

Resettlement Plan

August 2020

CAM: Second Urban Environmental Management in the Tonle Sap Basin Project Part 1

Battambang Wastewater System Subproject

Prepared by the Project Management Consultant for the General Department of Resettlement of the Ministry of Economy and Finance and for the Asian Development Bank. This is an updated version of the draft originally posted in May 2018 available on <https://www.adb.org/projects/documents/cam-50102-002-rp>.

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Detailed Resettlement Plan

Project No. 50102-002
Loan 3684-CAM/Grant 0591-CAM
August 2020

**CAM: Second Urban Environmental Management in the
Tonle Sap Basin Project**

Battambang Wastewater System Subproject

Prepared by the Ministry of Public Works and Transport with the assistance of project management consultants under the guidance and direction of the General Department of Resettlement of the Ministry of Economy and Finance for the Royal Government of Cambodia.

ABBREVIATIONS

ADB	– Asian Development Bank
AH	– affected household
AHH	– Affected household head
AP	– affected person/people
COI	– Corridor of impact
DP	– displaced person
DED	– detailed engineering design
DMS	– detailed measurement survey
DRP	– Detailed Resettlement Plan
GDR	– General Department of Resettlement
IOL	– inventory of loss
IRC	– Inter- Ministerial Resettlement Committee
IRP	– Income Restoration Program
LAR	– Land Acquisition and Involuntary Resettlement
MEF	– Ministry of Economy and Finance
MPWT	– Ministry of Public Works and Transport
PDOMORAM	– Provincial Department of Ministry of Water Resources and Meteorology
PDOMPWT	– Provincial Department of Ministry of Works and Transport
PGRC	– Provincial Grievance Redress Committee
PMC	– Project Management Consultant
PRSC	– Provincial Resettlement Sub-Committee
RGC	– Royal Government of Cambodia
RCS	– Resettlement Cost Study
RD3	– Resettlement Department 3
RF	– Resettlement Framework
ROW	– right of way
RP	– Resettlement Action Plan
SES	– Socio-Economic Survey
SOP	– Standard Operating Procedures
WG	– working group
WWTP	– wastewater treatment plant

NOTES

- (i) The fiscal year (FY) of the Government of Cambodia ends on 31 December.
- (ii) In this report '\$' refers to US dollars.

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DEFINITION OF TERMS

Affected Household	- In the case of an affected household (AH), it includes all displaced/affected persons residing under one roof and operating as a single economic unit, who are adversely affected by the project or any of its components.
Affected Persons	- In the context of involuntary resettlement, affected persons are those who are physically displaced (relocation, loss of residential land, or loss of shelter) and/or economically displaced (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas.
Compensation	- Refers to payment in cash or in kind for an asset or resource that is acquired or affected by a Project at the time the asset needs to be replaced. All compensation is based on the principle of replacement cost, which is the method of valuing assets to replace the loss at current market rates, plus any transaction costs such as administrative charges, taxes, registration and titling costs. In applying this method of valuation, depreciation of structures and assets should not be considered.
Corridor of Impact	- (i) Permanent. Is the area which is required to be permanently acquired by GDR for easement of the civil works and their unhindered operation & maintenance (O&M) in the future, and it is agreed and demarcated by the executing agency (EA). The exact location of the permanent boundaries of the easement may be required for formal confirmation of boundaries in the cadastral records. (ii) Temporary. Is the area within which the temporary construction activities and movements of equipment will take place during the Project implementation. The extent of the area is somewhat dependent on the types of construction method and machinery used by the contractor. Such impacts and associated remedial measures and costs are typically borne by the contractor at his own expenses depending on the contractual details.
Consultation	- A process that (i) begins early in the project preparation stage and is carried out at different stages of the project and land acquisition and involuntary resettlement cycle; (ii) provides timely disclosure of relevant and adequate information in Khmer Language that is understandable and readily accessible to AP; (iii) is undertaken in an atmosphere free of intimidation or coercion with due regard to cultural norms; and (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; enables to consider the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures and implementation issues.
Cut-off date	- This refers to the date after which people will not be eligible for compensation or assistance. Those persons occupying or using the project prior to the identified date are eligible to be categorized as AHs and to receive compensation and/or assistance. Persons

not covered in the census are not eligible for compensation and other entitlements unless they can show proof that (i) they have been inadvertently missed out during the census and the inventory of losses (IOL); or (ii) they have lawfully acquired the affected assets subsequent to the completion of the census and the IOL and before the conduct of the detailed measurement survey (DMS).

