

Safeguards Due Diligence Report

September 2019

CAM: Second Greater Mekong Subregion Corridor Towns Development Project

Kampot Wastewater Collection and Treatment, and Drainage and Sewerage

Prepared by the Ministry of Public Works and Transport for the Royal Kingdom of Cambodia and the Asian Development Bank.

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Report on Land Acquisition and Resettlement for Involuntary Resettlement Impact for Category C Subprojects

Project Number: 46443-002
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KINGDOM of CAMBODIA

SECOND GREATER MEKONG SUB-REGION CORRIDOR TOWNS DEVELOPMENT PROJECT

Kampong Wastewater Collection & Treatment and Urban Drainage Subprojects

Prepared by Ministry of Public Works and Transport for the Royal Government of Cambodia

ASIAN DEVELOPMENT BANK



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ACRONYMS

ADB	Asian Development Bank
AHs	Affected Households
APs	Affected Persons
BRP	Basic Resettlement Plan
DRP	Detailed Resettlement Plan
DED	Detailed Engineering Design
DMS	Detailed Measurement Survey
EMP	Environmental Management Plan
GDR	General Department of Resettlement
GMS	Greater Mekong Sub-Region
GRM	Grievance Redress Mechanism
IR	Involuntary Resettlement
IRC	Inter-Ministerial Resettlement Committee
MEF	Ministry of Economy and Finance
MPS	Main Pumping Station
MPWT	Ministry of Public Works and Transport
LAR	Land Acquisition and Resettlement
PGRC	Provincial Grievance Redress Committee
PIB	Public Information Booklet
PISCB	Project Implementation Support and Capability Building
PIU	Project Implementing Unit
PMU	Project Management Unit
PRSC	Provincial Resettlement Sub-Committee
RC	Reinforced Concrete
RGC	Royal Government of Cambodia
RP	Resettlement Plan
ROW	Right of Way
SOP	Standard Operating Procedures
SPS	Safeguards Policy Statement
UD	Urban Drainage
WG	Working Group
WWCT	Wastewater Collection and Treatment
WWTP	Wastewater and Treatment Plant

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**Report on Land Acquisition and Resettlement for Involuntary Resettlement Impact for
Category C Subprojects - Wastewater Collection & Treatment and Urban Drainage
subprojects, in Kampot**

1.0 Introduction

1.1 Project Overview

1. The Royal Government of Cambodia (RGC) has received loans and grants from the Asian Development Bank (ADB) for the Second Greater Mekong Subregion (GMS2)-Corridor Town Development Project (the Project) under Loan No. 3314-CAM. A Loan Agreement was signed on 22 December 2015 between RGC and the ADB to finance the Project and the loan was declared effective on 29 February 2016. The project implementation period is from 2016 to 2020 and the loan closing date is 30 June 2021.
2. The Project for Cambodia will improve urban services in the two towns of Kampot and Sihanoukville. The Project will cover four subprojects comprising:
 - (i) Strategic Local Economic Development Plans implemented;
 - (ii) Priority urban infrastructure investments implemented;
 - (iii) Institutional capacities for managing public investments strengthened; and
 - (iv) Community Awareness on project activities and environmental sustainability improved.
3. The participating corridor towns of Kampot and Sihanoukville continue to face the urgent task of coping with the demands of expanding urban areas. The local authorities want to plan and manage urban growth using an integrated approach, operate and maintain urban environmental and economic infrastructure and efficiently deliver municipal services.
4. The priority urban infrastructure investment subproject expected outcome will improve urban infrastructure and enhanced climate resilience in Kampot and Sihanoukville. The Project will cover five subprojects comprising, (a) three subprojects in Kampot, (Wastewater Collection and Treatment (WWCT)¹, Urban Drainage (UD) and Solid Waste Management (SWM); and (b) two subprojects in Sihanoukville (Solid Waste Management (SWM) and Urban Drainage (UD)).
5. This single report is prepared for the WWCT and UD subprojects in Kampot for ADB's due diligence on involuntary resettlement impact Category C. A joint field visit for these two subprojects to assess the Involuntary Resettlement (IR) Impact was undertaken on 13 November 2018 by project management unit (PMU) and project implementation unit (PIU) representatives, inter-ministerial resettlement committee working group (IRC-WG), and members of the project implementation supervision capacity building (PISCB) consultants. Based on the IR impact screening assessment the two subprojects have no IR impacts and are classified as Category C (Annex A and B). There is no involuntary restriction on land use or access to legally designated parks and protected areas. There will be some temporary disturbances and inconveniences during construction but these are minimized and/or avoided through technical solutions and provisions in the tender/contract documents addressing these temporary impacts.
6. For the UD subproject, the reinforced concrete (RC) U shape drain lines 2, 3, 4A, 5A, 6 & 7 were included in this IR impact screening while the earth canal Line 4B was excluded due to some resettlement impacts. A separate IR impact screening will be undertaken for the earth canal Line 4B to determine the IR impact category. In the event Line 4B will merit a resettlement plan, the civil works for the rest of the drains will proceed while Line 4B will be the subject of detailed resettlement plan (DRP).

¹ WWCT include all sewerage systems (sewers, pump station, and WWTP) and the Urban Drainage components have been combined into the "Wastewater Collection & Treatment and Urban Drainage" as one contract-CW01.

1.2 Objectives Involuntary Resettlement

7. The IR under development projects, if not mitigated, could give rise to severe economic, social, and environmental risks. The ADB's Safeguard Policy Statement (SPS) on Involuntary Resettlement outlines the requirements on IR safeguards to projects/subprojects financed by the ADB. The objectives are to avoid involuntary resettlement wherever possible; to minimize involuntary resettlement by exploring project/subproject and design alternatives; to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project/subproject levels; and to improve the standards of living of the displaced poor and other vulnerable groups. Based on the Final Report (2015) for the Project, the subproject in Kampot is classified Category B² for IR impacts as per ADB SPS (2009). However, during the detailed engineering design (DED) substantial changes were made to the drainage alignments, Wastewater Treatment Plant (WWTP) site, and force main route. Hence it became necessary to revisit and review the original classification of these two subprojects by undertaking an IR impact assessment.

8. The main objective of this report is to confirm in detail, the results of the IR impact assessment and determine whether IR reconfirms the IR impact classification of the WWCT and UD subprojects following the DED. The report also outlines how the temporary disturbances that will occur during the construction have been mitigated to further lessen and/or eliminate these temporary impacts.

1.3 Methodology

9. A basic resettlement plan (BRP) was prepared in August 2015 based on preliminary engineering design and field visits. The BRP included a component which will had permanent land acquisition and resettlement (LAR) impacts at the proposed site of the WWTP. For the urban drainage component, the LAR impacts was limited to the loss of two temporary shelters and one pig shelter, one kitchen; and for the solid waste management component, LAR impacts was limited to the loss of trees and one temporary shelter on public land. However, the DED underwent several revisions and the final design for the WWCT and UD subprojects were adjusted to ensure that IR impacts were completely eliminated.

10. Primary and secondary data were generated and used to prepare this report. Primary data were gathered through actual site visits to the proposed drainage alignments with the technical team from the PISCB Consultants who were undertaking the DED. These visits were done in coordination with the PIU based in Kampot and the Cadasral Administration Office of Kampot to determine the impacts. The proposed drainage system was realigned, shortened, modified to minimize the resettlement impacts. Except for Line 4B, the IR impacts for other drainage line alignments 2, 3, 4A, 5A, 7 and 6 are classified as Category C for ADB's due diligence and no objection so that construction activities may commence.

2.0 Subproject Description

11. There are three components in the Kampot subprojects. These are the WWCT, UD, and SWM subprojects. This report is for the WWCT and UD subprojects.

2.1 Wastewater Collection and Treatment (WWCT)

12. The WWCT covers the eastern part Kampot Town where the population is very dense with many commercial centers and tourism facilities. The collection area is designated as C1 which is the central part of Kampot town.

² Second Greater Mekong Subregion Corridor Towns Development Project (TA-8425 REG), Final Report, August 2015.

2.1.1 Types of Sewer Pipes

13. There are three types of sewer pipes that will be used in WWCT. These are the connector pipes, lateral sewer pipes and trunk sewer pipes. The diameters range from 100 mm for the connector pipes, 200 mm for the lateral sewer pipes and up to 450mm for the trunk sewer pipes.

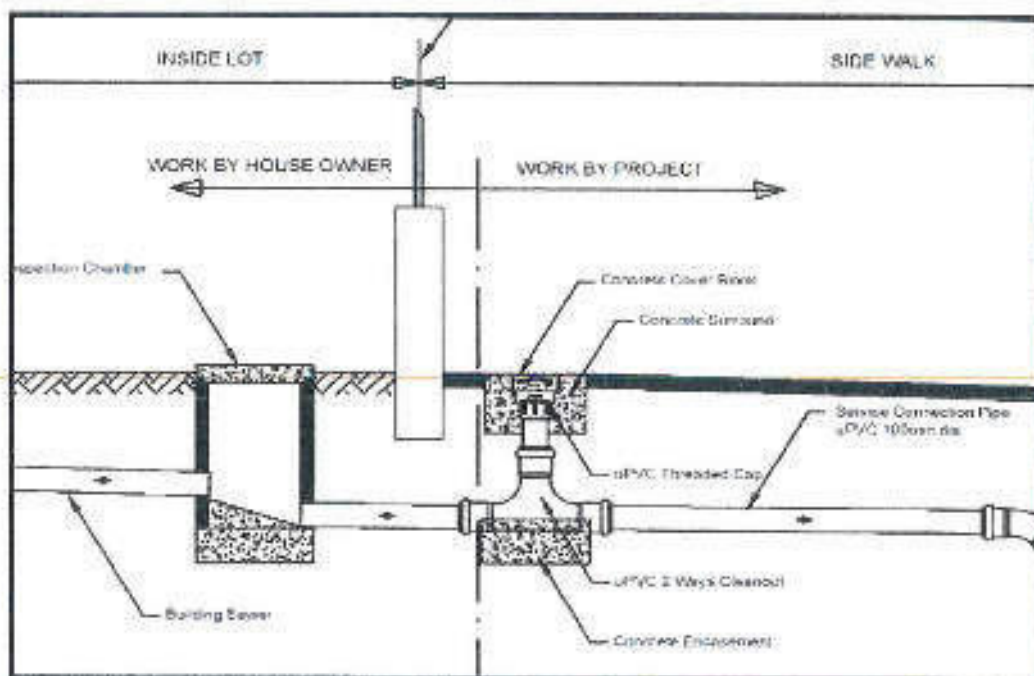
a) Connector Pipes

14. The connector pipes are from the houses and buildings connecting to the lateral sewer pipes. The houses will be clustered (around 5-6 houses or more) and will be connected to a common lateral sewer pipe located along the sidewalks. These lateral sewer pipes which are not continuous, will in turn be connected to the trunk or main sewer pipe. The connector pipes will be buried underground in narrow trenches to less than 1m deep and will not require heavy equipment for digging. The trenches will properly backfilled and the surface reinstated to its original condition.

