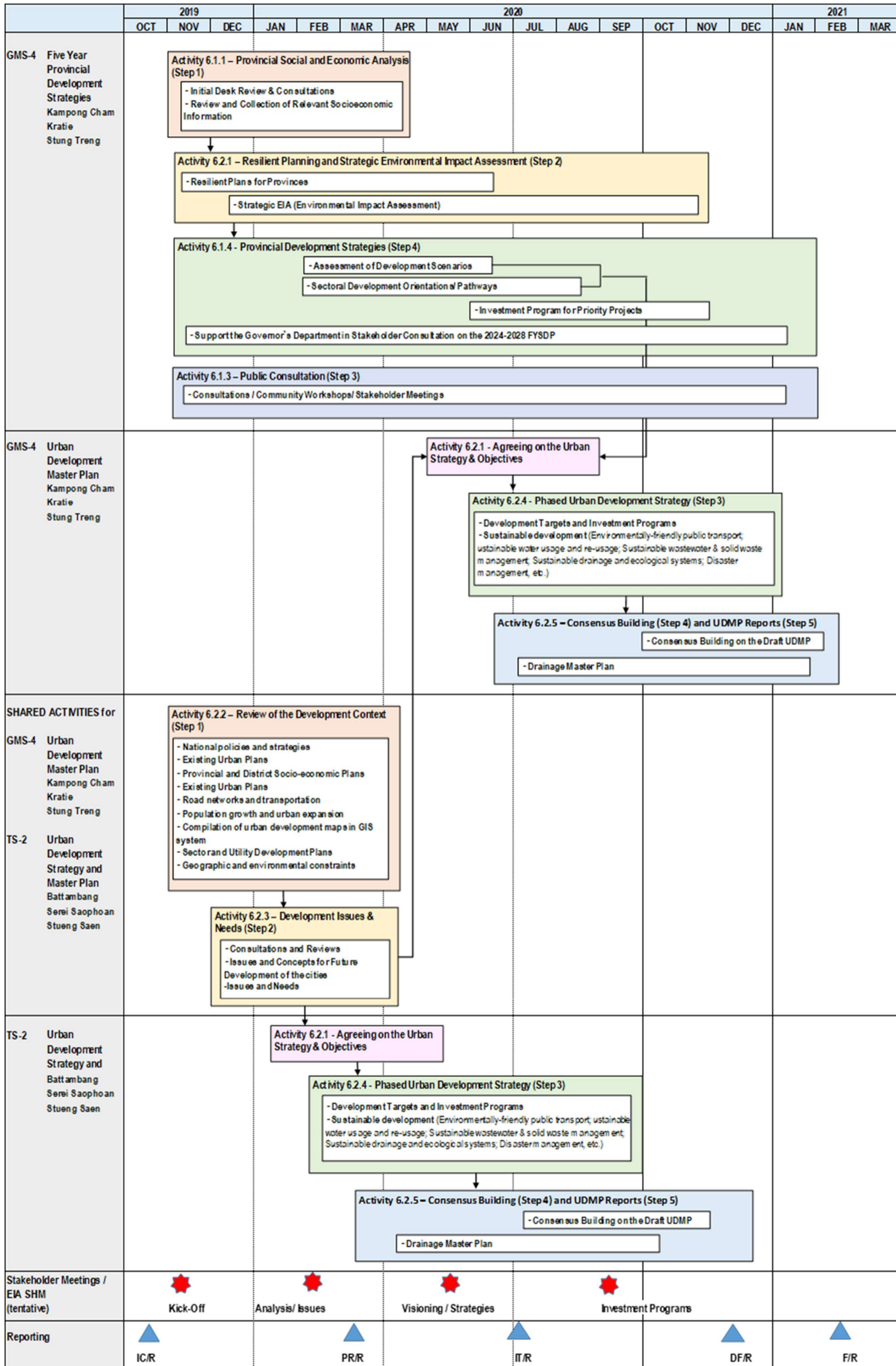
Contract Award: ■ Portfolio Meeting May 19 ○ Portfolio meeting 16 Oct 19 ▲ This Inception Report

Table 7: Work Package Schedule (collated) GMS-CDPT-4.

Work Package	Task	Start	End	Notes
GMS-CDTP-4				
Kampong Cham WW Lot 1				
	Site selection after PPTA (done)			
	Environment post PPTA			
	Resettlement			
	Engineering			
	Procurement			o ■ ▲
	Construction and supervision			
Kratie WW Lot 2				
	Site selection after PPTA (TBC)			
	Environment post PPTA			
	Resettlement			
	Engineering			
	Procurement			o ■ ▲
	Construction and supervision			
Steung Treng WW Lot 3				
	Site selection after PPTA (TBC)			
	Environment post PPTA			
	Resettlement			
	Engineering			
	Procurement			■ ○ ▲
	Construction and supervision			
Kampong Cham SWM Lot 1				
	Site selection after PPTA (TBC)			
	Environment post PPTA			
	Resettlement			
	Engineering			
	Procurement			■ ○ ▲
	Construction and supervision			
Kratie SWM Lot 2				
	Site selection after PPTA (done)			
	Environment post PPTA			
	Resettlement			
	Engineering			
	Procurement			■ ○ ▲
	Construction and supervision			
Steung Treng SWM Lot 3				
	Site selection after PPTA (done)			
	Environment post PPTA			
	Resettlement			
	Engineering			
	Procurement			■ ○ ▲
	Construction and supervision			
Landfill equipment SWM-GD				
	Engineering			
	Procurement			
	Delivery and supervision			
Kratie Town Centre EE KR-CW01				
	Engineering			
	Procurement			
	Construction and supervision			
Stung Treng Town Centre EE ST-CW02				
	Engineering			
	Procurement			
	Construction and supervision			

Contract Award: ■ Portfolio Meeting May 19 ○ Portfolio meeting 16 Oct 19 ▲ This Inception Report

Figure 7: Master Plan Schedule



2.5 Loan Plan / Loan Disbursements TS-2 and CDPT-4

The Project Administration Manual (PAM) has been carefully reviewed by the PMC. The loan plan is reproduced below:

Table 8: Loan Plan TS-2&CTDP-4

Date of Loan Approval	1 August 2018
Date of Signing of Agreement	24 October 2018
Date of Effectiveness	14 December 2018
Loan Closing Date	30 June 2024
Elapsed Loan Period	0.79 years from date of effectiveness (as of 30 September 2019) 14.32% of loan period
Dates of ADB Review Missions	22 – 26 July 2019

2.5.1 TS-2

The cost and source of financing is shown below:

Table 9: Cost and source of financing

Project Title:	Second Urban Environmental Management in the Tonle Sap Basin Project		
Project Number	50102-002		
Borrower:	Kingdom of Cambodia		
Executing Agency (EA) and Implementing Agencies (IA)	The Ministry of Public Works and Transport (MPWT) and Department of Public Works and Transport (DPWT) are wholly responsible for the implementation of ADB-financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. The key members of the PMU and PIUs are presented in Section 2.		
Total Project Cost and Financing Plan			
Loan/Grant No.	Source of Funding	Amount (US\$ million)	Share of Total (%)
L3684/G0591 CAM	ADB Loan	87.73	89.8%
	ADB Grant	1.27	1.3%
	Government of Cambodia	8.70	8.9%
	Total Project Cost	38.10	100.0%

The original cost estimate by year in the PAM is given below.

Table 10: Contract Award by Year in US\$ million

Budget Item	2019	2020	2021	2022	2023	2024	Total
A. Base Cost							
1 Civil works	10,00	24,14	26,62	13,76	-	-	74,52
2 Goods and Equipment	0,35	0,84	0,93	0,48	-	-	2,60
3 Land Acquis. &Resettlement	0,87	-	-	-	-	-	0,87
4 Consulting Services	1,66	1,14	1,14	1,14	0,86	0,29	6,23

5	Incremental Administration	0,36	0,18	0,18	0,18	0,09	0,01	1,00
	Subtotal (A)	13,24	26,30	28,87	15,56	0,95	0,30	85,22
B. Contingencies								
1	Physical contingencies	0,65	1,29	1,41	0,76	0,05	0,01	4,17
2	Price contingencies	0,91	1,80	1,98	1,07	0,07	0,02	5,85
	Subtotal (B)	1,56	3,09	3,39	1,83	0,12	0,03	10,02
C. Financial Charges During Implementation								
		-	-	-	-	2,47	-	2,47
	Total (A+B+C)	14,80	29,39	32,26	17,39	3,54	0,33	97,71

There is no change at present to the disbursement breakdown given below:

Table 11: Disbursement breakdown in US\$ as of 30 Sept 2019

Loan/Grant N°.	Allocation	Contracts Awarded	Uncontracted Loan Balance	Contracts Disbursed	Undisbursed Loan Balance	Undisbursed Contract Balance	% Contracts Awarded	% Contracts Disbursed
	A	B	C = A - B	D	E = A - D	F = B - D		
Loan 3684	87 730 000	5 573 873	82 156 127	1 123 500	86 606 500	4 450 373	6.35 %	1.28%
Grant 0591	1 270 000	-	1 270 000	-	1 270 000	-	0.00 %	0.00 %
Government	8 700 000	-	8 700 000	30 000	-	-	0.00 %	0.34 %
Total	97 700 000	5 573 873	92 126 127	1 153 500	87 876 500	4 450 373	5.71 %	1.18 %

One contract has been awarded for the consultant services. Once cost estimates and revised work plan schedule are validated, the below tables will be updated (Table 12 and Table 13).

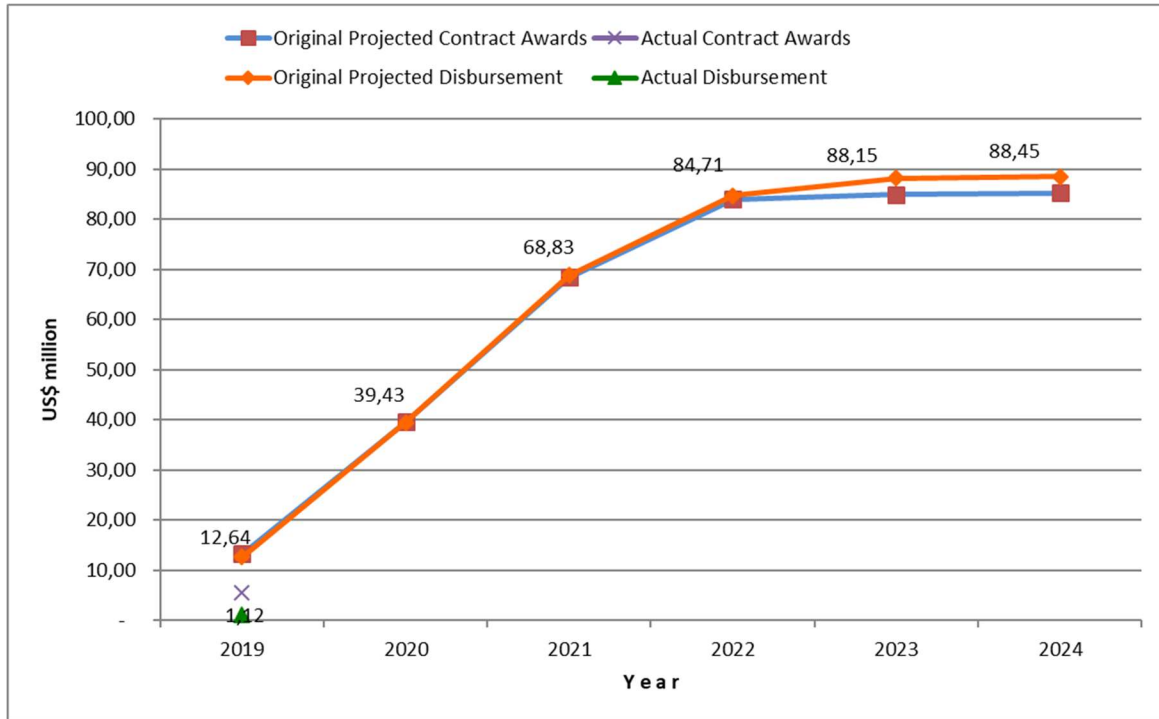
Table 12: Cumulative Actual Versus Revised Projected Contract Awards

	2019	2020	2021	2022	2023	2024
Original Projected Contract Awards	13,24	39,54	68,41	83,97	84,92	85,22
Actual Contract Awards	5,57					

Table 13: Cumulative Actual Versus Revised Projected Disbursements

	2019	2020	2021	2022	2023	2024
Original Projected Disbursement	12,64	39,43	68,83	84,71	88,15	88,45
Actual Disbursement	1,12					

Figure 8: GRAPH Cumulative Actual Versus Revised Projected Contract Awards and Cumulative Actual Versus Revised Projected Disbursements



2.5.2 GMS-CDPT-4

Table 14: Cost and source of financing

Project Title:	Fourth Greater Mekong Subregion Corridor Towns Development Project		
Project Number	50099-002		
Borrower:	Kingdom of Cambodia		
Executing Agency (EA) and Implementing Agencies (IA)	The Ministry of Public Works and Transport (MPWT) and Department of Public Works and Transport (DPWT) are wholly responsible for the implementation of ADB-financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. The key members of the PMU and PIUs are presented in Section 2.		
Total Project Cost and Financing Plan			
Loan/Grant No.	Source of Funding	Amount (US\$ million)	Share of Total (%)
L3686/G0592/G0593 CAM	OCR	77.0	87.0%
	Disaster Risk Reduction Funding	1.5	1.7%
	Asian Development Fund	1.5	1.7%
	Republic of Korea e-Asia and Knowledge Partnership Fund	0.5	0.6%
	Government of Cambodia	8.0	9.0%
	Total Project Cost	88.5	100.0%

Table 15: Contract Award by Year in US\$ million

Budget Item	2019	2020	2021	2022	2023	Total
A. Investment Cost						
1 Civil works	-	39,16	19,04	6,40	0,42	65,02
2 Mechanical and equipment	-	1,49	-	-	-	1,49
3 Environment and social mitigation	0,36	-	-	-	-	0,36
4 Consultants	2,80	2,90	0,70	0,70	0,70	7,80
6 Subtotal (A)	3,16	43,55	19,74	7,10	1,12	74,67
B. Recurrent Cost						
Subtotal (B)	0,37	0,37	0,37	0,37	0,37	1,85
C. Contingencies						
1 Physical	0,22	2,74	1,26	0,47	0,09	4,78
2 Price	0,23	2,82	1,29	0,48	0,10	4,92
Subtotal (C)	0,45	5,56	2,55	0,95	0,19	9,70
D. Financing Charges During Implementation						
1 Interest during construction	0,01	0,24	0,56	0,70	0,74	2,25
Subtotal (D)	0,01	0,24	0,56	0,70	0,74	2,25
Total Project Cost (A+B+C+D)	3,99	49,72	23,22	9,12	2,42	88,47

Table 16: Disbursement breakdown US\$

Loan/Grant No.	Allocation	Contracts Awarded	Uncontracted Loan Balance	Contracts Disbursed	Undis-bur-sed Loan Balance	Undis-bur-sed Contract Balance	% Contract award	% Contracts disbursed
	A	B	C = A - B	D	E = A - D	F = B - D		
Loan 3684	78.500.000	5.334.011	73.165.989	1.075.446	77.424.554	4.258.565	6,79%	1,37%
Grant 0592	1.500.000	500.000	1.000.000	100.000	1.400.000	400.000	33,33%	6,67%
Grant 0593	500.000	-	500.000	100.000	400.000	(100.000)	0,00%	20,00%
Government	8.700.000		8.700.000	30.000	8.670.000	(30.000)	0,00%	0,34%
Total	89.200.000	5.834.011	83.365.989	1.305.446	87.894.554	4.528.565	6,54%	1,46%

One contract has been awarded for the consultant services. Once cost estimates and revised work plan schedule are validated, the below tables will be updated (Table 17 and Table 18).

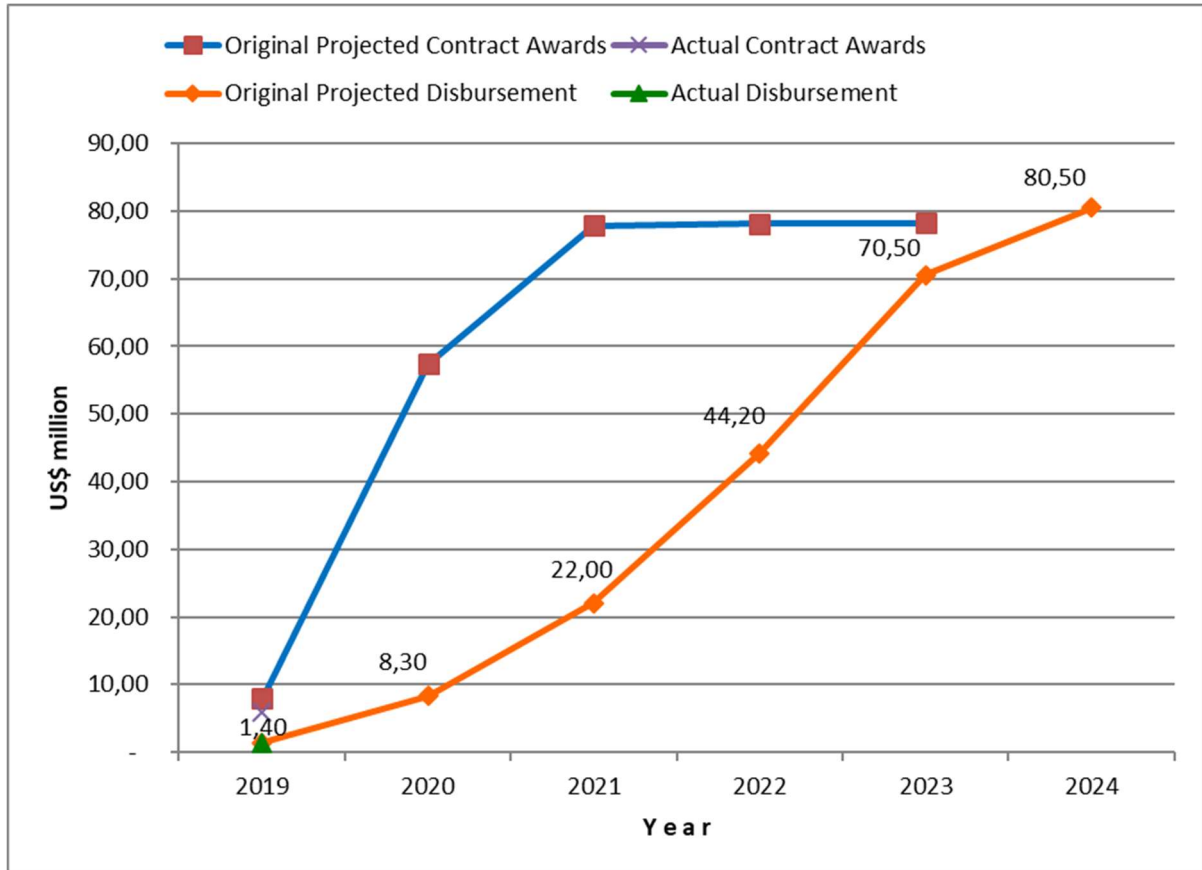
Table 17: Cumulative Actual Versus Revised Projected Contract Awards

	2019	2020	2021	2022	2023
Original Projected Contract Awards	7,90	57,40	77,80	78,10	78,20
Actual Contract Awards	5,83				

Table 18: Cumulative Actual Versus Revised Projected Disbursements

	2019	2020	2021	2022	2023	2024
Original Projected Disbursement	1,40	8,30	22,00	44,20	70,50	80,50
Actual Disbursement	1,31					

Figure 9: GRAPH Cumulative Actual Versus Revised Projected Contract Awards and Cumulative Actual Versus Revised Projected Disbursements



3 Quality Control/Management Systems

3.1 Quality Management System

To ensure a good execution of the Project, the PMC has allocated clear responsibilities. The Project Director is Mr. Jens Thøgersen, Mr. Thøgersen represents Ramboll and he has allocated the responsibilities to the Team Leader (Int. KE-3.1. Mr. MacPherson), to the Design Manager (Int. KE-3.2. Mr. MacPherson), to the Master Plan Task Leader (Int. NKE-5. Dr. Kobayashi) and to the Project Manager (Mr. Pau Prat). Tasks have been divided as follows.

The **Team Leader** is responsible for:

- Leading the PMC at an overall level.
- Defining, managing and communicating the project organisational structure, roles and team location.
- Defining, managing and communicating the overall PMC goals (benefits) and success criteria to the PMC team.
- Planning and conducting meetings for the team members at start of mission and assignment support functions.
- Ensuring teambuilding and motivation towards high performance.
- Organising PMC meetings with the PMU and ADB.
- Organising and leading stage gate meetings with the Master Plan Task Leader.
- Planning and conducting evaluation meetings.
- Overall coordination / handling of the Stakeholders relationships (PIU, PMU, ADB ...).
- Resource allocation to the PMC team.
- Timely submission of invoices and progress reports.
- Identifying (and follow up upon) Ramboll risks & opportunities.

The **Design Manager** is responsible for:

- Managing the execution of the design for the 16 Work Packages.
- Managing of design experts, including REC.
- Translating project objectives and PPTA feasibility report objectives into detailed instructions to the design team.
- Quality control of survey information
- Identifying key design priorities, key design risks, where lack of information or approvals creates problems for the design team
- Quality control of designs
- Checking of technical parts bid documents (specifications)
- Be part of the team ensuring timely delivery within the constraints of approvals and stakeholder priorities.

The **Master Plan Task Leader** is responsible for:

- Managing the execution of the Master Plans
- Coordinating with the rest of the PMC team with respect to collection of data, visits to government departments etc
- Ensuring that stakeholders priorities are clearly "heard" during the development of the Master Plans
- Ensuring timely delivery of the Master Plans within the constraints of approvals and stakeholder priorities.
- Quality Control of the Master Plans

The **Project Manager** is responsible for:

- Ensuring that the agreed success criteria are followed up by PMC team.
- Ensuring that enough (human) resources and capacities are available to the PMC team.
- Host monthly meetings with the task leader based on the following agenda:
 - Status
 - Contract agreement and terms
 - Assignment benefits and objectives
 - Scope of work and key deliverables
 - Work break down, time schedule and critical milestones
 - Risks and opportunities
 - Governance, organisation, resources, roles and responsibilities
 - Project finances – budget, payment schedule and cash flow
 - Client and stakeholders
 - Interfaces
 - Performance monitoring, project KPI's and reporting
 - Change request and early warning procedures
 - QHSE and administrative procedures
 - Recap meeting decisions and actions

Also, the **Project Management backstopping** team is responsible for:

- Handling necessary project insurances.
- Managing the contract budget and lead invoicing.
- Handling sub consultants i.e. the documents related to agreements.
- Managing all contract-related aspects.
- Frequently updating of tools related to; Benefit Management - Stakeholder Management – Risk and opportunity.

The standard Ramboll Quality Assurance Procedures shall be followed within the assignment, and these include the use of:

- A Project Execution Plan
- A Quality Activity Plan
- A Project Internal Website
- Pre-defined templates to produce reports

3.2 Project Execution Plans

For the purposes of the execution plan, the PMC shall submit a separate Work Plan for each work Package. The execution of the Work Packages is detailed in § 8.

The purpose of these Work Plans is to clearly define general information for the PMC team members and other stakeholder (i.e. PMU, PIU, ADB, etc.) to understand:

- The overall scope of each package.
- The programme and approach, including key milestones.
- The key stakeholders.
- Safeguard processes, Technical, Procurement, contractual, execution and supervision requirements for each Work Package.
- Risks and risk mitigation.
- Document and approval management.

The Master Plans will be planned to run in parallel and the execution will be coordinated with the rest of the team.

The description of the Master Plan methodology and execution is given in § 7.

The purpose of their description is to clearly define general information for the Master Plan team members and other necessary parties (i.e. Stakeholder, etc.) to understand:

- The overall scope of the Master Plans.
- The Master Plan programme and approach, including key Master Plan milestones.
- The key stakeholders.
- Team roles and responsibilities.
- Communication lines.
- Technical, contractual and legislative requirements for the Master Plans.
- Risks and risk mitigation.

The purpose of this document is also to ensure a proper alignment between deliverables and a high level of quality of deliverables.

The experts that shall serve as support for the GDR process, the Environment approval process, institutional strengthening and training will be mobilized as a function of the support required according to the progress of the Work Packages.

The PMC has been developing the Work Plans for individual package during the Inception Period with necessary inputs from the Project Quality Control and other relevant parties.

All team members shall adhere strictly to the instructions given in this document.

3.3 Quality Activity Plan

The Quality Activity Plan is part of Ramboll's internal quality management system.

Maintenance and frequent updates of the Quality Activity Plan is carried out by the Project Quality Control Expert. The Quality Activity Plan is updated on an ad hoc basis as needed. Changes to the procedures and guidelines are decided by the Contract Manager.

The Quality Activity Plan must be filled out and updated whenever a document is created or updated as described below:

- It is the responsibility of the author of a document to also create the document in the QAP.
- When creating a document in the QAP, number and title should be stated as well as control level and expected controller/time of control. If some of the information is not known when creating the document, the respective fields should be left blank and are to be updated as soon as possible.
- Whenever changes are made to a document, versioning and QA should follow the descriptions above. It is the responsibility of the person making changes to a document to also update the QAP and progress of the document.

Person preparing the material:

- Plan deliverables' QA (in collaboration with approver)
- Choose a competent checker (in collaboration with approver). 10 years of technical experience is required of the person doing the QA
- Perform self-check
- Prepare QA-version for checker
- Inform checker of focus areas and basis for the QA
- Incorporate checker's comments and clarify if any uncertainties
- The document owner is responsible for the content of the document throughout the process. The preparer of a document is responsible for document and content throughout the process.

Checker:

- Perform deliverable's QA
- Contribute to clarify comments with the person preparing the material

Approver:

- Plan QA (in collaboration with the person preparing the material)
- Choose a competent checker (in collaboration with the person preparing the material)
- Ensure that QA is completed, documented and material is ready for delivery

NB: The person preparing the material and the checker are never the same person. Other constellations are accepted.

3.4 Project's Internal collaborative tool

The PMC has set up a Ramboll SharePoint website for the project. All communication within the team and internal processes – such as storage of collected/received project data- related to the production of project's deliverables will go through this website.

3.5 Pre-defined templates for reports

The Consultant will use fixed templates to produce:

- Reports – including Deliverables and Progress Reports.
- Minutes of meetings.
- Lists of participants in meetings.

4 Monitoring of Compliance with ADB Safeguards Policies Project Performance and Monitoring Specialist

4.1 Gender Action Plan

The Gender Action Plans have been prepared for TS-2 and CTDP-4, both projects are classified *effective gender mainstreaming* (Annex 10: Gender Action Plan and Key Indicators). The gender assessment identified in:

- TS-2:
 - (i) Limited access to reliable, safe, and affordable urban services; and
 - (ii) Low women's participation in sector representation as key gender issues. Women's priority concerns include improved access to toilets, improved urban services, and affordable urban services.
- CTDP-4:
 - (i) Limited participation in the provincial strategy and decision-making process for planning;
 - (ii) Low female staff representation in the sanitation sector, and limited job opportunities. Impact and service disruptions related to climate change directly affect women, as they have primary responsibility for the household and community management such as clean-up activities during and post-flood events. Poor sewerage and drainage heighten risks and flooding impacts, such as the disruption of work and livelihoods resulting in loss of income, proportionately higher loss of assets and property, and an increased risk of communicable diseases.

The gender action plans includes:

- (i) Strategies to increase women's representation in provincial strategic decision-making,
- (ii) Targets for women's participation in PMUs and capacity-building training sessions, and
- (iii) Provision of job opportunities.

The government will collect gender-disaggregated data to monitor progress against the gender action plan.

The project performance monitoring system will be established which will track the physical progress both in relation of the overall implementation plan, and in terms of progress towards completion. The PPMS will provide the physical progress data for the input to the monthly and quarterly progress reports. The PPMS will be based on the Design Monitoring Framework and would be able to produce weighted progress values at project (TS-2/ GMS-4) sub-project and component level.

4.2 Status of Environmental and Social Safeguards tasks

The overall status of the Social Safeguards tasks shall be given in each monthly report using the table below (from the September monthly report). The full update of this table shall be given in the October 2019 monthly report.

Table 19: Status of Social Safeguards

			TASK 4: SAFEGUARDS					
			Task 4.1: Environment			Task 4.2: Social		
			IEE	EMP	IEIA	DMS	RCS	RP
TS	Battambang	WWTP&Drainage			20%			30%
		Landfill						
	Serei Saophoan	WWTP&Drainage						
		Landfill						
	Stung Saen	WWTP&Drainage			20%	50%		30%
		Landfill						
CTD-4	Kampong Cham	WWTP&Drainage						30%
		Landfill						
	Kratie	WWTP&Drainage						
		Landfill						
	Stueng Treng	Town center						
		WWTP&Drainage						
		Landfill						
		Town center						

4.3 Updated Domestic EIA & IEEs (design Stage) and Environmental Compliance Monitoring (Implementation)

The overall status of the Environmental tasks shall be given in each monthly report using the table below (from the September monthly report). The full update of this table shall be given in the October 2019 monthly report..

Table 20: Status of Environmental Safeguards works (IEIA).

			TOR Preparation		Survey & Report		Submit 1st Draft		1st Draft Review by MoE			Inter-Ministry Meeting			Issue License		Remarks	
			Preparing draft ToR and submit to MoE for review	Discussion meeting with MoE and revise the ToR	Approval from MoE for conducting field survey on Physical, Natural and Social Resources	Preparing draft IEIA report	Submit the draft IEIA to MPWT for comments	Revised the first draft IEIA and submit to MoE	MoE conducting field visit	Discussion meeting on the draft	Revised 1st draft base on comments from MoE	Submission 2nd draft for Inter-Ministry meeting	Inter-Ministry meeting on 2nd draft	Prepare final draft based on comments from Inter-Ministry meeting	Minutes preparation for approval report	Document preparation for issuing license		
TS-2	Battambang	WWTP&Drainage Landfill	Jul-19	sep-19	sep-19	oct-19	nov-19	dec-19	dec-19	dec-19	dec-19	Jan-19	Jan-19	Jan-19	Jan-19	Jan-19		
	Serei Saophoan	WWTP&Drainage Landfill																
	Stung Saen	WWTP&Drainage Landfill	Jul-19	sep-19	sep-19	oct-19	nov-19	dec-19	dec-19	dec-19	dec-19	Jan-19	Jan-19	Jan-19	Jan-19	Jan-19		
CTDT-4	Kampong Cham	WWTP&Drainage Landfill																
	Kratie	WWTP&Drainage Landfill																
		Town center																
	Stueng Treng	WWTP&Drainage Landfill																
Town center																		

4.4 Monitoring of ADB safeguards with respect to Resettlement

Table 21: Status of ADB Social Safeguards

Town	Subproject	Site selection	DED	Land type identified	Pre-Screening	Demarcation	Consultations / PIB	Land acquired (ha)	DED submitted to GDR	Consultation	DMS/SES	RCS	DRP	Comments
TS-2														
Battambang	Landfill	TBC												Initial site selection done. Environmental and land review to be done
	WWTP	Yes	Done	Private	Yes	Yes	16-02-2018	10 ha	Done	Oct 2019	Oct 2019	Nov.19	Dec.19	DMS to follow after DMS completed for STS. Access road ROW not clear - additional LAR perhaps required to restore irrigation canals
Serei Saophoan	Landfill	Yes	Priority	Private	Yes			Pre-contract						Landfill to be demonstration site. Access road need upgrade
	WWTP	TBC		Private	Yes			Pre-contract	Topo survey started					Provincial authorities suggested changing the location to cheaper site, further 4km from City
Stung Saen	Landfill	Yes	Priority	Private	Yes	Yes		Pre-contract						19.66ha site on unused shrub land. Access road need upgrade
	WWTP	Yes	Done	State 6.9 ha/Private 10 ha	Yes	Yes	12-02-2018	±10 ha	Done	Done	Aug/Sep 2019	Oct 2019	Nov.19	Access road has 9m COI. ROW of road and canal not clear. Impact expected on private property and land use. DMS not covering access road at the moment
GMS-4														
Kampong Cham	Landfill	TBC	Priority	State	Aug 2019									Landfill site changed within State land for environmental reasons. Environment screening needed to confirm new site
	WWTP	Yes	Priority	State	Aug 2019	Yes			Topo survey started					
Kratie	Landfill	Yes		State	Aug 2019	Yes								Site contaminated (waste dumping has started) and in middle of community forest. Environmental screening needed
	WWTP	TBC			Aug 2019	Yes	21-12-2017							Site pre-purchase agreement needed, and confirmation for access road (part of ring road)
	Town center	Yes		State										
Stueng Treng	Landfill	Yes	Priority	State	Aug 2019	Yes								
	WWTP	TBC					20-12-2017							New suggested site could be technically unsuitable (higher elevation than town). Review needed
	Town center	Yes		State										Existing drainage and town improvement works started by Municipality

Note TBC = To be confirmed

5 Institutional Strengthening

The institutional and policy reforms initiated by the government with ADB assistance to develop the financial independence of provincial and municipal departments such as PDPWTs and municipal governments and eventually establish urban service units (SUs) have proven to be difficult to implement. Assumptions were overly optimistic about the capacities and possibly willingness of local governments, and the support that could be expected from such provincial units or municipalities. Roles and responsibilities of PDPWTs are not clearly understood locally nor is the mandate of some of the municipal departments.

These departments are unable to function efficiently due to inadequate qualified technical, financial, and administrative staff, and heavy reliance on budget support from the Royal Government of Cambodia (RGC). Hence the need for a new model of urban service management based on commercial and cost-recovery principles involving the private sector when practical.

Both TGS-2 and GMS-4 projects will focus on urban infrastructures investments which will include wastewater treatment and management, drainage improvement and solid waste management sub-projects. In addition to the financing of key urban environmental infrastructure the projects will:

- TS-2 will focus strengthen institutional effectiveness through improving staff capacity in critical areas (incl. improved urban service delivery, O&M of urban facilities, and supporting the establishment of urban service units.
- GMS-4 will enhance the institutional effectiveness with a focus on private sector engagement and information and communication technology (ICT)-based public management systems, and the policy and planning environment for regional economic connectivity. The project will also improve institutional effectiveness to provide sustainable services and support an improved policy and planning environment for wastewater and solid waste management.

In terms of the institutional framework, at national ministerial level there is not yet a consensus how sanitation/waste water services are best managed, regulated and delivered by local service providers, such as through either municipal departments, provincial departments of MPWT or through a combined utility water and wastewater approach. There are no specific targets in the *National Strategic Development Plan 2014-2018* for treatment and safe disposal of wastewater and/or septage. The department under MWPT responsible for urban sanitation remains under resourced to fulfil its mandate as per the decree of establishment in 2010. In terms of budget, funds are inadequate, and budgets do not precisely distinguish capital investment and subsidies for O&M support as gap-stoppers for inadequate revenue collection. All above shall be addressed under the project by exploring the best suitable institutional arrangements to manage urban wastewater, sanitation and drainage services, e.g. through wastewater service units (e.g. operational wastewater management unit in SIEM REAP).

According to the TOR, the PMC shall formulate recommendations to strengthen the financial and technical sustainability for the urban utility services and assist the local Stakeholders in implementing them. Besides, conditions must be created in the urban sector to attract private operators whose main remuneration would best come from improved cash flows. Until policies, practices and political support allow for financial autonomy of the units/utilities, including the right to retain funds collected in order to generate financial surpluses from operations, these units/utilities will remain inefficient and unattractive for private sector participation. Also, the regulation including tariff tables must be strengthened to monitor the performance of both public and private units/utilities or affiliated service providers/operators.

Our Financial & Institutional Specialist (F&I) Specialist and Institutional Development (ID) Specialist, assisted by the Solid Waste (SW) Utility Specialist and the Cost Recovery & Resource Mobilization (CR&RM), Specialist will work out with all Stakeholders how these conditions can be met and what tariff schemes and collection mechanisms are feasible (considering the affordability and willingness-to-pay of the end users). The findings will be regrouped in a financial sustainability roadmap for urban services in the target project towns.

The approach for the above task presented in our methodology is still valid and applicable to develop and deliver these road maps. Including the implementation of Capacity Development Activities (next section) and Supporting the Institutional Arrangements. However, during the inception tasks, and informal discussions with ADB officers, it has been highlighted that the different ADB projects being implemented in Cambodia (and other donor-funded or PPP projects in the sector) have same institutional objectives and tasks. It is expected that the output of these projects, including this one, will be different road maps, which will not lead to a common approach or solution to tackle the Institutional gap in Cambodia.

In order to tackle the institutional gap in Cambodia, we would recommend ADB to lead the task, in order to optimize the institutional resources in the different projects to come up with an unify strategy to develop the Services Units.

PMC would be willing to lead this task upon MPWT and ADB request since this work would be outside of our scope.

6 Training

Workshops, seminars and training

During the full Project implementation, the PMC will conduct several workshops as deemed necessary. The first workshops will be focus on the Draft Inception Report (this report), with focus on Project Steering Committee regarding overall Project Implementation. The workshops will be used to summarize the findings on the Inception Report, risk and agree on the actions. The outcome of this workshop will be used to complete and submit the Final Inception Report.

A series of workshops will be conducted in each Project town for the different components, e.g. safeguards, EMP, for the establishment of Urban Management Units, community awareness, consensus building, stakeholders' consultations, on the preparation of the provincial development strategies and urban development Master Plans.

A strategy workshop will be organized in each city to discuss SWOT analysis with all concerned Stakeholders – with an aim at arriving at a vision for each city. The workshops will present the initial concept for urban strategy. Key issues will be examined through separate discussion groups.

PMC will not conduct an Inception Report Workshop at the Project Towns, main stakeholders from the Towns (General Directors or Deputy General Director of PDPWT) could assist to the Inception Report workshop in Phnom Penh. PMC will conduct integrated workshops in the Project towns, which the aim to address more than one component (e.g. social safeguards and EMP, community awareness and consensus building). PMC aims to conduct Workshop addressing more than one issue at a time.

The training methodology and timing described in the proposal remains unchanged (see next page). Training is a key feature of this Project focused on:

- (1) Management of the Project;
- (2) Environmental protection and Safeguard Compliance;
- (3) Operations of urban infrastructure assets (in particular controlled landfills); and
- (4) Management of urban utility services.

Figure 10 Training Project Schedule

No.	ACTIVITIES	DELIVERABLES	Year																																																																												
			Year 1												Year 2												Year 3												Year 4												Year 5																												
			Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
Task 1, 2, 3 & 4			See Work Plan Schedules as presented in the Inception report																																																																												
Task 5			Analysis of Institutional Options												Inst. Arrangmt												PPP Contracts, Setting-up Tariffs & Billing Mechanisms & Fin. Sustainability Roadmap																																																				
Task 6			Data Analysis & EJA & Resilient Planning												Consultations												Provincial & Urban Development Strategies / Master Planning																																																				
Task 7			Training Need Assessment												Training Materials, Agenda and Participation list (each course)												Training in Project Mgmt & Env.Safgrds												Training in Management of Urban Infrastructure Assets												Training in Management of Urban Utility Services												Training Report																
TASK 7 TRAINING																																																																															
Sub-Task 7.1 PREPARATION OF A TRAINING PLAN																																																																															
7.1.1	Development of a Performance Evaluation System																																																																														
7.1.2	Assisting in Training Need Assessment	▶ D-7-1 (a) - Training Need Assessment (TNA) Report																																																																													
7.1.3	Assist in the Designing of Training Needs Assessment (TNA)	▶ D-7.1 (b) - Detailed Training Plan ▶ D-7.1 (c) - Development of Training Materials, Agenda and Participation list (each course)																																																																													
7.1.4	Assist in Detailed Planning of the Training																																																																														
Sub-Task 7.2 IMPLEMENTATION OF TRAINING ACTIVITIES																																																																															
7.2.1	Project Management Training	▶ D-7.2 (a) - Training Curriculums & Training Report on Project Management;																																																																													
7.2.2	Training in Environmental Management & Safeguards	▶ D-7.2 (b) - Training Curriculums & Training Report on Env. Management & Safeguards;																																																																													
7.2.3	Training in Management of Urban Infrastructure Assets	▶ D-7.2 (c) - Training Curriculums & Report on Management on Urban Infrastructure Assets;																																																																													
7.2.4	Training in Management of Urban Utility Services	▶ D-7.2 (d) - O&M Manuals for Landfills (as part of Draft Final Reports);																																																																													
7.2.5	Final Training Report																																																																														

7 Preparation of Urban Development Master Plans -OCG

7.1 General/Background

7.1.1 Background

Over the last two decades, considerable investments have been made in the urban areas of the six project cities by the government itself and through the assistance of development partners. These have resulted in significant improvements to urban environments and living conditions in Battambang, Serei Saophoan, Stung Saen (project cities of TS-2) and in Kampong Cham, Kratie and Stung Treng (project cities of GMS CTD-4). Nevertheless, further improvements are required, both to keep pace with urban expansion and to build on previous investments. ADB has been particularly prominent in urban development in Cambodia and intends to continue supporting this sector.

Primary challenges facing urban areas in the project cities arise from still inadequate urban infrastructure and the limited capacity of local governments to provide reliable and affordable urban services. Inadequate urban infrastructure and poor management of urban services also discourage external investment, which is vital for economic development and growth.