Detailed Measurement Survey	With the aid of detailed engineering design, this activity involves the finalization of the inventory of losses, severity of losses, measurement of additional losses, and 100% coverage of Socio-economic Survey and 100% census of APs.
Displaced Household (DH)	Any household physically and/or economically directly affected because of land acquisition and involuntary resettlement. Household means all persons living and eating together as a single social unit.
Displaced Persons (DPs)	In the context of involuntary resettlement, DPs are those who are physically displaced (relocation, loss of residential land, or loss of shelter) and/or economically displaced (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas. The SPS uses the term 'affected person' (AP) in a broader sense in the context of consultations, disclosure, and grievance redress mechanism that includes persons not directly affected by an ADB project. However, the EA understands and uses the term AP as what the SPS calls DP. Accordingly, the term AP is used in this DRP.
Economic Displacement	Refers to loss of land, assets, access to assets, income sources, or means of livelihood because of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas.
Eligibility	Refers to any person or persons, household, firm, private or public institution who has settled in the project area before the cut-off date, that (i) loss of shelter, (ii) loss of assets or ability to access such assets, permanently or temporary, or (iii) loss of income sources or mean of livelihood, regardless of relocation will be entitled to be compensation and/or assistance.
Entitlement	Refers to a range of measures comprising compensation, income restoration support, transfer assistance, relocation support, etc. which are due to the APs, depending on the type and severity of their losses, to restore their economic and social base.
Grievance Redress Mechanism	Refers to an established mechanism to receive and facilitate the resolution of affected persons' concerns and grievances/ complaints about physical and economic displacement and other project impacts, paying particular attention to the impacts on vulnerable groups.

Income Restoration	- Refers to re-establishing productive livelihood of the APs to enable income generation equal to or, if possible, better than that earned by the APs before the resettlement or of pre-project levels.
Inventory of Losses	- This is the process where all fixed assets (i.e. lands used for residence, commerce, agriculture, including ponds; dwelling units; stalls and shops; secondary structures, such as fences, tombs, wells; trees with commercial value; etc.) and sources of income and livelihood inside the project right-of-way are identified, measured, their owners identified, their exact location pinpointed, and their replacement costs calculated. Additionally, the severity of impact to the affected assets and the severity of impact to the livelihood and productive capacity of APs will be determined.
Involuntary Resettlement	- Refers to when displaced persons have no right to refuse land acquisition by the state that result in their displacement which occurs when land is acquired through (i) expropriation by invoking the eminent domain power of the state, or (ii) land is acquired through negotiated settlement when the pricing is negotiated, and the failure will result in expropriation through invoking the eminent domain of power of the state.
Land Acquisition	- Refers to the process whereby individual, household, firm or private institution is compelled by a public agency to alienate all or part of the land it owns or possesses to the ownership and possession of that agency for public purposes in return for compensation at replacement costs.
Major Impacts	- Refers to AHs who will (i) lose 10% or more of their total productive land and/or assets; (ii) have to relocate; and/or (iii) lose 10% or more of their total income sources due to the Project.
Physical Displacement	- Refers to relocation, loss of residential land, or loss of shelter because of (i) involuntary acquisition of land; or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas.
Relocation	- This is the physical relocation of a displaced person from their pre-project place of residence and/or business.
Replacement Cost	- Replacement cost involves replacing an asset at a cost prevailing at the time of its acquisition. This includes fair market value, transaction costs, interest accrued, transitional and restoration costs, and any other applicable payments, if any.