15. The lateral sewer pipes will run almost parallel to the road. If the frontage of a house or building is partially blocked by an obstruction, the connector pipe may avoid the obstruction by veering or going around the obstruction. The connector pipes are flexible and easy to bend to avoid possible obstructions. In addition, there are elbow connectors which are specifically designed and used to go around obstructions. There are water pipes and power lines buried underground running parallel to the roads. The location of these service pipes and lines will be detected and demarcated to avoid damages and disruption of services during installation of the connector pipes. The contractor will take precautionary measures not to excavate close to these utility services that are buried in the ground.

16. The subproject funds will be used to purchase all the necessary connector pipes and accessories up to the property boundary lines, therefore, no construction activity will occur inside the property boundary lines. The owners/occupants of structures covered by this subproject will have to connect with the wastewater connection pits. The details are shown in Figure 1: Details of the Waste Water House Connections.

Figure 1: Details of the Waste Water House Connections



b) Lateral or Collector Sewer Pipes

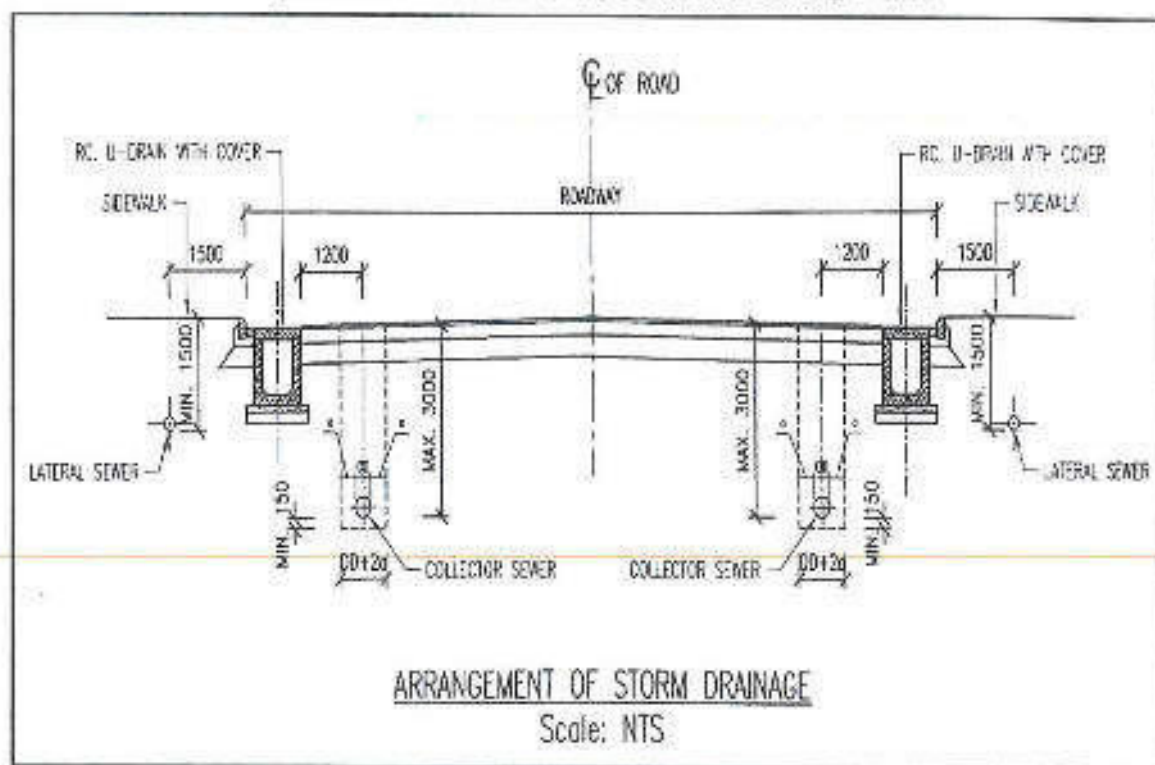
17. The wastewater from the connector pipes will be fed into the lateral sewer pipes located almost parallel under the sidewalks. The lateral sewer pipes will be laid in narrow trenches to depths ranging from 0.5m to 2m. Majority of the length collector sewer pipes will be laid in relatively shallow trenches and manual digging will be encouraged as much as possible to avoid the need for heavy equipment which will require working space resulting in more temporary resettlement impacts.

18. Generally, the lateral sewer pipe line will be about 1.5 meters away from the road kerb. However, the final placement of the lateral sewer pipes will largely depend on the location of the power lines and water supply pipes which are also located under the sidewalks. The lateral sewer pipes will avoid these existing utility lines to ensure that there will be no damages that will not cause any disruption of services during construction.

19. The lateral sewer pipes are not a continuous along a particular road. The clustering of structures into 5 to 6 houses connected with one lateral sewer pipe segment will minimize the number of lateral sewer pipes connected to the trunk sewer pipe to minimize subproject costs. However, the number of clustering of structures may vary depending on the presence of obstruction in front of these structures. In areas where there are obstructions, the clustering of structures for these lateral sewers may be less. In some cases, the connector pipes will directly connect to the trunk sewer pipe.

20. In extreme cases, the location of some segments of the lateral sewer pipes may be located along and under the paved road if other options to avoid sidewalk obstructions are not deemed feasible. The lateral sewer pipes in this case will be deeper and away from the drainage culverts and the connector pipes will be laid below these drainage lines. The details are shown in Figure 2.

Figure 2: Cross Section of the Sewer and Drainage Lines



c) Trunk or Main Sewer Pipes

21. The wastewater will discharge from the lateral sewer pipes into the trunk sewer pipes located under the existing road. The trunk sewer pipes will be laid at a depth ranging from 1.5m -

3.0m. However, in the densely populated areas with wider roads, the trunk sewer pipes will be laid on both sides of the road. These trunk sewer pipes will be located within one third of the width of the road (see Figure 2).

22. The trunk sewer pipes will be laid under the paved roads and heavy equipment will be used to dig the trenches to lay them. The trunk sewer pipes will also be laid in segments to limit and minimize temporary disturbances during construction to access to houses and commercial establishments.

23. A total of 18 roads are involved with the WWCT. Three roads will not have trunk sewer pipes but only lateral sewer pipes. There are 15 identified areas (technical classification) included in the WWCT which will have around a minimum of 1,084 house/structure connections. These house/structure connections will be clustered to 102 lateral sewer pipes or approximately 10 houses/structures per cluster. The installation of lateral sewer pipes is expected to create temporary impacts. This number of lateral sewer pipes is expected to increase because the number of clustering of houses/structures may increase to avoid the sidewalk obstructions in the subproject area.

24. A total of 6,688 m of trunk sewer pipes will be laid under existing road pavement. Their locations will not create any permanent resettlement impacts. The contractor will restore the dug areas in coordination with key government agencies. The details of the estimate lengths of each type of pipes and the street locations are shown in Table 1.

Table 1: Summary of Estimate Length of Pipes by Location

Street	Area No.	Estimate Length of Connector Pipes (m)	Estimate Length of Lateral Sewer Pipes (m)	Estimate Length of Trunk Sewer Pipes (m)
St. 712	Area 1 & 2	30	9	1,542
NH 3		188	21	
St. 713		17	1	
St. 714	Area 3	144	12	685
St. 733		9	0	
St. 735	Area 4	76	11	855
St. 720		42	2	
St. 726		45	4	
St. 716	Area 5 & 14	78	11	560
St. 701		15	0	
St. 729	Area 6	49	0	454
St. 724	Area 7	45	0	104
St. 729	Area 8	39	3	85
St. 722	Area 9	70	7	282
St. 700	Area 10 & 11	45	6	786
St. 703	Area 12	119	6	95
St. 718	Area 13	43	3	650
St. 724	C2 Area 1	30	6	590
Total		1,084	102	6,688

Note: All street in above table is located in C1 area except street No.724 is located in C2 area

2.1.2 Pumping Stations

25. There are two pumping stations namely C1 pumping station and main pumping station. They will be constructed to collect all sewage water in the catchment area in down town and discharge into the WWTP,

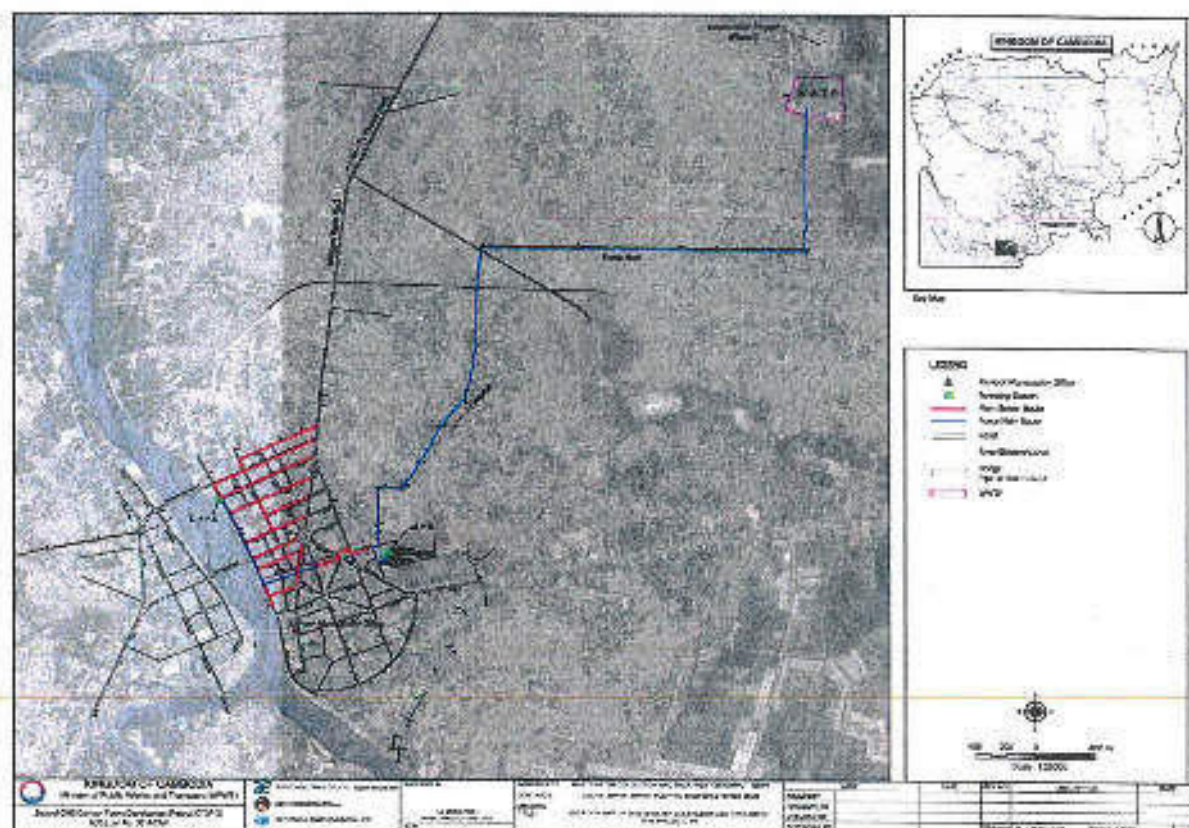
a) C1 Pumping Station (C1PS)

