



**Ministry of Public Works and Transport  
Kingdom of Cambodia**

**Second Greater Mekong Sub Region (GMS)  
Corridor Towns Development Project**

**Loan No. 3314-CAM**

**4<sup>th</sup> Quarterly Report 2021  
(October – December)**

**24 January 2022**

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## ABBREVIATIONS AND ACRONYMS

ADB	-	Asian Development Bank
BOQ	-	Bill of Quantity
CAD	-	Cost Estimate Report
CBTS	-	Capacity Building and Training Specialist
CS	-	Construction Supervision
CTDP	-	Corridor Towns Development Project
DDR	-	Due Diligence Report
DED	-	Detailed Engineering Design
DMF	-	Design and Monitoring Framework
EA	-	Executive Agency
EM	-	External Monitoring
EMP	-	Environmental Management Plan
GAP	-	Gender Action Plan
GDR	-	General Department of Resettlement
GMS	-	Greater Mekong Sub-region
ICB	-	International Competitive Bidding
IEE	-	Initial Environmental Examination
IOL	-	Inventory of Loss
IRC	-	Inter-Ministerial Resettlement Committee
LAR	-	Land Acquisition and Resettlement
M&E	-	Monitoring and Evaluation
MEF	-	Ministry of Economy and Finance
MPS	-	Main Pumping Station
MPWT	-	Ministry of Public Works and Transport
NCB	-	National Competitive Bidding
NOL	-	No Objection Letter
O&M	-	Operation and Maintenance
PAP	-	Project-affected People
PDPWT	-	Provincial Department of Public Works and Transport
PISCB	-	Project Implementation Support and Capacity Building
PIU	-	Project Implementation Unit
PMU	-	Project Management Unit
PPMS	-	Project Performance Management System
PPP	-	Public-Private Partnership
Q	-	Quarter
RGC	-	Royal Government of Cambodia
RP	-	Resettlement Plan
SDR	-	Special Drawing Rights
SEC	-	Southern Economic Corridor
SLEDP	-	Strategic Local Economic Development Plan
SRMR	-	Semi-Annual Resettlement Monitoring Report
UD	-	Urban Drainage
WWT	-	Wastewater Treatment
WWTP	-	Wastewater Treatment Plant



## SECTION 1 INTRODUCTION AND BASIC DATA

### 1.1 PROJECT OVERVIEW

The Royal Government of Cambodia has received loans and grants from the Asian Development Bank (ADB) towards the cost of the Second Greater Mekong Sub-region (GMS) Economic Corridor Towns Development Project (the Project). Loan Number 33-14 CAM, under a Loan agreement between the Kingdom of Cambodia and the Asian Development Bank (ADB), implementation of the Second Mekong Sub-region (GMS) Corridor Town Development Project (CDTP) is funded. The Loan agreement was signed on 22 December 2015. The Loan was declared effective on 29 February 2016. The original loan closing date was 30 June 2021, but that has been subsequently extended to 31 December 2023, with the project closing date on 30 September 2023 was approved on 10 May 2021.

On 16 October 2019 a request was made to the ADB to cancel six subprojects in Sihanoukville, which includes CW03: Sihanoukville Urban Drainage Works and CW04 and Sihanoukville Solid Waste Management. Subsequently it was agreed with the Government to reallocate the funds freed up by the cancelation of the Sihanoukville subproject to the Kampot subproject. As, because of funding limitation the envisaged scope of works for the Kampot subproject were reduced, the funds reallocated from the Sihanoukville subproject will now be applied to restore and reinforce the originally planned works that will ensure that the intended outcomes and outputs as agreed in the loan documents are achieved.

The Project will now focus on improving urban services in the town of Kampot and includes: (i) development and implementation of Strategic Local Economic Development Plans (SLEDPs); (ii) design and construction of priority urban infrastructure investments implemented; (iii) development of institutional capacities for managing public investments; and (iv) improving community awareness related to project activities and environmental sustainability.

The expected outcome of the project will improve urban infrastructure and enhanced climate resilience in Kampot town. The project now includes 3 components in Kampot

- Wastewater Collection and Treatment
- Urban Drainage
- Solid Waste Management

Note: The Wastewater Collection and Treatment and the Urban Drainage components have been combined under one works contract CW01 Wastewater Collection and Treatment and Urban Drainage.



## 1.2 BASIC DATA

Presented below is the basic Project data.

<b>Project Title:</b>	Second Greater Mekong Subregion Economic Corridor Towns Development Project		
<b>Project Number</b>	46443-002		
<b>Borrower:</b>	Kingdom of Cambodia		
<b>Executing Agency (EA) and Implementing Agencies (IA)</b>	The EA of the Project is the Ministry of Public Works and Transport (MPWT). The EA assumes overall responsibility for the project implementation through the Project Management Unit (PMU). The Provincial Town Governor, in cooperation with PMU, has set up a PIU for the implementation of subproject activities. The key members of the PMU and PIU are presented in <b>Appendix 1</b> .		
<b>Total Project Cost and Financing Plan</b>			
<b>Loan/Grant No.</b>	<b>Source of Funding</b>	<b>Amount (US\$ million)</b>	<b>Share of Total (%)</b>
Loan No. 3314-CAM	Asia Development Fund	33.00	86.6%
	Government of Cambodia	5.10	13.4%
	<b>Total Project Cost</b>	<b>38.10</b>	<b>100.0%</b>

Source: Asian Development Bank estimates.

<b>Date of Loan Approval</b>	13 November 2015
<b>Date of Signing of Agreement</b>	22 December 2015
<b>Date of Effectiveness</b>	29 February 2016
<b>Loan/Grant Closing Date</b>	
<b>Original</b>	30 June 2021 (loan period is 5.42 years from date of effectiveness)
<b>Extension</b>	31 December 2023 (loan period is 7.84 years from date of effectiveness)
<b>Elapsed Loan Period</b>	5.84 years from date of effectiveness (as of 31 December 2021) 74 % of loan period
<b>Dates of ADB Review Missions</b>	07 – 14 December 2016, 14 - 15 June 2017, 25 – 29 August 2017, 25 Feb – 04 March 2019, 2-5 September 2019, 4 – 7 November 2019 and 6 – 7 February 2020

## 1.3 REPORTING PERIOD

This Quarterly Report is for the 4th Quarter of 2021 – October - December 2021 reporting period. It provides a summary of accomplishments during the reporting period, identifies major issues and concerns and recommends the action required, compliance with safeguards and covenants, and lists activities to be carried out in the next quarter.



## SECTION 2 UTILIZATION OF FUNDS

### 2.1 PROJECT COST ESTIMATE

The Project cost estimates (US\$ million) were amended to take into consideration, the reallocation of loan proceeds due to contract awards under loan categories that already exceeded their allocation and the prioritization of subprojects such that total cost will be within the available budget. **Table 2.1 and 2.2** presents the Detailed Cost Estimate by Output and Financier prepared by MEF and approved by ADB.

**Table 2.1: Detailed Cost Estimate by output and by financier (US\$ million)**

**(Second Greater Mekong Subregion Economic Corridor Towns Development Project)**

No.	Item	Total		ADB Loan		RGC			
		Amount	%	Amount	%	Amount	Taxes & Duties	Subtotal	%
<b>A</b>	<b>Base Cost</b>								
1	<b>Kampot</b>								
1.1	Wastewater collection and treatment	9.74	26%	7.28	75%	1.73	0.73	2.46	25%
1.2	Solid waste management	3.01	8%	2.53	84%	0.23	0.25	0.48	16%
1.3	Urban drainage	1.80	5%	1.48	82%	0.17	0.15	0.32	18%
	<b>Subtotal Kampot</b>	<b>14.55</b>	<b>38%</b>	<b>11.29</b>	<b>78%</b>	<b>2.13</b>	<b>1.13</b>	<b>3.26</b>	<b>22%</b>
2	<b>Sihanoukville</b>								
2.1	Wastewater collection and treatment	2.90	8%	2.64	91%	-	0.26	0.26	9%
2.2	Solid waste management	9.68	25%	8.80	91%	-	0.88	0.88	9%
	<b>Subtotal Sihanoukville</b>	<b>12.58</b>	<b>33%</b>	<b>11.44</b>	<b>91%</b>	<b>-</b>	<b>1.14</b>	<b>1.14</b>	<b>9%</b>
3	Project Implementation and Capacity Developm	3.58	9%	3.25	91%	-	0.33	0.33	9%
4	Incremental Administration Cost								
4A	Salary Supplements and Project Audit	0.37	1%	-	0%	0.34	0.03	0.37	100%
2D	Other Incremental Administration Cost	0.56	1%	0.56	100%	-	-	-	0%
	<b>Subtotal (A)</b>	<b>31.64</b>	<b>83%</b>	<b>26.54</b>	<b>84%</b>	<b>2.47</b>	<b>2.63</b>	<b>5.10</b>	<b>16%</b>
<b>B</b>	<b>Contingencies</b>								
1	Physical Contingencies	2.95	8%	2.95	100%	-	-	-	0%
2	Price Contingencies	2.66	7%	2.66	100%	-	-	-	0%
	<b>Subtotal (B)</b>	<b>5.61</b>	<b>15%</b>	<b>5.61</b>	<b>100%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0%</b>
<b>C</b>	<b>Financial Charges During Implementation</b>	<b>0.85</b>	<b>2%</b>	<b>0.85</b>	<b>100%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0%</b>
	<b>Total (A+B+C)</b>	<b>38.10</b>	<b>100%</b>	<b>33.00</b>	<b>86.6%</b>	<b>2.47</b>	<b>2.63</b>	<b>5.10</b>	<b>13.4%</b>

Source: Project Administrative Manual



**Table 2.2: Detailed Cost Estimates by Financier**

**(Second Greater Mekong Subregion Economic Corridor Towns Development Project)**

No.	Item	ADB		RGC				Total
		Amount	%	Amount	Amount (Taxes & Duties)	Amount (Total)	%	
<b>A</b>	<b>Base Cost</b>							
1	Civil Works	22.18	90.9%	-	2.22	2.22	9.1%	24.40
2	Equipment and Materials	0.55	90.2%	-	0.06	0.06	9.8%	0.61
3	Land Acquisition and Resettlement	-	0.0%	2.13	-	2.13	100.0%	2.13
4	Project Implementation and Capacity Building	3.25	90.8%	-	0.33	0.33	9.2%	3.58
5	Incremental Administration Cost							
5A	Salary Supplements and Project Audit	-	0.0%	0.34	0.03	0.37	100.0%	0.37
5B	Other Incremental Administration Cost	0.56	100.0%	-	-	-	0.0%	0.56
	<b>Subtotal (A)</b>	<b>26.54</b>	<b>83.9%</b>	<b>2.47</b>	<b>2.64</b>	<b>5.11</b>	<b>16.1%</b>	<b>31.65</b>
<b>B.</b>	<b>Contingencies</b>							
1	Physical contingencies	2.95	100.0%	-	-	-	0.0%	2.95
2	Price contingencies	2.66	100.0%	-	-	-	0.0%	2.66
	<b>Subtotal (B)</b>	<b>5.61</b>	<b>100.0%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.0%</b>	<b>5.61</b>
<b>C.</b>	<b>Financial Charges During Implementation</b>	0.85	100.0%	-	-	-	0.0%	0.85
	<b>Total (A+B+C)</b>	<b>33.00</b>	<b>86.6%</b>	<b>2.47</b>	<b>2.64</b>	<b>5.11</b>	<b>13.4%</b>	<b>38.11</b>

Source: Project Administrative Manual

## 2.2 LOAN PROCEEDS

Loan utilization by category, as of 31 December 2021 is indicated in Table 2.3 below:

**Table 2.3: Status of Loan Utilization (Loan 3314)**

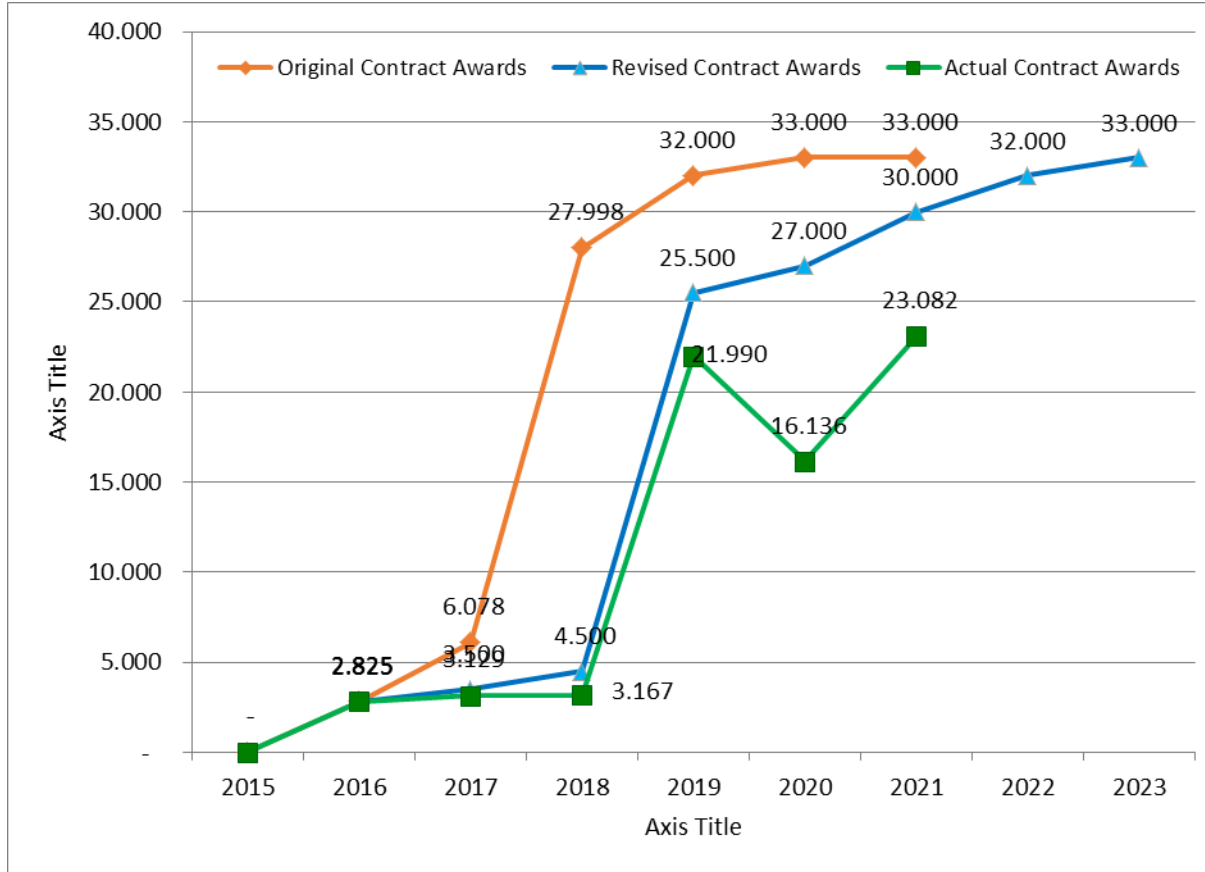
As of 31 Dec 2021							
Cat. Ref.	Category Name	US Dollars, million					
		Allocation	Contracts Awarded	Uncontracted Loan Balance	Contracts Disbursed	Undisbursed Loan Balance	Undisbursed Contract Balance
		A	B	C = A - B	D	E = A - D	F = B - D
1	Works	24,931,809.07	18,801,159.43	6,130,649.64	6,986,424.86	17,945,384.21	11,814,734.57
2	Equipment and Materials	545,836.25	-	545,836.25		545,836.25	
3	Project Implementation and Capacity Development	3,617,648.37	3,561,891.00	55,757.37	3,025,542.62	592,105.75	536,348.38
4A	Salary Supplements and Project Audit	560,000.00	198,671.53	361,328.47	198,671.53	361,328.47	-
4B	Other Incremental Administration Cost	635,408.87	520,563.64	114,845.23	505,443.64	129,965.23	15,120.00
5	Unallocated Budget	841,586.04	-	841,586.04	193,179.34	648,406.70	(193,179.34)
6	Interest Charge	2,117,923.02	-	2,117,923.02	-	2,117,923.02	-
99	Imprest Account	2,384.23			426,000.00	(423,615.77)	(426,000.00)
	<b>Total (A+B+C)</b>	<b>33,252,595.85</b>	<b>23,082,285.60</b>	<b>10,167,926.02</b>	<b>11,335,261.99</b>	<b>21,917,333.86</b>	<b>11,747,023.61</b>
	ADB and PMU Source: 31 Dec 2021	560,000.00	198,671.53	361,328.47	(0.00)	361,328.47	



### 2.3 CONTRACT AWARDS

Contract awards were made during the reporting period. As of 31 December 2021, the contracts awarded in quarter 4<sup>th</sup> by PMU amounted to US\$23,082,285 million, or 69% of total loan amount. **Figure 2.1** shows the S-curves of the cumulative actual contract awards, original contract awards and revised contract awards. The revision of the targets was made based on the approved reallocation of loan/grant proceeds, and an updated procurement plan.

**Figure 2.1: Cumulative Actual Versus Projected Contract Awards**

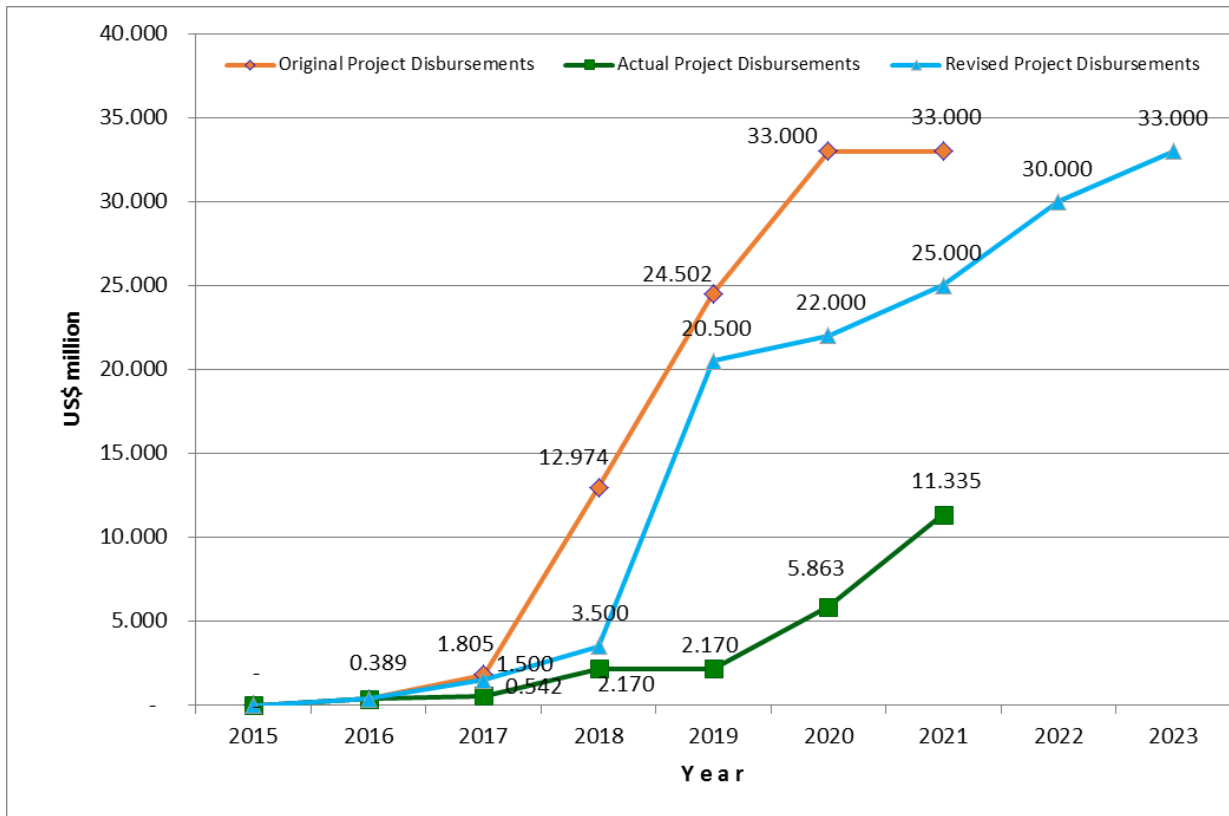


### 2.4 DISBURSEMENT

Disbursements were made during the reporting period. So far, a total of US\$ 11,335,261 million, or 49% of total contract awards has been disbursed; this is equivalent to 34% of total loan amount. The S-curves of the cumulative actual versus projected disbursements, original projected disbursements and revised projected disbursements are shown in **Figure 2.2**.



Figure 2.2: Cumulative Actual Versus Projected Disbursements



## 2.5 COUNTERPART FUNDS

No payments were made from the RGC counterpart fund during the reporting period. PMU and PIU staffs' allowances were paid from the account's balance. As of 31 December 2021, the total counterpart funds released to the Project was US\$ **198,671.53** or 4% of the total government contribution.



## SECTION 3 IMPLEMENTATION PROGRESS

### 3.1 OVERALL PROGRESS

The overall physical progress of the project is 53.83%<sup>1</sup> versus an elapsed time of 74% based on the revised project closing date. The extension of the loan closing date to 31 December 2023, with the project closing date on 30 September 2023 was approved on 10 May 2021.

The revised implementation schedule for the project is presented in the **Appendix 2**.

The progress of the project main project outputs can be summarized as follows:

- Output 1 - SLEDPs Developed: 50%
- Output 2 - Priority Urban Infrastructure Investments Implemented
  - Kampot WWTP and Drainage Works including additional works under the scope change: 43.47%
  - Kampot Solid Waste Management: 45.75%
  - Sihanoukville Drainage Works: Cancelled
  - Sihanoukville Solid Waste Management: Cancelled
- Output 3 - Institutional Capacities for Managing Public Investments Strengthened: 80%
- Output 4 - Community Awareness on Project Activities and Environmental Sustainability Improved: 50%

#### Preparation of the Kampot SLEDP

Refinement and implementation of SLEDP Put on hold till after approval of the project scope change

#### CW01 Kampot WWTP and Drainage Works

Overall Implementation Progress of works under the original scope of the contract, VO1 and VO2 Contract has been awarded on 26 September 2019. The progress at the end of December 2021 is 43.47%. Under VO3 and VO4 and VO5, it is proposed to extend the contract validity till the end of June 2022. The contractor has submitted a request for contract extension.

Construction new sewer lines As more than 50% of the houses and building in the town center have combined drainage/sewerage house connections to the existing drainage system, it is proposed that at this stage the sewage collection should be limited to the interception of the sewage flow from the existing drainage

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<sup>1</sup> The project implementation progress is less than reported for the previous month because after the project scope change the works completed for the cancelled Sihanoukville subproject are no longer considered for the overall project implementation progress.

system. The redesigned sewerage works are included in VO4 and will include:

- (i) The construction of the proposed C3 pumping station and force main;
- (ii) Sewage flow interceptors in the drainage lines at the C1, C3 and MPS pumping stations.

Construction  
WWTP

The Structural work of the anaerobic tank has been completed. The installation of the reinforced foundation layer for the construction of the stabilization pond embankments has been 92% completed, there were included the rocks filling, Geogrids and Geotextiles of the embankment for 2 Maturation ponds and 2 Facultative ponds.



View of Soil/Rock filling and Geogrids and Geotextiles laying of the WWTP site

Construction of  
pumping stations,  
force main lines

Structural work for the C1 pumping station has been completed.

Site development for the MPS has been started with 90% of the soil filling completed.

Work is ongoing for the installation of the MPS-WWTP force main line. All the required pipes have been supplied to the site; 4,269 m of pipeline has been installed.



Soil filling of the MPS site and access road

Construction of new storm drainage lines	The installation of 310m section of the new u-drain line 3 is completed. Road rectification is not yet started. The remaining new drainage lines are being redesigned and will be included in VO5.
Cleaning of the existing combined drainage/sewerage system	Cleaning of the existing combined drainage/sewerage system has been completed in March apart from 2.5 km of drainage lines in the town center of which the manholes have been covered by new pavement on the road or sidewalks. Repair of damaged manhole covers and manhole pits is ongoing, repair of approximately 100 manholes has been completed
Cleaning of the existing combined drainage/sewerage system	Cleaning of the existing combined drainage/sewerage system has been completed in March apart from 2.5 km of drainage lines in the town center of which the manholes have been covered by new pavement on the road or sidewalks. 580 of 690 damaged manhole covers and manhole pits was repair and completed.

### **CW02 Kampot Solid Waste Management**

Detailed engineering design	DED has been completed.
Overall Implementation Progress	The contract for the construction of the landfill was signed on 20 May 2021 The progress at the end of December 2021 is 45.75%.
Construction	Preliminary works (mobilization, setting up site camp, UXO clearance) have been completed. The development of the landfill site has been 100% completed and the earthwork for the 2 waste cells, the 2 leachate ponds and the wetland has been 95% completed.



Overview of the landfill construction with earthwork for site development and 2 waste cells completed

### Additional Works under the Project Scope Change

CW01 VO - 03, The VO3 includes the renovation of the open canal line 4 b between the NR33 and the Kampot river

Detailed designs and cost estimates have been completed and the CW01-VO3 has been approved by ADB. The cost of the VO is USD 2,932,979.

Status

The EMP has been updated to include the canal renovation works. The DDR has been approved by ADB on dated 09 November 2021.

The VO4 will include:

CW01 – VO-04

- Renovation of the open canal section between NR33 and the MPS;
- Development of the MPS balancing reservoir;
- Pretreatment and primary settlement facilities at the MPS with interception of the sewerage flow from the C2 sector;
- Gate pump pumping station at the outfall of line 4 B;
- Drainage trunk line from the new bridge to the outfall of line 4 b along the Kampot River to collect drainage flow from the town area;
- Construction of the C3 pumping station and force main;
- Sewage flow interceptors from the existing combined drainage/sewerage system at the C1 and C3 pumping stations;
- Strengthening of the existing drainage system.

Detailed designs, cost estimates and VO-04 will be finalized. The total cost of the VO is estimated at USD 4,800,000.

Status

IEE and EMP will require further updating. The resettlement DDR for the drainage and sewerage system will have to be updated.



CW02 – VO-01

The VO1 will include the renovation of the access road section between the Quarry Factory and the Landfill with distance 3,100m.

#### **Institutional Capacities for Managing Public Investments Strengthened**

Capacity development for O&M and financial management of completed infrastructure

On hold until the project scope change is approved

Support for small service providers and Private Public Partnership (PPP)

On hold until the project scope change is approved

#### **Community Awareness on Project Activities and Environmental Sustainability**

Sustainable Livelihoods Development and Community Awareness

On hold until contract VO-08 has been approved

### **3.2 PHYSICAL PROGRESS**

The Overall implementation progress of the Second Greater Mekong Subregion (GMS) Corridor Towns Development Project is estimated about 53,83%, as of the end of December 2021. The project implementation progress is less than reported for the previous month because after the project scope change, the works completed for the cancelled Sihanoukville subproject are no longer taken into consideration for the overall project implementation progress.



**Table 3.1: Project Implementation Progress (PIP)**

No.	Activities	PAM/TOR Ref.	Progress	Sub-pro Wt	Sub Total	Overall Wt	Overall Total
			(%)	(%)	(%)	(%)	(%)
1	Output 1 - SLEDPs Development	Package2/Area3	50	100	50	4.00	2.00
a	Refinement and implementation of SLEDPs						
2	Output 2 - Priority Urban Infrastructure Investments Implemented						
A	Kampot - All Subproject Components						
CW01	Kampot WWTP and Drainage Works						
a	Detailed Engineering Design	Package1/C	100	35	35	38.00	23.60
b	Bidding and Award		100	10	10		
c	Construction and Implementation		45	50	15		
d	Land Acquisition/Resettlement		100	5	2.1		
	Additional works under the project scope change						
a	Detailed Engineering Design	Package1/C	100	35	24	34.00	12.92
b	Bidding and Award		100	10	9		
c	Construction and Implementation		95	50	5		
d	Land Acquisition/Resettlement		0	5	0		
CW02	Kampot Solid Waste Management						
a	Detailed Engineering Design	Package1/C	100	35	35	13.00	8.06
b	Bidding and Award		100	10	10		
c	Construction and Implementation		35	50	15		
d	Restoration of Dumpsite		0	2	0		
e	Land Acquisition/Resettlement		100	3	2		
3	Output 3 - Institutional Capacities for Management Public Investmental Strengthened						
a	Implementation and O&M for Project Implementation	Package2/Area1	75	100	75	7.00	5.25
	1.1 - lessons Learned						
	1.2 - Assistance to managed landfill O&M						
	1.3 - Simplified business development plans		5				
	1.4 - Revenue improved action plans						
	1.5 - Physical assets management						
	1.6 - Improving business climate for small service providers (SSP)						
4	Output 4 - Community Awareness on Project Activities and Environmental Sustainability Improved						
a	Sustainable Livelihoods Development and Community Awareness	Package2/Area2	50	100	50	4.00	2.00
	2.1 - Skills development						
	2.2 - Improving community awareness						
						100.00	53.83

**Kampot WWTP and Drainage Works**

Name	Start	Finish	% Complete
Kampot Wastewater Collection and Treatment, and Drainage and Sewerage	Mon 10/21/19	Thu 6/30/22	45%
Preliminary and General	Mon 10/21/19	Sat 10/09/21	90%
CW01a - WWTP, Force Mains and Sewerage Pumping Stations	Thu 01/09/20	Thu 06/30/22	41%
CW01b - Urban Drainage and Sewerage	Sun 03/29/20	Sat 10/09/21	29%
VO No.1	Tue 12/01/20	Thu 03/03/22	71%
VO No.2	Tue 06/15/21	In progress	75%
VO No.3	Wed 11/10/21	In progress	5%

**Improvement Solid Waste Management Construction of a Controlled Landfill**

Name	Start	Finish	% Complete
Overall progress	Thu 07/01/21	Sun.06/19/22	34.7%
General Requirement	Thu 07/01/21	Fri 07/30/21	97.0%
Site Development	Thu 07/01/21	Sat 08/14/21	100%



Internal & External Road and Drainage	Thu 07/01/21	Thu 03/10/22	22%
Landfill Construction	Mon 09/27/21	Thu 05/19/22	64%
Building Works	Tue 02/01/22	Sun 06/19/22	0%
Miscellaneous	Thu 03/17/22	Mon 06/13/22	0%

### 3.3 ENVIRONMENTAL AND SOCIAL SAFEGUARD & GENDER AND TRAINING PROGRAM:

Activities of Strengthening of Institutional Capacity (see Subsection 3.9) Environmental Safeguards (see Subsection 5.1), Resettlement (see Subsection 5.2), Implementation of Gender Action Plan (see Subsection 5.3) and Assessment of Project Performance through PPMS (**see section 4**).