7.1.1.1 Objectives and Project Areas

The Objectives of the Task 6 of the Project are to formulate:

- Five Year Strategic Development Plans (FYSDPs) for the Provinces of Kampong Cham, Kratie, and Stung Treng (Activity 6.1), and
- Urban Development Strategy and Master Plans (UDMP) for TS-2 cities of Battambang, Serei Saophoan, and Stung Saen and GMS CTD-4 cities of Kampong Cham, Kratie, and Stung Treng (Activity 6.2)

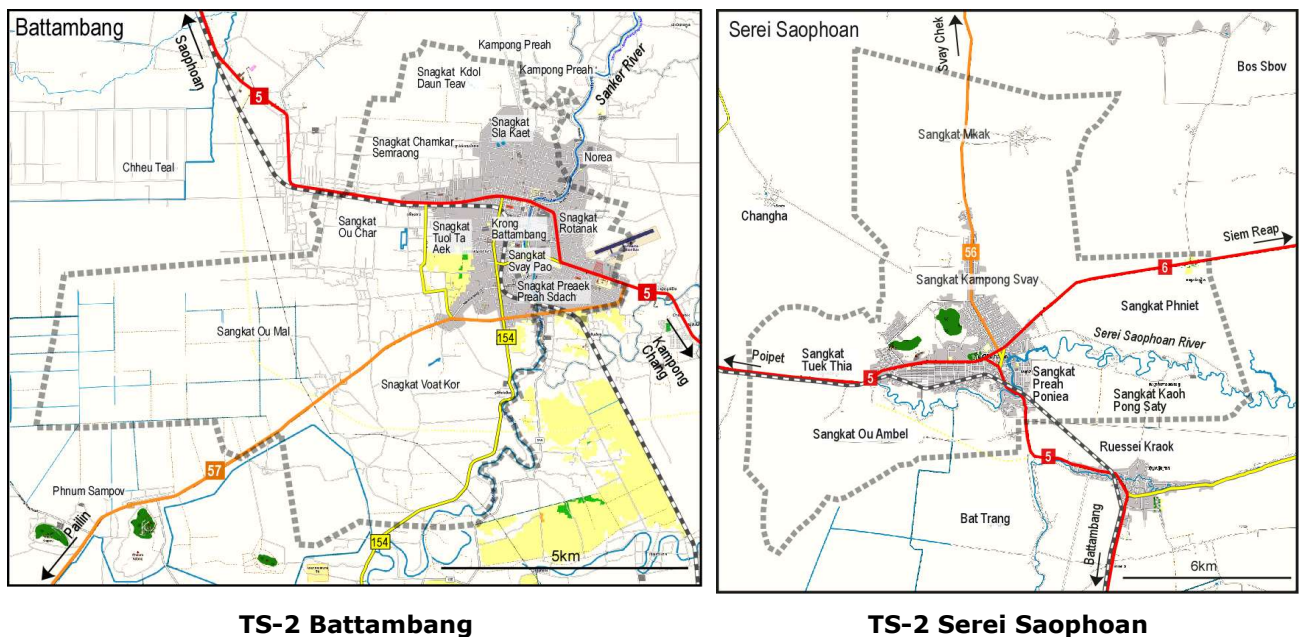
The locations and population of the project cities and provinces are presented in [Figure 11](#) and [Table 22](#) and [Figure 12](#), respectively; the maps of urban areas of the six cities are provided in [Figure 12](#).

Figure 11 Location of Six Project Cities



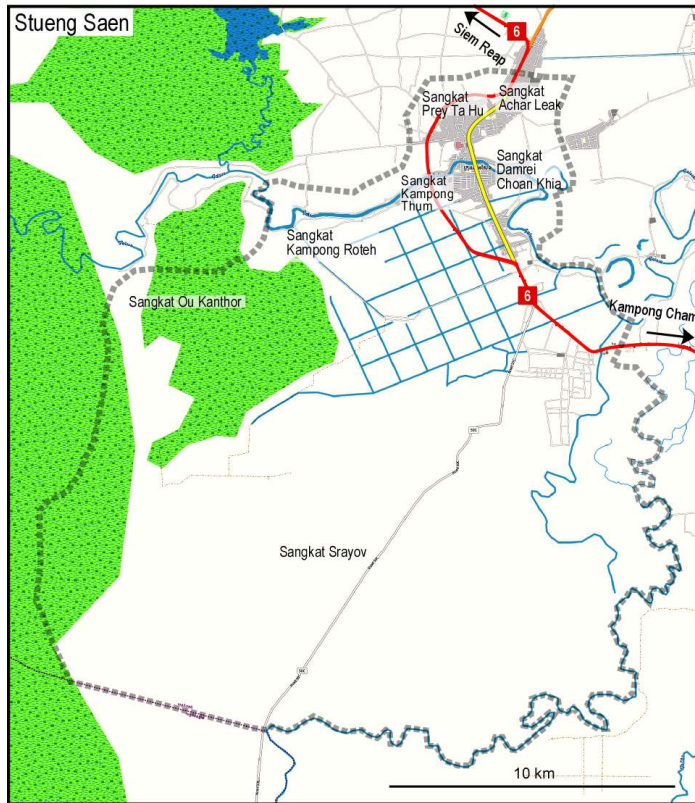
Source: Project Team

Figure 12 Six Target Cities for Formulation of Urban Development Master Plan

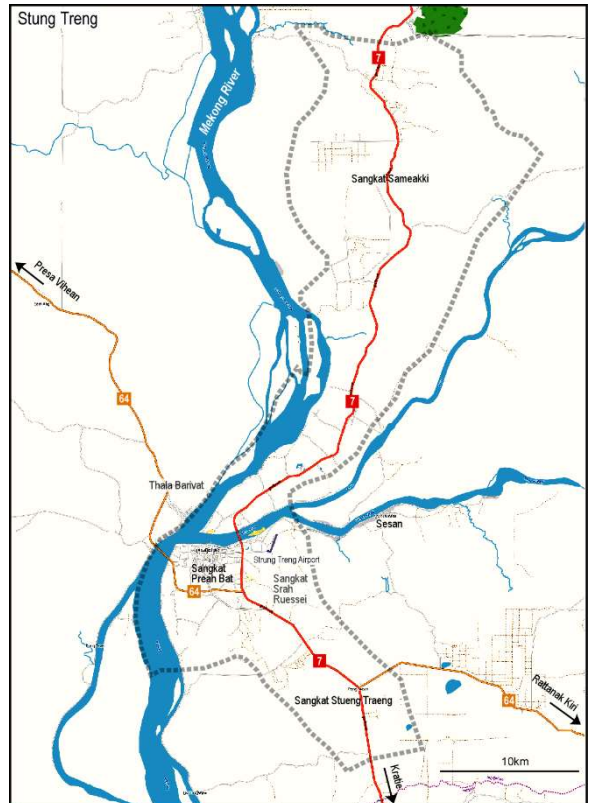


TS-2 Battambang

TS-2 Serei Saophoan



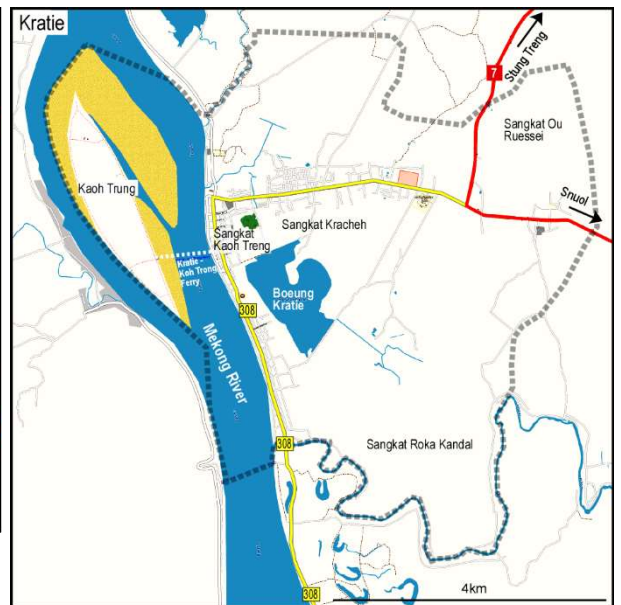
TS-2 Stueng Saen



GMS CTD-4 Stung Treng



GMS CTD-4 Kampong Cham



GMS CTD-4 Kratie

Source: Project Team

Table 22 Population of Target Cities and Provinces from 1998 to 2008

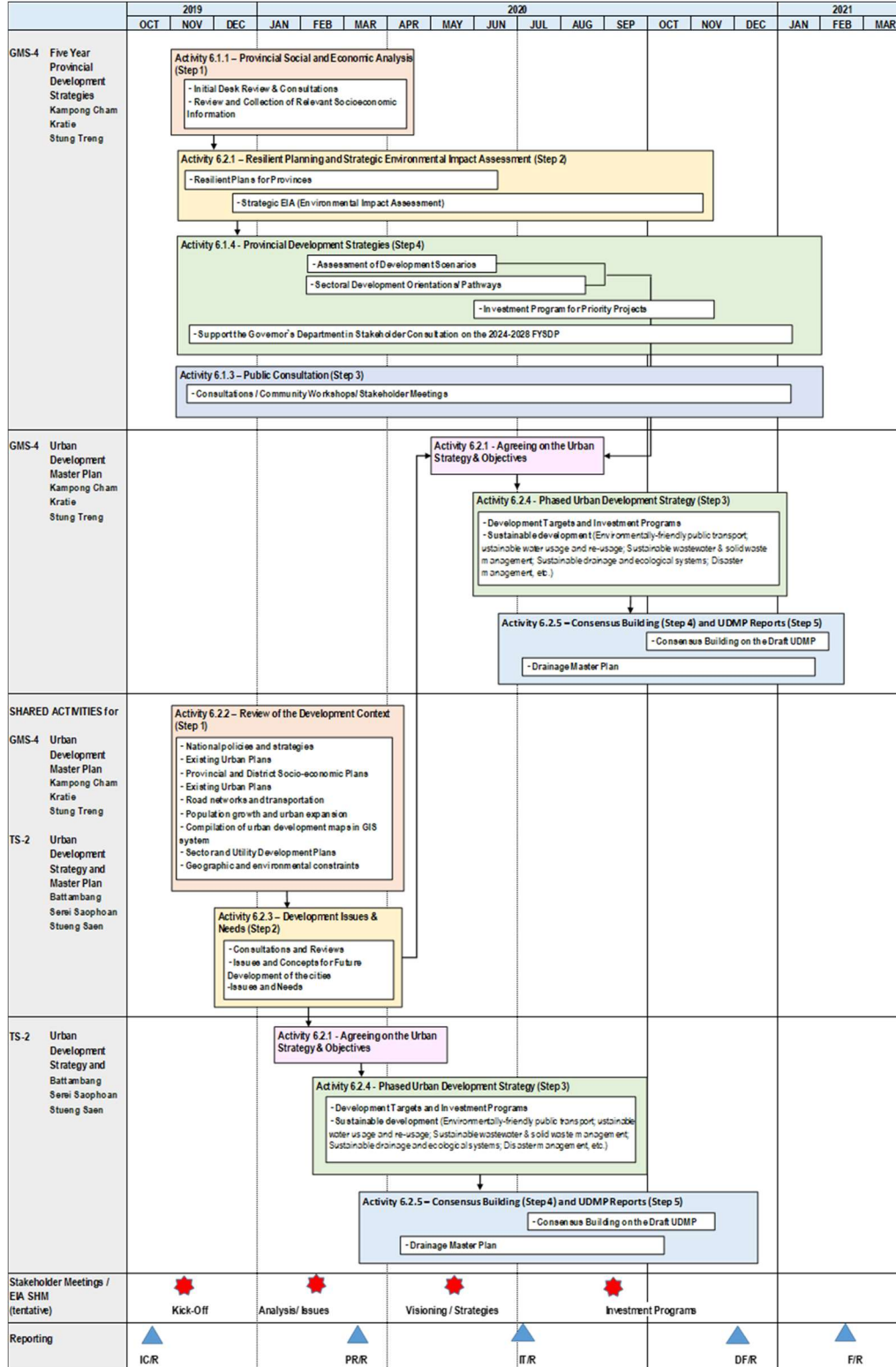
	Project Cities/ Province	Area (km ²)	Population			Average Annual Growth Rate		Populatio n Density 2019 (persons/ km ²)	
			1998	2008	2019	1998- 2008	2008- 2019		
TS-2	Battambang	-	137,630	140,533	-	0.21%	-	-	
	Saophoan (including Roessei Kraôk)	-	85,382	83,755	-	-0.19%	-	-	
	Stueng Saen	-	31,382	31,871	-	0.15%	-	-	
GMS - CTDP-4	Cities	Kampong Cham	-	45,354	47,300	-	0.42%	-	-
		Kratié	-	28,886	29,033	-	0.05%	-	-
		Stung Treng	-	15,141	17,022	-	1.18%	-	-
	Province	Kampong Cham	4,549	924,808	918,956	895,763	-0.06%	-0.23%	197
		Kratié	11,094	263,175	319,217	372,825	1.95%	1.42%	34
		Stung Treng	11,092	81,074	111,671	159,565	3.25%	3.30%	14
Cambodia	Urban	-	1,795,575	2,614,027	-	3.82%	-	-	
	Rural	-	9,642,081	10,781,655	-	1.12%	-	-	
	Total	178,035	11,437,656	13,395,682	15,288,489	1.59%	1.21%	86	

Source: National Institute of Statistics and Ministry of Planning, Population Census 1998, 2008, and 2019

7.1.1.2 Project Schedule

The project schedule is presented in [Figure 13](#). Each of the tasks in the planning process is explained in the following section.

Figure 13 Project Schedule



Source: Project Team

7.2 Approach and Methodology

Basic planning approaches are proposed for the formulation of the Urban Development Strategy and Master Plans (UDMPs) and Five Year Provincial Strategic Development Plans (FYSPDs). Each approach aims to address specific issues involved in the development of the target cities and provinces, and planning process, and is translated into the tasks explained in subsequent sections.

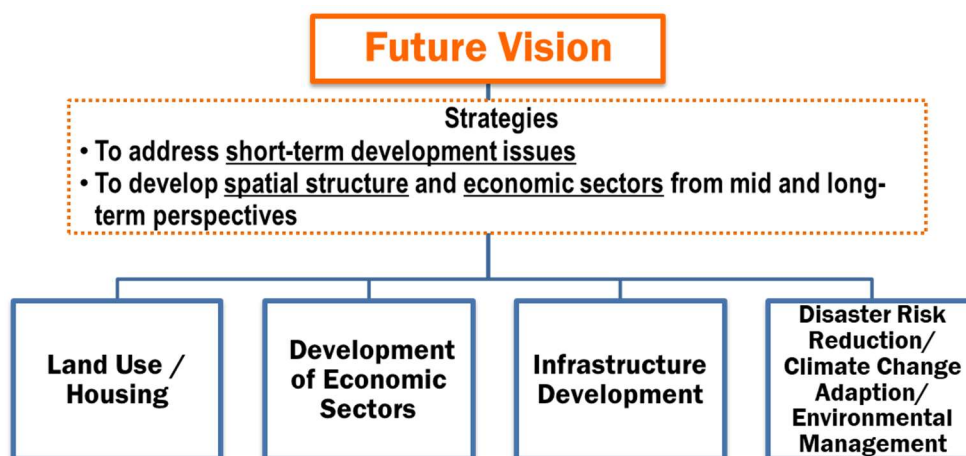
Basic Approach 1: A Long-Term Vision and Strategies to Guide Urban Development

Basic Approach 1 underlines an importance of formulating a long term vision and strategies which guide Urban Development Strategy and Master Plans (UDMPs) and Five Year Provincial Strategic Development Plans (FYSPDs) to be formulated in this Project. A long-term vision is essential for development of municipalities and provinces to determine appropriate future spatial structure and priority in investment programs of infrastructure in particular. By taking a back-casting method based on a long term vision, a land use plan, economic growth and development, and infrastructure investment needs will be identified. Strategies are to address current development issues and to determine strategic steps for realization of the visions from mid and long term perspectives.

UDMPs are long-term plans for coming twenty one years until the year of 2040, while the planning period of FYSPDs is five years; however, a long term perspective should not be ignored in planning development plans of the three provinces, because FYSPDs will include an investment program for priority projects that contribute to solving of current problems and making a great stride in achieving the future visions.

A visioning workshop will be organized for each of the target areas so that the future vision will reflect hopes and dreams of various stakeholders and be shared by people (Figure 14).

Figure 14: Future Vision and Urban Development Strategies



Source: Project Team

Basic Approach 2: Infrastructure Development and Socio-Economic Development

Development strategy and plans for municipalities and provinces aim to promote both infrastructure and socio-economic development by creating a positive cycle for urban development (Figure 15). Infrastructure development intends not only to improve the efficiency of economic and social activities but also to build a livable and healthy environment with supporting amenities. Through the development of quality infrastructure and improved living environment, economic performance will be enhanced; business activities will be expanded, resulting in improvement of cities competitiveness and attractiveness for investment. On the other hand, socio-economic development such as manufacturing sector development and poverty reduction generate demands for infrastructure development and tax revenues for government. Therefore, the plans to be prepared should be built

on clear awareness of this positive cycle of infrastructure development and socio-economic development.

Figure 15: Positive Cycle of Infrastructure Development and Socio-Economic Development



Source: Project Team

Basic Approach 3: Consideration of Disaster Risk Reduction, Climate Change Adaptation and Disaster Vulnerability Reduction

Increasing disaster risk and impact of climate change cannot be ignored in the planning of urban and regional development, due to their direct, significant effect on human lives and economic activities. UDMPs and FYSDPs to be formulated will take fully into account and mainstream the two factors of disaster risk reduction and climate change adoption for sustainable development and improvement of resilience. Two approaches to disaster risk reduction, structural measures of constructing infrastructure for disaster risk mitigation and non-structural measures of land use control should be considered in Master Plans and development plans.

It is known that disaster and climate change are more likely to affect vulnerable population such as women and children, the poor, senior citizens, and the handicapped. Informal settlements often emerge on disaster prone areas such as river banks, due to rapid urbanization and lack of affordable housings. Thus, special attentions should be paid on the vulnerable and poverty reduction in reduction of vulnerability and capacity building.

The points to be considered in regard to disaster risk reduction and climate change adaption are proposed as follows:

- To mainstreaming disaster risk reduction and climate change adaptation in urban development plan
- To achieve sustainable urban development by controlling urbanization and enforcing land use regulations
- To invest in infrastructure for disaster risk reduction
- To prevent pollution and environmental degradation
- To reduce the vulnerability and improve capacity of community, paying attention to vulnerable population and poverty reduction

Basic Approach 4: Formulation of Development Strategies from Corridor Development Perspectives in Greater Mekong Sub-Region

The Greater Mekong Subregion (GMS) Program has continued to support development of economic corridors for better international and domestic mobility of people, goods, services, capital and information since 1998. Meanwhile, ASEAN Economic Community (AEC) established in 2015 has been implementing AEC Blueprint 2025 for further integrated economic community of ASEAN. The target cities are located along the economic corridors of Greater Mekong Subregion (Figure 16): three cities in TS 2 are located along SEC (Southern Economic Corridor) -1 Poi Pet-Phnom Penh-Bavet (Asian Highway)1); three GMS4 cities are on SEC-4 Preah Sihanouk-Phnom Penh-Trapeang Kriel (AH4). SEC-1 is the primary transport corridor in Cambodia connecting with Thailand and Vietnam. Among the three TS-2 cities, Serei Saophoan has an important role as a junction of two corridors of National Road No. 6 going through Siem Reap and National Road No. 5 with passing through Battambang. The railway service between Bangkok and Phnom Penh, of which operation was resumed in April 2019, can bring about new business opportunities to Serei Saophoan and Battambang for increase of trade with Thailand and development of inland depot and special economic zones for example. With river transport on the Mekong River, the SEC-4 or National Road No. 7, along which three GMS CTDP-4 cities are located, supports motilities of people, goods and services between Laos and Cambodia and to the Sihanoukville Autonomous Port, the country’s sole deep sea port.

Hence, it is essential to fully utilize development potentials and advantages of Greater Mekong Subregion Economic Corridors and opportunities brought by economic integration of ASEAN for industry promotion and urban development of the target cities and provinces. UDMs and FYSDPs aim to create synergy across cities and provincial and national boundaries, by considering functions and advantages of each location in an integrated manner.

Figure 16 Greater Mekong Subregion Economic Corridors in Cambodia



Source: Project Team, based on ADB, Assessment of Greater Mekong Subregion Economic Corridors: 10th Economic Corridors Forum. 13 December 2018

Basic Approach 5: Stakeholders Involvement in Planning Process

Stakeholder involvement is inevitable for the formulation of implementable Master Plans and development plans which reflect needs and interests of stakeholders and stand on their consensus on future visions and development strategies. By gathering data and information from relevant

organization and agencies, and coordinating among stakeholders, not only development strategies and selection of priority projects in urban development plans will be more accurate and rational, but also development plans owned by stakeholder organizations will be consistent with the formulated urban development plans.

To formulate UDMPs and FYSDPs, therefore, various stakeholder involvement mechanisms targeting different levels of stakeholders are proposed as follows:

- National Steering Committee Meetings
- Local Steering Committee Meetings
- Planning Workshops / Consultative Meetings / Focus Group Discussions
- Stakeholder Meetings for Strategic Environmental Impact Assessment
- Community Workshops and Seminars
- Media / Website / SNS

The stakeholder involvement mechanism applied for the Master Planning task in this Project will be discussed and agreed with the counterpart at the beginning and, if needed, during the planning process.

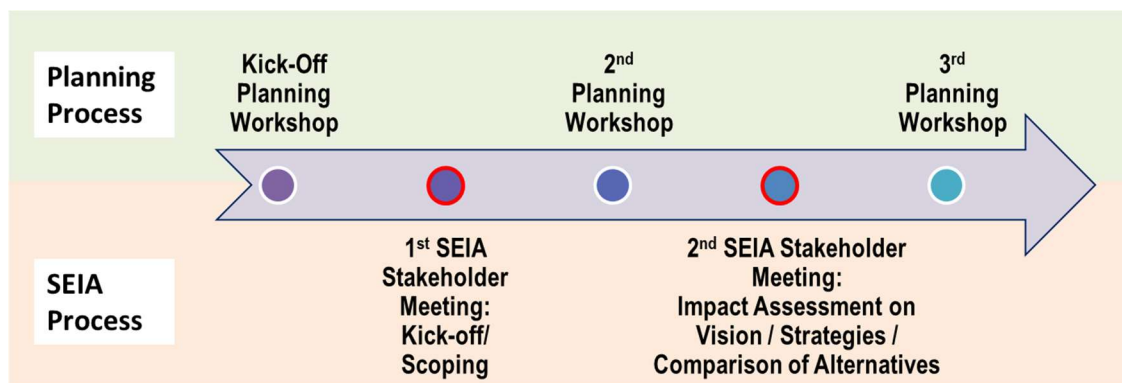
Basic Approach 6: Early Commencement of Strategic Environmental Impact Assessment

Strategic Environmental Impact Assessment (SEIA) evaluates impacts of a formulated development plan on environment, society and community, and economic sectors, through analysis of issues, assessment of visions and strategies, comparison of alternative scenarios and assessment of priority projects, usually in stakeholder meetings. If adverse effects are anticipated when the plan is implemented, mitigation measures and/or modification of the plan or projects will be suggested.

To integrate assessment and feedbacks from SEIA in the plans, SEIA will be commenced at an early stage of the project and conducted simultaneously with the planning process as shown in Figure 17. Stakeholder meetings for SEIA provide another opportunity to involve stakeholders in planning process from a wide range of sectors such as NGOs, community organizations, and business associations, as discussed in the previous section.

The current regulations in Cambodia do not require implementation of SEIA for the formulation of municipal urban Master Plans and five-year provincial development plans. The Project Team will propose an appropriate SEIA process to the Counterparts, referring to similar planning projects in Cambodia or the past experiences by ADB.

Figure 17 Simultaneous Implementation of SEIA in Planning Process

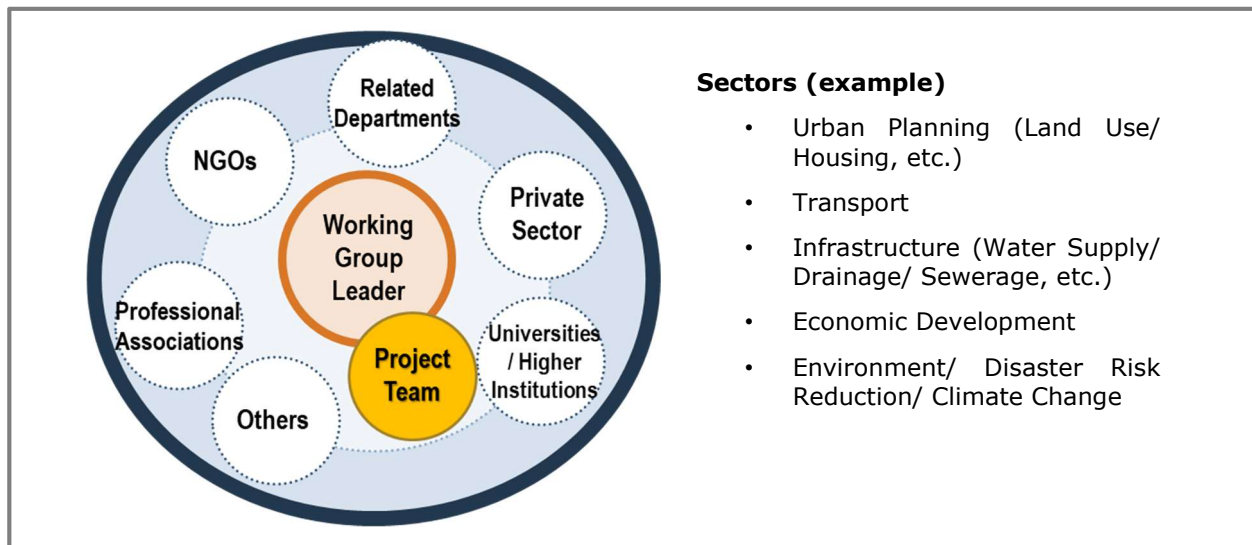


Source: Project Team

Basic Approach 7: Implementation Arrangement and Capacity Building

For the sake of technical coordination and capacity building, Technical Working Groups (TWGs) are proposed to be organized for respective sectors, by involving technical officers and other key stakeholders from relevant organizations and agencies. TWG meetings will be held at appropriate timing to discuss tangible technical issues and to build a consensus on policy direction of a certain sector/ field through the coordination among stakeholders. This TWG will also function as a venue for capacity building of the Counterparts and local governments. Critical skills and technical knowledge which are essential in formulating UDMPs and FYSDPs such as stakeholder coordination and organizing workshops and meetings will be learned from activities and discussions in TWG.

Figure 18 Technical Working Group

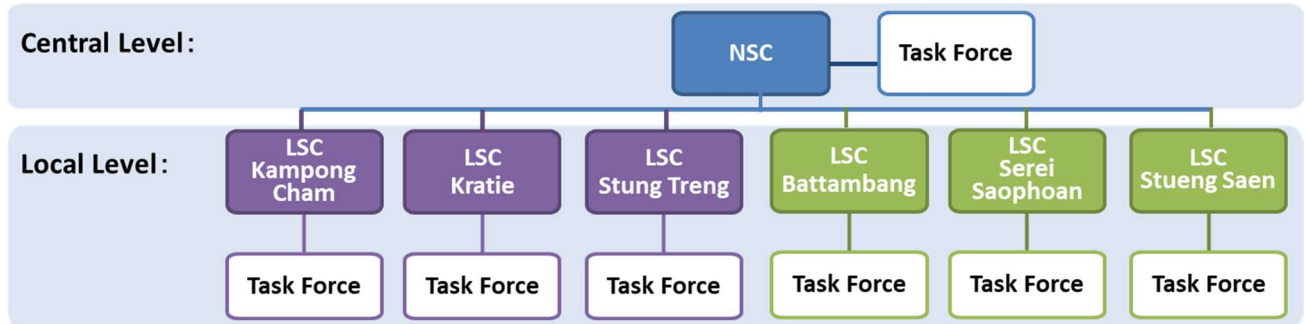


Source: Project Team

Basic Approach 8: Project Management Structure

A project management structure consisting of national and local steering committees with a task force is proposed as presented in Figure 19. The National Steering Committee (NSC) will be organized for the coordination of national level issues or cross-boundary concerns, or management of the Master Planning tasks involving the Counterparts, Ministry of Public Works and Transport, the Ministry of Land Management, Urban Planning and Construction, Ministry of Planning, ADB, and other relevant ministries and agencies. The Local Steering Committees (LSC) will be established in each of the project sites, focusing on addressing daily concerns on the management of the planning process and local specific issues, led by local government and certain key stakeholders including academics and civil society organizations. A Task Force Team, which consists of members representing relevant departments and bureaus, and technical agencies and is responsible for the implementation of planning tasks, will be established at the central and local levels.

Figure 19 Project Management Structure



Source: Project Team

Basic Approach 9: Efficient and Effective Implementation of Planning Process

The Master Planning task aims to formulate nine plans in total, namely six UDMPs and three FYSDPs. In the component of GMS CTDP-4, planning process of the FYSDPs and UDMPs should be well coordinated, to seek the most efficient way. For example, information and data collection can be conducted simultaneously and workshops would be organized for the formulation of the two plans, since certain stakeholders might overlap at city and provincial levels.

On the other hand, formulation of UDMPs will immediately start for TS-2 cities, assuming the existence of the FYSDPs for the provinces of the TS-2 cities. However, the contents of the FYSDPs should be reviewed to examine whether or not the provincial development strategies are still valid to guide the formulation of urban development Master Plans of the TS-2 cities, by analyzing the socio-economic contexts and reviewing modification of national development policy if any. Thus, immediately after the commencement of the Master Planning work, the planning process would be adjusted if necessary, depending on the existing FYSDPs and other local situations.

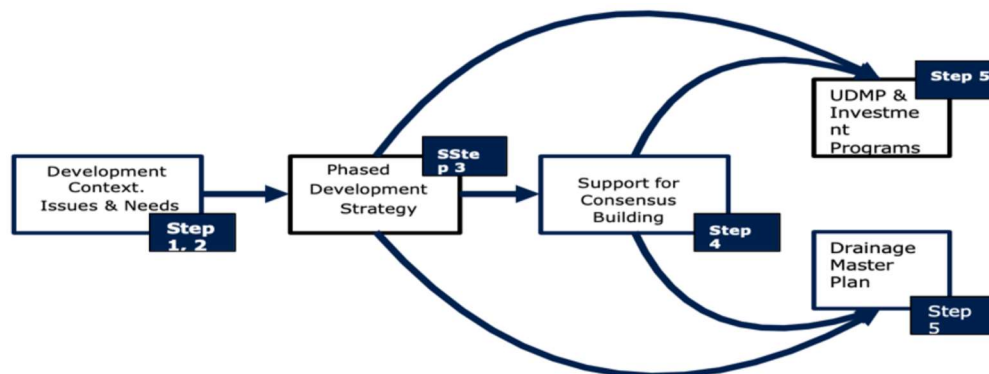
7.3 Work Plan and Program

Sub-task 6.1: Five-Year Strategic Development Plans (FYSDPs) for the Provinces of Kampong Cham, Kratie and Stung Treng Provinces

The Consultant will act as a “policy and strategy advisor” to assist the provincial governor’s offices of Kampong Cham, Kratie and Stung Treng Provinces in conducting detailed socioeconomic and sector analysis, preparing and finalizing Five-Year Strategic Plans (FYSDPs) that ensure “vertical” policy linkages with the Urban Development Strategy and Master Plans elaborated under the Activity 6.2)

The steps for developing FYSDP for each of the 3 provinces are illustrated in the figure below:

Figure 20 Steps for Development of FYSDPs



Source: Project Team

Step 1 Provincial Social and Economic Analysis

The Consultant will collect data and information about existing conditions and present associated GIS based maps; and assess land suitability for each sector and *make that spatially explicit* in the GIS maps for the provinces of Kampong Cham, Kratie and Stung Treng.

Step 1.1 Initial Desk Review & Consultations

The Consultant will collect data and information about existing conditions and present associated GIS based maps; and assess land suitability for each sector and *make that spatially explicit* in the GIS maps for the provinces of Kampong Cham, Kratie and Stung Treng.

Step 1.1 Initial Desk Review & Consultations

Work with the key stakeholders: The Consultant will work with the Government Departments and key Stakeholders to understand their requirements, and to identify measures and methods to ensure their participation in the planning process as well as their commitment in the plan implementation. On issues *cross-cutting* several ministries and localities, such as water resources and land use, we will make sure that all relevant agencies are involved where needed by taking stakeholder involvement mechanism proposed in the previous section on Planning Approach.

Perform a preliminary desk review: The Consultant will first review the status of national, regional and provincial level development plans and development strategies including the current FYSDP for each province, municipal development plans, urban Master Plans if available, socioeconomic policies, investment plans, strategic guidance notes, relevant legal documents and regulations (e.g. planning laws and other circulars/decrees related to regional planning), as a base of preparing the new FYSDP. Based on the review, we will evaluate the current status of data and information, existing input maps in terms of quality, period of time covered, location, plan to gather such information, propose alternative solutions to missing information.

The existing plans to be reviewed include:

- **National policies e.g. the current FYSDP (2014-2018):** targets and policies in all sectors, e.g. agriculture, transport, trade, commerce, education, tourism, etc.
- **National strategies & priorities:** Rectangular Strategy Phase III; National Policy and Strategic Plan for Green Growth 2013-2030; National REDD + Road map; etc. These documents serve to identify MOWT and other Stakeholder's ideas and priorities for the various sector, as well as gaining better understandings of the current strategic framework.
- **Provincial, Municipal and District Socio-economic Plans:** The vision of the current provincial plans for the sub-region (GMS corridor) will be assessed, e.g. planned economic axes with links to Thailand, Laos and Vietnam, development of industrial zones, agriculture zones and tourism routes, socioeconomic potentials such as trading, services, and commerce. Land use system and models for managing green environment will be checked from Municipal, District Plans.
- **Existing Urban Plans:** The existing plans e.g. the main direction of recent and anticipated short-term growth, will be checked in each city. The land use concept for the main urban area of the 3 provincial capitals will be checked in the next Sub-Task (6.2), e.g. for preparation of the UDMPs.
- **Road networks and transportation infrastructures plans:** The road network will be assessed with the Provincial Department of Public Works and Transport (PDPWT) based on current provincial and district plans (e.g. PDPWT's Road Development Plans, Study on the Road Network Development (2006), Development Plan for International Corridors, etc.), including plans for ring-roads, bypass roads, bridges, other measures to face traffic congestion. The transportation sector will also be assessed in terms of current connectivity plans, e.g. national and provincial bus routes, means for intra-urban services, organized transport services, domestic and international flights, railway links, etc.
- **Other Socio-economic Development Plans:** It will be important to include assessment on both surface and water-based connectivity as well as cross-sectoral infrastructure

connectivity in view of identifying comparative advantage of the Northeastern part of Cambodia, and the same for economic corridor development along the Mekong River. Plans and strategies related to the formulation of multi-country and national tourism circuits and corridors will be reviewed and the implications for the three provinces will be studied. The following aspects will be assessed:

- Industrialization, energy demand/production and economic development and trends
- Agriculture and agro-forestry-fishery development
- Tourism, MICE (Meeting, Incentive, Conference and Exhibition) and other hospitality industry development
- Water resources, irrigation works and hydroelectric power plants
- Draft 20-year sanitation roadmap (expected to be adopted by 2020)
- Environmental/ecological aspects, including climate change

Step 1.2 Collection and Review of Relevant Socioeconomic Information

Current status of socio-economic development (e.g. people's living conditions, agriculture, industry, trade, tourism, business and commerce), demographic trends (including migration), human development (education status, culture and employment) and environment and natural resources will be studied in detail. One of the specific objectives is to determine the key economic activities, major sources of livelihood (agriculture & non agriculture), and key resources. Socio-economic data (demographic, economic, land use and flood impacts in the 3 target provinces) are mainly available from the Cambodian National Institute of Statistics (NIS, under the MOP). The provisional result of Population Census 2019 was just released in August 2019. However, this data may not be available at a required spatial resolution. Relevant statistical information will thus be collected from the concerned provincial Governor offices and provincial departments and reviewed. If available, recent socio-economic studies conducted by research institutes or NGOs will also be collected and reviewed (e.g. surveys carried out by Konrad Adenauer Stiftung, COMPED, SNV Cambodia, GRET, etc.). This information will be used to outline the current socio-economic situation in different urban and rural settings of these provinces and, to the extent possible, the developments and trends. The relevant authorities for forecasts of the future regional and urban demographic development will be consulted. The review of existing statistics and other documents, as well as initial discussions with key stakeholders, will be important for the identification of key issues for developing FYSDP. From the socioeconomic information, the Consultant will *develop* socioeconomic profiles and other development data of each province to get a sound understanding of each province.

Step 1.3 Sector assessments and analysis of overall development context

Based on the above collection and analysis of the socio-economic profiles, sector assessments and analysis of overall development context will be conducted in the three target provinces. Key points of view for the analysis of the development context include the following:

- For each assessed sub-sector: to present and integrate the information and profiles in a set of satellite imagery and GIS maps at an appropriate scale (e.g. typically 1: 25,000 for infrastructure planning) identifying key elements of the sub-sector status, boundary of existing infrastructures; rural and urban development maps indicating population movements, future expansion of commercial and industrial centers and potential locations of key rural and urban infrastructure and facilities; and all other information related to socio-economic profiles. In addition, it may be appropriate to identify other geo-spatial data including but not limited to census data, water resources, and geological data and combine them into a single GIS database.
- Review potential socio-economic development scenarios (from available studies): the Consultant will review the potential socio-economic development scenarios as formulated in the current plans for each province, then elaborate with concerned provincial departments possible, plausible future scenarios including population and economic growth; socio-economic development; food production scenario; agro-business and aquaculture/irrigation agriculture development scenario, trade, commerce, industry and tourism potential scenarios, etc. We will summarize in a short socio-economic status and trends report the implications of

economic scenarios for population, land use, local economy and study the interconnectivity of different scenarios.

- Assess the current institutional arrangement that will have influence on the formulation and implementation of the provincial strategy of the target provinces, in particular, with regard to the assessment of regional coordination and connectivity analysis. This work will look at the legal requirements for multi-sectoral coordination and interprovincial cooperation as well as the overall competitiveness of the GMS for northern Cambodia, and also what institutional arrangements are actually in place (and how these institutional arrangements, even if informal, are working and what their strengths and shortcomings are). This information should be consolidated in a manner that makes it useful for informing discussion on future regional coordination mechanisms.

Step 1.4 Appraisal of Socio-economic Growth Potential and Constraints

The objectives are to;

- a) Appraise in detail what are being planned at the national, regional and local levels, e.g. investment plans based on the initial desk review and analyze trends based on agreed sectoral planning approaches;
- b) Appraise what are being implemented at each level, e.g. investments projects, programs etc.; and
- c) Clarify the growth potential and constraints.

Review of Sectoral Master Plans for different sectors: Review of sectoral plan for each sector/field (as available) such as transport, energy, agriculture, telecommunication, tourism, education, healthcare, natural resources use/biodiversity, environment (incl. the 20-year sanitation roadmap, regional water Master Plans), road connectivity Master Plans (if available), etc.

Risks and constraints analysis: This assessment shall capture in a spatially explicit way what risks are likely to result in irreversible changes. This should then set the “constraints for growth,” within which the plan has to be operated, not exceeding these thresholds and trying to prioritize activities that help to adapt to new situations.

Potentials and conflict analysis: The Consultant will determine for each sector and across sectors the potentials, problems and conflicts based on the above analysis of socio-economic information and the reviews of scenarios and institutional arrangements.

Step 2 Resilient Planning and Strategic Environmental Impact Assessment

Step 2.1 Resilient Plans for Respective Provinces

Compilation of information from sector Master Plans, land use and other planning documents collected under Step 1: Relevant provincial and district departments need to have better access to relevant (water, land use, environmental, infrastructure, etc.) data and information to guide planning, decision making and licensing. Currently data and information are insufficiently available, or scattered among many different provincial, district and municipal departments, agencies and research institutes and several multilateral and bilateral international donor agencies. The availability and accessibility of data and information will receive special attention by our team, otherwise resilient planning won't be possible. Sufficient data, data rights, access to data are crucial for the success of cooperation and coordination between the actors and the provinces as well as between regional and national government agencies.

Spatial framework and local development plans: One of the objectives of resilient planning is to have access to *synchronized documents* and optimal use of a database in management, instruction, planning, policy making, coordination, especially in the industry, trade and tourism; the construction, education, business and commerce sectors; and in agricultural/livelihood improvements for residents, e.g. through better operation of irrigation systems to serve production and livelihood with minimal adverse impacts from climate change. From these *synchronized* planning documents and database, our Urban & Regional Planner and GIS/Geospatial Specialist will assist the Governor's departments (mainly the Department of Land Management and the Urban Planning and Construction) in the formulation of a spatial framework plan in sufficient details for future preparation

of detailed zoning/development plans for each of the three provinces. Assisted by our Climate Change & Disaster Risk Mgmt. Specialist, they will also include climate change resilience spatial planning principles in the planning process and these local development plans. Finally, they will assist the department in creating a list of current and future pipelined projects at regional and provincial levels (detailed for 5-years and broadly for 20 years) to support the spatial framework plan. Finally, they will assist the provincial governments to generate "Spatial Framework" strategy documents which can be used to inform any future regional Master Plan according to official guidelines.

Mapping approach: Our Urban & Regional Planners, assisted by the GIS/Geospatial Specialists, will first demonstrate from the GIS system and database established previously the use of GIS in data collection, analysis and presentation by using QGIS (free software) as a means to introduce the mapping approach. The goal is to set up a GIS system that supports the spatial planning and management of residential areas (rural and urban), agricultural areas, industrial zones, and general infrastructure development etc.; supports the Strategic EIA process; and the resilient planning under the FYSDP in each of the three provinces. To ensure data collected and analyzed under Step 1 (socio-economic information, road networks and transportation infrastructure data, etc.) as well as for the Strategic EIA process and its application to the adaptive planning process, data needs to be monitored and updated.

GIS training: The choice of software depends on the conclusions of above assessment. This can be an open source tool, web viewer or GeoWeb which is developed by Ramboll (partner of ESRI and ArcGIS). GeoWeb is a web-based GIS system that enables to share a wide variety of geo-information via intranet to a broad range of users. Its capability of automating work processes is unique and ensures that non-GIS end users can easily find their spatial information or even perform complex GIS tasks. GeoWeb`s across platform supports cutting-edge HTML5 technology and enables the use of geo-information anywhere (PC, tablet, smartphone). Based on a rapid assessment of local practical knowledge of mapping software, training on mapping GIS using GeoWeb applications will be proposed to non-specialized staff of the Department of Land Management, Urban Planning and Construction, DPWT, DOE, DOWRAM and DOEF.

Basic training is proposed to all concerned officials in the use of spatial information with the GIS tools, how data for Step 1 can take shape into maps in an early stage of the resilient planning process, how to provide updated information for the Strategic EIA process, etc. In particular, training sessions will focus on the link between urban planning and zoning for risk prevention, greening & risks mitigation, etc.