26. The wastewater collected from C1 area by gravity to C1PS will be discharged by a 250mm diameter forced main pipe to the main pumping station located within the C2 area. The proposed C1PS with the required support facilities will be built in an open space in public garden along Kampot river side (see Figure 3). The proposed pumping station site has no IR impacts. There are no structures, trees or crops at the proposed site.

b) Main Pumping Station (MPS)

27. The wastewater collected from C1 and C2 areas of Kampong Bay and Kraing Ampil commune/Sangkat will be discharged into the MPS which is located in C2 area at public land lot of 2.9 ha in Sangkat Kraing Ampil (see Figure 3). For the MPS, concrete piling is required and since there are two existing buildings nearby the site, appropriate pile driving methods will be applied to avoid any damage to the existing structures.

Figure 3: Lay Out of the Wastewater Collection and Treatment subproject



2.1.3 Forced Main

31. The forced main from C1PS will be laid under the existing paved roads of approximately 1km in the city, but the forced main from MPS to WWTP is mainly laid under laterite and earth roads for about 6km. It will cross under a railway line through a tunnel, and over two irrigation canals. The forced main will use HDPE and DI pipes (over the canal) and will have a diameter of 450mm. The excavation depth will shallow to about 1.2m. For the forced main, air valves at the

raised elevation of the lines and drain valves for lower sections of lines are necessary. The use of the easements along the irrigation canals will require the consent and coordination of the pertinent government agencies (Ministry of Water Resource and Meteorology for irrigation and Ministry of Rural Development for rural roads) while the railroad crossing for the force main will be coordinated with the Department of Railways under the Ministry of Public Works and Transport.

2.1.4 Wastewater Treatment Plant (WWTP)

32. The WWTP will be built in an open area of 10.12 ha located about 6km from Kampot town center to the north-east of the catchment area (see Figure 4). There are no affected households or any economic activity at the WWTP site (former salt making area). This land is owned by RGC (land has been acquired by MEF). Treated water from the WWTP will be discharged to a natural channel/creek at the northern corner of WWTP site. The treated water will flow into a natural stream which finally discharges into the sea.

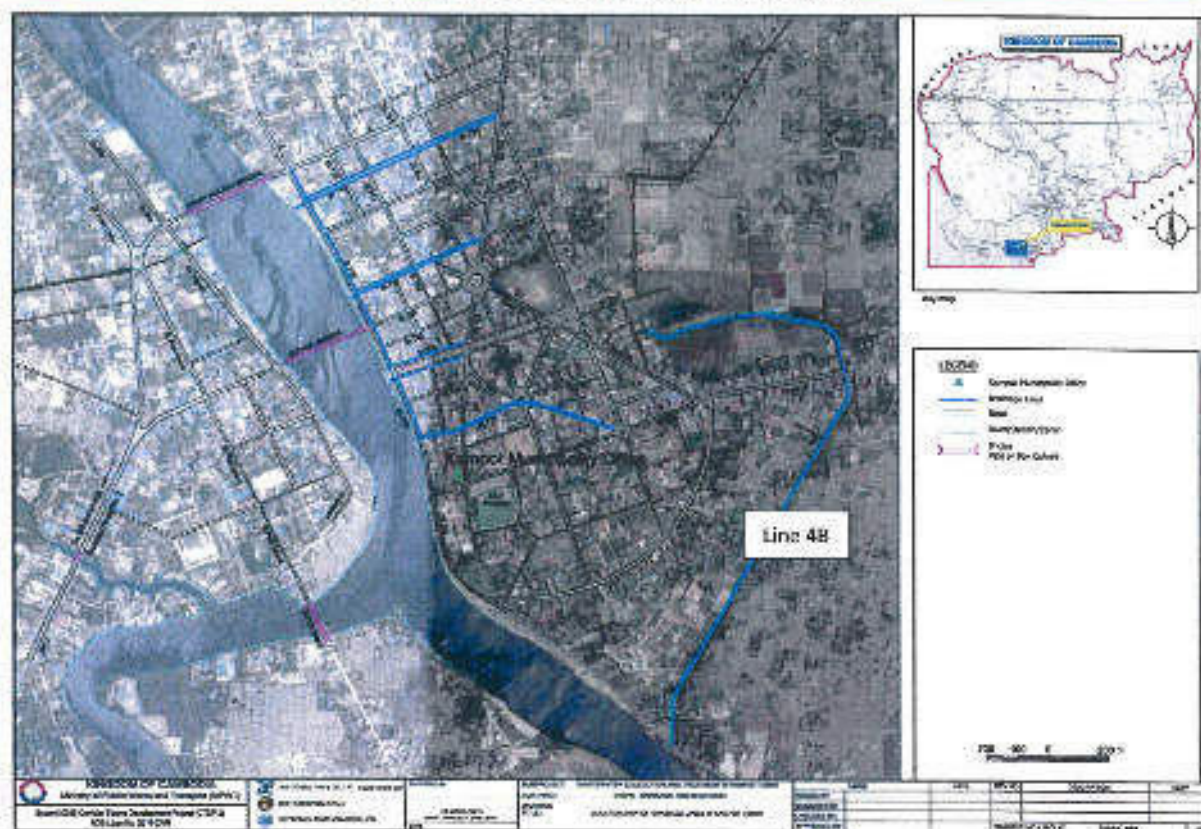
Figure 4: 10.2 ha WWTP Site



2.2 Urban Drainage (UD) Subproject

33. The proposed Drainage Lines 2, 3, 5, 6 and 7a will be of Reinforced Concrete "U" Shape Drain section with a reinforced concrete cover, except one of the proposed Drainage Line which is an open earth channel type designated as Line 4B. The planned improvements to the urban drainage are concentrated on several strategic urban roads in and around the main built up urban area east of the Kampot River. The details are shown in Figure 5.

Figure 5: Layout of Drainage Subproject



34. The total length of the proposed drainage system is 7,390 meters including the drainage lines on both sides of Drainage Lines 2, 3, 4B, 5, 7a and 6 which will all discharge into Kampot River. However, as earlier mentioned, Line 4B is not included in this report. The details of all the drainage lines are summarized in Table 2.

Table 2: Summary of Drainage Lines

Line No.	Drainage Line Alignments	Street No.	Length (m)	Drain Type
2	Line 2 is proposed on both sides of the road (L2/R and L2/L) with RC U-Drain with cover, part of line 6 (L6-1) is connected to Line 2 before discharging through the outfall into Kampot River, Figure 3.2. The necessary drainage cross sections are gradually changing from upstream to downstream end of the drainage line.	714	1,391	RC U
3	Line 3 is also proposed on both sides of the road (L3/R and L3/L) with RC U-Drain with cover. Also, part of Line 6 (L6-2) is connected to Line 3 before discharging through the outfall into Kampot River. The necessary drainage cross sections are gradually changing from upstream to downstream end of the drainage line.	720	920	RC U
4a-1R	The section line L4a is proposed as RC U-Drain with cover on one-way road separated by a stripe of road garden in the middle. This line covers the right side of the road. L4a-1/R start from NR3 and end its outfall into Kampot River.	724	283	RC U
4a-1L	This line covers the left side of the road. L4a-1/L start from NR3 and end outfall into Kampot River	724	256	RC U
4B ³	L4B is improvement of exiting open channel with total length of 2,242m to increase flows capacity to reduce flood during heavy rain. Right embankment as access road with 5m wide (laterite		2,242	Earth open channel

³ Drainage Line 4B is excluded in this report as it will be subject to a separate DRP.

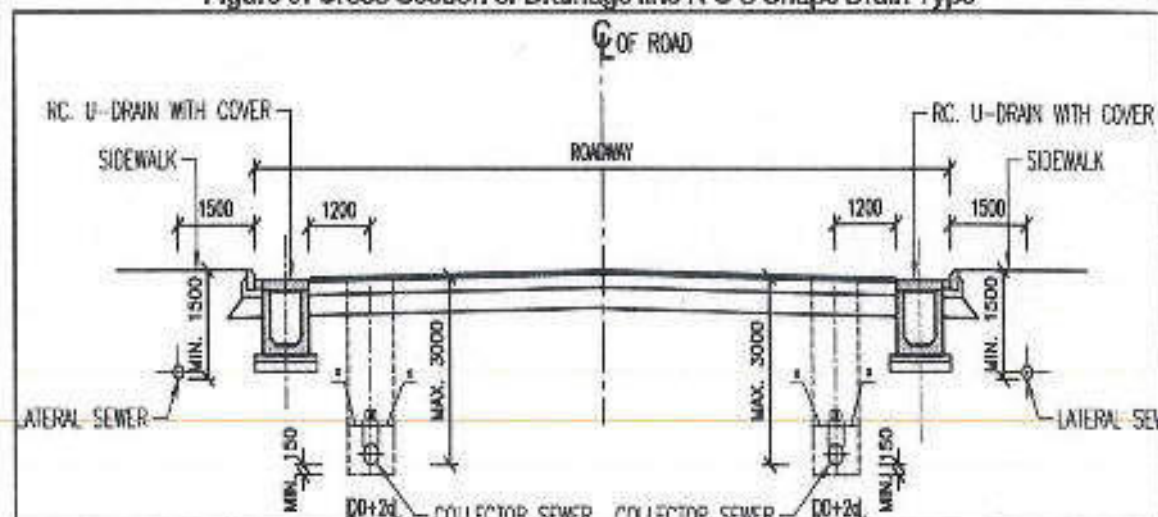
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Line No.	Drainage Line Alignments	Street No.	Length (m)	Drain Type
	pavement) and length of 610m, started from Prek Chak to second box-culvert, will be provided. Four box-culverts were provided, two box-culverts to connect the existing access road across the channel and other two box-culverts to replace the existing wooden bridges. Gabion wall has been provided due to the narrow space by dense settlement.			
5&7a	Line 5 is proposed on two sides of the existing road (L5/R and L5/L) as RC U-Drain with cover, and it start from roundabout towards Kampot River as its outfall. Line 7a is proposed RC U-Drain with cover on two side of the existing road (L7a/R and L7a/L). This line is on the same road of the Line 5 but at upper part and connected to Line 5 at roundabout.	730 & 726	1,364	RC U
6	Line 6 is proposed RC U-Drain with cover on one side of the existing road along the river side and, it starts from NR3 to the end point of Line 5	735	934	RC U
Total Length			7,390	

35. Except Line 4B, all other Drainage Lines will be laid under the existing road pavement at the edge of the road kerb. This drain alignment/design was adopted to avoid any sidewalk obstructions that may be constructed or erected with the sidewalks.