### 3.4 PROJECT MANAGEMENT AND IMPLEMENTATION UNIT

Since approval on 13 November 2015 and the declaration of effectiveness on 29 February 2016 for project implementation the MPWT has established a Project Management Unit (PMU) at the national level and a project Implementation Unit (PIU) at the provincial level.

In the previous Q1 report 2021, two women staffs are nominated more in PMU and one woman is nominated more in Kampot PIU. Five PIU officers was changed according to requirements of Kampot Provincial Administration. The composition of the PMU and PIU and the role of each of the members is as shown in **Appendix 1** and nominate letters are shown in **Appendix 15**

Based on the proposed project scope change and the requested extension of the loan closing date from 30 June 2021 to 31 December 2023 a draft revised implementation schedule for the project has been prepared which is presented in **Appendix 2**. The revised implementation schedule includes a schedule for the additional works proposed under the scope change and also reflects the present delays in the ongoing works. The revised implementation schedule would also require and extension of both the CW01 works contract as well as the contract for the PISCB consultant services.

The present closing date for the PISCB contract is 14 April 2021. As the extension of the loan closing date up to December 2023 has been approved by ADB, VO6 and VO7 has been prepared for the interim extension of the contract period up to the present loan closing date on 30 June 2021 and 31 December 2023 respectively. During the extension period the PISCB activities will be limited to the essential tasks for construction supervision and the preparation of the detailed designs for the additional works under the project scope change.

### 3.5 PROJECT MOBILIZATION AND REMOBILIZATION

The contract for the consulting services package for the project has been awarded to NJS Consultants Co., Ltd. in Joint Venture with CEST, Incorporated and Key Consultants (Cambodia) Ltd. The Project Implementation Support and Capacity Building (PMISCB) consultant has been operating with the part time input of the international team leader and key national specialists. Because of the COVID travel restrictions it was no possible to mobilize international specialists. The international resettlement and environmental specialists have been provided limited home office support for the preparation of the safeguard documents required for the project scope change.

The PISCB is presently operating with the provisions agreed in VO4 of the consultant contract.



The proposed contract VO5 to the construction supervision and provide the required engineering specialists for the preparation of detailed designs for the additional works agreed under the project scope change.

On 23 April 2021 ADB has provided the NOL for the proposed contract variation No.6 to the Project Implementation Support and Capacity Building Consultant's contract for an interim extension of the consultant contract period up to 30 June 2021 and on 29 June 2021 ADB has provided the NOL for the proposed contract variation No.7 to the PISCB Consultant's contract for an interim extension of the consultant contract period up to 31 December 2021.

VO-08 is being prepared that will extend the contract period up to the revised project closure date at the end of September 2023. The input will be adjusted accordingly. Details of personnel input during Q4 is provided in **Table 3.2** below and list of all active experts under the contract are presented in **Appendix 19**.

**Table 3.2: Staff Mobilization**

No.	Name	Position	Input used in Q3 2021
International			
KI-01	Mr. Louis Rijk	Team Leader/Municipal Engineer	0.40
KI-06	Ms. Rachel Wildblood	Environmental Specialist	0.13
KI-01.1	Mr. Akila Seneviratne	Project Manager, Construction Supervision	3.00
National			
KN-01	Mr. Chhun Bunnarinn	Deputy Team Leader and Engineering	3.00
KN-03	Mr. Song Kim Chhuon	Project Performance Monitoring System	1.33
KN-06	Ms. Kun Chantrea	Drainage Engineer	0.75
KN-07	Mr. Sy Hayean	Resident Site Engineer in KPT	3.00
KN-09	Mr. Chea Mong	Environment Specialist	0.07
KN-11	Ms. Houth Ratanak	Social Development and Gender Specialist	0.40
KN-18	Mr. Chem Sar, Sim Sen	Civil/Building/Road Engineer	2.60
KN-20	Mr. El Reasey	Sewerage Design Engineer	2.00
KPT	Mr. Thlork Mesa	Site Inspector No.1 (WWTP)	3.00
KPT	Ms. Born Mary/EI Bunchan	Site Inspector No.2 (Sewer & Drainage)	2.00
KPT	Mr. Sam Kosal	Site Inspector No.3 (MPS, PSC1, Line 4B)	3.00
KPT	Mr. Chea Chamroeun	Site Inspector No.4 (Landfill)	3.00
TSE	Mr. Srey Vattanak	GIS Operator	0.34
TSE	Mr. Hun Hattarith	CAD Operator	0.83
TSE	Mr. Moeung Bunchhun	Hydraulic Modelling Specialist	0.72



The status of personnel input up to the end of this reporting period, 31 December 2021 can be summarized as follows:

Specialists	Total P/M	P/M used	Balance	(%) P/M used
International	84.24	81.35	2.89	96.57%
National	406.69	395.98	9.71	97.37%
Total	490.93	477.33	12.60	97.23%

### 3.6 PROCUREMENT

The Project involves the procurement of: (i) civil works with an estimated amount of \$24.39 million; (ii) project implementation and capacity development, \$3.58 million; and (iii) goods and equipment, \$0.61 million.

MPWT and the consulting team combined the Kampot wastewater collection (CW01a) and urban drainage (CW01b) in one package CW01 which is sub divided into two parts is CW01a and CW01b (in the Bills of Quantities these are Part 2 and Part 3 with Part 1 forming the Preliminaries and General items associated with Parts 2 and 3). There were budget shortfalls and after reviewing some parts of the subproject components were adjusted.

#### 3.6.1 Contract Award and Completed Contracts

There were some activities associated with procurement work during the reporting period. As of 31 December 2021, the completion of recruitment Consulting Services, signed contract document and Office renovation. Reviewed bid documents for the Second GMS Corridor Towns Development Project are shown below:

1. Consulting Services:
  - Completed recruitment of Consulting Services for: Project Management and Implementation Support, Detailed Design and Construction Supervision (Package 1) and Capacity Building (Package 2).
  - Completed recruitment of National Financial management specialist and National Procurement specialist.
2. Civil Works:
  - CW01, Kampot Wastewater Collection and Treatment, and Drainage and Sewerage: Bid validity was extended twice. The Contract for CW-01 Kampot Wastewater Collection and Treatment, and Drainage and Sewerage was signed contract on 26 September 2019.
  - CW 02, Kampot Solid Waste Management. The bidding document had been submitted for ADB's review and ADB's no objection to the bidding documents was issued in January 2021. The Contract for CW 02 Kampot Solid Waste Management was signed contract on 20 May 2021.
3. Details of Works Contracts



Table 3.3: Details of Works Contracts

No.	Contract Amount	Advance Payment	IPC			Physical Progress		
			Previous	This Month	Total	Target	Actual	+/-
1	CW1, Waste Water Collection and Treatment, and Urban Drainage in Kampot Town. Contractor: SBPH Engineering and Construction Co. Ltd and Jaingsu Nantong No.2 Construction and Engineering (group) Co. Ltd (JV)							
	11,632,951	1,744,942.75	2,55,477.44	-	2,556,477.44	99.5%	45.0%	-54.5%
2	CW2, Kampot Solid Waste Management, Contractor: Hang Sambat Co. Ltd. Import Export, Transportation and Construction							
	2,149,108.92	322,366.34	645,521.02		645,521.02	13.6%	34.7%	21.1%

Status of Contract Awards is shown in **Appendix 3**

### 3.6.2 Procurement Plan

Following a joint review and discussion, these items were included in the goods and works table in the procurement plan was prepared and agreed upon by the EA and ADB, the update procurement plan was updated 19 January 2021 and is shown in **Appendix 4**.

### 3.7 PROJECT IMPLEMENTATION SUPPORT AND CAPACITY BUILDING (PISCB)

Contract No. ICB/MPWT/PMU/CTDP1/001 between the Ministry of Public Works and Transport and NJS Consultants Co., Ltd. in Joint Venture with CEST incorporated and Key Consultants (Cambodia) Ltd. was signed on October 14, 2016. The consultant began mobilizing the consulting team by November 18, 2016.

Activities of the PISCD Consultant included assisting the PMU with Procurement, Detailed Engineering Design, Strengthening of Institutional Capacity, Environmental Safeguard, Resettlement, Implementation of Gender Action Plan, and Assessment of Project Performance through PPMS.

The PISCB Consultants assisted PMU in the preparation of this Quarterly Report.

### 3.8 CONSULTING SERVICES

The consulting services provided support during Project implementation, the following consultants are engaged: (i) Project Implementation Support and Capacity Development (PISCD), (ii) Procurement Specialist, and (iii) Financial Specialist. The Financial and Procurement Specialists, who are directly contracted by the PMU, are responsible for the preparation of quarterly financial management reports, and procurement reports, respectively.

### 3.9 ADOPTION AND IMPLEMENTATION OF THE SLEDP (OUTPUT 1)

SLEDPs for Kampot town have been prepared based on a technical assessment of potential investments in the strategic context of the GMS economic corridors, and stakeholder consultations and discussion at the provincial and town level, which were all prepared in 2011. These were reviewed by the relevant Government agencies and provincial authorities and adopted by these agencies/authorities.

The SLEDPs are targeted to be updated; Because of the COVID travel restrictions it has not been possible for the PISCB Consultant to mobilize the International Urban Planning Specialist to Cambodia for updating SLEDP as required by ADB. It is not expected that the SLEDP can be updated before the end of the present contract period. Updating could be done if the PISCB contract is extended in relation with the project scope change and the COVID travel restrictions will ease.



### 3.10 IMPLEMENTATION OF PRIORITY URBAN INFRASTRUCTURE INVESTMENTS (OUTPUT 2)

At the end of the reporting period the urban infrastructure contract to provide sewerage infrastructure and treatment, together with drainage works, in Kampot had been recommended for award by the ADB subject to the resolution of environmental and resettlement issues.

It was agreed by the EA and ADB that the criteria for the prioritization of subprojects be based on the importance and urgency of works to be done, and readiness in terms of safeguards requirements and detailed engineering designs. The agreed of subprojects, is shown in **Table 3.4**

**Table 3.4: Subprojects and Readiness**

Package	Subproject	Readiness
CW 01	Kampot Wastewater Collection and Treatment, and Urban Drainage.	<p>The subproject under construction since the date of contract signed on 26 September 2019 and commencement of work issued on 21 October 2019.</p> <p>All compensation has been completed by the end of 2019.</p> <p>GDR/MEF issue letter on 10 February 2020, confirmed that the land has been completed of compensation is belong to MPWT for subproject construction (support document see in <b>Appendix - 16</b>).</p> <p>VO1 in CW01 signed on 17 Nov but the work can commence after updated EMP and updated Social DDR is cleared by ADB.</p> <p>ADB approved the proposed variation order (VO) no.3 for the Kampot Wastewater Collection and Treatment, and Drainage and Sewerage contract on 9 November 2021.</p>
CW 02	Kampot Solid Waste Management.	<p>A license has been Received from MOE approval on IEIA for Landfill construction CW02, issued on 23 November 2020.</p> <p>PMU obtained hand over certificate from GDR on 07 October 2020 and All AHs is fully compensated.</p>

### 3.11 STRENGTHENING OF INSTITUTIONAL CAPACITY AND COMMUNITY DEVELOPMENT

The capacity development program is intended to ensure smooth implementation of urban infrastructure and to provide sustainable capacity development. The contract with NJS Consultants Co., Ltd in Joint Venture with CEST Incorporated and Key Consultants (Cambodia), Ltd. was signed on 14 October 2016.

Capacity Building and Training Specialists, both International and National, were mobilized during February 2018, PISCB capacity building and training specialists conducted training needs assessment (TNA) workshop and meetings with stakeholders in Kampot and Sihanoukville, drafted evaluation of training course and preparing TNA report.

International and National Training Specialists prepared training schedule and training program conducted for PIU staffs, Contractors, Construction Supervision, Authority and Stakeholders on EMP Development Implementation, Survey Methodology, GRM, Gender Sensitization, Women and Development and Building Self-Esteem Of Women, Simplified Business Plan, Focus Group



Discussion, The Preparation of revenues Improvement Action Plan (RIAP), Social safeguards/resettlement training and Social Risk Affecting Vulnerable Women like Human Trafficking and Prostitution and Gender Awareness.

During the report period, the training on Environmental Monitoring, GRM and Gender Awareness was conducted on 25-26 November 2021 by Environmental and Gender Specialists to PMU, PIU and Contractors during construction of Landfill subproject. There 12 participants attended in the training program, tow out of them are woman, photos and Attendant list see in **Appendix 13.4 and Appendix 20** respectfully.

So far, a total of 20 training courses have been conducted by the International, National Training Specialists and contractor, 290 participants attended in the training program, 83 of them are women, a complete list of which is presented in **Appendix 10**.



## SECTION 4 PROJECT PERFORMANCE

### 4.1 GENERAL

Project performance M&E includes tracking progress from the baseline situation against the targets and the indicators identified in the DMF and assessing progress toward achieving the respective result level outputs and outcome.

In this Project, although outputs and outcome will be achieved only as subprojects are completed (some of the subprojects sooner, others later; some fully, others partly), it is necessary to assess the likelihood or degree of the achievement of outputs and outcome already during implementation. The subjectivity of the judgments involved can be reduced by taking into account the implementation progress and, equally important, by realistically reassessing the risks that affect outputs and development objectives.

### 4.2 ASSESSMENT OF RISKS

Risks are the external factors which cannot be controlled by the project manager or the executing agencies, but which influence the success of project implementation. These are identified in the DMF. The assessment of risks is presented in **Appendix 5**.

### 4.3 PROJECT PERFORMANCE AGAINST THE TARGETS SET OUT IN THE DMF

M&E of performance indicators involves the tracking and assessment of the degree of attainment and sustainability of Project outputs and outcome by comparing actual performance and project implementation plan, as measured by its corresponding indicator, to the baseline and performance target.

The Project's performance against the targets set out in the DMF is reported in **Appendix 6**. As of 30 September 2021, assessments of progress toward achieving Outputs 1 are being put on hold till after approval of the project scope change and the COVID travel restrictions it was no possible to mobilize international specialists, Outputs 2 two indicators are being carried out and ongoing and some other can only be assessed upon completion of subprojects, Outputs 3 are being carried out and ongoing and Outputs 4 have been implemented, Outcome, however, can only be assessed upon completion of subprojects and during their operation.

### 4.4 PROJECT IMPLEMENTATION AND PERFORMANCE M&E FRAMEWORK MATRIX

Project Implementation M&E Framework Matrix and Project Performance M&E Framework Matrix are designed based on the Design and Monitoring Framework; M&E framework matrix are shown in **Appendix 7**.



## SECTION 5 COMPLIANCE WITH SAFEGUARDS AND COVENANTS

### 5.1 ENVIRONMENTAL SAFEGUARDS

The covenants require the project to be implemented in line with the Ministry of Environment (MOE) requirements for Environmental Impact Assessment (EIA). MOE approval is required for the Wastewater Collection and Treatment, Urban Drainage and Solid Waste Management for landfills in Kampot and the progress activities as following:

- The IEIA report (Khmer) on Wastewater Collection and Treatment and Urban Drainage in Kampot obtained a license of IEIA from MoE on 19 June 2019.
- The IEIA report (Khmer) on Solid Waste Management in Kampot obtained a license of IEIA from MoE on 23 November 2020.

#### **Semi-Annual Environmental Monitoring Report:**

The draft of Environmental Monitoring Report covering the period from October 2019 to June 2020 was submitted to PMU at the end of June 2020. The final draft of Semi-Annual Environmental Monitoring Report (SEMR) submitted to PMU on 03 September, 2020.

The Semi-Annual Environmental Monitoring Report from July 2020 to December 2020 has been finalized and submitted to PMU and was forwarded to ADB, comments have been received and incorporated in the document. The SEMR for July-Dec 2020 was approved in Jan 2021.

The Semi-Annual Environmental Monitoring Report (SEMR) covering the period from January to July 2021 was submitted to ADB on August 26 to review and comments and ADB NOL on 15 November 2021.

#### **Environmental Monitoring, (CW1) Wastewater Collection and Treatment and Urban Drainage and (CW2) Kampot Landfill Construction:**

Base on the review the environmental report, we can note that the contractor was good practice of environmental mitigation measure in compliance with EMP and environmental protection such as air quality, waste management, noise and vibration, traffic, health, safety, grievance redress mechanism and community perception. To reduce the risk of mud tracking and damage to roads municipal and commune authorities have restricted the transport of soil by heavy trucks during and after periods of rainfall. This restriction has slowed the progress of soil filling.

**Table 5.1: Environmental Status**

<b>Environmental Status and Condition at the Project site</b>			
<b>Contract: PMU/MPWT/CTDP-2/ICB/CW01 and CW02</b>			
<b>No.</b>	<b>Environmental Impact</b>	<b>Site Condition</b>	<b>Mitigation Measure</b>
1	Noise Level	<ul style="list-style-type: none"> <li>- Noise level is within tolerable level</li> <li>- No construction activity at night time</li> </ul>	Working on Daytime Only.
2	Air Quality	Dust generation: <ul style="list-style-type: none"> <li>- Dust during construction within tolerance</li> <li>- No borrow pit or Quarry near populated</li> </ul>	Regular watering is being undertaken by the contractor prior to Construction



		area.	operation.
3	Water Quality	Water is collected from directly to existing canal	
4	Counting and Cutting of Trees	N/A	
5	Site Clearance	OK	
6	Location plan for worker's camp, Quarry, Borrow Materials, Machinery Depot, etc.	Site camp has been setting out somewhere close to structures or site which will be constructed or renovated. For material has been brought directly from Depot near the project site. Other material can be stores at Main site Camp which is not far from site about 5km.	
7	Supply of Personnel Protective Equipment and Safety	Helmet and other protective equipment has been supplied to the worker during construction,	
8	Good housekeeping practices for various work places	OK	
9	Status of Dust control during construction	For every two time per day water truck was sprinkled where earth works	
10	Safety arrangements for worker, Public, and associated environment during construction	OK	
11	Traffic relocation/ Detouring during Construction phase.	All sign board for information has been put for every construction works and sites with different locations	
12	Establishment of Cautionary/ Informatory/ Safety board etc.	Has been handle	
13	Health and Safety	4km from site has health center and 6km from kampot referral hospital	
14	UXO Clearance	This kind of existing canal and just rehabilitation that was surveyed of UXO	



## **Health: COVID-19**

The protective measures against the new coronavirus (Covid-19) was implemented in GMS2 office/MPWT, before go incite the MPWT compound and project office, temperature screening and wash hands were conducted for all staffs and no fever was detected.

Self-monitoring for symptoms by all persons who were in the office has been implemented. The protective measures against the new coronavirus of each staffs, engineers and workers in campsite and project site of contractors in CW01 Kampot Wastewater Treatment Plant and Drainage works and landfill campsite are continued from last quarter (Q3) as following:

- Temperature screening
- Wash hands
- Avoid close contact with anyone showing signs and symptoms of respiratory illness such as coughing or sneezing
- Organized meeting by VIDEO conference (Skype) with the PMU, MEF, ADB and TL for the progress updated for GMS-2 project.

## **Government Cambodia Announcement on Prevention Measures:**

*Three protections measures:*

- Staff and workers have to wear masks all the time and properly,
- Wash hands often with soap and water, alcohol-based hand sanitizer can be used;
- Keeping a social safety and personal safety distance of more than 1 meter.

*Three Don'ts:*

- First, do not go into a closed, unventilated area and use too much air conditioning. Find a well-ventilated space;
- Second, do not go to crowded places. For example, while exercising in the park, if there are many people in the park, just go find another place or wait for the crowd to leave;
- Third, do not touch each other, do not shake hands, do not hug, do not put arms around each other's shoulders, etc.

*Two Obligations:*

- First, vaccination.
- Second, *if do not QC screening, do not enter.*

During the report period, GRM posters and COVID-19 posters were displayed in commune hall (Thmei commune) and landfill campsite and the photographs of the protective measures against the Covid-19 are presented in **Appendix 13**.

## **Air, Noise and Vibration Testing**

The rainy season ambient air, noise and vibration at landfill site (CW2) had been tested on 17 November 2021, the rainy season ambient air quality, nose level and vibration level measurement has been tested at Thmey village, Thmey commune, Tek Chhou district, Kampot Province see Figure attached in **APPENDIX 13**. The result is presented as rainy season ambient air quality within project site. In table 5.2 and 5.3 described the Air quality of selection stations, while table 5.4 and 5.5 described the results of Noise level and Vibration level of the selection stations; detail measuring result is attached in **APPENDIX 17**.



There are 2 locations air quality of selection station, one upwind and another at downwind of the construction site.

Location 1: UTM 48 P 0414154/1183865 (downwind)

Location 2: UTM 48 P 0414415/1183705 (upwind)

**Table 5.2: Air quality (ANV-1/ Location 1)**

No.	Parameters	Unit	Standard <sup>(2)</sup>	Result
1	Carbon Monoxide (CO)	mg/m <sup>3</sup>	<20	1.553
2	Nitrogen Dioxide (NO <sub>2</sub> )	mg/m <sup>3</sup>	<0.1	0.008
3	Sulfur Dioxide (SO <sub>2</sub> )	mg/m <sup>3</sup>	<0.3	0.021
4	Ozone (O <sub>3</sub> )	mg/m <sup>3</sup>	<0.2	0.014
5	Total Suspended Particles (TSP)	mg/m <sup>3</sup>	<0.33	0.080
5	PM10	mg/m <sup>3</sup>	<0.05	0.046
6	PM2.5	mg/m <sup>3</sup>	<0.025	0.025
7	Lead (Pb)	mg/m <sup>3</sup>	<0.005	ND

**Note:** 1. <sup>(2)</sup> Ambient air quality standards for infrastructure development and tourist, Annex of declaration No.120 dated April 11, 2018 on air pollution control.

1. Air speed 0.3 m/s to 3 m/s

**Table 5.3: Air quality (ANV-2/ Location 2)**

No.	Parameters	Unit	Standard <sup>(2)</sup>	Result
1	Carbon Monoxide (CO)	mg/m <sup>3</sup>	<20	2.519
2	Nitrogen Dioxide (NO <sub>2</sub> )	mg/m <sup>3</sup>	<0.1	0.005
3	Sulfur Dioxide (SO <sub>2</sub> )	mg/m <sup>3</sup>	<0.3	0.023
4	Ozone (O <sub>3</sub> )	mg/m <sup>3</sup>	<0.2	0.010
5	Total Suspended Particles (TSP)	mg/m <sup>3</sup>	<0.33	0.110
5	PM10	mg/m <sup>3</sup>	<0.05	0.058
6	PM2.5	mg/m <sup>3</sup>	<0.025	0.036
7	Lead (Pb)	mg/m <sup>3</sup>	<0.005	ND

**Note:** 1. <sup>(2)</sup> Ambient air quality standards for infrastructure development and tourist, Annex of declaration No.120 dated April 11, 2018 on air pollution control.

2. Air speed 0.3 m/s to 3.8 m/s

**Table 5.4: Noise and vibration (ANV-1/ Location 1)**

No.	Parameters	Unit	Standard <sup>(3)</sup>			Standard	Result
			Day	Evening	Night	Ave. 24h	Ave. 24h
1	Noise	dB(A)	70	65	50	62	62.3
2	Vibration	dB	65		60	62.50	27.75

**Table 5.5: Noise and vibration (ANV-2/ Location 2)**

No.	Parameters	Unit	Standard <sup>(3)</sup>			Standard	Result
			Day	Evening	Night	Ave. 24h	Ave. 24h
1	Noise	dB(A)	70	65	50	62	61.10
2	Vibration	dB	65		60	62.50	28.50

**Note:** <sup>(3)</sup> Maximum permitted Noise level and Vibration in public and residential area dB (A) for infrastructure development and tourist, Annex of declaration No.120 dated April 11, 2018 on noise and Vibration disturbance.

**Analysis:** Based on the result of air quality, noise level and vibration level examination in November 17, 2021 indicated that the ambient air quality standard of Cambodia and the other value of noise and vibration level are met the standard value of Cambodia, except PM10 and PM2.5 of Location 2 is slightly exceeded the ambient air quality standard of Cambodia.

### Water Quality Testing

On November 17 2021, water sampling has been collected in project area to test water quality, the result of the water quality in this month represent of the water quality in rainy season, two samples were collected to test in difference station as below:

- a. Sample 1 (S1) sure face water, UTM 48 P 0414320/1183680
- b. Sample 2 (S2) sure face water, UTM 48 P 0414307/1183993

The field activities of water sampling showed in **APPENDIX 13**, and the environmental condition in each sampling site had been recorded in the Table 5.6. The results of the water quality are described in Table 5.7 and Table 5.8. The detail lab sheet is attached in **APPENDIX 18**.

**Table 5.6: Description of surface water of 2 Locations**

No.	Sample Code	Date/Time	Water Source	Location	UTM	Environmental Condition
1.	S1 Surface Water	17/11/2021 01:30 PM- 01:45 PM	Surface water of pond	Thmey village, Thmey commune, Tek Chhou district	48 P 0414320/118 3680	- Clear sky, some clouds - Muddy water
2.	S2 Surface Water	17/11/2021 02:00 PM- 02:15 PM	Surface water of pond	Thmey village, Thmey commune, Tek Chhou district	48 P 0414307/118 3993	- Clear sky, some clouds - Muddy water

**Table 5.7: The results of surface water quality (SW-01), November 17, 2021**

No.	Parameters	Unit	Standard	Results
1	pH		6.5-8.5	6.10
2	DO	mg/l	7.5 -2.0	6.40
3	TDS	mg/l	<1000	42.00
4	TSS	mg/l	1.0-15	47.00
5	BOD <sub>5</sub>	mg/l	<30	1.85
6	COD <sub>Mn</sub>	mg/l	1.0-8.0	5.60
7	Oil and Grease	mg/l	<5.0	3.82
8	Detergent (MBAS)	mg/l	<5.0	ND
9	Sulphate (SO <sub>4</sub> )	mg/l	<300	4.80
10	Total Nitrogen (TN)	mg/l	0.1-0.5	0.58
11	Total Phosphorus (TP)	mg/l	0.005-0.05	0.04
12	Arsenic (As)	mg/l	<0.01	0.004
13	Cadmium (Cd)	mg/l	<0.001	ND
14	Lead (Pb)	mg/l	<0.01	ND
15	Mercury	mg/l	<0.0005	ND
16	Total Coli Form	MPN/100ml	<1000	1.5x10 <sup>3</sup>

**Table 5.8: The results of surface water quality (SW-02), November 17, 2021**

No.	Parameters	Unit	Standard	Results
1	pH		6.5-8.5	6.30
2	DO	mg/l	7.5 -2.0	6.60
3	TDS	mg/l	<1000	51.00
4	TSS	mg/l	1.0-15	36.00
5	BOD <sub>5</sub>	mg/l	<30	1.66
6	COD <sub>Mn</sub>	mg/l	1.0-8.0	4.86
7	Oil and Grease	mg/l	<5.0	4.60
8	Detergent (MBAS)	mg/l	<5.0	ND
9	Sulphate (SO <sub>4</sub> )	mg/l	<300	4.20
10	Total Nitrogen (TN)	mg/l	0.1-0.5	0.62
11	Total Phosphorus (TP)	mg/l	0.005-0.05	0.04
12	Arsenic (As)	mg/l	<0.01	0.002
13	Cadmium (Cd)	mg/l	<0.001	ND
14	Lead (Pb)	mg/l	<0.01	ND
15	Mercury	mg/l	<0.0005	ND
16	Total Coli Form	MPN/100ml	<1000	2.1x10 <sup>3</sup>



**Note:** 1- <sup>(3)</sup> Standard parameter of surface water for infrastructure development and tourist, Annex of declaration No.120 dated April 11, 2018.