Step 2.2 Strategic EIA (Environmental Impact Assessment)

Environmental and social aspects are essential parts of the strategy of the FYSDP of the 3 provinces. Environmental and social considerations shall therefore automatically be incorporated into the investment program of each FYSDP. To this end, the Strategic EIA will be conducted by our Environmental Specialists and Climate Change & Disaster Risk Management Specialists on:

- a) The resilient plans for the provinces and capital towns; and
- b) National, regional and provincial-scale infrastructure development plans.

When predicted impacts of these plans cannot be avoided or remedied (e.g. in case of future situation migratory scenario) actions will need to be taken from our side. The following steps will be taken to carry out the Strategic EIA, by organizing stakeholder meetings for discussion:

- (i) Setting a methodology to implement the Strategic EIA
- (ii) Setting the baseline and deciding on the scope
- (iii) Developing and refining alternatives and assessing effects
- (iv) Developing the method for monitoring the general effects of implementing the plans and programs on the environment
- (v) Identifying specific effects from implementing the plans on climate change (e.g. sea water rise, precipitation)
- (vi) Preparing the Strategic EIA reports

Step 3 Public Consultation

Step 3.1 Consultations and reviews

The objective is to ensure that provincial socioeconomic profiles, surveys, resilient planning activities, and formulation of the FYSDP for each province will be based on full consultation with government agencies, local communities, poor and vulnerable groups, females, etc. Indeed, a large number of stakeholders (DLMUP&C, DPWT, DOE, DOWRAM, DOE) requires extensive consultations in order for the PMC to have an approach that is coherent and consistent with all Stakeholders' vision and ideas – to ensure consensus building and understanding with regard to the strategies (FYSDP 2024-2028), and action plan (short to mid-term investment programs) that will be developed under the next Step 4 - based on climate resilience plans, local infrastructure plans and strategic EIA developed under Step 2.

Step 3.2 Community awareness and seminars

Together with our Development Economist, and the subcontracted NGO for IEC activities (see *TASK 4*), our Urban & Regional Planners will work with the provincial departments to conduct community awareness workshops and seminars to ensure the views from citizens and various interest groups will be reflected in the provincial strategic planning.

Step 3.3 Questions and forums with key stakeholders: Effective stakeholder participation is essential to access information and data, and most of all, to build a consensus on the challenges and opportunities. For that purpose, the best readily available information collected through Step 1 (socio-economic data, natural resources, climate change projections, land use, economic sectors performance, population information, governance, etc.) will be carefully analyzed through the workshops, meetings and open questions with all key stakeholders. This information will be translated into baseline thematic and GIS maps, tables, diagrams, pictures to facilitate the assessment of information by all stakeholders during consultation meetings, community awareness workshops, and other seminars.

Step 4 Provincial Development Strategies

The objective is to assist Kampong Cham, Kratie and Stung Treng provincial governments to draft the provincial five-year strategic development plans (FYSDP 2024-2028) based on the:

- a) Comprehensive reviews on socioeconomic profiles (developed under Step 1);
- b) Local resilient development plans for the provinces and capital towns, and the strategic EIA (developed under Activity 3); and
- c) Consultations with various provincial departments and agencies as well as the concerned local and rural communities (Activity 3).

Step 4.1 Assessment of Development Scenarios

Scenario development: The identification of comprehensive development scenarios is pivotal for the preparation of FYSDP 2024-2028 and associated investment programs for respective provinces. Based on the trend analysis, the scenarios will examine the future changes in the critical elements of development (a few of which include hydrology, sediment supply, sea level rise, hydropower dam construction, land subsidence, domestic and industrial water uses, flood management, urbanization, infrastructure development, agricultural transformation), impact of which lies within the strategies developed under the FYSDPs. The FYSDPs shall present spatial and chronological aspects of these elements as well as synergies, regional connectivity, and trade-offs between sectors such as the expected interplay between hydropower, irrigated agriculture, flood management, environment and climate change in respective areas. The baseline analysis and findings from the scenarios will also influence the potential investment priorities. Defining priorities and phases greatly depends on the predicted scenarios and the development of the areas in respective provinces in terms of economy, demographics, environment, and the province's development vision. To cope with these uncertainties, we will adopt the back-casting method and the adaptive planning method. By comparing the vision with current major issues and forecasts, it will become possible to identify phases and support decision makers.

Adaptive and resilient development plan: Adaptive plans follow a certain critical path to ensure all developments as depicted under the "Sectoral Development Directions" are possible. Such plan always includes measures that are non-regret, and are modular to a certain extent. This ensures that the right amount of resources is used at the right moment. Adaptive planning is suitable for a situation with multiple uncertainties. For the three provinces in the northeast Cambodia, major uncertainties include climate change and economic development. By determining the critical pathways in respective sectors, and using the back-casting method, the long-term vision will be translated into a short-term strategy. Using adaptive planning approach, we will always evaluate the current and future development forecast as per development scenarios.

Step 4.2 Sectoral Development Directions

The objectives of this task are:

- a) to set out development directions and spatial structures for the three provinces and the overall Northern Mekong corridor (Cambodian part of GMS Central Corridor) for the short to mid-term periods until 2028; and
- b) to provide under FYSDP 2024-2028 a comprehensive development framework for social and economic infrastructure for trade, commerce, industry, tourism etc., contributing to ensuring the livelihoods for rural and urban communities and to improve living conditions of local communities in the context of climate change as well as economic growth of the population living in the GMS corridor.

Another important factor for development in the future in the economic corridor is the application of climate change resilience solution and capacity, in which economic and basic infrastructure development may be *space-wise* coordinated and optimized or *space-wise* developed based on local economic situations in each of the 3 target provinces.

Development directions for the provinces' priority sectors: Based on the adopted development scenario, the Consultant will establish directions for development, arrangement, selection and distribution of development resources in each province, and prepare detailed guidelines for elaborating on the details of these directions. With the current economy that is largely based on agriculture, the Northern Mekong Corridor is currently facing many challenges in socio-economic development. Increasingly intensive international integration requires national and regional authorities to clarify the competitiveness and comparative advantages of industries, commerce, tourism and services in the respective target provinces. Besides agriculture, the study of development directions for the region shall specify development objectives for the region's key sectors and fields such as micro-industry, commerce, service, tourism, socio-culture, science-technology, education, healthcare, etc., for the relevant agencies, organizations, enterprises and people to have proper plans for economic activities and investment.

Infrastructure development directions for industries and livelihoods: Infrastructure for industries and livelihood consists of irrigation, power supply, ICT/information systems, etc. Infrastructure development shall address issues related to climate change such as sea level rise and saltwater intrusion, sustainable livelihood for communities in the target provinces including rehabilitating irrigation and agricultural infrastructure; developing agricultural transport system and other infrastructure for connection with advantageous production areas; dissemination of suitable production models such as shrimp farming - mangrove forestry, shrimp farming - rice cultivation, and other aquaculture models; supporting smart agriculture development with effective use of water resource in dry season; etc.

Directions and measures for spatial structure and resilient plans: These directions will be quantified, visually identified on maps as much as possible and be relatively less sensitive to changes in input contexts, given that the overall orientation is expected to be the most comprehensive, short to mid-term strategies (at least up to 2028). Spatial planning orientations as per above directions of the various sectors for each of the three provinces will be presented on maps and used as a basis for future implementation commitments. Integrated maps and specialized maps for specific sectors will be prepared as well.

Land use balancing and directions for the North Mekong Region: On the basis of development viewpoint and objectives and land requirements for the development of each sectors, the provincial spatial development and territory organization orientation, this task shall properly balance the

region's land reserve; set up land use criteria for respective land use categories (agricultural, industrial, economic zone, infrastructure, urban, etc.) at the provincial level; and propose land use management measures. Land use balancing and orientation must consider impacts and risks of climate change and sea level rise to ensure proper and sustainable exploitation of the region's land resource, ensuring *stable* residential life in both urban and rural areas.

Directions for provincial level infrastructure development plans: The infrastructure development under the 2024-2028 FYSDP will include: energy-related infrastructure (power, coal, petroleum) for economic activities and daily life, transport infrastructure (roads and highways, railway networks, regional river ports, inland waterway, ICT corridors, etc.), telecommunication infrastructure, etc. Economic infrastructure is an important part of the economic system of each of the three provinces, ensuring rapid, stable and sustainable economic development and being incentive for more rapid economic development, helping improve people's living standards. The identification of economic infrastructure development directions in each province shall provide space and resources for the infrastructure. The North Mekong Region needs economic infrastructure that strengthens the connections within the region, as well as those with neighboring countries; integrates economic infrastructure of different sectors (e.g. cooperation between transport and irrigation/drainage facilities, combination of dykes and roads, bridges and culverts, etc.) Besides, it is necessary to design and construct economic infrastructure for each province, which responds to climate change, mitigation and adaptation to sea level rise, ensuring efficient use of the region's resources from a long-term perspective.

Social infrastructure development directions: The social infrastructure consists of housing, science-technology facilities, schools, hospitals, cultural and sports facilities et. This is a vital prerequisite for serving and improving the community's living standards and development of human resources for industrialization and modernization. The plan of social infrastructure development directions for each province shall provide space and allocate resources for important social infrastructure items such as educational, healthcare facilities, socio-cultural centers, etc. in compliance with national strategies, planning and policies.

The above development directions for the adopted scenario will be presented in maps, tables and texts in the 2024-2028 FYSDP. Each FYSDP will be a visual document with a traceable analysis that flows into a strong concept on a strong outline. In addition, we will make a visual presentation for the Governor's office and departments, other stakeholders and ADB representatives.

Step 5 Investment Program for Priority Projects

The objective of this final task is to identify and prepare an investment program for priority projects that are to be implemented to support the development of the economy and orientations as elaborated under the above sectoral development orientations/pathways, along with a financial plan (for each of the provincial 5-year plans) since substantial public investment may be required to fund a catalytic program of activities. Based on the outputs of the short to midterm strategies/orientations/pathways developed above, concrete projects can indeed be defined and developed. In these non- regret measures have a high priority. A list of projects can be identified and translated into a short and midterm action plans. Based on the short-to midterm strategies and non-regret measures, each proposed project will be categorized according to its priority.

Step 5.1 Listing and prioritization of "low regret" investment projects

Because of the limited budgets of the state, the region of NE Cambodia and the provinces, an initial list of priority and cost-effective projects will be formulated for the three provinces, categorized into short-term investment programs (2024-2028) and mid-term programs (beyond 2028). These lists will be the basis for promoting investments, mobilizing social resources, appealing IFIs and international organizations for effectively funding infrastructural development for each province, meeting rapid and sustainable socio-economic development demands, being resilient to the climate change, and in line with the province-level infrastructure development plans under the FYSDP. From the initial lists of the investment projects, and the first priority order for implementation, we will work out with Governor's departments and all involved stakeholders to carry out a quick-scan of the priority lists of projects, which provides a general idea on how these projects fit in the preferential spatial planning.

Step 5.2 Phased investment program

The program shall include both specific priority and 'no or low-regret' projects and measures that can be implemented in the mid and long term in line with UDMP (for the three capital cities) and overall regional development directions (SDP; and with the spatial organization of the North Mekong Region. The listed investment projects will serve not merely as a shortlist but also as a roadmap for provincial development: its design needs to include a basic phasing and adaptive programming framework and key criteria to facilitate a regional investment planning process of identifying, screening, assessing, designing, prioritizing and funding investment options through a multi-stakeholder approach with specific "rules of engagement" for consensus seeking within each phase, also in line with the Strategic EIA.

Under each FYSDP and associated investment program, the identification of solutions, mechanism, policies and project implementation measures shall include: a) Regional coordination and management; b) Resource mobilization and allocation; c) financial resources mechanism; d) Human resource development and capacity strengthening; e) Science and technology/R&D measures; f) Environmental management measures; f) Legal/ institutional/ organizational strengthening measures.

Present the investment program/priority projects/schemes on diagrams and maps: The digital diagram and GIS mapping system developed under Activity 1 will now be used to visually present the region's socioeconomic development, resilient infrastructure development directions (as depicted in the FYSDP) and selected priority investment programs and projects, helping agencies, organizations and communities to easily approach and get updated with information via mass media mean which will help bring about the community's interest and consent, domestic and international investments in development of the prioritized sectors of each province. Furthermore, our Specialists will provide an overview of the associated costs, benefits (economic, social, and environmental), impacts and risks (depicted from the strategic EIA), timelines as well as other resources for the plan implementation.

Step 5.3 Mechanisms, policies and implementation organization

The Consultant will propose guidelines for construction and zoning. Zoning relates to: urbanization areas (around the three capital cities); expanded areas - potentially containing: commercial/industrial features; protected natural areas and natural agricultural areas; reserved (natural reservation) land and future development areas including economic infrastructure (transportation, water supply, drainage, power supply and communication), social infrastructure as well as tourism network; Regulation on size of area, urban population, scale of urban and rural construction; synchronized residential areas with protected natural areas and synchronized commercial areas with green areas; and the link between urban planning and zoning for risk prevention, greening and risks mitigation, etc.

Step 6 Support the Governor`s Department in Stakeholder Consultation on the 2024-2028 FYSDP

The final draft of FYSDP and associated investment programs shall be prepared/ revised based on the feedbacks from Stakeholders. We will assist the concerned departments during the discussion/negotiation with involved stakeholders to build a consensus on the proposed FYSDP and investment programs for each province. The consultations will include at least:

- a) Informal consultation: meetings and a workshop for discussing FYSDP to revise the report and agree with Governor`s departments); and
- b) Formal consultation: Support the departments to disseminate the FYSDP report to involved stakeholders in order to received official feedbacks in written documents; aggregate and justify feedbacks.

Once the outcomes of stakeholder consultation are fully integrated in the FYSDP regarding current status assessment, development scenarios, viewpoints and objectives, sectoral development orientations, spatial planning orientations, investment programs and list of priority projects and implementation measures, our Specialists and Team Leader will compile the FYSDP report with design factsheets and visual materials for final publication of the FYSDP reports.

Sub-Task 6.2 - Preparation of Urban Development Master Plans

The purpose of the Sub-Task 6.2 is to prepare the Urban Development Master Plans (UDMP) for the three cities of TS-2 (Battambang, Serei Saphoan, and Stung Saen) and the three cities of GMS-CTDP-4 (Kampong Cham, Kratie, and Stung Treng) considering planned development to 2040 and to direct integrated and phased cross-sectoral spatial development defined by land use zoning based on sustainable development principles, with Action Area Plans for locations requiring urban development attention to enhance competitiveness and improve urban-environmental infrastructure. It will provide:

- a guiding tool in the management of each city's future growth in its role as the provincial capital;
- the spatial and temporal direction for facilitating more efficient development and infrastructure thus assisting each city's establishment as a major regional hub; and
- the strengthening of each city's urban area economic ties with neighboring countries.

The overall strategy for the development of each city will reflect the national vision for Cambodia and recommendations of the provincial Five-Year Strategic Development Plan (FYSDP).

The formulation of the UDMP will include consideration of:

- National Strategic Development Plan of 2019-2023, to promote inclusive growth and work toward achieving the Sustainable Development Goals of 2016-2030.
- Rectangular Strategy Phase III, national socio-economic objectives and priority areas for growth, employment, equity and efficiency.
- National Policy of Green Growth (2013) aimed to enhance the well-being and livelihood of all people in harmonization with ecological safety through green growth.
- National Strategic Plan on Green Growth (2013-2030) to improve green growth through nine key strategic directions.
- Integrated public and private investment, systemic benefits and quality of life in urban areas, with attention to the poor, consensus building, and urban management promoted in the ADB's:
 - Urban Operational Plan (2012 -2020)
 - Green Solutions for Liveable Cities (2016) and GrEEEn City Action Plans.

Although many of the cities have seen considerable investment in economic and social development, including amongst others: social infrastructure, civil engineering projects to mitigate flooding, transportation infrastructure to increase connectivity between adjacent provincial capitals, Phnom Penh and major cities of the neighboring countries over the past two decades, the cities face the following key issues, which undermine efforts to attract external investment:

- Inadequate infrastructure to meet the demands of rapid urbanization, population growth and the projected risks arising from climate change,
- Limited capacity of the municipality to provide reliable and affordable urban services,
- Uncertainty as to the guidance and management of development and its control in accordance with government plans, and
- Insufficient enforcement of development control instruments due to a combination of; un-coordinated operationalization, insufficient staffing capacity, and low levels of public participation.

Step 1 Agreeing on the Urban Strategy and Objectives and Delineation of Planning Area

The UDMP for each city will be based upon the long-term vision and strategies defined under the Provincial 5-year Development Plans. These will be revisited and clarified in consultation with the city stakeholders. The long-term vision will guide and integrate land use, economic development and infrastructure development. The strategies will be formulated to materialize the vision by addressing

short-term development issues and developing urban structure from mid and long-term perspectives for land use / housing, development of economic sectors, infrastructure development, and disaster and environmental management. Meanwhile, a planning area for the UDMF where future urbanization is expected by 2040 will be delineated for each of the six target cities.

Step 2: Review of Development Context

Urban plans and available data will be collected from relevant authorities and reviewed to ascertain the development context of: population growth and urban expansion, land use, spatial development, social infrastructure, road networks and transportation, industry and logistics, and utility systems and networks. The municipality development control system and operation, and urban management will be reviewed in the context of the current development Master Plan, i.g., Battambang Development Master Plan (2008-2020), and existing establishment operations.

Available data for the socioeconomic, infrastructure, environmental, land use and spatial planning of the target cities will be collected from relevant authorities and stakeholders for desktop review, to identify gaps, ascertain key issues, and formulate assumptions to direct the agenda for discussion with each of the Municipalities and Stakeholders during Step 2.

The data collection will include review of:

- Provincial Five-Year Strategic Development Plans (FYSDP) for respective provinces,
- Development Master Plans for respective cities,
- Socioeconomic data and forecasts (2020, 2030, 2040),
- Existing, committed and proposed land use, conservation areas and spatial development,
- Existing, committed and proposed, transport and utility networks and projects,
- Climate change forecasts and historical and forecast natural hazard impacts (flooding, food security),
- Current large-scale city development projects – property, utilities, transportation, and environmental protection, and
- Regional and cross-border connectivity projects – rail, road, investment, agriculture, flood mitigation etc.

The output of Step 1 will be a summary document of the review findings structured to:

- (i) Identify the goals and cross-sectoral requirements of the Provincial FYSDP to be enabled through the city's urban strategy,
- (ii) Highlight environmental and natural disaster risk management constraints upon development,
- (iii) Assess value chain opportunities arising from existing plans and programs for urban development within the city to be taken forward for the UMDP 2040,
- (iv) Propose the boundaries and function of urban areas under development pressure or at risk and requiring project action to promote economic growth, social well-being and environmental protection i.e., infrastructure rehabilitation, protection of natural assets, city proofing and greening,
- (v) Consider compact city integrated land use zoning and public transit strategies to direct and control growth in the spatial development of a competitive, livable and resilient UMDP 2040,
- (vi) Comment upon the effectiveness of existing city urban development; strategies, policies, plans, control and mechanisms, and
- (vii) Identify initial investment and financing strategies for appropriate sanitation technologies.

Step 3: Development Issues and Needs

This will focus on each city's development to enhance economic relations with adjacent urban centers and the neighboring countries, depending on the locations of the cities, by building upon their shared histories and cultures and identifying the potential for promoting development in nine priority sectors: agriculture, energy, environment, human resources, investment, telecommunications, tourism, transport infrastructure and transport and trade facilitation.

Consultations will be undertaken with concerned municipal departments and stakeholders from government, the private sector and communities on the planned development and strategic options arising from the priority sectors. A **Strategy Workshop** will be organized with all concerned Stakeholders to:

- facilitate SWOT Analysis to arrive at a vision for the city,
- present the **initial concept** for urban strategy,
- organize breakout sessions to examine key issues for resolution, and
- establish key development issues and initial concepts for presentation further discussion with the target cities on:
 - urban planning
 - infrastructure planning
 - urban administration.

During this Step, the findings and initial conclusions from Step 1 will be discussed with the relevant Municipality Departments through consultative meetings and focus groups. The discussions will review both:

- the strategic role of the city in the options for planned development defined in the Provincial FYSDPs, and
- realistic future development scenarios for the UMDP 2040.

The specific development issues and needs of the province and city should be reviewed in the context of both local requirements and the overarching goal of each city as a regional commercial hub. Of which enhancing economic relations between Cambodia and neighboring countries is a prerequisite. The discussions will be structured to focus on 9 priority sectors and their provincial-city and cross sectoral integration to optimize benefits from enhanced linkages and value chains.

The aim of discussions will be to enable the refinement of a vision for each city, and following SWOT analysis sets the parameters for urban development scenarios. A Strategy Workshop will be organized to discuss the SWOT analysis with all concerned Stakeholders with an aim at arriving at a vision for each city. The initial concept for urban strategy will be presented, with sector related key issues addressed in break-out sessions for relevant stakeholders. Based upon the findings of the consultation process and the outcome of the Strategy Workshop, early strategy responses to constraints and potential growth for each city will be established. The minutes of the discussions will be prepared for confirmation with the attendees and set the direction for the initial strategy.

The key development issues and initial concepts and options available for: a) Urban planning, b) infrastructure planning, and c) urban administration, and the urban strategy prepared for further presentation and discussion at PDPWT land municipal level. The presentation will include:

- (i) the vertical link of each city with the provincial FYSDP, for example:
 - a. strategic direction for land and riverine development (e.g. identification and enforcement of protection zones, green zones, roads, public parks, and utility corridors),
 - b. transport upgrading, by-pass roads and urban traffic development,
 - c. the development of other technical or social infrastructures.
- (ii) analysis of the existing situation and plans.

- (iii) the initial concepts for urban development, and early strategy responses to the following constraints and potential growth in each city:
- a. urban planning to be better integrated with infrastructure planning and provision,
 - b. existing land use patterns and conflicting issues; Delineation of urban development and areas to be preserved,
 - c. uncontrolled development interfering with existing utilities such as drains,
 - d. requirements for by-pass routes to take long-distance traffic around the city, additional bridges, etc.,
 - e. measures to improve the commercial traffic, road quality and road system,
 - f. facilitation of integrated public transport system in each city,
 - g. limited capacity of urban service management needs to be addressed,
 - h. need to adopt participatory approach in development of urban strategies and other plans,
 - i. need to incorporate natural resource management and protection into urban strategy,
 - j. develop capacities for climate change preparedness; Increase use and access to green infrastructure.

Step 4: Phased Urban Development Strategy

The UDMP 2040 and Development Strategy, based on integrated cross-discipline sustainable development, will promote each city as a competitive city for investment through provision of a quality living environment, gender responsiveness, adequate urban services and infrastructure that encourage future growth, environmental protection and include climate resilience measures. This will include proposals to facilitate initiatives, for amongst others:

- environmentally friendly - public transport,
- sustainable water-usage and reuse,
- sustainable water management, and
- Disaster management, particularly from flooding.

The urban development strategy and preliminary UMDP 2040 will be prepared in Step 3. The phased urban development strategy will be developed through a medium and long-term investment program.

- The Midterm period (2018-2024) - strategy to improve the urban environment.
- The Long-Term period (2024-2028) - strategy is for each city to become a green city, major regional commercial and cultural center in line with the provincial FYSDP.

Each phase will be prepared together with stakeholders from PDPWT, municipal officials and other stakeholders and cover the:

- development vision,
- demand and supply gap for urban infrastructure,
- potential economic drivers for the succeeding years, and
- gender responsive and climate resilient dimensions.

The investment programs will address the demand and supply gap taking into consideration expected increase in urban population and the expansion of the urban areas and presented through planned development maps to indicate population movements, water flows, future expansion of commercial and industrial centers, and potential locations of key urban facilities including drainage facilities.

The preliminary UDMP 2040 strategy will promote sustainable development for economic growth, social well-being and environmental protection for all. Including city resilience, through mitigation and adaptation measure for climate change, incorporating low carbon solutions and recycling and consideration of the potential from:

- Sustainable urban agriculture
- Renewable energy solutions
- Green engineering
- Environmentally friendly pedestrian and public transport mobility
- Sustainable water usage and re-usage
- Sustainable wastewater & solid waste management
- Sustainable drainage and ecological systems
- Disaster management, particularly from increased flooding.

Step 5: Consensus Building

The draft UMDP for each city will be presented at consultative **Workshops** to the EA, IAs, ADB and project stakeholders for review and discussion. The comments and suggestions arising will be incorporated in the final UDMP, and include the phased Urban Development Strategy structured to reflect the medium- and long-term phasing of:

- Urban development
- Road network and transport
- Utilities and urban infrastructure services
- Environment/green infrastructure
- Social infrastructure development, etc.

Step 6: UDMP Reports

The Urban Development Strategy for the UDMP 2040 will be divided into the two phases, mid-term (2018-2024) and long-term. The UDMP 2040 report will be structured to include all the background information and analysis in the UDMP. The phased proposals will be described by sector:

- urban development;
- road network and transport;
- utilities & urban infrastructure services;
- environment/green
- infrastructure; social infrastructure development.

The UDMP reports will be annexed with the Drainage Master Plan.

7.4 Consultants Organization & Staffing Schedule

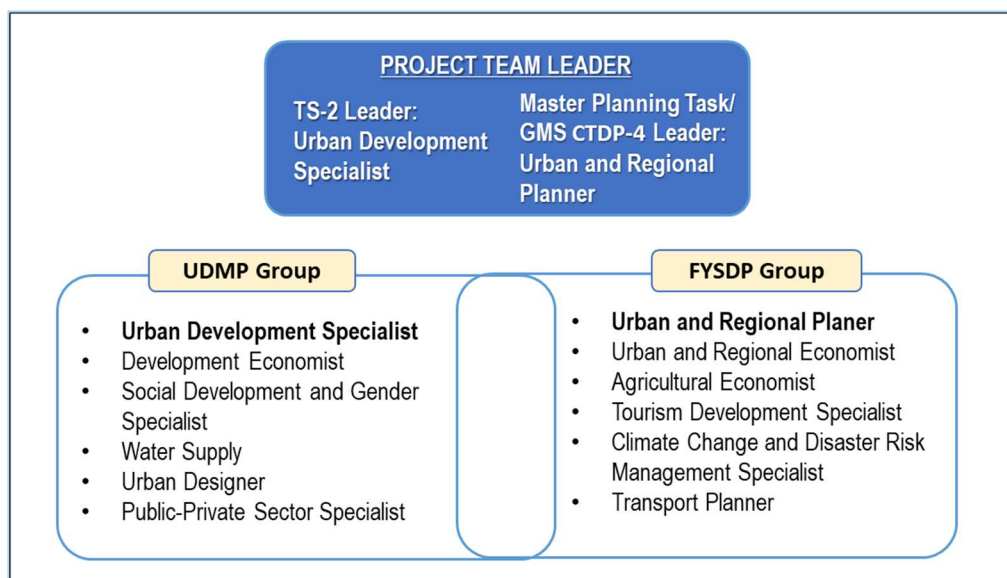
The Consultant Team for Master Planning tasks is organized as presented in [Figure 21](#). Under the Project Team Leader responsible for overall management of the entire project, two experts, Urban and Regional Planner and Urban Development Specialist will lead the components of GMS CTDP-4 and TS-2, respectively. Urban and Regional Planner will also act as the leader of the Master Planning work in the Project.

The Master Planning Team consists of international and national experts, as shown in [Table 23](#). The international experts are broadly divided into two groups of: UDMP Group, which will mainly work for the formulation of Urban Development Strategy and Master Plans, and FYSDP Group, which work for the planning of the two plans, but with focus on Five Year Provincial Strategic Development Plans. Both Groups will work together and mutually contribute to the formulation of UDMPs and FYSDPs. It

will be coordinated in planning process to what extent inputs and outputs are required from each of the experts for formulation of UDMPs and FYSDPs.

The staffing schedule is provided in Table 24. This schedule is subject to change, in accordance with consultation with the Counterparts, the progress in planning implementation and other factors.

Figure 21 Project Team Organization for Master Planning Tasks



Source: Project Team

Table 23 Experts for Master Planning Team

Assignment		Name of Experts
International Experts		
1	Team Leader	Mr. Richard Mabbitt
2	Social Development and Gender Specialist	Mr. Nils Gardek
3	Urban Development Specialist	Mr. Howard Trett
4	Development Economist	Mr. Richard Corsel
5	Urban and Regional Economist	Mr. Manabu Fujikawa
6	Urban and Regional Planner	Dr. Hisako Kobayashi
7	Agricultural Economist	Dr. Nerlita Manalisi
8	Tourism Development Specialist	Mr. Yoshiki Hirabayashi
9	Climate Change and Disaster Risk Management Specialist	Mr. Alvaro Fonseca
10	Water Supply	Mr. Mudiyansele Dissanayake
11	Urban Designer	Mr. Damian Cronin
12	Transport Planner	Dr. Monyrath Kov
13	Public-Private Sector Specialist	Mr. Per Gradin
National Experts		
1	Environment Safeguards Specialist 1 (TS-2)	Mr. Yim Chamnan
2	Environment Safeguards Specialist 2 (GMS4)	Mr Nang Phirum
3	Urban Planner	Mr. Lim Dalika
4	Urban and Regional Planner	Mr. Vuth Sivong

5	Financial Management Specialist	Ms. Sakrya Kol
6	Agricultural Economist	Mr. Chin Koeun
7	Tourism Development Specialist	Ms. So Rothavy
8	Climate Change and Disaster Risk Management Specialist	Mr. Min Vannak
9	GIS Specialist-1	Mr. Oul Kim Sear
10	GIS Specialist-1	Mr. Mao Socheat
11	Land Use Management Specialist	Ms. David Chandavin
12	Topographics Survey Manager	Mr. Sim Sokha
13	Geotechnics Survey Manager	Mr. Chea Ketia
14	Socio-Economics Survey Manager	Ms. Ky Sovathana
15	Legal/PPP Expert	Mr. Tan Try

Source: Project Team

Table 24 Staffing Schedule

No.	Position	Name	2019			2020												2021		
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
International Experts																				
1	Team Leader	TBD		■	■			■	■	■				■	■					
2	Social Development and Gender Specialist	Mr. Nils Gardek		■	■			■	■	■				■	■					
3	Urban Development Specialist	Mr. Howard Trett		■	■	■	■	■	■	■				■	■					
4	Development Economist	Mr. Richard Corsel		■	■			■	■	■				■	■					
5	Urban and Regional Economist	Mr. Manabu Fujikawa		■	■			■	■	■				■	■					
6	Urban and Regional Planner	Dr. Hisako Kobayashi		■	■	■	■	■	■	■				■	■					
7	Agricultural Economist	Dr. Nerlita Manali				■	■	■	■	■				■	■					
8	Tourism Development Specialist	Mr. Yoshiaki Hirabayashi		■	■			■	■	■										
9	Climate Change and Disaster Risk Management Specialist	Mr. Akaro Fonseca		■	■			■	■	■										
10	Water Supply	Mr. Mudiyansele Dissanavake		■	■			■	■	■				■	■					
11	Urban Designer	Mr. Damian Cronin						■	■	■				■	■					
12	Transport Planner	Dr. Mnyrath Kov		■	■			■	■	■				■	■					
13	Public-Private Sector Specialist	Mr. Per Gradin						■	■	■				■	■					
National Experts																				
1	Environment Safeguards Specialist 1 (TS2)	Mr. Yim Chamnan		■	■															
2	Environment Safeguards Specialist 2 (GMS4)	Mr. Nang Phirum		■	■															
3	Urban Planner	Mr. Lim Dalka		■	■	■	■	■	■	■				■	■				■	
4	Urban and Regional Planner	Mr. Vuth Sivrong		■	■	■	■	■	■	■				■	■					
5	Financial Management Specialist	Ms. Sakrya Kol						■	■	■				■	■					
6	Agricultural Economist	Mr. Chin Koeun		■	■			■	■	■				■	■					
7	Tourism Development Specialist	Ms. So Rothavy		■	■			■	■	■				■	■					
8	Climate Change and Disaster Risk Management Specialist	Mr. Min Vannak		■	■			■	■	■				■	■					
9	GIS Specialist-1	Mr. Oul Kim Sear						■	■	■										
10	GIS Specialist-1	Mr. Mao Socheat						■	■	■										
11	Land Use Management Specialist	Ms. David Chandavin		■	■	■	■	■	■	■				■	■					
12	Topographics Survey Manager	Mr. Sim Sokha		■				■	■	■										
13	Geotechnics Survey Manager	Mr. Chea Ketia						■	■	■										
14	Socio-Economics Survey Manager	Ms. Ky Sovathana		■	■			■	■	■										
15	Legal/PPP Expert	Mr. Tan Try						■	■	■				■	■					

■ Work in Cambodia
■ Work in Home

7.5 Reports and Deliverables

In the course of the Project, the Consultants will prepare and submit the following reports shown in [Table 25](#), in accordance with the proposed schedule of submission. In addition to the required reports, the Consultants will submit the Progress Report and Interim Report for report of the progress, which include situation analysis such as socio-economic analysis and review of development contexts and issues, and development concepts for future development, strategy, and visions, respectively. Minutes of consultations, focus group discussion, workshops, and public consultations will be shared with the Counterparts as well.

Table 25 Submission of Reports and Deliverables

Deliverables	Submission Timing
Inception Report <ul style="list-style-type: none"> Work Schedule/ Plan 	October 2019
<i>Progress Report</i>	<i>March 2020</i>
<i>Interim Report</i>	<i>July 2020</i>
Draft Final Report <ul style="list-style-type: none"> Draft Master Plans 	December 2020
Final Report	March 2021
Final Master Plans and Investment Plans TS-2: [UDMP] <ul style="list-style-type: none"> Urban Development Strategy and Master Plan for Battambang Urban Development Strategy and Master Plan for Serei Saophoan Urban Development Strategy and Master Plan for Stueng Saen GSM CTD-2: [FYPDS] <ul style="list-style-type: none"> Five-Year Provincial Development Strategies for Kampong Cham Five-Year Provincial Development Strategies for Kratie Five-Year Provincial Development Strategies for Stung Treng [UDMP] <ul style="list-style-type: none"> Urban Development Master Plan for Kampong Cham Urban Development Master Plan for Kratie Urban Development Master Plan for Stung Treng 	March 2021

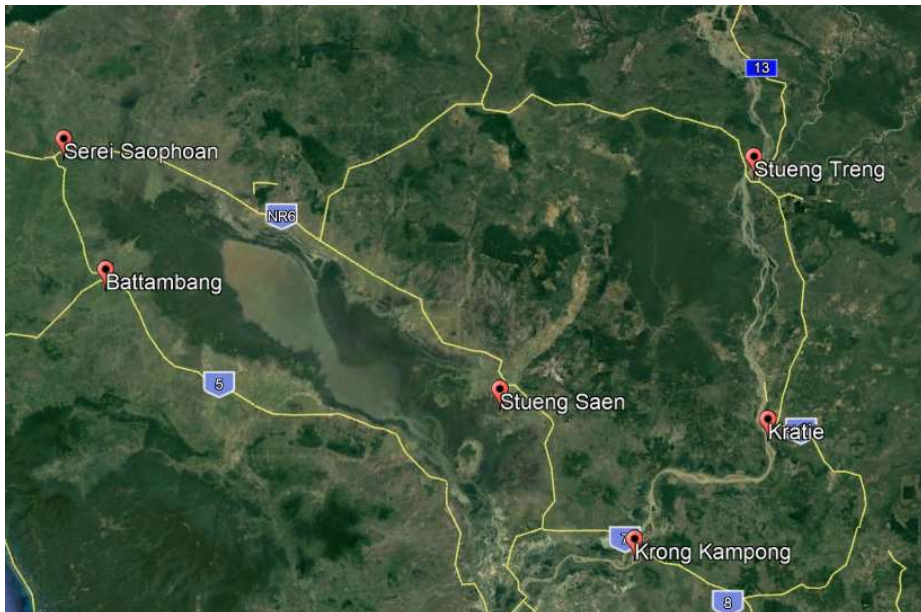
Source: Project Team

Note: The deliverables indicated in Italics are not requirements.

8 Work Package

For each of the 16 detailed design work packages a review of their feasibility level design shall be made once surveys are completed and shall be presented as an annex in the appropriate monthly report. The six towns covered by the two projects (TS-2 and CTDP-4) are shown in the Figure below.

Figure 22: Location of the six towns



The Work Packages are summarized in the table below:

Table 26: Wastewater & Drainage Investments for Detailed Engineering Design

Order	Project PIU & Work Package Number
	TS-2
1	TS-2 Battambang CW01 Lot 1
2	TS-2 Steung Saen CW01 Lot 2
3	TS-2 Serei Saophoan CW02 Single Lot
4	TS-2 Battambang CW02 Lot 1
5	TS-2 Serei Saophoan CW02 Lot 2
6	TS-2 Steung Saen CW02 Lot 3
7	TS-2 Three Towns Landfill Equipment G0
	GMS-CDPT-4
8	GMS4 Kampong Cham WW-CW Lot 1
9	GMS4 Kratie WW-CW Lot 2
10	GMS4 Stung Treng WW-CW Lot 3
11	GMS4 Kampong Cham SWM-CW Lot 1
12	GMS4 Kratie SWM-CW Lot 2
13	GMS4 Steung Treng SWM-CW Lot 3
14	GMS4 Three Towns Solid Waste Collection Vehicles and Landfill Equipment SWM-G
15	GMS4 Kratie Town Centre Environmental Enhancement KR-CW01
16	GMS4 Stung Treng Town Centre Environmental Enhancement ST-CW02

In our methodology we built up the planning of each Work Package based on the following assumptions:

Table 27: Timings for Work Package Tasks to build up Work Plan Schedules

Item	Per PMC Offer Schedule (mths)	Work Schedule Plan (mths)	Allowance for approvals (mths)
Mobilisation, preparation of surveys ToRs, redaction of inception report, and draft work schedule plan	3	3	
Site selection after PPTA			
Site selection by PIU/PMU/MPW&T/MEF	Not specified	Various	
Adapting feasibility report to new site	Not specified	2	
MOE site pre-approval and ADB liaison	Not specified	2	
Environment			
IEE	5	2	2 x 0.5
EMP	5	4	2 x 0.5
IEIA	5	7	
MoE's licence	Not specified	N/A	2.5
Resettlement			
GDR leading to Detailed Resettlement Plan	4	4	
Due diligence and land acquisition	Not specified	2	
Compensation payments	Not specified	3	
Engineering			
Topographic and geotechnical survey	3	3	0.5
Detailed Design	5	5	2 x 0.5 =1
Bid documents	1	1	1
Procurement			
Bidding and bid evaluation	Not specified	4	
ADB Bid evaluation report and No objection letter	2	2	1
Contract documents	2	2	0.5
Construction and supervision			
Pre-construction activities: Contract signing and mobilization of construction etc	3	3	
Construction period to Taking Over Certificate	30		
Wastewater		24	
Landfill		15	
Town Centre Env Enhancement		15	
Defects liability period	8	12	
Contract close out procedures and completion report	3	3	2*1.0
Construction supervision	42		

These assumptions and the intervention of other constraints are set out in summary sheets below.

The datasheets include:

- General project data,
- The situation with site selection,

-
- the progress of Ministry of Environment submissions, approvals and clearances and corresponding progress with the IEIA, the IEE and the EMP both now and as prepared in the PPTA.
 - The progress with the Resettlement safeguards and the GDR process and in particular the status of the land and the acquisition process, the requirement that the DED is part of the Detailed Resettlement Plan and then the compensation payments.
 - The progress and status of the Engineering, including topographic surveys, geotechnical surveys, detailed design and preparation of bid documents.
 - The progress and status of procurement including the type of procurement package, advertisement dates, bid evaluation reports, no objection letters from ADB
 - The Construction contracts and supervision progress including some of the key issues to be confirmed in the preparation of the contracts such as bank guarantees, down payments, construction period
 - The evaluation of current risks and proposed mitigation measures.
 - An overall evaluation of the status of delay of the project with respect to the planning in this Inception Report.
 - A revision sheet.
 - The PIU stakeholders
 - The planning graphic.