36. For the Kampot Urban roads, the road types are classified as Standard R2/U2 due to their low traffic volume. Hence the design recurrence interval for the Kampot urban road is adopted as 5 years. The Standard R2/U2 provides the lowest geometric standard for two-way flow. It is applied only to local traffic with low volumes of commercial traffic. District roads and local streets fall under this standard. This design standard is possible because there are few very heavy trucks/vehicles that pass through the center of Kampot town where these drainage lines will be installed. The details are shown in Figure 6.

Figure 6: Cross Section of Drainage line R C U Shape Drain Type



3.0 Scope and Nature of Resettlement Impacts

38. **Land Acquisition** -- There will be no land acquisition for the WWTP and UD subprojects in Kampot under the Project. The connector pipes, lateral sewer pipes and trunk sewer pipes will all be located on the state owned land. There are however areas classified under state owned land that will require the consent of the concerned ministries which have jurisdictions over the land such as irrigation canals, rural roads and railroad tracks. For the urban drainage, all drains

will be installed under existing paved roads except drain Line 4B that will be constructed in an existing canal and is not included in this report, but will be covered under a separate DRP due to some resettlement impacts.

39. There are potential temporary resettlement impacts during the construction within the right of way of state-owned land such as sidewalk obstructions. These potential impacts are discussed in the succeeding paragraphs and summarized in Tables 3 and 4. Mitigation measures are recommended for each of the potential impact to avoid or mitigate these temporary resettlement impacts.

3.1 Wastewater Collection and Treatment (WWCT)

3.1.1 Sewer Pipes

40. The sewer pipes consist of the connection pipes, lateral sewer pipes and trunk sewer pipes. All pipes will be laid along the sidewalks and under the pavement of existing roads. However, the owners/occupants of structures fronting the roads will have to prepare themselves for the temporary use of the sidewalks for short periods. In addition, power and water supply service lines that have been buried along the sidewalks will temporarily affect supply to their customers. An estimate has been made on the sidewalk obstructions that will be affected and is shown in Table 3.

Table 3: Summary of Obstructions and Mitigation

Type of Sidewalk Obstruction	Estimated Number	Avoidance/Mitigation
Concrete Fence	3	The connector pits will be located at the edge of the sidewalks. The owners will have to connect the pipes through the fences and walls to connect to these pits. The diameters of connector pipes and lateral pipes are 100mm and 200mm respectively which are narrow and easier to install.
Structures	4	Use of semi-flexible connector pipes to connect to lateral sewers to veer away or go around structures.
Electric Posts	6	Connector pipes will connect directly to the main sewer around the Kampot Referral Hospital to avoid electric post and also disrupting temporary eating areas along the sidewalks.
Temporary Eating Areas	14	The contractor will schedule his works outside the eating times to install the lateral sewers under the sidewalks. Installation of all trunk sewers will be programmed into smaller segments of around 100 meters and will be covered to avoid prolonged disturbances.
Fixed Concrete Flower Boxes	4	Manual excavation will be used to minimize wider construction areas for connector pipes and lateral sewers; In extreme cases, location of the lateral pipes will be under the paved roads;
Trees and Shrubs	32	The pipes will be clustered and laid around or away from the trees and shrubs.
Advertising Signs	16	The contractor will remove the advertising sign boards and re-erect them after the works are completed.

41. There are structures protruding out from private properties to the sidewalks such as eaves and temporary parking or selling areas. However, the digging of drains for the connector pipes and lateral sewer pipes would not require the use of heavy equipment and will be carried out manually. Only the drains for trunk sewer pipes will be dug by heavy equipment. Therefore, the protruding structures will not be affected by the laying of the sewer pipes.

42. Samples of temporary eating areas are shown in the attached photographs (KPT UD Photograph 4, KPT WWCT Photograph 2, and KPT WWCT Photograph 3). The mobile eating areas and stalls are set up in the morning by the owners along the sidewalks and removed for safekeeping for the night. The trunk or main sewers will be laid under the pavement. The connector and lateral pipes will be laid under the sidewalks and may disturb these mobile and stalls eating areas during construction, if left unmitigated.

43. All of these eating areas are along Streets 720 and 735 around the Kampot Referral Hospital which mainly cater to the companions of patients in the hospital. There will be no lateral pipes that will be laid out in this area because being a big producer of waste water, the connector pipes will connect directly to the main sewer.

44. The location of the eating areas can be shifted or repositioned around less than 5 meters (left or right) from their original positions to give way to the digging of the connector pipes from the hospital to the main sewer. This will ensure that the clients of these eating areas will still have access and avoid physical disturbance and loss of business income to the owners of these eating areas.

45. If access to some of these food eating areas will be impaired during construction, the contractor shall provide temporary access during construction and restore dug areas to their former conditions. The Contractor shall assist the mobile food sellers and vendors to shift back or move aside their stalls during construction.

46. There will be some temporary disruption of access to and from the frontage of houses and/or establishments or temporary loss of income from business establishments. The digging and laying of trunk sewer pipes will be undertaken in segments to minimize the disruptions to access to houses and business establishments. After a segment is completed, it will be backfilled and only then, will a new segment will be dug. This construction technique will also be applied for laying the collector pipes and lateral sewer pipes. This will shorten the duration of gaining access and will be limited to a certain area along the road. In addition, accesses will always be available for use where the digging of the drains has not started.

47. The chainages of sidewalk obstructions mentioned in **Table 3: Summary of Obstructions and Mitigation** were made through the use of an odometer in a vehicle. This gives the general location of the obstruction. The locations were also determined by the use of landmarks in a particular street. The streets and the approximate locations of sidewalk obstructions are provided in the following **Table 4**.

Table 4: Summary of Locations of Sidewalk Obstructions

Sidewalk Obstruction	Street	Locations/Chainages
Concrete Fence (3)	Various	Along the sidewalk
Structures (4)	St 722 St 700	Wall of the house encroaching to the sidewalk (see Photo WWCT #6) Wall of the house encroaching into the sidewalk (See Photo WWCT #8)
Electric Posts (6)	St 716 & St 733	At the cross roads or junction of the two streets.
Temporary Eating Areas	In front and besides Kampot Referral Hospital at St 720 & 735	3 clusters of temporary eating areas along the concrete perimeter fence of Kampot Referral Hospital.
Concrete Flower Boxes (4)	St 720 St 722	In front of Sen Monorum Hotel, 2 clusters of concrete boxes; See Photo #6

Trees and Shrubs (32)	St 716 & St 733	At various locations alongside the two streets
Advertising Signs (16)	Various	In front business houses (shops, restaurants, guest houses, hotels etc)

3.1.2 Pumping Stations

48. There are two proposed pumping stations; the first is a C1PS located at the open space of public garden along river side. The proposed main pumping station will be in a 2.9-hectare lot which is classified as state private land. Therefore both proposed sites for the two pumping stations have no resettlement impacts as there are no affected households and no crops and trees.

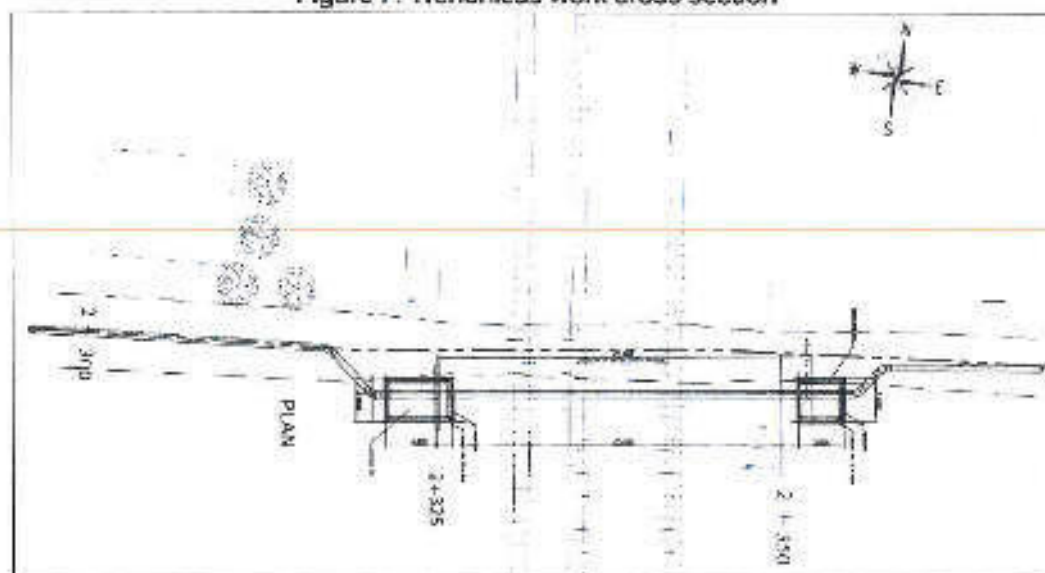
3.1.3 Forced Main Line

49. The forced main line is about 7.2km long and has two segments: (i) from C1PS to MPS (1,082 meters) and (ii) from the MPS up to the WWTP ((6,115 meters). The forced main from C1 and MPS are to be installed under the paved roads in the city. The alignment is under the existing roads and the minimum earth cover is 1.2m. The drain will be easily excavated. Most of the alignment of the forced main from the MPS to the WWTP will be under the right of way (ROW) of laterite and earth roads with some narrow linear portions of the ROW being used by farmers as their extensions of the farm lands. It is expected that this component will only cause temporary disturbances during construction works. There will be no permanent resettlement impacts because after these pipes are laid under the ROW of these unpaved roads, the contractor will restore the whole ROW of these unpaved roads to their original conditions.