2- ND Mean not detected (Lower than LDL), NV Mean No value

### **Analysis:**

Based on the results in Table 5.1.7 and Table 5.1.8 indicated that most of parameters are met the standards of the water quality standard of Cambodia, except some parameters of surface water (pH, TSS and Total Coliform of SW-01 and SW-02) is slightly higher than the water quality standard of Cambodia. It can conclude that the water qualities of 2 stations are good quality.

## **5.2 RESETTLEMENT**

The Accomplishment for Resettlement Activities Q4 of 2021 (October - December 2021)

- All of the additional works under VO3 are within the original and unchanged existing ROW and COI of the canal line 4b which is State public land. The remaining works on the existing open canal line 4b under CW01/VO3 are completed by September 2021 and submit to ADB on 13 September 2021 and approved by ADB on 9 November 2021.
- The land for the construction of the landfill has been procured on the basis of “willing seller willing buyer” which is not subject to ADB SPS review. The Local Authority has provided the confirmed cadastral map.
- PMU obtained hand over certificate from GDR on 07 October 2020 after completed of compensation to AHs for CW02 landfill site in Kampot, see hand over certificate in **Appendix 14**.
- Additional Works under VO4 for the Kampot Subproject under the Project Scope Change are within COI of the drainage which is State public land, the draft DDR of Additional Works under VO4 are expected to be completed by February 2022 and then will submit to ADB for approval.

### **Semi-Annual Resettlement Monitoring Report:**

- Mobilized the International and National Resettlement specialists to the field for data collection on 11-13 May 2020 to complete the Semi-annual Resettlement Monitoring Report (SRMR) for ADB requirement.
- The first Semi-Annual Resettlement Monitoring Report (SARMR) was prepared by the International and National resettlement specialists for ADB requirement. The draft of First Resettlement Monitoring Report covering the period from October 2019 to April 2020 was submitted to PMU on 22 June 2020. The first Semi-Annual Resettlement Monitoring Report (SARMR) have changed covering the period from October 2019 to June 2020 and submitted to PMU on 25 September, 2020. The report was revised and updated follow all comments from ADB, final Semi-Annual Resettlement Monitoring Report (SRMR) have been submitted to PMU on 09 Oct. 2020.
- The second semi-annual consolidated social safeguard monitoring report for 2020 has been finalized by the consultant. The information pertaining to the compensation payments for UD Line 4B and the land acquisition for the landfill site is included in the monitoring report prepared by DIMDM of GDR.
- Both the international and national safeguard specialists have resigned. With the present COVID restrictions it has not been possible to find suitable replacements for the international and national safeguard specialists. Therefore, the preparation of the 1<sup>st</sup> SSMR is delayed. However, the draft 1<sup>st</sup> SSMR 2021 has been prepared by national



safeguard specialist replacement and submitted to team leader to review on November 7, 2021.

The Status of Environmental and Social Safeguard Works is shown in **Appendix 8**.

### 5.3 IMPLEMENTATION OF GENDER ACTION PLAN

The project is effective gender mainstreaming and the GAP covers 5 activities and 13 quantitative targets and Design and Monitoring Framework (DMF) includes 8 numeric gender indicators. As of December 2021, the activities for implementation of Gender Action Plan and gender indicators in DMF were accomplished as following:

The GAP has been updated as per the latest requirements of ADB.

#### **Total Activities = 5**

Activities 1= Off-track

Activities 2= 2 (67%) On-track and 1 (33%) off-track

Activities 3= On-track

Activities 4= 2 (67%) Achieved and 1 (33%) Not yet due

Activities 5= 1 (33%) Achieved and 2 (67%) Not yet due

#### **Total Indicators = 13**

There are 13 indicators, 6 (46%) out of those On-track; 1 (8%) out of those off-track; 3 (23%) out of those achieved and 3 (23%) out of those not yet due.

GAP Implementation Progress is presented in **Appendix 9**.

### 5.4 STATUS OF COMPLIANCE WITH LOAN COVENANTS, AND RISK ASSESSMENT AND RISK MANAGEMENT PLAN

There are 21 key loan covenants, out of which eighteen (18) are complied, three (3) are ongoing, and two (2) are not yet due. The list of covenants under relevant categories and their status of compliance as of December 31, 2021 are provided in **Appendix 11**.

The status of compliance with the Risk Assessment and Risk Management Plan is presented in **Appendix 12**.



## SECTION 6

### MAJOR PROJECT ISSUES AND PROBLEMS, AND ACTIONS TAKEN

The major project issues and problems encountered, and actions taken during Q4 2021 were:

Issues/Problems	Action Taken
<b>1. Civil Work</b>	
<p><b>WWTP</b></p> <p>Because of the very poor soil condition and the persistent high ground water levels at the WWTP site, the adopted solution in VO1 to improve the site condition by simple soil filling could not be implemented as the combination of existing very soft soil layer and high ground water level did not allow the placement and compaction of the starting layers of soil filling for construction of the stabilization lagoon embankments.</p> <p><b>New U-Drain Lines</b></p> <p>Work on the installation of the U-drain in line 3 had to be suspended as obstructions and problems were encountered that were not foreseen in the detailed design and for which no provisions had been included in the BOQ; (i) In the construction drawing the u-drain line was aligned on the existing sidewalk, however it was not possible to install the u-drain in the sidewalk as the existing drainage line is located in the same place, but not shown on the drawings. The alignment of the u-drain line had to be shifted to the street but the BOQ does not include a provision for road pavement reinstatement (ii) the trench intersected with 4 pipe road crossings of the existing combined drainage/sewerage network and 5 additional intersection with the existing drainage lines have been located.</p> <p><b>New Main Sewer Lines</b></p> <p>The design concept for the new drainage</p>	<p>To allow proper compaction of the starter soil filling layers for the formation of the embankments the installation of a reinforced foundation for the embankment is required. A provision for the construction of a reinforced foundation has been included in VO2 and will consist of a geogrid layer overlain with a 40 cm layer of crushed stones covered by a geotextile layer. On top of this foundation layer the soil filling for the stabilization pond embankments can be installed and compacted. The granular starter layer, will also relieve pore pressure in the unlaying soil layer and help to accelerate consolidation. Drainage outlets from the granular layer will be provided through installation of PVC pipe outlets that will drain into the perimeter drainage canals.</p> <p>In VO2 provisions have been included for; (i) ,for reinstatement of the road subbase, asphalt concrete paving and the reconstruction of the roadside curb, and (ii) the construction of 9 manholes to join existing drainage lines with the new u-drains. As the invert level of the existing combined drainage/sewer lines is lower than the level of the u-drain lines, the dry season sewer flow will remain in the existing lines, during rain storms, drainage flow from the existing lines will enter in the u-drain line</p> <p>It should be noted that • The additional quantities provided for the installation of the u-drain in line 3 are limited to completion of the left side section between station 0+000 and station 0+310. In light of the problems encountered in the installation of the u-drain in this section a comprehensive survey of the existing drainage lines and other underground utilities is being carried out and on the basis of the findings of this survey the drainage lines will be redesigned and the quantities revised in a subsequent contract variation.</p>



lines is flawed. As about 50% of all houses/building in the town area have an active drainage and/or sewage connection to the existing drainage lines system, installing a separate drainage system will involve separating the storm water and waste water flow in existing house connections.

Separating the combined collection of drainage and waste water is far costlier and more complicated than the construction of a new system. The design parameters are different as in separating drainage and sewer flows, the storm water induced inflow in the new separate sewer lines will be higher

In addition, in the calculation of the conveyance capacity of the sewer lines the population density in the town center areas and the level of development of the town area, especially the river front area, has been underestimated.

#### **Outfalls of the drainage system**

The provincial Government has started with sand filling for extension of the river side over a length of about 500 between the new and old bridges. The extension affected two outfalls for the new drainage lines and at least 3 outfalls of the existing drainage system and 6 private outfalls.

The main sewer lines will have to be redesigned for a higher conveyance capacity. The large pipe diameters and the additional requirements to deal with other underground utilities and deep trench excavation with the high groundwater levels which will require shoring of the trench will increase the cost of the drainage lines with a factor 3

New developments such as this high rise commercial



and apartment complex presently under construction will have to be considered in the redesign of the sewer lines.

As an intermediate solution it is proposed to intercept the sewage flow from the existing combined drainage/sewerage system instead of installing a completely separate sewerage system with all the associated house/building connection complications

The sand filling for the river front extension is ongoing.



The outfalls have to be redesigned but no design details of the new extended riverfront have been made available.



COVID has not been a major factor in the delay of construction works	Protective measures for COVID were implemented at all work sites.
VO1 in CW01 signed on 17 November 2020 but the work can commence after the approval of the updated safeguard documents.  An additional contract variation is required for additional works in the WWTP, the Force Main Line, the MPS and U-Drain installation is Line 4	The environment and social safeguard documents have been updated, comments from ADB have been addressed and no further comments have been received.  VO2 which included the additional required quantities of work is being finalized. The preparation was delayed as the design of the WWTP had to be resized to fit within the boundaries of the recently approved cadastral map.
<b>CW02:</b> ADB requested a copy of the land title for the existing dump site (soft or hard dump site title) and/or a confirmation letter from office of cadastral at district level on the land. It should be noted that the use of public funds for closure of a dumpsite on a private property will require legal review of all related documents (land title, solid waste management contract, any other related legal documents) and the applicable laws of the land.	MEF/GDR provided hand over certificate of CW02 landfill site in Kampot to PMU on 07 October 2020 and Received a license from MOE approval on IEIA for Landfill construction CW02, issued on 23 November 2020, see hand over certificate in <b>Appendix 14</b> .  Approved cadastral maps for the landfill site, the WWTP and the MPS and reservoir have been received and are presented in <b>Appendix 16</b> .
<b>2. Consultant services</b>	
COVID travel restrictions has made it impossible to mobilize short term international specialists. Support specialist can provide from the home office is limited	COVID restriction will continue to limit the mobilization of international specialists. This will continue to affect the provision of support services by the PISCB
<b>3. Social and Environmental Safeguard</b>	
Both the international and national safeguard specialists have resigned. With the present COVID restrictions it has not been possible to find suitable replacements for the international and national safeguard specialists.	The preparation of 1 <sup>st</sup> SSMR is done by national safeguard specialist replacement.  The first semi-annual social safeguard monitoring report (SSMR) for 2021 has been finalized a draft by the National consultant and sent to the TL for review and comments.



## SECTION 7 ACTIVITIES FOR THE NEXT QUARTER

Table 7.1 Work plan for next quarter (1st QUARTER 2022)

Main Task	Activities to be Carried out	Responsible	Agreed Due Date
CW01	<p>(1) WWTP:</p> <ul style="list-style-type: none"><li>- Construction of Facultative &amp; Maturation Ponds;</li><li>- Construction of sludge drying beds;</li><li>- Construction of Boundary fence;</li><li>- Installation of pipes &amp; manholes;</li><li>- Installation of valve chambers, valves &amp; accessories;</li><li>- Complete balance work in WWTP premises.</li></ul> <p>(2) MPS Site:</p> <ul style="list-style-type: none"><li>- Soil fills balance area of the MPS premises.</li></ul> <p>(3) Installation of HDPE Force Main Pipe Line:</p> <ul style="list-style-type: none"><li>- Installation of pipe line from MPS to WWTP;</li><li>- Installation of valve chambers &amp; valves;</li><li>- Reinstate damage road pavements &amp; laterite road surfaces.</li></ul> <p>(4) Installation of U-drain - Line 3:</p> <ul style="list-style-type: none"><li>- Reinstate of road payment.</li></ul> <p>(5) Cleaning/Repair of Existing Drainage Lines:</p> <ul style="list-style-type: none"><li>- Complete balance cleaning &amp; repairing of MHs at site.</li></ul> <p>(6) Construction of canal line 4B:</p> <ul style="list-style-type: none"><li>- Construction of concrete channel;</li><li>- Construction of access road;</li><li>- Fabrication &amp; fixing of handrail.</li></ul>	Contractor/CS/PISC B	Q1 2022
CW02	<ul style="list-style-type: none"><li>- Lay HDPE membrane etc. for landfill components (awaiting ADB approval);</li><li>- Construction of inner/outer road network (awaiting ADB approval);</li><li>- Construction of office building etc. &amp; fencing around the site.</li></ul>	Contractor/CS/PISC B	Q1 2022



<p>Environment works</p>	<ul style="list-style-type: none"> <li>- Review Contractor's environmental monthly report and environmental monitoring and trainings are planning to conduct for CW01 and CW02.</li> <li>- Follow up with the contractor of CW01 and CW02 to submit on EMP monitoring monthly report and others document.</li> <li>- Resubmit Semi-Annual Environmental Monitoring Report (SEMR) from July to December 2021 after revise or update from ADB comments.</li> </ul>	<p>PISCB consultant/Environmental specialists</p>	<p>Q1 2022</p>
<p>Resettlement works</p>	<ul style="list-style-type: none"> <li>- Prepare the third semi-annual consolidated social safeguard monitoring report from January to June 2021 and will submit to PMU for review and then to ADB to review and approval.</li> <li>- Draft DDR on access road to landfill site and will submit to ADB to review and approval.</li> <li>- Draft DDR on additional work of drainages and will submit to ADB to review and approval.</li> </ul>	<p>PISCB consultant/Resettlement specialists replacement</p>	<p>Q1 2022</p>
<p>Capacity Building Training Activities</p>	<ul style="list-style-type: none"> <li>- Capacity building will be deferred until the international specialists can be mobilized</li> </ul>	<p>PISCB consultant</p>	<p>Q1 2022</p>
<p>Gender Action Plan</p>	<ul style="list-style-type: none"> <li>- Follow up with the contractor of CW01 and CW02 to submit on Gender monitoring monthly report.</li> <li>- Review proposal and training report that conduct by contractor.</li> <li>- Provide input to the SLEDP to consider poverty, social and gender issues.</li> <li>- Develop gender sensitizing training material and forward to ADB for review.</li> <li>- Review and update GAP base on guideline ADB's input insert into the Quarterly and Annual reports.</li> <li>- Prepare TOR on HIV/AIDS and STIs Program, Covid-19, Safety and Sanitation Training and send to contractor CW2 for implement.</li> </ul>	<p>PISCB consultant/Gender specialist</p>	<p>Q1 2022</p>



PPMS	<ul style="list-style-type: none"><li>- Updating of projected accomplishments of performance, baseline and target values.</li><li>- Data collection/information for prepare draft of 1<sup>st</sup> quarterly report 2022</li></ul>	PISCD PPMS Specialist	Q1 2022
Others	Prepare monthly report on January, February and March 2022	PISCB consultant	Q1 2022



**APPENDIX 1**  
**KEY MEMBERS OF PROJECT MANAGEMENT UNIT**  
**AND PROJECT IMPLEMENTATION UNITS**

**1. Key Members of Project Management Unit**

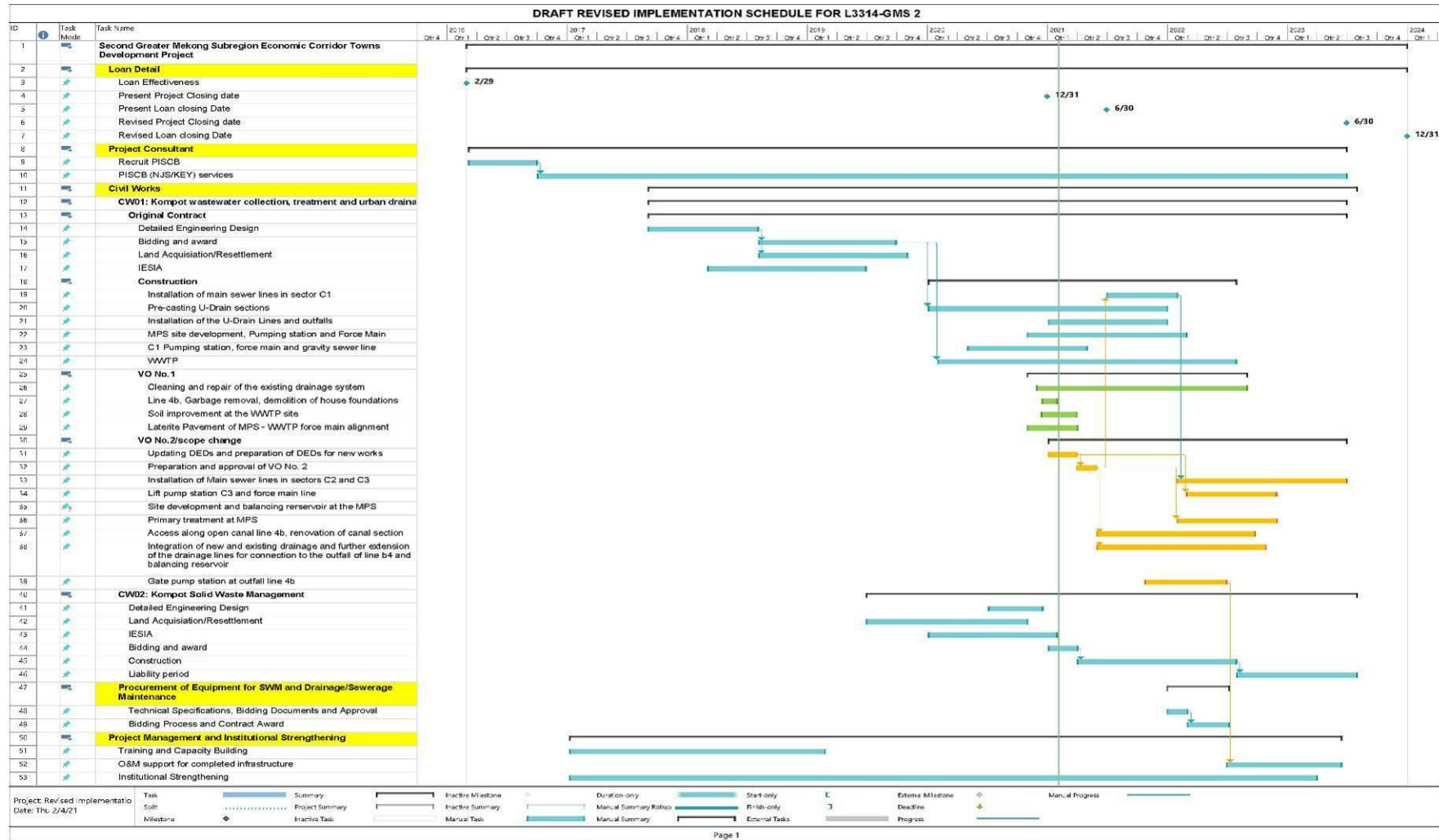
No.	Name of member	Role and responsibility	Phone Number
1	H.E. Vong Pisith	Project Director	012 833 411
2	Mr. Pou Manith	Responsible for Procurement	012 803 203
3	Miss. Chhoun Sovady	Responsible for Financial	011 568 283
4	Mr. Eang Daravuth	Responsible for Technical	012 330 166
5	Mr. Nop Keilarith	Responsible for Social/ Environment	012 789 921
6	Mr. Vong Rada	Responsible for Urban Planning	012 451 545
7	Mr. Eab Visoth	Responsible for Resettlement	017 873 287
8	Mr. Chok Borith	Responsible for Administration	012 422 406
9	Ms. Ing Sovannda	Responsible for Gender	012 586 245
10	Ms. Pann Siyon		060 888 016

**2. Key Members of the Project Implementation Unit**

No.	Description	Role and responsibility	Phone Number
<b>A</b>	<b>Kampot PIU</b>		
1	Mr. Thorn Saravuth	Deputy director of DPWT, Chief PIU	012 330 166
2	Mr. Veth Vathana	Chief of multi-sector office of provincial hall, Vice chief PIU	012 449 536
3	Mr. Tauch Channserayboth	Officer of DPWT, Technical PIU	012 907 790
4	Mr. Ye Hok Leang	Officer of DPWT, Technical PIU	010 581 390
5	Miss. Tauch Meakthour	Officer of DPWT, Financial PIU	012 969 707
6	Mr. Kong Raksmei	Officer of DPWT, Urban Planning	085 697 056
7	Mr. Svay Mith	Deputy governor of Kampot City, Administration PIU	012 593 049
8	Miss. Mao Chanseiha	Officer of multi-sector office of provincial hall, Social & Environment	088 710 8990
9	Mr. Ouk Chhoeun	Vice chief office of provincial hall, Solving Impact	012 739 072
10	Ms. Nam Srey Oun	Officer of DPWT, Gender PIU	060 888 016
<b>B</b>	<b>Preah Sihanouk PIU</b>		
1	Mr. Nop Heng	Director of DPWT, Chief PIU	012 453 006
2	Mr. Chrea Tharavuth	Deputy director of DPWT, Vice chief	012 892 253
3	Mr. Lim Sran	Deputy director of DPWT, Technical	016 572 946
4	Mr. Chrea Thavrith	Officer of DPWT, Technical PIU	012 988 573
5	Mr. Heng Bunthean	Officer of DPWT, Financial PIU	093 212 199
6	Mr. Pich Pheary	Officer of DPWT, Urban Planning	016 864 465
7	Mr. Yos Chamnan	Officer of DPWT, Administration	086 799 697
8	Mr. Nhem Sidoeun	Officer of DPWT, S&E PIU	016 898 032
9	Mr. Soun Sopheap	Provincial hall, Solving Impact PIU	016 995 931



## APPENDIX 2: OVERALL PROJECT IMPLEMENTATION PLAN





**APPENDIX 3  
STATUS OF CONTRACT AWARDS**

Contract number	Sub-Project Name	Date						Remarks
		Bid Advertising	Bid Opening	Bid Evaluation Report	Submission to ADB	No objection from ADB	Contract awarded	
CW01	Kampot Wastewater Collection and Treatment	9 Aug.2018 (in Phnom Penh Post)	27 Sept.2018	08 Nov 2018	14 May 2018	09 Sep 2019	<ul style="list-style-type: none"> <li>- Notification to award Contract will be done after compensation</li> <li>- Contract signed on 26 Sep. 2019</li> <li>- License of IEIA issued by MoE on 19 June 2019</li> </ul>	<ul style="list-style-type: none"> <li>- The contractor mobilized on 16 October 2019</li> <li>- The letter of commencement works issued to the Contractor on 21 October 2019</li> <li>- The construction will be ended on 9 Oct.2021</li> </ul>
	Urban Drainage							
CW02	Kampot Solid Waste Management	18 February 2021	19 March 2021	08 April 2021	21 April 2021	26 April 2021	<ul style="list-style-type: none"> <li>- Contract signed on 20 May 2021</li> </ul>	<ul style="list-style-type: none"> <li>- License of IEIA issued by MoE on 23 November 2020</li> </ul>



APPENDIX 4  
PROCUREMENT PLAN  
Updated 19 January 2021

Procurement Monitoring and Tracking Form – Works																						ADB L3314-CAM (COL)				
Project name: Second Greater Mekong Subregion Southern Economic Corridor Towns Development Project																										
Updated: 19-January-2021																										
Procurement Monitoring and Tracking Form																										
Works																										
No	Contract Number	Description of Works	Procurement Method	Prior review (Prior) or Post Review (Post)	Plan (P)/Schedule (S)/Actual (A)	Bidding Documents (BD) and Bidding Process								Bid Evaluation/Contract Award						Contract						
						Cost Estimate/Actual Cost	Completion of Design	Completion of Draft Bid Documents	Submission to PRC	Approval of Draft Bid Docs by PRC	Submission to DP for NOL	NOL by DP	Advertisement of IFB	Bid Closing/Bid Opening	Issue of Minutes to DP/Bidders	Completion of Evaluation by BEC	Submission to PRC	Approval by PRC	Submission to DP	NOL by DP	Issue Letter of Acceptance	Contract Signing	Signed Contract to DP			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	CW01	Kampot Wastewater Collection and Treatment, and Drainage and Sewerage	ICB	Prior	P	11,593,970.25	1-Apr-18	1-May-18	10-May-18	10-May-18	14-May-18	07-Aug-18	09-Aug-18	20-Sep-18	20-Sep-18	3-Nov-18	10-Nov-18	10-Nov-18	10-Nov-18	14-Jun-19	17-Jun-19	30-Jun-19	3-Jun-19			
					S																					
					A	9,968,776.79	15-Jun-18	11-Jul-18	11-Jul-18	11-Jul-18	11-Jul-18	1-Aug-18	9-Aug-18	27-Sep-18	8-Nov-18	8-Nov-18	8-Nov-18	8-Nov-18	8-Nov-18	8-Nov-18	8-Nov-18	8-Nov-18	9-Sep-19	9-Sep-19	26-Sep-19	26-Sep-19
2	CW02	Kampot Solid Waste Management (Landfill in Kampot)			P	2,470,000.00	6-Dec-19	5-Jan-20	15-Jan-20	15-Jan-20	20-Jan-20	2-Feb-20	9-Feb-20	22-Mar-20	22-Mar-20	21-Apr-20	22-Apr-20	22-Apr-20	9-May-20	16-May-20	18-May-20	31-May-20	5-Jun-20			
					S																					
					A	2,149,108.93	14-Sep-20	21-Sep-20	22-Sep-20	23-Sep-20	4-Feb-21	16-Feb-21	18-Feb-21	19-Mar-21	19-Mar-21	8-Apr-21	8-Apr-21	8-Apr-21	8-Apr-21	8-Apr-21	8-Apr-21	26-Apr-21	11-May-21	20-May-21		
3	CW03	Sihanoukville Urban Drainage	ICB	Prior	P	10,024,702.33	1-Mar-18	25-Mar-18	1-May-18	1-May-18	7-May-18	17-Aug-18	20-Aug-18	1-Oct-18	1-Oct-18	31-Oct-18	8-Nov-18	8-Nov-18	10-Nov-18	20-Mar-18	23-Apr-18	11-Apr-18	15-Apr-18			
					S																					
					A	7,991,808.84	20-Jul-18	8-Aug-18	8-Aug-18	8-Aug-18	8-Aug-18	10-Aug-18	15-Aug-18	1-Oct-18	8-Nov-18	8-Nov-18	8-Nov-18	8-Nov-18	8-Nov-18	8-Nov-18	8-Nov-18	20-Mar-19	22-Mar-19	3-Apr-19	3-Apr-19	
4	CW04	Sihanoukville Solid Waste Management (Canceled)			P	2,590,000.00	15-Dec-19	10-Jan-20	15-Jan-20	18-Jan-20	20-Jan-20	2-Feb-20	9-Feb-20	22-Mar-20	22-Mar-20	1-May-20	5-May-20	5-May-20	9-May-20	16-May-20	18-May-20	31-May-20	5-Jun-20			
					S																					
					A																					
5	CW05	Kampot PIU Office Renovation			P	14,000.00	10-Mar-17	13-Mar-17	14-Mar-17	15-Mar-17	NA	NA	NA	22-Mar-17	NA	29-Mar-17	30-Mar-17	2-Apr-17	NA	NA	3-Apr-17	6-Apr-17	9-Apr-17			
					S																					
					A	13,791.00	20-Apr-17	20-Apr-17	20-Apr-17	20-Apr-17	NA	NA	NA	28-Apr-17	NA	3-May-17	3-May-17	3-May-17	NA	NA	8-May-17	8-May-17	9-May-17			
6	CW06	Sihanoukville PIU Office Renovation	Shopping Without Advertising	Post	P	8,000.00	10-Mar-17	13-Mar-17	14-Mar-17	15-Mar-17	NA	NA	NA	22-Mar-17	NA	29-Mar-17	30-Mar-17	2-Apr-17	NA	NA	3-Apr-17	6-Apr-17	9-Apr-17			
					S																					
					A	7,892.00	20-Apr-17	20-Apr-17	20-Apr-17	20-Apr-17	NA	NA	NA	28-Apr-17	NA	3-May-17	3-May-17	3-May-17	NA	NA	8-May-17	8-May-17	9-May-17			



**Ministry of Public Works and Transport, Kingdom of Cambodia**  
**Second GMS Corridor Towns Development Project**

Procurement Monitoring and Tracking Form – Works  
Project name: Second Greater Mekong Subregion Southern Economic Corridor Towns Development Project  
Updated: 19-January-2021

ADB L3314-CAM (COL)