8.1 TS-2 Battambang WW CW01 - Lot 1

Work Package Datasheet TS-2 Battambang WW CW01 - Lot 1

General data		
PIU	Battambang	Battambang Wastewater Separate system Service area coverage: 720 ha Connections: 5,290 Pipelines: 98.5 km Pump stations: 6 WWTP: 8,500 m ³ /d capacity (2040) lagoons based Road upgrade: 4.0 km
PIU Contact Name and Position	Mrs. Kem Skuntheary Deputy General Director (PDPWT) PIU Director – Battambang Telf: 092 818 017 Email:	
Project n°	TS-2: ADB L3684/G0591CAM	
Works Package Number	CW01	
Description	Wastewater & drainage system	

Site selection	Option selection	Engineering	PIU	PMU/MPWT - MEF	MoE
PPTA site recommendations	Y	Y	Y	OK	OK
Post PPTA Options	N/A				
Delay to program due to site selection problems		Not including Environment, MoE and GDR delays			

MoE Clearance Submissions	Version	Date	Remarks	Status
Planned approval MOE licence from IEIA		04/2020		Pre-Approval
Programed time for MoE license from reception of IEIA		2.5 mths		
Delay to program due to MoE clearance		Not including Environment report delays		

Environment	TS-2-GMS4 Progress				
PPTA progress	IEE report	Y	EMP Update	Mobilisation date	N/A
	EMP report	Y	Program	6 months	N/A
	MOE clearance	Y		End date	N/A
				Completed	Y
IEIA Consultant	Appointed	Y	IEE	Mobilisation date	N/A
	Mobilised	Y		6 months	N/A
Company	SBK			End date	N/A
Program	7 months			Completed	Y
End date	01/2020				
	Completed				
Programed time for Environment Report in Work Plan		7 mths			
Delay to program due to Environmental Reporting		Not including MoE and GDR delays			

Resettlement Safeguards	Version	Date	Remarks	Status
Update of draft RP	Mobilisation			
Site selection status	Open			
Land type	Private			
Pre-screening	To be mobilized	10/2019		
Demarcation of land				
Consultations /PIB				
PMC assist to GDR data review				
Land acquired				
DED submission to GDR	-			
Consultation				
Detailed Measurement Surv (DMS)				
Social Economic Survey (SES)				
Resettlement Cost Survey (RCS)				
Detailed Resettlement Plan (DRC)		01/2020		
Compensation Payments		06/2020		
Programed time for GDR Process		5 mths		
Delay to program due to GDR process		Not including site selection by PIU/PMU/MEF assistance PMC		

Engineering	Completed			
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Procurement				At PMC mob	Revised	Status
Package / Lot	CW03	Lot 1	Advertisement date	Q3/2019		
Method	International Competitive Bidding		Bid submission date	Q4/2019	16/10/19	
Review (Prior / Post Sampling)	Prior		Bid evaluation report version 0			
Bidding procedure	1S1E		PMU Approval			
Estimated Value	PPTA Part of Inception update	37.61 m\$ 22.2 m\$	ADB No Objection Letter		08/2020	
			Contract Signature		11/2020	
Programed time for Procurement in PMC		6 mths				
Delay to program due to Procurement						

Construction and Supervision			Status	Work Plan	Revised	Status
Package / Lot	WW CW01	Lot 1	Contract signature	11/2020		
Contract price (excluding PS)		m\$	Mobilisation Date	03/2021		
Completion	0%	%	Commissioning			
Provisional sums		m\$	Performance Tests completed			
Total provisional sums to date	0%		Taking Over	02/2024		
Contingencies	10%		Defects Liability Period (12 mths)	02/2025		
Variation orders, dayworks and other uses of contingency funds to date	0%		Closure Procedure			
CAR Insurance	10%		Draft Completion Report	03/2025		
Bank guarantee (down payment)	15%		Final Completion Report	07/2025		
Defects liability period guarantee	5%					
Programed time for Contractor		36 mths	Programed time for Consultant Supervision (const, DLP, close)			54 mths
Delay to program due to Procurement						

Issues and Risks Item	Status	Issues raised	Planned Mitigation	Program Actual	Risk
Bidding deadline	Close	Bidding deadline extended to 16 October	Estimated start of the works on July 2020 –	No consequences on program since GDR, and compensation and Environment take time	+1 mths
PIU issue with WWTP access road		PIU was not sure of the road ROW or design width for both towns	Assist and inform		
GDR and compensation		GDR and compensation have long time frame.			
IEIA / MOE		Delays on SBK performance	Biweekly follow up on approved work schedule License expected on January 2020, License should be ready before contract award		
Possible program delays due to issues and risks		0 mths	Not including delays in previous cells in datasheet		

Net program		Additional delays summary	
Site selection			
Environment Reporting			
MoE			
Resettlement			
Procurement			
Contracting /Supervision			
Programed time for Work Package at PMC mobilization until start of construction	17 mths	Program End Date	
Total program delays		Resulting End Date	
Possible additional	+ 0 mths		

Remarks and urgent tasks			
ADB current task		Y	yes
PMU current task		N	No
PIU current task			
PMC current task			
Delegation to Tancons	Delegation to Expert	Delegation to Design Manager	Delegation IEIA consultant

Revisions											
Rev	Date	Description	By	Check	Appr.	Rev.	Date	Description	By	Check	Appr.
0	11.10.19	Inception	MCH	PPB							
1		Qtr Report 1									
2											
3											

Table 28: PIU – Battambang

	Name	Office	Position
1.	Mrs. Kem Sokuntheary	Deputy General Director (PDPWT)	PIU Director
2.	Mrs. Horm Sina	Chief Office of Technical (PDPWT)	PIU Deputy Director
3.	Mr. San Sereysith	Chief Office of Public Works (PDPWT)	PIU Technical Assistance Officer
4.	Mr. Dem Kimny	Deputy Chief Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
5.	Mr. Run Sophoan	Officer Office of Sewage System (PDPWT)	PIU Finance Officer
6.	Mr. Lim Y Meng	Officer Office of Development Management (Provincial Hall)	PIU Town Development Planning Officer
7.	Mr. Rith Sotheavy	Deputy Chief Office of Information (Provincial Hall)	PIU Administrative Officer
8.	Mrs. Kao Chhoun Nara	Deputy Chief Office of Economic and Social (Provincial Hall)	PIU Social and Environmental Officer
9.	Mr. Nou Chamroeun	Deputy Director Administration Bureau (Provincial Hall)	PIU Social safeguard and Resettlement Officer

Work Schedule Plan TS-2 Battambang WW CW01 - Lot 1

Work Schedule Plan																						
TS-2 Battambang Wastewater and Stormwater CW01 Lot 1																						
Version 0.0																						
13/10/2019																						
Task (% completion)	Exe	App	Note	2019						2020												
				7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
Mobilisation, preparation of surveys ToR, inception	3	3		█	█	█																
Site selection after PPTA			N/A																			
Site selection by PIU/PMU (MPWT)/ MEF	12																					
Adapting feasibility report to new site	2																					
MOE site pre-approval and ADB liaison	2																					
Environment post PPTA				█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
IEE	2	1																				
EMP	4	1																				
IEIA	7			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
MoE's License	2.5	2.5																				
Resettlement				█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
GDR leading to Detailed Resettlement Plan	4			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Due diligence and land acquisition	2																					
Compensation Payments	3																					
Engineering																						
Topographic survey	3	0.5																				
Geotechnical survey	3	0.5																				
Detailed Design	5	1																				
Bid documents	1	1																				
Procurement				█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Bidding and bid evaluation	4			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
ADB Bid evaluation report and No objection letter	2																					
Contract Documents and signature	2	0.5																				
Construction and supervision																						
Preconstruction activities: contract signing and mot	3																					
Construction period	24																					
Defects Liability Period	12																					
Contract close out procedures and completion repo	3	2																				
Construction supervision	42																					

8.2 TS-2 Steung Saen WW and SW drainage CW01 - Lot 2

Work Package Datasheet TS-2 Steung Saen WW and SW drainage CW01 - Lot 2

General data			
PIU	Steung Saen	Steung Saen Wastewater Separate system Service area coverage: 160 ha Connections: 2,930 Pipelines: 43.3 km Pump stations: 2 WWTP: 3,500 m ³ /d capacity (2040) lagoons based Road upgrade: 1.5 km	Steung Saen Stormwater drainage: Separate system Service area coverage: 116 ha Pipelines: 17.1 km of mostly covered channels + pipelines Pump stations: none Road upgrade none
PIU Contact Name and Position	Steung Saen		
Project n°	Mr. Chou Kolla General Director (PDPWT) PIU Director Tel: 012 971 317 Email:		
Works Package Number	CW01		
Description	Wastewater & drainage system		

Site selection	Option selection		Engineering	PIU	PMU/MPWT - MEF	MoE
PPTA site recommendations	Y		Y	Y	OK	OK
Post PPTA Options	N/A					
Delay to program due to site selection problems			Not including Environment, MoE and GDR delays			

MoE Clearance Submissions	Version	Date	Remarks	Status
MOE Licence following submission of IEIA		04/2020		Pre-Approval
Programed time for MoE clearance from reception of EMP		2.5 mths		
Delay to program due to MoE clearance			Not including Environment report delays	

Environment	TS-2-GMS4 Progress				
PPTA progress	IEE report	Y	EMP Update	Mobilisation date	N/A
	EMP report	Y	Program	6 months	N/A
	MoE clearance	Y		End date	N/A
				Completed	Y
IEIA Consultant	Appointed	Y	IEE	Mobilisation date	N/A
	Mobilised	Y		6 months	N/A
Company	SBK			End date	N/A
Program	7 months			Completed	Y
End date	01/2020				
	Completed				
Programed time for Environment Report in PMC offer		7 mths			
Delay to program due to Environmental Reporting			Not including MoE and GDR delays		

Resettlement Safeguards	Version	Date	Remarks	Status
Update of draft RP	Mobilisation			
Site selection status	Open			
Land type	Private			
Pre-screening	To be mobilized		Coordinates not yet provided to PMU	
Demarcation of land	-			
Consultations /PIB				
PMC assist to GDR data review				
Land acquired				
DED submission to GDR	-			
Consultation				
Detailed Measuremt Surv (DMS)				
Social Economic Survey (SES)				
Resettlement Cost Survey (RCS)				
Detailed Resettlemnt Plan (DRC)		01/2020	Access road needs to be included in GDR	
Compensation Payments		06/2020		
Programed time for GDR Process		6 mths		
Delay to program due to GDR process			Not including site selection by PIU/PMU/MEF assistance PMC	

Engineering	Completed			

Procurement				At PMC mob	Revised	Status
Package / Lot	CW03	Lot 2	Advertisement date	Q3/2019		
Method	International Competitive Bidding		Bid submission date	Q4/2019	16/10/19	
Review (Prior / Post Sampling)	Prior		Bid evaluation report version 0			
Bidding procedure	1S1E		PMU Approval			
Estimated Value	PPTA Part of Inception update	37.61 m\$ 14.6 m\$	ADB No Objection Letter		08/2020	
			Contract Signature		11/2020	
Programed time for Procurement in PMC	6 mths					
Delay to program due to Procurement						

Supervision				Work Plan	Revised	Status
Package / Lot	SWM-CW	Lot 3	Contract signature	11/2021		
Contract price (excluding PS)		m\$	Mobilisation Date	03/2021		
Completion	0%	%	Commissioning			
Provisional sums		m\$	Performance Tests completed			
Total provisional sums to date	0%		Taking Over	02/2024		
Contingencies	10%		Defects Liability Period (12 mths)	02/2025		
Variation orders, dayworks and other uses of contingency funds to date	0%		Closure Procedure			
CAR Insurance	10%		Draft Completion Report	03/2025		
Bank guarantee (down payment)	10%		Final Completion Report	08/2025		
Defects liability period guarantee	5%					
Programed time for Contractor	36 mths		Programed time for Consultant Supervision			42 mths
Delay to program due to Procurement						

Issues and Risks Item	Status	Issues raised	Planned Mitigation	Program Actual	Risk
Bidding deadline	Close	Bidding deadline extended to 16 October	Estimated start of the works on July 2020 – no consequences on the Tech S program of July 2019		+1 mths
PIU issue with WWTP access road		PIU was not sure of the road ROW or design width	Assist and inform		
PIU issue with Irrigation		Is irrigation under MAFF or MOWRAM, and this needs to be confirmed	Assist and inform		
IEIA / MOE		Delays on SBK performance	Biweekly follow up on approved work schedule License expected on January 2020, License should be ready before contract award		
RP/ Land acquisition / GDR for access road		Access road was not covered by GDR DMS, and also not planned. Due to the impact along 1.5km raised section DMS should be conducted to check for private land / loss of land use / impact on private trees. Consultation with access road AHs not done.	WWTP access road consultations, PIB distribution and DMS is still needed For RP update the following is needed: full DMS/SES dataset (including access road), minutes of consultations (including pictures and list of participants), RCS and Grievance committee composition and contacts at Provincial, District and Commune/Sangkat levels		+ 3 mths to NOL from ADB
Possible program delays due to issues and risks		+ 4 mths	Not including delays in previous cells in datasheet		

Net program	Additional delays summary	
Site selection		
Environment Reporting		
MoE		
Resettlement		
Procurement		
Contracting /Supervision		

Programed time for Work Package in Work Plan to contract signature	17 mths	Program End Date	
Total program delays	mths	Resulting End Date	
Possible additional			

Remarks and urgent tasks			
ADB current task		Y	yes
PMU current task		N	No
PIU current task			
PMC current task			
Delegation to Tancons	Delegation to Expert	Delegation to Design Manager	Delegation IEIA consultant

Revisions											
Rev	Date	Description	By	Check	Appr.	Rev.	Date	Description	By	Check	Appr.
0	11.10.19	Inception	MCH	PPB							
1		Qtr Report 1									
2											
3											

Table 29: PIU – Stung Saen

	Name	Office	Position
1.	Mr. Chou Kola	General Director (PDPWT)	PIU Director
2.	Mr. Srey Sophal	Deputy General Director (PDPWT)	PIU Deputy Director
3.	Mr. Yoan Ngoc	Chief Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
4.	Mrs. Khon Khanya	Officer Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
5.	Mr. Chhoun Sopheap	Chief Office of Accounting (PDPWT)	PIU Finance Officer
6.	Mr. Chouy Kosal	Deputy Governor Steung Sen Town (Provincial Hall)	PIU Town Development Planning Officer
7.	Mr. Ngoun Dalen	Officer of Steung Sen Town (Provincial Hall)	PIU Administrative Officer
8.	Mr. Soan Pisey	Chief Office of Legal Affairs (Provincial Hall)	PIU Social and Environmental Officer
9.	Mr. Keo Ratana	Chief Litigation Division (Provincial Hall)	PIU Social safeguard and Resettlement Officer

Work Schedule Plan TS-2 Steung Saen WW and SW drainage CW01 - Lot 2

Task (% completion)	2019						2020												
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
Work Schedule Plan																			
TS-2 Steung Saen Wastewater and Stormwater CW01 Lot 2																			
Version 0.0																			
13/10/2019																			
Mobilisation, preparation of surveys ToR, inception																			
Site selection after PPTA																			
Site selection by PIU/PMU (MPWT)/ MEF																			
Adapting detailed design for GDR																			
MOE site pre-approval and ADB liaison																			
Environment post PPTA																			
IEE																			
EMP																			
IEIA																			
MoE's License																			
Resettlement																			
GDR leading to Detailed Resettlement Plan																			
Due diligence and land acquisition																			
Compensation Payments																			
Engineering																			
Topographic survey																			
Geotechnical survey																			
Detailed Design																			
Bid documents																			
Procurement																			
Bidding and bid evaluation																			
ADB Bid evaluation report and No objection letter																			
Contract Documents and signature																			
Construction and supervision																			
Preconstruction activities: contract signing and mobilization																			
Construction period																			
Defects Liability Period																			
Contract close out procedures and completion report																			
Construction supervision																			

8.3 TS-2 Serei Saophaon WW and SW Drainage CW02

Work Package Datasheet TS-2 Serei Saophaon WW and SW Drainage CW02

General data		Wastewater	Stormwater drainage	
PIU	Serei Saophaon	Separate system Service area coverage: 315 ha Connections: 3,530 Pipelines: 78.2 km Sewage pump stations: 4 Drainage channels: 8.5 km WWTP: 3,500 m ³ /d capacity (2040) lagoons based	Separate system Service area coverage: 95 ha Pipelines: 8.5 km Pump stations: 2 Road upgrade none	
PIU Contact Name and Position	Mr. Chea Sovann Thoun Deputy General Director (PDPWT) PIU Director Tel: 012 220 015 Email:			
Project n°	TS-2: ADB L3684/G0591CAM			
Works Package Number	CW01			
Description	Wastewater and Stormwater			
Cost Estimate by PPTA	25.66 m\$	Full work schedule plan submitted	Version	Y

Site selection	Option selection	Engineering	PIU	PMU/MPWT - MEF	MoE
PPTA Option	Option 2	Closed	Y	Y	Y
Delay to program due to site selection problems		Not including Environment, MoE and GDR delays			

MoE Clearance Submissions	Version	Date	Remarks	Status
Sites submitted	PPTA selectin			Approved
MOE Licence following IEIA submissin		10/2020		
Programed time for MoE license		2.5 mths		
Delay to program due to MoE license		Not including Environment report delays		

Environment	TS-2-GMS4 Progress		Work Plan	Revised
PPTA progress	IEE report	Y	Mobilisation	01/2020
	EMP report	Y	Program	5 months
	IEIA	N	End date	06/2020
IEIA Consultant	Appointed	N	Completed	N
	Mobilised	01/2020	IEE	Mobilisation
	Company			5 months
Program			End date	5/2020
End date		08/2020	Completed	N
Programed time for Environment Report in Work Plan		7 mths		
Delay to program due to Environmental Reporting		Not including MoE and GDR delays		

Resettlement Safeguards	Version	Date	Remarks	Status
Update of draft RP	Mobilisation	2/2020		
Site selection status	Open			
Land type	Private			
Pre-screening	To be mobilized		Coords not yet provided to PMU	
Demarcation of land	-			
Consultations /PIB				
PMC assist to GDR data review				
Due diligence				
Land acquired				
DED submission to GDR	-			
Consultation				
Detailed Measuremt Surv (DMS)				
Social Economic Survey (SES)				
Resettlement Cost Survey (RCS)				
Detailed Resettlemt Plan (DRC)		04/2020		
Compensation Payments		09/2020		
Programed time for GDR Process		5 mths		
Delay to program due to GDR process		Not including site selection by PIU/PMU/MEF assistance PMC		

Engineering		Work Plan	Revised			Work Plan	Revised	
Geotech survey	Mobilisation	12/2019		Topo survey	Mobilisation	09/2019		
	Program		2 months		Program		1 mth	
	End date		02/2020		End date		10/2019	
	Completed		N		Completed		Y	
Remarks				Survey Report Submitted		N		
Detailed Design	Required		Y	Bidding documents	ICB			
	Mobilisation	10/2019			Preparation	Mobilisation	02/2020	N
	Program plan approval		5 + 1 mth		Program approval		1 + 1 mths	
	End date		04/2020		End date		04/2020	
Completed		N	Completed		N			
Remarks				Draft Submission		ADB		
Remarks on costs				Final Submission		PMU		
Draft Submission (ver 0.0)	PMU		N		ADB		N	
Final Submission	PMU		N		PMU		N	
Programmed time for Engineering in TS-2			5 mths	Programmed time for approvals			1 mth	
Delay to program due to Engineering				Delay to program due to approvals				

Procurement				PAM/PPTA	Revised	Status
Package / Lot	CW01		Advertisement date	Q3/2019	04/2020	
Method	International Competitive Bidding		Bid submission date			
Review (Prior / Post Sampling)	Prior		Bid evaluation report version 0			
Bidding procedure	1S1E		PMU Approval			
Estimated Value	PPTA	25.66 m\$	ADB No Objection Letter		12/2020	
	Inception Update	26.5 m\$				
			Contract Signature		03/2021	
Programmed time for Procurement in PMC			6 mths			
Delay to program due to Procurement						

Supervision		Status	Work Plan	Revised	Status
Package / Lot	CW01		Contract signature	03/2021	
Contract price		m\$	Mobilisation Date	06/2021	
Completion	0%	%	Commissioning		
Provisional sums		m\$	Performance Tests completed		
Total provisional sums to date	0%		Taking Over	06/2024	
Contingencies	10%		Defects Liability Period (12 mths)	06/2025	
Variation orders, dayworks and other uses of contingency funds to date	0%		Closure Procedure		
CAR Insurance	10%		Draft Completion Report	07/2025	
Bank guarantee (down payment)	15%		Final Completion Report	12/2025	
Defects liability period guarantee	5%				
Programmed time for Contractor in Work Plan			36 mths	Programmed time for Consultant Supervision PMC	
Delay to program due to Procurement					

Issues and Risks		Status	Issues raised	Planned Mitigation	Program Actual	Risk
Location change of WWTP	Open		<p>PIU / Governor suggests changing the location to 10km further out of town (further 4km from the identified site) to have cheaper land to purchase.</p> <p>PIU is worried about potential environmental problems of the identified site as it is located fairly close to the river.</p> <p>Surveys have been done and DED are planned to start for original site. A change of site will delay the subproject minimum one year or more due to the time MoE and GDR clearance is required.</p>	<p>MPWT confirms that site Option 2 is valid. No land change.</p> <p>Assist PMU with SWOT comparison of original option with new option</p>		+3 to +12 mths
Possible program delays due to issues and risks				Not including delays in previous cells in datasheet		

Net program		Additional delays summary	
Site selection			
Environment Reporting			
MoE			
Resettlement			
Procurement			
Contracting /Supervision			
Programed time for Work Package in Work Plan contract signature	21 mths	Program End Date	03/2021
Total program delays	mths	Resulting End Date	
Possible additional	+ 12 mths		03/2022

Remarks and urgent tasks			
ADB current task	Y		yes
PMU current task	N		No
PIU current task		GDR current task	
PMC current task		MOE current task	
Delegation to Tancons	Delegation to Expert	Delegation to Design Manager	Delegation IEIA consultant

Revisions											
Rev	Date	Description	By	Check	Appr.	Rev.	Date	Description	By	Check	Appr.
0	11.10.19	Inception	MCH	PPB							
1		Qtr Report 1									
2											
3											

Table 30: PIU – Serei Saophoan

	Name	Office	Position
1.	Mr. Chea Sovann Thoun	Deputy General Director (PDPWT)	PIU Director
2.	Mr. Orn Siphea	Chief Office of Sewage System (PDPWT)	PIU Deputy Director
3.	Mr. Venh Bun Chhouy	Chief Office of Administration (PDPWT)	PIU Technical Assistance Officer
4.	Mr. Yong Vandy	Officer Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
5.	Mrs. Chhay Vannin	Deputy Chief Office of Sewage System (PDPWT)	PIU Finance Officer
6.	Mr. Khem Pich Raksmeay	Deputy Chief Office of Town Development	PIU Town Development Planning Officer
7.	Mrs. Pov Srey Pheak	Officer Administrative Bureau (Provincial Hall)	PIU Administrative Officer
8.	Mr. Mouk Lay	Deputy Director of Administrative Bureau (Provincial Hall)	PIU Social and Environmental Officer
9.	Mr. Kun Sokun	Deputy Chief Office of Town Development and Construction (Provincial Hall)	PIU Social safeguard and Resettlement Officer

Work Schedule Plan TS-2 Serei Saophaon WW and SW Drainage CW02

Work Schedule Plan		2019												2020											
TS-2 Serei Saophaon Wastewater and Stormwater CW02																									
Version 0.0																									
13/10/2019																									
Task (% completion)		7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4		
Mobilisation, preparation of surveys ToR, inception		█	█	█																					
Site selection after PPTA		█	█	█	█	█	█																		
Site selection by PIU/PMU (MPWT)/ MEF		█	█	█	█	█	█																		
Adapting feasibility report to new site				█	█																				
MOE site pre-approval and ADB liaison																									
Environment post PPTA								█	█	█	█	█	█	█	█	█	█	█							
IEE								█	█	█	█	█	█	█	█	█	█	█							
EMP								█	█	█	█	█	█	█	█	█	█	█							
IEIA								█	█	█	█	█	█	█	█	█	█	█							
MoE's License																									
Resettlement				█	█	█	█																		
GDR leading to Detailed Resettlement Plan				█	█	█	█																		
Due diligence and land acquisition																									
Compensation Payments																									
Engineering																									
Topographic survey																									
Geotechnical survey																									
Detailed Design																									
Bid documents																									
Procurement																									
Bidding and bid evaluation																									
ADB Bid evaluation report and No objection letter																									
Contract Documents and signature																									
Construction and supervision																									
Preconstruction activities: contract signing and mob																									
Construction period																									
Defects Liability Period																									
Contract close out procedures and completion repo																									
Construction supervision																									

RAMBOLL



TANCONS
(Cambodia) Co., Ltd.

8.4 Work Package Datasheet TS-2 Battambang Landfill CW02 Lot 1.docx

Work Package Datasheet TS-2 Battambang Landfill CW02 Lot 1.docx

General data				
PIU	Battambang	Landfill Population served: Collection Capacity: Site: 20 ha utilized Capacity: 580,000 m ³ (2040) Access road upgrade: 0.5 km	Cost estimate: Part of 11.36 m\$ By PPTA not yet revised	
PIU Contact Name and Position	Mrs. Kem Skuntheary Deputy General Director (PDPWT) PIU Director Telf: 092 818 017 Email:			
Project n°	TS-2: ADB L3684/G0591CAM			
Works Package Number	CW02			
Description	Landfill			
		Full work schedule plan submitted	Version	N

Site selection	Option selection		Engineering	PIU	PMU/MPWT - MEF	MoE
PPTA Options	Option 1	N				
	Option 2 (20 ha)	Y → N	Y	Y	OK → N - price	N
	Option 3	N				
Post PPTA Options						
Date	Oct 2019	Option 4	Open	Poor	Proposer	OK
Delay to program due to site selection problems		+2 mths	Not including Environment, MoE and GDR delays			

MoE Clearance Submissions	Version	Date	Remarks	Status
Site Option 2 submission	Draft V0.0		Too close to a river	Refused
Post PPTA site option 4			Request to MOE not made yet	
Programed time for MoE clearance in Work Plan		2.5 mths		
Delay to program due to MoE clearance		+3 mths	Not including Environment report delays	

Environment	TS-2-CTDP-4 Progress			Work Plan	Revised
PPTA progress	IEE report	Y	EMP Update Program	Mobilisation	07/2020
	EMP report	Y		4 months	
	MoE clearance	N		End date	11/2020
				Completed	N
IEIA Consultant	Appointed	N	IEE Update	Mobilisation	07/2020
	Mobilised	N		2 months	
Company	7 months		End date	09/2020	
End date			Completed	N	
Programed time for Environment Report in PMC offer		7 mths			
Delay to program due to Environmental Reporting			Not including MoE and GDR delays		

Resettlement Safeguards	Version	Date	Remarks	Status
Site Option 2 submission	Draft V0.0	2018	None	Rejected by MoE
Site Option 4 submission	Under preparation	10/19	None	Under preparation
Site selection status	Open			
Land type	Private			
Pre-screening	To be mobilized	10/2019	Coords not yet provided to PMU for option 4	Option 2 done Option 4 open
Demarcation of land	-			
Consultations /PIB				
PMC assist to GDR data review			Expert mobilized	
Due diligence				
Land acquired				
DED submission to GDR	-			
Consultation				
Detailed Measuremt Surv (DMS)				
Social Economic Survey (SES)				
Resettlement Cost Survey (RCS)				
Detailed Resettlemnt Plan (DRC)		10/2020		
Compensation Payments		06/2021		

Programmed time for GDR Process	5 mths	
Delay to program due to GDR process		Not including site selection by PIU/PMU/MEF assistance PMC

Engineering	Work Plan	Revised	Work Plan	Revised
Geotech survey	Mobilisation	04/2020		
	Program	2 months		
	End date	06/2020		
	Completed	N		
Remarks	On hold due to land selection change			
Detailed Design	Required	Y		
	Mobilisation	04/2020		
	Program Approval	5 +1 mth		
	End date	10/2020		
	Completed	N		
Remarks	Waiting for surveys			
Remarks on costs				
Draft Submission (ver 0.0)	PMU	N		
Final Submission	PMU	N		
Programmed time for Engineering in Work Plan	5 mths			
Delay to program due to Engineering	0 mths			
Topo survey	Mobilisation	03/2020		
	Program	1 mths		
	End date	04/2020		
	Completed	N		
Remarks	On hold due to land selection change			
Bidding documents	ICB			
	Mobilisation	05/2020		
	Program Approval	1 +1 mths		
	End date	07/2020		
	Completed	N		
Draft Submission	ADB	N		
Final Submission	ADB	N		
	PMU	N		
Programmed time for approvals				1 mth
Delay to program due to approvals				

Procurement	Work Plan	Revised	Status
Package / Lot	CW02	Lot 1	Advertisement date
Method	International Competitive Bidding		Bid submission date
Review (Prior / Post Sampling)	Prior		Bid evaluation report version 0
Bidding procedure	1S1E		PMU Approval
Estimated Value		25.66 m\$	ADB No Objection Letter
			Contract Signature
Programmed time for Procurement in PMC	9 mths		
Delay to program due to Procurement			

Contracting and Supervision	Work Plan	Revised	Status
Package / Lot	SWM-CW	Lot 1	Contract signature
Contract price (excluding PS)		m\$	Mobilisation Date
Completion	0%	%	Commissioning
Provisional sums		m\$	Performance Tests completed
Total provisional sums to date	0%		Taking Over
Contingencies	10%		Defects Liability Period (6 mths)
Variation orders, dayworks and other uses of contingency funds to date	0%		Closure Procedure
CAR Insurance		10%	Draft Completion Report
Bank guarantee (down payment)		10%	Final Completion Report
Defects liability period guarantee		5%	
Programmed time for Contractor PMC	15 mths		Programmed time for Consultant Supervision
Delay to program due to Procurement			15 mths

Issues and Risks	Status	Issues raised	Planned Mitigation	Program Actual	Risk
PIU issues with landfill site	Open	New landfill site has been initially pre-selected, but coordinates are not shared by PIU as the site selection is sensitive and PIU does not want the price to increase	PMC to assist PMU at appropriate time		+5 mths (already included above)
Possible program delays due to issues and risks			Not including delays in previous cells in datasheet		

Net program	Additional delays summary
Site selection	2 mths
Environment Reporting	
MoE	3 mths

Resettlement			
Procurement			
Contracting /Supervision			
Programed time for Work Package at PMC mobilization until start of construction	19 mths	Program End Date	01/2021
Total program delays	24 mths	Resulting End Date	06/2021
Possible additional			

Remarks and urgent tasks			
ADB current task	Y		yes
PMU current task	N		No
PIU current task		GDR current task	
PMC current task		MOE current task	
Delegation to Tancons	Delegation to Expert	Delegation to Design Manager	Delegation IEIA consultant

Revisions											
Rev	Date	Description	By	Check	Appr.	Rev.	Date	Description	By	Check	Appr.
0	11.10.19	Inception	MCH	PPB							
1		Qtr Report 1									
2											
3											

Table 31: PIU – Battambang

	Name	Office	Position
1.	Mrs. Sokuntheary Kem	Deputy General Director (PDPWT)	PIU Director
2.	Mrs. Horm Sina	Chief Office of Technical (PDPWT)	PIU Deputy Director
3.	Mr. San Sereysith	Chief Office of Public Works (PDPWT)	PIU Technical Assistance Officer
4.	Mr. Dem Kimny	Deputy Chief Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
5.	Mr. Run Sophoan	Officer Office of Sewage System (PDPWT)	PIU Finance Officer
6.	Mr. Lim Y Meng	Officer Office of Development Management (Provincial Hall)	PIU Town Development Planning Officer
7.	Mr. Rith Sotheavy	Deputy Chief Office of Information (Provincial Hall)	PIU Administrative Officer
8.	Mrs. Kao Chhoun Nara	Deputy Chief Office of Economic and Social (Provincial Hall)	PIU Social and Environmental Officer
9.	Mr. Nou Chamroeun	Deputy Director Administration Bureau (Provincial Hall)	PIU Social safeguard and Resettlement Officer

Work Schedule Plan TS-2 Battambang Landfill CW02 Lot 1.docx

Work Schedule Plan																												
TS-2 Battambang CW02 Lot 1																												
Version 0.0																												
13/10/2019																												
Task (% completion)	2019												2020												2021			
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7			
Mobilisation, preparation of surveys ToR, inception	█	█	█																									
Site selection after PPTA	█	█	█	█	█	█																						
Site selection by PIU/PMU (MPWT)/ MEF	█	█	█	█	█	█																						
Adapting feasibility report to new site																												
MOE site pre-approval and ADB liaison																												
Environment post PPTA																												
IEE																												
EMP																												
IEIA																												
MoE's License																												
Resettlement																												
GDR leading to Detailed Resettlement Plan																												
Due diligence and land acquisition																												
Compensation Payments																												
Engineering																												
Topographic survey																												
Geotechnical survey																												
Detailed Design																												
Bid documents																												
Procurement																												
Bidding and bid evaluation																												
ADB Bid evaluation report and No objection letter																												
Contract Documents and signature																												
Construction and supervision																												
Preconstruction activities: contract signing and mob																												
Construction period																												
Defects Liability Period																												
Contract close out procedures and completion rep																												
Construction supervision																												

8.5 TS-2 Serei Saophan Landfill Package CW02 Lot 2

Work Package Datasheet TS-2 Serei Saophan Landfill Package CW02 Lot 2

General data			
PIU	Serei Saophan	Landfill Population served: Collection Capacity: Site: 11 ha Capacity: 130,000 m ³ (start-up), 770,000 m ³ (2040) Access road upgrade: 1.6 km	Cost estimate: Part of 11.36 m\$ By PPTA not yet revised
PIU Contact Name and Position	Mr. Chea Sovann Thoun Deputy General Director (PDPWT) PIU Director Tel: 012 220 015 Email:		
Project n°	TS-2: ADB L3684/G0591CAM		
Works Package Number	CW02		
Description	Solid Waste management		
		Full work schedule plan submitted	Version
			N

Site selection	Option selection		Engineering	PIU	PMU - MEF	MoE
PPTA Options	Option selected	Y	Y	Y	Y	Y
Post PPTA Options	N / A					
Delay to program due to site selection problems			Not including Environment, MoE and GDR delays			

MoE Clearance Submissions	Version	Date	Remarks	Status
Site Option submission				Pre-approval by MoE
Programed time for MoE clearance		2 mths		
Delay to program due to MoE clearance			Not including Environment report delays	

Environment	TS-2-GMS4 Progress			World Plan	Revised
PPTA progress	IEE report	Y	EMP Update	Mobilisation	03/2020
	EMP report	Y	Program	4 months	
	IEIA	N		End date	07/2020
				Completed	N
IEIA Consultant	Appointed	N			
	Mobilised	N	IEE	Mobilisation	03/2020
Company				2 months	
Program	7 months			End date	05/2020
End date	Completed	Y		Completed	N
Programed time for Environment Report in PMC offer		7 mths	Programmed time for approval of reports		1 mth
Delay to program due to Environmental Reporting			Not including MoE and GDR delays		

Resettlement Safeguards	Version	Date	Remarks	Status
PPTA selected site	Confirmed			Pre-approval by MoE
Land type	Private			
Pre-screening		10/2019		Completed
Demarcation of land				Urgent
Consultations /PIB				
PMC assist to GDR data review			Expert mobilized	
Due diligence				
Land acquired			Pre-agreement for negotiated purchase	
DED submission to GDR	-			
Consultation				
Detailed Measuremt Surv (DMS)				
Social Economic Survey (SES)				
Resettlement Cost Survey (RCS)				
Detailed Resettlmt Plan (DRC)		06/2020		
Compensation Payments		02/2021		
Programed time for GDR Process in Work Plan		5 mths		
Delay to program due to GDR process			Not including site selection by PIU/PMU/MEF assistance PMC	

Engineering		World Plan	Revised		World Plan	Revised
Geotech survey	Mobilisation	12/2019		Topo survey	Mobilisation	09/2019

	Program	2 months		Program	1 mths
	End date	02/2020		End date	10/2019
	Completed	N		Completed	Y
Remarks			Remarks	Survey Report Submitted	N
Detailed Design	Required	Y	Bidding documents	ICB	
	Mobilisation	12/2020	Preparation	Mobilisation	04/2020
	Program Approval	5 +1 mth		Program Approval	1 +1 mths
	End date	06/2020		End date	06/2020
	Completed	N		Completed	N
Remarks			Draft Submission	ADB	N
Remarks on costs				PMU	N
Draft Submission (ver 0.0)	PMU	N	Final Submission	ADB	N
Final Submission	PMU	N		PMU	N
Programmed time for Engineering by PMC		6 mths	Programmed time for approvals		1 mth
Delay to program due to Engineering			Delay to program due to approvals		

Procurement				PAM/PPTA	Revised	Status
Package / Lot	CW02	Lot 2	Advertisement date	Q1/2020	02/2020	
Method	International Competitive Bidding		Bid submission date			
Review (Prior / Post Sampling)	Prior		Bid evaluation report version 0			
Bidding procedure	1S1E		PMU Approval			
Estimated Value	Part of	11.24 m\$	ADB No Objection Letter			
			Contract Signature			
Programmed time for Procurement in PMC		9 mths				
Delay to program due to Procurement						

Contracting and Supervision				Work Plan	Revised	Status
Package / Lot	SWM-CW	Lot 2	Contract signature	02/2021		
Contract price (excluding PS)		m\$	Mobilisation Date	06/2021		
Completion	0%	%	Commissioning			
Provisional sums		m\$	Performance Tests completed			
Total provisional sums to date	0%		Taking Over	08/2022		
Contingencies	10%		Defects Liability Period (6 mths)	01/2023		
Variation orders, dayworks and other uses of contingency funds to date	0%		Closure Procedure			
CAR Insurance	10%		Draft Completion Report	02/2023		
Bank guarantee (down payment)	10%		Final Completion Report	05/2023		
Defects liability period guarantee	5%					
Programmed time for Contractor PMC		15 mths	Programmed time for Consultant Supervision			15 mths
Delay to program due to Procurement						

Issues and Risks	Status	Issues raised	Planned Mitigation	Program Actual	Risk
Closure of landfill site	Open	Waste pickers resettlement Existing landfill site on public land. Clean up – who by?	Waste pickers allowed to continue working on new site in some role. Waste pickers, including children, to be included in IRP Tender documents to include clean up of existing site		
Possible program delays due to issues and risks			Not including delays in previous cells in datasheet		

Net program	Additional delays summary				
Site selection					
Environment Reporting					
MoE					
Resettlement					
Procurement					
Contracting /Supervision					

Programed time for Work Package at PMC mobilization until start of construction	20 mths	Program End Date	02/2021
Total program delays	0 mths	Resulting End Date	02/2021
Possible additional	0 mths		02/2021

Remarks and urgent tasks			
ADB current task		Y	yes
PMU current task		N	No
PIU current task		GDR current task	
PMC current task		MOE current task	
Delegation to Tancons	Delegation to Expert	Delegation to Design Manager	Delegation IEIA consultant

Revisions												
Rev	Date	Description	By	Check	Appr.	Rev.	Date	Description	By	Check	Appr.	
0	11.10.19	Inception	MCH	PPB								
1		Qtr Report 1										
2												
3												

Table 32: PIU – Serei Saophaon

	Name	Office	Position
1.	Mr. Chea Sovann Thoun	Deputy General Director (PDPWT)	PIU Director
2.	Mr. Orn Siphea	Chief Office of Sewage System (PDPWT)	PIU Deputy Director
3.	Mr. Venh Bun Chhouy	Chief Office of Administration (PDPWT)	PIU Technical Assistance Officer
4.	Mr. Yong Vandy	Officer Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
5.	Mrs. Chhay Vannin	Deputy Chief Office of Sewage System (PDPWT)	PIU Finance Officer
6.	Mr. Khem Pich Raksmeay	Deputy Chief Office of Town Development	PIU Town Development Planning Officer
7.	Mrs. Pov Srey Pheak	Officer Administrative Bureau (Provincial Hall)	PIU Administrative Officer
8.	Mr. Mouk Lay	Deputy Director of Administrative Bureau (Provincial Hall)	PIU Social and Environmental Officer
9.	Mr. Kun Sokun	Deputy Chief Office of Town Development and Construction (Provincial Hall)	PIU Social safeguard and Resettlement Officer

8.6 TS-2 Steung Saen Landfill Package CW02 Lot 3

Work Package Datasheet TS-2 Steung Saen Landfill Package CW02 Lot 3

General data				
PIU	Steung Saen	Landfill Population served: Collection Capacity: Site: 5 ha utilized of a 20 ha site Capacity: 48,000 m ³ (start-up), 380,000 m ³ (2040) Access road upgrade: 0.5 km	Cost estimate: Part of 11.36 m\$ By PPTA not yet revised	
PIU Contact Name and Position	Mr. Chou Kolla General Director (PDPWT) PIU Director Tel: 012 971 317 Email:			
Project n°	TS-2: ADB L3684/G0591CAM			
Works Package Number	CW02			
Description	Landfill	Full work schedule plan submitted	Version	N

Site selection	Option selection		Engineering	PIU	PMU - MEF	MoE
PPTA Options	Option selected	Y	Y	Y	Y	Y
Post PPTA Options	N/A					
Delay to program due to site selection problems			Not including Environment, MoE and GDR delays			

MoE Clearance Submissions	Version	Date	Remarks	Status
PPTA Site Option submission	Site selected			Pre-approval
Programmed time for MoE pre-approval		1 mths	For update	
Programmed time for MoE license from reception IEIA		2.5 mths		
Delay to program due to MoE clearance			Not including Environment report delays	

Environment	TS-2-GMS4 Progress			Work Plan	Revised
PPTA progress	IEE report	Y	EMP Update Program	Mobilisation	03/2020
	EMP report	Y		4 months	
	IEIA	N		End date	07/2020
			Completed	N	
IEIA Consultant	Appointed	N	IEE	Mobilisation	03/2020
	Mobilised	N		2 months	
Company			End date	05/2020	
Program	7 months		Completed	N	
End date	Completed	N			
Programmed time for Environment Report in Work Plan		7 mths			
Delay to program due to Environmental Reporting			Not including MoE and GDR delays		

Resettlement Safeguards	Version	Date	Remarks	Status
PPTA selected site	Confirmed			Pre-approval by MoE
Land type	Private			
Pre-screening		10/2019		Completed
Demarcation of land	-			Urgent
Consultations /PIB				
PMC assist to GDR data review			Expert mobilized	
Due diligence				
Land acquired			Pre-agreement for negotiated purchase	
DED submission to GDR	-			
Consultation				
Detailed Measurement Surv (DMS)				
Social Economic Survey (SES)				
Resettlement Cost Survey (RCS)				
Detailed Resettlement Plan (DRC)		06/2020		
Compensation Payments		03/2021	Waits for MOE approval	
Programmed time for GDR Process in T ² G ⁴		5 mths		
Delay to program due to GDR process			Not including site selection by PIU/PMU/MEF assistance PMC	

Engineering	Work Plan	Revised	Work Plan	Revised

Geotech survey	Mobilisation	12/2019		Topo survey	Mobilisation	11/2019	
	Program		2 mths		Program		1 mths
	End date		02/2020		End date		12/2019
	Completed		N		Completed		N
Remarks				Remarks			
Detailed Design	Required		Y	Bidding documents	ICB		
	Mobilisation	12/2019		Preparation	Mobilisation	05/2020	
	Program Approval		5+ 1 mths		Program Approval		1+ 1 mths
	End date		05/2020		End date		06/2020
	Completed		N		Completed		N
Remarks				Draft Submission	ADB		N
Remarks on costs					PMU		N
Draft Submission (ver 0.0)	PMU		N	Final Submission	ADB		N
Final Submission	PMU		N		PMU		N
Programmed time for Engineering in Work Plan	6 mths			Programmed time for approvals	1 mth		
Delay to program due to Engineering				Delay to program due to approvals			

Procurement				PAM/PPTA	Revised	Status
Package / Lot	CW02	Lot 3	Advertisement date	Q1/2020	06/02020	
Method	International Competitive Bidding		Bid submission date			
Review (Prior / Post Sampling)	Prior		Bid evaluation report version 0			
Bidding procedure	1S1E		PMU Approval			
Estimated Value	Part of	11.24 m\$	ADB No Objection Letter			
			Contract Signature		03/2021	
Programmed time for Procurement in PMC	9 mths					
Delay to program due to Procurement						