Depreciation of assets and structures should not be taken into account for replacement cost. Where there are no active market conditions, replacement cost is equivalent to delivered cost of all building materials, labor cost for construction, and any transaction or relocation cost.

Where land market conditions are absent or in a formative stage, the APs and host populations will be consulted with to obtain adequate information about recent land transactions, land value by types, land titles, land use, cropping patterns and crop production, availability of

land in the project area and region, and other related information.

Replacement Cost Study	- This refers to the process involved in determining replacement costs of affected assets and land and performed by an independent qualified national consultant (firm or individual) with necessary expertise to carry out asset valuation.
Resettlement Framework	- The Resettlement Framework sets out the criteria for screening subprojects on their resettlement impacts and provides guidance in preparing Resettlement Plans for eligible subprojects with insignificant resettlement impacts. It defines the objectives, principles, eligibility criteria and entitlements for displaced persons based on (i) Asian Development Bank's Safeguards Policy Statement, 2009; and (ii) the Royal Government of Cambodia laws, rules and regulations.
Resettlement Plan	- This is a time-bound action plan, with budget, setting out the resettlement objectives and strategies, entitlements the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and implementation schedule. The outline Resettlement Plan is in Annex to Appendix 2 of the ADB Safeguard Policy Statement (2009).
Right-of-Way	- It is a government owned strip of land following a centerline (such as for roads, canals, etc.) providing an area of access.
Vulnerable Groups	- These are distinct groups of APs who are likely to be more adversely affected than others and who are likely to have limited ability to re-establish their livelihoods or improve their status and specifically include: (i) all the household living below the national poverty rate established by the Government;¹ (ii) female headed households with dependents living below the national poverty rate, (iii) disabled household heads with no other means of support, (iv) elderly households who are landless and with no other means of support, (v) landless poor living below the national poverty rate, and (vi) indigenous people or ethnic minorities (who often have traditional land rights but no formal titles).
Willing Buyer Willing Seller	- Process where the Government purchases a property from private owner with a fair market value, which a willing seller approves. In the arrangement neither party is being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts, and eminent domain is not used.

¹ This includes squatters and those without land titles.

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I. EXECUTIVE SUMMARY

A. Project and Subproject Description

1. The Second Urban Environmental Management in the Tonle Sap Basin (the Project) funded by the Asian Development Bank (ADB) will improve the urban environmental services in Battambang, Serei Saophoan and Stung Saen, three provincial cities located around the Tonle Sap Lake. The Project will also improve institutional effectiveness to provide sustainable services and support an improved policy and planning environment for wastewater and solid waste management.

2. The Project will finance two subprojects in Battambang town. They are (i) Battambang Wastewater System subproject which includes a new 8,500 m³/day capacity wastewater treatment plant (WWTP), 108.6 km of new sewers, and two main and four small pumping stations in Battambang town and improvement of an existing access road to WWTP site, and (ii) solid waste management (SWM) with a capacity of 347,224 m³. This detailed resettlement plan (DRP) is prepared for the Battambang Wastewater System subproject only.

B. Scope of Land Acquisition and Resettlement

3. Due diligence has indicated that the Battambang Wastewater System subproject (the Subproject) has IR impacts identified for two of the three of its components: (i) WWTP site, (ii) access road to WWTP site, and (iii) sewerage collection network, as detailed below:

- The WWTP site area of 10 ha in Norea, Sangkat Sangke and two (2) main pump stations in Sangkat Sangke and Ratanak are on public land purchased by the General Department of Resettlement (GDR) in 2015. This was originally acquired for the ADB funded Greater Mekong Subregion Southern Economic Corridor Towns Development Project (SECTDP). The land has been officially identified as the site for the Battambang Wastewater System subproject. No further impacts are expected.
- The IR impacts associated with the improvement of the access road to the WWTP site will be limited as the works will be contained within the right-of-way (ROW). The access road runs along an irrigation canal belonging to Provincial Department of Water Resources and Meteorology (PDOWRAM), with whom in-depth consultation was conducted on the road improvement. The road improvement will be done within the existing ROW, and irrigation canals are not impacted, but there is some loss of access to agricultural land along the ROW.
- The sewerage network in Sangkat Rotanak and Sangkat Preaek Preah Sdech will have limited IR impacts as the drainage lines will be constructed next to, or under existing road pavement, and sewerage lines in the center of the carriageway within ROW. However, some secondary structures and trees will be permanently impacted and compensated. Pavements, walkways and temporary structures will be rebuilt and the contractor will restore to pre-project conditions.