**Procurement Monitoring and Tracking Form**

**Goods**

No.	Contract No.	Description of Goods	Procurement Method	Prior Review (Prior or Post Review (Post))	Plan(P)/ Schedule(S)/Actual(A)	Cost Estimate/Actual Cost (US\$)	Completion of draft Bidding Document	Submission to PRC	Approval of draft Bid Docs by PRC	Submit to the Bank for NOL	NOL by the Bank	Advertisement of IFB	Bid submission closing/ public opening	Issue of Estimate to the Bank/bidders	Completion of BER	Submit BER for PRC Approval	Approval by PRC	Submit BER for the Bank's NOL	Receipt of Bank NOL	Notification of Award	Contract signature	Estimated Contract End Date			
1	G01	Equipment for solid waste management	NCB	Pri	P																				
					S	Cancelled																			
					A																				
2	G02	3 units of 4 WD Double Cabin Pick-up Truck	Shopping with Advertising	Prior	P	99,000.00	1-May-17	2-May-17	9-May-17	10-May-17	17-May-17	20-May-17	4-Jun-17	5-Jun-17	19-Jun-17	20-Jun-17	27-Jun-17	28-Jun-17	5-Jul-17	6-Jul-17	13-Jul-17	12-Aug-17			
					S																				
					A	106,500.00	8-May-17	8-May-17	8-May-17	8-May-17	23-May-17	24-May-17	8-Jun-17	9-Jun-17	13-Jun-17	13-Jun-17	13-Jun-17	13-Jun-17	4-Jul-17	5-Jul-17	5-Jul-17	4-Aug-17			
3	G03	Office Equipment	Shopping Without Advertising	Post	P	23,000.00	20-Apr-17	21-Apr-17	22-Apr-17	NA	NA	NA	27-Apr-17	NA	4-May-17	5-May-17	6-May-17	NA	NA	7-May-17	10-May-17	25-May-17			
					S																				
					A	24,650.00	12-May-19	12-May-19	12-May-19	NA	NA	NA	19-May-17	NA	22-May-17	22-May-17	22-May-17	NA	NA	22-May-17	22-May-17	17-Jul-17			
4	G04	Office Furniture	Shopping Without Advertising	Post	P	21,000.00	20-Apr-17	21-Apr-17	22-Apr-17	NA	NA	NA	27-Apr-17	NA	4-May-17	5-May-17	6-May-17	NA	NA	7-May-17	10-May-17	25-May-17			
					S																				
					A	20,719.00	12-Apr-17	12-Apr-17	12-Apr-17	NA	NA	NA	19-Apr-17	NA	20-Apr-17	20-Apr-17	20-Apr-17	NA	NA	25-Apr-17	25-Apr-17	9-May-17			

Procurement Monitoring and Tracking Form – Works  
Project name: Second Greater Mekong Subregion Southern Economic Corridor Towns Development Project  
Updated: 19-January-2021

ADB L3314-CAM (COL)

**Procurement Monitoring and Tracking Form**

**Consulting Firm**

No.	Contract No.	Description of Services	Procurement Method	Prior Review (prior or Post Review (Post))	Plan(P)/ Schedule(S)/Actual(A)	EOI Stage								RFP Stage								Evaluation Stage								Negotiation Stage							
						Cost Estimate/Actual Cost (US\$)	Completion of draft TOR and REOI	NOL by the Bank for TOR	Advertisement of REOI	REOI closing date and evaluation by CEC	Submit draft RFP and short list to PRC	Approval by PRC	Submit to the Bank's NOL	Receipt of Bank NOL on draft RFP and Short list	RFP sent to short list	Proposal Submission Closing Date	Technical Proposal Opening Date	Completion of Technical Evaluation Report & sent to PRC for approval	Approval by PRC	Submit TER to the Bank for NOL	NOL from the Bank	Invite short list firm to financial proposal opening	Opening of financial proposal qualified firms	Completion of combined tech & FE evaluation report and sent to PRC	Approval by PRC	Submit to the Bank for info	Invitation for contract negotiation	Contract negotiation date	Draft negotiated contract initiated	Submit to the Bank for NOL	NOL by the Bank	Contract Signing	Submit to the Bank for info				
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				
1		Project Implementation Support, Detailed Design, Construction Supervision and Capacity Building Consultants	QCBS	Prior	P	3,580,000.00	12-Jan-15	19-Jan-15	22-Jan-15	21-Feb-15	23-Mar-15	30-Mar-15	02-Apr-15	16-Apr-15	23-Apr-15	07-Jun-15	07-Jul-15	06-Aug-15	13-Aug-15	16-Aug-15	31-Aug-15	03-Sep-15	13-Sep-15	13-Oct-15	20-Oct-15	23-Oct-15	26-Oct-15	02-Nov-15	05-Nov-15	08-Nov-15	22-Nov-15	29-Nov-15	02-Dec-15				
					S																																
					A	2,825,040.00	07-Aug-15	09-Nov-15	11-Nov-15	10-Dec-15	06-Jan-16	06-Jan-16	06-Jan-16	12-Feb-16	18-Feb-16	20-Apr-16	20-Apr-16	27-May-16	29-May-16	14-Jun-16	08-Aug-16	09-Aug-16	15-Aug-16	26-Aug-16	26-Aug-16	26-Aug-16	26-Aug-16	05-Sep-16	09-Sep-16	10-Oct-16	10-Oct-16	13-Oct-16	14-Oct-16	25-Oct-16			



**Ministry of Public Works and Transport, Kingdom of Cambodia**  
**Second GMS Corridor Towns Development Project**

Procurement Monitoring and Tracking Form – Works ADB L3314-CAM (COL)  
 Project name: Second Greater Mekong Subregion Southern Economic Corridor Towns Development Project  
 Updated: 19-January-2021

**Procurement Monitoring and Tracking Form**  
**Individual Consultants**

No.	Contract No.	Description of Services	Procurement method	Prior Review (prior of Post Review (Post)	Plan(P)/ Schedule(S) A/crank(A)	EOI Stage					Evaluation Stage					Negotiation Stage							
						Cost Estimate/Actual Cost (US\$)	Completion of draft TOR and REOI	NOL by the Bank for TOR	Advertisement of REOI	REOI Submission closing date	EOI Evaluation by CEC	Evaluation submit to PRC	Approval of EOI Evaluation by PRC	Submit to the Bank for NOL	NOL from the Bank	Contract negotiation date	Draft negotiated contract finalized	Submit to the Bank for NOL	NOL by the Bank	Contract Signing	Submit to the Bank for info		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
1	CS2	Financial Management Specialist	Selection of Individual Consultant	Prio	P	65,000.00	20-Jan-17	27-Jan-17	30-Jan-17	14-Feb-17	1-Mar-17	4-Mar-17	11-Mar-17	13-Mar-17	20-Mar-17	27-Mar-17	30-Mar-17	31-Mar-17	7-Apr-17	10-Apr-17	13-Apr-17		
					S																		
					A	65,000.00	13-Feb-17	21-Feb-17	3-Mar-17	16-Mar-17	23-Mar-16	23-Mar-16	23-Mar-16	30-Mar-16	20-Apr-16	24-Apr-17	NA	NA	NA	27-Apr-17	28-Apr-17		
3	CS3	Procurement Specialist	Selection of Individual Consultant	Prio	P	65,000.00	20-Jan-17	27-Jan-17	30-Jan-17	14-Feb-17	1-Mar-17	4-Mar-17	11-Mar-17	13-Mar-17	20-Mar-17	27-Mar-17	30-Mar-17	31-Mar-17	7-Apr-17	10-Apr-17	13-Apr-17		
					S																		
					A	65,000.00	13-Feb-17	21-Feb-17	3-Mar-17	16-Mar-17	23-Mar-16	23-Mar-16	23-Mar-16	30-Mar-16	20-Apr-16	24-Apr-17	NA	NA	NA	27-Apr-17	28-Apr-17		



**APPENDIX 5  
ASSESSMENT OF RISKS**

**MONITORING AND EVALUATION OF RISKS  
Second GMS: Economic Corridor Towns Development Project**

*M&E Form no. 7A  
Version: June 2015*

Reporting Date: 31 December 2021 Prepared by: PPMS specialist  
*[Quarterly]*

Risk for Outputs	Mitigated (Y/N)	Rating (HS,S,PS,U)	Assessment of Current Status
1. Delay in project start-up and implementation.	Y	S	Early project implementation was largely on track
2. Irregularities in procurement and financial management.	Y	S	PRC established in 22.10.2014. DFEC signed for each transaction, and copies of DFEC of winning bidders made part of awarded contracts
3. Potential archeological finds could cause delays.	Y	S	No potential archeological finds in subproject areas to date
4. Some technical issues that considered detail insufficient previously	Y	S	Completed VO1 of the priority proposal for additional cost of construction works for CW01. All documents required for approval of major scope change are to be completed.

a/ HS = Highly Satisfactory; S = Satisfactory; PS = Progressing Satisfactorily; U = Unsatisfactory

**MONITORING AND EVALUATION OF ASSUMPTION AND RISKS  
Second GMS: Economic Corridor Towns Development Project**

*M&E Form no. 7B  
June 2015*

Reporting Date: 31 December 2021 Prepared by: PPMS specialist  
*[Quarterly]*

Risk for Outcome	Mitigated (Y/N)	Rating (HS,S,PS,U)	Assessment of Current Status
<b>Risks:</b>			
1. Lack of capacity for project implementation and management.	Y	S	Specific training provided to all staff of executing & implementing agencies & project implementing units, VO 03 executed on 25 February 2019
2. Lack of financial sustainability due to non-cost recovery tariffs.	Y	S	O&M of infrastructure by provincial agencies was strengthened and financed by the ADB loan.

a/ HS = Highly Satisfactory; S = Satisfactory; PS = Progressing Satisfactorily; U = Unsatisfactory



## APPENDIX 6 DMF TARGETS VS ACHIEVEMENTS

**PROJECT PERFORMANCE MONITORING AND EVALUATION**  
**Second GMS: Economic Corridor Towns Development Project**

*M&E Form no. 8A*

Reporting Date: 31 December 2021 [Quarterly]

Prepared by: PPMS specialist

Indicators (with Baseline and Performance Targets)	Baseline	Achievements/Status (as of end of reporting period)	Assessment of Current Progress/ Status & Reason for any Negative Variance
<b>Output 1: The SLEDPs developed</b>			
SLEDPs endorsed by the participating provinces and towns (2015 baseline: final draft SLEDPs completed)	SLEDP of each town prepared in 2015	SLEDPs adopted by December 2016  SLEDPs Developed: 50%	SLEDP – 2015 already approved in March 2015, there is no more need to work on this.  The mobilization of the International Urban Planning Specialist is late due to Covid-19 and completes the draft updated SLEDPs will be approved and disclosed in 2022.
<b>Output 2: Priority urban infrastructure investments implemented</b>			
2.1 Subproject construction, operation and maintenance activities will support equal employment including at least 30% female staff (2015 baseline:0)  <i>[Performance Indicators updated from Revised Project Administration Manual June 2021 and achievement updated from Contractor's records Q4 2021]</i>	Nil, as construction starts Q4 2019	40%	<b>Q4-2021 Updated:</b> As of December 31, 2021 out of a total 15,881 unskilled labor days, 6,420 (40%) days claimed by women under the construction work. Type of activities performance by women included: (i) bending bar,



Indicators (with Baseline and Performance Targets)	Baseline	Achievements/Status (as of end of reporting period)	Assessment of Current Progress/ Status & Reason for any Negative Variance
			and casting cover rebar of concrete.
2.2 Subproject construction, operation and maintenance employment for unskilled staff and laborers will include at least 75% local hires (2015 baseline: 0)  <i>[Performance Indicators updated from Revised Project Administration Manual June 2021 and achievement updated from Contractor's records Q4 2021]</i>	Nil	100%	<b>Q4-2021 Updated:</b> As of December 31 2021, out of a total 24,140 (100%) skilled and unskilled labor days, 8,234 (34%) females identified by both for Heng Sambath Co. Ltd and SBPH as local labourers.
2.3 Wastewater treatment plant with capacity of 3,300 m <sup>3</sup> /day constructed and operational (2015 baseline: 0)  <i>[Performance Indicators updated from Revised Project Administration Manual June 2021 and achievement updated from Q4 2021]</i>	Nil	Completion of construction of WWTP is 43.47%	Assessment to start upon completion of construction of WWTP in Q2 2023.
2.4 New managed landfill is made operational (2015 baseline: 0)  <i>[Performance Indicators updated from Revised Project Administration Manual June 2021 and achievement will update]</i>	Nil	Contract signed on 20 May 2021, Completion of construction of landfill is 45,75%	Assessment to start upon completion of construction of landfill in Q2 2023.
2.5 Continued access to existing dump sites is secured alongside livelihood skills training activities to at least 80% of informal waste pickers, of whom 65% are female (2015 baseline: 35 persons, 22 female).  <i>[Performance Indicators updated from Revised Project Administration Manual June 2021 and achievement will update]</i>	(2015 baseline: 35 persons, 22 female).		The ToR of training on Training course on waste recycling will be developed
<b>Output 3: Institutional capacities for managing public investments strengthened</b>			
3.1 At least 20 persons from PMU and PIU (30% female) are trained in project management (2015 baseline: 0)  <i>[Performance Indicators updated from Revised Project Administration Manual June 2021 and achievement updates from TIC, from Q3 2017 to Q1 2020]</i>	Nil	The key project management trainings engaged 6 (2 females or 33%) of PMU an PIUs.	



Indicators (with Baseline and Performance Targets)	Baseline	Achievements/Status (as of end of reporting period)	Assessment of Current Progress/ Status & Reason for any Negative Variance
<p>3.2 At least 100 community leaders, government officers and consultants involved in project implementation and delivery demonstrate improved knowledge on gender sensitive approaches due to training received (with 50% female participation) (2015 baseline:0)</p> <p><i>[Performance Indicators updated from Revised Project Administration Manual June 2021 and achievement updates from GAP, from Q2 report 2021 (Target 5)]</i></p>	Nil	<p>PMU, PIU, PDOWA, MoWA and Commune Chief of KP and Sihanoukville engaged 73 (33 females or 45%).</p> <p>PIUs (Kampot): 10 counterparts (3 females or 30%). 2 females of 10 PIUs are in the decision-making position</p>	3 series trainings on Gender Sensitization engaged 73 (33 females or 45%) conducted.
<b>Output 4: Community awareness on project activities and environmental sustainability improved</b>			
<p>4.1 At least 10 gender-responsive community awareness and dissemination campaigns (including public forums) covering environmental sustainability and conservation themes, promotion of “clean city” concept, and dissemination of information on the positive impacts of solid waste collection are provided. (2015 baseline: 0)</p> <p><i>[Performance Indicators updated from Revised Project Administration Manual June 2021 and achievement updates from TIC, from Q3 2017 to Q1 2020]</i></p>	Nil	12	Dissemination campaign covering environmental sustainability and conservation themes conducted on 17-18 December 2019 to 1 commune and 3 Sangkat which consisted of 12 villages. The campaign engaged 139 (100F = 72%) participants.
<p>4.2 At least 50% of participants of the community awareness and dissemination campaigns are females (2015 baseline: 0).</p> <p><i>[Performance Indicators updated from Revised Project Administration Manual June 2021 and achievement updates from TIC, from Q3 2017 to Q1 2020]</i></p>	Nil	72%	The campaign engaged 139 (100F = 72%) participants.
<b>Outcome : Improved urban services in the two participating towns (ស្រុកៗ)</b>			



Indicators (with Baseline and Performance Targets)	Baseline	Achievements/Status (as of end of reporting period)	Assessment of Current Progress/ Status & Reason for any Negative Variance
1. At least 2,400 households (10,000 people, of whom 50% are female) serviced by a new wastewater collection and treatment facility (2015 baseline: 0)  <i>[Updates from Revised Project Administration Manual June 2021 and will update from infrastructure operator during operation from Q2 2023 onward]</i>	Nil		Assessment to start upon completion of construction of drainages in Q2 2023 onwards.
2. 5,800 households (25,000 people, of whom 50% are female) serviced by improved solid waste collection. (2015 baseline: 0)  <i>[Updates from Revised Project Administration Manual June 2021 and will update from infrastructure operator during operation from Q2 2023 onward]</i>	Nil		Assessment to start upon completion of construction of landfill site in Q2 2023 onwards.
3. At least 1,400 households (6,000 people, of whom 50% are female) benefit from reduced flooding (2015 baseline: 0)  <i>[Updates from Revised Project Administration Manual June 2021 and will update from infrastructure operator during operation from Q2 2023 onward]</i>	Nil		Assessment to start upon completion of construction of drainages in Q2 2023 onwards.



**APPENDIX 7**  
**PROJECT IMPLEMENTATION AND PERFORMANCE M&E FRAMEWORK MATRIX**  
**Project Implementation M&E Framework Matrix**

Activities <i>(Col. 1)</i>	Data Sources/ Means of Verification <i>(Col. 2)</i>	Data Collection Method/Forms <i>(Col. 3)</i>	Timing & Frequency of Data Collection <i>(Col. 4)</i>	Responsible Person/Agency for Data Collection <i>(Col. 5)</i>
<b>Output 1: The SLEDPs developed</b>				
1.1 Participating provinces and towns endorse SLEDPs by Q2 2016.	Executive agencies' copies of Letters of Endorsement by participating provinces and towns.	Validation with implementing agencies	Q2 2016	PMU / PIU supported by PISCB Social Development & Gender Specialist (SDGS)
<b>Output 2: Priority urban infrastructure investments implemented</b>				
2.1 Complete detailed engineering designs by Q3 2019.	PISCB DED Team's progress reports	Updates from DED Team using M&E form no. 1A	Monthly (July – Sept 2019)	PMU supported by PISCB
2.2 Complete land acquisition and resettlement by Q3 2019.	PISCB Resettlement Specialist progress reports On-site verification	Updates from Resettlement Specialist using M&E form no. 1A	Monthly (July – Sept 2019)	PMU supported by PISCB
2.3 Bid civil works contracts by Q3 2019.	Prequalification, bidding and awards reports	Updates from Procurement Specialist using M&E form no.1A	Monthly (July – Sept 2019)	PMU supported by Procurement Specialist
2.4 Sign civil works contracts by Q4 2019 and Q2 2021	Prequalification, bidding and awards reports	Updates from Procurement Specialist using M&E form no.1A	Oct 2019	PMU supported by Procurement Specialist
2.5 Complete civil works by Q2 2023	PISCB Construction Supervision (CS) Team progress reports On-site verification	Updates from CS Team using M&E form nos. 2A and 2B.	Monthly (Oct 2019 - June 2023)	PMU supported by PISCB
2.6 Conduct environmental safeguards monitoring and reporting by Q4 2019–Q4 2023	Environmental Safeguards Monitoring Team (ESMT) reports. On-site verification	Updates from ESMT using M&E form no. 3.	Monthly (Oct 2019 - Dec 2023)	PMU supported by ESMT
2.7 Conduct social safeguards monitoring and reporting by Q4 2019–Q4 2023	Social Safeguards Monitoring Team (SSMT) reports. On-site verification	Updates from SSMT	Monthly (Oct 2019 - Dec 2023)	PMU supported by SSMT
<b>Output 3: Institutional capacities for managing public investments strengthened</b>				
3.1 Formulate capacity building program by Q1 2019	Report on capacity building program formulated	Updates from PISCB Capacity Building & Training Specialist (CBTS) using M&E form no. 1B	Q1 2019 TNA	PMU / PIU supported by PISCB CBTS
3.2 Complete key trainings and capacity building activities by Q1 2023	Reports on key trainings and capacity building activities	Updates from PISCB CBTS using M&E form no. 1B	Q1 2019 – Q1 2023)	PMU / PIU supported by PISCB CBTS
<b>Output 4: Community awareness on project activities and environmental sustainability improved</b>				



Activities (Col. 1)	Data Sources/ Means of Verification (Col. 2)	Data Collection Method/Forms (Col. 3)	Timing & Frequency of Data Collection (Col. 4)	Responsible Person/Agency for Data Collection (Col. 5)
4.1 Conclude community awareness and dissemination campaigns Q3 2017 – Q1 2023	Reports on actual conduct of community awareness & dissemination campaign.	Updates from PISCB Capacity Development Specialist (CDS) using M&E form nos. 1B and 5	Q3 2017 – Q1 2023	PMU / PIU supported by CDS

### Project Performance M&E Framework Matrix

Indicators (with Baseline and Performance Targets) (Col. 1)	Data Sources/ Means of Verification (Col. 2)	Data Collection Method/Forms (Col. 3)	Timing & Frequency of Data Collection (Col. 4)	Responsible Person/Agency for Data Collection (Col. 5)
<b>Output 1: The SLEDPs developed</b>				
1.a. SLEDPs endorsed by the participating provinces and towns (2015 baseline: final draft SLEDPs completed)	Executive agencies' copies of Letters of Endorsement by participating provinces and towns.	Validation with implementing agencies	Q2 2016	PMU / PIU supported by PISCB Social Development & Gender Specialist (SDGS)
<b>Output 2: Priority urban infrastructure investments implemented</b>				
2.a. Subproject construction, operation and maintenance activities will support equal employment including at least 30% female staff (2015 baseline:0).  At least 30% of staff employed in operation and maintenance are women.	Contractors' / PISCB Construction Supervision (CS) Team's progress reports On-site verification	Updates from CS Team using M&E form nos. 4B and 8A.	Monthly (Oct 2019 - June 2023)	PMU / PIU supported by PISCB. GAP requirements included in Contract Documents
2.b Subproject construction, operation and maintenance employment for unskilled staff and laborers will include at least 75% local hires (2015 baseline: 0)	Infrastructure Operator's reports Local authorities' statistical data Contractors' / PISCB Construction Supervision (CS) Team's progress reports On-site verification	Updates from Infrastructure Operator using	Quarterly (Q3 2023 onward)	PMU/PIU supported by Infrastructure Operator PMU / PIU supported by PISCB. GAP requirements included in Contract Documents
2.c Wastewater treatment plant with capacity of 3,300 m3/day constructed and operational (2015 baseline: 0)	Construction records, subproject completion reports, end of project survey	During operation: PIU updates from infrastructure operator's & local authorities' data. Using M&E Form no. 8A.	Monthly (Oct 2019 - June 2023)	PMU/PIU supported by Infrastructure Operator
2.d New managed landfill is made operational (2015 baseline: 0)	Construction records, subproject completion reports, end of project survey	During operation: PIU updates from infrastructure operator's & local authorities' data. Using M&E Form no. 8A.	During operation - quarterly (Q3 2023 onward)	PMU/PIU supported by Infrastructure Operator
2.e Continued access to existing dump sites is secured alongside livelihood skills training	Subproject completion reports, end of project survey	During operation: PIU updates from infrastructure operator's & local	During operation - quarterly (Q3 2023)	PMU/PIU supported by Infrastructure Operator



Indicators (with Baseline and Performance Targets) (Col. 1)	Data Sources/ Means of Verification (Col. 2)	Data Collection Method/Forms (Col. 3)	Timing & Frequency of Data Collection (Col. 4)	Responsible Person/Agency for Data Collection (Col. 5)
activities to at least 80% of informal waste pickers, of whom 65% are female (2015 baseline: 35 persons, 22 female).		authorities' data. Using M&E Form no. 8A.	onward)	
<b>Output 3: Institutional capacities for managing public investments strengthened</b>				
3.a At least 20 persons from PMU and PIU (30% female) are trained in project management (2015 baseline: 0)	Project progress and completion reports, attendance lists, training reports	Updates from PISCBCBTS using M&E form no. 5	Monthly April 2017-September 2019	PMU / PIU supported by PISCBCBTS
3.b At least 100 community leaders, government officers and consultants involved in project implementation and delivery demonstrate improved knowledge on gender sensitive approaches due to training received (with 50% female participation) (2015 baseline:0)	Project progress and completion reports, attendance lists, training reports	Updates from PISCBCBTS using M&E form no. 5	Monthly April 2017-September 2019	PMU / PIU supported by PISCBCBTS
<b>Output 4: Community awareness on project activities and environmental sustainability improved</b>				
4.a At least 10 gender-responsive community awareness and dissemination campaigns (including public forums) covering environmental sustainability and conservation themes, promotion of "clean city" concept, and dissemination of information on the positive impacts of solid waste collection are provided. (2015 baseline: 0)	Project progress and completion reports, attendance lists, training reports	Updates from PISCBCDS using M&E form no. 5	Monthly Q3 2017- Q1 2020	PMU / PIU supported by PISCBCDS
4.b At least 50% of participants of the community awareness and dissemination campaigns are females (2015 baseline: 0).	Project progress and completion reports, attendance lists, training reports	Updates from PISCBCDS using M&E form no. 5	Monthly Q3 2017- Q1 2020	PMU / PIU supported by PISCBCDS
<b>Outcome: Improved urban services in the two participating</b>				
a. At least 2,400 households (10,000 people, of whom 50% are female) serviced by a new wastewater collection and treatment facility (2015 baseline: 0)	Reports of provincial department of public works and transportation, project progress reports, end of project survey	During operation: PIU updates from infrastructure operator's & local authorities' data. Using M&E Form no. 8A.	Annual (2021 onward)	PMU/PIU supported by Infrastructure Operator
b. 5,800 households (25,000 people, of whom 50% are female) serviced	Reports of provincial department of public works and	During operation: PIU updates from infrastructure	Annual (2021 onward)	PMU/PIU supported by Infrastructure



<b>Indicators</b> (with Baseline and Performance Targets) <i>(Col. 1)</i>	<b>Data Sources/ Means of Verification</b> <i>(Col. 2)</i>	<b>Data Collection Method/Forms</b> <i>(Col. 3)</i>	<b>Timing &amp; Frequency of Data Collection</b> <i>(Col. 4)</i>	<b>Responsible Person/Agency for Data Collection</b> <i>(Col. 5)</i>
by improved solid waste collection. (2015 baseline: 0)	transportation, project progress reports, end of project survey	operator's & local authorities' data. Using M&E Form no. 8A.		Operator
<b>c.</b> At least 1,400 households (6,000 people, of whom 50% are female) benefit from reduced flooding (2015 baseline: 0)	Reports of provincial department of public works and transportation, project progress reports, end of project survey	During operation: PIU updates from infrastructure operator's & local authorities' data. Using M&E Form no. 8A.	Annual (2021 onward)	PMU/PIU supported by Infrastructure Operator



**APPENDIX 8**  
**STATUS OF ENVIRONMENT AND SOCIAL SAFEGUARD**

**The Status of Environment Safeguard Works (Date 31 December 2021)**

No.	Descriptions of works	Project Loan No.	TOR Preparation		Survey & Report Preparation		submit 1st draft IEIA report		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 base on comments from Inter-Ministry meeting	Minute preparation for approval report	Document preparation for issuing license		
Period by Sub degree									30 days base on sub-degree 72									
1	Kampot Town																	
1.1	Waste water collection and treatment	3314-CAM	Based on discussion with EIA Department it has agreed approval without undertaken on ToR			15/03/2018	15/06/2018	22/6/2018	15/8/2018	4/9/2018	28/09/2018	5/12/2018	26/2/2019	24/03/2019	19/4/2019	29/5/2019	obtained license in June 19, 2019	
1.2	Urban drainage																	
1.3	Solid Waste management	3314-CAM	18/02/2020	24/02/2020	09/03/2020	22/04/2019	29/11/2019	15/01/2020	28/01/2020	22/04/2020	01/06/20	15/06/2020	22/09/2020	16/10/2020	03/11/2020	12/11/2020	Obtained License in Nov 23, 2020	



The Status of Resettlement Safeguard Works (Date 31 December 2021)

No.	Description of the subprojects	Date of submission to PMU/GDR and ADB											Remarks	
		Due Diligence Report (DDR)			Updated Resettlement Plan (RP)									
		Draft	Revised draft	Final report	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	Final report						
<b>1</b>	<b>Kampot Town</b>													
1.1	Wastewater collection and Treatment	29 Nov.2018	5-21 Jan.209	22 Jan.2019	16 Aug.2018	No need	No need	No need						- RP has completed and submitted to ADB on 20 June 2019
1.2	Urban drainage					(Line 4b only) 15 Apr.2019	to GDR 29May20 19							
1.3	Solid waste management	N/A				No need	No need	No need						



## APPENDIX 9

### GENDER ACTION PLAN (GAP MONITORING TABLE)

Date of Update: 1 October - 31 December 2022

**Project Title:** Second Greater Mekong Sub region (GMS) Corridor Towns Development Project

**Country:** Cambodia

**Project Number:** 46443-002

**Type of Project (Loan/Grant/TA):** Loan 3314-CAM

**Approval and Timeline:** January 2016-30 June 2021

**Gender Category:** Effective Gender Mainstreaming (EGM)

**Mission Leader:** Wei Kim Swain, Urban Development Specialist

**Project Impact:** Promoting growth that is sustainable, inclusive, equitable and resilient; creating employment, including through improving competitiveness; promoting equity through reducing poverty, improving environmental sustainability, and promoting efficiency through further strengthening institutional capacity and governance in the two towns of Kampot and Sihanouk Ville (National Strategic Development Plan, 2014-2018)

**Project Outcome:** Improved urban services in the participating towns of Kampot

Total action: 02

Total target: 11

GENDER ACTION PLAN (GAP Activities, Indicators, and Targets, Timeframe, and responsibility)	Progress to Date <b>(as of December 31, 2021)</b> (This should include information on the period of actual implementation, sex-disaggregated qualitative and quantitative updates (e.g. number of participating women, women beneficiaries of services, etc.) and qualitative information. However, some would be on going – so explain what has happened so far towards meeting this target)	Issues and Challenges (Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for the delay, etc.) and provide recommendations on ways to address issues and challenges
<b>Output 1: Strategic Local Economic Development Strategies (SLEDPs) Developed</b>		
<b>1.1 SLEDP developed to include a gender mainstreamed approach</b>		
1.1.1 Poverty, social and gender issues included in the SLEDP,	<b>Off-track</b> - SLEDP has not yet started due to international expert	- Due to COVID 19 pandemic, the international expert still could not