Contracting and Supervision				PMC mob	Revised	Status
Package / Lot	SWM-CW	Lot 3	Contract signature	03/2021		
Contract price (excluding PS)		m\$	Mobilisation Date	07/2021		
Completion	0%	%	Commissioning			
Provisional sums		m\$	Performance Tests completed			
Total provisional sums to date	0%		Taking Over	09/2022		
Contingencies	10%		Defects Liability Period (6 mths)	02/2023		
Variation orders, dayworks and other uses of contingency funds to date	0%		Closure Procedure			
CAR Insurance		10%	Draft Completion Report	03/2023		
Bank guarantee (down payment)		10%	Final Completion Report	06/2023		
Defects liability period guarantee		10%	5%			
Programmed time for Contractor PMC	15 mths			Programmed time for Consultant Supervision	15 mths	
Delay to program due to Procurement						

Issues and Risks				Program Actual	Risk
Item	Status	Issues raised	Planned Mitigation		
Possible program delays due to issues and risks		0	Not including delays in previous cells in datasheet		

Net program	Additional delays summary		
Site selection			
Environment Reporting			
MoE			
Resettlement			
Procurement			
Contracting /Supervision			
Programmed time for Work Package at PMC mobilization until start of construction	21 mths	Program End Date	03/2021
Total program delays	0 mths	Resulting End Date	03/2021
Possible additional	0 mths		03/2021

Remarks and urgent tasks			
ADB current task	Y		yes
PMU current task	N		No
PIU current task		GDR current task	
PMC current task		MOE current task	
Delegation to Tancons	Delegation to Expert	Delegation to Design Manager	Delegation IEIA consultant

Revisions											
Rev	Date	Description	By	Check	Appr.	Rev.	Date	Description	By	Check	Appr.
0	11.10.19	Inception	MCH	PPB							
1		Qtr Report 1									
2											
3											

Table 33: PIU – Stung Saen

	Name	Office	Position
1.	Mr. Chou Kola	General Director (PDPWT)	PIU Director
2.	Mr. Srey Sophal	Deputy General Director (PDPWT)	PIU Deputy Director
3.	Mr. Yoan Ngoc	Chief Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
4.	Mrs. Khon Khanya	Officer Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
5.	Mr. Chhoun Sopheap	Chief Office of Accounting (PDPWT)	PIU Finance Officer
6.	Mr. Chouy Kosal	Deputy Governor Steung Sen Town (Provincial Hall)	PIU Town Development Planning Officer
7.	Mr. Ngoun Dalen	Officer of Steung Sen Town (Provincial Hall)	PIU Administrative Officer
8.	Mr. Soan Pisey	Chief Office of Legal Affairs (Provincial Hall)	PIU Social and Environmental Officer
9.	Mr. Keo Ratana	Chief Litigation Division (Provincial Hall)	PIU Social safeguard and Resettlement Officer

Work Schedule Plan TS-2 Steung Saen Landfill Package CW02 Lot 3

Work Schedule		2019												2020											
TS-2 Steung Saen CW02 Lot 3																									
Version 0.0																									
13/10/2019																									
Task (% completion)		7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4		
Mobilisation, preparation of surveys ToR, inception		█	█	█																					
Site selection after PPTA																									
Site selection by PIU/PMU (MPWT)/ MEF																									
Adapting feasibility report to new site																									
MOE site pre-approval and ADB liaison																									
Environment post PPTA																									
IEE																									
EMP																									
IEIA																									
MoE's License																									
Resettlement				█	█																				
GDR leading to Detailed Resettlement Plan				█	█																				
Due diligence and land acquisition																									
Compensation Payments																									
Engineering																									
Topographic survey																									
Geotechnical survey																									
Detailed Design																									
Bid documents																									
Procurement																									
Bidding and bid evaluation																									
ADB Bid evaluation report and No objection letter																									
Contract Documents and signature																									
Construction and supervision																									
Preconstruction activities: contract signing and mob																									
Construction period																									
Defects Liability Period																									
Contract close out procedures and completion repo																									
Construction supervision																									

8.7 TS-2 Three Towns Landfill Equipment Package G01

Work Package Datasheet TS-2 Three Towns Landfill Equipment Package G01

General data			
PIU	Battambang Serei Saophaon Steung Saen		
Project n°	TS-2: ADB L3684/G0591CAM		
Works Package Number	CG01	Description	Landfill Equipment

Engineering	Work Plan	Revised	Work Plan	Revised
Detailed Design	Required Equipment list and specifications	Y	Bidding documents	ICB
	Mobilisation 06/2020		Mobilisation	07/2020
	Program	1 months	Program	1 mth
	End date	07/2020	End date	08/2020
	Completed	N	Completed	N
Remarks on costs			Draft Submission	ADB PMU N N
Draft Submission (ver 0.0)	PMU	N	Final Submission	ADB PMU N N
Final Submission	PMU	N		
Programmed time for Engineering		2 mths	Programmed time for approvals	1 mth
Delay to program due to Engineering			Delay to program due to approvals	
Engineering	Completed			

Procurement	PAM/PPTA	Revised	Status
Package / Lot	G01		
Method	International Competitive Bidding	Advertisement date	Q1/2020
Review (Prior / Post Sampling)	Prior	Bid submission date	09/2020
Bidding procedure	1S1E	Bid evaluation report version 0	
Estimated Value	Part of	PMU Approval	
	2.37 m\$	ADB No Objection Letter	
		Contract Signature	05/2021
Programmed time for Procurement			
Delay to program due to Procurement		6 mths	

Supervision	Work Plan	Revised	Status
Package / Lot	G01	Contract signature	09/2020
Contract price	m\$	Mobilisation Date	
Provisional sums		Factory Acceptance Tests	
Bank guarantee (down payment)		Delivery to Site	
		Equipment guarantee period	
Programmed time for Contractor PMC			
Delay to program due to Procurement		6 mths	Programmed time for Consultant Supervision

Issues and Risks	Status	Issues raised	Planned Mitigation	Program Actual	Risk
Timing of equipment delivery		Equipment arrives too early and de-grades in storage	Adjust advertisement date once the delays to the landfill sites are known better		
Possible program delays due to issues and risks			Not including delays in previous cells in datasheet		

Net program	Additional delays summary		
Engineering			
Procurement			
Contracting /Supervision			
Programmed time for Work Package at PMC mobilization until contract signature	23 mths	Program End Date	10/2020
Total program delays	0 mths	Resulting End Date	
Possible additional			

Remarks and urgent tasks			
ADB current task		Y	yes
PMU current task		N	No
PIU current task		GDR current task	
PMC current task		MOE current task	
Delegation to Tancons	Delegation to Expert	Delegation to Design Manager	Delegation IEIA consultant

Revisions											
Rev	Date	Description	By	Check	Appr.	Rev.	Date	Description	By	Check	Appr.
0	11.10.19	Inception	MCH	PPB							
1		Qtr Report 1									
2											
3											

Work Schedule Plan TS-2 Three Towns Landfill Equipment Package G01

Work Schedule Plan																										
TS-2 Three Towns Landfill Equipment G01																										
Version 0.0																										
13/10/2019																										
Task (% completion)	2019						2020												20							
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6		
Mobilisation, preparation of surveys ToR, inception																										
Engineering																										
Specification																										
Bid documents																										
Procurement																										
Bidding and bid evaluation																										
ADB Bid evaluation report and No objection letter																										
Contract Documents and signature																										
Delivery and supervision																										
Preconstruction activities: contract signing and mob																										
Delivery period																										
Guarantee period																										
Contract close out procedures and completion repo																										
Supervision																										

8.8 GMS4 Kampong Cham Wastewater Package WW-CW Lot 1

Work Package Datasheet GMS4 Kampong Cham Wastewater Package WW-CW Lot 1

General data			
PIU	Kampong Cham	Wastewater	Stormwater drainage
PIU Contact Name and Position	Mr. Sok Srun General Director (PDPWT) PIU Director Telf: 017 457 777 Email:	Separate sewer system Service area coverage: XXX ha Connections: 4,676 Pipelines: 137 km Sewage pump stations: 4	Separate system Service area coverage: xxx ha Drainage channels: 4.3 km Drainage pump stations: 1 Road upgrade none
Project n°	CTDP-4 ADB L3686/G0592/G0593 CAM	WWTP: 5,050 m3/d capacity (2040) la- goon based	
Works Package Number	WW-CW		
Description	Wastewater and stormwater		
Cost Estimate by PPTA	15.76 m\$	Full work schedule plan submitted	Version Y

Site selection	Option selection		Engineering	PIU	PMU - MEF	MoE
PPTA Options	Option 1 WWTP	Open	Topo survey un- derway	To review	To review	N
	Option 2 WWTP	Open	Topo survey un- derway	To review	To review	N
Post PPTA Options	N / A					
Delay to program due to site selection problems			Not including Environment, MoE and GDR delays			

MoE Clearance Submissions	Version	Date	Remarks	Status
Site Option submission	None	11/2019	Pre-approval for option decision	
MoE License		12/2020	From IEIA submission	
Programed time for MoE pre-approval		1 mths		
Programmed time for MoE license from reception IEIA		2.5 mths		
Delay to program due to MoE clearance			Not including Environment report delays	

Environment	TS-2-GMS4 Progress			Work Plan	Revised
PPTA progress	IEE report	Y	EMP	Mobilisation 03/2020	
	EMP report	Y	Program	4 months	
	IEIA	N		End date	07/2020
				Completed	N
IEIA Consultant	Appointed	N			
	Mobilised	03/2020	IEE	Mobilisation 03/2020	
	Company			4 months	
Program	7 months			End date	07/2020
End date		09/2020		Completed	N
Programed time for Environment Report in PMC offer		7 mths	Programmed time for approval of reports		1 mth
Delay to program due to Environmental Reporting			Not including MoE and GDR delays		

Resettlement Safeguards	Version	Date	Remarks	Status
PPTA selected site	Still open		Both sites are in flood areas. Best site for flood protection to be selected.	Open
Land type	State owned		Land for both stormwater drainage pump stations has been reserved as have the 2 WWTP sites	
Pre-screening	Yes	08/2019		
Demarcation of land		Y	Both sites demarcated Pump station sites??	To be reviewed
Consultations /PIB		N/A		
PMC assist to GDR data review		N/A		
Due Diligence				
Land acquired		06/2020		
DED submission to GDR	-	N/A		
Consultation		N/A		
Detailed Measuremt Surv (DMS)		N/A		
Social Economic Survey (SES)		N/A		

Resettlement Cost Survey (RCS)		N/A		
Detailed Resettlement Plan (DRP)		N/A		
Compensation Payments		09/2020		
Programmed time for GDR Process in PMC		6 mths		
Delay to program due to GDR process			Not including site selection by PIU/PMU/MEF assistance PMC	

Engineering		Work Plan	Revised			Work Plan	Revised
Geotech survey	Mobilisation	12/2019		Topo survey	Mobilisation	10/2019	
	Program		2 months		Program		2 mth
	End date		1/2020		End date		12/2019
	Completed		N		Completed		N
Remarks	Waiting for end of wet season			Remarks	Both sites surveyed		
Detailed Design	Required		Y	Bidding documents	ICB		
	Mobilisation	12/2019			Mobilisation	03/2020	
	Program plan approval		5 + 1 mth		Program approval		1 + 1 mths
	End date		06/2020		End date		05/2020
	Completed		N		Completed		N
Remarks	Waiting for surveys			Draft Submission	ADB		N
Remarks on costs				Final Submission	PMU		N
Draft Submission (ver 0.0)	PMU		N		ADB		N
Final Submission	PMU		N		PMU		N
Programmed time for Engineering by PMC			5 mths	Programmed time for approvals			1 mth
Delay to program due to Engineering				Delay to program due to approvals			

Procurement				PMC mob	Revised	Status
Package / Lot	WW-CW	Lot 1	Advertisement date	Q3/2019	06/2020	
Method	International Competitive Bidding		Bid submission date		09/2020	
Review (Prior / Post Sampling)	Prior		Bid evaluation report version 0			
Bidding procedure	1S1E		PMU Approval			
Estimated Value	PPTA estimate	15.76 m\$	ADB No Objection Letter		02/2021	
	Inception update	25.6 m\$				
Bid as 3 lots subject to land acquisition timing			Contract Signature		05/2021	
Programmed time for Procurement in PMC		1 mths	Programmed time for PMU and ADB review for NOL			1 mth
Delay to program due to Procurement						

Supervision			Status	Work Plan	Revised	Status
Package / Lot	WW-CW	Lot 1	Contract signature	05/2021		
Contract price (excluding PS)		m\$	Mobilisation Date	08/2021		
Completion	0%	%	Commissioning			
Provisional sums		m\$	Performance Tests completed			
Total provisional sums to date	0%		Taking Over	08/2024		
Contingencies	10%		Defects Liability Period (12 mths)	08/2025		
Variation orders, dayworks and other uses of contingency funds to date	0%		Closure Procedure			
CAR Insurance	10%		Draft Completion Report	09/2025		
Bank guarantee (down payment)	10%		Final Completion Report	01/2025		
Defects liability period guarantee	5%					
Programmed time for Contractor T ² G4		36 mths	Programmed time for Consultant Supervision			56 mths
Delay to program due to Procurement						

Issues and Risks	Status	Issues raised	Planned Mitigation	Program Actual	Risk
Selection of site between two PPTA options	Open	Two WWTPs site locations are under consideration. Which will need the least backfilling and flood protection?	Both sites are being surveyed (topo) to provide data for decision about flood protection. Comparative geotech data is a nice to have as it may significantly influence cost but both sites are flooded at present. Decision needs to be made whether to wait for geotech or not.		

Combined → separate sewer systems	Open	The Beneficiary wishes to have separate sewer systems. A Concept note to make the change has been prepared. PMC needs PMU approval of the note before starting DED.	Provide support to PMU to decision making process	Aim for Decision by 11/2019	+ 3 mth
Update of cost estimate	Open	Large increase (10 m\$) due to Separate Sewer Systems	PMC to inform PMU to inform ADB		
Possible program delays due to issues and risks			+ 3 mths	Not including delays in previous cells in datasheet	

Net program		Additional delays summary	
Site selection			
Environment Reporting			
MoE			
Resettlement			
Engineering			
Procurement			
Contracting /Supervision			
Programed time for Work Package in Work Plan until contract signature	23 mths	Program End Date	05/2021
Total program delays	mths	Resulting End Date	
Possible additional due to risks	+ 3 mths		08/2021

Remarks and urgent tasks			
ADB current task	Y		yes
PMU current task	N		No
PIU current task		GDR current task	
PMC current task		MOE current task	
Delegation to Tancons	Delegation to Expert	Delegation to Design Manager	Delegation IEIA consultant

Revisions											
Rev	Date	Description	By	Check	Appr.	Rev.	Date	Description	By	Check	Appr.
0	11.10.19	Inception	MCH	PPB							
1		Qtr Report 1									
2											
3											

Table 34: PIU – Kampong Cham

	Name	Office	Position
1.	Mr. Sok Srun	General Director (PDPWT)	PIU Director
2.	Mr. Chan Somardy	Deputy General Director (PDPWT)	PIU Deputy Director
3.	Mr. Nil Bunly	Chief Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
4.	Mr. Sean Khemara	Chief Office of Project Support in Town (PDPWT)	PIU Technical Assistance Officer
5.	Ms. Heng Teav	Chief Office of Planning & Finance (PDPWT)	PIU Finance Officer
6.	Mr. Hean Lina	Deputy Governor (Provincial Hall)	PIU Town Development Planning Officer
7.	Mr. Va Chan Ou	Chief Office of General Affairs (Provincial Hall)	PIU Administrative Officer
8.	Mr. Norn Phirun	Deputy Chief Office of Legal Affairs (Provincial Hall)	PIU Social and Environmental Officer
9.	Mr. Khim Sovanney	Deputy Chief Office of Development Management (Provincial Hall)	PIU Social safeguard and Resettlement Officer

Work Schedule Plan GMS4 Kampong Cham Wastewater Package WW-CW Lot 1

Work Schedule Plan																								
GMS4 Kampong Cham WW-CW Lot 1																								
Version 0.0																								
13/10/2019																								
Task (% completion)	2019						2020												20					
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
Mobilisation, preparation of surveys ToR, inception	█	█	█																					
Site selection after PPTA	█	█	█	█	█	█																		
Site selection by PIU/PMU (MPWT)/ MEF	█	█	█	█	█	█																		
Adapting feasibility report to new site				█																				
MOE site pre-approval and ADB liaison					█	█																		
Environment post PPTA										█	█	█	█	█	█	█	█	█						
IEE										█	█	█	█	█	█	█	█							
EMP										█	█	█	█	█	█	█	█							
IEIA										█	█	█	█	█	█	█	█							
MoE's License																█	█	█						
Resettlement			█	█	█	█				█	█	█	█	█	█	█	█							
GDR leading to Detailed Resettlement Plan			█	█	█	█				█	█	█	█	█	█	█	█							
Due diligence and land acquisition											█	█	█	█	█	█	█							
Compensation Payments																█	█	█						
Engineering										█	█	█	█	█	█	█	█							
Topographic survey										█	█	█	█	█	█	█	█							
Geotechnical survey										█	█	█	█	█	█	█	█							
Detailed Design										█	█	█	█	█	█	█	█							
Bid documents																								
Procurement																█	█	█						
Bidding and bid evaluation																█	█	█						
ADB Bid evaluation report and No objection letter																█	█	█						
Contract Documents and signature																								
Construction and supervision																								
Preconstruction activities: contract signing and mob																								
Construction period																								
Defects Liability Period																								
Contract close out procedures and completion repo																								
Construction supervision																								

8.9 GMS4 Kratie Wastewater Package WW-CW Lot 2

Work Package Datasheet GMS4 Kratie Wastewater Package WW-CW Lot 2

General data			
PIU	Kratie	Wastewater	Stormwater drainage
PIU Contact Name and Position	Mr. Sang Bun Then General Director (PDPWT) PIU Director Telf: 097 666 3196 Email:	Separate sewer system Service area coverage: XXX ha Connections: 2,688 Pipelines: 143 km Sewage pump stations: 2	Separate system Service area coverage: XXX ha Pipelines: 12 km Pump stations: 1-2 Road upgrade none
Project n°	CTDT4 ADB L3686/G0592/G0593 CAM	WWTP: 4,900 m3/d capacity (2040) lagoon based	
Works Package Number	Kratie	Road upgrade: 1.1 km	
Description	Wastewater and drainage		
Cost Estimate by PPTA	17.08 m\$	Full work schedule plan submitted	Version N

Site selection	Option selection		Engineering	PIU	PMU/MPWT - MEF	MoE
PPTA Options	Site selected	Closed	Topo survey un- derway	Y	Y	TBC
Post PPTA Options	N / A					
Delay to program due to site selection problems			Not including Environment, MoE and GDR delays			

MoE Clearance Submissions	Version	Date	Remarks	Status
Site Option submission	None			
Programed time for MoE clearance		2 mths		
Delay to program due to MoE clearance		+4 mths	Not including Environment report delays	

Environment	TS-2-GMS4 Progress			Work Plan	Revised
PPTA progress	EMP report	N	EMP	Mobilisation	02/2020
	MoE clearance	N	Program	4 months	
	IEIA	N		End date	05/2020
				Completed	N
IEIA Consultant	Appointed	N			
	Mobilised	N	IEE	Mobilisation	2/2020
	Company			4 months	
Program	6 months			End date	5/2020
End date	Completed	N		Completed	N
Programed time for Environment Report in Work Plan		5 mths	Programmed time for approval of reports		1 mth
Delay to program due to Environmental Reporting		Not including MoE and GDR delays			

Resettlement Safeguards	Version	Date	Remarks	Status
PPTA selected site	Closed			Open
Land type	Private			
Pre-screening	Yes	8/2019		Closed
Demarcation of land		Y	Pump station sites??	Closed
Consultations /PIB		21/12/2017		Closed
PMC assist to GDR data review				
Land acquired				
DED submission to GDR	-			
Consultation				
Detailed Measuremt Surv (DMS)				
Social Economic Survey (SES)				
Resettlement Cost Survey (RCS)				
Detailed Resettlemt Plan (DRP)				
Compensation Payments				
Programed time for GDR Process in PMC		6 mths		
Delay to program due to GDR process		Not including site selection by PIU/PMU/MEF assistance PMC		

Engineering		Work Plan	Revised		Work Plan	Revised
Geotech survey	Mobilisation	12/2019		Topo survey	Mobilisation	11/2019

	Program	2 months		Program	1 +1 mth
	End date	01/2020		End date	01/2020
	Completed	N		Completed	N
Remarks	Waiting for end of wet season		Remarks	Both sites surveyed	
Detailed Design	Required	Y	Bidding documents	ICB	
	Mobilisation	12/2019	Preparation	Mobilisation	03/2020
	Program plan approval	5 + 1 mth		Program approval	1 +1 mths
	End date	06/2020		End date	05/2020
	Completed	N		Completed	N
Remarks	Waiting for surveys		Draft Submission	ADB	
Remarks on costs				PMU	
Draft Submission (ver 0.0)	PMU	N	Final Submission	ADB	
Final Submission	PMU	N		PMU	
Programmed time for Engineering by PMC		5 mths	Programed time for approvals		1 mth
Delay to program due to Engineering			Delay to program due to approvals		

Procurement				PAM/PPTA	Revised	Status
Package / Lot	WW-CW	Lot 2	Advertisement date	Q3/2019	06/2020	
Method	International Competitive Bidding		Bid submission date			
Review (Prior / Post Sampling)	Prior		Bid evaluation report version 0			
Bidding procedure	1S1E		PMU Approval			
Estimated Value	PPTA estimate	15.76 m\$	ADB No Objection Letter		02/2021	
	Inception update	23.1 m\$				
Bid as 3 lots subject to land acquisition timing			Contract Signature		05/2021	
Programed time for Procurement in PMC		1 mths	Programmed time for PMU and ADB review for NOL			1 mth
Delay to program due to Procurement						

Supervision				Work Plan	Revised	Status
Package / Lot	WW-CW	Lot 2	Contract signature	05/2021		
Contract price (excluding PS)		m\$	Mobilisation Date	08/2021		
Completion	0%	%	Commissioning			
Provisional sums		m\$	Performance Tests completed			
Total provisional sums to date	0%		Taking Over	08/2024		
Contingencies	10%		Defects Liability Period (12 mths)	08/2025		
Variation orders, dayworks and other uses of contingency funds to date	0%		Closure Procedure			
CAR Insurance	10%		Draft Completion Report	09/2025		
Bank guarantee (down payment)	10%		Final Completion Report	01/2025		
Defects liability period guarantee	5%					
Programed time for Contractor T ² G4		36 mths	Programed time for Consultant Supervision			56 mths
Delay to program due to Procurement						

Issues and Risks		Status	Issues raised	Planned Mitigation	Program Actual	Risk
MoE pre-approval not obtained during PPTA	Open		MoE approval can take time	PMC and PMU support for MoE approval process	2 mths	See above
Combined -> separate sewer systems	Open		The Beneficiary wishes to have separate sewer systems. A Concept note to make the change has been prepared. PMC needs PMU approval of the note before starting DED.	Provide support to PMU to decision making process	s	+ 3 mth
Update of estimate	Open		Large increase (7 m\$) due to Separate Sewer Systems	PMC to inform PMU to inform ADB		
Possible program delays due to issues and risks			+ 3 mths	Not including delays in previous cells in datasheet		

Net program		Additional delays summary	
Site selection			
Environment Reporting			
MoE			

Resettlement			
Engineering			
Procurement			
Contracting /Supervision			
Programed time for Work Package in Work Plan until contract signature	23 mths	Program End Date	05/2021
Total program delays	0 mths	Resulting End Date	
Possible additional due to risks		Included in above	

Remarks and urgent tasks			
ADB current task		Y	yes
PMU current task		N	No
PIU current task		GDR current task	
PMC current task		MOE current task	
Delegation to Tancons	Delegation to Expert	Delegation to Design Manager	Delegation IEIA consultant

Revisions											
Rev	Date	Description	By	Check	Appr.	Rev.	Date	Description	By	Check	Appr.
0	11.10.19	Inception	MCH	PPB							
1		Qtr Report 1									
2											
3											

Table 35: PIU – Kratie

	Name	Office	Position
1.	Mr. Sang Bun Then	General Director (PDPWT)	PIU Director
2.	Mr. Choub Phallin	Deputy General Director (PDPWT)	PIU Deputy Director
3.	Mr. Srouy Dara	Chief Office of Technical (PDPWT)	PIU Technical Assistance Officer
4.	Mr. Meas Sothea	Chief Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
5.	Mr. Heng Sothy	Deputy Chief Office of Planning&Finance (PDPWT)	PIU Finance Officer
6.	Mr. Samuth Lima	Director Planning Bureau (Provincial Hall)	PIU Town Development Planning Officer
7.	Mr. Sam Sontarak	Deputy Director Town Administrative Directorate (Provincial Hall)	PIU Administrative Officer
8.	Mr. MOUNG SOVANNA	Director Town Administrative Directorate (Provincial Hall)	PIU Social and Environmental Officer
9.	Mr. Sao Sophal	Deputy Director Cross-Sector Bureau (Provincial Hall)	PIU Social safeguard and Resettlement Officer

Work Schedule Plan GMS4 Kratie Wastewater Package WW-CW Lot 2

Work Schedule Plan																								
GMS4 Kratie WW-CW Lot 2																								
Version 0.0																								
13/10/2019																								
Task (% completion)	2019						2020												20					
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
Mobilisation, preparation of surveys ToR, inception	█	█	█																					
Site selection after PPTA						█																		
Site selection by PIU/PMU (MPWT)/ MEF																								
Adapting feasibility report to new site																								
MOE site pre-approval and ADB liaison																								
Environment post PPTA																								
IEE																								
EMP																								
IEIA																								
MoE's License																								
Resettlement			█	█	█	█																		
GDR leading to Detailed Resettlement Plan			█	█	█	█																		
Due diligence and land acquisition																								
Compensation Payments																								
Engineering																								
Topographic survey																								
Geotechnical survey																								
Detailed Design																								
Bid documents																								
Procurement																								
Bidding and bid evaluation																								
ADB Bid evaluation report and No objection letter																								
Contract Documents and signature																								
Construction and supervision																								
Preconstruction activities: contract signing and mob																								
Construction period																								
Defects Liability Period																								
Contract close out procedures and completion repo																								
Construction supervision																								

8.10 GMS4 Stung Treng Wastewater Package WW-CW Lot 3

Work Package Datasheet GMS4 Stung Treng Wastewater Package WW-CW Lot 3

General data				
PIU	Steung Treng		Wastewater	Stormwater drainage
PIU Contact Name and Position	Mr. Kong Sothea Deputy General Director (PDPWT) PIU Director Telf: 012 609 735 Email:		Separate sewer system Service area coverage: XXX ha Connections: 2,253 Pipelines: 147 km Sewage pump stations: 6	Separate system Service area coverage: XXX ha Drainage channels : 12 km Drainage pump stations : 1-4 Road upgrade none
Project n°	CTDP-4 ADB L3686/G0592/G0593 CAM		WWTP: 3,650 m3/d capacity (2040) lagoon based Road upgrade: 1.1 km	
Works Package Number	WW-CW			
Description	Wastewater and stormwater			
Cost estimate by PPTA	13.01 m\$		Full work schedule plan submitted	Version N

Site selection	Option selection		Engineering	PIU	PMU - MEF	MoE
PPTA Options	Site selected	Closed	Y	Y -> N	Y	Y
Post PPTA Options	New site proposed 13/08/2019 mission	Open	To Review by end 10/2019	Y	To Review: proposed deci- sion by 11/2019	N
Delay to program due to site selection problems		3 mths	Not including Environment, MoE and GDR delays			

MoE Clearance Submissions	Version	Date	Remarks	Status	
PPTA Site Option submission	Site selected		OK	Pre-approval	
Post PPTA new site proposition	No submission	11/2019	Work plan submission date		
Programed time for MoE pre-approval		1 mths			
Programmed time for MoE license from reception IEIA		2.5 mths			
Delay to program due to MoE clearance			Not including Environment report delays		

Environment	TS-2-GMS4 Progress			Work Plan	Revised
PPTA progress	EMP report	Y	EMP	Mobilisation	04/2020
	MoE clearance	Y	Program	4 + 1 months	
	IEIA	N		End date	08/2020
				Completed	N
IEIA Consultant	Appointed	N			
	Mobilised	N	IEE	Mobilisation	04/2020
Company				2 + 1 months	
Program	7 months			End date	06/2020
End date		10/2020		Completed	N
Programed time for Environment Report in Work Plan		7 mths	Programmed time for approval of reports		
Delay to program due to Environmental Reporting			Not including MoE and GDR delays		

Resettlement Safeguards	Version	Date	Remarks	Status
PPTA selected site	Closed			Re-opened
Land type	Public		New site private land New Pump station sites too??	Open
Pre-screening	On-hold			
Demarcation of land			New Pump station sites too??	
Consultations /PIB		20/12/2017		Closed -> re-open?
PMC assist to GDR data review			N/A PPTA site but required new site	
Due diligence				
Land acquired		07/2020		
DED submission to GDR	-		N/A PPTA site but required new site	
Consultation			N/A PPTA site but required new site	
Detailed Measuremt Surv (DMS)			N/A PPTA site but required new site	
Social Economic Survey (SES)			N/A PPTA site but required new site	

Resettlement Cost Survey (RCS)			N/A PPTA site but required new site	
Detailed Resettlement Plan (DRP)		05/2020		
Compensation Payments		10/2020		
Programmed time for GDR Process in PMC		6 mths		
Delay to program due to GDR process			Not including site selection by PIU/PMU/MEF assistance PMC	

Engineering	Work Plan	Revised	Work Plan	Revised	
Geotech survey	Mobilisation 12/2020		Topo survey	Mobilisation 12/2020	
	Program	2 months		Program	
	End date	02/2020		End date	
	Completed	N		Completed	
Remarks	Waiting for end of wet season and land confirmation		Remarks	Waiting for land confirmation	
Detailed Design	Required	Y	Bidding documents	ICB	
	Mobilisation 01/2020	On hold	Preparation	Mobilisation 04/2020	
	Program plan approval	5 + 1 mth		Program approval	
	End date	07/2020		End date	
	Completed	N		Completed	
Remarks			Draft Submission	ADB	
Remarks on costs				PMU	
Draft Submission (ver 0.0)	PMU	N	Final Submission	ADB	
Final Submission	PMU	N		PMU	
Programmed time for Engineering in Work Plan		5 mths	Programmed time for approvals		
Delay to program due to Engineering			Delay to program due to approvals	1 mth	

Procurement	Work Plan	Revised	Status
Package / Lot	WW-CW	Lot 3	Advertisement date
Method	International Competitive Bidding		Bid submission date
Review (Prior / Post Sampling)	Prior		Bid evaluation report version 0
Bidding procedure	1S1E		PMU Approval
Estimated Value	PPTA estimate	13.01 m\$	ADB No Objection Letter
	Inception update	19.5 m\$	
			Contract Signature
Programmed time for Procurement in Work Plan		1 mths	Programmed time for PMU and ADB review for NOL
Delay to program due to Procurement			1 mth

Supervision	Work Plan	Revised	Status
Package / Lot	WW-CW	Lot 3	Contract signature
Contract price (excluding PS)		m\$	Mobilisation Date
Completion	0%	%	Commissioning
Provisional sums		m\$	Performance Tests completed
Total provisional sums to date	0%		Taking Over
Contingencies	10%		Defects Liability Period (12 mths)
Variation orders, dayworks and other uses of contingency funds to date	0%		Closure Procedure
CAR Insurance	10%		Draft Completion Report
Bank guarantee (down payment)	10%		Final Completion Report
Defects liability period guarantee	5%		
Programmed time for Contractor CTD-4		36 mths	Programmed time for Consultant Supervision
Delay to program due to Procurement			56 mths

Issues and Risks	Status	Issues raised	Planned Mitigation	Program Actual	Risk
New WWTP site and Right of Way and Pump stations	Open	One site was identified in PPTA, but apparently now has many AHs (11 AH), residential houses and farming, while located quite close to town (smell problems). Site also has a stream going through and deep pond within the site, making construction complicated.	A new proposed site was identified by MPWT/MEF mission. This is located on private / titled land, but not flooded (1500m South of the old one). Land is currently largely unused (forested) or paddy fields. Negotiated LAR is to be applied if possible for purchase, in case the		+ 6 mths additional to Work Plan

			site is deemed feasible. Access road ROW is 5-6m (width).		
New WWTP site issues		Site height approximately 45m AMSL on its Eastern end next to the access road. On the contrary, sluice gates along the river are all approximately 31-35m AMSL A potential issue with topography for a gravity fed system and available land for pump stations	To be reviewed		
Combined -> separate sewer systems	Open	The Beneficiary wishes to have separate sewer systems. A Concept note to make the change has been prepared. PMC needs PMU approval of the note before starting DED.	Provide support to PMU to decision making process		+ 3 mth
Update of cost estimate	Open	Large increase (6.5 m\$) due to Separate Sewer Systems	PMC to inform PMU to inform ADB		
Possible program delays due to issues and risks			+ 6 mths	Not including delays in previous cells in datasheet	

Net program		Additional delays summary	
Site selection			
Environment Reporting			
MoE			
Resettlement			
Engineering			
Procurement			
Contracting /Supervision			
Programed time for Work Package in Work Plan until contract signature	24 mths	Program End Date	06/2021
Total program delays		Resulting End Date	
Possible additional due to risks	+ 6 mths		12/2021

Remarks and urgent tasks			
ADB current task	Y		yes
PMU current task	N		No
PIU current task		GDR current task	
PMC current task		MOE current task	
Delegation to Tancons	Delegation to Expert	Delegation to Design Manager	Delegation IEIA consultant

Revisions											
Rev	Date	Description	By	Check	Appr.	Rev.	Date	Description	By	Check	Appr.
0	11.10.19	Inception	MCH	PPB							
1		Qtr Report 1									
2											
3											

Table 36: PIU – Stueng Treng

	Name	Office	Position
1.	Mr. Kong Sothea	Deputy General Director (PDPWT)	PIU Director
2.	Mr. Nou Vanna	Chief Office of Sewage System (PDPWT)	PIU Deputy Director
3.	Mr. Sar Socheat	Chief Office of Technical (PDPWT)	PIU Technical Assistance Officer
4.	Mr. Kheoung Sokhey To	Deputy Chief Office of Technical (PDPWT)	PIU Technical Assistance Officer
5.	Mr. Na Sou Vann	Deputy Chief Office of Sewage System (PDPWT)	PIU Finance Officer
6.	Mr. Pech Ramy	Deputy Governor (Provincial Hall)	PIU Town Development Planning Officer
7.	Mr. Seng Virak	Chief Office of Town Administrative (Provincial Hall)	PIU Administrative Officer
8.	Mr. Yen Run	Deputy Director (PDOE)	PIU Social and Environmental Officer

Name	Office	Position
9. Mr. Doung Sam OL	Chief Office of Economy (Provincial Hall)	PIU Social safeguard and Resettlement Officer

Work Schedule Plan GMS4 Stung Treng Wastewater Package WW-CW Lot 3

Work Schedule Plan																													
GMS4 Stung Treng WW-CW Lot 3																													
Version 0.0																													
13/10/2019																													
Task (% completion)	2019												2020												2021				
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7				
Mobilisation, preparation of surveys ToR, inception	█	█	█																										
Site selection after PPTA	█	█	█	█	█	█																							
Site selection by PIU/PMU (MPWT)/ MEF	█	█	█	█	█	█																							
Adapting feasibility report to new site				█	█																								
MOE site pre-approval and ADB liaison						█	█																						
Environment post PPTA																													
IEE																													
EMP																													
IEIA																													
MoE's License																													
Resettlement			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
GDR leading to Detailed Resettlement Plan			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Due diligence and land acquisition																													
Compensation Payments																													
Engineering																													
Topographic survey																													
Geotechnical survey																													
Detailed Design																													
Bid documents																													
Procurement																													
Bidding and bid evaluation																													
ADB Bid evaluation report and No objection letter																													
Contract Documents and signature																													
Construction and supervision																													
Preconstruction activities: contract signing and mob																													
Construction period																													
Defects Liability Period																													
Contract close out procedures and completion repo																													
Construction supervision																													

8.11 GMS4 Kampong Cham Solid Waste Management SWM-CW Lot 1

Work Plan Datasheet GMS4 Kampong Cham Solid Waste Management SWM-CW Lot 1

General data				
PIU	Kampong Cham	Landfill Population served: Collection Capacity: Site: 911 ha Capacity: 900,000 m ³ Access road upgrade: ?? km	Cost estimate 6.18 m\$ By PPTA not yet revised	
PIU Contact Name and Position	Mr. Sok Srun General Director (PDPWT) PIU Director Telf: 017 457 777 Email:			
Project n°	CTDP-4 ADB L3686/G0592/G0593 CAM			
Works Package Number	SWM-CW			
Description	Solid Waste Management	Full work schedule plan submitted	Version	N

Site selection	Option selection		Engineering	PIU	PMU - MEF	MoE
PPTA Options	Site selected	Closed	Y	Y	Y	Y
Post PPTA Options	N/A					
Delay to program due to site selection problems			Not including Environment, MoE and GDR delays			

MoE Clearance Submissions	Version	Date	Remarks	Status
PPTA Site Option submission	Site selected		OK	Pre-approval
Post PPTA new site proposition	N/A			
Programed time for MoE clearance from Work Plan		2.5 mths	For update	
Delay to program due to MoE clearance			Not including Environment report delays	

Environment	TS-2-GMS4 Progress			Work Plan	Revised	
PPTA progress	IEE report	Y	EMP	Mobilisation	03/2020	
	EMP report	Y		Program	4 months	
	IEIA	N		End date	07/2020	
			Completed		N	
IEIA Consultant	Appointed	N	IEE	Mobilisation	02/2020	
	Mobilised	N		Program	2 months	03/2020
	Company			End date	05/2020	
Program	7 months		Completed		N	
End date	Completed	N				
Programed time for Environment Report in Work Plan		7 mths	Programmed time for approval of reports		1 mth	
Delay to program due to Environmental Reporting			Not including MoE and GDR delays			

Resettlement Safeguards	Version	Date	Remarks	Status
PPTA selected site	Closed			Closed
Land type	Public			
Pre-screening	On-hold			
Demarcation of land				
Consultations /PIB		20/12/2017		
PMC assist to GDR data review	N/A			
Due diligence				
Land acquired				
DED submission to GDR	N/A			
Consultation	N/A			
Detailed Measurement Surv (DMS)	N/A			
Social Economic Survey (SES)	N/A			
Resettlement Cost Survey (RCS)	N/A			
Detailed Resettlement Plan (DRP)	???	06/2020	Must include DED	
Compensation Payments		02/2021		
Programed time for GDR Process in Work Plan		5 mths		
Delay to program due to GDR process			Not including site selection by PIU/PMU/MEF assistance PMC	

Engineering	Work Plan	Revised	Work Plan	Revised

Geotech survey	Mobilisation	12/2019	Topo survey	Mobilisation	10/2019
	Program	2 months		Program	1 mth
	End date	2/2020		End date	01/2020
Survey Report	Completed	N	Survey Report	Completed	N
Remarks			Remarks	Waiting for land confirmation	
Detailed Design	Required	Y	Bidding documents	ICB	
	Mobilisation	12/2020	Preparation	Mobilisation	04/2020
	Program plan approval	5 + 1 mth	Program approval		1 +1 mths
	End date	05/2020	End date		06/2020
	Completed	N	Completed		N
Remarks	Waiting for surveys		Draft Submission	ADB	N
Remarks on costs			Final Submission	PMU	N
Draft Submission (ver 0.0)	PMU	N		ADB	N
Final Submission	PMU	N		PMU	N
Programmed time for Engineering in Work Plan		6 mths	Programmed time for approvals		1 mth
Delay to program due to Engineering		0 mths	Delay to program due to approvals		

Procurement			PAM/PPTA	Revised	Status
Package / Lot	SWM-CW	Lot 1	Q1/2019	06/2020	
Method	International Competitive Bidding		Bid submission date		
Review (Prior / Post Sampling)	Prior		Bid evaluation report version 0		
Bidding procedure	1S1E		PMU Approval		
Estimated Value	PPTA estimate	6.18 m\$	ADB No Objection Letter		
Bid as 3 lots subject to land acquisition timing			Contract Signature		
Programmed time for Procurement in PMC		4 mths	Programmed time for PMU and ADB review for NOL		2 mth
Delay to program due to Procurement					

Contracting and Supervision			Work Plan	Revised	Status
Package / Lot	SWM-CW	Lot 3	Contract signature	02/2021	
Contract price (excluding PS)			Mobilisation Date	06/2021	
Completion	0%	%	Commissioning		
Provisional sums			Performance Tests completed		
Total provisional sums to date	0%		Taking Over	08/2022	
Contingencies	10%		Defects Liability Period (12 mths)	08/2023	
Variation orders, dayworks and other uses of contingency funds to date	0%		Closure Procedure		
CAR Insurance	10%		Draft Completion Report	09/2023	
Bank guarantee (down payment)	10%		Final Completion Report	01/2024	
Defects liability period guarantee	5%				
Programmed time for Contractor in Work Plan		15 mths	Programmed time for Consultant Supervision		35 mths
Delay to program due to Procurement					

Issues and Risks	Status	Issues raised	Planned Mitigation	Program Actual	Risk
Procurement change from D&B to "Red Book" type using an Employer's Design	Open	The PMU wishes to change procurement method from D&B to the "Red Book" type of procurement requiring the PMC to provide an Employer's Design A concept note has been prepared by the PMC. The PMC needs the approval of the Concept Note in order to start the new survey and DED	Provide support for the approval process.	The change should reduce overall program time by 5 months but this benefit can be lost if the contractual changes are not expedited.	- 5 mths (already accounted for in Work Plan)
Comments from MoE on site clearance	Open	Delays in PIU action on the comments from MoE	PMC shall follow up with PIU and provide support to their reply comments from MOE	MoE cannot provide clearance until the comments have been replied to.	No delay if MOE approve when they reply
Possible program delays due to issues and risks		0	Not including delays in previous cells in datasheet		