4. Based on the detailed measurement survey (DMS) conducted from April to July 2020, there are a total of 73 affected households (AHs)/ 302 affected persons (APs) who will be impacted by the Subproject. DMS data identified that 36 AHs/ 40 APs have impact on secondary structures, 42 AHs/168 APs will lose fruit and timber trees² and 15 AHs / 74 APs that have loss of land use (productive agricultural land). 1 AH/4 APs is severely impacted on the loss of land use. There are street vendors (around 107 stalls) who will be temporarily affected by the sewage

² Note: Each AH can have impact on more than one type of impact, and type of secondary structure.

network installation. These are small stalls or street vendors selling from baskets or temporary stalls along the streets in the immediate vicinity of 13 Makara and Sophya markets. Their stalls are made from light weight material which can be easily dismantled, transported, and reassembled to the temporary market site. There will be no permanent impact on the sellers since they will be temporarily relocated nearby locations as agreed by local authorities, where they can continue their sales without disruption on their livelihoods. Mobile vendors are not impacted either, as they can easily move to the other side of the street to continue with their businesses.

5. The Solid Waste Management part of the subproject will be covered by a separate report for ADB's due diligence as it does not have any IR impacts and is classified as Category C. The SWM subproject does not include closure of the existing dumpsite, and therefore the waste pickers with indirect impact on their livelihoods will be included in the environmental management plan (EMP).

C. Socio-Economic Information and Profile of Affected Households

6. Socio-economic survey (SES) was conducted simultaneously with DMS from April to July 2020 with a total of 73 AHs/302 APs, comprising 56 males and 17 female household heads, and representing 100% of the AHs. As for age, the majority of AH heads (AHHs) are between 46-64 years (54%), 31-45 years (22%) and over 65 years (22%). The age distribution of household members is as follows: between 26-46 years (37%), followed by 46-66 years (23%) and 17-26 years (18%). Average family size is 4.1 persons/AH. Of the total 73 AHHs, 54 AHHs or 74% have secondary level, technical or higher level of education. With respect to the sources of livelihood, a majority or 23 AHHs (32%) are in business and 14 AHHs (19%) are farmers. Out of 73 AHHs, 49 AHHs or 67% have a secondary occupation.

7. Only 1 AH/2 APs are classified as vulnerable who are living below the national poverty line.

D. Information Disclosure, Consultation and Participation

8. Consultations, public meetings and village discussions with the AHs and the local authorities were conducted (i) during project preparatory technical assistance (PPTA) stage of draft resettlement plan (RP) preparation, and during (ii) DMS and (iii) preparation of this DRP. The first public consultation and focus group discussions at PPTA stage was conducted in February 2018. Both public consultation meeting and focus group discussions provided good opportunity to the AHs to express their concerns mainly about actual impacts on land and the viability of farming on marginal lands after acquisition, DMS, compensation payments and grievance redress mechanism (GRM). All issues were fully discussed and addressed, consistent with the Project's participatory approach.