<p>which includes specific strategic gender measures, and are endorsed by the EA, (DMF 1a) <b>Responsibility:</b> PMUS, PIUS, PISCB Consultants <b>Time:</b> Q4 - 2021</p>	<p>consultant could not mobilize because of COVID 19 pandemic, - There no proper plan has been developed by in-charge specialist yet,</p>	<p>mobilize, DTL will lead the process with support by PPMIS and gender expert consultants, - In charged Expert has not been mobilized,</p>
<p><b>Output 2: Priority urban infrastructure investments implemented</b></p>		
<p><b>2.1 Infrastructure activities offer inclusive opportunities to the local population</b></p>		
<p>2.1.1 Subproject construction, operation and maintenance activities will support equal employment including at least 30% female staff (DMF 2a) <b>Responsibility:</b> Contractor, PMU, PIU, PISCB Consultants <b>Time:</b> During/After Construction</p>	<p><b>On-track</b> - As of December 31, 2021, out of a total 15,881 unskilled labor days, 6,420 (40%) days claimed by women under the construction work. Type of activities performance by women included: (i) bending bar, and casting cover rebar of concrete Female unskilled workers received training from the company on concrete work, rebar work, and bending, installing rebar to enable their work in the construction. Women unskilled laborers receive from \$8.00 - \$8.75/day. The company provide equal pay for equal work. The different scale of pay is depending level and type of work. Sex-disaggregated labor monitoring sheet was developed and use by contractors and reported to PMU monthly. There is no child labor employed in the construction.</p>	
<p>2.1.2 Subproject construction, operation and maintenance employment for unskilled staff and laborers will include at least 75% local hires (DMF 2b) <b>Responsibility:</b> Contractor, PMU, PIU, PISCB Consultants</p>	<p><b>On-track</b> - As of December 31, 2021, out of a total 24,140 (100%) skilled and unskilled labor days, 8,234 (34%) females identified by both for Heng Sambath Co. Ltd and SBPH as local laborers,</p>	



<p><b>Time:</b> At Construction commencement</p>		
<p>2.1.3 Continued access to existing dump sites is secured alongside livelihood skills training activities to at least 80% of informal waste pickers, of whom 65% are female (DMF 2e) <b>Responsibility:</b> PMU, PIU, PISCB Consultants <b>Time:</b> During/After Construction</p>	<p><b>On-track</b></p> <ul style="list-style-type: none"> <li>- The ToR of training on Training course on waste recycling will be developed and approach individual consultant to provide training to existing waste pickers at the old dump sites,</li> </ul>	<p>Training delayed due to the contractor of construction the new landfill just signed in May 2021,</p>
<p><b>2.2 Infrastructure and services respond to the needs of the targeted population</b></p>		
<p>2.2.1 At least 2,400 households (10,000 people of whom 50% are females) are serviced by a new wastewater collection and treatment facility. (DMF a) <b>Responsibility:</b> PMU, PIU, PISCB Consultants <b>Time:</b> Q4 – 2023</p>	<p><b>on-track</b></p> <ul style="list-style-type: none"> <li>- As of December 31, 2021, the construction of wastewater collection and treatment facility completed about 43.47%,</li> </ul>	<p>-</p>
<p>2.2.2 At least 5,800 households (25,000 people of whom 50% are females) are serviced by an improved solid waste collection service. (DMF b) <b>Target 5:</b> <b>Responsibility:</b> Contractor, PMU, PIU, PISCB Consultants <b>Time:</b> Q4 - 2023</p>	<p><b>on-track</b></p> <ul style="list-style-type: none"> <li>- As of December 31, 2021, the construction of landfill completed about 45.75%</li> <li>- Data collection will be done when the construction completed,</li> <li>- Q2-2021 Updated: Heng Sambath Co.Ltd signed agreement on May 20, 2021 the field work will start from 17 June 2021. The GAP orientation will conduct during the Q3 period for</li> </ul>	



	effectively GAP compliance,	
2.2.3 At least 1,400 households (6,000 people of whom 50% are females) benefit from reduced flooding. (DMF c) <b>Responsibility:</b> PMU, PIU, PISCB Consultants <b>Time:</b> Q4- 2023	<b>on-track</b> - As of December 31, the construction of drainage completed about 43.47 - Data verifying will be done when the construction completed,	
<b>Output 3. Institutional Capacities for managing public investments strengthened</b>		
<b>3.1 Public utility services supports gender equality and includes a gender mainstreamed management approach.</b>		
3.1.1 At least 20 persons from PMU and PIU (30% female) are trained in project management areas (DMF 3a) <b>Responsibility:</b> PMU, PIU, PISCB Consultants, <b>Time:</b> Q4 - 2023	<b>Achieved</b> - 15 conducted trainings engaged 189 participants (53 females equal 28%), - The key project management trainings engaged 6 (2 females or 33% of PIUs. This training conducted on January 21, 2020. PMU unable to involve due to conflict with adhoc mission,	
3.1.2 At least 100 community leaders, government officers and consultants involved in project implementation and delivery (50 female) demonstrate improved knowledge on gender sensitive approaches due to training received (DMF 3b) <b>Responsibility:</b> PMU, PIU, PISCB Consultants,	<b>Achieved</b> - Two Gender Awareness campaigns led by trained PDoWA, PIUs with assisted by trained community leaders of the project in 3 target Sangkats and 1 commune engaged 139 villagers (100 females or 72%). The first campaign conducted on December 17 afternoon at Kampot town engaged 94 villagers (75 females or 80%). And the second campaigns conducted on December 18 at Thmei commune engaged 45 villagers (25 females or 56%). The campaign conducted with aim to provide a brief introduction about the overview,	



<p><b>Time:</b> Q4 - 2023</p>	<p>impact and income of the project and moreover the campaigns have briefly described about the role, the labor market and work opportunity particular for women at target S/C.</p> <ul style="list-style-type: none"><li>- 3 series trainings on Gender Sensitization engaged 73 (33 females or 45%) conducted the following:<ul style="list-style-type: none"><li>o <b>First training</b> on Gender Awareness and GAP orientation engaged 16 (6F=38%) participants of Kampot respectively<sup>1</sup> who will provide gender awareness to the communities.</li><li>o <b>Second training:</b> TOT on Gender Sensitization engaged 19 (12F=63%) participants consisted of 8 (2 f) PIUs of Kampot, 2 (1 f) participants from MOWA, 2 females from PDoWA, and 7 females participants from commune counciltors. The training conducted based on TNA and training outline developed by PISCD excepts. <sup>2</sup>,</li><li>o <b>Third training:</b> on Gender Sensitization engaged 38 participants (15F = 39%) consist of 2PMUs, 3PIUs (1f), 2 PDoWA (1f), 3 Project Consultants (1f), 3 Contractor's staffs, 6 C/S Councilors/CCWCs (3f), 10 VCs (4f), 1 Community leaders, 1 NGO Representative and 7 citizens (5f).<sup>3</sup></li></ul></li></ul> <p><b>Note:</b> this figure over achieved as the number of target included Sihanouk Ville.</p>	
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<sup>1</sup> including Gender Focal Person of PMU, PIU, Commune Council Members, Commune Committee for Women and Children )CCWC<sup>(</sup>, and representatives of livelihood groups/associations. The GAP orientation meeting aimed to: (i) orient the PIU and the gender focal persons on the Gender Action Plan (GAP) output/measures, its implementation and monitoring and their roles in the GAP activities; (ii) orient the commune councils/women's groups in the target service areas about the project and their roles in GAP implementation and activities; (iii) identify project benefits, concerns and issues, and (iv) define the involvement of women association and groups in the community on environmental concerns and cleanliness, and livelihood groups' type of livelihood/business engagement and their problems and needs. The training conducted on April 26, 2018 in Kampot and April 30 in Sihanouk Ville.

<sup>2</sup> The training conducted on July 2 – 4, 2019 (Kampot)

<sup>3</sup> the training on December 16 – 17, 2019 at DPWT conference room, Kampot.



<p>3.1.3 NGO vocational training in livelihood and employment opportunities related to the project will be provided to at least 20 female informal sector workers.</p> <p><b>Responsibility:</b> PMU, PIU, PISCB Consultants, <b>Time:</b> Q4 – 2023</p>	<p><b>Not yet due,</b></p> <ul style="list-style-type: none"> <li>- The refresher assessment still can not take place, it can be done in Q2-2022,</li> <li>- As of September 30, the civil construction work for the solid waste just started in the previous quarter, the TOR for livelihood skills needed will develop prior to the refresher assessment in Q4-2021,</li> <li>- Q1-2021 Updated: solid waste still not yet commence, the TOR for livelihood skills assessment will develop in the following quarter of 2021,</li> <li>- Q4-2020 Updated: solid waste still not yet commence, the TOR for livelihood skills assessment for the first quarter of 2021, this still need advice from ADB,</li> <li>- On February 10, 2020, gender specialist together with PIU/Gender focal person of Kampot have a brief meeting with PDoWA, DONBOSCO and Regional Polytechnic Institute Techo Sen under the PDoLVT to find out the appropriate themes/subject trainings, and period that can be the main sources of training institutions or part of the process to identify the skills needed for livelihood concept design for waste pickers, poor young male and females and PAPs. The deeper study will be done again after get ADB advice for solution.</li> <li>- The livelihood concept design has been prepared.</li> <li>- A Socio-Economic Survey Form was developed. This will be used to update and establish the SES/ livelihood skills need/preferences and other demographic profile of the project areas.</li> <li>- Skills need assessment has been undertaken on August 22, 2019 with waste pickers in Kampot respectively through consultation</li> </ul>	<p>Need a guideline from ADB,</p>
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	meeting.	
<b>Output 4: Community Awareness on project activities and environmental sustainability improved</b>		
<b>4.1 Community activities promotes general knowledge around sanitation, flood risks and promotes participation of local women, men and other marginalized groups.</b>		
<p>4.1.1 At least 10 gender responsive<sup>a</sup> community awareness and dissemination campaigns (including public forums) covering environmental sustainability and conservation themes, promotion of “clean city” concept, and dissemination of information on the positive impacts of solid waste collection are provided (DMF 4a)</p> <p><b>Responsibility:</b> PMU, PIU, PISCB Consultants, <b>Time:</b> Q4 – 2023</p>	<p><b>Not yet due</b></p> <ul style="list-style-type: none"> <li>- The community awareness and dissemination campaign will be done in Q4 2022. This activity can be done in cooperation with environment specialist or compliment with municipality environmental campaign,</li> </ul>	
<p>4.1.2 At least 50% of participants of the community awareness and dissemination campaigns are females (DMF 4b).</p> <p><b>Responsibility:</b> PMU, PIU, PISCB Consultants, <b>Time:</b> Q4 – 2023</p>	<p><b>Not yet due</b></p> <ul style="list-style-type: none"> <li>- This target related to 4.1.1</li> </ul>	
<p>4.1.3 Survey carried out in 2021 and at project close to assess improved awareness of the different needs, roles and responsibilities of women and</p>	<p><b>Not yet due</b></p> <ul style="list-style-type: none"> <li>- This activity need to be done in Q4-2022,</li> </ul>	



<p>men, girls and boys, in environmental sustainability and conservation. <b>Responsibility:</b> PMU, PIU, PISCB Consultants, <b>Time:</b> Q4 – 2021 and Q4 2023</p>		
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**Project Management and Gender-Specific Activities**

4.1 PISCB consultants mobilizes an international and national social, gender, community development and livelihood specialists for the duration of the project. All related experts have been mobilized as planned:

- 15 trainings conducted engaged 189 participants (53 females equal 28%). The key project management trainings engaged 6 (2 females or 33%) of PIUs. The training conducted on January 21, 2020. PMU unable to involve due to conflict with adhoc mission,

4.2 Training on GAP implementation and monitoring will be delivered to PMU, PISCB, and other key implementing partners: 3 series trainings on Gender Sensitization engaged 73 (33 females or 45%) conducted the following:

- First training on Gender Awareness and GAP orientation engaged 16 (6F=38%) participants of Kampot respectively who will provide gender awareness to the communities.
- Second training: TOT on Gender Sensitization engaged 19 (12F=63%) participants consisted of 8 (2 f) PIUs of Kampot, 2 (1 f) participants from MOWA, 2 females from PDoWA, and 7 females participants from commune counciltors. The training conducted based on TNA and training outline developed by PISCD excepts,
- Third training: on Gender Sensitization engaged 38 participants (15F = 39%) consist of 2PMUs, 3PIUs (1f), 2 PDoWA (1f), 3 Project Consultants (1f), 3 Contractor’s staffs, 6 C/S Councilors/CCWCs (3f), 10 VCs (4f), 1 Community leaders, 1 NGO Representative and 7 citizens (5f).<sup>4</sup>

4.3 Sex-disaggregated data will be collected by the contractor in fulfillment of DMF and GAP reporting requirements.

- The inclusion of the gender-disaggregated and gender-sensitive monitoring indicators was established in the PPMIS. The team will continue coordinating with the PPMIS consultant and work with the PIUs for the documentation of sex-disaggregated data during construction and implementation/O&M phase on a quarterly and semi-annual basis.
- Monitoring form was developed and introduced to PIUs for helping them to collect data.

<sup>4</sup> the training on December 16 – 17, 2019 at DPWT conference room, Kampot.



- The disaggregated data of labourers regularly collect through Manpower table for reporting.

4.4 Progress reports (e.g. quarterly, safeguards, project performance monitoring and project completion reports) include information on gender activities. The GAP monitoring table to be updated and attached to the project progress reports.

- GAP monitoring table has been updated quarterly,

4.5 GAP performance included in mid-term and final project reviews.

- This will be done before ending the project,

4.6 PMU and PISCB consultants to work with appointed DoWA focal point, in delivering and supporting GAP implementation and monitoring activities.

- The community awareness campaigns conducted by trained PIUs, PDoWA, Community Leaders from target Sangkat on December 17-18, 2019 with closely coaching and monitoring by Social and Gender specialist and PISCB coordinator. These two Gender Awareness campaigns led by trained PDoWA, PIUs with assisted by trained community leaders of the project in 3 target Sangkats and 1 commune engaged 139 villagers (100 females or 72%). The first campaign conducted on December 17 afternoon at Kampot town engaged 94 villagers (75 females or 80%). And the second campaigns conducted on December 18 at Thmei commune engaged 45 villagers (25 females or 56%). The campaign conducted with aim to provide a brief introduction about the overview, impact and income of the project and moreover the campaigns have briefly described about the role, the labor market and work opportunity particular for women at target S/C.

<sup>a</sup> in this context, gender responsive campaigns will acknowledge the different environmental sustainability and conservation roles, responsibilities and needs of men and women, boys and girls in the community.

DMF = design and monitoring framework, DoWA = Department of Women's Affairs, EA = executing agency, GAP = gender action plan, O&M = operations and

maintenance, PISCB = project implementation support and capacity building, PIU = project implementation unit, PMU = project management unit, SLEDP = strategic local economic development plan.



**APPENDIX 10**  
**LIST OF CAPACITY DEVELOPMENT AND TRAINING CONDUCTED**

Update: December 31, 2021

No.	Title	Date	Venue	Agency	Participants		
					Female	Male	Total
1	EMP Development and Implementation	30 April and 02 May 2019	PIU office in SHV and PIU office in Kampot	Contractor SHV	0	2	2
				CS SHV	0	1	1
				Staff of Provincial Hall KP	1	0	1
				PIU SHV	0	4	4
				PIU KP	0	7	7
				<b>Total</b>	<b>1</b>	<b>14</b>	<b>15</b>
2	Survey Methodology	23-24 and 28-29 May 2019	PIU office in Kampot and SHV	PIU KP	2	5	7
				Deputy Governor Hall KP	0	1	1
				PIU SHV	0	3	3
				PDOPWT SHV	0	4	4
				<b>Total</b>	<b>2</b>	<b>13</b>	<b>15</b>
3	Grievance Redress Mechanism	14 June 2019	PIU office in SHV	Contractor SHV	0	2	2
				District Deputy Governor	1	0	1
				Village Chief	0	1	1
				CC	0	2	2
				<b>Total</b>	<b>1</b>	<b>5</b>	<b>6</b>
4	Gender Sensitization, Women and Development And Building Self-Esteem Of Women	02-04 KP and 09-11 SHV	PIU Office in Kampot and SHV	PIU KP	2	6	8
				MOWA	0	1	1
				PDOWA KP	1	0	1



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No.	Title	Date	Venue	Agency	Participants		
					Female	Male	Total
		July 2019		Commune Chief	0	5	5
				MOWA	1	0	1
				PDOWA SHV	1	0	1
				PIU SHV	2	1	3
				Commune Chief	0	2	2
				<b>Total</b>	<b>7</b>	<b>15</b>	<b>22</b>
5	Simplified Business Plan	17-18 July 2019 KP	PIU Office in Kampot	PIU KP	2	7	9
				<b>Total</b>	<b>2</b>	<b>7</b>	<b>9</b>
6	Focus Group Discussion	19 July 2019 KP	PIU Office in Kampot	PIU KP	0	2	2
				Civil Contractor	0	5	5
				Worker	0	2	2
				Chief Village	0	1	1
				<b>Total</b>	<b>0</b>	<b>10</b>	<b>10</b>
7	The Preparation of revenues Improvement Action Plan (RIAP)	25-26 July 2019 SHV	PIU Office in SHV	PIU SHV	2	3	5
				OWSU at Provincial	2	2	4
				OWSU at Municipal	3	0	3
				Tax Officer	0	1	1
				Municipality Hall	1	2	3
				<b>Total</b>	<b>8</b>	<b>8</b>	<b>16</b>
8	The Preparation of revenues Improvement Action Plan (RIAP)	01-02 August 2019 KP	PIU Office in KP	PMU	0	1	1
				PIU KP	1	3	4



Ministry of Public Works and Transport, Kingdom of Cambodia  
Second GMS Corridor Towns Development Project

No.	Title	Date	Venue	Agency	Participants		
					Female	Male	Total
				PDoWA	1	0	1
				DoLM	0	1	1
				DoE	0	1	1
				DoWRAM	0	1	1
				OWSU at Provincial	1	0	1
				Deputy Governor	0	1	1
				<b>Total</b>	<b>3</b>	<b>8</b>	<b>11</b>
9	Simplified Business Plan	26-27 August 2019 SHV	PIU Office in Sihanoukville	PIU SHV	2	4	6
				<b>Total</b>	<b>2</b>	<b>4</b>	<b>6</b>
10	Focus Group Discussion	28 August 2019 SHV	PIU Office in Sihanoukville	PIU SHV	0	1	1
				Chamber of Commerce	0	3	3
				Private Staff	0	7	7
				Businesswoman	1	0	1
				<b>Total</b>	<b>1</b>	<b>11</b>	<b>12</b>
11	Social safeguards and resettlement training	18 Sept 2019	PIU Office in Sihanoukville	PIU SHV	2	6	8
				<b>Total</b>	<b>2</b>	<b>6</b>	<b>8</b>
12	Social safeguards and resettlement training	19 Sept 2019	PIU Office in KP	PIU KP	1	6	7
				PMU	0	4	4
				<b>Total</b>	<b>1</b>	<b>10</b>	<b>11</b>
13	Social Risk Affecting Vulnerable Women like Human Trafficking and	8-10 Oct 2019	PIU office in Kampot	PIU KP	1	2	3
				DPDoWA	2	0	2



Ministry of Public Works and Transport, Kingdom of Cambodia  
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No.	Title	Date	Venue	Agency	Participants		
					Female	Male	Total
	Prostitution			Commune staff	3	0	3
				<b>Total</b>	<b>6</b>	<b>2</b>	<b>8</b>
14	Social Risk Affecting Vulnerable Women like Human Trafficking and Prostitution	16-18 Oct 2019	PIU office in SHV	PIU KP	2	2	4
				DPDoWA	0	0	0
				Commune staff	0	4	4
				<b>Total</b>	<b>2</b>	<b>6</b>	<b>8</b>
15	Gender Awareness	16-17 Dec 2019	PIU office in Kampot	PIU KP	1	1	2
				PMU	0	2	2
				DPDoWA	1	1	2
				Stakeholder	13	13	26
				<b>Total</b>	<b>15</b>	<b>17</b>	<b>32</b>
16	Project Implementation Environmental Safeguards	13 Jan 2020	PIU Office in Kampot	PMU	0	2	2
				PIU KP	1	1	2
				Contractor	0	4	4
				<b>Total</b>	<b>1</b>	<b>7</b>	<b>8</b>
17	Grievance Mechanism Redress	14 Jan 2020	PIU Office in Kampot	PMU	0	2	2
				PIU KP	0	2	2
				Stakeholder	5	20	25
				<b>Total</b>	<b>5</b>	<b>24</b>	<b>29</b>
18	Project management Introduction	21 Jan 2020	PIU Office in Kampot	PIU	2	4	6
				<b>Total</b>	<b>2</b>	<b>4</b>	<b>6</b>



No.	Title	Date	Venue	Agency	Participants		
					Female	Male	Total
19	Environmental Monitoring, GRM and Gender Awareness	25-26 November 2021	PIU Office in Kampot	PMU	0	2	2
				PIU KP	2	4	6
				Contractor	0	4	4
				<b>Total</b>	<b>2</b>	<b>10</b>	<b>12</b>
<b>19 Courses</b>				<b>Grand Total</b>	<b>63</b>	<b>181</b>	<b>244</b>

### Training Course Conducted By Contractors

No.	Title	Date	Venue	Agency	Participants		
					Female	Male	Total
1	HIV/AIDS and STIs Program, Covid-19, Site Safety and Sanitation	18 February 2021	In Contractor campsite Kampot Town (CW1)	Workers and Engineers	20	26	46
				<b>Total</b>	<b>20</b>	<b>26</b>	<b>46</b>



**APPENDIX 11**  
**STATUS OF COMPLIANCE WITH LOAN COVENANTS**

No.	Covenant	Reference in LA	Status of Compliance
1.	<p><b>Implementation Arrangements</b></p> <p>The Borrower and Project Executing Agency shall ensure that the Project is implemented in accordance with the detailed arrangements set forth in the PAM. Any subsequent change to the PAM shall become effective only after approval of such change by the Borrower and ADB. In the event of any discrepancy between the PAM and this Loan Agreement, the provisions of this Loan Agreement shall prevail.</p>	Schedule 5, Para. 1	Complied
2.	<p><b>Environment</b></p> <p>The Borrower shall ensure, and cause the Project Executing Agency to ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project comply with: (a) all applicable laws and regulations of the Borrower relating to environment, health and safety; (b) the Environmental Safeguards; and (c) all measures and requirements set forth in the IEEs, the EMPs and any corrective or preventative actions set forth in a Safeguards Monitoring Report.</p>	Schedule 5, Para. 2	Ongoing
3.	<p><b>Land Acquisition and Involuntary Resettlement</b></p> <p>The Borrower shall ensure or cause the Project Executing Agency to ensure that all land and all rights-of-way required for the Project are made available to be Works contractor in accordance with the schedule agreed under the related Works contract and all land acquisition and resettlement activities are implemented in compliance with the RP based on (a) all applicable laws and regulations of the Borrower relating to land acquisition and involuntary resettlement; (b) the applicable principles and requirements set forth in the SPS; and (c) any necessary corrective or preventive actions as agreed by the IRC set forth in the Safeguards Monitoring Report .</p>	Schedule 5, Para. 3	Ongoing
4.	<p>Without limiting the application of the SPS or the RPs, the Borrower shall ensure or cause the Project Executing Agency to ensure that no physical or economic displacement takes place in connection with the Project until:</p> <p>(a) compensation and other entitlements have been provided to affected people in accordance with the RPs; and</p> <p>(b) a comprehensive income and livelihood improvement program has been put in place in accordance with the RPs.</p>	Schedule 5, Para. 4	Complied
5.	<p><b>Indigenous Peoples</b></p> <p>The Borrower shall ensure that the Project does not have any indigenous people impacts, all within the meeting of ADB's Safeguard Policy Statement. In the event that the Project complies with the applicable laws and regulations of the Borrower and with ADB's Safeguard Policy Statement.</p>	Schedule 5, Para. 5	Complied
6.	<p><b>Human and Financial Resources to Implement Safeguards</b></p>		



No.	Covenant	Reference in LA	Status of Compliance
	<p><b>Requirements</b></p> <p>The Borrower shall make available or cause the Project Executing Agency to make available, necessary budgetary and human resources to fully implement the EMPs and the RPs.</p>	Schedule 5, Para. 6	Complied
7.	<p><b>Safeguards – Related Provisions in Bidding Documents and Works Contracts</b></p> <p>The Borrower shall ensure, and cause the Project Executing Agency to ensure that all bidding documents and contracts for Works contain provisions that require contractors to:</p> <ul style="list-style-type: none"> <li>(a) comply with the measures relevant to the contractor set forth in the IEEs, the EMPs and the RPs (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set forth in a Safeguards Monitoring Report;</li> <li>(b) make available a budget for all such environmental and social measures;</li> <li>(c) provide the Borrower with a written notice of any unanticipated environmental, or resettlement risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEEs, the EMPs and the RPs;</li> <li>(d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and</li> <li>(e) Reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.</li> </ul>	Schedule 5, Para. 7	<p>Complied</p> <p>Complied</p> <p>Complied</p> <p>Complied</p> <p>Complied</p>
8.	<p><b>Safeguards Monitoring and Reporting</b></p> <p>The Borrower shall do the following or cause the Project Executing Agency to do the following:</p> <ul style="list-style-type: none"> <li>(a) submit semiannual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;</li> <li>(b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEEs, the EMPs and the RPs, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and</li> <li>(c) Report any actual or potential breach of compliance with the measures and requirements set forth in the EMPs and the RPs promptly after becoming aware of the breach.</li> </ul>	Schedule 5, Para. 8	<p>Complied</p> <p>Complied</p> <p>Complied</p>
9.	<p><b>Prohibited List of Investments</b></p> <p>The Borrower shall ensure that no proceeds of the Loan are used to finance any activity included in the list of prohibited</p>	Schedule 5, Para. 9	Complied



No.	Covenant	Reference in LA	Status of Compliance
	investment activities provided in Appendix 5 of the SPS.		
10.	<p><b>Gender and Development</b></p> <p>The Borrower shall ensure that: (a) the gender action plan is implemented in accordance with its terms; (b) the bidding documents and contracts include relevant provisions for contractors to comply with the measures set forth in the GAP; (c) adequate resources are allocated for the implementation of the GAP; and (d) progress on implementation of the GAP, including progress toward achieving key gender outcome and output targets, are regularly monitored and reported to ADB; and (e) key gender outcome and output targets include, but not limited to: (i) the project implementation units shall target recruitment of 30% female staff, including 20% in decision-making positions; (ii) at least 20 persons (30% female) trained in key project management areas; (iii) at least 100 persons (50%female) provide gender sensitization training for community leaders, government officers, and consultants involved in project implementation and delivery; (iv) the project management unit and the Borrower's department of Women's Affairs will organize, through an NGO vocational training in livelihood and employment opportunities related to the project, e.g. tourism skills development, for at least 20 poor young women in Kampot, and offer the same for waste pickers at dumpsite in Sihanoukville; (v) 30% of unskilled laborers employed in sub-project construction are women; (vi) 30% of staff employed in operations and maintenance are women; and (vii) 75% of all unskilled laborers/staff are of local origin.</p>	Schedule 5, Para. 10	Ongoing
11.	<p><b>Governance and Anticorruption</b></p> <p>The Borrower, the Project Executing Agency, and the Project Implementing Agencies shall: (a) comply with ADB's Anticorruption Policy (1998, as amended to date) and acknowledge that ADB reserves the right to investigate directly, or through its agents, any alleged corrupt, fraudulent, collusive or coercive practice relating to the Project; and (b) cooperate with any such investigation and extend all necessary assistance for satisfactory completion of such investigation.</p>	Schedule 5, Para. 11	Complied
12.	<p>The Borrower, the Project Executing Agency, and the Project Implementing Agencies shall ensure that the anticorruption provisions acceptable to ADB are included in all bidding documents and contracts, including provisions specifying the right of ADB to audit and examine the records and accounts of the Project Executing Agency and the Project Implementing Agencies and all contractors, suppliers, consultants, and other service providers as they relate to the Project.</p>	Schedule 5, Para. 12	Complied
13.	<p>Within six (6) months of the Effective Date, the Project Executing Agency shall create or modify a Project website to disclose information about various matters on the Project. The website will include information on Project procurement include the list of participating bidders, name of each winning bidder, basic details on bidding procedures adopted, the value of each contract awarded, and the list and value of goods/services procures and the intended utilization of Loan proceeds under each contract being awarded. The website shall also include general Project information, Project progress</p>	Schedule 5, Para. 13	Complied



No.	Covenant	Reference in LA	Status of Compliance
	<p>and contact details for the Project Executing Agency's counterpart staff in Khmer and English languages, and shall link to ADB's Integrity Unit website at <a href="http://www.adb.org/site/integrity/complaint-form">http://www.adb.org/site/integrity/complaint-form</a> for reporting to ADB any grievances or allegations of corrupt practices arising out of the Project and /or Project activities. The Borrower shall cause the Project Executing Agency to ensure that all Project staff are fully aware of ADB's procedures, including, but not limited to, procedures for implementation, procurement, use of consultants, disbursements, reporting, monitoring, and prevention of fraud and corruption.</p>		
14.	<p><b>Grievance Redress Mechanism</b></p> <p>The Borrower shall through the Project Executing Agency further ensure that within nine (9) months of the Effective Date, a grievance redress mechanism (GRM) acceptable to ADB is established for non-safeguards complaints in accordance with the PAM. In each case, such GRM shall function to (i) review and document eligible complaints of Project stakeholders; (ii) proactively address grievances; (iii) provide the complainants with notice of the chosen mechanism and/or action; and (iv) prepare and make available to ADB upon request periodic reports to summarize (a) the number of complaints received and resolved; (b) chosen actions; and (c) final outcomes of the grievances and make these reports available to ADB upon request. Eligible non-safeguards complaints include those related to the Project, any of the service providers, any person responsible for carrying out the Project, complaints on misuse of funds and other irregularities as well as gender issues.</p>	Schedule 5, Para. 14	Complied
15.	<p><b>Sector Development and Counterpart Support</b></p> <p>(a) The Borrower shall (i) cause the Project Executing Agency and the relevant Project Implementation Agency to adopt business plans consistent with the terms and requirements of the PAM(including, but not limited to, the necessary tariff, tariff collection rates, increases in tariff rates and service coverage rates for wastewater collection and treatment services and facilities in Kampot and rates for solid waste collection services and facilities in Kampot and Sihanoukville for the operational period of the relevant facilities), subject to prior consultation with ADB, for achieving full cost recovery to cover operations and maintenance expenditures of the facilities developed under Parts 1,2 and 4of the Project, as applicable, prior to their physical completion; and (ii) cause each Project Implementation Agency to administer the applicable business plan in accordance with its terms and the PAM, including, but not limited to, the collection of all necessary tariffs and Implementation of any tariff increases, as applicable.</p>	Schedule 5, Para. 15	Not yet due
16.	<p>(b) The Borrower shall (i) if there is any deficiency in the budget for the operations and maintenance of the facilities constituting Parts 1, 2 and 4 (or any or all of them ) of the Project in any fiscal year, require the applicable Project Implementation Agency to Fund immediately such deficiency through budget allocations for such facilities;</p>	Schedule 5, Para. 16	Not yet due



<b>No.</b>	<b>Covenant</b>	<b>Reference in LA</b>	<b>Status of Compliance</b>
	and (ii) if the applicable Project Implementation Agency fails to undertake its obligation under clause (b)(i) above, fund immediately such deficiency in the budget for the operations and maintenance for the facilities constituting Parts 1, 2 and 4 (or any or all of them ) of the Project, as applicable, for the relevant fiscal year to ensure proper operations and maintenance of such facilities for the remainder of the relevant fiscal year.		