Net program				Additional delays summary			
Site selection							
MoE Clearance							
Environment Reporting							
Resettlement							
Engineering							
Procurement							
Contracting and Supervision							
Programed time for Work Package at PMC mobilization until contract signature	20 mths		le Program End Date				02/2021
Total program delays	0 mth		Resulting End Date				02/2021
Possible additional due to risks							02/2021

Remarks and urgent tasks			
ADB current task		Y	yes
PMU current task		N	No
PIU current task		GDR current task	
PMC current task		MOE current task	
Delegation to Tancons	Delegation to Expert	Delegation to Design Manager	Delegation IEIA consultant

Revisions											
Rev	Date	Description	By	Check	Appr.	Rev.	Date	Description	By	Check	Appr.
0	11.10.19	Inception	MCH	PPB							
1		Qtr Report 1									
2											
3											

Table 37: PIU – Kampong Cham

Name	Office	Position
1. Mr. Sok Srun	General Director (PDPWT)	PIU Director
2. Mr. Chan Somardy	Deputy General Director (PDPWT)	PIU Deputy Director
3. Mr. Nil Bunly	Chief Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
4. Mr. Sean Khemara	Chief Office of Project Support in Town (PDPWT)	PIU Technical Assistance Officer
5. Ms. Heng Teav	Chief Office of Planning & Finance (PDPWT)	PIU Finance Officer
6. Mr. Hean Lina	Deputy Governor (Provincial Hall)	PIU Town Development Planning Officer
7. Mr. Va Chan Ou	Chief Office of General Affairs (Provincial Hall)	PIU Administrative Officer
8. Mr. Norn Phirun	Deputy Chief Office of Legal Affairs (Provincial Hall)	PIU Social and Environmental Officer
9. Mr. Khim Sovanney	Deputy Chief Office of Development Management (Provincial Hall)	PIU Social safeguard and Resettlement Officer

Work Schedule Plan GMS4 Kampong Cham Solid Waste Management SWM-CW Lot 1

Work Schedule Plan																					
GMS4 Kampong Cham SWM-CW Lot 1																					
Version 0.0																					
13/10/2019																					
Task (% completion)	2019						2020														
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
Mobilisation, preparation of surveys ToR, inception	█	█	█																		
Site selection after PPTA																					
Site selection by PIU/PMU (MPWT)/ MEF																					
Adapting feasibility report to new site																					
MOE site pre-approval and ADB liaison																					
Environment post PPTA																					
IEE																					
EMP																					
IEIA																					
MoE's License																					
Resettlement			█	█	█	█															
GDR leading to Detailed Resettlement Plan			█	█	█	█															
Due diligence and land acquisition																					
Compensation Payments																					
Engineering			█	█	█	█															
Topographic survey			█	█	█	█															
Geotechnical survey																					
Detailed Design																					
Bid documents																					
Procurement																					
Bidding and bid evaluation																					
ADB Bid evaluation report and No objection letter																					
Contract Documents and signature																					
Construction and supervision																					
Preconstruction activities: contract signing and mobilization																					
Construction period																					
Defects Liability Period																					
Contract close out procedures and completion report																					
Construction supervision																					

8.12 GMS4 Kratie Solid Waste Management SWM-CW Lot 2

Work Package Datasheet GMS4 Kratie Solid Waste Management SWM-CW Lot 2

General data			
PIU	Kratie	Landfill Population served: Collection Capacity: Site: 30 Capacity: 33 500 m ³ Access road upgrade: ?? km	Cost estimate 5.57 m\$ By PPTA not yet revised
PIU Contact Name and Position	Mr. Sang Bun Then General Director (PDPWT) PIU Director Telf: 097 666 3196 Email:		
Project n°	CTDT4 ADB L3686/G0592/G0593 CAM		
Works Package Number	SWM-CW		
Description	Landfill		
		Full work schedule plan submitted	Version

Site selection	Option selection		Engineering	PIU	PMU - MEF	MoE
PPTA Options	Site selected	Closed	Y	Y	Y	??
Post PPTA Options	N/A					
Delay to program due to site selection problems			Not including Environment, MoE and GDR delays			

MoE Clearance Submissions	Version	Date	Remarks	Status
Site Option submission	Site selected		OK	May not conform to ADB guidelines with respect to communal forests
Programed time for MoE clearance		2.5 mths	For update	
Delay to program due to MoE clearance			Not including Environment report delays	

Environment	TS-2-GMS4 Progress					
PPTA progress	IEE report	Y	EMP	Mobilisation	03/2020	
	EMP report	Y		Program	4 months	
	IEIA	N		Completed	5/2020	N
IEIA Consultant	Appointed	N	IEE	Mobilisation date	2/2020	
	Mobilised	N		4 months		
Company				End date	5/2020	
Program	6 months			Completed	N	
End date	Completed	N				
Programed time for Environment Report in Work Plan		5 mths				
Delay to program due to Environmental Reporting			Not including MoE and GDR delays			

Resettlement Safeguards	Version	Date	Remarks	Status
PPTA selected site	Confirmed			Closed
New site proposal			None yet	
Land type	Public		New site unknown status	
Pre-screening	Y	Aug 2019		
Demarcation of land				
Consultations /PIB				
PMC assist to GDR data review	N/A			
Due diligence				
Land acquired				
DED submission to GDR	N/A			
Consultation				
Detailed Measurement Surv (DMS)	N/A			
Social Economic Survey (SES)	N/A			
Resettlement Cost Survey (RCS)	N/A			
Detailed Resettlement Plan (DRP)	N/A	06/2020	Must include DED	
Compensation Payments		02/2021		
Programed time for GDR Process in Work Plan		5 mths		
Delay to program due to GDR process			Not including site selection by PIU/PMU/MEF assistance PMC	

Engineering			Work Plan	Rev	Work Plan			Revised	
Geotech survey	Mobilisation	12/2019			Topo survey	Mobilisation	11/2019		
	Program		2 mths			Program		1 mths	
	End date		01/2020			End date		12/2019	
	Completed		N			Completed		N	
Remarks	Mob subject to MoE pre-approval				Remarks	Mob subject to MoE pre-approval			
Detailed Design	Required		Y		Bidding documents	ICB			
	Mobilisation		On hold			Preparation	Mobilisation		On hold
	Program approval		5 + 1 mths			Program		1 mths	
	End date					End date			
	Completed		N			Completed		N	
Remarks	Waiting for surveys				Draft Submission	ADB	N		
Remarks on costs					PMU	N			
Draft Submission (ver 0.0)	PMU		N		Final Submission	ADB	N		
Final Submission	PMU		N		PMU	N			
Programmed time for Engineering for Work Plan			5 mths		Programmed time for approvals			1 mth	
Delay to program due to Engineering					Delay to program due to approvals				

Procurement				PMC mob	Revised	Status
Package / Lot	SWM-CW	Lot 2	Advertisement date	Q1/2019	06/2020	
Method	International Competitive Bidding		Bid submission date			
Review (Prior / Post Sampling)	Prior		Bid evaluation report version 0			
Bidding procedure	1S1E		PMU Approval			
Estimated Value	PPTA estimate	5.57 m\$	ADB No Objection Letter			
Bid as 3 lots subject to land acquisition timing			Contract Signature			
Programmed time for Procurement in Work Plan			1 mths	Programmed time for PMU and ADB review for NOL		1 mth
Delay to program due to Procurement						

Contracting and Supervision				PMC mob	Revised	Status
Package / Lot	SWM-CW	Lot 2	Contract signature	02/2021		
Contract price (excluding PS)		m\$	Mobilisation Date	06/2021		
Completion	0%	%	Commissioning			
Provisional sums		m\$	Performance Tests completed			
Total provisional sums to date	0%		Taking Over	08/2022		
Contingencies	10%		Defects Liability Period (12 mth)	01/2023		
Variation orders, dayworks and other uses of contingency funds to date	0%		Defects Liability Period (12 mths)	08/2023		
CAR Insurance	10%		Closure Procedure			
Bank guarantee (down payment)	10%		Draft Completion Report	09/2023		
Defects liability period guarantee	5%		Final Completion Report	01/2024		
Programmed time for Contractor in Work Plan			15 mths	Programmed time for Consultant Supervision		35 mths
Delay to program due to Procurement						

Issues and Risks Item	Status	Issues raised	Planned Mitigation	Program Actual	Risk
Procurement change from D&B to "Red Book" type using an Employer's Design	Open	The PMU wishes to change procurement method from D&B to the "Red Book" type of procurement requiring the PMC to provide an Employer's Design A concept note has been prepared by the PMC. The PMC needs the approval of the Concept Note in order to start the new survey and DED	Provide support for the approval process.	The change should reduce overall program time by 5 months but this benefit can be lost if the contractual changes are not expedited.	- 5 mths (already accounted for in Work Plan)
Dumping has started on the current site	Open		Include clean-up of site in procurement package as a provisional sum with rates		

New site required	Open	New site required because original site is surrounded by communal forest (may not conform to ADB guidelines)	Mobilise identification and support PIU	Decide by 11/2019	+ 12 mths
Possible program delays due to issues and risks		+ 12 mths	Not including delays in previous cells in datasheet		

Net program	Additional delays summary		
Site selection			
Environment Reporting			
MoE			
Resettlement			
Engineering		Separate sewer systems and wet season	
Procurement			
Contracting /Supervision			
Programed time for Work Package in Work Plan to Contract Signature	20 mths	Program End Date	02/2021
Total program delays		Resulting End Date	02/2021
Possible additional due to risks	+ 12 mths		02/2022

Remarks and urgent tasks			
ADB current task		Y	yes
PMU current task		N	No
PIU current task		GDR current task	
PMC current task		MOE current task	
Delegation to Tancons	Delegation to Expert	Delegation to Design Manager	Delegation IEIA consultant

Revisions											
Rev	Date	Description	By	Check	Appr.	Rev.	Date	Description	By	Check	Appr.
0	11.10.19	Inception	MCH	PPB							
1		Qtr Report 1									
2											
3											

Table 38: PIU – Kratie

	Name	Office	Position
1.	Mr. Sang Bun Then	General Director (PDPWT)	PIU Director
2.	Mr. Choub Phallin	Deputy General Director (PDPWT)	PIU Deputy Director
3.	Mr. Srouy Dara	Chief Office of Technical (PDPWT)	PIU Technical Assistance Officer
4.	Mr. Meas Sothea	Chief Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
5.	Mr. Heng Sothy	Deputy Chief Office of Planning&Finance (PDPWT)	PIU Finance Officer
6.	Mr. Samuth Lima	Director Planning Bureau (Provincial Hall)	PIU Town Development Planning Officer
7.	Mr. Sam Sontarak	Deputy Director Town Administrative Directorate (Provincial Hall)	PIU Administrative Officer
8.	Mr. Mounq Sovanna	Director Town Administrative Directorate (Provincial Hall)	PIU Social and Environmental Officer
9.	Mr. Sao Sophal	Deputy Director Cross-Sector Bureau (Provincial Hall)	PIU Social safeguard and Resettlement Officer

Work Schedule Plan GMS4 Kratie Solid Waste Management SWM-CW Lot 2

Work Schedule Plan																						
GMS4 Kratie SWM-CW Lot 2																						
Version 0.0																						
13/10/2019																						
Task (% completion)	2019						2020															
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
Mobilisation, preparation of surveys ToR, inception	█	█	█																			
Site selection after PPTA	█	█	█	█																		
Site selection by PIU/PMU (MPWT)/ MEF	█	█	█	█	█																	
Adapting feasibility report to new site																						
MOE site pre-approval and ADB liaison																						
Environment post PPTA										█	█	█	█	█	█	█	█	█	█	█	█	█
IEE										█	█	█	█	█	█	█	█	█	█	█	█	█
EMP										█	█	█	█	█	█	█	█	█	█	█	█	█
IEIA										█	█	█	█	█	█	█	█	█	█	█	█	█
MoE's License																						
Resettlement			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
GDR leading to Detailed Resettlement Plan			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Due diligence and land acquisition																						
Compensation Payments																						
Engineering																						
Topographic survey																						
Geotechnical survey																						
Detailed Design																						
Bid documents																						
Procurement																						
Bidding and bid evaluation																						
ADB Bid evaluation report and No objection letter																						
Contract Documents and signature																						
Construction and supervision																						
Preconstruction activities: contract signing and mob																						
Construction period																						
Defects Liability Period																						
Contract close out procedures and completion repo																						
Construction supervision																						

8.13 GMS4 Steung Treng Solid Waste Management SWM-CW Lot 3

Work Package Datasheet GMS4 Steung Treng Solid Waste Management SWM-CW Lot 3

General data				
PIU	Steung Treng	Landfill Population served: Collection Capacity: Site: 9.560 ha Capacity: 291,000 m ³ Access road upgrade: ?? km	Cost estimate 5.92 m\$ By PPTA not yet revised	
PIU Contact Name and Position	Mr. Kong Sothea Deputy General Director (PDPWT) PIU Director Telf: 012 609 735 Email:			
Project n°	CTDP-4 ADB L3686/G0592/G0593 CAM			
Works Package Number	SWM-CW			
Description	Solid Waste Management	Full work schedule plan submitted	Version	N

Site selection	Option selection		Engineering	PIU	PMU - MEF	MoE
PPTA Options	Site selected	Closed	Y	Y	Y	Y
Post PPTA Options	N/A					
Delay to program due to site selection problems			Not including Environment, MoE and GDR delays			

MoE Clearance Submissions	Version	Date	Remarks	Status
PPTA Site Option submission	Site selected		OK	Pre-approval
Post PPTA new site proposition				
Programed time for MoE clearance		2.5 mths	For update	
Delay to program due to MoE clearance			Not including Environment report delays	

Environment	TS-2-GMS4 Progress			Work Plan	Rev
PPTA progress	IEE report	Y	EMP	Mobilisation	
	EMP report	Y	Program	4 months	
	IEIA	N		End date	
				Completed	N
IEIA Consultant	Appointed	N			
	Mobilised	N	IEE	Mobilisation date	2/2020
Company				4 months	
Program	6 months			End date	5/2020
End date	Completed	N		Completed	N
Programed time for MoE clearance from reception of EMP		5 mths	Programmed time for approval of reports		
Delay to program due to Environmental Reporting			Not including MoE and GDR delays		
			1 mth		

Resettlement Safeguards	Version	Date	Remarks	Status
PPTA selected site	Closed			Closed
Land type	Public			
Pre-screening	Y	Aug 2019		
Demarcation of land				
Consultations /PIB				
PMC assist to GDR data review	N/A			
Due diligence				
Land acquired				
DED submission to GDR	N/A			
Consultation				
Detailed Measuremt Surv (DMS)	N/A			
Social Economic Survey (SES)	N/A			
Resettlement Cost Survey (RCS)	N/A			
Detailed Resettlement Plan (DRP)		07/2020	Must include DED	
Compensation Payments		03/2021		
Programed time for GDR Process in Work Plan		6 mths		
Delay to program due to GDR process			Not including site selection by PIU/PMU/MEF assistance PMC	

Engineering	Work Plan	Rev	Work Plan	Rev
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Geotech survey	Mob	12/2019		Topo survey	Mobin	12/2019	
	Program		2 months		Program		1 mths
	End date		02/2020		End date		01/2020
	Completed		N		Completed		N
Remarks	Waiting for end of wet season			Remarks			
Detailed Design	Required		Y	Bidding documents	ICB		
	Mobilisation date		01/2020	Preparation	Mobilisation date		05/2020
	Program Approval		5+ 1 mths		Program Approval		1+1 mth
	End date		7/2020		End date		07/2020
	Completed		N		Completed		N
Remarks	Waiting for surveys			Draft Submission	ADB		N
Remarks on costs					PMU		N
Draft Submission (ver 0.0)	PMU		N	Final Submission	ADB		N
Final Submission	PMU		N		PMU		N
Programmed time for Engineering in Work Plan			6 mths	Programmed time for approvals			1 mth
Delay to program due to Engineering			0 mths	Delay to program due to approvals			

Procurement				PAM/PPTA	Revised	Status
Package / Lot	SWM-CW	Lot 3	Advertisement date	Q1/2019	07/2020	
Method	International Competitive Bidding		Bid submission date			
Review (Prior / Post Sampling)	Prior		Bid evaluation report version 0			
Bidding procedure	1S1E		PMU Approval			
Estimated Value	PPTA estimate	5.92 m\$	ADB No Objection Letter			
Bid as 3 lots subject to land acquisition timing			Contract Signature			
Programmed time for Procurement in PMC			4 mths	Programmed time for PMU and ADB review for NOL		2 mth
Delay to program due to Procurement						

Contracting and Supervision				Work Plan	Revised	Status
Package / Lot	SWM-CW	Lot 3	Contract signature	03/2021		
Contract price (excluding PS)		m\$	Mobilisation Date	07/2021		
Completion	0%	%	Commissioning			
Provisional sums		m\$	Performance Tests completed			
Total provisional sums to date	0%		Taking Over	09/2022		
Contingencies	10%		Defects Liability Period (12 mths)	09/2023		
Variation orders, dayworks and other uses of contingency funds to date	0%		Closure Procedure			
CAR Insurance	10%		Draft Completion Report	10/2023		
Bank guarantee (down payment)	10%		Final Completion Report	02/2024		
Defects liability period guarantee	5%					
Programmed time for Contractor PMC			15 mths	Programmed time for Consultant Supervision		35 mths
Delay to program due to Procurement						

Issues and Risks Item	Status	Issues raised	Planned Mitigation	Program Actual	Risk
Procurement change from D&B to "Red Book" type using an Employer's Design	Open	The PMU wishes to change procurement method from D&B to the "Red Book" type of procurement requiring the PMC to provide an Employer's Design A concept note has been prepared by the PMC. The PMC needs the approval of the Concept Note in order to start the new survey and DED	Provide support for the approval process.	The change should reduce overall program time by 5 months but this benefit can be lost if the contractual changes are not expedited.	- 5 mths (already accounted for in Work Plan)
Clean up of existing site	Open	The existing landfill site is located on State land (Ramsar protected area), hence closure of the site is needed. The site is divided into	Closure of the site shall be included in the Tender documents		

		three active areas of waste dumping.		
Possible program delays due to issues and risks	0 mths		Not including delays in previous cells in datasheet	

Net program		Additional delays summary	
Site selection			
Environment Reporting			
MoE			
Resettlement			
Engineering			
Procurement			
Contracting /Supervision			
Programed time for Work Package at PMC mobilization until start of construction	21 mths	Program End Date	
Total program delays		Resulting End Date	
Possible additional due to risks			

Remarks and urgent tasks			
ADB current task	Y		yes
PMU current task	N		No
PIU current task		GDR current task	
PMC current task		MOE current task	
Delegation to Tancons	Delegation to Expert	Delegation to Design Manager	Delegation IEIA consultant

Revisions											
Rev	Date	Description	By	Check	Appr.	Rev.	Date	Description	By	Check	Appr.
0	11.10.19	Inception	MCH	PPB							
1		Qtr Report 1									
2											
3											

Table 39: PIU – Stueng Treng

	Name	Office	Position
1.	Mr. Kong Sothea	Deputy General Director (PDPWT)	PIU Director
2.	Mr. Nou Vanna	Chief Office of Sewage System (PDPWT)	PIU Deputy Director
3.	Mr. Sar Socheat	Chief Office of Technical (PDPWT)	PIU Technical Assistance Officer
4.	Mr. Kheoung Sokhey To	Deputy Chief Office of Technical (PDPWT)	PIU Technical Assistance Officer
5.	Mr. Na Sou Vann	Deputy Chief Office of Sewage System (PDPWT)	PIU Finance Officer
6.	Mr. Pech Ramy	Deputy Governor (Provincial Hall)	PIU Town Development Planning Officer
7.	Mr. Seng Virak	Chief Office of Town Administrative (Provincial Hall)	PIU Administrative Officer
8.	Mr. Yen Run	Deputy Director (PDOE)	PIU Social and Environmental Officer
9.	Mr. Doung Sam OL	Chief Office of Economy (Provincial Hall)	PIU Social safeguard and Resettlement Officer

Work Schedule Plan GMS4 Steung Treng Solid Waste Management SWM-CW Lot 3

Work Schedule Plan		2019												2020											
GMS4 Steung Treng SWM-CW Lot 3																									
Version 0.0																									
13/10/2019																									
Task (% completion)		7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4		
Mobilisation, preparation of surveys ToR, inception		█	█	█																					
Site selection after PPTA																									
Site selection by PIU/PMU (MPWT)/ MEF																									
Adapting feasibility report to new site																									
MOE site pre-approval and ADB liaison																									
Environment post PPTA																									
IEE																									
EMP																									
IEIA																									
MoE's License																									
Resettlement				█																					
GDR leading to Detailed Resettlement Plan				█																					
Due diligence and land acquisition																									
Compensation Payments																									
Engineering																									
Topographic survey																									
Geotechnical survey																									
Detailed Design																									
Bid documents																									
Procurement																									
Bidding and bid evaluation																									
ADB Bid evaluation report and No objection letter																									
Contract Documents and signature																									
Construction and supervision																									
Preconstruction activities: contract signing and mob																									
Construction period																									
Defects Liability Period																									
Contract close out procedures and completion repo																									
Construction supervision																									

8.14 GMS4 Three Towns Solid Waste Equipment SWM-GD

Work Package Datasheet GMS4 Three Towns Solid Waste Equipment SWM-GD

General data			
PIU	Kampong Cham Kratie Steun Treng		
Project n°	TS-2: ADB L3684/G0591CAM		
Works Package Number	SWM-GD	Description	Solid Waste Collection Vehicles and Landfill Equipment

Engineering	Work Plan	Revised	Work Plan	Revised
Detailed Design	Required Equipment list and specifications	Y	Bidding documents	ICB
	Mobilisation 06/2020		Mobilisation	07/2020
	Program	1 months	1 months	Program
	End date	2/2020	07/2020	End date
	Completed	N	Completed	N
Remarks on costs			Draft Submission	ADB PMU N N
Draft Submission (ver 0.0)	PMU	N	Final Submission	ADB PMU N N
Final Submission	PMU	N		
Programmed time for Engineering		2 mths	Programed time for approvals	1 mth
Delay to program due to Engineering			Delay to program due to approvals	
Engineering	Completed			

Procurement	PAM/PPTA	Revised	Status
Package / Lot	SWM-GD		Advertisement date
Method	International Competitive Bidding		Q1/2020
Review (Prior / Post Sampling)	Prior		09/2020
Bidding procedure	1S1E		
Estimated Value	Part of	1.35 m\$	Bid submission date
			Bid evaluation report version 0
			PMU Approval
			ADB No Objection Letter
			Contract Signature
			05/2021
Programed time for Procurement in PMC		6 mths	
Delay to program due to Procurement			

Contracting / Supervision	Work Plan	Revised	Status
Package / Lot	SWM-GD		Contract signature
Contract price		m\$	09/2020
Provisional sums			Mobilisation Date
Bank guarantee (down payment)			Factory Acceptance Tests
Incoterm	DAP??		Delivery to Site
			Equipment guarantee period
Programed time for Contractor		6 mths	Programed time for Consultant Supervision
Delay to program due to Procurement			

Issues and Risks	Status	Issues raised	Planned Mitigation	Program Actual	Risk
Timing of equipment delivery		Equipment arrives too early and de-grades in storage	Adjust advertisement date once the delays to the landfill sites are known better		
Possible program delays due to issues and risks			Not including delays in previous cells in datasheet		

Net program	Additional delays summary		
Engineering			
Procurement			
Contracting /Supervision			
Programed time for Work Package at PMC mobilization until start of construction	14 mths	Program End Date	10/2020
Total program delays	0 mths	Resulting End Date	
Possible additional			

Remarks and urgent tasks			
ADB current task	Y		yes
PMU current task	N		No
PIU current task		GDR current task	
PMC current task		MOE current task	
Delegation to Tancons	Delegation to Expert	Delegation to Design Manager	Delegation IEIA consultant

Revisions											
Rev	Date	Description	By	Check	Appr.	Rev.	Date	Description	By	Check	Appr.
0	11.10.19	Inception	MCH	PPB							
1		Qtr Report 1									
2											
3											

Work Schedule Plan GMS4 Three Towns Solid Waste Equipment SWM-GD

Work Schedule Plan		GMS4 Three Towns Solid Waste Collection Vehicles and Landfill Equipment SWM-GD																								
Version 0.0																										
13/10/2019																										
Task (% completion)	2019						2020												20							
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6		
Mobilisation, preparation of surveys ToR, inception																										
Engineering																										
Specification																										
Bid documents																										
Procurement																										
Bidding and bid evaluation																										
ADB Bid evaluation report and No objection letter																										
Contract Documents and signature																										
Delivery and supervision																										
Preconstruction activities: contract signing and mob																										
Delivery period																										
Guarantee period																										
Contract close out procedures and completion repo																										
Supervision																										

8.15 GMS4 Kratie Town Centre Environmental Enhancement KR-CW01

Work Package Datasheet GMS4 Kratie Town Centre Environmental Enhancement KR-CW01

General data			
PIU	Kratie	Town Centre Environmental Enhancement Pavement rehabilitation: 10,600 m ² Kerbing: 2,300 m Street furnishing: 92 lights, 92 trees, 92 benches, 50 bins, 10 exercise equipment	Cost estimate 0.75 m\$ By PPTA not yet revised
PIU Contact Name and Position	Mr. Sang Bun Then General Director (PDPWT) PIU Director Telf: 097 666 3196 Email:		
Project n°	CTDT4 ADB L3686/G0592/G0593 CAM		
Works Package Number	Kratie		
Description	Town Centre Environmental Enhancement		
		Full work schedule plan submitted	Version N

Engineering	Work Plan	Revised	Work Plan	Revised
			Topo survey	
			Mobilisation	11/2019
			Program	1 mth
			End date	12/2019
			Completed	N
			Remarks	
Detailed Design	Required	Y	Bidding documents	ICB
	Mobi 01/2020		Preparation	Mobilisation 03/2020
	Program approval	4 + 1 mth		Program approval
	End date	06/2020		End date
	Completed	N		Completed
Remarks	Waiting for surveys		Draft Submission	ADB
Remarks on costs				PMU
Draft Submission (ver 0.0)	PMU	N	Final Submission	ADB
Final Submission	PMU	N		PMU
Programmed time for Engineering by PMC		5 mths	Programmed time for approvals	
Delay to program due to Engineering			Delay to program due to approvals	
				1 mth

Procurement	PAM/PPTA	Revised	Status
Package / Lot	KR-CW01		
Method	National Competitive Bidding		
Review (Prior / Post Sampling)	Prior		
Bidding procedure	1S1E		
Estimated Value	PPTA estimate	0.75 m\$	
			Contract Signature
			02/2021
Programmed time for Procurement in PMC		1 mths	Programmed time for PMU and ADB review for NOL
Delay to program due to Procurement			
			1 mth

Supervision	Work Plan	Revised	Status
Package / Lot	KR-CW01		
Contract price (excluding PS)		m\$	Contract signature
Completion	0%	%	Mobilisation Date
Provisional sums		m\$	Commissioning
Total provisional sums to date	0%		Performance Tests completed
Contingencies	10%		Taking Over
Variation orders, dayworks and other uses of contingency funds to date	0%		Defects Liability Period (12 mths)
CAR Insurance	10%		Closure Procedure
Bank guarantee (down payment)	10%		Draft Completion Report
Defects liability period guarantee	5%		Final Completion Report
Programmed time for Contractor for PMC		15 mths	Programmed time for Consultant Supervision
Delay to program due to Procurement			
			18 mths

Issues and Risks Item	Status	Issues raised	Planned Mitigation	Program Actual	Risk
New trees planted on areas to be paved		Works may compromise trees	Instructions in Tender documents		
Possible program delays due to issues and risks			Not including delays in previous cells in datasheet		

Net program		Additional delays summary	
Engineering			
Procurement			
Contracting /Supervision			
Programed time for Work Package at PMC mobilization until start of construction	16 mths	Program End Date	10/2020
Total program delays		Resulting End Date	
Possible additional due to risks			

Remarks and urgent tasks			
ADB current task		Y	yes
PMU current task		N	No
PIU current task		GDR current task	
PMC current task		MOE current task	
Delegation to Tancons	Delegation to Expert	Delegation to Design Manager	Delegation IEIA consultant

Revisions													
Rev	Date	Description	By	Check	Appr.	Rev.	Date	Description	By	Check	Appr.		
0	11.10.19	Inception	MCH	PPB									
1		Qtr Report 1											
2													
3													

Table 40: PIU – Kratie

	Name	Office	Position
1.	Mr. Sang Bun Then	General Director (PDPWT)	PIU Director
2.	Mr. Choub Phallin	Deputy General Director (PDPWT)	PIU Deputy Director
3.	Mr. Srouy Dara	Chief Office of Technical (PDPWT)	PIU Technical Assistance Officer
4.	Mr. Meas Sothea	Chief Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
5.	Mr. Heng Sothy	Deputy Chief Office of Planning&Finance (PDPWT)	PIU Finance Officer
6.	Mr. Samuth Lima	Director Planning Bureau (Provincial Hall)	PIU Town Development Planning Officer
7.	Mr. Sam Sontarak	Deputy Director Town Administrative Directorate (Provincial Hall)	PIU Administrative Officer
8.	Mr. Moug Sovanna	Director Town Administrative Directorate (Provincial Hall)	PIU Social and Environmental Officer
9.	Mr. Sao Sophal	Deputy Director Cross-Sector Bureau (Provincial Hall)	PIU Social safeguard and Resettlement Officer

Work Schedule Plan GMS4 Kratie Town Centre Environmental Enhancement KR-CW01

Work Schedule Plan																											
GMS4 Kratie Town Centre Environmental Enhancement KR-CW01																											
Version 0.0																											
13/10/2019																											
Task (% completion)	2019						2020																				
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3						
Mobilisation, preparation of surveys ToR, inception	█	█	█																								
Engineering																											
Topographic survey																											
Conceptual and Detailed Design																											
Bid documents																											
Procurement																											
Bidding and bid evaluation																											
ADB Bid evaluation report and No objection letter																											
Contract Documents and signature																											
Construction and supervision																											
Preconstruction activities: contract signing and mobilization																											
Construction period																											
Defects Liability Period																											
Contract close out procedures and completion report																											
Construction supervision																											

8.16 GMS4 Stung Treng Town Centre Environmental Enhancement ST-CW02

Work Package Datasheet GMS4 Stung Treng Town Centre Environmental Enhancement ST-CW02

General data			
PIU	Steung Treng	Town Centre Environmental Enhancement Pavement rehabilitation: 10,600 m ² Kerbing: 2,300 m Street furnishing: 92 lights, 92 trees, 92 benches, 50 bins, 10 exercise equipment	Cost estimate 0.75 m\$ By PPTA not yet revised
PIU Contact Name and Position	Mr. Kong Sothea Deputy General Director (PDPWT) PIU Director Telf: 012 609 735 Email:		
Project n°	CTDP-4 ADB L3686/G0592/G0593 CAM		
Works Package Number	KR-CW01		
Description	Town Centre Environmental Enhancement		
		Full work schedule plan submitted	Version N

Engineering	Work Plan	Revised		Work Plan	Revised
			Topo survey	Mobilisation	12/2019
				Program	1 mth
				End date	01/2020
				Completed	N
			Remarks		
Detailed Design	Required	Y	Bidding documents	ICB	
	Mobilisation	01/2020	Preparation	Mobilisation	03/2020
	Program plan approval	4 + 1 mth		Program approval	1 + 1 mths
	End date	06/2020		End date	05/2020
	Completed	N		Completed	N
Remarks	Waiting for surveys		Draft Submission	ADB	N
Remarks on costs				PMU	N
Draft Submission (ver 0.0)	PMU	N	Final Submission	ADB	N
Final Submission	PMU	N		PMU	N
Programmed time for Engineering by PMC		5 mths	Programmed time for approvals		1 mth
Delay to program due to Engineering			Delay to program due to approvals		

Procurement			PAM/PPTA	Revised	Status
Package / Lot	ST-CW02		Q3/2019	06/2020	
Method	National Competitive Bidding		Bid submission date		
Review (Prior / Post Sampling)	Prior		Bid evaluation report version 0		
Bidding procedure	1S1E		PMU Approval		
Estimated Value	PPTA estimate	0.75 m\$	ADB No Objection Letter		
			Contract Signature	02/2021	
Programmed time for Procurement in Work Plan		4 mths	Programmed time for ADB review for NOL		2 mths
Delay to program due to Procurement					

Supervision			Work Plan	Revised	Status
Package / Lot	ST-CW02		Contract signature	02/2021	
Contract price (excluding PS)		m\$	Mobilisation Date	06/2021	
Completion	0%	%	Commissioning		
Provisional sums		m\$	Performance Tests completed		
Total provisional sums to date	0%		Taking Over	08/2022	
Contingencies	10%		Defects Liability Period (12 mths)	08/2023	
Variation orders, dayworks and other uses of contingency funds to date	0%		Closure Procedure		
CAR Insurance	10%		Draft Completion Report	09/2023	
Bank guarantee (down payment)	10%		Final Completion Report	01/2024	
Defects liability period guarantee	5%				
Programmed time for Contractor for PMC		15 mths	Programmed time for Consultant Supervision		18 mths
Delay to program due to Procurement					

Issues and Risks Item	Status	Issues raised	Planned Mitigation	Program Actual	Risk
New trees planted on areas to be paved		Works may compromise trees	Instructions in Tender documents		
Possible program delays due to issues and risks			Not including delays in previous cells in datasheet		

Net program		Additional delays summary	
Engineering			
Procurement			
Contracting /Supervision			
Programed time for Work Package at PMC mobilization until start of construction	16 mths	Program End Date	10/2020
Total program delays		Resulting End Date	
Possible additional due to risks			

Remarks and urgent tasks			
ADB current task	Y		yes
PMU current task	N		No
PIU current task		GDR current task	
PMC current task		MOE current task	
Delegation to Tancons	Delegation to Expert	Delegation to Design Manager	Delegation IEIA consultant

Revisions											
Rev	Date	Description	By	Check	Appr.	Rev.	Date	Description	By	Check	Appr.
0	11.10.19	Inception	MCH	PPB							
1		Qtr Report 1									
2											
3											

Table 41: PIU – Stueng Treng

	Name	Office	Position
1.	Mr. Kong Sothea	Deputy General Director (PDPWT)	PIU Director
2.	Mr. Nou Vanna	Chief Office of Sewage System (PDPWT)	PIU Deputy Director
3.	Mr. Sar Socheat	Chief Office of Technical (PDPWT)	PIU Technical Assistance Officer
4.	Mr. Kheoung Sokhey To	Deputy Chief Office of Technical (PDPWT)	PIU Technical Assistance Officer
5.	Mr. Na Sou Vann	Deputy Chief Office of Sewage System (PDPWT)	PIU Finance Officer
6.	Mr. Pech Ramy	Deputy Governor (Provincial Hall)	PIU Town Development Planning Officer
7.	Mr. Seng Virak	Chief Office of Town Administrative (Provincial Hall)	PIU Administrative Officer
8.	Mr. Yen Run	Deputy Director (PDOE)	PIU Social and Environmental Officer
9.	Mr. Doung Sam OL	Chief Office of Economy (Provincial Hall)	PIU Social safeguard and Resettlement Officer

Work Schedule Plan GMS4 Stung Treng Town Centre Environmental Enhancement ST-CW02

Work Schedule Plan																											
GMS4 Stung Treng Town Centre Environmental Enhancement ST-CW02																											
Version 0.0																											
13/10/2019																											
Task (% completion)	2019						2020																				
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3						
Mobilisation, preparation of surveys ToR, inception	█	█	█																								
Engineering																											
Topographic survey																											
Conceptual and Detailed Design																											
Bid documents																											
Procurement																											
Bidding and bid evaluation																											
ADB Bid evaluation report and No objection letter																											
Contract Documents and signature																											
Construction and supervision																											
Preconstruction activities: contract signing and mob																											
Construction period																											
Defects Liability Period																											
Contract close out procedures and completion rep																											
Construction supervision																											

Annex 1: Activity Report – CTD-4 subprojects

Component	Social and Resettlement	
Type of Activity	Site visit and Meeting	
Subproject/s	GMS4 (all)	
Start date	13.08.2019	
End date	15.08.2019	
Planned Activities	Initial meeting with PIUs, site visit and preparation of land and safeguard screening	
Activities Carried Out	Update on land acquisition and resettlement situation for all GMS4 subprojects	
	Preparation for land and safeguards screening	
Appendix 1: Persons met		
Appendix 2: Pictures		
Consultant Signature	Date	
Mr Teemu Jantunen	28.8.2019	
Project Manager Signature	Date	
Mr. Pau Prat Busquets	30.08.2019	

FIELD NOTES

STUENG TRENG (14.08.2019)

WWTP

- An alternative WWTP site has been suggested by MPWT/MEF/Governor based on mission on 13. August 2019. One site was identified in PPTA, but apparently now has many AHs (11 AH), residential houses and farming, while located quite close to town (smell problems). Site also has a stream going through and deep pond within the site, making construction complicated.
- A new proposed site was identified by MPWT/MEF mission. This is located on private / titled land, but not flooded (1500m South of the old one). Land is currently largely unused (forested) or paddy fields. Negotiated LAR is to be applied if possible for purchase, in case the site is deemed feasible. Access road ROW is 5-6m (width). Site height approximately 45m AMSL on its Eastern end next to the access road. On the contrary, sluice gates along the river are all approximately 31-35m AMSL. Hence, there is potential issue with topography for a gravity fed system.
- Sluice gates are all located on public land, and they are existing flood gates. Two gates have pump stations built in 2018 (two middle ones). Two remaining have limited land combined with flooding behind the barrier, reducing options for pump station construction. None are automated gates at the moment.
- Network structure and pump stations locations have not been decided yet.
- Municipality wants to keep the new site selection quiet until LAR is done to avoid encroachment.

City center improvements

- Existing development projects in the city include water supply (ADB), urban drainage for flooding (government funded) and construction of concrete road on riverside on-going (only road surface) under governor initiative. Maps showing alignments have been requested.
- Park tree plantation has been done on boulevard leading to the riverside already, but pavement and beautification is still needed.

Landfill

- The new landfill is located on private state land (DPWT), occupying 10ha/100ha available.
- The state land was given to DPWT for landfill in 2018 (by governor). The land is part of Provincial reserved land. It is currently unused forested with secondary forest, and it belonged to the State before reallocation.
- The site has been demarcated (with trenches) and people clearing the surrounding lands for plantations have been informed of the upcoming use.
- The access road to the site requires widening for the last 700m. The land on both sides of the road are also State land.
- The site has originally been deforested prior to 2011, but the site has not been used for agriculture, pasture or other uses. It has not structures on it. Surrounding last is being cleared in 2019 for plantations, but these are not active yet.
- The existing landfill site is located on State land (Ramsar protected area), hence closure of the site is needed. The site is divided into three active areas of waste dumping.
- At least 3 AHs of waste pickers are working on the site. One interviewed has vegetable growing as secondary income.

Institutional aspects

- GRC formulated, but not started to work yet.
- PIU RS coordinator has been appointed.
- Vocational training is available for livelihood and income restoration program.

KRATIE (14-15.08.2019)

WWTP

- WWTP site is reserved and demarcated. The site is part of a lake floodplain, used for dry season cropping and as pasture. The site does not have any permanent structures. Majority of the site is privately owned and titled. There has been no developments or land use changes on site since 2010.
- WWTP site is located along a planned ring road (access road part of ring road). Phase 2 will construct the final section of the southern part of the ring road from WWTP to river.
- One karaoke/KTV will be impacted along the access road (parking lot, fences and generator). However, the ring road is apparently being covered in an earlier municipal development plan, and documentation on that has been sent from DPWT to cadastral office. This documentation was requested.
- WWTP site has potential for flooding with approximate return period of 1/4 years. Flood walls / raised area for WWTP is required.

Market

- There are no other construction activities on-going or planned in town center by the municipality. However, the municipal officials also do not have ideas on how to develop the market area, except for the need to clear street vendor away from curbs and road side. The riverside is already in fair condition. Consultants suggested developing a night market area.

Landfill

- The new landfill site is on State land, which was handed over to DPWT in 17.12.2018 (by Provincial governor). The site had nobody staying, and it has no history of agricultural use.
- The site is surrounded by commune forest. Hence, no widening or improvement work can be taken on access road. However, the access road now is wide enough (5-6m) and in good condition (laterite). However, the site is already in use for dumping of waste making it contaminated (estimated area of 15,000 m²). Existing forest on site was cleared between 2013 and 2015. Waste dumping has started sometime between 2015 and 2018. Some of the near-by commune forest also has been cleared between 2015 and 2018. Site feasibility need to be clarified with environmental experts.
- Existing landfill site is located on State land (started as a temporary site). Document is land ownership has been requested.
- The landfill site is to be closed and developed to school area, according to municipal authorities. There have been complaints from neighbors / meditation center regarding smell.
- Waste pickers working on the current site need to be compensated for loss of livelihoods (10 AH 2018, mostly farmers earning additional income). Compensation method to be decided.
- Northern end of the site has been partially covered (used from at least 2010 to 2015). Southern part in active use. No information on who has done partial closure.

Overall

- GRC established.
- PIU resettlement coordinator has been selected.
- vocational training center is available.

KAMPONG CHAM (15.08.2019)

WWTP

- The WWTP site is located on a lake which is approximately 3m deep. Backfilling will be needed.
- The access road to the site is to be decided. Plenty of options from good existing road to the East of the site, and land has been already reserved (20-30m width) by the municipality for this. There have been no changes on the lake or surrounding agricultural plots since 2003.
- PPTA initial designs have been prepared for WWTP, and municipality has these. Pump station locations have been only initially decided, to be confirmed.
- Land for both drainage and WWTP has been reserved, and WWTP site has been demarcated with cadastral office. There is more land available for WWTP if needed.
- Kampong Cham has no related constructions in project area on roads, drainage or similar.

Landfill

- The new landfill site is within State land, which was originally divided into two larger blocks and some smaller ones. Initially eastern side was selected, but due to MOE recommendation Western block is to be selected. Approximate site area is 10ha.
- The site location has been planned and reserved for ADB project since 2017. The site is empty, unused, stony and hilly area with little other use potential.
- The access road to the site is a path, and fully within State land. Widening of the access road is required.
- A new Provincial prison is being built nearby on State land.
- The old municipal landfill closed already between 2017-2018, and has been since built on with residential housing.
- Cintri is currently operating private landfill on another location on private land.
- The waste pickers who used to work there now collect directly from households and city, and occupy same area near old landfill.