50. However, the force main from MPS to WWTP will cross a railway track and over two small bridges/box culverts over the existing irrigation canals that are located at 3km+300m (span 11 meters) and at 4km +775m (span 9 meters) respectively. The two proposed pipe bridges will be constructed using the toe of canal embankment as anchors which are unoccupied and classified as state public land.

51. The pipe will cross three rows of railways in a single area near the Kampot railway station. The subproject will install the forced main cross this portion by trenchless work to avoid disturbance of the railway operation, Figure 7.

Figure 7: Trenchless work cross section



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52. There will be no threat of interrupting the flow of water in the irrigation canals and the possible stoppage of rail services. These will be undertaken through trenchless work to avoid or minimize resettlement impacts. However, coordination, collaboration and agreements should be given by concerned ministries and/or departments that have jurisdictions to these areas.

3.1.4 Treatment Plant

53. The proposed Kampot WWTP site is 10.12 ha located in Trapeang Kanchhait village, Samraong commune, Tuek Chhu district about 6 km from Kampot town. The new site was formerly used for salt production and the ground is almost completely flat and low with an average elevation of 1.75 msl. The existing access road is laterite pavement and connected from national road No.3 and can be used for heavy vehicles.

54. The 10.12ha land is owned by the provincial government of Kampot which was purchased by GDR/MEF. A validation report on consultation and negotiation processes to purchase the land under negotiated settlement by a third-party national consulting firm engaged by GDR has been recently completed for ADB's due diligence. There is no housing nearby, but a resort area is being developed just 200 meters north side of the site and whose impact on business is unknown. Detailed consultations on potential environment impacts including possible economic loss will be included in an environmental report for this subproject.

55. In summary, there will be no land acquisition. The resettlement impacts for the WWCT will be only temporary which will arise or occur during construction works. These will be addressed by the contractor who will be responsible to restore or compensate for any damages to the owners/occupants of the affected properties. Good construction methods and practices will be required by the contractor to minimize resettlement impacts. Details are in Table 5.

Table 5: Summary of Resettlement Impacts for WWCT

Project Component	Resettlement Impact	Mitigating Measure
Laying of Sewer lines (connection pipes, lateral sewers and trunk sewers).	--May damage permanent structures originating from the private land but protruding or extending to the pathways and sidewalks. -- Damages to private walls and fences to connect the private pipes to the WW collection	See Table 2: Summary of Sidewalk Obstructions
Pumping Station (C1)	--The proposed site is public state land presently being used as park.	--No significant resettlement impacts are expected. Contractor will restore tiles that have to be remove during construction.
Main Pumping Station (MPS)	--The proposed 2.9-hectare site is state land which is unoccupied and without any structures or plants and trees.	--The Department of Public Works and Transport in Kampot should periodically monitor the land to ensure illegal occupants will not enter and occupy the proposed site
Force Main (C1PS-MPS)	--The force mains from C1 and MPS are to be installed under the paved roads in the city.	-- Construction method will be in phases or sections using backhoes to shorten the disruption in front of structures and lay the pipes faster. Contractor will provide temporary access
Force Main (MPS-WWTP)	Will be located on existing rural roads -- Will cross irrigation canals twice.	--Depth of the pipe is at least 1.2 meters deep. --Will use pipe bridges to minimize impacts on irrigation canals. --Will use trenchless work to insert the force

Project Component	Resettlement Impact	Mitigating Measure
	-- Will cross railroad tracks	main under the railways.
Waste Water Treatment Plant (WWTP)	--The 10.12-hectare WWTP site which was formerly utilized for salt production is state land bought by MEF. The site is devoid of any obstruction or occupants.	--No resettlement impacts are expected.

3.2 Kampot Urban Drainage Subproject

56. The drainage improvements will be done only within the ROW of the roads, particularly between the road kerbs and road center line. The drains will be installed under the road pavement. The road shoulders and sidewalks will not be affected.

57. Based on the alignment of the drains in the DED and site inspections of the demarcated land by the PISCB Consultants, there will be no land acquisition or permanent losses of assets for this subproject. This has been validated by a joint inspection by IRC-WG, PMU/PIU and PISCB Consultants. The construction works will be on the existing road and sidewalks which are within the ROW under the jurisdiction of the MPWT and other government entities.

3.3 Temporary Resettlement Impacts under both WWCT and UD Subprojects

58. In the Tender Documents there is a provision for temporary impacts to keep disruption to the general public to an absolute minimum. Therefore, pre-casting of concrete culverts in either whole or in part, will be carried out at a yard away from the construction sites to be determined by the Contractor. It is envisaged this will reduce disruption to the public and expedite construction progress.

59. The Contractor shall be responsible for safeguarding all utilities and structures (including but not limited to electricity and communications pole lines and ducts, drainage pipelines and structures, water mains, utility service connections, service collection and distribution facilities, dikes, head walls, culverts, bridges, abutments, marker posts, signs, fences, boundary walls, building foundations and superstructures.

60. There may be some temporary impacts such as mobile food sellers and vendors while construction activities are being implemented. These temporary impacts are addressed in the contract documents. The Contractor shall assist the mobile food sellers and vendors to shift back or move aside their stalls during construction. These temporary construction impacts are summarized in Table 6.

Table 6: Particular Specifications in the Tender Documents

Possible Impact	Mitigating Measure
Notification to Stakeholders	The Contractor shall hand deliver to each residence and business close to the site, a written notice which shall state when operations will start and approximately when they will end. The notices shall be printed on A4 paper with wording similar to that shown as follows in Khmer and English.
Contractor's use of the Site.	Contractor is responsible for obtaining the land for his site establishment and storage area including obtaining all necessary permissions for the supply of water and electricity and provisions for the disposal of all human waste and sewage.
Location of Drainage system	All construction operations and facilities over the entire length of sewer and drain construction shall be confined to within road and other rights-

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		of-way and drainage reserve boundaries and the boundaries of designated working areas.
Underground obstructions/ foundations	utilities, culvert	Unless identified in the Contract as to be demolished, the Contractor shall be responsible for safeguarding all utilities and structures) and the like in the vicinity of the Site and shall ascertain from the private and public utility authorities' positions of all existing underground services and shall maintain and protect or divert them as required
Construction Areas		Concrete culverts will be precast, either whole or in part, to reduce the width of excavation and also help ensure the works are installed in a quick and efficient manner
		In developed urban areas, the sides of trench excavations in road and other rights of way and designated working areas shall be vertical and shall be supported by a system of sheeting bracing, shoring and other supporting installations necessary to safeguard the work and the workmen.
		No additional payment will be made to the Contractor for working in a confined space or if the position of the Works precludes the use of mechanical excavators or the storage of excavated materials next to the excavations
Access		Where directed by the Engineer, the Contractor shall provide access, vehicular or pedestrian, across sewer or drain trench excavations.
Excavated Materials	Unsuitable	Unless approved by the Engineer in each and all instances, excavated material unsuitable for use in the Works shall not be stockpiled on the Site. These shall be hauled off within 2 days, dumped to an agreed site agreed and levelled. Excavated material shall not be stockpiled on road or other rights of way or designated site working areas.

61. The Tender Documents incorporates the extensive experiences of construction of waste water and drainage lines in Cambodia. It is expected that temporary resettlement impacts are all covered by the provisions of the Tender Documents. If there will be some unforeseen resettlement impacts, a social impact assessment will to be conducted and if needed, a resettlement plan will be formulated and implemented in accordance with the ADB's SPS.

4.0 Information Disclosure, Public Consultation and Participation

62. A meeting was held on 11 May 2017 with the Project Implementing Unit (PIU) of Kampot prior to the field visit to the WWCT and UD subprojects. This meeting was conducted to update the PISCB consultants with the latest updates especially on resettlement issues. The PIU informed the team that some roads listed in the proposed UD subproject have already been undertaken by the Provincial Department of Public Works and Transport. Hence, these should be excluded in the list of roads.

63. As part of information disclosure, a Public Information Booklet (PIB) was developed and was approved by the PMU. The PIB contained the subproject entitlements and eligibility, the concept of cut-off date, the processes of grievance redress mechanism and the institutional arrangements. A Khmer version of the PIB was developed and finalized. This was forwarded to the PIU to assist in their public disclosure.

64. Another inspection by the PISCB team together with the PIU was conducted in 18 July 2018 to confirm that the completed DED would not have any land acquisition or permanent resettlement impacts. Based on the inspection, the completed DED will not cause any land acquisition or any permanent impacts. However, the team found out that there may be some temporary resettlement impacts which can be addressed by the contractor during implementation of civil works.

65. A public consultation meeting was conducted in Wat Sovann Sakor, Kampot City on October 26, 2018. The main purpose was to disseminate information and to elicit their issues and concerns and gather opinions about the proposed subprojects. The vice mayor of Kampot City welcomed the participants. The PISCB consultants presented the technical aspects of the WWCT, UD and the SWM subprojects. The Deputy Director of the Department of Resettlement 1 explained the RGC's and ADB policies on involuntary resettlement. Table 7 summarizes the list of participants and the detail attendant list and photo of meeting activities is described in Summary of Minutes of the Meeting (Annex 5).

Table 7: Breakdown of Participants in the Public Consultation

No.	Institution	Male	Female	Total
1	GDR/IRC-WG	9	1	10
2	PISCB Consultants	2	0	2
3	Local Authorities	11	3	14
4	Communities	81	42	123
	Total	103	46	149

66. The project description and project resettlement policies were explained to the participants. These were also included in the PIB and given before the public consultation meeting. Specifically, the PIB included (i) summary of project; (ii) location of the project; (iii) project components; (iv) objectives of the project; (v) scope of land acquisition and impacts; (vi) compensation policy and eligibility criteria; (vii) detailed measurement and household surveys; and (viii) grievance redress mechanism.

67. After the presentation and detailed explanation about the subprojects, an open forum ensued to enable the participants to seek clarifications or ask questions for further explanations. The highlights of the issues and concerns raised in this public consultation are summarized in the Table 8.