## APPENDIX 12: RISK ASSESMENT AND RISK MANAGEMENT PLAN (RARMP)

No.	Risk/Issue	Assessment without Mitigation	Action to Mitigated Risk	Responsibility	Target/Monitoring	Status as of December 2021	Supporting Evidence
<b>Element 1: Procurement</b>							
1.a	Irregularities relating to leaking prior or post procurement information before the contract award, collusion during the bidding process, and bid evaluation.	High	EA/IAs to establish PRC under the project in accordance with SOP/PM which are in line with ADB guidelines. EA/IAs shall ensure that the Declarations of Fraud and Ethical Conduct (DFEC) for PRC members and bidders (contractors, suppliers and consultants) are signed for each transaction. A copy of the declarations of winning bidders shall be part of the awarded contracts.	EA/IAs	All procurement transactions. EA/IA to monitor, ADB to verify during review missions, prior reviews and post reviews	PRC established on 22 October 2014. DFEC signed for each transaction, and copies of DFEC of winning bidders made part of awarded contracts.	PRC minutes of meetings. DFEC in awarded contracts.
1.b	Insufficient compliance with procedures	High	EA/ IAs are to adhere strictly to the procedures and guidelines set forth in the Loan Agreement, ADB's Procurement Guidelines, and SOP/PM that also cover ICB, NCB and shopping.	EA/IAs MEF monitors compliance with LA, ADB Procurement Guidelines and SOP/PM	All procurement transactions. EA/IA to monitor, ADB to verify during review missions, prior reviews and post reviews	Sufficient adherence/ compliance to procurement procedures and guidelines by EA/IAs, as monitored by MEF.	Bid Evaluation Committee (BEC) / Consultant Evaluation Committee (CEC) Reports & Recommendation. PRC minutes of meetings.
1.c	Weak procurement capacity.	High	EA/ IAs will receive continued hands-on training and technical assistance from consultants recruited under the project. SOP/PM will be used under the project.	ADB	Throughout Project duration	Training conducted by ADB in Dec. 2016. Inquiries on procurement can be directly made through ADB's procurement clinic.	PMU/ADB records.
			Recruitment of a well-experienced procurement officer and website officer in PMU to avoid procurement and eventual	EA/IAs	Throughout Project duration	Procurement Specialist contracted in Aug	Copies of contracts with PMU.



No.	Risk/Issue	Assessment without Mitigation	Action to Mitigated Risk	Responsibility	Target/Monitoring	Status as of December 2021	Supporting Evidence
			<p>implementation delays</p> <p>Closely monitor and review procurement conduct, and where necessary, take measures to improve procedures based on lessons learnt from each successive procurement activity.</p> <p>EA/IAs will recruit additional national and/or national procurement staff if required.</p>	<p>EA, MEF and ADB</p> <p>EA/IAs</p>	Throughout Project duration	<p>2014 by PISCD and in June 2016 by PMU.</p> <p>Website officer is a PMU member.</p> <p>EA/MEF monitoring and reviewing the conduct of procurements.</p> <p>No additional procurement staff required.</p>	<p>BEC and CEC reports. PRC minutes of meetings.</p> <p>-</p>
1.d	Delayed execution of schedules in the Procurement Plans and failure to track to procurement transactions.	High	Preparation of realistic annual Procurement Plan, tied to annual work plan and budget. EA/IAs will maintain Procurement Monitoring and Tracking Forms as defined in the SOP/PM, and take actions to address delays through additional consultant inputs, if necessary.	EA/IAs to prepare updated procurement plans and procurement tracking form.	Update procurement plan and monitor procurement tracking form during review missions as required	Procurement plan updated in August 2016. Procurement Monitoring & Tracking Forms maintained.	Updated Procurement Plan. Filled out Procurement Monitoring & Tracking Forms.
1.e	Informal payments by contractors, suppliers and consultants	High	All contractors, suppliers and consultants – firms or individuals, national and international – bidding for contracts under the project shall sign the Declaration on Ethical Conduct and Fraud and Corruption in the SOP/ procurement manual.	EA/IAs and MEF	Throughout Project duration	Signed DFECs included in bids.	Signed DFECs.
<b>Element 2: Financial Management</b>							
2.a	Weak internal controls	High	EA/IAs to follow the financial management procedures specified in: (i) the Project Financing Agreement; (ii) the government's SOP and FMM.	EA/IAs; MEF to ensure compliance with SOP/ FMM, Loan Agreement and ADB's Anticorruption	Throughout Project duration	Specified fin'l. management procedures followed since 31 Dec 2015 and ongoing.	Quarterly Report and PMU reports to MEF and ADB.



No.	Risk/Issue	Assessment without Mitigation	Action to Mitigated Risk	Responsibility	Target/Monitoring	Status as of December 2021	Supporting Evidence
				Policy			
2.b	Weak financial management capacity	High	EA/IAs to receive continued hands-on training from consultants recruited under the project. The SOP/FMM will be used under the project, as well as relevant provisions of the Loan Agreement and ADB's guidelines on procurement and consulting services.  Project to closely monitor and review financial management conduct and make necessary improvements as required.	EA and IAs and ADB  EA and IAs	Throughout Project duration, conducted as a part of capacity building activities in the project	Hands-on-training ongoing. Cap.Dev. training scheduled.  Monitoring & review since Dec 2015 and ongoing	Cap. Dev. Plan and training modules.  Supported by Financial Management Specialist
2.c	Minimize cash transactions	High	Project to make all progress payments to contractors, suppliers and consultants – firms, individuals, national and international – by check or transfer to bank accounts, and retain evidence for audit and donor supervision missions.	MEF, EA and IAs	Throughout Project duration	Payments by check or bank transfer complied and ongoing.	Project Financial Statements
2.d	Delayed or non-existent reconciliation of advances for operating costs and expenses	High	Project to reconcile advances for operating expenses to staff or field offices within one week of the end of each month.  No further advances to be paid until previous advance reconciled and cleared against documentary evidence.	EA and IAs	Throughout Project duration  Project director to monitor and ADB to verify during review missions.	Reconciliation of advances complied and ongoing.	Project Financial Statements
<b>Element 3 : Disclosure</b>							
3.a	Possible conflict of interest among Project staff	Extremely High	Project staff to disclose private and public affiliations or personal interest before becoming involved in any project-related transaction, such as contract award. EA to prepare a declaration statement for staff's signature.	EA/IAs to ensure all Project staff sign the disclosures	Throughout Project duration  Project director to ensure all project staff signs the disclosures.	Internal rules of the project updated and provided for avoidance of conflict of interest. Written disclosure is retained on file.	Internal rules of project for project staffs (PMU and PIUs)
3.b	Inadequate	High	Project to agree information to be disclosed	EA and ADB to	Throughout Project	Development of	Project website.



No.	Risk/Issue	Assessment without Mitigation	Action to Mitigated Risk	Responsibility	Target/Monitoring	Status as of December 2021	Supporting Evidence
	transparency and disclosure		on the project and EA/IA websites biannually, with hard copies available for public inspection on request. At a minimum, the Project will disclose the information required by the Loan Agreement.	agree the final list.  Project director to arrange disclosure	duration.	project website to be completed in February 2017. Information will then be uploaded to the website.  Project information and grievance redress mechanism disclosed in target towns on 19, 21 and 22 June 2018  Bid documents was advertised by Phnom Penh Post newspaper and Project website	EMPs report and quarterly report  Bid Evaluation Report (BER)
<b>Element 4: Complaints and Remedies Mechanism</b>							
4.a	Inadequate complaints and remedies mechanisms		Project to build well-defined complaints and remedies mechanism into project documents. Complaints procedures regarding procurement to follow process set out in Loan Agreement and SOP/PM.  Following established publication of evaluation and awards, debriefing mechanism is also necessary not only to enhance transparency but also for the losing bidders to know their weak points.	EA/IAs  EA and IAs in consultation with ADB	At effectiveness	To be complied with.  PMU provides all bidders with copies of the evaluation and awards through email.	-  Copies of emails from PMU
<b>Element 5: Code of Ethical Conduct</b>							
5.a	Poor enforcement of the Code of Conduct for civil		Project to provide copies of the relevant laws and articles on Code of Conducts for civil servants to all project staff, including contracted staff. Project will maintain signed	EA and IAs	Throughout Project duration	The Department of Human Resources provides copies of	Signed receipts available with the Department of Human



No.	Risk/Issue	Assessment without Mitigation	Action to Mitigated Risk	Responsibility	Target/Monitoring	Status as of December 2021	Supporting Evidence
	servants		declaration of receipt of these documents by all project staff, including contracted staff. Similarly, all members of the procurement committee undertaking the evaluation shall sign the Declaration on Ethical Conduct.			Code of Conducts for Civil Servants to Ministry personnel upon employment.	Resources.
<b>Element 6: Sanctions</b>							
6.a	Inadequate sanctions for fraudulent and corrupt activity by Project staff, contractors, suppliers and consultants		The Project to identify and apply sanctions available under current law and regulations of Cambodia, ADB's Loan Regulations, the Loan Agreement, and ADB's Procurement Guidelines and Consulting Guidelines. Sanctions for individuals may include transfer of duties, retraining, suspension, dismissal, re-grading, and prosecution under Cambodian Law. Sanctions for firms may include: termination of contract, debarment or blacklisting under ADB's Procurement Guidelines and Consulting Guidelines, or prosecution under Cambodian Law	EA and IAs, and in consultation with ADB	Effectiveness	Sanctions for firms included in termination of contract	Bidding document
<b>Element 7: Project Specific Elements</b>							
7.a	Poor enforcement of contract terms and need to conduct contractors' performance evaluation		EA to ensure that contract terms are strictly enforced and the loan consultant will be a party to ensuring quality control of contract outputs, include acceptance of completion of works and services.	EA and IAs	Throughout Project duration	Contract terms for previous DED Consultant enforced, with the assistance of PISCD. ADB gave no objection to the BEC of SHV Urban Drainage	Evaluation of DED Consultant's output.  Report of BEC of SHV Urban Drainage
7.b	Poor quality of design and works construction		EA and IAs to ensure that approved infrastructure's design standards and specification developed by the respective agencies are utilized for the design of structures under the project.	EA and IAs, and with ADB NOL	Throughout Project duration	DED to be carried out by PISCD and CS Consultants.	DED reports and bid documents.



No.	Risk/Issue	Assessment without Mitigation	Action to Mitigated Risk	Responsibility	Target/Monitoring	Status as of December 2021	Supporting Evidence
			Project to recruit experienced detailed design consultant on a timely basis to assist the project.		Contract signed immediately after effectiveness	DED to be carried out by PISCD and CS Consultants.	V.O. no. 6 to PISCD contract, and CS contract.
7.c	Risk of low quality construction and supervision		Project to recruit experienced site supervision consultants to assist EA/IAs..  Regular technical audit is to be undertaken with any adverse findings to be acted upon immediately.  Project to evaluate contractors' performance with poor performing contractors declared ineligible to bid for at least one year.	EA and IAs, and with ADB NOL  EA and IAs  EA and IAs, and with ADB NOL	Prior to award of first works contract.  Throughout Project duration.  Annually	Construction Supervision Consultant recruited  Complied during construction.  Complied during construction.	CS contract document.  Monthly progress report of CS  Monthly progress report of CS
<b>Element 8: Inherent Risk</b>							
8.a	The Standard Operating Procedure for externally financed projects in Cambodia (May 2012) stipulates that assets must be subject to careful asset management, but in practice, there is no regular monitoring/inventory done. There is a risk of loss of asset if not maintained properly.	High	Update Fixed Asset Book annually during and after project implementation. Provide capacity building assistance to government staff on fixed asset management including linkage to asset preventive maintenance activities.	EA/IAs; MEF to ensure compliance with SOP	Throughout Project duration.	Complied during construction.	SRMR and quarterly report
8.b	Level of tariffs is not linked to O&M fund requirement of the facilities, resulting in	High	Update tariff computation on annual basis. Monitor implementation of proposed tariff. Require annual budget commitment from local government to cover funding gap.	EA/IAs; MEF to ensure compliance with SOP/ FMM, Loan	Throughout Project duration	Specified finance management procedures	Quarterly Report and PMU reports to MEF and ADB.



No.	Risk/Issue	Assessment without Mitigation	Action to Mitigated Risk	Responsibility	Target/Monitoring	Status as of December 2021	Supporting Evidence
	higher subsidy from the government's regular budget. With limited budget, proper operation and maintenance of facilities cannot be implemented.			Agreement and ADB's Anticorruption Policy			
8.c	Weak internal financial control which can assist in early detection of erroneous project transactions and procedures during implementation.	High	Strengthen the capacity of executing and implementing agencies through training on the government's standard operating procedures for externally funded projects and monitoring and evaluation.	EA/IAs; MEF to ensure compliance with SOP/ FMM, Loan Agreement and ADB's Anticorruption Policy	Throughout Project duration, conducted as a part of capacity building activities in the project	Hands-on-training on going. Capacity Development training scheduled.	Cap. Dev. Plan and training modules.
8.d	Unrealistic projections for budget allocation of revenue and expenditure which could result to poorly prioritized sector expenditure allocations.	High	Strengthen the capacity of the local governments on budget preparation and management, and expenditure prioritization.	EA/IAs; MEF to ensure compliance with SOP/ FMM, Loan Agreement and ADB's Anticorruption Policy	Throughout Project duration, conducted as a part of capacity building activities in the project	Hands-on-training on going. Capacity Development training scheduled.	Cap. Dev. Plan and training modules.



APPENDIX 13: Photos Activities

13.1 Photos Covid-19 Prevention





### 13.2 Photos of Activities for Construction works of the CW01 in Q4 2021





**Activities at the site on Force Main installation**



**Activities at the MPS site on soil improvement**





Activities of Manhole and Cap in the Kampot Town



13.3 Photos of Activities for Construction works of the CW02 in Q4 2021





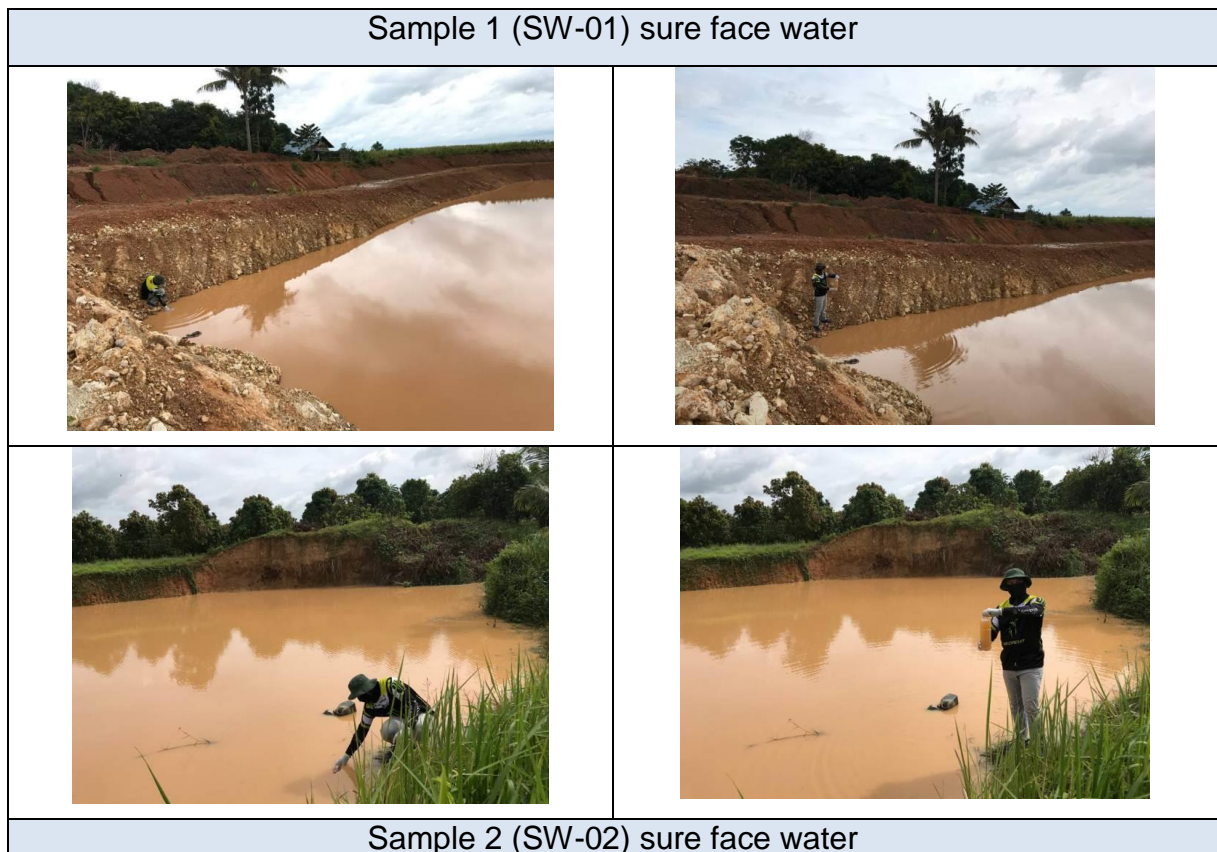
**13.4 Activities of GAP and EMP training were held on 25-26 Nov.2021**



**13.5 Activities of Air, Noise and Vibration Testing**




**13.6 Activities of Water Samples Collection**





APPENDIX 14:  
SUPPORT DOCUMENTS OF LAND ACQUISITION

**ព្រះរាជាណាចក្រកម្ពុជា**  
**ជាតិ សាសនា ព្រះមហាក្សត្រ**



**ក្រសួងសេដ្ឋកិច្ច និង ហិរញ្ញវត្ថុ**  
លេខ ៤២២ សហវ. ៧១៩៩

ថ្ងៃ ឃ្នះ ២ ខែ ឃោម ឆ្នាំ កុរ ពស័ក ព.ស. ២៥៦៣  
រាជធានីភ្នំពេញ, ថ្ងៃទី ១៦ ខែ កុម្ភៈ ឆ្នាំ ២០២០

**សូមអានព័ត៌មាន**  
**ឯកទ្រព្យធនសេដ្ឋកិច្ច រដ្ឋមន្ត្រីក្រសួងសាធារណការ និងដឹកជញ្ជូន**

**កម្មវត្ថុ:** សំណើសុំប្រគល់ទឹកដីដែលបានដោះស្រាយគោលនយោបាយជូនប្រជាពលរដ្ឋរងផលប៉ះពាល់រួចនៅអនុតម្រោងប្រព័ន្ធលើក្នុងក្រុងកំពង់ឆ្នែង ៤៦ នៃតម្រោងអភិវឌ្ឍន៍ក្រុងរៀង ២ ក្រោមហិរញ្ញប្បទានសហប្រតិបត្តិការពីធនាគារអភិវឌ្ឍន៍អាស៊ី។


**យោង:** លិខិតលេខ ១០៤ សក ចុះថ្ងៃទី ១៩ ខែ កញ្ញា ឆ្នាំ ២០១៨ របស់ក្រសួងសាធារណការ និងដឹកជញ្ជូន។

សេចក្តីដូចមានចែងក្នុងកម្មវត្ថុ និងយោងខាងលើ ខ្ញុំសូមគោរពជម្រាប **ឯកទ្រព្យធនសេដ្ឋកិច្ច** មេត្តាជ្រាបដ៏ខ្ពង់ខ្ពស់ថា៖ ក្រុមការងារគណៈកម្មការអន្តរក្រសួងដោះស្រាយផលប៉ះពាល់ សហការជាមួយក្រុមការងារអនុគណៈកម្មការខេត្តកំពង់ឆ្នែង និងអាជ្ញាធរមូលដ្ឋាន បានធ្វើការបើកផ្តល់ប្រាក់ឧបត្ថម្ភគោលនយោបាយជូនប្រជាពលរដ្ឋដែលទទួលរងផលប៉ះពាល់ដោយសារអនុតម្រោងប្រព័ន្ធលើក្នុងក្រុងកំពង់ឆ្នែង ៤៦ នៃតម្រោងអភិវឌ្ឍន៍ក្រុងរៀង ២ ស្ថិតក្នុងសង្កាត់កំពង់កណ្តាល សង្កាត់ក្រាំងអំពិល ក្រុងកំពង់ឆ្នែង និងប៉ូធីត្រៀល ស្រុកទឹកល្អ ខេត្តកំពង់ កាលពីថ្ងៃទី ០៩ ខែ មករា ឆ្នាំ ២០២០ រួចរាល់ហើយ។

ដូចនេះ គណៈកម្មការអន្តរក្រសួងដោះស្រាយផលប៉ះពាល់ដោយសារតម្រោងអភិវឌ្ឍន៍ សូមប្រគល់ទឹកដីដែលបានដោះស្រាយគោលនយោបាយរួចស្ថិតក្នុងភូមិសាស្ត្រខាងលើ ជូនក្រសួងសាធារណការ និងដឹកជញ្ជូន ដើម្បីបន្តប្រើប្រាស់ និងគ្រប់គ្រងតាមវិធីវិធានមាន ចាប់ពីថ្ងៃប្រគល់-ទទួលឯកសារនេះតទៅ។

អាស្រ័យដូចគោរពជម្រាបជូនខាងលើ សូម **ឯកទ្រព្យធនសេដ្ឋកិច្ច** មេត្តាជ្រាប និងចាត់ចែងតាមការគួរ។  
សូម **ឯកទ្រព្យធនសេដ្ឋកិច្ច** មេត្តាទទួលខ្លឹមការណ៍ព័ត៌មានខ្ពង់ខ្ពស់ ពីខ្ញុំ **DKP**

**អនុជ្ជលោកជំទាវក្រសួងសេដ្ឋកិច្ច និងហិរញ្ញវត្ថុ**  
**និងជា ប្រធានគណៈកម្មការអន្តរក្រសួង**  
**ដោះស្រាយផលប៉ះពាល់ដោយសារតម្រោងអភិវឌ្ឍន៍**



**ចម្លងជូន:**

- ខុទ្ទកាល័យឯកទ្រព្យធនសេដ្ឋកិច្ច រដ្ឋមន្ត្រីក្រសួងសេដ្ឋកិច្ច និងហិរញ្ញវត្ថុ
- ក្រសួងរៀបចំផែនទី ឧត្តរសិរីយក្ស និងសំណង់
- រដ្ឋបាលខេត្តសាលាខេត្តកំពង់ឆ្នែង
- ល្មោងគណៈកម្មការអភិវឌ្ឍន៍អាស៊ីប្រចាំនៅកម្ពុជា (ADB-CARM)
- ឯកសារ-កាលប្បវត្តិ

ថ្ងៃទី ១៩ ខែ កុម្ភៈ ឆ្នាំ ២០២០ រាជធានីភ្នំពេញ កម្ពុជា  
St.92, Sangkat Wat Phnom, Khan Daun Penh, Phnom Penh, CAMBODIA.