Overall

- GRC formed.
- PIU RS coordinator has been selected, as is the vice governor.

RECOMMENDATIONS / NEXT ACTION TO BE TAKEN

STUENG TRENG

- a) Feasibility of the alternative WWTP site needs to be verified ASAP, and if found unsuitable, the original site identified during PPTA should be retained.
- b) Alignment of on-going municipality drainage and road works in City Center needs to be obtained to be taken into account in the network and city center improvement planning.
- c) Initiate landfill site DED.
- d) Closure of existing landfill site needs to be planned.

KRATIE

- a) Confirm WWTP site selection with Municipality, MPWT and MEF. Start DED.
- b) Confirm feasibility environmentally for the new landfill site, which is contaminated and surrounded by commune forest.
- c) Closure of existing landfill site needs to be planned.

KAMPONG CHAM

- a) Initiate DED for WWTP and network.
- b) Confirm landfill site selection and transfer of ownership from State to DPWT.

Appendix 1a: Persons Met / Stueng Treng

Name	Designation	Contacts
Mr. Sar Kimnat	General Director (PDWPT)	+855 12 852 388
Mr. Korly Sothea	Deputy General Director (PDWPT)	+855 12 609 735
Mr. Pich Ramy	Deputy Governor (Provincial Hall)	+855 12 402 944
Mr. Yen Run	Deputy General Director (PDOE)	+855 97 761 8165
Mr. Doung Sam OL	Chief of Administrative Office (Provincial Hall)	+855 97 380 2111
Mr. Vong Rada	Chief of Public Works and Transport Office (MPWT)	+855 12 451 545
Mr. Pou Manith	Deputy Director of General Directorate Public Works (MPWT)	+855 12 803 203
Mr. Chhit Socheat	Deputy Team Leader	+855 12 558 604
Mr. Mel Sophanna	National Resettlement Specialist	+855 77 937 773
Mr. Teemu Jantunen	Int'l Resettlement Specialist	+855 92 980 112

Appendix 1b: Persons Met / Kratie

Name	Designation	Contacts
Mr. Sreng Sros	General Director (PDWPT)	+855 12 998 994
Mr. Choup Phallin	Deputy General Director (PDWPT)	+855 12 831 295
Mr. Soung Sovanna	Director of Provincial Administration (Provincial Hall)	+855 99 704 247
Mr. Chimly Naravuth	Chief of General Affairs Office (PDPWT)	+855 12 578 254
Mr. Soung Sovanna	Chief of Administrative Office (Provincial Hall)	+855 99 704 247
Mr. Sam Sunthearak	Deputy Chief of Administrative Office (Provincial Hall)	+855 97 300 0012
Mr. Vong Rada	Chief of Public Works and Transport Office (MPWT)	+855 12 451 545
Mr. Pou Manith	Deputy Director of General Directorate Public Works (MPWT)	+855 12 803 203
Mr. Chhit Socheat	Deputy Team Leader	+855 12 558 604
Mr. Mel Sophanna	National Resettlement Specialist	+855 77 937 773
Mr. Teemu Jantunen	Int'l Resettlement Specialist	+855 92 980 112

Appendix 1c: Persons Met / Kampong Cham

Name	Designation	Contacts
Mr. Chan Somardy	Deputy General Director (PDPWT)	+855 12 852 526
Mr. Han Lina	Deputy Governor (Provincial Hall)	+855 12 401 313



Mr. Va Chan Ou	Chief of Administrative and Personnel Affairs Office (Provincial Hall)	+855 12 504 242
Mr. Heng Teav	Chief of Finance and Planning Office (Provincial Hall)	+855 12 977 465
Mr. Vong Rada	Chief of Public Works and Transport Office (MPWT)	+855 12 451 545
Mr. Pou Manith	Deputy Director of General Directorate Public Works (MPWT)	+855 12 803 203
Mr. Chhit Socheat	Deputy Team Leader	+855 12 558 604
Mr. Mel Sophanna	National Resettlement Specialist	+855 77 937 773
Mr. Teemu Jantunen	Int'l Resettlement Specialist	+855 92 980 112

Appendix 1d: Images / Stueng Treng



PMU, PIU and consultant team meeting



Existing sluice gate



Original WWTP site (PPTA)



Suggested alternative WWTP site



New landfill site (right), and ditch for demarcation



Existing landfill site with waste picker

Appendix 2e: Images / Kratie



PMU, PIU and consultant team meeting



PMU, PIU and consultant team meeting



New WWTP site



Access road impact on parking lot (in the back)



New (already in use) landfill site



Existing landfill site

Appendix 1f: Images / Kampong Cham



PMU, PIU and consultant team meeting



PMU, PIU and consultant team meeting



PMU, PIU and consultant team at WWTP site



New WWTP site



PMU, PIU and consultant team at landfill site



New landfill site

Annex 2: Activity Report – Serei Saophoan

Activity Report

Component	Environmental	
Type of Activity	Site visit and Meeting	
Sub-project/s	TS-2 (SSP)	
Start date	01.09.2019	
End date	03.09.2019	
Planned Activities	Initial meeting with PIUs, site visit and preparation of land and safeguard screening	
Activities Carried Out	Review location of Landfill TS-2 (SSP) wit MOE	
Appendix 1: Persons met		
Appendix 2: Pictures		
Consultant Signature	Date	
Mr Chhit Socheat	04.09.2019	
Project Manager Signature	Date	
Mr. Pau Prat Busquets	04.09.2019	

FIELD NOTES

Serei Saophoan (02.09.2019)

Landfill is widening for approximately 800m from Serei Saophoan Town which is located as following:

- East side is located next to a farm and 03 provincial department located approximately 600 m from it.
- South side is next to Korng Va Mountain, approximately 1km from the mountain.
- North side is next to lowland.
- West side is located next to a farm.
- Landfill is sloped to the north in which the land pit is approximately 20 to 30 m in depth.
- Based on the Korng Va village chief, Kompong Svay Commune, Serei Sophoan Town, he informed that this landfill location does not overlap with any natural water sources, resorts, tourist attraction places, sanctuaries, or historical sites. However, there is one small temple on Korng Va mountain which is approximately 1km from the landfill.
- Underground water situation has to dig up for more than 60 m to reach water sources.
- Based on PDWPT, landfill location has been transferred and processed to become state land under approval from Ministry of Economic and Finance.
- The team will collect more data related to this location with the local people to indicate the interval for each location.

Appendix 1a: Persons Met / Serei Saophoan

Name	Designation	Contacts
Mr. Kin Kheang Ly	Deputy Chief of Dpt Solid Waste Management, MOE	
Mr. Dek Vimean Raksmeay	Deputy Chief of Dpt Solid Waste Management, MOE	+855 17 252 737
Mr. Phay Sophy	Deputy General Director (PDOE)	+855 95 535 181
Mr. Neang Hao	Deputy Governor (Provincial Hall)	+855 11 749 030
Mr. Meas Bros	Chief of Development Office (Provincial Hall)	+855 92 293 939
Mr. Choun Chamroeun	Officer (PLMUPC)	+855 12 201 431
Mr. Prum Chorm	Village Chief Korng Va	+855 92 942 893
Mr. Kun Sokun	Officer (Provincial Hall)	+855 17 550 675
Mr. Chea Sovannchoun	Deputy General Director (PDWT)	+855 12 220 015
Mr. Mao Vannchan		+855 11 956 131
Mr. Chhit Socheat	National Deputy Team Leader	+855 12 558 604

Appendix 2a: Images / Serei Saophoan



Landfill (SSP)



Landfill (SSP)



Landfill (SSP)



PMU, PIU and consultant team meeting

a) Site

- WWTP site covers total of 16 ha, out of which 6 ha is public land and 10 ha private.
- The area has been systematically registered by the cadastral office during LMAP, so all private land has hard titles
- The site was previously a lake, but has been reclaimed for rice paddy. Considerable flooding occurs on annual basis
- DMS started in 5.Aug. According to GDR field team another 1m more is needed to complete it. Consultation done at Pagoda on 25.4.2019. Minutes & list of participants have been prepared. PIB was distributed only to people at consultations. This need to be available at office and show on notice boards.

b) Access road

- Total 3,500m in length, with designed 4.5 paved width. For 1.5km section the road is to be raised 1.4m due to flooding at WWTP site end. This section COI will be 9m (batters at 1 : 1.5)
- Initially PIU reported that canal ROW (12m) / road ROW (10m), but this needs to be confirmed
- Access road was not covered by GDR DMS so far, and also not planned. Due to impact along 1.5km raised section DMS should be conducted to check for private land / loss of land use / impact on private trees. Consultation with access road AHs not done.

c) Pump stations

- Size of pump stations sites 3.5m x 3.5m, to be installed underground. No LAR expected.
- For any impact (during construction) the contractor is to be responsible for compensation / re-installing structures

LANDFILL

- New landfill site has been selected and demarcated, but not yet paid for (negotiated land acquisition)
- Total site is 19.66 ha of private land
- Existing landfill site on private land with private company operating (Gaia, which is the same as in Siem Reap), no need for closure

RESETTLEMENT PROCESS

- GRC training has been conducted on 5.9.2019 by GDR.
- GRM is operational.
- There is no EM/IP on WWTP or landfill

SEREI SAOPHOAN / SISOPHON (11.09.2019)

WWTP

a) Site

- The identified and agreed WWTP site during PPTA covers total of 24 ha, all of which is private land. The site is a mango orchard.
- PIU / Governor suggest to change the location to 10km out of town (further 4km from the identified site) to have cheaper land to purchase. PIU is worried about potential environmental problems of the identified site as it is located fairly close to the river.



- PIU to provide coordinates for the new suggested site. TA consultant to compare sites in terms of investment and O&M cost. In case new site not technically viable PIU to stick with the identified site from PPTA.

b) Access road

- Access road to identified site (PPTA) has irrigation canal on both sides, which need to be re-installed to mitigate any impact on level of production. East side of access road has about 1-2m of space for widening, and West side less than 1m.

c) Pump stations

- Size of pump stations sites vary (both big and small), to be installed underground. No LAR expected as pump station locations are on public land.

LANDFILL

- New landfill site has been selected, but not yet demarcated or paid for (negotiated land acquisition). Pre-agreement for site purchase done. EIA for site ok.

- Total site is 12 ha of private land. Site used to be borrow site.

- Existing landfill site on public land. Site need to be prepared for closure. Waste pickers allowed to continue working on new site in some role. Waste pickers, including children, to be included in IRP

BATTAMBANG (12.09.2019)

WWTP

a) Site

- The identified and agreed WWTP site during PPTA covers total of 10 ha, all of which is private land. The site is rice paddy with some trees

- The site has been demarcated and purchased, including 2 pump station sites

- The area has been systematically registered by the cadastral office during LMAP, so all private land has hard titles

b) Access road

- Access road has irrigation canal on one side, which need to be re-installed to mitigate any impact on level of production.

- PIU was not sure of the road ROW or design width, or whether irrigation is under MAFF or MOWRAM, and this needs to be confirmed

c) Pump stations

- Large pump station sites have been purchased.

LANDFILL

- New landfill site has been initially pre-selected, but coordinates are not shared by PIU as the site selection is sensitive and PIU does not want the price to increase

- Existing landfill site is 6 ha operated by Contri and 2 ha of municipal MRF (not operational). Waste pickers on site has 20 AHs living on site, and another 40 AHs doing picking. Employment and vocational training is available from PIU, and interviews have been already conducted with them

PROCESS

- GRM training by GDR has not taken place yet

- No EM/IP in the sites

Appendix 2a: Images / Stueng Saen



PMU, PIU and consultant team meeting



WWTP access road under a low bridge



WWTP site (to the right) and access road



WWTP access road



New landfill site



New landfill site

Appendix 2b: Images / Serei Saophoan



PMU, PIU and consultant team meeting



PMU, PIU and consultant team meeting



New WWTP pump station site



Access road to WWTP



New landfill site



Existing landfill site

Appendix 2c: Images / Battambang



PMU, PIU and consultant team meeting



PMU, PIU and consultant team meeting



PMU, PIU and consultant team at WWTP site



New WWTP site



WWTP access road



WWTP pump station



Annex 4: Activity Report – Kampong Cham WWTP & Drainage

Activity Report

Component	Engineering	
Type of Activity	Site visit and Meeting at kampong Cham	
Sub-project/s		
Start date	19.09.2019	
End date	20.09.2019	
Planned Activities	Site visit at Kampong Cham	
Activities Carried Out	Visit of two possible sites for WWTP, access roads, pumping sites, current pumps and location for proposed pumps in the PPTA documents.	
	Visit of the landfill site and access road.	
Appendix 1: Persons met		
Appendix 2: Pictures		
Consultant Signature	Date	
Mr. James MacPherson	23.09.2019	
Project Manager Signature	Date	
Mr. Pau Prat Busquets	24.09.2019	

Field notes

Arrival at Provincial Department of Public Works and Transport (PDPWT) office for start of site visit and introductions with PIU Director.

1. Objectives of Site Visit

The objectives were:

- To receive plans of the existing drainage system and city planning as previously requested by the Consultants during August 2019;
- To visit the Cadastral Office to acquire city development plan and to discuss availability mapping;
- To discuss the 2 WWTP location options, their suitability, constraints such as required filling of each site to above flood levels and to identify access roads locations;
- To determine the flood levels (for 20 years design period) at the proposed WWTP sites by physical examination and by interviews with local residents, the PIU and Governor;
- To visit planned Pump Station (PS) sites and to identify new PS sites in the city center;
- To identify low spots within the city center that experience chronic flooding and associate flood levels and durations;
- To discuss the initial plans for layout of the sewerage network using gravity flow as far as possible;
- To visit numerous urban areas and roads of the city to better understand the drainage flow directions, existing culverts inlets, outlets and canals gradients to facilitate an understanding of existing drainage conditions.
- To visit the proposed landfill site and access road.

2. Field Visits of Town & Surrounding Area

We received the city development plans; however not the existing drainage plans.

We visited the areas of government offices, town centre and project service area to determine the existing characteristics, road condition, road gradient directions and accessibility to determine their suitability for incorporation into gravity sewer design of the network.

The Governor identified several low spots within the city center that experience chronic flooding. We also identified the associated flood levels and durations of flooding;

The two WWTP sites proposed by the Governor were acceptable to the consultant's team. We shall perform topographic survey works for the two sites. We indicated that 5-6 Ha of land would be required for the WWTP.

Consultant had done walk through survey of feasibility of main sewer trunk lines till WWTP site to minimise the quantity of pump station.

Two options for access roads to the WWTP sites were identified. For site in existing lake, a new access road will be required, possibly requiring compensation for loss of seasonally flooded agricultural land. For the site in the existing drainage canal, there are two public roads that can access the site.

A primary concern for WWTP site selection will be the quantity of excavation of existing sediments and the required quantity of clay soil fills to construct the WWTP. The existing evidence of flood levels indicate that WWTP Option 1 has 3 m of flooding and that Option 2 site has 5 m of flooding above existing grades. The preliminary survey works and the 2 sites will confirm the actual depths.

3. Landfill

The landfill site is within State land, which was originally divided into two larger blocks and some smaller ones. Initially eastern side was selected, but due to MOE recommendation Western block is to be selected. Approximate site area is 10ha.



The site location has been planned and reserved for ADB project since 2017. The site is empty, unused, stony and hilly area with little other use potential.

The access road to the site is a path, and fully within State land. Widening of the access road is required.

4. Conclusions

The two WWTP site options and two access roads shall require topographic surveying to facilitate an assessment of the costs to construct a WWTP at each location.

The Consultants shall need to follow-up with the cadastral office and the PDPWT office to ensure the receipt of the existing drainage mapping.

The scope of the existing drainage network and flooding areas was better understood by the consultants.

The two WWTP site options shall require topographic surveying to facilitate an assessment of the costs to construct a WWTP at each location.

The Consultants shall need to follow-up with the cadastral office and the PDPWT office to ensure the receipt of the existing drainage mapping.

The scope of the existing drainage network and flooding areas was better understood by the consultants.



Appendix 1: Persons Met

Name	Designation	Contacts
Chan Somardy	Deputy General Director, PDPWT (PIU)	
Han Lina	Deputy Governor	
James MacPherson	Wastewater & Drainage Expert - PMC	
Socheat Chhit	Deputy Team Leader - PMC	
Dhanesh Prasad	Wastewater & Drainage Expert - PMC	
Pau Prat Busquets	Project Management - PMC	

Appendix 2: Images



Existing Drainage Pump Station and Outlet. Latitude: 11.97917500° N (48N1324289.091m N)
Longitude: 105.44037167° E (48N547942.570m E). Elevation: 9.6m



WWTP Option 2 and Location of Main Access Road. Latitude: 11.98339000° N (48N1342756.006m N)
Longitude: 105.44504500° E (48N548450.606m E). Elevation: 15.300m



WWTP Option 2 - Location of Secondary Access Road



Proposed Pump Station No. 1

Latitude: 11.98493833° N (48N1324930.80m N)
Longitude: 105.46498333° E (48N550620.982m E). Elevation: 15.300m

Proposed Pump Station Location at Low Area

Latitude: 11.99105333° N (48N1325605.851m N). Longitude: 105.45864833° E
(48N549930.177m E). Elevation: 19.000m

Annex 5: Activity Report – Serei Saophoan WWTP & Drainage

Activity Report

Component	Engineering	
Type of Activity	Site Visit and Meeting at Serei Saophoan	
Sub-project/s		
Start date	09.10.2019	
End date	10.10.2019	
Planned Activities	Site visit at Serei Saophoan	
Activities Carried Out	Visit of approved site and a proposed site for WWTP and access roads. Visit and confirm the locations of 4 pumping sites and drainage discharge outlets as shown in the FS. Visit high and low density urban areas.	
Appendix 1: Persons met		
Appendix 2: Pictures		
Consultant Signature	Date	
Mr. James MacPherson	15.10.2019	
Project Manager Signature	Date	
Mr. Pau Prat Busquets	15.10.2019	

1. Meeting with Government Officials

Arrival at Provincial Department of Public Works and Transport (PDPWT) office for start of site visit and introductions with PIU Director, cadastral office, city officials and Chief of PDPWT. Meeting Attendees are shown in Appendix 1. The provincial officials were well prepared to assist us in achieving our objectives for site visits and accompanied the consultant team to all locations for pump stations, drainage outlets and WWTP.

The Chief of PDPWT informed us that the Governor requested the PDPWT to have Ramboll consider an alternate WWTP site more than 6 km beyond the location of the approved WWTP site. We informed the authorities that such a change had not been informed to us by MPWT and that the Governor's proposed site would have a dramatic negative affect to the project budget, possibly requiring a new Feasibility Study with a conceivable delay of 2 years to project implementation. The Governor was not available for a meeting during the period of our site visit.

2. Objectives of Site Visit

The objectives were:

- To discuss the confirm the WWTP location and to determine existing situation for access road conditions and required filling of the site to get above flood levels;
- To determine the flood levels (for 50 years design period) at the approved WWTP site by physical examination and by interviews with the PIU, cadastral office and PDPWT;
- To confirm the locations of planned Pump Station (PS) sites and to identify one new PS site;
- To confirm the locations of the drainage system's 2 outlet points and required site improvements;
- To discuss the initial plans for layout of the sewerage network;
- To visit the urban areas and roads of the city to better understand the population densities, the drainage flow directions, gradients, drainage outlets to river & assess existing drainage conditions.

3. Field Visits in Serei Saophaon

We visited the areas of project service area to determine the existing characteristics, road condition and road gradient directions to determine suitability for pump station locations gravity sewer network design.

We visited the locations of the drainage system's two (2) outlet points and determined that both outlet locations were acceptable. The locations are shown below in appendix 2. There is an older existing drainage channel and a new channel extension with outlet to the river. The outlet structure requires a flap gate (non-return gate) to prevent backflow from the river during periods when the river level is at it's peak. We suggested to the PDPWT that a drainage pump station should be incorporated into the new channel, to pump out urban drainage flows when the river height restricts outlet flow from the urban catchment.

We visited the locations of pump stations Nos. 1, 2 & 4 with the PDPWT & cadastral official, to confirm the locations of planned Pump Station (PS) sites. Due to the topography within catchment area of PS No. 3, it was necessary for the consultants to identify one new PS-3 site that varied by 200m from the FS site.

The access road to the approved WWTP site was upgraded during the past 1.5 years, with road elevations raised by nearly 1 m. The access road and WWTP locations are shown below in appendix 2.

The WWTP site experiences flood levels at or about the existing elevation of the site, about 1 m above the existing access road elevation near the site. The deputy chief of the PDPWT committed to provide us with flood level elevation for the site.

At the request of the PDPWT, under their directive from the Governor, we visited an alternate WWTP site; however, the location was not a suitable site for the WWTP, upon assessment by the consultant's team. We indicated that the approved WWTP site should be maintained as the most suitable location for a WWTP.

4. Conclusions

The alternate WWTP site is not an acceptable option. Due to the huge change in SoW associated with the alternate site, it would be necessary to prepare a new feasibility study to restructure the project and evaluate the impacts of such a change.

Topographic surveying results were confirmed in the field to facilitate an assessment of the sewer network layout and locations of pumping stations.

Maximum flood level at approved WWTP site is 1 m higher than access road shown in Appendix 1 photo.

The Consultants checked the locations of 3 sewage pump stations and 2 drainage outlets in cooperation with the PDPWT and the cadastral office. Each proposed location was acceptable to all parties.

Appendix 1: Persons Met

Name	Designation	Contacts
Kim Sovan	Chief, PDPWT	
Chea Sovanthuon	Deputy Chief, PDPWT	
James MacPherson	Wastewater & Drainage Expert - PMC	
Socheat Chhit	Deputy Team Leader - PMC	
Dhanesh Prasad	Wastewater & Drainage Expert - PMC	
	City Castral Department Officer	
	City Planning Department Officer	

Appendix 2: Images



Drainage Outlets Locations No. 2



Drainage Outlets Locations No. 1



Existing Drainage Channel-Connected to above Outlet and Channel Extension



WWTP Site Proposed by the Governor (6 km beyond the approved WWTP site)

Approved WWTP Site



Access Road to Approved WWTP Site



Pump Station No. 1 Location



Annex 6: Data Collection

											PROJECT NAME: TS-2/GMS-4. PROJECT MANAGEMENT CONSULTANT (PMC) Contract No. PMU/MPWT/TS-2&CTP-4/CS01					
Y=Yes/N=No	Date	Y=Yes/N=No/ P=Partial	Scale (1-5 as 1=Highly Critical)	Scale (1-5 as 1=High Priority)	Availability Green Available Red Not Available						Team member Responsible					
Request Sent	Request Date	Received Data	Critical	Priority	Bit	Serial	S. Saen	K.Chann	Krable	S. Treng		Data Type	FORMAT	RELEVANT STAKEHOLDER	MPWT designated Contact Person	Notes
National Documents																
			1	1								Cambodia Logistic Master Plan	Doc	MWPT		
			1	1								National Strategic Development Plan 2014-2018 (any update)	Doc	MWPT		http://cds-crb.gov.kh/cdc/documents/NSDP_2014-2018.pdf
			1	1								5 YEAR Provincial Development Strategy GMS	Doc	MOI		https://www.google.com/search?q=5+YEAR+Provincial+Development+5
			1	1								3 Year Provincial / Municipal Investment Plan	Doc	MOI		https://www.google.com/search?q=3+Year+Provincial+Municipal+Investment+Plan
OTHER STUDIES																
			1	1								TS-1 Townships (Current Study) - Ongoing	Web Site	MWPT	Daputhea Vong	
			1	1								GMS-1, Corridor Towns Development - July 2018	Doc	MWPT		This Study has 5 volumes
			3	3								Green Solutions Liveable Cities	Doc	ABD		Download PDF from ADB Web Site
			3	3								Nature Based Solutions	Doc	ABD		Download PDF from ADB Web Site
				2								Development programs by insitutions				
COMMUNITY FACILITIES																
				2								Hierarchy of Community Centers Plan.	Doc	MWPT		
				2								Requirements for Community Facilities.	Doc	MWPT		
				2								Population criteria for the hierarchy of community centers.	Doc	MWPT		
				2								Is there any large scale public park being planned in future within in the Towns.	Doc	MWPT		
				2								Any major shopping malls or leisure areas being planned in the Towns that will require large scale roads access and utilities services.	Doc	MWPT		
				3								Any large-scale institutions (university, hospital, training camps being planned within the Towns.	Doc	MWPT		
				2								Traditional markets (day operates) small neighborhood groceries				
				2								Postharvest/processing facilities(trading post, milling, storage, etc)				
SOCIO-ECONOMIC																
				1								Population Distribution by Census Zones and Blocks	Geodatabase			Copy of CDB Data 2016(All Provinces, Selected indicators)
				1								Population Growth & Distribution by Nationality	Geodatabase			
				1								Population Distribution by Gender (Municipality and Census block Level)	Geodatabase			
				1								Population Distribution by Age (Municipality Level)	Geodatabase			
				1								Household data (Municipality Level)	Geodatabase			
				1								Employment by Economic Activity (Municipality and Provincia levels)(2013 Survey)	Geodatabase			What survey in 2013?
				1								Employment by Occupation (Municipality and Provincial levels)	Geodatabase			
				1								Number of enterprise by Economic Aactivity (Municipality and Provincia levels)	Doc/ Available format			https://www.lica.go.jp/cambodia/office/information/investment/ku57
				2								Gross Domestic Product (National and Provincia Levels)	Doc/ Available format	MIS, MOP		The data of Gross Provincial Domestic Product (provincial level) is avails
												Land Ownership Information (Public/Private).	Doc			
												Building Permits Information.	Doc			
				1								Census 2010, 2015	Geodatabase			http://worldpopulationreview.com/countries/cambodia-population/
				1								Census 2020	Doc/ Available format			Provisional Population Census 2019 - English - FINAL
				2								Basic socio-economic indicators (Municipality and Provincia levels)	DOC	MIS, MOP		Socio-economic Survey? See a separate paper.
				1								Number of hotels and hotel rooms by province	Data			
				1								Guest nights by province by tourist origine (domestic/foreign)	Data			https://www.tourismcambodia.com/ims/resources/cambodia_tourism
				2								List of tourism businesses in Cambodia: travel agency, tour operators, guides, tourist oriented restaurants	Data			
				1								Poverty incidence	Statistics			
				2								Import / Export	Statistics			
												Education statistics				
				2								Average household income/ expenditure				
												Food/fund support programs to marginalized family (if any)				
TRAFFIC AND TRANSPORT																
			1	1								Transport Network Development Plan	Document			
			1	1								Road Network (by status and hierarchy)	GIS/Geodatabase			
			2	2								Vehicle Registration	Statistics			
			1	1								Traffic Counts	GIS/Geodatabase			
			1	1								Cargo volume	Doc/ Statistics			
			2	2								Traffic Management Policy and Plan (national, provincial, and municipal level)	Document			
			2	2								Number & state of Farm to Market Roads (FMR)	Document			
AGRICULTURE																
				2								Farm land (by product) / average size of farmed land	GIS/Geodatabase			
				1								Primary agricultural land (for preservation)	GIS/Geodatabase			
				2								Agricultural production	Doc/ Statistics			
				1								Number of farmers / average age of farmers				
				1								Major agricultural export/import and destination/source				
INFRASTRUCTURE																
				1								Rainfall Events Data	GIS/Geodatabase			
				1								Geotechnical Data	Available Format			
			1	1								Flood Zones	Available Format			
				1								Flood Study	Doc			
				1								Water supply	Data / Doc			
				1								Power supply	Data / Doc			
				2								Infrastructure development plans (by sector: water & power supplies, etc.)	Doc			
				1								Transport Facilities (ferry jetty, river port, public transport terminus, parking areas, etc)	Available Format			
DEVELOPMENT PERMIT DATA																
				1								Major Developments	GIS+CAD+Doc	MWPT		
GIS - URBAN PLANNING																
												The Land Use Survey, which include but not limited to the following attributes:				
												Buildings Conditions	GIS/Geodatabase	MWPT		
												Building height /number of floors	GIS/Geodatabase	MWPT		
												Building materials	GIS/Geodatabase	MWPT		
												Building occupancy	GIS/Geodatabase	MWPT		
												Building age/year of construction	GIS/Geodatabase	MWPT		
												Housing units by type	GIS/Geodatabase	MWPT		
			1	1								The Current landuse with major developments	GIS/Geodatabase	MWPT		
				2								Ownership & Landuse on parcel level	GIS/Geodatabase	MWPT		
				1								Vacant Parcels	GIS/Geodatabase	MWPT		
												Municipality, Zone Areas, Census Blocks	GIS/Geodatabase	MWPT		
				2								Public Facilities (By Type)	GIS/Geodatabase	MWPT		
												Other Data				
												Land allocated for Infrastructure (By Type)	GIS/Geodatabase	MWPT		
												Legal Policy Plan Boundary		MWPT		
				2								Green and Open Space	GIS/Geodatabase	MWPT		
			1	1								Environmentally Sensitive Areas (Boundaries)	GIS/Geodatabase	MWPT		
				2								Heritage & Archaeological Sites (Available data)	GIS/Geodatabase	MWPT		
			1	1								City Zoning and Towns	GIS/Geodatabase	MWPT		
												ROW (Right of Way)	GIS/Geodatabase	MWPT		
												Landscape Areas (Design)(Existing, Ongoing, Committed projects)	GIS/Geodatabase/CAD	MWPT		
												Building Layout/Footprint	GIS/Geodatabase	MWPT		
												Census Block 2010/2015(Include also, Municipality, Zone Areas)	GIS/Geodatabase	MWPT		
				2								Public Facilities (Nodes & Nodes Networks)	GIS/Geodatabase	MWPT		
				2								Land use Classification + Land use Color Codes	Doc/Excel	MWPT		
												Arial Photo/Imagery	GIS/Raster			
												Tourist sites (archaeological sites, museums, protected areas, historical monuments/buildings, amusement parks)	GIS/Geodatabase			
ENVIRONMENT																
												Ecologically significant areas	GIS+Doc	MWPT		
												Other related SEA studies	Doc	MWPT		
												Apart from the ones listed above. Any EIA's prepared for projects in the Towns	Doc	MWPT		
												Climate Change Impact Studies	Doc	MWPT		
Public Finance																
												Provincial / Municipal Revenue and Expenditure	Doc			
												Capital investment plan	Doc			

National Development Plans and Policies:

- National Strategic Development Plan of 2019-2023, Kingdom of Cambodia
- National Strategic Development Plan of 2014-2018, Kingdom of Cambodia
- KHM Rectangular Strategy Phase III, Kingdom of Cambodia
- National Policy of Green Growth (2013), Kingdom of Cambodia
- National Strategic Plan on Green Growth (2013-2030), Kingdom of Cambodia

Spatial Planning:

- Introduction to the Cambodian Spatial Planning System, Spatial Planning Series No. 1 and No. 2 (June 2016) Ministry of Land Management, Urban Planning and Construction, General Department of Land Management

Reports:

- Urban Operational Plan (2012 -2020), ADB
- Green Solutions for Liveable Cities (2016), and GrEEEn City Action Plans, ADB
- Nature-Based Solutions for Building Resilience in Towns and Cities, Case Study from the Greater Mekong Subregion (2016), ADB
- Urban Development in the Greater Mekong Subregion (2016) ADB
- Cambodia Country Poverty Analysis 2014 (2014) ADB
- TA-9192REG, Fourth Greater Mekong Subregion Corridor Towns Development, Project - 1 950099-001) (July 2018), Final Report Volumes 1 to 5, PM Group
- Climate Change Assessment, Kingdom of Cambodia: Second Urban Environmental Management in Tonle Sap Basin Project (July 2018)
- Integrated Urban Environmental Management in the Tonle Sap Basin Reports, prepared under ADB TA 7986-CAM (June 2014), Ministry of Public Works and Transport, Phnom Penh, Cambodia
 - Tonle Sap Urban Areas Development Framework, Final Document
 - Urban Development Strategy Kampong Chhnang
 - Urban Development Strategy Kampong Pursat
- Assessment of Greater Mekong Subregion Economic Corridors: Cambodia, 10th Economic Corridors Forum (December 2018), GMS Secretariat

Statistics:

- General Population Census of Cambodia 2019 Provisional Population Totals (June 2019) Ministry of Institute of Statistics & Ministry of Planning
- General Population Census of Cambodia 2008 Final Census Results Figures at a Glance, Ministry of Institute of Statistics
- General Population Census of Cambodia 1998 Final Census Results (2nd Edition) (August 2002) Ministry of Institute of Statistics & Ministry of Planning.

Annex 7: MPWT Parkas on PMU for TS-2&CTDP-4

Table 42: MPWT.

	Name	Office	Position
1.	H.E Bong Bun Houn	Secretary of State (MPWT)	Project Coordinator
2.	H.E Heng Rath Pisith	Director General Directorate of Public Works (MPWT)	Project Vice Coordinator
3.	H.E Vong Pisith	Under Secretary of State (MPWT)	Project Director
4.	Mr. Pou Manith	Deputy Director of General Directorate Public Works (MPWT)	Project Facilitator
5.	Mr. Vong Rada	Chief Office of Public Works and Transport (MPWT)	Procurement Officer
6.	Ms. Chhoun Sovady		Finance Officer
7.	Mrs. Doung Dany		Technical Assistance Officer
8.	Mr. Eang Dara Vuth		Technical Assistance Officer
9.	Mr. Vong Daputhea		Town Development Planning Officer
10.	Mr. Srey Virak		Social and Environmental Officer
11.	Mr. Eab Un Heng		Social and Resettlement Officer
12.	Mr. Nub Robert		Administrative Officer
13.	Mrs. Eung Sovannda		Administrative Officer

Table 43: PMU

	Name	Office	Position
1.	Mr. Mao Dor	PMU	Financial Expert
2.	Mr. Ya Samol	PMU	Project Engineer
3.	Mr. Pheourn Pheang	PMU	Procurement Expert



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

ក្រសួងសាធារណការ និងដឹកជញ្ជូន

លេខ: ៧២៩ ស.ក.បក

ក្រុងភ្នំពេញ ថ្ងៃទី ១៥ ខែ វិច្ឆិកា ឆ្នាំ ២០១៨
រាជធានីភ្នំពេញ, ថ្ងៃទី ១៥ ខែ វិច្ឆិកា ឆ្នាំ ២០១៨

ប្រកាស

ស្តីពី

ការរៀបចំសេវាសកាតផ្នែកគ្រប់គ្រងគម្រោង
គម្រោងកែលម្អគ្រប់គ្រងបរិស្ថានក្នុងទីភ្នាក់ងារទទួលសេវាសាធារណៈ
និងគម្រោងអភិវឌ្ឍន៍ក្រុងរៀងរៀង
ក្រោមឥណទានធនាគារអភិវឌ្ឍន៍អាស៊ី

ទេសរដ្ឋមន្ត្រី រដ្ឋមន្ត្រី ក្រសួងសាធារណការ និងដឹកជញ្ជូន

- បានឃើញរដ្ឋប្បវេណីនៃព្រះរាជាណាចក្រកម្ពុជា
- បានឃើញព្រះរាជក្រឹត្យលេខ នស/រកត/០៩០៣/៩០៣ ចុះថ្ងៃទី២៤ ខែកញ្ញា ឆ្នាំ២០១៣ ស្តីពីការតែងតាំងរាជរដ្ឋាភិបាលនៃព្រះរាជាណាចក្រកម្ពុជា
- បានឃើញព្រះរាជក្រឹត្យលេខ នស/រកត/០៤១៦/៣៦៨ ចុះថ្ងៃទី០៤ ខែមេសា ឆ្នាំ២០១៦ ស្តីពីការកែសម្រួលសេវាសកាតផ្នែកគ្រប់គ្រងនៃព្រះរាជាណាចក្រកម្ពុជា
- បានឃើញព្រះរាជក្រមលេខ ០២/នស/៩៤ ចុះថ្ងៃទី២០ ខែកក្កដា ឆ្នាំ១៩៩៤ ដែលប្រកាសឱ្យប្រើច្បាប់ស្តីពីការរៀបចំ និងការប្រព្រឹត្តទៅនៃទីស្នាក់ការណ៍រដ្ឋមន្ត្រី
- បានឃើញព្រះរាជក្រមលេខ ០៦/នស/៩៤ ចុះថ្ងៃទី៣០ ខែតុលា ឆ្នាំ១៩៩៤ ដែលប្រកាសឱ្យប្រើច្បាប់ស្តីពីសហលក្ខន្តិកៈបុគ្គលិករាជការស៊ីវិល
- បានឃើញព្រះរាជក្រមលេខ នស/រកត/០១៩៦/៧៣ ចុះថ្ងៃទី២៤ ខែមករា ឆ្នាំ១៩៩៦ ដែលប្រកាសឱ្យប្រើច្បាប់ស្តីពីការបង្កើតក្រសួងសាធារណការនិងដឹកជញ្ជូន
- បានឃើញអនុក្រឹត្យលេខ២១៦ អនក្រ.បក ចុះថ្ងៃទី១៣ ខែតុលា ឆ្នាំ២០១៦ ស្តីពីការរៀបចំនិងការប្រព្រឹត្តទៅរបស់ក្រសួងសាធារណការនិងដឹកជញ្ជូន
- បានឃើញអនុក្រឹត្យលេខ ៧៨ អនក្រ.បក ចុះថ្ងៃទី២២ ខែឧសភា ឆ្នាំ២០១២ ស្តីពីការដាក់ឱ្យប្រើប្រាស់នីតិវិធីរួមបញ្ចូលគ្នា សម្រាប់ការអនុវត្តន៍គម្រោងហិរញ្ញប្បទានសហប្រតិបត្តិការពីអង្គការអភិវឌ្ឍន៍
- យោងតាមគម្រោងការចាំបាច់របស់ក្រសួងសាធារណការនិងដឹកជញ្ជូន។

សេចក្តីផ្តើម

ប្រការ១. រៀបចំសេវាសកាតផ្នែកគ្រប់គ្រងគម្រោង សម្រាប់គម្រោងកែលម្អគ្រប់គ្រងបរិស្ថានក្នុងទីភ្នាក់ងារទទួលសេវាសាធារណៈ និងគម្រោងអភិវឌ្ឍន៍ក្រុងរៀងរៀង ក្រោមឥណទានធនាគារអភិវឌ្ឍន៍អាស៊ី ដែលមានលម្អិតសម្រាប់ដូចខាងក្រោម៖

មហាវិថីព្រះនរោត្តម ២៦៨លេខ១០៦, សង្កាត់បឹងកេងកង, ខណ្ឌដូនពេញ, រាជធានីភ្នំពេញ, កម្ពុជា ទូរស័ព្ទ/ទូរសារ: (៨៥៥) ២៣ ៥៦៦ ១១០

១- ឯកឧត្តម	មុន ម៉ិលហួន	នាយកសម្របសម្រួលគម្រោង
២- ឯកឧត្តម	ហេង ភូពិសិដ្ឋ	នាយករងសម្របសម្រួលគម្រោង
៣- ឯកឧត្តម	ច័ន្ទ ពិសិដ្ឋ	នាយកប្រតិបត្តិ
៤- លោក	កូ ម៉ាឌិត	ប្រធានសម្របសម្រួល
៥- លោក	ច័ន្ទ កំដា	ទទួលបន្ទុកលទ្ធកម្ម
៦- កញ្ញា	ឈួន សុវណ៌ី	ទទួលបន្ទុកហិរញ្ញវត្ថុ
៧- លោកស្រី	ជួន ជាតិ	ទទួលបន្ទុកបច្ចេកទេស
៨- លោក	អៀង ជាំវុឌ	ទទួលបន្ទុកបច្ចេកទេស
៩- លោក	ច័ន្ទ ជាតុច្ឆា	ទទួលបន្ទុកផែនការអភិវឌ្ឍន៍ក្រុង
១០-លោក	ស្រី ភីរៈ	ទទួលបន្ទុកសង្គម និងបរិស្ថាន
១១-លោក	អិរិប ចន់ហេង	ទទួលបន្ទុកដោះស្រាយផលប៉ះពាល់
១២-លោក	ធួម ម៉ឺនីត	ទទួលបន្ទុករដ្ឋបាលទូទៅ
១៣-លោកស្រី	រ៉ឺន សុវណ្ណជា	ទទួលបន្ទុករដ្ឋបាលទូទៅ

ប្រការ២. អង្គការនេះមានភារកិច្ចគ្រប់គ្រង គ្រប់គ្រង និងសម្របសម្រួលនៃការសិក្សា និងការអនុវត្តន៍ រាល់បណ្តា ការងារពាក់ព័ន្ធគម្រោង។

ប្រការ៣. សមាជិកនៃអង្គការដូចមានចែងក្នុងប្រការនេះ ត្រូវចូលរួមប្រជុំតាមការអញ្ជើញ និងអនុវត្តភារកិច្ច តាមការប្រគល់របស់ប្រធានគម្រោង។ សមាជិកផ្សេងៗបន្ថែមទៀត នៃអង្គការគម្រោងនេះ រៀបចំ និងតែងតាំងដោយប្រធានគម្រោងតាមការចាំបាច់។

ប្រការ៤. រាល់បទប្បញ្ញត្តិទាំងឡាយណាដែលផ្ទុយនឹងប្រកាសនេះត្រូវទុកជាធារាណ។

ប្រការ៥. នាយកទទួលបាន អនុនាយកនៃអង្គការរដ្ឋបាល អនុនាយកនៃអង្គការកម្មវិធីសេវាសាធារណៈ សាមីខ្លួនដូចមានចែងក្នុងប្រការ១ និងអង្គការពាក់ព័ន្ធត្រូវទទួលបន្ទុកអនុវត្តភារកិច្ចនេះ តាមភារកិច្ច រៀងៗខ្លួន ចាប់ពីថ្ងៃចុះហត្ថលេខានេះតទៅ។

លោកស្រី ជួន ជាតិ
លោកស្រី គ្រីស្ទីន កុណារណារ និង **ប៊ិក ជ័យ**

ស៊ុន ចាន់ថុល

- កន្លែងទទួល :**
- វិស្វកម្មសម្របសម្រួល
 - ក្រសួងសេដ្ឋកិច្ច និងហិរញ្ញវត្ថុ ដើម្បីចុះប្រកាស
 - ខ្លួនប្រកាស ៣ ថ្ងៃបន្តិច
 - ឯកសារ ការប្រកាស

១- ឯកឧត្តម	បុល ប៊ុនហួត	នាយកសម្របសម្រួលគម្រោង
២- ឯកឧត្តម	លោក តេជសិដ្ឋ	នាយករងសម្របសម្រួលគម្រោង
៣- ឯកឧត្តម	ច័ន្ទ ពិសិដ្ឋ	នាយកប្រតិបត្តិ
៤- លោក	ពូ ម៉ាណិត	ប្រធានសម្របសម្រួល
៥- លោក	ច័ន្ទ រ៉ាដា	ទទួលបន្ទុកលទ្ធកម្ម
៦- កញ្ញា	ល្អិត សុខាធី	ទទួលបន្ទុកហិរញ្ញវត្ថុ
៧- លោកស្រី	ដួង ជាតិ	ទទួលបន្ទុកបច្ចេកទេស
៨- លោក	ហៀង ជារ៉ាដូន	ទទួលបន្ទុកបច្ចេកទេស
៩- លោក	ច័ន្ទ ដារុញ្ញា	ទទួលបន្ទុកផែនការអភិវឌ្ឍន៍ក្រុង
១០-លោក	ស្រី វិរៈ	ទទួលបន្ទុកសង្គម និងបរិស្ថាន
១១-លោក	អិម ចន់រោង	ទទួលបន្ទុកដោះស្រាយផលប៉ះពាល់
១២-លោក	លុប វ៊ុយ៉ិក	ទទួលបន្ទុករដ្ឋបាលទូទៅ
១៣-លោកស្រី	អ៊ុន សុវណ្ណដា	ទទួលបន្ទុករដ្ឋបាលទូទៅ

- ប្រការ២.** អង្គការនេះមានភារកិច្ចគ្រប់គ្រង តាមផែនការ និងសម្របសម្រួលនៃការសិក្សា និងការអនុវត្តន៍ រាល់បណ្តា ការងារពាក់ព័ន្ធគម្រោង។
- ប្រការ៣.** សមាជិកនៃអង្គការដូចមានចែងក្នុងប្រការខាងលើ ត្រូវចូលរួមប្រជុំតាមការបញ្ជាក់ និងអនុវត្តភារកិច្ច តាមការប្រគល់របស់ប្រធានគម្រោង។ សមាជិកផ្សេងៗចន្លោះទៀត នៃអង្គការគម្រោងនេះ រៀបចំ និងតែងតាំងដោយប្រធានគម្រោងតាមការចាំបាច់។
- ប្រការ៤.** រាល់បទប្បញ្ញត្តិទាំងឡាយណាដែលផ្ទុយនឹងប្រកាសនេះត្រូវទុកជាធារាណ។
- ប្រការ៥.** នាយកឧត្តមរ៉ាដា អគ្គនាយកនៃអង្គនាយកដ្ឋានរដ្ឋបាល អគ្គនាយកនៃអង្គនាយកដ្ឋានសាធារណការ សាមីខ្លួនដូចមានចែងក្នុងប្រការ១ និងអង្គការពាក់ព័ន្ធត្រូវទទួលបន្ទុកអនុវត្តភារកិច្ចនេះ តាមភារកិច្ច រៀងៗខ្លួន ចាប់ពីថ្ងៃចុះហត្ថលេខាតទៅ។

លោកស្រី
ឡេង ត្រីសុវណ្ណដា រោងការ និងដឹកជញ្ជូន

ស៊ុន ចាន់តុល

- អ្នកទទួល :**
- ទីស្តីការគណៈរដ្ឋមន្ត្រី
 - ក្រសួងរដ្ឋបាល និងស្ថាប័នពាក់ព័ន្ធនានា
 - ដីកាប្រកាស ៣០ អនក្រ.ជ
 - ឯកសារ កាលប្បវត្តិ

Annex 8: MPWT Parkas on PIU for TS-2

MPWT Parkas on PIU for Second Urban Environmental Management in the Tonle Sap Basin Project (ADB L3684/G0591 CAM).