Table 8: Issues and Concerns Raised in the Public Consultation

Position/Institution	Issues	Response/Action
Head Village	<ul style="list-style-type: none"> When will the subproject be implemented? 	<ul style="list-style-type: none"> After this public consultation meeting, the IRC-WG will conduct a detailed measurement survey (DMS). The DMS will determine exactly where the subproject components will take place and will list all affected household properties/assets, especially along the open earth canal line 4b which will affect partially some houses. The construction of the subproject will start as soon as all resettlement issues are settled and compensation on the affected assets have been completed. It is expected that the construction of the subprojects will start early next year.
Female villager	<ul style="list-style-type: none"> We are landless families that is why we settled on the existing canal. Where will we resettle our house? What are we compensated 	<ul style="list-style-type: none"> In the project information booklet (PIB) under item number (vi), Compensation Policy and Eligibility Criteria:– People affected by subproject implementation are entitled to compensation for lost property based on the compensation policy as stated in the resettlement plan to deal with the impacts of the above subproject. The main points of the policy are: <ul style="list-style-type: none"> - Provide fair compensation and justice; - Pay full compensation before clearing of affected

Position/Institution	Issues	Response/Action
	for the loss? Will government provide us land for resettlement?	<ul style="list-style-type: none"> assets; - Compensation will be based on the replacement study conducted by an independent agency. • Compensation shall be paid for the following losses: <ul style="list-style-type: none"> - Loss of proprietary rights or legal rights to legal residences; - Loss of other benefits (crops, fruit trees, and businesses); - Loss of construction (residential, commercial and other construction); - Loss of income or occupation (loss of income when relocating or losing permanent employment). - Landless families fall under vulnerable group and entitled for special assistance and also will participate in the income restoration program. • Following the provincial resettlement sub-committee will consider in providing social land concessionaire.

68. The female villager who spoke in behalf of some landless families in the public consultation is living along an earth canal designated as Line 4B. As stated earlier in Paragraph 8 of this report, Line 4B is not included in this report because of some resettlement impacts and will be covered by a separate IR impact screening to determine the IR impact category. In the event the IR impact category will merit a detailed resettlement plan (DRP) because of some resettlement impacts, a corresponding DRP will be prepared.

69. MPWT/PMU/PIU will again conduct public consultations before the commencement of civil works, and will distribute the updated PIB containing GRM and contact details of focal persons from MPWT/PMU/PIU, PISCB Consultants and Contractors.

5.0 Grievance Redress Mechanism

70. A clear and transparent grievance redress mechanism (GRM) has been established to address grievances and complaints regarding land acquisition, compensation and resettlement in a timely and satisfactory manner. The GRM procedures has been explained in the PIB and during the consultations conducted by the PIU, PISCB Consultants and GDR.

71. The PMU/PIU Kampot, through continuous information dissemination, consultations and discussions will ensure that residents along the roads are fully aware of their rights to register their complaints through the GRM processes for both environmental performance and involuntary resettlement. PMU/PIU will ensure that the grievances and complaints received from AHs are properly recorded and timely resolutions are communicated to the AHs village and commune chiefs.

72. The Provincial Governor has established the Provincial Grievance Redress Committee (PGRC) on 16/10/2018 which will be responsible for addressing grievances under subprojects in Kampot. GDR conducted training to members of the PGRC on 4 October 2018. The composition of PGRC is as follows and details are PGRC are in the PIB:

- Provincial Governor - Chair
- Director of Provincial Department of Land Management, Urban Planning and Construction - Vice Chair
- Director of Provincial Department of MEF (PDEF) - Member

- Chief of Provincial Office of Law and Public Security - Member
- District Governor - Member
- One Representative of Local Based CSO – Member

73. If affected persons do not have sufficient writing skills or are unable to express their grievances verbally, it is a common practice that they are allowed to seek assistance from any recognized local nongovernment organization or other family members, village heads or community chiefs to have their complaints or grievances written for them. Throughout the GRM process, the PGRC will ensure that the concerned persons are provided with copies of complaints and decisions or resolutions in a timely manner so that they will be informed accordingly.

74. The grievance process has three stages, the commune, district and provincial levels. The mechanism should not impede access to the country's jurisdiction or administrative remedies. If the AH/AP is not satisfied with the solution made by the PGRC based on the agreed policy in the RP, the AH can bring the case to the provincial court. If the case will be brought to the Provincial Court, the same will be litigated under the rules of the court.

75. During the litigation of the case, Royal Government of Cambodia will request from the court that the subproject proceed without disruption while the case is being heard. If any party is unsatisfied with the ruling of the provincial court, that party can bring the case to a higher court. The Royal Government of Cambodia shall implement the decision of the court.

6.0 Conclusions and Recommendations

76. From the field inspections and joint verification with IRC-WG, PMU/PIU and PISCB consultants for the WWCT and UD subprojects, following observations have been identified and measures are to be implemented to minimize and mitigate IR impacts during construction:

- No land acquisition will be required for the subprojects; only minor temporary disturbances may be expected, in particular, in the densely populated urban areas, however these have been properly mitigated;
- The temporary disturbance to mobile food vendors and food stalls around Kampot Referral Hospital has been mitigated by avoiding the use of lateral pipes. Connector pipes will connect directly to the main sewer avoiding the physical disturbances and loss of business income of these food sellers.
- The forced main will traverse two irrigation canals and a railroad track. MPWT shall coordinate and seek permission and endorsement from the Ministry of Water Resource and Meteorology for the irrigation crossing of the forced main and Ministry of Rural Development use of the rural roads to install the forced main outside of the town. In addition, MPWT will coordinate with the Department of Railroad for the railway crossing of the forced main.
- Site specific EMPs should be prepared and the Contractor shall reinstate and restore temporarily impacted structures/land as mentioned in the EMP attached to contract documents for WWCT and UD subprojects.
- MPWT together with the PISCB consultants shall ensure that the Contractor shall notify all affected households based on the contract documents about the schedule of civil works and assist them to shift back or move aside their stalls during construction and no livelihoods are affected during or after completion of civil works for the WWCT and UD subprojects.
- PIU/PISCB Consultants will closely supervise the construction works of the contractor during the implementation to avoid impacts under the subprojects.
- PWT/PMU/PIU will conduct further public consultations before the commencement of civil works, and will distribute the updated PIB containing GRM and contact details of focal persons from MPWT/PMU/PIU, PISCB consultants and Contractors.
- ESO/MPWT shall strictly monitor enforcement of EMP implementation and report to MPWT and ADB in quarterly progress reports of the Project.

Annex 1: IR Screening Checklist Kampot WWCT

INVOLUNTARY RESETTLEMENT IMPACT CATEGORIZATION CHECKLIST

Date: 13 November 2018

The following checklist was used for Involuntary Resettlement (IR) Impact Screening of the Kampot Wastewater Collection and Treatment (WWCT) Subproject under the Second Greater Mekong Sub-Region Corridor Town Development Project. The objective of this checklist is to verify and confirm the categorization of IR Impact for the WWCT Subproject.

Probable Involuntary Resettlement Effects	Yes	No	Not Known	Remarks
Involuntary Acquisition of Land				
1. Will there be land acquisition?		X		There will be no land acquisition. All drainage pipes (connector pipes, lateral sewers, trunk sewer and forced main) will be constructed within the sidewalks or paved/unpaved roads. The two pumping stations and the treatment plant will all be located on state land.
2. Is the site for land acquisition known?		X		As per the final detail engineering design (DED) no additional land will be acquired.
3. Is the ownership status and current usage of land to be acquired known?		X		No Land Acquisition. Roads and sidewalks are owned by the Ministry of Public Works and Transport (MPWT) or other government agencies and presently these areas are used for roads, sidewalks, irrigation canals and railroad tracks.
4. Will easement be utilized within an existing Right of Way (ROW)?		X		All pipes are laid down under the ground.
5. Will there be loss of shelter and residential land due to land acquisition?		X		There is no land acquisition
6. Will there be loss of agricultural and other productive assets due to land acquisition?		X		There is no land acquisition
7. Will there be losses of crops, trees, and fixed assets due to land acquisition?		X		There is no land acquisition
8. Will there be loss of businesses or enterprises due to land acquisition?		X		There is no land acquisition
9. Will there be loss of income sources and means of livelihoods due to land acquisition?		X		There is no land acquisition
Involuntary restrictions on land use or on access to legally designated parks and protected areas				
10. Will people lose access to natural resources, communal facilities and services?		X		

Annex 1: IR Screening Checklist Kampot WWCT

Probable Involuntary Resettlement Effects	Yes	No	Not Known	Remarks
11. If land use is changed, will it have an adverse impact on social and economic activities?		X		
12. Will access to land and resources owned communally or by the state be restricted?		X		
Information on Displaced Persons:				
Any estimate of the likely number of persons that will be displaced by the Project?		[X] No [] Yes		
If yes, approximately how many? _____				
Are any of them poor, female-heads of households, or vulnerable to poverty risks?		[X] No [] Yes		
Are any displaced persons from indigenous or ethnic minority groups?		[X] No [] Yes		
Involuntary Resettlement Category Based on Field Assessment				
[] New [] Recategorization [X] Previous Category				
<input type="checkbox"/> Category A	<input type="checkbox"/> Category B	<input checked="" type="checkbox"/> Category C	<input type="checkbox"/> Category FI	
Comments				
<p>There will be no land acquisition. There will be some temporary disturbances along the sidewalks in installing connector pipes and lateral sewer pipes. Trunk sewer pipes will be installed under the pavements. The following measures were adopted to avoid permanent resettlement impacts:</p> <ul style="list-style-type: none"> - The alignments have been adjusted to minimize resettlement impacts. - The connector pipes are semi-flexible that can avoid or go around sidewalk obstructions; - The number of structures in a cluster will depend on availability of space for the lateral sewers to avoid sidewalk obstructions; - If unavoidable, connect the connector pipes directly to trunk sewer especially for bigger users, thus avoiding the need to lay down the lateral sewer pipes under the sidewalks; - Lay down the connector pipes deeper than the utility lines to avoid these lines; - Use of manual excavation instead of mechanical excavators to avoid damages to roof overhangs and minimize width of trenches for connector pipes and lateral sewer pipes; - In extreme cases, the lateral pipes will be located under the existing paved roads; - Installation of all trunk sewer pipes will be programmed into phases of around 100 meters to avoid prolonged disturbances to owners and occupants; - Contractor will provide temporary access during construction and restore dug areas to their original conditions. 				See Attached Photographs)
Approval				
Proposed By:		Reviewed and Endorsed By:		
Project Management Unit (PMU)		Inter-Ministerial Resettlement Committee (IRC)		
Date:		Date:		

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Annex 2: IR Screening Checklist Kampot Urban Drainage Subproject

INVOLUNTARY RESETTLEMENT IMPACT CATEGORIZATION CHECKLIST

Date: 13 November 2018

The following checklist was used for Involuntary Resettlement (IR) Impact Screening of the Kampot Urban Drainage (UD) Subproject under the Second Greater Mekong Sub-Region Corridor Town Development Project. The proposed UD Subproject comprises RC U shape drain (Lines 2, 3, 4A, 5 & 7A and 6) and an open earth canal (Line 4B). Line 4B of the Kampot UD Subproject is not included in this check list and will undergo a separate checklist. The objective of this checklist is to verify and confirm the categorization of the IR Impact of the proposed UD Subproject.