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Phone: (+855) 23 890 666



**ព្រះរាជាណាចក្រកម្ពុជា**  
**ជាតិ សាសនា ព្រះមហាក្សត្រ**

**ក្រសួងសេដ្ឋកិច្ច និង ហិរញ្ញវត្ថុ**

**លេខ ៧៤ ៤៧ ៧ ហៅ ១៧ ខ.ជ.ក**

ថ្ងៃចេញផ្សាយ ខែ ១១ ឆ្នាំ ជូត ខាត ៣ ៧ ២០២៤

រាជធានីភ្នំពេញ ថ្ងៃទី ០៧ ខែ តុលា ឆ្នាំ ២០២៣

**កម្មសារគណនី**

**ឯកទ្វេភាគីសេដ្ឋកិច្ច រដ្ឋប្រឹក្សាសេដ្ឋកិច្ច និងហិរញ្ញវត្ថុ និង ឯកទ្វេភាគីសេដ្ឋកិច្ច**

កម្មសារគណនី លំដាប់លំដោយលើកទី ១៧ ដែលបានដោះស្រាយគោលនយោបាយជូនប្រជាពលរដ្ឋរងផលប៉ះពាល់រួច  
នៅអនុកម្រោងទីហោតកប់សំរាប់ក្រុងកំពត នៃគម្រោងអភិវឌ្ឍន៍ក្រុងរៀង ២ ស្ថិតក្នុងភូមិសាស្ត្រខេត្ត  
កំពត ក្រោមវិញ្ញាប្បធានសហប្រតិបត្តិការ ពីធនាគារអភិវឌ្ឍន៍អាស៊ី (ADB)។

**យោង** លើទិវលេខ ១០៤ ស ក ចុះថ្ងៃទី ១៩ ខែ កញ្ញា ឆ្នាំ ២០១៨ របស់ក្រសួងសាធារណការ និង ដឹកជញ្ជូន។

សេចក្តីដូចមានចែងក្នុងកម្មសារគណនី និងយោងខាងលើ ខ្ញុំសូមជម្រាប **ឯកទ្វេភាគីសេដ្ឋកិច្ច** បញ្ហាប្រាប់ដី  
ខ្ពង់ខ្ពស់ទៅ ៖ ក្រុមការងារគណៈកម្មការអន្តរក្រសួងដោះស្រាយផលប៉ះពាល់ សហការជាមួយក្រុមការងារអនុ-  
គណៈកម្មការខេត្តកំពត និងអាជ្ញាធរបូលដ្ឋាន បានចុះបើកប្រាក់បញ្ញើគោលនយោបាយជូនប្រជាពលរដ្ឋដែលរង  
ផលប៉ះពាល់ដោយសារអនុកម្រោងទីហោតកប់សំរាប់ក្រុងកំពត នៃគម្រោងអភិវឌ្ឍន៍ក្រុងរៀង ២ ស្ថិតនៅក្នុងភូមិ  
ស៊ី អ៊ុំថ្មី ស្រុកគិរីវង្ស ខេត្តកំពត រួចរាល់យើងយកមកលើថ្ងៃទី ៥ ៣ ខែ តុលា ឆ្នាំ ២០២៣ កន្លងមក។

ដូចនេះគណៈកម្មការអន្តរក្រសួងដោះស្រាយផលប៉ះពាល់ដោយសារគម្រោងអភិវឌ្ឍន៍ សូមប្រគល់ដីដី  
នីដែលបានដោះស្រាយគោលនយោបាយជូនស្ថិតក្នុងភូមិសាស្ត្រខាងលើ ជូនក្រសួងសាធារណការ និង ដឹកជញ្ជូន  
ដើម្បីបន្តប្រើប្រាស់ និងគ្រប់គ្រងទីតាំងនេះ តាមនីតិវិធីជាធរមាន ចាប់ពីថ្ងៃប្រគល់ - ទទួលបានសារនេះតទៅ ។

អាស្រ័យជូនបានជម្រាបជូនខាងលើ សូម **ឯកទ្វេភាគីសេដ្ឋកិច្ច** បញ្ហាប្រាប់ និងចាត់ចែងតាមការព្រួយ  
សួរ **ឯកទ្វេភាគីសេដ្ឋកិច្ច** អញ្ជើញទទួលខុសត្រូវការពារព័ត៌មានខ្ពង់ខ្ពស់ពីខ្ញុំ ។

**រដ្ឋលេខាធិការក្រសួងសេដ្ឋកិច្ច និងហិរញ្ញវត្ថុ**  
**និងជា ប្រធានគណៈកម្មការអន្តរក្រសួងដោះស្រាយផលប៉ះពាល់**

**រដ្ឋលេខាធិការ**  
  
**ផ្កាឆាយ កៀវ**

- ឧបសគ្គ៖**
- ក្រសួងសេដ្ឋកិច្ច និងហិរញ្ញវត្ថុ ទី ១ សំយោង
  - រដ្ឋការណ៍កំពត
  - ធនាគារអភិវឌ្ឍន៍អាស៊ីប្រាក់ឃៅកម្ពុជា (ADB-CRM)
  - ឯកសារ-កាតព្វកិច្ច



APPENDIX 15:  
Nominate Letter



**ព្រះរាជាណាចក្រកម្ពុជា**  
**ជាតិ សាសនា ព្រះមហាក្សត្រ**

**ក្រសួងសាធារណការ និងដឹកជញ្ជូន**

គម្រោងអភិវឌ្ឍន៍ក្រុងរបៀង២

លេខ: ០៣៨ PMU/MPWT/CTDP2-20

**សេចក្តីសម្រេច**

**ស្តីពីការបញ្ជូនបន្ថែមសមាសភាពយើងឌី  
គម្រោងអភិវឌ្ឍន៍ក្រុងរបៀង២**

យោងតាមកិច្ចប្រជុំ និងតាមសំណើរបស់ធនាគារអភិវឌ្ឍន៍អាស៊ី (ADB) ស្តីពីការបញ្ជូន  
បន្ថែមសមាសភាពយើងឌី ក្នុងអង្គការគ្រប់គ្រងគម្រោង (PMU) និងអង្គការអនុវត្តគម្រោង (PIU)  
នៃគម្រោងអភិវឌ្ឍន៍ក្រុងរបៀង២ (CTDP2) សូមសម្រេចបញ្ជូនសមាសភាពដូចខាងក្រោម៖

**១-អង្គការគ្រប់គ្រងគម្រោង (PMU)៖**

- លោកស្រី រីង សុវណ្ណដា (Ms. Ing Sovannda) មន្ត្រីគ្រប់គ្រងគម្រោង (PMU)
- លោកស្រី ប៉ាន់ ស៊ីយ៉ុង (Ms. Pann Siyon) មន្ត្រីគ្រប់គ្រងគម្រោង (PMU)

**២-អង្គការអនុវត្តគម្រោង (PIU) ខេត្តកំពត៖**

- លោកស្រី ណាម ស្រីអូន (Ms. Nam Sreyoun) មន្ត្រីអនុវត្តគម្រោង (PIU)

ថ្ងៃពុធ ៣កើត ខែមិគសិរ ឆ្នាំជូត ទោស័ក ព.ស ២៥៦៤  
រាជធានីភ្នំពេញ, ថ្ងៃទី ១៨ ខែ វិច្ឆិកា ឆ្នាំ ២០២០

**នាយកក្រសួង**

**ហ៊ុន ម៉ាណែត**



រដ្ឋបាលខេត្តកំពត

លេខ: ៧៧៧/ស.វ

ព្រះរាជាណាចក្រកម្ពុជា  
ជាតិ សាសនា ព្រះមហាក្សត្រ

សូមគោរពជូន

ឯកឧត្តម ទេសរដ្ឋមន្ត្រី រដ្ឋមន្ត្រីក្រសួងសាធារណការ និងដឹកជញ្ជូន

ពន្ធនាគារ: ដំណើរការសម្រេចចំនួន ០៥ រូប ចេញពីសមាជិកគម្រោងអភិវឌ្ឍន៍ក្រុងរបៀង២។

រយៈពេល: លិខិតលេខ២០៨/ប្រក.សក ចុះថ្ងៃទី២០ ខែមិថុនា ឆ្នាំ២០១៧ របស់ក្រសួងសាធារណការ និងដឹកជញ្ជូន  
- តាមតម្រូវការចាំបាច់របស់រដ្ឋបាលខេត្តកំពត ។

សេចក្តីដូចមានចែងក្នុងកម្មត្រួត និងយោងខាងលើ រដ្ឋបាលខេត្តកំពត សូមគោរពជម្រាបជូន ឯកឧត្តម ទេសរដ្ឋមន្ត្រី រដ្ឋមន្ត្រីក្រសួងសាធារណការ និងដឹកជញ្ជូន ជ្រាបថា: ដោយមានការផ្តល់ប្តូរសមាសភាពរបស់មន្ត្រីសាលាខេត្ត សាលាក្រុងកំពត និងមន្ទីរសាធារណការ និងដឹកជញ្ជូនខេត្ត ទៅបម្រើការងារនៅកន្លែងផ្សេង រដ្ឋបាលខេត្តកំពត ស្នើសុំឯកឧត្តម ទេសរដ្ឋមន្ត្រី រដ្ឋមន្ត្រីក្រសួងសាធារណការ និងដឹកជញ្ជូន មេត្តាជួយសម្រួល ផ្លាស់ប្តូរមន្ត្រីសមាជិកគម្រោងអភិវឌ្ឍន៍ក្រុងរបៀង២ ចំនួន០៥រូប ដែលមានសមាសភាពដូចខាងក្រោម:

- ១.លោក សេង វុធា អភិបាលរងក្រុងកំពត ចេញពីសមាជិកគម្រោងអភិវឌ្ឍន៍ក្រុងរបៀង២ ដោយស្មើជាក់លោក ស្វាយ មិត្ត នាយករដ្ឋបាល សាលាក្រុងកំពត ជំនួសវិញ ។
- ២.លោក អ៊ិត សារី អនុប្រធានការិយាល័យក្រុមប្រឹក្សាអភិវឌ្ឍន៍ និងសំណង់សាធារណៈខេត្តកំពត ចេញពីសមាជិកគម្រោងអភិវឌ្ឍន៍ក្រុងរបៀង២ ដោយស្មើជាក់លោក អ៊ិត ឈិន ប្រធានការិយាល័យសិក្ខាករសេដ្ឋកិច្ច និងសង្គមកិច្ច សាលាខេត្តកំពត ជំនួសវិញ ។
- ៣.លោកស្រី ថុំ ភារុណ អនុប្រធានការិយាល័យទំនាក់ទំនង កិច្ចសហប្រតិបត្តិការអន្តរជាតិសាលាខេត្ត ចេញពីសមាជិកគម្រោងអភិវឌ្ឍន៍ក្រុងរបៀង២ ដោយជាក់លោក ម៉ៅ ច័ន្ទសិហា មន្ត្រីការិយាល័យរបៀង និងឯកសារ នៃទីបាក់ការរដ្ឋបាល សាលាខេត្តកំពត ជំនួសវិញ ។
- ៤.លោក សិទ្ធិ កុសល អនុប្រធានការិយាល័យដឹកជញ្ជូន នៃមន្ទីរសាធារណការ និងដឹកជញ្ជូនខេត្ត ចេញពីសមាជិកគម្រោងអភិវឌ្ឍន៍ក្រុងរបៀង២ ដោយជាក់លោក ឃី ហុកណង់ មន្ត្រីមន្ទីរសាធារណការ និងដឹកជញ្ជូនខេត្តកំពត ជំនួសវិញ ។
- ៥.លោក ពៅ វណ្ណថា អនុប្រធានការិយាល័យហេដ្ឋារចនាសម្ព័ន្ធនៃមន្ទីរសាធារណការ និងដឹកជញ្ជូនខេត្ត ចេញពីសមាជិកគម្រោងអភិវឌ្ឍន៍ ក្រុងរបៀង២ ដោយជាក់លោក គង់ រស្មី មន្ត្រីមន្ទីរសាធារណការ និងដឹកជញ្ជូនខេត្តកំពត ជំនួសវិញ ។

សេចក្តីដូចបានគោរពជម្រាបជូនខាងលើ សូម ឯកឧត្តម ទេសរដ្ឋមន្ត្រី រដ្ឋមន្ត្រីក្រសួងសាធារណការ និងដឹកជញ្ជូន មេត្តាពិនិត្យសម្រេចដោយក្តីអនុគ្រោះ។

សូមឯកឧត្តម ទេសរដ្ឋមន្ត្រី មេត្តាទទួលនូវការគោរពដ៏ខ្ពង់ខ្ពស់បំផុតពីខ្ញុំ។

ថ្ងៃ: ខែ: ឆ្នាំ: ភ្នំពេញ ថ្ងៃទី ២០ ខែ មិថុនា ឆ្នាំ ២០១៧  
អភិបាល ខេត្តកំពត  
  
ស៊ុន ភាយ

- បញ្ជូនជូន
- ក្រសួងសាធារណៈ
- ក្រសួងសេដ្ឋកិច្ច និងហិរញ្ញវត្ថុ
- រដ្ឋមន្ត្រីទទួលបន្ទុក
- ឯកសារ ។ លម្អៀង







APPENDIX 17:  
Result of Air, Noise and Vibration Testing



អគ្គនាយកដ្ឋានគាំពារបរិស្ថាន  
មន្ទីរពិសោធន៍  
LABORATORY

លេខ/N° : ១៩៥...I.....ព.ស

ព្រះរាជាណាចក្រកម្ពុជា  
ជាតិ សាសនា ព្រះមហាក្សត្រ

ព្រឹត្តិប័ត្រវិភាគ  
ANALYSIS REPORT

ប្រភពសំណាក/Sample Source: ក្រុមហ៊ុន HENG SAMBATH CO., LTD

កន្លែងយកសំណាក/Survey Point: ANV-1, គុណភាពខ្យល់ក្នុងតំបន់គម្រោង Construction of Landfill in Kampot (ការសាងសង់ទីលានចាក់សំរាមខេត្តកំពត) របស់

ក្រុមហ៊ុន សាធារណៈ និងដឹកជញ្ជូន ស្ថិតនៅក្នុងភូមិថ្មី ឃុំថ្មី ស្រុកទឹកឈូ ខេត្តកំពត, UTM 48 P 0414154 / 1183865

ថ្ងៃយកសំណាក/Sampling date: November 17, 2021

រយៈពេល/Sampling Period: 11:00 AM to 11:00 AM next day

លរ No	ឈ្មោះប៉ារ៉ាម៉ែត្រ Parameter	ខ្នាត Unit	លទ្ធផល Result	បទដ្ឋាន Standard	វិធីសាស្ត្រវិភាគ Reference Method
1	Carbon Monoxide (CO)	mg /m <sup>3</sup>	1.553	<20(8 ម៉ោង)	Method Carbon Monoxide Passive Dositube
2	Nitrogen Dioxide (NO2)	mg /m <sup>3</sup>	0.008	<0.1(24 ម៉ោង)	Method Saltzman [ISO 6768:1998(E)]
3	Sulfur Dioxide (SO2)	mg /m <sup>3</sup>	0.021	<0.3(24 ម៉ោង)	Method Pararosaniline [ISO 6767:1990(E)]
4	Ozone (O <sub>3</sub> )	mg /m <sup>3</sup>	0.014	<0.2(1 ម៉ោង)	Method Professional Gas Detector GT-901 03
5	Total Suspended Particles(TSP)	mg /m <sup>3</sup>	0.080	<0.33(24 ម៉ោង)	Method Weight Concentration Measuring
6	PM10	mg /m <sup>3</sup>	0.046	<0.05(24 ម៉ោង)	Method Weight Concentration Measuring
7	PM2.5	mg /m <sup>3</sup>	0.025	<0.025(24 ម៉ោង)	Method Weight Concentration Measuring
8	Lead (Pb)	mg /m <sup>3</sup>	ND	<0.005(24 ម៉ោង)	Method 3500-Pb C (HNO3,HCl Digestion)

សំគាល់: 1- ប៉ារ៉ាម៉ែត្រ និងស្តង់ដារសម្រាប់ពិនិត្យគុណភាពខ្យល់ សម្រាប់គម្រោងអភិវឌ្ឍន៍វិស័យហេដ្ឋារចនាសម្ព័ន្ធ និងទេសចរណ៍ (ឧបសម្ព័ន្ធនៃប្រកាសលេខ ១២០ ប្រ.ក.ប.ស្ត ចុះថ្ងៃទី ១១ ខែ មេសា ឆ្នាំ ២០១៨)  
2- ខ្យល់មានល្បឿនពី 0.3 – 3.0 m/s

បានឃើញនៅថ្ងៃទី ១៧ ខែ វិច្ឆិកា ឆ្នាំ២០២១  
អគ្គនាយក:  
Was seen on date:  
Director General

ចេញអោយនៅ ថ្ងៃទី ១៧ ខែ វិច្ឆិកា ឆ្នាំ២០២១  
ប្រធានមន្ទីរពិសោធន៍  
Date of Issue:  
Director

ចេញអោយនៅ ថ្ងៃទី ១៧ ខែ វិច្ឆិកា ឆ្នាំ២០២១  
អ្នកវិភាគ  
Analyzer



លោក រដ្ឋ

Signature of Analyzer



**ព្រះរាជាណាចក្រកម្ពុជា**  
**ជាតិ សាសនា ព្រះមហាក្សត្រ**

**អគ្គនាយកដ្ឋានគាំពារបរិស្ថាន**  
**មន្ទីរពិសោធន៍**  
**LABORATORY**

លេខ/N°: ១៧៩-៥៤.....ព.ស

**ព្រឹត្តិប័ត្រវិភាគ**  
**ANALYSIS REPORT**

ប្រភពសំណាក/Sample Source: **ក្រុមហ៊ុន HENG SAMBATH CO., LTD**  
 កន្លែងយកសំណាក/Survey Point: ANV-1, កំពែងសំណង់ក្នុងតំបន់គម្រោង Construction of Landfill in Kampot (ការសាងសង់ទីលានចាក់សំរាមខេត្តកំពត) របស់  
**ក្រុមហ៊ុន សាធារណការ ទឹកដីកម្ពុជា** ស្ថិតនៅក្នុងភូមិថ្មី ឃុំថ្មី ស្រុកទឹកឈូ ខេត្តកំពត, UTM P 0414154 / 1183865  
 ថ្ងៃយកសំណាក/Sampling date: November 17, 2021  
 រយៈពេល/Sampling Period: 11:00 AM to 11:00 AM next day

Survey Period	Noise Level dB(A)				Remarks
	LAeq	Standard (Leq)	Lmax	Lmin	
Day	6:00 - 7:00	50.8	70	70.9	46.7
	7:00 - 8:00	47.2		72.9	47.5
	8:00 - 9:00	53.0		71.9	50.2
	9:00 - 10:00	55.8		72.4	55.2
	10:00 - 11:00	61.4		82.2	56.7
	11:00 - 12:00	60.8		83.3	54.4
	12:00 - 13:00	61.3		80.9	57.8
	13:00 - 14:00	61.4		83.4	55.4
	14:00 - 15:00	59.6		80.4	54.8
	15:00 - 16:00	62.1		85.8	54.4
	16:00 - 17:00	61.6		83.9	55.3
17:00 - 18:00	59.5	83.4	51.6		
Evening	18:00 - 19:00	53.6	65	76.5	46.8
	19:00 - 20:00	52.8		73.8	47.9
	20:00 - 21:00	50.0		67.9	48.1
Night	21:00 - 22:00	51.9	50	73.2	46.7
	22:00 - 23:00	50.0		67.4	46.6
	23:00 - 00:00	54.2		68.3	52.1
	00:00 - 1:00	51.7		71.3	46.2
	1:00 - 2:00	57.1		71.6	45.7
	2:00 - 3:00	54.5		69.3	45.8
	3:00 - 4:00	46.8		67.9	44.7
	4:00 - 5:00	46.3		64.3	44.4
5:00 - 6:00	48.2	70.6	41.8		
24 hours Average	54.7		74.7	49.9	

សំគាល់៖ ព័ត៌មាន និងល្បែងជាសម្រាប់ប្រើក្នុងការសម្រេចចិត្ត និងសម្រេចចិត្ត (ឧបសម្ព័ន្ធនៃប្រកាសលេខ១២០ ប្រ.ក.ប.ស្ត ចុះថ្ងៃទី ១១ ខែ មេសា ឆ្នាំ ២០១៤) (Sound Level Meter NL-42-52 NX)

ចេញអោយនៅ ថ្ងៃទី ១៧ ខែ វិច្ឆិកា ឆ្នាំ២០២១  
 ចេញអោយនៅ ថ្ងៃទី ១៧ ខែ វិច្ឆិកា ឆ្នាំ២០២១

បានឃើញនៅថ្ងៃទី ១៧ ខែ វិច្ឆិកា ឆ្នាំ២០២១  
 អគ្គនាយក:  
 Was seen on date:  
 Director General

ប្រធានមន្ទីរពិសោធន៍  
 Date of Issue:  
 Director

អ្នកវិភាគ  
 Analyzer

**ហង់ ឌីណា**



**ព្រះរាជាណាចក្រកម្ពុជា**  
**ជាតិ សាសនា ព្រះមហាក្សត្រ**

**អគ្គនាយកដ្ឋានគាំពារបរិស្ថាន**  
**មន្ទីរពិសោធន៍**  
**LABORATORY**

លេខ/N° : ១៧៩៧/.....ព.ស

**ព្រឹត្តិប័ត្រវិនិច្ឆ័យ**  
**ANALYSIS REPORT**

ប្រភពសំណាក/Sample Source: **ហ្វេងសំបាត់ HENG SAMBATH CO., LTD**  
 កន្លែងយកសំណាក/Survey Point: ANV-1, កំរែត្រីវ ក្នុងតំបន់គម្រោង Construction of Landfill in Kampot (ការសាងសង់ទីលានចាក់សំរាមខេត្តកំពត)របស់  
**ហ្វេងសំបាត់ កម្ពុជា ជីវភាពរស់នៅ** ស្ថិតនៅក្នុងភូមិថ្មី ឃុំថ្មី ស្រុកទឹកឈូ ខេត្តកំពត, UTM 48 P 0414154 / 1183865  
 ថ្ងៃយកសំណាក/Sampling date: November 17, 2021  
 រយៈពេល/Sampling Period: 11:00 AM to 11:00 AM next day

Time	Survey Period	Vibration Level dB				Remarks
		Leq	Standard(Leq)	Lmax	Lmin	
Day	6:00 - 7:00	33.8	65	39.7	16.1	
	7:00 - 8:00	31.7		39.2	16.3	
	8:00 - 9:00	32.9		39.6	17.3	
	9:00 - 10:00	31.7		44.7	16.9	
	10:00 - 11:00	34.1		40.6	15.7	
	11:00 - 12:00	37.2		45.2	17.3	
	12:00 - 13:00	35.1		40.9	17.4	
	13:00 - 14:00	34.5		40.2	17.0	
	14:00 - 15:00	35.2		42.0	16.6	
	15:00 - 16:00	33.6		38.5	16.9	
	16:00 - 17:00	36.1		44.3	16.1	
	17:00 - 18:00	36.1		43.0	17.3	
	18:00 - 19:00	30.6		39.3	15.7	
	19:00 - 20:00	30.1		38.5	15.5	
Night	20:00 - 21:00	30.4	60	38.9	15.6	
	21:00 - 22:00	30.4		40.0	14.5	
	22:00 - 23:00	25.4		29.9	14.6	
	23:00 - 00:00	30.1		39.5	14.4	
	00:00 - 1:00	30.5		40.2	14.6	
	1:00 - 2:00	28.7		36.5	14.6	
	2:00 - 3:00	29.1		37.3	14.6	
	3:00 - 4:00	29.4		37.8	14.8	
	4:00 - 5:00	29.2		37.6	14.6	
	5:00 - 6:00	30.8		40.3	15.0	
24 hours Average		31.9		39.7	15.8	

សំគាល់: បាតម៉ែត្រ និងស្តង់ដារសម្រាប់កម្រិតកំរែត្រីវ សម្រាប់គម្រោងកែលម្អស្ថានភាពបរិស្ថាន និងសុខភាព (ឧបសម្ព័ន្ធនៃប្រកាសលេខ.១២០ ប្រ.ក.ប.ស្ត ចុះថ្ងៃទី ១១ ខែ មេសា ឆ្នាំ ២០១៤), Vibration Level Meter VM - 53A.

ចេញអោយនៅ ថ្ងៃទី ២៤ ខែ វិច្ឆិកា ឆ្នាំ២០២១  
 ចេញអោយនៅ ថ្ងៃទី ២៤ ខែ វិច្ឆិកា ឆ្នាំ២០២១

បានឃើញនៅថ្ងៃទី ២៤ ខែ វិច្ឆិកា ឆ្នាំ២០២១  
 អគ្គនាយក  
 Was seen on date:  
 Director General

ប្រធានមន្ទីរពិសោធន៍  
 Date of Issue:  
 Director

អ្នកវិនិច្ឆ័យ  
 Analyzer

**ហ៊ុន សែន**  
**ហ៊ុន សែន**  
**ហ៊ុន សែន**



**ព្រះរាជាណាចក្រកម្ពុជា**  
**ជាតិ សាសនា ព្រះមហាក្សត្រ**

**អគ្គនាយកដ្ឋានគាំពារបរិស្ថាន**  
**មន្ទីរពិសោធន៍**  
**LABORATORY**

លេខ/N° : ១.៧៥.២០២១.៧៧.....ព.ស

**ព្រឹត្តិប័ត្រវិភាគ**

**ANALYSIS REPORT**

ប្រភពសំណាក/Sample Source: **ក្រុមហ៊ុន HENG SAMBATH CO., LTD**  
 កន្លែងយកសំណាក/Survey Point: ANV-2, គុណភាពខ្យល់ក្នុងតំបន់គម្រោង Construction of Landfill in Kampot (ការសាងសង់ទីលានចាក់សំរាមខេត្តកំពត) របស់  
**ក្រុមហ៊ុន សាធារណការ និងដឹកជញ្ជូន** ស្ថិតនៅក្នុងភូមិថ្មី ឃុំថ្មី ស្រុកទឹកល្អ ខេត្តកំពត, UTM 48 P 04144415 / 1183705  
 ថ្ងៃយកសំណាក/Sampling date: November 17, 2021  
 រយៈពេល/Sampling Period: 11:50 AM to 11:50 AM next day

ល.រ No	ធាតុវិភាគ Parameter	ខ្នាត Unit	លទ្ធផល Result	មធ្យម Standard	វិធីសាស្ត្រវិភាគ Reference Method
1	Carbon Monoxide (CO)	mg /m <sup>3</sup>	2.519	<20(8 ម៉ោង)	Method Carbon Monoxide Passive Dosilube
2	Nitrogen Dioxide (NO <sub>2</sub> )	mg /m <sup>3</sup>	0.005	<0.1(24 ម៉ោង)	Method Saltzman [ISO 6768:1998(E)]
3	Sulfur Dioxide (SO <sub>2</sub> )	mg /m <sup>3</sup>	0.023	<0.3(24 ម៉ោង)	Method Pararosaniline [ISO 6767:1990(E)]
4	Ozone (O <sub>3</sub> )	mg /m <sup>3</sup>	0.010	<0.2(1 ម៉ោង)	Method Professional Gas Detector GT-901 03
5	Total Suspended Particles(TSP)	mg /m <sup>3</sup>	0.110	<0.33(24 ម៉ោង)	Method Weight Concentration Measuring
6	PM10	mg /m <sup>3</sup>	0.058	<0.05(24 ម៉ោង)	Method Weight Concentration Measuring
7	PM2.5	mg /m <sup>3</sup>	0.036	<0.025(24 ម៉ោង)	Method Weight Concentration Measuring
8	Lead (Pb)	mg /m <sup>3</sup>	ND	<0.005(24 ម៉ោង)	Method 3500-Pb C(HNO <sub>3</sub> ,HCl Digestion)

**សំគាល់:** 1- ពាក់ម៉ែត្រ និងស្រង់ដាសម្រាប់ពិនិត្យគុណភាពខ្យល់ សម្រាប់គម្រោងអភិវឌ្ឍន៍វិស័យហេដ្ឋារចនាសម្ព័ន្ធ និងទេសចរណ៍ (ឧបសម្ព័ន្ធនៃប្រកាសលេខ ១២០ ប្រ.ក.ប.ស្ត ចុះថ្ងៃទី ១១ ខែ មេសា ឆ្នាំ ២០១៨)  
 2- ខ្យល់មានល្បឿនពី 0.3 – 3.8 m/s

បានឃើញនៅថ្ងៃទី ១៧ ខែ វិច្ឆិកា ឆ្នាំ ២០២១  
**អគ្គនាយក:**  
 Was seen on date:  
 Director General

**ហង់ ឌីណា**

ចេញអោយនៅ ថ្ងៃទី ១៧ ខែ វិច្ឆិកា ឆ្នាំ ២០២១  
**ប្រធានមន្ទីរពិសោធន៍**  
 Date of Issue:  
 Director

ចេញអោយនៅ ថ្ងៃទី ១៧ ខែ វិច្ឆិកា ឆ្នាំ ២០២១  
**អ្នកវិភាគ**  
 Analyzer



**ព្រះរាជាណាចក្រកម្ពុជា**  
**ជាតិ សាសនា ព្រះមហាក្សត្រ**

**អគ្គនាយកដ្ឋានគាំពារបរិស្ថាន**  
**មន្ទីរពិសោធន៍**  
**LABORATORY**

លេខ/N° : ១៥៥... ៧..... ព.ស

**ព្រឹត្តិប័ត្រវិភាគ**  
**ANALYSIS REPORT**

ប្រភពសំណាក/Sample Source: **ហ្វេមហ៊ុន HENG SAMBATH CO., LTD**  
 កន្លែងយកសំណាក/Survey Point: ANV-2, កំពែងសំបោងក្នុងតំបន់គម្រោង Construction of Landfill in Kamot (ការសាងសង់ទីលានចាក់សំរាមខេត្តកំពត) រូបស  
**ក្រុមហ៊ុន សាធារណការ និងដឹកជញ្ជូន** ស្ថិតនៅក្នុងភូមិថ្មី ឃុំថ្មី ស្រុកទឹកល្អ ខេត្តកំពត, UTM 48 P 0414415 / 1183705  
 ថ្ងៃយកសំណាក/Sampling date: November 17, 2021  
 រយៈពេល/Sampling Period: 11:50 AM to 11:50 AM next day

Survey Period	Noise Level dB(A)				Remarks
	LAeq	Standard(Leq)	Lmax	Lmin	
Day	6:00 - 7:00	58.2	70	76.8	45.2
	7:00 - 8:00	58.5		77.3	46.5
	8:00 - 9:00	60.9		79.7	44.7
	9:00 - 10:00	58.8		81.3	45.2
	10:00 - 11:00	60.1		81.5	47.9
	11:00 - 12:00	57.9		72.7	46.9
	12:00 - 13:00	57.9		73.1	47.1
	13:00 - 14:00	57.6		74.2	47.7
	14:00 - 15:00	57.3		76.1	47.2
	15:00 - 16:00	56.6		69.5	47.2
Evening	16:00 - 17:00	57.4	76.2	46.6	
	17:00 - 18:00	57.4	75.2	48.4	
	18:00 - 19:00	59.6	77.5	47.4	
	19:00 - 20:00	63.2	81.2	45.9	
Night	20:00 - 21:00	59.1	65	72.5	45.3
	21:00 - 22:00	59.4		75.9	48.2
	22:00 - 23:00	56.8		73.5	45.5
	23:00 - 00:00	58.5		77.3	44.0
	00:00 - 1:00	67.5		79.2	46.3
	1:00 - 2:00	60.2		78.1	45.1
	2:00 - 3:00	61.3		70.9	49.2
	3:00 - 4:00	58.5		74.0	44.4
	4:00 - 5:00	59.0		69.5	46.1
	5:00 - 6:00	58.6		77.7	44.1
24 hours Average		59.2		75.9	46.3

សំគាល់: ព័ត៌មានប្រភេទ និងស្ថានភាពសម្រាប់ត្រួតពិនិត្យសម្រាប់គម្រោងអភិវឌ្ឍន៍វិនិយោគសាងសង់ និងទៅសម្រាប់ (ឧបសម្ព័ន្ធនៃប្រកាសលេខ.១២០ ប្រ.ក.ប.ស្ត ចុះថ្ងៃទី ១១ ខែ មេសា ឆ្នាំ ២០១៨) (Sound Level Meter NL-42-52 NX)

បានឃើញនៅថ្ងៃទី ១៧ ខែ វិច្ឆិកា ឆ្នាំ២០២១  
អគ្គនាយក

Was seen on date:  
Director General  
  
**ហ៊ា ស៊ីណា**

ចេញអោយនៅ ថ្ងៃទី ១៧ ខែ វិច្ឆិកា ឆ្នាំ២០២១  
ប្រធានមន្ទីរពិសោធន៍

Date of Issue:  
Director  
  
**លោក ឌី**

ចេញអោយនៅ ថ្ងៃទី ១៧ ខែ វិច្ឆិកា ឆ្នាំ២០២១  
អ្នកវិភាគ

Analyzer



**ព្រះរាជាណាចក្រកម្ពុជា**  
**ជាតិ សាសនា ព្រះមហាក្សត្រ**

**អគ្គនាយកដ្ឋានគាំពារបរិស្ថាន**  
**មន្ទីរពិសោធន៍**  
**LABORATORY**

លេខ/N° : ១៧៥... ៧... ៧.ស

**ព្រឹត្តិប័ត្រវិភាគ**

**ANALYSIS REPORT**

ប្រភេទសំណាក/Sample Source: **ក្រុមហ៊ុន HENG SAMBATH CO., LTD**  
 កន្លែងយកសំណាក/Survey Point: ANV-2, កំរិតកែលម្អដីកសិដ្ឋាន Construction of Landfill in Kampot (កំរែសាងសង់ទីលានចាក់សំរាមខេត្តកំពត) រូបស  
**ក្រុមហ៊ុន សាធារណការ និងដឹកជញ្ជូន** ស្ថិតនៅក្នុងភូមិថ្មី ឃុំថ្មី ស្រុកទឹកឈូ ខេត្តកំពត, UTM 48 P 0414415 / 1183705  
 ថ្ងៃយកសំណាក/Sampling date: November 17, 2021  
 រយៈពេល/Sampling Period: 11:50 AM to 11:50 AM next day

Time	Survey Period	Vibration Level dB				Remarks
		Leq	Standard (Leq)	Lmax	Lmin	
Day	6:00 - 7:00	24.1	65	34.0	18.6	
	7:00 - 8:00	24.3		42.6	12.2	
	8:00 - 9:00	22.8		39.4	18.0	
	9:00 - 10:00	21.3		37.4	18.3	
	10:00 - 11:00	22.5		45.9	19.7	
	11:00 - 12:00	25.4		44.4	18.6	
	12:00 - 13:00	24.3		40.2	19.4	
	13:00 - 14:00	24.8		38.6	17.9	
	14:00 - 15:00	23.9		39.2	19.1	
	15:00 - 16:00	24.2		39.4	17.8	
	16:00 - 17:00	24.8		45.1	18.8	
	17:00 - 18:00	24.0		38.8	17.8	
	18:00 - 19:00	23.5		41.0	15.5	
	19:00 - 20:00	24.7		41.3	17.0	
Night	20:00 - 21:00	23.7	60	41.1	14.8	
	21:00 - 22:00	24.3		44.3	15.9	
	22:00 - 23:00	23.6		38.0	14.1	
	23:00 - 00:00	22.4		42.2	13.7	
	00:00 - 1:00	21.5		39.4	14.0	
	1:00 - 2:00	22.5		39.1	14.2	
	2:00 - 3:00	21.8		42.3	14.4	
	3:00 - 4:00	22.5		41.1	14.7	
	4:00 - 5:00	23.4		38.1	14.2	
	5:00 - 6:00	22.7		40.9	14.8	
24 hours Average		23.5		40.6	16.4	

សំគាល់: ព័ត៌មាន និងល្អិតល្អនៃសម្រាប់ព្រឹត្តិប័ត្រ រយៈពេលពេលវេលាសម្រាប់ការវិនិច្ឆ័យសម្រាប់ការវិនិច្ឆ័យ និងសម្រាប់ការវិនិច្ឆ័យ (ឧបសម្ព័ន្ធនៃប្រកាសលេខ ១២០ ប្រ.ក.ប.ស្ត ចុះថ្ងៃទី ១១ ខែ មេសា ឆ្នាំ ២០១៨), Vibration Level Meter VM - 53A.