9. During the Subproject design, the second public consultations with AHs was conducted on one-to-one due to restrictions and safety requirements caused by COVID-19 pandemic from April to July 2020. The consultations were conducted simultaneously with the DMS/SES led by IRC-WG and assisted by PRSC-WG with 73 AHs (56 males and 17 females). During the consultations, the AHs were explained on the subproject scope, entitlements, and compensation for lost assets, GRM, including contact persons, and processes of conducting DMS/SES. The public information brochure (PIB) that was updated and translated in Khmer was given and explained on one-to-one basis. Third consultation took place 2 and 25 April 2020 (two separate consultations) with PDOWRAM to agree on access road along the irrigation canal and WWTP

effluent discharge. Fourth consultation was done in 28-30 May 2020 covering market vendors (77 participants, including 4 males and 73 females), WWTP access road to AHs (9 participants, including 3 males and 6 females) and mobile vendors (10 participants, including 3 males and 7 females). The consultation explained to the attendees about the Project and Subproject and its benefits, the scope of works, resettlement impacts, the ADB and RGC policies on compensation, eligibility, entitlements, contractor responsibility for temporary impact and GRM processes. It also detailed temporary market relocation, and upcoming DMS/SES and RCS. Fifth consultation took place on 29 May 2020 with the single vulnerable AH on eligibility and entitled to participate in the income restoration plan (IRP). The consultation included details of GRM, IRP eligibility, vocational training options, current employment opportunities in Battambang and special support to vulnerable AHs. In all the above consultations the updated PIB translated in Khmer was distributed and explained in detailed to the attendees. This included a final consultation conducted with farmers impacted by a loss of land use along the access road to WWTP site and at WWTP site (11 participants, including 10 male and 1 female).

10. For information disclosure, summary of the DRP will be translated in the Khmer language and posted at town and sangkat offices for easy and free access to the AHs and the affected communities. For illiterate people, suitable other communication methods will be used based on the discussion and in consultation with the AHs. They will also be uploaded in websites of the MPWT both in Khmer and English. The updated PIB translated in Khmer was distributed and explained in detail to the 73 AHs, market vendors, access road farmers and mobile vendors and was posted at the Commune or Town Offices. This DRP and all associated documents (updates, corrective action plans etc) approved by the IRC and concurred by ADB, and semi-annual safeguards monitoring reports will be disclosed on MPWT and ADB websites.

E. Grievance Redress Mechanism

11. The grievance redress mechanism (GRM) will follow the 3-Step process as described in the Royal Government of Cambodia (RGC) Standard Operating Procedures (SOP) for Land Acquisition and Involuntary Resettlement for Externally Financed Projects in Cambodia promulgated under Sub-Decree No. 22.ANK.BK on 22 February 2018. Aggrieved AHs/APs can lodge a complaint at the District, GDR, and Provincial levels to seek timely resolution. The authority is vested with the Provincial Grievance Redress Committee (PGRC) to make the final administrative decision if the AH/AP is not satisfied with the resolution at the District or GDR level. If the AH/AP is not satisfied with the decision of the PGRC, s/he is free to file a lawsuit in the competent court (Municipal or Provincial court, as applicable).

12. GRM was initiated by establishing PGRC with reference letter 037/19 SSR and Provincial Resettlement Subcommittee (PRSC) with reference letter 036/19 SSR on 13 March 2019 (Annex L). The AHs have been made fully aware of their rights through verbal and written means during resettlement planning and updating. The updated PIB included detailed information on the GRM for the Subproject and was distributed to each participant (Annex D). In addition, the GDR on 29 August 2019 conducted a comprehensive training workshop for the members of PGRC and the other local authorities on the GRM to strengthen the capacity of the members of the PGRC for effective functioning of the GRM. The GRM has been operationalized and is functional.

F. Legal and Policy Framework

13. In Cambodia, the Expropriation Law (2010) is the main legal framework that governs land acquisition and involuntary resettlement. Under the Article 3 of the Expropriation Law (2010) that governs the provision for projects financed by development partners in Cambodia, the RGC

issued in 2018 the SOP for Land Acquisition and Involuntary Resettlement. The GDR of the Ministry of Economy and Finance (MEF) is responsible for providing guidance and clarification to users of the SOP. Given that the Project is funded by the Asian Development Bank (ADB), the SOP is the guiding RGC sub-decree for land acquisition and involuntary resettlement and should be read together with this DRP. This DRP also complies with the ADB Safeguard Policy Statements (SPS) 2009 on Land Acquisition and Involuntary Resettlement. There are some, but no significant, gaps between the policies of the SOP and ADB's SPS, which are addressed and clarified in this DRP.