Table 44: PIU – Stung Saen

	Name	Office	Position
1.	Mr. Chou Kola	General Director (PDPWT)	PIU Director
2.	Mr. Srey Sophal	Deputy General Director (PDPWT)	PIU Deputy Director
3.	Mr. Yoan Ngoc	Chief Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
4.	Mrs. Khon Khanya	Officer Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
5.	Mr. Chhoun Sopheap	Chief Office of Accounting (PDPWT)	PIU Finance Officer
6.	Mr. Chouy Kosal	Deputy Governor Steung Sen Town (Provincial Hall)	PIU Town Development Planning Officer
7.	Mr. Ngoun Dalen	Officer of Steung Sen Town (Provincial Hall)	PIU Administrative Officer
8.	Mr. Soan Pisey	Chief Office of Legal Affairs (Provincial Hall)	PIU Social and Environmental Officer
9.	Mr. Keo Ratana	Chief Litigation Division (Provincial Hall)	PIU Social safeguard and Resettlement Officer

Table 45: PIU – Battambang

	Name	Office	Position
1.	Mrs. Kem Sokuntheary	Deputy General Director (PDPWT)	PIU Director
2.	Mrs. Horm Sina	Chief Office of Technical (PDPWT)	PIU Deputy Director
3.	Mr. San Sereysith	Chief Office of Public Works (PDPWT)	PIU Technical Assistance Officer
4.	Mr. Dem Kimny	Deputy Chief Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
5.	Mr. Run Sophoan	Officer Office of Sewage System (PDPWT)	PIU Finance Officer
6.	Mr. Lim Y Meng	Officer Office of Development Management (Provincial Hall)	PIU Town Development Planning Officer
7.	Mr. Rith Sotheavy	Deputy Chief Office of Information (Provincial Hall)	PIU Administrative Officer
8.	Mrs. Kao Chhoun Nara	Deputy Chief Office of Economic and Social (Provincial Hall)	PIU Social and Environmental Officer
9.	Mr. Nou Chamroeun	Deputy Director Administration Bureau (Provincial Hall)	PIU Social safeguard and Resettlement Officer

Table 46: PIU – Serei Saophoan

	Name	Office	Position
1.	Mr. Chea Sovann Thoun	Deputy General Director (PDPWT)	PIU Director
2.	Mr. Orn Siphea	Chief Office of Sewage System (PDPWT)	PIU Deputy Director
3.	Mr. Venh Bun Chhouy	Chief Office of Administration (PDPWT)	PIU Technical Assistance Officer
4.	Mr. Yong Vandy	Officer Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
5.	Mrs. Chhay Vannin	Deputy Chief Office of Sewage System (PDPWT)	PIU Finance Officer
6.	Mr. Khem Pich Raksmeay	Deputy Chief Office of Town Development	PIU Town Development Planning Officer
7.	Mrs. Pov Srey Pheak	Officer Administrative Bureau (Provincial Hall)	PIU Administrative Officer
8.	Mr. Mouk Lay	Deputy Director of Administrative Bureau (Provincial Hall)	PIU Social and Environmental Officer
9.	Mr. Kun Sokun	Deputy Chief Office of Town Development and Construction (Provincial Hall)	PIU Social safeguard and Resettlement Officer



**ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ**

ក្រសួងសាធារណការ និងដឹកជញ្ជូន
លេខ:.....**៧១១.ណក.ជ.សក.កបទប**

ថ្ងៃពុធ ១២ ខែ ១២ ឆ្នាំ ២០១៣ ព្រះរាជាណាចក្រកម្ពុជា
រាជធានីភ្នំពេញ, ថ្ងៃទី ២៩ ខែ ០១ ឆ្នាំ ២០១៩

ប្រកាស

ស្តីពី

**ការរៀបចំសមាសភាពនៃកម្មវិធីប្រឡង
កែលម្អគ្រប់គ្រងបរិស្ថានក្នុងដំបូងនិងទទួលបានសេវា
សម្រាប់សេវាករណ៍សាធារណៈអតិថិជនរថភ្លើង**
លេខ០១០៩

ពេលវេលាប្រកាស រដ្ឋប្បវេណី ក្រសួងសាធារណការ និងដឹកជញ្ជូន

- បានឃើញរដ្ឋប្បវេណីនៃព្រះរាជាណាចក្រកម្ពុជា
- បានឃើញព្រះរាជក្រឹត្យលេខ នស/រកត/០៩១៣/៩០៣ ចុះថ្ងៃទី២៤ ខែកញ្ញា ឆ្នាំ២០១៣ ស្តីពីការតែងតាំងរាជរដ្ឋាភិបាលនៃព្រះរាជាណាចក្រកម្ពុជា
- បានឃើញព្រះរាជក្រឹត្យលេខ នស/រកត/០៤១៦/៣៦៨ ចុះថ្ងៃទី០៤ ខែមេសា ឆ្នាំ២០១៦ ស្តីពីការកែសម្រួលសមាសភាពរាជរដ្ឋាភិបាលនៃព្រះរាជាណាចក្រកម្ពុជា
- បានឃើញព្រះរាជក្រមលេខ ០២/នស/៩៤ ចុះថ្ងៃទី២០ ខែកក្កដា ឆ្នាំ១៩៩៤ ដែលប្រកាសឱ្យប្រើច្បាប់ស្តីពីការរៀបចំ និងការប្រព្រឹត្តទៅនៃទីស្តីការគណៈរដ្ឋមន្ត្រី
- បានឃើញព្រះរាជក្រមលេខ ០៦/នស/៩៤ ចុះថ្ងៃទី៣០ ខែតុលា ឆ្នាំ១៩៩៤ ដែលប្រកាសឱ្យប្រើច្បាប់ស្តីពីសហលក្ខន្តិកៈមន្ត្រីរាជការស៊ីវិល
- បានឃើញព្រះរាជក្រមលេខ នស/រកត/០១៩៦/០៣ ចុះថ្ងៃទី២៤ ខែមករា ឆ្នាំ១៩៩៦ ដែលប្រកាសឱ្យប្រើច្បាប់ស្តីពីការបង្កើតក្រសួងសាធារណការនិងដឹកជញ្ជូន
- បានឃើញអនុក្រឹត្យលេខ២១៦ អនក្រ.បក ចុះថ្ងៃទី១៣ ខែតុលា ឆ្នាំ២០១៦ ស្តីពីការរៀបចំនិងការប្រព្រឹត្តទៅរបស់ក្រសួងសាធារណការនិងដឹកជញ្ជូន
- បានឃើញអនុក្រឹត្យលេខ ៧៤ អនក្រ.បក ចុះថ្ងៃទី២៦ ខែឧសភា ឆ្នាំ២០១២ ស្តីពីការដាក់ឱ្យប្រើប្រាស់នីតិវិធីរួមបញ្ចូលគ្នា សម្រាប់ការអនុវត្តន៍គម្រោងបរិយាយឱ្យបានសហប្រតិបត្តិការពីដំបូងអភិវឌ្ឍន៍
- យោងលិខិតលេខ ២៩៨ សក.កច ចុះថ្ងៃទី ២១ ខែ មិថុនា ឆ្នាំ ២០១៩ របស់មន្ទីរ ស.ក.ដ ខេត្តកំពង់ធំ
- យោងលិខិតលេខ ៣៩៩/១៩២៨ណ ចុះថ្ងៃទី ២០ ខែ តុលា ឆ្នាំ ២០១៩ របស់មន្ទីរ ស.ក.ដ ខេត្តបាត់ដំបង
- យោងលិខិតលេខ ៤០៦/១៩ លស ចុះថ្ងៃទី ១៨ ខែ កុម្ភៈ ឆ្នាំ ២០១៩ របស់មន្ទីរ ស.ក.ដ ខេត្តបន្ទាយមានជ័យ
- យោងតាមតម្រូវការចាំបាច់របស់ក្រសួងសាធារណការនិងដឹកជញ្ជូន ។

រាជធានីភ្នំពេញ ថ្ងៃទី ២៩ ខែ ០១ ឆ្នាំ ២០១៩ ព្រះរាជាណាចក្រកម្ពុជា រាជធានីភ្នំពេញ, កម្ពុជា លេខ០១០៩ (ម.ជ.ក) ០២៣ ៩២៦ ៩១០

សំរេងៗ

ប្រការ១. ត្រូវបានរៀបចំសមាសភាពផ្នែកអនុវត្តគម្រោងកែលម្អគ្រប់គ្រងបរិស្ថានក្រុងព្រៃបឹងទន្លេសាប
ជំហាន២ ក្រោមឈ្មោះធនាគារអភិវឌ្ឍន៍អាស៊ី ដែលមានសមាសភាពដូចខាងក្រោម៖

I-ខេត្តកំពង់ចំរើ:

១- លោក	ឌុំ កុល្លា	ប្រធានមន្ទីរស.ក.ជ	ប្រធានអនុវត្តគម្រោង
២- លោក	ស្រី សុផល	អនុប្រធានមន្ទីរ ស.ក.ជ	អនុប្រធានអនុវត្តគម្រោង
៣- លោក	យ៉ន ឌុំត	ប្រធានការិ.លូទឹក	ទទួលបន្ទុកបច្ចេកទេស
៤- លោកស្រី	ខុន ខាន់យ៉ន	មន្ត្រីការិយាល័យលូទឹក	ទទួលបន្ទុកបច្ចេកទេស
៥- លោក	ឈួន សុភាព	អនុ.ការិ.គណនេរៀ	ទទួលបន្ទុកហិរញ្ញវត្ថុ
៦- លោក	ឆួយ កុសល	អភិបាលរងក្រុងស្ទឹងសែន	ទទួលបន្ទុកផែនការអភិវឌ្ឍន៍ក្រុង
៧- លោក	ខួន ជាន់ឡាន	មន្ត្រីសាលាក្រុងស្ទឹងសែន	ទទួលបន្ទុករដ្ឋបាល
៨- លោក	ស៊ាន់ ពិសី	ប្រធានការិ.ច្បាប់សាលាខេត្ត	ទទួលបន្ទុកសង្គម និងបរិស្ថាន
៩- លោក	តែច អគនា	ប្រធានផ្នែកទទួលពាក្យបណ្តឹង	ទទួលបន្ទុកដោះស្រាយផលប៉ះពាល់

I-ខេត្តបាត់ដំបង:

១- លោកស្រី	ភឹម សុភត្តារី	អនុប្រធានមន្ទីរ ស.ក.ជ	ប្រធានអនុវត្តគម្រោង
២- លោកស្រី	ហេង ស៊ីហារ	ប្រធានការិ.បច្ចេកទេស	អនុប្រធានអនុវត្តគម្រោង
៣- លោក	សាន សិរីសិទ្ធ	ប្រធានការិ.សាធារណការ	ទទួលបន្ទុកបច្ចេកទេស
៤- លោក	ជិម គីមនី	អនុប្រធានគ្រប់គ្រងលូទឹក	ទទួលបន្ទុកបច្ចេកទេស
៥- លោក	រុន សោភ័ណ	មន្ត្រីគ្រប់គ្រងលូទឹក	ទទួលបន្ទុកហិរញ្ញវត្ថុ
៦- លោក	រឹម ធីរម៉េច	មន្ត្រីការិ.គ្រប់គ្រងការអភិវឌ្ឍន៍	ទទួលបន្ទុកផែនការអភិវឌ្ឍន៍ក្រុង
៧- លោក	រិត សុនាមី	អនុ.ការិ.សរុបនិងព័ត៌មាន	ទទួលបន្ទុករដ្ឋបាល
៨- លោកស្រី	កៅ ឈួនណារ៉ា	អនុ.ការិ.សេដ្ឋកិច្ចនិងសង្គម	ទទួលបន្ទុកសង្គម និងបរិស្ថាន
៩- លោក	ខូ ចំរើន	នាយករងរដ្ឋបាលសាលាក្រុង	ទទួលបន្ទុកដោះស្រាយផលប៉ះពាល់

I-ខេត្តបន្ទាយមានជ័យ:

១- លោក	ជា សុវណ្ណធីន	អនុប្រធានមន្ទីរ ស.ក.ជ	ប្រធានអនុវត្តគម្រោង
២- លោក	អន ស៊ីកា	ប្រធានអង្គភាពលូ	អនុប្រធានអនុវត្តគម្រោង
៣- លោក	វិញ ឌីនធួយ	ប្រធានការិ.រដ្ឋបាល	ទទួលបន្ទុកបច្ចេកទេស
៤- លោក	យ៉ុច វ៉ាន់ឌី	មន្ត្រីអង្គភាពលូ	ទទួលបន្ទុកបច្ចេកទេស
៥- លោកស្រី	នាយ ធួន្ននីន	អនុ.ការិ.អង្គភាពលូ	ទទួលបន្ទុកហិរញ្ញវត្ថុ
៦- លោក	ខែម ពេជ្រស្មី	អនុ.ការិ.អភិវឌ្ឍន៍ក្រុង	ទទួលបន្ទុកផែនការអភិវឌ្ឍន៍ក្រុង
៧- លោកស្រី	ពៅ ស្រីភាវ	មន្ត្រីរដ្ឋបាលសាលាក្រុង	ទទួលបន្ទុករដ្ឋបាល
៨- លោក	ឆុក ឡាយ	នាយករងរដ្ឋបាលសាលាក្រុង	ទទួលបន្ទុកសង្គម និងបរិស្ថាន
៩- លោក	គុណ សុភត្ត	អនុ.ការិ.អភិវឌ្ឍន៍និងសំណង់	ទទួលបន្ទុកដោះស្រាយផលប៉ះពាល់

ចេញវិញ្ញាបនបត្រនៅ ភ្នំពេញ ថ្ងៃទី ១៦ ខែ កញ្ញា ឆ្នាំ ២០២២

ប្រការ៦. ផ្នែកអនុវត្តគម្រោងនេះមានភារកិច្ចទទួលបន្ទុក តាមដានការអនុវត្ត និងសម្របសម្រួលរាល់បណ្តា
ការងារដែលពាក់ព័ន្ធគម្រោងដោយទទួលបានជាគំនិត។

ប្រការ៧. នាយកខុទ្ទកាល័យ អគ្គនាយកនៃអគ្គនាយកដ្ឋានរដ្ឋបាល អគ្គនាយក នៃអគ្គនាយកដ្ឋានសាធារណការ
និងសាមីខ្លួនជូនមានចែងក្នុងប្រការ១ ត្រូវទទួលបន្ទុកអនុវត្តតាមប្រកាសនេះចាប់ពីថ្ងៃចុះហត្ថលេខានេះ។

លេខរដ្ឋមន្ត្រី
រដ្ឋមន្ត្រី ក្រសួងសាធារណការ និងដឹកជញ្ជូន



ស៊ុន ចាន់ថុល

កន្លែងទទួល :

- ប្រឹក្សាភិបាលរដ្ឋមន្ត្រី
- ក្រសួងសេដ្ឋកិច្ច និងហិរញ្ញវត្ថុ រដ្ឋមន្ត្រី
- ដុះប្រាណ រាជធានីភ្នំពេញ
- ឯកសារ ការងាររដ្ឋមន្ត្រី

Annex 9: MPWT Parkas on PIU for CTD-4

MPWT Parkas on PIU for Fourth Greater Mekong Subregion Corridor Towns Development Project (ADB L3686/G0593 CAM).

Table 47: PIU – Kampong Cham

	Name	Office	Position
1.	Mr. Sok Srun	General Director (PDPWT)	PIU Director
2.	Mr. Chan Somardy	Deputy General Director (PDPWT)	PIU Deputy Director
3.	Mr. Nil Bunly	Chief Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
4.	Mr. Sean Khemara	Chief Office of Project Support in Town (PDPWT)	PIU Technical Assistance Officer
5.	Ms. Heng Teav	Chief Office of Planning & Finance (PDPWT)	PIU Finance Officer
6.	Mr. Hean Lina	Deputy Governor (Provincial Hall)	PIU Town Development Planning Officer
7.	Mr. Va Chan Ou	Chief Office of General Affairs (Provincial Hall)	PIU Administrative Officer
8.	Mr. Norn Phirun	Deputy Chief Office of Legal Affairs (Provincial Hall)	PIU Social and Environmental Officer
9.	Mr. Khim Sovanney	Deputy Chief Office of Development Management (Provincial Hall)	PIU Social safeguard and Resettlement Officer

Table 48: PIU – Kratie

	Name	Office	Position
1.	Mr. Sang Bun Then	General Director (PDPWT)	PIU Director
2.	Mr. Choub Phallin	Deputy General Director (PDPWT)	PIU Deputy Director
3.	Mr. Srouy Dara	Chief Office of Technical (PDPWT)	PIU Technical Assistance Officer
4.	Mr. Meas Sothea	Chief Office of Sewage System (PDPWT)	PIU Technical Assistance Officer
5.	Mr. Heng Sothy	Deputy Chief Office of Planning&Finance (PDPWT)	PIU Finance Officer
6.	Mr. Samuth Lima	Director Planning Bureau (Provincial Hall)	PIU Town Development Planning Officer
7.	Mr. Sam Sontarak	Deputy Director Town Administrative Directorate (Provincial Hall)	PIU Administrative Officer
8.	Mr. Moug Sovanna	Director Town Administrative Directorate (Provincial Hall)	PIU Social and Environmental Officer
9.	Mr. Sao Sophal	Deputy Director Cross-Sector Bureau (Provincial Hall)	PIU Social safeguard and Resettlement Officer

Table 49: PIU – Stueng Treng

	Name	Office	Position
1.	Mr. Kong Sothea	Deputy General Director (PDPWT)	PIU Director
2.	Mr. Nou Vanna	Chief Office of Sewage System (PDPWT)	PIU Deputy Director
3.	Mr. Sar Socheat	Chief Office of Technical (PDPWT)	PIU Technical Assistance Officer
4.	Mr. Kheoung Sokhey To	Deputy Chief Office of Technical (PDPWT)	PIU Technical Assistance Officer
5.	Mr. Na Sou Vann	Deputy Chief Office of Sewage System (PDPWT)	PIU Finance Officer
6.	Mr. Pech Ramy	Deputy Governor (Provincial Hall)	PIU Town Development Planning Officer
7.	Mr. Seng Virak	Chief Office of Town Administrative (Provincial Hall)	PIU Administrative Officer
8.	Mr. Yen Run	Deputy Director (PDOE)	PIU Social and Environmental Officer
9.	Mr. Doung Sam OL	Chief Office of Economy (Provincial Hall)	PIU Social safeguard and Resettlement Officer



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

ក្រសួងសាធារណការ និងដឹកជញ្ជូន
លេខ: ១១៥ ៤៧៧ គ.សក.រករាជ

ថ្ងៃពុធ ១២ ខែ កញ្ញា ឆ្នាំ ២០១២ ព្រះបរមរាជវាំង ភ្នំពេញ
រាជធានីភ្នំពេញ ថ្ងៃទី ១២ ខែ កញ្ញា ឆ្នាំ ២០១២

ប្រកាស

ស្តីពី

**ការរៀបចំសមាសភាពក្រុមអនុកម្មការប្រធាន
អភិវឌ្ឍន៍ក្រុងរៀងរៀង
ប្រកាសសាធារណការអភិវឌ្ឍន៍រោង**

2012/2012

ខេត្តសៀមរាប រដ្ឋប្រឹក្សី ក្រសួងសាធារណការ និងដឹកជញ្ជូន

- បានឃើញរដ្ឋធម្មនុញ្ញនៃព្រះរាជាណាចក្រកម្ពុជា
- បានឃើញព្រះរាជក្រឹត្យលេខ នស/រកត/០៩១៣/៩០៣ ចុះថ្ងៃទី២៤ ខែកញ្ញា ឆ្នាំ២០១៣ ស្តីពីការកែតំរូវការជំនាញនៃព្រះរាជាណាចក្រកម្ពុជា
- បានឃើញព្រះរាជក្រឹត្យលេខ នស/រកត/០៤១៦/៣៦៨ ចុះថ្ងៃទី០៤ ខែមេសា ឆ្នាំ២០១៦ ស្តីពីការកែសម្រួលសមាសភាពរាជរដ្ឋាភិបាលនៃព្រះរាជាណាចក្រកម្ពុជា
- បានឃើញព្រះរាជក្រមលេខ ០២/នស/៩៤ ចុះថ្ងៃទី២០ ខែកក្កដា ឆ្នាំ១៩៩៤ ដែលប្រកាសឱ្យប្រើច្បាប់ស្តីពីការរៀបចំ និងការប្រព្រឹត្តទៅនៃទីស្តីការគណៈរដ្ឋមន្ត្រី
- បានឃើញព្រះរាជក្រមលេខ ០៦/នស/៩៤ ចុះថ្ងៃទី៣០ ខែតុលា ឆ្នាំ១៩៩៤ ដែលប្រកាសឱ្យប្រើច្បាប់ស្តីពីសហគ្រឹះស្ថានក្រសួងសាធារណការនិងដឹកជញ្ជូន
- បានឃើញព្រះរាជក្រមលេខ នស/រកម/០១៩៦/០៣ ចុះថ្ងៃទី២៤ ខែមករា ឆ្នាំ១៩៩៦ ដែលប្រកាសឱ្យប្រើច្បាប់ស្តីពីការបង្កើតក្រសួងសាធារណការនិងដឹកជញ្ជូន
- បានឃើញអនុក្រឹត្យលេខ២១៦ អនក្រ.បក ចុះថ្ងៃទី១៣ ខែតុលា ឆ្នាំ២០១៦ ស្តីពីការរៀបចំនិងការប្រព្រឹត្តទៅរបស់ក្រសួងសាធារណការនិងដឹកជញ្ជូន
- បានឃើញអនុក្រឹត្យលេខ ៧៤ អនក្រ.បក ចុះថ្ងៃទី២២ ខែឧសភា ឆ្នាំ២០១២ ស្តីពីការដាក់ឱ្យប្រើប្រាស់នីតិវិធីរួមបញ្ចូលគ្នា សម្រាប់ការអនុវត្តន៍គម្រោងហិរញ្ញប្បទានសហប្រតិបត្តិការពីដៃគូអភិវឌ្ឍន៍
- យោងលិខិតលេខ ០៤១/១៩ លស ចុះថ្ងៃទី ៣១ ខែ មករា ឆ្នាំ ២០១៩ របស់រដ្ឋបាលខេត្តកំពង់ចាម
- យោងលិខិតលេខ ៤៧៥/១៩ លស ចុះថ្ងៃទី ១២ ខែ កញ្ញា ឆ្នាំ ២០១៩ របស់រដ្ឋបាលខេត្តត្រពាំង
- យោងលិខិតលេខ ០៩៦/១៩ សជណ ចុះថ្ងៃទី ០៨ ខែ ឧសភា ឆ្នាំ ២០១៩ របស់រដ្ឋបាល ខេត្តស្ទឹងត្រែង
- យោងតាមតម្រូវការចាំបាច់របស់ក្រសួងសាធារណការនិងដឹកជញ្ជូន ។

អគ្គនាយក្រសួងសាធារណការ និងដឹកជញ្ជូន, សង្កាត់វត្តភ្នំ, ខណ្ឌទួលគោក, រាជធានីភ្នំពេញ, កម្ពុជា ទូរស័ព្ទ/ទូរសារ: ២៥៧ ៧ ២៦៣ ៨១០

សម្រេច

ប្រការ១. ត្រូវបានរៀបចំសមាសភាពផ្នែកអនុវត្តគម្រោងអភិវឌ្ឍន៍គ្រប់រៀង៤ ក្រោមឈ្មោះធនាគារ
អភិវឌ្ឍន៍អាស៊ីដែលមានសមាសភាពដូចខាងក្រោម៖

I-ខេត្តកំពង់ចាម៖

១- លោក	សុខ ស្រីន	ប្រធានមន្ទីរស.ក.ជ	ប្រធានអនុវត្តគម្រោង
២- លោក	ចាន់ សុហឌី	អនុប្រធានមន្ទីរ ស.ក.ជ	អនុប្រធានអនុវត្តគម្រោង
៣- លោក	និល ប៊ុនធី	ប្រធានការិ.លូទឹក	មន្ត្រីបច្ចេកទេស
៤- លោក	សិន ខេមរា	ប្រធានការិ.គាំទ្រសង្គ្រោះ	មន្ត្រីបច្ចេកទេស
៥- លោកស្រី	ហេង នាម	ប្រធានការិ.ផែនការហិរញ្ញវត្ថុ	ទទួលបន្ទុកហិរញ្ញវត្ថុ
៦- លោក	ហាន សីលា	អភិបាលរងក្រុង	ទទួលបន្ទុកផែនការអភិវឌ្ឍន៍ក្រុង
៧- លោក	ថា ចាន់វ៉ុ	ប្រធានការិ.កិច្ចការទូទៅ	ទទួលបន្ទុករដ្ឋបាល
៨- លោក	នន ធីតុណ	អនុ.ការិ.កិច្ចការល្អប	ទទួលបន្ទុកសង្គម និងបរិស្ថាន
៩- លោក	យឹម សុផន្ទី	អនុ.ការិ.គ្រប់គ្រងការអភិវឌ្ឍន៍	មន្ត្រីបច្ចេកទេសដោះស្រាយផលប៉ះពាល់

I-ខេត្តក្រចេះ៖

១- លោក	ស៊ាន ប៊ុនរតន	ប្រធានមន្ទីរ ស.ក.ជ	ប្រធានអនុវត្តគម្រោង
២- លោក	ជួប ច័ន្ទីន	អនុប្រធានមន្ទីរ ស.ក.ជ	អនុប្រធានអនុវត្តគម្រោង
៣- លោក	ស្រួល ភារា	ប្រធានការិ.បច្ចេកទេស	ទទួលបន្ទុកបច្ចេកទេស
៤- លោក	ហាស សុទា	ប្រធានការិ.លូទឹក	ទទួលបន្ទុកបច្ចេកទេស
៥- លោក	ហេង សុផី	អនុ.ការិ.ផែនការហិរញ្ញវត្ថុ	ទទួលបន្ទុកហិរញ្ញវត្ថុ
៦- លោក	សាវុត សិរីនា	នាយកទីចាត់ការផែនការ	ទទួលបន្ទុកផែនការអភិវឌ្ឍន៍ក្រុង
៧- លោក	សំ សុន្ទរ	នាយករងរដ្ឋបាលក្រុង	មន្ត្រីបច្ចេកទេសរដ្ឋបាល
៨- លោក	មុន សុផន្ទី	នាយករដ្ឋបាលក្រុង	ទទួលបន្ទុកសង្គម និងបរិស្ថាន
៩- លោក	រស់ សុផល	នាយករងទីតាំងការអនុវត្តសំយ	ទទួលបន្ទុកដោះស្រាយផលប៉ះពាល់

I-ខេត្តស្ទឹងត្រែង

១- លោក	គង់ សុទា	អនុប្រធានមន្ទីរ ស.ក.ជ	ប្រធានអនុវត្តគម្រោង
២- លោក	ទូ ចន្ទីរា	ប្រធានការិ.លូទឹក	អនុប្រធានអនុវត្តគម្រោង
៣- លោក	សរ សុជាតិ	ប្រធានការិ.បច្ចេកទេស	មន្ត្រីបច្ចេកទេស
៤- លោក	ឃឿន សុភ័ក្ត្រ	អនុប្រធានការិ.បច្ចេកទេស	ទទួលបន្ទុកបច្ចេកទេស
៥- លោក	ណា សុផន្ទី	អនុ.ការិ.លូទឹក	ទទួលបន្ទុកហិរញ្ញវត្ថុ
៦- លោក	ពេជ ភីរី	អភិបាលរងក្រុងស្ទឹងត្រែង	ទទួលបន្ទុកផែនការអភិវឌ្ឍន៍ក្រុង
៧- លោក	សេង ធីរ	ប្រធានការិ.រដ្ឋបាលក្រុង	មន្ត្រីបច្ចេកទេសរដ្ឋបាល
៨- លោក	យេន រុន	អនុប្រធានមន្ទីរបរិស្ថាន	មន្ត្រីបច្ចេកទេសសង្គម និងបរិស្ថាន
៩- លោក	ជួន សំអុល	ប្រធានការិ.សេដ្ឋកិច្ច	ទទួលបន្ទុកដោះស្រាយផលប៉ះពាល់

ប្រការ២. ផ្នែកអនុវត្តគម្រោងនេះមានការកិច្ចទទួលបន្ទុក តាមដានការអនុវត្ត និងសម្របសម្រួលរាល់បណ្តា
ការងារដែលពាក់ព័ន្ធគម្រោងដោយទទួលបានជោគជ័យ។

ប្រការ៣. នាយកខុនកាល័យ អគ្គនាយកនៃអគ្គនាយកដ្ឋានរដ្ឋបាល អគ្គនាយក នៃអគ្គនាយកដ្ឋានសាធារណការ
និងសាមីខ្លួនដូចមានចែងក្នុងប្រការ១ ត្រូវទទួលបន្ទុកអនុវត្តតាមប្រកាសនេះចាប់ពីថ្ងៃចុះហត្ថលេខាតទៅ។

លោកជំទាវ
ជ្រួតជ្រាប ក្រសួងសាធារណការ និងដឹកជញ្ជូន

ស៊ុន ចាន់ថុល

- គំនូនទម្រង់ :
- ទីស្តីការគណៈរដ្ឋមន្ត្រី
 - ក្រសួងសេដ្ឋកិច្ច និងហិរញ្ញវត្ថុ និងដីធ្លី
 - ជំនួយប្រការ ៣ របស់ប្រកាស
 - ឯកសារ ការបញ្ជី

Annex 10: Gender Action Plan and Key Indicators

The Gender Action Plan in the Project Management manual gives a summary of many of the project indicators relevant especially to the Work Packages. The table below (Table 50) collates these indicators and how they are to be monitored/verified and the critical assumptions behind the initial indicators.

Table 50 : Hierarchy of objectives table

Hierarchy of objectives	Indicators	Means of verification / Monitoring evaluation method	Critical assumptions	
Objectives: Urban services for enhancing regional economic connectivity in participating towns improved:				
Specific Objectives:TS-2	Project			
Improved infrastructure	urban	1. Free household sewer connections (including on-site plumbing) for 2,540 ID Poor households including 700 FHH in participating towns (2018 baseline: 0). 2. Improved toilets provided free of charge to 760 ID Poor 1 and 2 (2018 baseline: 0) including 100 FHH 3. 30% of staff employed in operation and maintenance are women (baseline 2016: 0)	Number of WWTP constructed and capacity. Km of sewer system constructed Number of households and commercial buildings connected to the WWTP (included number of households headed by women) Number of controlled landfills constructed and operational capacity. Percentage of staff employed in O&M that are women.	Construction delays caused by late approval and implementation of land acquisition and/or resettlement.

Hierarchy of objectives	Indicators	Means of verification / Monitoring evaluation method	Critical assumptions
Improved institutional effectiveness	<ol style="list-style-type: none"> 25 government staff (including 10 women) reporting increased knowledge on urban service delivery, O&M of urban facilities, and PPP and other institutional arrangements (2018 baseline: 0) Women's representation in PMU/PIU's decision-making and technical positions for: PMU: 30% (2018: 20%); PIU Stueng Saen 30% (2018: 23%); PIU Serei Saophoan: 30% (2018: 24%) 	<p>Number of ICT-based public management systems for improved work productivity and transparency in the provincial governments.</p> <p>Number of government staff (including the percentage of women staff) in the provincial governments increased ICT skills to operate the ICT-based public services.</p>	Poor O&M of project infrastructure given limited local capacity.
Improved policy and planning environment	<ol style="list-style-type: none"> Road map for financial sustainability (including tariff road map) developed between MPWT and three provincial governments, with consultation from MEF, MIH, MOWA, MRD and other relevant agencies (2018 baseline: N/A) Urban development strategy and Master Plan, with climate resilience and gender responsive measures, developed and approved in all three cities. (2018 baseline: N/A) At least 81 schools (50% boys and 50% girls) informed on the benefits of proper sanitation, safe disposal of waste, and menstrual hygiene (2018 baseline: 0). 	<p>Number of approved Provincial five-year development plans with regional cooperation and development strategy.</p> <p>Number of schools informed on the benefits of proper sanitation, safe disposal of waste and menstrual hygiene.</p>	Lack of financial sustainability caused by limited cost recovery and/or low willingness of households to connect to sewerage network or pay for services.

Hierarchy of objectives	Indicators	Means of verification / Monitoring evaluation method	Critical assumptions
Specific Project Objectives: CTD-4			
1. Urban Environmental Infrastructure Improved			
Urban environmental infrastructure in Kampong Cham improved	<p>Waste water collection connections provided free-of-charge to 4,676 HHs in Phase 1 service area of which 991 are FHH, 122 ID Poor 1 and 34 ID Poor 2 HHs.</p> <p>Expanded and improved solid waste collection services will cover 2,416 FHHs. 0% of staff employed in operation and maintenance are women (baseline 2016: 0)</p> <p>Pilot project at Sangkat/Commune level on community management of flood resilience, gender equity in postflood clean-up, and town beautification.</p>	<p>Number of WWTP constructed and capacity.</p> <p>Km of sewer system constructed</p> <p>Number of households and commercial buildings connected to the WWTP (included number of households headed by women)</p> <p>Number of controlled landfills constructed and operational capacity.</p> <p>Square meter of pedestrian walk rehabilitated.</p> <p>Percentage of staff employed in O&M that are women.</p>	<p>Lack of financial sustainability caused by limited cost recovery and/or low willingness of households to connect to sewerage network or pay for services.</p> <p>Construction delays caused by late approval and implementation of land acquisition and/or resettlement.</p>
Urban environmental infrastructure in Kratie improved	<p>Waste water collection connections provided free-of-charge to 2,688 HHs in Phase 1 service area, of which 238 are FHH, 111 ID Poor 1 HHs, 246 ID Poor 2</p> <p>Expanded and improved solid waste collection services will cover 825 FHHs.</p> <p>30% of staff employed in operation and maintenance are women (baseline 2016: 0).</p> <p>Pilot project at Sangkat/Commune level on community management of flood resilience, gender equity in postflood clean-up, and town beautification.</p>		

Hierarchy of objectives	Indicators	Means of verification / Monitoring evaluation method	Critical assumptions
<p>Urban environmental infrastructure in Stung Treng improved.</p>	<p>Waste water collection connections provided free-ofcharge to 2,253 HHs in Phase 1 service area, of which 163 are FHH, 6 ID Poor 2 HHs.</p> <p>Expanded and improved solid waste collection services will cover 446 FHHs.</p> <p>30% of staff employed in operation and maintenance are women (baseline 2016: 0).</p> <p>Pilot project at Sangkat/Commune level on community management of flood resilience, gender equity in postflood clean-up, and town beautification.</p>		
<p>2. Institutional capacities and national infrastructure for regional economic connectivity enhanced</p>			
<p>.</p>	<p>Provincial Development Strategies approved include social inclusion and gender equity components.</p> <p>In development of Provincial Development Strategy and implementation of ICT initiatives 30% and 50%, respectively, of participants from government agencies will be female staff.</p> <p>In workshops related to Provincial Development Strategy and ICT initiatives 50% of participants will be women</p> <p>Existing staff responsible for financial management and administration (majority women) to be trained in ICTM</p>	<p>Number of ICT-based public management systems for improved work productivity and transparency in the provincial governments.</p> <p>Number of approved Provincial five-year development plans with regional cooperation and development strategy.</p> <p>Number of government staff (including the percentage of women staff) in the provincial governments increased ICT skills to operate the ICT-based public services.</p>	<p>Poor O&M of project infrastructure given limited local capacity.</p>

Hierarchy of objectives	Indicators	Means of verification / Monitoring evaluation method	Critical assumptions
	<p>At least 120 government staff (at least 50% women) in the provincial governments trained ICT skills to operate the ICTM services (2017 aseline: 0)</p> <p>At least 60 government staff (at least 25% women) in the implementing agencies gained new technical, operational and maintenance knowledge and skills on wastewater treatment facility, drainage systems and controlled land-fill (2017 baseline: 0)</p> <p>Women’s representation in PMU/PIU decision making and technical positions 20% (PMU and PIU Steung Treng) and 25% (PIUs Kampong Cham and Kratie). (Baseline (2011-2015) for PMU: MPWT 17%; PDPWT cumulative 14.85% women in managerial positions, PIU: PDPWT percentage of managerial positions occupied by women: Kampong Cham: 25% Kratie 22%; Stung Treng 18%)</p> <p>Orientation on GAP implementation, monitoring, and reporting provided to PMU/PIU staff, and local implementation partners.</p> <p>GAP integrated in overall work plan, budget and PPMS</p> <p>Collection and monitoring of sex-disaggregated data with gender sensitive indicators incorporated in the PPMS and reflected in quarterly reports and GAP monitoring reports using ADBs template.</p>		

Annex 11: Meetings conducted over the Inception period

- Introductory meetings:
 - Kick off meeting on 17 July 2019
 - Ramboll Project Director and Project Manager meeting on 20 August 2020
- Specific technical discussion meetings and initial site visits
 - Technical meeting on design from 12 – 14 August 2019
 - Site visit to Stueng Treng, Kratie and Kampong Cham from 13 – 15 August 2019
 - Site visit to Serei Saophoan landfill on 2 September 2019 (Annex 2: Activity Report – Serei Saophoan)
 - Site visit to Stueng Saen, Serei Saophoan and Battambang from 10 to 12 September 2019 (Annex 3: Activity Report – TS-2 subprojects)
 - Site visit to Kampong Cham wastewater and drainage from 19 to 20 September 2019 (Annex 4: Activity Report – Kampong Cham WWTP & Drainage)
 - Site visit to Serei Saophoan wastewater and drainage from 23 to 25 October 2019 (Annex 5: Activity Report – Serei Saophoan WWTP & Drainage).
 - PMC is and have been available to MPWT and PMU since the mobilization date, informal meetings take place several times a week.
- Meetings with MPWT, PMU, PIUs and PMC
 - Stueng Treng PIU meeting on 14 August 2019
 - Kratie PIU meeting on 14 August 2019
 - Kampong Cham PIU meeting on 15 August 2019
 - Stueng Saen PIU meeting on 10 September 2019
 - Serei Saophoan PIU meeting on 11 September 2019
 - Battambang PIU meeting on 12 September 2019
 - Serei Saophoan PIU and MOE meeting on 19 September 2019
 - Kampong Cham PIU meeting on 19 and 20 September 2019