ចេញអោយនៅ ថ្ងៃទី ១៧ ខែ វិច្ឆិកា ឆ្នាំ ២០២១  
 ចេញអោយនៅ ថ្ងៃទី ១៧ ខែ វិច្ឆិកា ឆ្នាំ ២០២១

បានឃើញនៅ ថ្ងៃទី ១៧ ខែ វិច្ឆិកា ឆ្នាំ ២០២១  
 អនុនាយក:  
 Was seen on date:  
 Director General

ប្រធានមន្ទីរពិសោធន៍  
 Date of Issue:  
 Director

អ្នកវិភាគ  
 Analyzer

**ជា ស៊ុណា**

**លោក ធើរ**



APPENDIX 18:  
Result of Water Quality Testing



ព្រះរាជាណាចក្រកម្ពុជា  
ជាតិ សាសនា ព្រះមហាក្សត្រ

អគ្គនាយកដ្ឋានគាំពារបរិស្ថាន  
មន្ទីរពិសោធន៍  
LABORATORY

លេខ/N° : ១៧៣-១ ព.ស

ព្រឹត្តិប័ត្រវិភាគ  
ANALYSIS REPORT

ប្រភពសំណាក/Sample Source : ក្រុមហ៊ុន HENG SAMBATH CO., LTD  
ថ្ងៃ ខែ ឆ្នាំទទួលសំណាក/Date: November 17, 2021  
ប្រភេទសំណាក./Type of Sample: SW-01, ទឹកស្រះក្នុងតំបន់ អនុគម្រោង Construction of Landfill in Kampot (ការសាងសង់ទីលានចាក់សំរាមខេត្តកំពត)របស់  
ក្រុមហ៊ុន សាធារណការ និងដឹកជញ្ជូន ស្ថិតនៅក្នុងភូមិ ឃុំថ្មី ស្រុកទឹកល្អ ខេត្តកំពត, UTM 48 P 0414320 / 1183680

ល.រ No	ឈ្មោះប៉ារ៉ាម៉ែត្រ Parameter	ខ្នាត Unit	លទ្ធផល Result	បទដ្ឋាន Standard	វិធីសាស្ត្រវិភាគ Reference Method
1	pH (Lab)	-	6.10	6.5-8.5	Method pH Meter
2	Dissolved Oxygen (DO) (Lab)	mg/L	6.40	7.5-2.0	Method DO Meter
3	Total Dissolved Solid (TDS) (Lab)	mg/L	42.00	<1000	Method ino-Lab Meter
4	Total Suspended Solid (TSS)	mg/L	47.00	1.0-15	Method 2540 D
5	Biochemical Oxygen Demand (BOD)5	mg/L	1.85	<30	Method 5210 B
6	Chemical Oxygen Demand (COD)Mn	mg/L	5.60	1.0-8.0	Method JIS K 0102
7	Oil and Grease	mg/L	3.82	<5.0	Method 5520 D
8	Detergent (MBAS)	mg/L	ND	<5.0	Method 5540 C
9	Sulphate (SO4)	mg/L	4.80	<300	Method 4500-SO4 <sup>2-</sup> B
10	Total Nitrogen (TN)	mg/L	0.58	0.1-0.6	Method JIS K 0102 45
11	Total Phosphorus (TP)	mg/L	0.04	0.005-0.05	Method JIS K 0102 46
12	Arsenic (As)	mg/L	0.004	<0.01	Method 3500-As D
13	Cadmium (Cd)	mg/L	ND	<0.001	Method 3500-Cd C
14	Lead (Pb)	mg/L	ND	<0.01	Method 3500-Pb C
15	Mercury (Total)	mg/L	ND	<0.0005	Method ICP-MS
16	Total Coli form	MPN/100ml	1.5X10 <sup>3</sup>	<1000	Method NF T90-413

សំគាល់: 1- ការយកសំណាក ការរក្សាទុក និងការដឹកជញ្ជូនសំណាកមកមន្ទីរពិសោធន៍ត្រូវតែធ្វើឡើងតាមវិធានការណ៍អនុវត្តដោយខ្លួនឯង។  
2- Standards ចាំបាច់ និងស្តង់ដារគុណភាពទឹកផលិត សម្រាប់គម្រោងអភិវឌ្ឍន៍វិស័យហេដ្ឋារចនាសម្ព័ន្ធ និងទេសចរណ៍ (ឧបសម្ព័ន្ធនៃប្រកាសលេខ ១២០ ប្រ.ក.ប.ស្ត ចុះថ្ងៃទី ១១ ខែ មេសា ឆ្នាំ ២០១៥)  
3- ND Mean Not Detected (Lower than LDL), NV Mean No Value.  
4- គោលបំណងនៃការវិភាគ ពិនិត្យតាមដានគុណភាពទឹក

បានឃើញនៅថ្ងៃទី ២៤ ខែ វិច្ឆិកា ឆ្នាំ ២០២១  
អគ្គនាយក:  
Was seen on date:  
Director General

ចេញអោយនៅ ថ្ងៃទី ២៤ ខែ វិច្ឆិកា ឆ្នាំ ២០២១  
ប្រធានមន្ទីរពិសោធន៍  
Date of Issue:  
Director  
លោក រដ្ឋ

ចេញអោយនៅ ថ្ងៃទី ២៤ ខែ វិច្ឆិកា ឆ្នាំ ២០២១  
អង្កេតាត  
Analyzer





**ព្រះរាជាណាចក្រកម្ពុជា**  
**ជាតិ សាសនា ព្រះមហាក្សត្រ**

**អគ្គនាយកដ្ឋានគាំពារបរិស្ថាន**  
**មន្ទីរពិសោធន៍**  
**LABORATORY**

លេខ/N° : ..... ០៧៧-៧ ..... ព.ស

**ព្រឹត្តិប័ត្រវិភាគ**

**ANALYSIS REPORT**

ប្រភពសំណាក/Sample Source : <b>ក្រុមហ៊ុន HENG SAMBATH CO., LTD</b> ថ្ងៃ ខែ ឆ្នាំទទួលសំណាក/Date: November 17, 2021 ប្រភេទសំណាក./Type of Sample: SW-02, ទីកន្លែងស្រោចបំបាត់ អនុគម្រោង Construction of Landfill in Kampot (ការសាងសង់ទីលានចាក់សំរាមខេត្តកំពត) របស់ <b>ក្រុមហ៊ុន សាណាណេការ ចិនឌីកេញូល</b> ស្ថិតនៅក្នុងភូមិថ្មី ឃុំថ្មី ស្រុកទឹកល្អ ខេត្តកំពត, UTM 48 P 0414307 / 1183993					
ល.រ No	ឈ្មោះប៉ារ៉ាម៉ែត្រ Parameter	ឌីម៉ង់ Unit	លទ្ធផល Result	បទដ្ឋាន Standard	វិធីសាស្ត្រវិភាគ Reference Method
1	pH (Lab)	-	6.30	6.5-8.5	Method pH Meter
2	Dissolved Oxygen (DO) (Lab)	mg/L	6.60	7.5-2.0	Method DO Meter
3	Total Dissolved Solid (TDS) (Lab)	mg/L	51.00	<1000	Method ino-Lab Meter
4	Total Suspended Solid (TSS)	mg/L	36.00	1.0-15	Method 2540 D
5	Biochemical Oxygen Demand (BOD)5	mg/L	1.66	<30	Method 5210 B
6	Chemical Oxygen Demand (COD) Mn	mg/L	4.86	1.0-8.0	Method JIS K 0102
7	Oil and Grease	mg/L	4.60	<5.0	Method 5520 D
8	Detergent (MBAS)	mg/L	ND	<5.0	Method 5540 C
9	Sulphate (SO4)	mg/L	4.20	<300	Method 4500-SO4 <sup>2-</sup> B
10	Total Nitrogen (TN)	mg/L	0.62	0.1-0.6	Method JIS K 0102 45
11	Total Phosphorus (TP)	mg/L	0.04	0.005-0.05	Method JIS K 0102 46
12	Arsenic (As)	mg/L	0.002	<0.01	Method 3500-As D
13	Cadmium (Cd)	mg/L	ND	<0.001	Method 3500-Cd C
14	Lead (Pb)	mg/L	ND	<0.01	Method 3500-Pb C
15	Mercury (Total)	mg/L	ND	<0.0005	Method ICP-MS
16	Total Coli form	MPN/100ml	2.1X10 <sup>3</sup>	<1000	Method NF T90-413
<b>សំគាល់:</b> 1- ការយកសំណាក ការរក្សាទុក និងការដឹកជញ្ជូនសំណាកមកមន្ទីរពិសោធន៍ក្រុមហ៊ុន (គំរោង) អនុវត្តតាមវិធានដាច់ខាត។ 2- Standards ប៉ារ៉ាម៉ែត្រ និងស្តង់ដារគុណភាពទឹកផលិតសម្រាប់គម្រោងអភិវឌ្ឍន៍វិនិយោគសាងសង់ទីលានចាក់សំរាម និងទេសចរណ៍ (ឧបសម្ព័ន្ធនៃប្រកាសលេខ ១២០ ប្រ.ក.ប.ស្ទ ចុះថ្ងៃទី ១១ ខែ មេសា ឆ្នាំ ២០១៤) 3- ND Mean Not Detected (Lower than LDL), NV Mean No Value. 4- គោលបំណងនៃការវិភាគ ពិនិត្យតាមដានគុណភាពទឹក					

បានឃើញនៅថ្ងៃទី ២៦ ខែ វិច្ឆិកា ឆ្នាំ ២០២១  
 អន្តរាយក:  
 Was seen on date:  
 Director General

ចេញអោយនៅ ថ្ងៃទី ២៦ ខែ វិច្ឆិកា ឆ្នាំ ២០២១  
 ប្រធានមន្ទីរពិសោធន៍  
 Date of Issue:  
 Director  
**ឆេក ឌី**

ចេញអោយនៅ ថ្ងៃទី ២៦ ខែ វិច្ឆិកា ឆ្នាំ ២០២១  
 អង្គីតាត  
 Analyzer





**APPENDIX 19:**  
**LIST OF ALL ACTIVES EXPERTS UNDER THE CONTRACT**  
**Input for International Expert for September, 2021**

Name	Position	Total Previous Input	September, 2021 Month	Total Inputs Up to This Month	Original Input	Variation Order No. 1+2+3+4+5+6+7	Balance
Rocco M. Palazzolo / Christopher Mark Dunn/ Fabien Nitrosso/ Louis Rijk	Team Leader/Municipal Engineer	30.27	0.35	30.62	20.00	31.23	0.61
Akila Seneviratne	Project Manager ( Construction Supervision)	2.73	1.00	3.73	2.45	6.95	3.22
Kerry Maxwell Blanch	Financial Management Specialist	0.00		0.00	6.00	0.00	0.00
Takashi Goto / Sampei NAKANISHI	Solid Waste Management Specialist	7.63		7.63	8.00	7.63	0.00
Ferdinand S. Asuncion / Keiji Matsuoka	Wastewater / Civil Engineer	4.93		4.93	8.00	4.93	0.00
Carlos Andaya Dela Cruz	Construction Manager	0.00		0.00	12.00	0.00	0.00
Yolanda M. Mingoa / Rachel Wildblood	Environmental Specialist	4.78	0.03	4.81	3.00	5.57	0.76
Rolando T. Soncuya	Resettlement Specialist	6.80		6.80	4.00	8.63	1.83
Mildred Rollolazo	Social Development and Gender Specialist	3.19		3.19	4.00	3.19	0.00
Joop Schaap	Capacity Building and Training Specialist	5.18		5.18	6.00	5.18	0.00
Evelyn M. Buenaventura	Community Development Specialist	3.00		3.00	4.00	3.00	0.00
Consuelo B. Estepa	Business Management Specialist	4.00		4.00	4.00	4.00	0.00
Agnes B. Palacio	Municipal Finance Specialist	3.00		3.00	4.00	3.00	0.00
Masaharu Takasugi	Managed Landfill Specialist	0.00		0.00	6.00	0.00	0.00
Roquito Bellosillo	Urban Planning Specialist	0.00		0.00	4.00	0.00	0.00
Ryousuke Ohta	Structural Engineer	0.00		0.00	0.00	0.00	0.00
Akio Natsui	Mechanical/Electrical Engineer	0.93		0.93	0.00	0.93	0.00

**Input for National Expert for September, 2021**

Name	Position	Total Previous Input	September, 2021 Month	Total Inputs Up to This Month	Original Input	Variation Order No. 1+2+3+4+5+6+7	Balance
Taing Sophanara/ Chhun Bunnarinn	Deputy Team Leader and Engineering and Procurement Specialist No.1	56.00	1.00	57.00	26.00	60.00	3.00
Phai Sokheng	Deputy Team Leader and Engineering and Procurement Specialist No.2	6.94		6.94	12.00	6.94	0.00
Song Kim Chhoun	Project Performance Monitoring System	15.30	0.43	15.73	14.00	17.06	1.33
Dr. Yim Mongtoeun/ Yin Somean	Solid Waste Management Specialist	17.30		17.30	12.00	17.30	0.00
Som Kosal	Wastewater/ Civil Engineer	9.37		9.37	12.00	9.37	0.00
Yang Bora / Kun Chantrea	Drainage Engineer	16.61	1.00	17.61	12.00	18.36	0.75
Mam Chandaro / Hy Hayean	Site Engineer No. 1	17.09	1.00	18.09	12.00	21.09	3.00
Moung Touch	Site Engineer No. 2	6.80		6.80	12.00	6.80	0.00
Chea Mong	Environment Specialist	8.91		8.91	9.00	10.51	1.60
Chap Samouen / Mel Sophanna	Resettlement Specialist	16.36		16.36	12.00	18.54	2.18
Hep Sreyleak / Hor Sakphea / Houth Ratanak	Social Development and Gender Specialist	10.69		10.69	12.00	12.44	1.75
Phork Hoeung	Training Specialist	12.51		12.51	12.00	12.51	0.00
Im Mavuth	Community Development Specialist	6.00		6.00	6.00	6.00	0.00
Som Mithonarath	Business Management Specialist	6.00		6.00	6.00	6.00	0.00
Chan Vannak	Municipal Finance Specialist	5.04		5.04	6.00	5.04	0.00
Som Vannita	Urban Planner and Urban Design Specialist	2.20		2.20	6.00	2.20	0.00
Ky Senghun	Mechanical/Electrical Engineer	8.97		8.97	0.00	10.47	1.50
Cheam Sar / Sim Sen	Civil/Structure Engineer	6.58	1.00	7.58	0.00	10.50	2.92
Chhor Ratha	Civil Engineer/Building and Road Engineer	7.50		7.50	0.00	7.50	0.00
Ei Reasey	Sewerage Drainage Engineer	1.00		1.00	0.00	3.50	2.50
Kun Chantrea / Thlork Mesa / Chhay Theara	Technical / Support Engineer	12.03		12.03	10.03	12.03	0.00
Born Mary	Technical / Support Engineer	6.00		6.00	6.00	6.00	0.00
Chan Thanin / Uk Samseiha	Technical / Support Engineer	7.97		7.97	5.97	7.97	0.00
Seang Chhay Ngorn	Technical / Support Engineer	5.00		5.00	5.00	5.00	0.00
Chuk Channarong	Technical / Support Engineer	3.00		3.00	3.00	3.00	0.00
Hum Hattarith/ Kong Phearun	Technical / Support Engineer	5.50	1.00	6.50	3.50	7.33	0.83
Meoung Bunchhun	Technical / Support Engineer	5.61	1.00	6.61	3.50	7.33	0.72
Srey Vattanak	Technical / Support Engineer	6.00	1.00	7.00	3.50	7.34	0.34
Ei Bunchan	Civil engineer/ Inspector in Sihanoukville	5.00		5.00	11.00	5.00	0.00
Thlork Mesa	Civil engineer/ Inspector in Sihanoukville	6.30		6.30	11.00	6.30	0.00
To Be Named	Civil engineer/ Inspector in Sihanoukville	0.00		0.00	21.00	0.00	0.00
Norm Mara/ Thlork Mesa	Civil engineer/ Inspector in Kampot	20.00	1.00	21.00	17.00	24.00	3.00
Born Mary	Civil engineer/ Inspector in Kampot	19.63	1.00	20.63	15.00	23.63	3.00
Sam Kosal	Civil engineer/ Inspector in Kampot	19.63	1.00	20.63	15.00	23.63	3.00
Chea Chamroeun	Civil engineer/ Inspector in Kampot	1.77	1.00	2.77	15.00	6.00	3.23



APPENDIX 20:  
ATTENDANT LIST

មហាអនុតំបន់ទន្លេមេគង្គ៖ គម្រោងទី២នៃការអភិវឌ្ឍន៍ ក្រុមរៀននៃមហាអនុតំបន់ទន្លេមេគង្គ

កម្ពុជា 3314-CAM

PROJECT MANAGEMENT AND IMPLEMENTATION SUPPORT, DETAILED DESIGN AND CONSTRUCTION SUPERVISION (PACKAGE 1) AND CAPACITY BUILDING (PACKAGE 2)

បញ្ជីបុគ្គលិក

កិច្ចប្រជុំអំពី ការលើកកម្ពស់ការយល់ដឹងអំពីយេនឌ័រ

កំពត ថ្ងៃទី ២៥ ខែវិច្ឆិកា ឆ្នាំ២០២១

ល.រ No	នាមនិងគោត្តនាម Name	ភេទ Sex	តួនាទី Occupation	ស្ថាប័ន/អង្គការ Institution	ទូរស័ព្ទ Phone	ហត្ថលេខា Signature
១	ឈុំ ហង់ដេត	ប្រុស	PMU, Project Manager	ស.ស.ខ	012 803 203	
២	វិស្ស វិសិ	—	PMU	—	012 451545	
៣	ស៊ុន ឃុនហ៊ុន	ស្រី	PIU	យន្ត ភ.ក.ខ	012 969707	
៤	យី ហុកឃាប់	ប្រុស	PIU	យន្ត ភ.ក.ខ	010 581390	
៥	សំណាក់ ឃីន	ប្រុស	Survey	HSB	0965029992	
៦	ឆាន់ ជ័យ	ស្រី	site manager	HSB	017 222275	
៧	ស៊ុន ច័ន្ទ	ប្រុស	Consultant	KCC	081430059	
៨	ស៊ុន ថ្លា	ប្រុស	Project Manager	HSB	070 890 558	

១៥

ល.រ No	នាមនិងគោត្តនាម Name	ភេទ Sex	តួនាទី Occupation	ស្ថាប័ន/អង្គការ Institution	ទូរស័ព្ទ Phone	ហត្ថលេខា Signature
៩	ស៊ុន ឆីន ឈន់	M	PPMS	GMS2/KCC	012 916545	
១០	ឃីន ឆន	F	Consultant, Admin	GMS2/KCC	085 822828	
១១	ស៊ុន ឡាន	M	យន្ត ភ.ក.ខ	GMS2/KCC	012 723510	
១២	ស៊ុន ឆន	F	Gender	GMS2/KCC	012 802 857	
១៣						
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១៦



មហាអនុវត្តបំណុលរដ្ឋបាល: គម្រោងទី២នៃការអភិវឌ្ឍន៍ គ្រុឌរៀងនៃមហាអនុវត្តបំណុលរដ្ឋបាល

កម្មវិធី 3314-CAM

Project Management and Implementation Support, Detailed Design and Construction Supervision (Package 1) and Capacity Building (Package 2)

បញ្ជីបុគ្គលិក

បុគ្គលិកបណ្តុះបណ្តាលស្តីពី សុវត្ថិភាពបរិស្ថាន ក្នុងដំណាក់កាលអនុវត្តគម្រោង

តំណក់ ថ្ងៃទី ២៦ ខែ វិច្ឆិកា ឆ្នាំ ២០២១

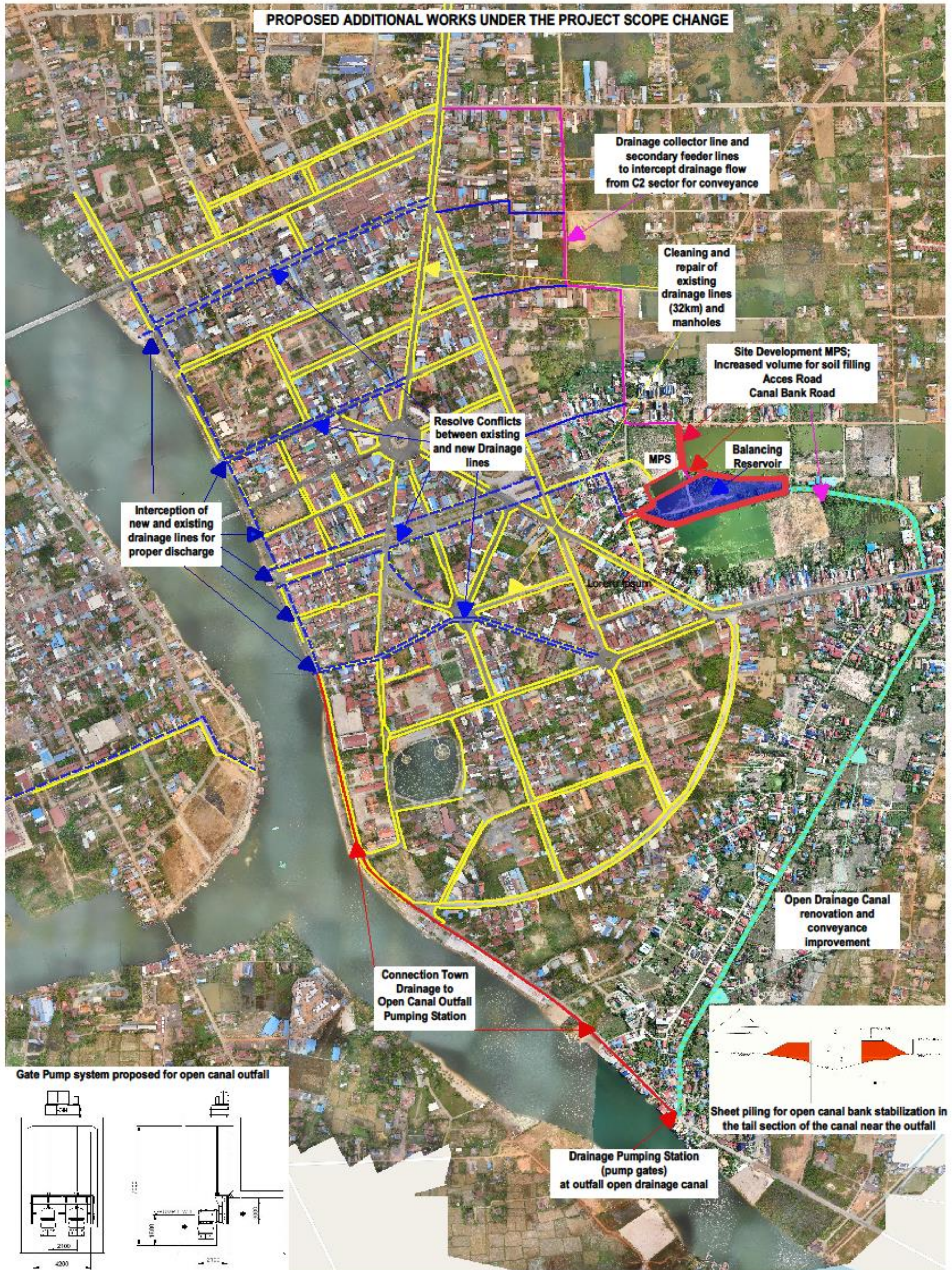
ល.រ No	នាមនិងគោត្តនាម Name	ភេទ Sex	តួនាទី Occupation	ស្ថាប័ន/អង្គការ Institution	ទូរស័ព្ទ Phone	ហត្ថលេខា Signature
១	ឃុំ ហ៊ុន ធីត	បុរស	PMU, Project Manager	ស.ក.ខ.	012 803 203	
២	ឃុំ ឃុំ ឃុំ	បុរស	PMU	ស.ក.ខ.	012 451 545	
៣	ឃុំ ឃុំ ឃុំ	បុរស	PIU	ស.ក.ខ.	012 739 072	
៤	ឃុំ ឃុំ ឃុំ	ស្រី	PIU	ស.ក.ខ.	088 710 8990	
៥	ឃុំ ឃុំ ឃុំ	បុរស	PIU	ស.ក.ខ.	010 581 390	
៦	ឃុំ ឃុំ ឃុំ	បុរស	PIU	ស.ក.ខ.	085 670 500	
៧	ឃុំ ឃុំ ឃុំ	បុរស	PIU	ស.ក.ខ.	087 775 858	
៨	ឃុំ ឃុំ ឃុំ	ស្រី	PIU	ស.ក.ខ.	093 226 671	

✍

ល.រ No	នាមនិងគោត្តនាម Name	ភេទ Sex	តួនាទី Occupation	ស្ថាប័ន/អង្គការ Institution	ទូរស័ព្ទ Phone	ហត្ថលេខា Signature
៩	ឃុំ ឃុំ ឃុំ	M	PPMS	GMS 2 / KCC	012 916 545	
១០	ឃុំ ឃុំ ឃុំ	M	Survey	HSB	096 502 9992	
១១	ឃុំ ឃុំ ឃុំ	M	Site Manager	HSB	069 666 5	
១២	ឃុំ ឃុំ ឃុំ	M	Site Engineer	GMS 2 / KCC	012 723 510	
១៣	ឃុំ ឃុំ ឃុំ	M	Site Engineer	HSB	012 556 380	
១៤	ឃុំ ឃុំ ឃុំ	M	Site Engineer	HSB	098 477 123	
១៥	ឃុំ ឃុំ ឃុំ	F	Gender Specialist	GMS 2 / KCC	012 802 551	
១៦	ឃុំ ឃុំ ឃុំ	F	Assistant	GMS 2 / KCC	085 822 828	
១៧	ឃុំ ឃុំ ឃុំ	M	Environment Specialist	GMS 2	012 523 107	
១៨						
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APPENDIX 21:  
OVERVIEW OF PROPOSED WORKS UNDER THE PROJECT SCOPE CHANGE





Progress of the installation of the MPS – WWTP force main line