G. Entitlements, Assistance and Benefits

14. The AHs will be entitled to compensation based on the Entitlement Matrix (EM) in the approved May 2018 draft RP and updated as applicable based on DMS. For this Subproject the entitlements comprise (i) loss of secondary structures; (ii) loss of fruit and timber trees; (iii) loss of land use along WWTP access road and WWTP site, (iv) support to vulnerable AHs for IRP; (v) temporary loss of income; and (vi) unanticipated impacts. The compensation for lost assets is based on the principle of replacement cost as determined by an independent consultant. The replacement cost study (RCS) was conducted by an independent firm, Bluefield, between April and May 2020, which established the current market prevailing compensation and replacement rates for affected structures and trees. The RCS report was endorsed by IRC in June 2020. All the AHs will shift back within the ROW but outside of the Corridor of Impact (COI) and no one will need to physically relocate to another new site.

15. The original cut-off date for eligibility to the subproject entitlements was **16 February 2018**, which was updated to **27 April 2020** when the DMS started due to changes in the Subproject design. Following the detailed engineering design and re-assessment of IR impacts, the Subproject was classified as category "B" for IR impacts.

H. Income Restoration Program and Vulnerable AHs

16. The DMS/SES has identified 1 AH/2 APs classified as vulnerable and 1 AH/4 APs experience major impacts by loss of land use, who are both entitled to participate in the IRP and receive additional special assistance through cash grant of \$200 per AH. This special assistance is provided in addition to other entitlements accruing to the AH, namely compensation at full replacement cost with no depreciation to affected structures and compensation for loss of trees. The vulnerable AH will receive double the cash assistance offered under the IRP, the training under the IRP or cash assistance for the IRP, depending on the AH's preferred choice.

I. Resettlement Budget and DRP Implementation Schedule

17. The total resettlement and compensation cost for the Subproject is estimated at **\$48,120.84**. This includes compensation for secondary structures, trees, loss of land use, IRP, one-time cash assistance for temporary loss of business, rental lease for temporary market, other entitlements and allowances of the AHs, management costs for DRP implementation, and contingency. All the costs will be financed from the national budget and no financing will be required from the ADB loan and grant. The MEF will be responsible in ensuring the timely availability of funds.

J. Institutional Arrangements

18. The Subproject will be implemented by the Ministry of Public Works and Transport (MPWT) as the executing agency (EA) through a Project Management Unit (PMU), which will support the EA to undertake overall oversight and management of the Project. However, under the oversight of the Inter-ministerial Resettlement Committee (IRC), the GDR of the Ministry of Economy and Finance (MEF), through its Resettlement Department 3 (RD3), will be the lead agency directly responsible for updating, implementing, reporting and monitoring the DRP. A project level Inter-ministerial Committee Working Group (IRC-WG) has been established to provide overall guidance and oversight and ensure effective coordination among various line ministries on matters related to land acquisition and resettlement (LAR) activities. At the provincial level, the MPWT and IRC are assisted by the GRC, PRSC and PRSC-WG. A Project Implementation Unit (PIU) has been set up in PDOMPWT in Battambang town to work with the IRC-WG and PRSC-WG in guiding, supporting, and endorsing the work.

K. Detailed Resettlement Plan Implementation Schedule

19. All resettlement activities will be coordinated with the civil works schedule. The implementation of DRP will commence after the approval of the DRP by IRC and ADB, and the resettlement budget by MEF. The compensation payments will be carried out for all 73 AHs and 107 vendors which is expected to be completed in two (2) months. MPWT will not allow construction activities at affected sites until all resettlement activities have been satisfactorily completed, compensation has been paid, and the site is free of all encumbrances. However, construction that is confined to the ROW and where there are no AHs will proceed based on agreement between MPWT and ADB. Table 1 details the activities and their schedule in implementing the DRP for the construction of the Subproject.