Probable Involuntary Resettlement Effects	Yes	No	Not Known	Remarks
Involuntary Acquisition of Land				
1. Will there be land acquisition?		X		There will be no land acquisition. The proposed urban drainage will be installed/ built within the roadway, under the paved roads.
2. Is the site for land acquisition known?		X		As per the final detail engineering designs (DED) no additional land will be acquired.
3. Is the ownership status and current usage of land to be acquired known?		X		No Land Acquisition. Roads and sidewalks are owned by the Ministry of Public Works and Transport (MPWT) and presently these areas are used by the general public for roads and sidewalks.
4. Will easement be utilized within an existing Right of Way (ROW)?		X		There is no easement.
5. Will there be loss of shelter and residential land due to land acquisition?		X		There is no land acquisition.
6. Will there be loss of agricultural and other productive assets due to land acquisition?		X		There is no land acquisition.
7. Will there be losses of crops, trees, and fixed assets due to land acquisition?		X		There is no land acquisition.
8. Will there be loss of businesses or enterprises due to land acquisition?		X		There is no land acquisition.
9. Will there be loss of income sources and means of livelihoods due to land acquisition?		X		There is no land acquisition.
Involuntary restrictions on land use or on access to legally designated parks and protected areas				
10. Will people lose access to natural resources, communal facilities and services?		X		
11. If land use is changed, will it have an adverse impact on social and economic activities?		X		

Annex 2: IR Screening Checklist Kampot Urban Drainage Subproject

Probable Involuntary Resettlement Effects	Yes	No	Not Known	Remarks
12. Will access to land and resources owned communally or by the state be restricted?		X		
Information on Displaced Persons:				
Any estimate of the likely number of persons that will be displaced by the Project?		[X] No [] Yes		
If yes, approximately how many? _____				
Are any of them poor, female-heads of households, or vulnerable to poverty risks?		[X] No [] Yes		
Are any displaced persons from indigenous or ethnic minority groups?		[X] No [] Yes		
Involuntary Resettlement Category Based on Field Assessment				
<input type="checkbox"/> New <input type="checkbox"/> Recategorization <input checked="" type="checkbox"/> Previous Category				
<input type="checkbox"/> Category A	<input type="checkbox"/> Category B	<input checked="" type="checkbox"/> Category C	<input type="checkbox"/> Category FI	
Comments				
<ul style="list-style-type: none"> - This IR screening is for RC U shape drains (Lines 2, 3, 4A, 5 & 7 and 8). - The open canal (Line 4B) is excluded from this IR Impact Screening and will undergo a separate screening. Presently, GDR is undertaking a DMS for this open canal. - The design standard of the RC U shape drains is of R2/U2 standard which is applicable to roads with low traffic volumes that enables the installation of drains lines under the existing road pavement. - There will be no land acquisition. The drainage pipes will be installed within the roadway and under the pavement as well as adjacent to the road kerbs and will not damage the existing sidewalks. - It is expected that there will be no impacts to the temporary structures located within the sidewalks. - During subproject implementation, temporary inconveniences are expected but will be minimized by installing the drainage system in shorter segments to minimize disturbances to adjacent areas. 				
(See Attached Photographs)				
Approval				
Proposed by:		Reviewed and Endorsed by:		
Project Management Unit (PMU)		Inter-Ministerial Resettlement Committee (IRC)		
Date:		Date:		

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Annex 3: Kampot Urban Drainage Photographs



KPT UD Photograph 1: Along St. 714 with the back of Kampot Market at the left side. The proposed drainage alignment will be located at the edge of the road curb, under the existing pavement on both sides. The side walk on the left side is a covered parking area for motorcycles. During implementation the contractor will provide motorcycle access across the drain trench excavation.



KPT UD Photograph 2: View along St. 724 going to St. 729. The left side is the old Kampot Market. The proposed drain line will be located at the edge of the existing road curb, under the pavement on the right side. No resettlement impact is expected.

Annex 3: Kampot Urban Drainage Photographs



KPT UD Photograph 3: View along St. 720. The proposed drainage alignment will be located at the edge of the existing road curb, under the pavement on both sides. Sen Monorum Hotel is on the right side while the Kampot Night Market is further down. While encroachments on the sidewalk have been observed, these will not be affected by the installation of the drainage system.



KPT UD Photograph 4: View along St. 735 which run almost parallel to Kampot River on the left side. The proposed drainage alignment will be located at the edge of the existing road curb, under the pavement on right side. The structure on the right is the Kampot Referral Hospital.



KPT WWCT Photograph 1: The connector pipes (yellow) will connect to the lateral sewer (red) which will be connected to the trunk sewer (black) as indicated in the photo of NH3. This is the typical sewerage configuration of the Subproject. The alignment of the trunk sewer is fixed but the clustering of the flexible connector pipes will avoid obstructions along the sidewalks.



KPT WWCT Photograph 2: View of the side of the Kampot Referral Hospital along St. 720. There are trees along the sidewalks of Kampot. In the case, being a hospital occupying a significant space, a single connector pipe (yellow) will connect to the trunk sewer (black), passing between and avoiding the trees. There will be no lateral sewer pipes in this case.

Annex 4: Kampot Wastewater Collection and Treatment (WWCT) Photographs



KPT WWCT Photograph 3: View along St 735 corner St 720 (Kampot Referral Hospital). There are many cases in the subproject area wherein ambulant vendors occupy sidewalks. They will be temporarily displaced because the trunk sewer pipe (black arrow) will be installed in small segments. After the segments are completed, there will be no impediment to vendors to return to their previous locations and continue with their businesses.



KPT WWCT Photograph 4: There are cases wherein portions of the sidewalks where the lateral sewer pipes will be installed are occupied as in St. 714. The number of structures within a cluster will depend on actual conditions. If the alignment has obstructions, the length of the lateral sewer may vary depending on the availability of space. After installation, the contractor will restore the excavated areas to their original conditions.

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Annex 4: Kampot Wastewater Collection and Treatment (WWCT) Photographs



KPT WWCT Photograph 5: This is another case in the subproject site where a sidewalk in St. 724 is being used by the occupant. During the installation of the lateral sewer pipes, the occupant will have to temporarily move all the pot plants. Excavation will be done manually to limit the width of the trench to one meter. This method will avoid the galvanize iron posts and roof overhangs from being damaged.



KPT WWCT Photograph 6: This is the case where the sidewalk is restricted in St 722. Depending on the location of the power and water lines, the location of the lateral sewer pipe will be adjusted accordingly to avoid damaging these utilities and at the same time avoiding the wall of the house. If these are all not feasible, the lateral pipes may be located at the edge of the existing road kerb, unavoidably impacting the makeshift flower box.

Annex 4: Kampot Wastewater Collection and Treatment (WWCT) Photographs



KPT WWCT Photograph 7: The lateral sewer pipe in this case in St. 718 will pass through tiled portions of the sidewalk. The wire fence/gate is movable as shown by the rollers. Access will be temporarily disrupted but the contractor will provide temporary access across the trench width of one meter. After sewer installation, the contractor will restore the damage portions of the tiles/concrete.



KPT WWCT Photograph 8: This is a case where a concrete permanent structure is on the sidewalk in St. 700. If the lateral sewer pipe cannot be accommodated in the available space (gold), the obstruction will be avoided by locating it between two clusters as shown by the two arrows.

Annex 4: Kampot Wastewater Collection and Treatment (WWCT) Photographs



KPT WWCT Photograph 9: This is located in the corner of St. 716 and St. 733. The electric post and other obstructions to install the lateral sewer pipe will not be impacted by the subproject because this area is the start of two clusters going in different directions. A connector pipe can start after this area and can be installed totally avoiding this corner.



KPT WWCT Photograph 10: This is the Sen Monorum Hotel located in St. 720. While the sidewalk has concrete obstructions, all these obstructions will not be affected by the subproject because being a significant producer of waste water, the connector pipe will be connected directly to the trunk sewer pipe, without having a lateral sewer pipe. The location of the connector pipe will pass through the driveway or any other space where there is no sidewalk obstruction.



KPT WWCT Photograph 11: The forced main will pass through the edges of some rural roads whose jurisdiction is with the Ministry of Rural Development. PMU will coordinate and request permission with the Ministry to install the forced main through these rural roads. After laying the forced mains in small segments the edges will be properly reinstated to minimize disruptions to the flow of vehicular traffic. It should be noted that the rural road has very low volume of vehicular traffic.



KPT WWCT Photograph 12: One of two irrigation canal crossings of the forced main going to the treatment plant. The crossing is the property of the Ministry of Water Resources and Meteorology and approval for this crossing should be requested by MPWT.



KPT WWCT Photograph 13: The forced main will traverse this railroad track by boring a 3-meter deep hole/ tunnel under the tracks. Coordination should be undertaken with the Department of Railroads under MPWT which has jurisdiction over the railroad tracks. In addition, there is a water supply line that passed under the railroad track as evidenced by the manhole cover indicated by an arrow. It was recommended that the railroad crossing be made on the left side to avoid the water supply line.



KPT WWCT Photograph 14: Proposed waste treatment plant site located in a 10.2 ha lot. This is a former salt bed bought by the provincial government. There is no economic activity or cultivation of crops and no residents or households inside or close to the 10.2 ha lot. Therefore is no resettlement impacts.

Annex 5: Minutes of PC Meeting

Second GMS Corridor Towns Development Project

Loan 3314-CAM

Summary of Minutes of the Meeting

Public Consultation Meeting with Communities, Local Authorities and Stakeholders on
Resettlement Issues for **Kampot Subprojects**

Venue: Wat Sovann Sakor Kampot City

Date: October 26, 2018

Time: 5:00-2:00 pm

Participants:

N°	Agency	Persons	Female	Male	Remarks
1	GDR/IRC-WG	10	1	9	Attached Lists
2	PISCB Consultants	2	0	2	
3	Local Authorities	14	3	11	
4	Communities	123	42	81	
Total		149	46	103	

1. **Purpose of the Public Consultation:**

- To conduct Public Consultation Meeting with communities and stakeholders
- To disseminate Project Information to communities, local authorities and stakeholders; and
- To gather opinion from communities, local authorities and stakeholders participating in the PC;

2. **Agenda**

- Welcome remark to participants by Mr. Chem Pha, Vice Mayor of Kampot City;
- Presentation on Detailed Engineering Design (DED) for Kampot Urban Drainage, Sewer and Waste Water Treatment Plant by Mr. Mam Chandaro;
- Presentation on ADB's Social Safeguard Policy and Royal Government of Cambodia's Policy on involuntary resettlement and compensation to affected households and their assets by the subprojects; and
- Question and Answer

4. Participant's questions and answers

Summary of issues Raised During the Public Consultations

Position/Institution	Issues	Response/ Action
Head Village	<ul style="list-style-type: none"> When the subproject will be implemented? 	<ul style="list-style-type: none"> After this PC meeting, IRC-WG will conduct DMS. DMS will list all affected household properties/assets at subproject areas, especially, open earth canal line 4b. The construction works will start as soon as resettlement issues are settled and compensation on the affected assets completed. The affected households will given one month notice to vacate the land from the date of payment.
Female Villager	<ul style="list-style-type: none"> We are landless families that is why we settled on canal. Where will we resettle our house? What are we compensated for the loss? Will government provide us land for resettlement? 	<ul style="list-style-type: none"> In PIB item number 6, Compensation Policy and Eligibility Criteria: People affected by subproject implementation are entitled to compensation for lost property and assets. These will be assessed and measured and a resettlement plan prepared. The compensation policy as stated in the resettlement plan are: <ul style="list-style-type: none"> Provide fair compensation and justice; Pay full compensation before vacation of the site Compensation will be based on full replacement cost at market price carried out under the replacement cost study conducted by an independent agency. <p>Compensation for lost property is as follows:</p> <ul style="list-style-type: none"> Loss of proprietary rights or legal rights to legal residences; Loss of other benefits(crops, fruit trees and business) Loss of Construction (residential, commercial and other construction); Loss of Income or occupation (loss of income when relocating or losing permanent employment). <p>The IRC-WG will facilitate and the landless APs to seek assistance under social land concession from the government.</p>

5. Conclusions

In general, majority of participants welcome for subprojects implementation except for those households who have built their homes on the Line 4b of the earth channel. These AHs will be compensated for their loss of non-land assets.

6. List of Participants and Picture

Handwritten signature and initials in blue ink.

[illegible]36

В. Кр.

[illegible]

5/14

Attendant List

26/10/2018

No.	Name	Sex	Position	Phone No.	Signature
1	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	096 3900959	
2	ឈន់ ម៉ៅ	ប្រុស	អ្នកបើកបរ	012 647960	
3	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	012 211 699	
4	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	012 2421 57	
5	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	010 29 2326	
6	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	089 97 6102	
7	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	092 35 2755	
8	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	096 0954152	
9	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	086 418772	
10	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	098 7778772	
11	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	014 763283	
12	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	015 23 2779	
13	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	010 661615	
14	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	088 0120780	
15	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	097 6060160	
16	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	0152 46065	
17	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	070 848169	
18	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	017 925793	
19	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	010 9000 80	
20	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	013 30 10 85	
21	ឈន់ សុភ័ណ្ឌ	ប្រុស	អ្នកបើកបរ	015 671 692	

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Attendant List

No.	Name	Sex	Position	Tel	Signature
22	វ៉ាន់ ឆាយ	ស	ឃុំ ឆាយ ឆាយ	0972896198	
23	ចេតនា ឆាយ	ស	ឃុំ ឆាយ ឆាយ		
24	ស៊ី ឆាយ	ស	—	0973462726	
25	ស៊ី ឆាយ	ស	—		
26	ស៊ី ឆាយ	ស	ឃុំ ឆាយ ឆាយ	098322199	
27	ស៊ី ឆាយ	ស	—		
28	ស៊ី ឆាយ	ស	ឃុំ ឆាយ ឆាយ	0965799194	
29	ស៊ី ឆាយ	ស	—	089818207	
30	ស៊ី ឆាយ	ស	ឃុំ ឆាយ ឆាយ	0977510912	
31	ស៊ី ឆាយ	ស	ឃុំ ឆាយ ឆាយ	092356911	
32	ស៊ី ឆាយ	ស	ឃុំ ឆាយ ឆាយ	0886845371	
33	ស៊ី ឆាយ	ស	ឃុំ ឆាយ ឆាយ	016985359	
34	ស៊ី ឆាយ	ស	—	086720335	
35	ស៊ី ឆាយ	ស	—		
36	ស៊ី ឆាយ	ស	—	0926711912	
37	ស៊ី ឆាយ	ស	ឃុំ ឆាយ ឆាយ	0963790915	
38	ស៊ី ឆាយ	ស	—	0719756156	
39	ស៊ី ឆាយ	ស	—	090556664	
40	ស៊ី ឆាយ	ស	—	087900339	
41	ស៊ី ឆាយ	ស	—	0979592065	
42	ស៊ី ឆាយ	ស	—	0974570918	
43	ស៊ី ឆាយ	ស	—	077814095	
44	ស៊ី ឆាយ	ស	—	0888310313	
45	ស៊ី ឆាយ	ស	—	0962029767	
46	ស៊ី ឆាយ	ស	—	0189211237	
47	ស៊ី ឆាយ	ស	—	0965676198	

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48. វិសាលកម្ម ប. អំណាចការ 01578 6977
49. គ្រូបង្រៀន គ. - 09791148567
012 620 425
50. គ្រូបង្រៀន ប. - 012923775
51. គ្រូបង្រៀន ប. អំណាចការ 015959888
52. គ្រូបង្រៀន គ. - 090 484256
53. គ្រូបង្រៀន គ. អំណាចការ
54. គ្រូបង្រៀន ប. - 0976804056
55. គ្រូបង្រៀន គ. អំណាចការ
56. គ្រូបង្រៀន គ. -
57. គ្រូបង្រៀន ប. អំណាចការ 0913720434
58. គ្រូបង្រៀន ប. - 067416313
59. គ្រូបង្រៀន ប. - 092251392
60. គ្រូបង្រៀន គ. -

Attendant List

ព្រឹត្តិការណ៍សង្គមស្ថាប័នស្រី

26/10/2018

ល.រ	ឈ្មោះអ្នកចូលរួម	ឈ្មោះ	ឋានៈ/តំណែង	លេខទូរស័ព្ទ	ហត្ថលេខា/ស្នាមមេដៃ
No.	Name	Sek	Position	Tel	Signature
01	ឈ្មោះ (ស្រី/ប្រុស)	១	អ្នក/សមាជិក	097956760	
02	ឈ្មោះ	១		096187496	
03	ឈ្មោះ	១		097924182	
04	ឈ្មោះ	១		097924183	
05	ឈ្មោះ	១		097461882	
06	ឈ្មោះ	១		094508653	
07	ឈ្មោះ	១		093325754	
08	ឈ្មោះ	១		097560056	
09	ឈ្មោះ	១		0962212636	
10	ឈ្មោះ	១		09783112	
11	ឈ្មោះ	១		0978366344	
12	ឈ្មោះ	១		0992220357	

Attendant List

No.	ឈ្មោះ ឈ្មោះតាមខ្មែរ	ស្រី	តំណែង/ឈ្មោះ	លេខស្រាប់	ហត្ថលេខា/ឈ្មោះ
No.	Name	Sex	Position	Tid	Signature
13	ហង់ ចាន់ថា	ប្រុស	ប្រធានក្រុមប្រឹក្សាភិបាល	048903083	
14	ប៊ុន វណ្ណៈ	ស្រី			
15	វិសិដ្ឋ វិសិដ្ឋ	ស្រី			
16	ប៊ុន វណ្ណៈ	ប្រុស		892 32.32.7/4	
17	ប៊ុន វណ្ណៈ	ប្រុស			
18	ប៊ុន វណ្ណៈ	ប្រុស	ប្រធានក្រុមប្រឹក្សាភិបាល	0889369500	
19	ប៊ុន វណ្ណៈ	ប្រុស	ប្រធានក្រុមប្រឹក្សាភិបាល	011634530	
20	ប៊ុន វណ្ណៈ	ប្រុស		096 3869153	
21	ប៊ុន វណ្ណៈ	ប្រុស	ប្រធានក្រុមប្រឹក្សាភិបាល	0709614453	
22	ប៊ុន វណ្ណៈ	ប្រុស	ប្រធានក្រុមប្រឹក្សាភិបាល	067710299	
23	ប៊ុន វណ្ណៈ	ប្រុស	ប្រធានក្រុមប្រឹក្សាភិបាល	0	

10/11

36. સિદ્ધિ સંભા. - ઇ. - કુલેશ્વરભાઈ. સમીક્ષક સંસ્થા. 0124 26-425
37. સિદ્ધિ સંભા. - ઇ. - કુલેશ્વરભાઈ. સમીક્ષક સંસ્થા. 033 7334 94
38. સુપ્રેમ સર્વિસ. - ઇ. - 099991646
39. સુપ્રેમ સર્વિસ. - ઇ. - 0975414251
40. સુપ્રેમ સર્વિસ. - ઇ. - 0974549580
41. સુપ્રેમ સર્વિસ. - ઇ. - 088 4844971
42. સુપ્રેમ સર્વિસ. - ઇ. - 0966976477
43. સુપ્રેમ સર્વિસ. - ઇ. - 085 282447
44. સુપ્રેમ સર્વિસ. - ઇ. - 012 766 029
45. સુપ્રેમ સર્વિસ. - ઇ. - 017 603322
46. સુપ્રેમ સર્વિસ. - ઇ. - 017 603322
47. સુપ્રેમ સર્વિસ. - ઇ. - 091 860609
48. સુપ્રેમ સર્વિસ. - ઇ. - 069851280
49. સુપ્રેમ સર્વિસ. - ઇ. - 095.72.1807
50. સુપ્રેમ સર્વિસ. - ઇ. - 09785323
51. સુપ્રેમ સર્વિસ. - ઇ. -
52. સુપ્રેમ સર્વિસ. - ઇ. - 012915869
53. સુપ્રેમ સર્વિસ. - ઇ. - 0967888417

Pictures





Handwritten signature or mark.