Table 1: Implementation Schedule

Activities	Schedule
Conducting DMS and SES	April-July 2020
Conducting and approval of RCS	May-June 2020
DRP updating	June-July 2020
Approval of DRP by IRC	August 2020
Submission and ADB approval of DRP	August 2020
Disclosure of DRP on ADB and MPWT Websites	August 2020
Approval of Budget by IRC and MEF	September 2020
Contract Offer and Contract Signing with AHs	October 2020
Disbursement of Compensation to the AHs	October 2020
Vacation of Land by AHs (one month after compensation payment)	November 2020
Handover of Land to MPWT by GDR (with a copy to ADB)	December 2020
ADB's No Objection to Civil Works	December 2020
Submission of Quarterly Internal Monitoring Reports (to MPWT)	June 2020, September 2020, December 2020, March 2021, June 2021, September 2021, December 2021, March 2022, June 2022, September 2022, December 2022, March 2023, June 2023, September 2023, December 2023, March 2024, June 2024

Submission of Semi-annual Monitoring Reports to ADB	15 th January 2020 (overdue), 15 th July 2020, 15 th January 2021, 15 th July 2021, 15 th January 2022, 15 th July 2022, 15 th January 2023, 15 th July 2023, 15 th January 2024, 15 th July 2024
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L. Monitoring and Reporting

20. **Internal Monitoring.** The Department of Internal Monitoring and Data Management (DIMDM) of the GDR will undertake regular internal monitoring. The objective of internal monitoring is to (i) measure and report on the progress in the preparation and implementation of the DRP; (ii) identify problems and risks, if any and the measures to mitigate them; and (iii) assess if the compensation and rehabilitation assistance are in accordance with the provisions under the DRP. A semi-annual resettlement safeguards monitoring report will be prepared and submitted to the ADB and the MPWT. **External Monitoring.** Given that the Subproject is classified as low risk for IR impacts, no external monitoring will be required.

II. PROJECT AND SUBPROJECT DESCRIPTION

A. Project Background

21. ADB under the Loan 3681-CAM and Grant 0591-CAM: Second Urban Environmental Management in the Tonle Sap Basin Project (the Project) is supporting the Royal Government of Cambodia (RGC) to bring about inclusive growth and shared prosperity for its growing urban population by providing improved infrastructure and services in selected towns and urban centers in the country.

22. The Project will improve urban environmental services and enhancing climate resilience in Battambang, Serei Saophoan and Stung Saen, three of Cambodia's provincial cities located around the Tonle Sap Lake. The Project will support and improve urban services in wastewater management, solid waste management and drainage in the provincial cities of Battambang, Serei Saophoan and Stung Saen. The Project will also improve institutional effectiveness to provide sustainable services and support an improved policy and planning environment for wastewater and solid waste management. The Project at approval was classified as Category B for involuntary resettlement impacts. The loan and grant were approved on 01 August 2018 and became effective on 14 December 2018. The loan and grant will close on 30 June 2024. A map showing the three cities is in Figure 1.

Figure 1: Location of Subprojects



Source: Feasibility Study PPTA

23. As per project administrative manual (PAM), the Project outputs are:

- (i) **Output 1: Urban infrastructure improved.** The Project will finance three wastewater subprojects: (i) a new 8,500 m³/day capacity wastewater treatment plant (WWTP) at Battambang and 108.6 km of new sewers, (ii) a new 2,500 m³/day capacity WWTP in Stung Saen and 39.2 km of new sewers, and (iii) a new 2,500 m³/day capacity WWTP in Serei Saophoan and 78.2 km of new sewers.³ It will further finance two drainage subprojects: (i) a 17.1 km drainage network in Stung Saen; and (ii) 8.5 km drainage network in Serei Saophoan and three solid waste management (SWM) subprojects: (i) 76,375 m³ capacity in Stung Saen; (ii) 152,260 m³ capacity in Serei Saophoan and (iii) 347,224 m³ capacity in Battambang⁴ and provide about 100 public toilets in markets and schools as well as provision of free latrines for about 760 poor households.
- (ii) **Output 2: Institutional effectiveness improved.** The Project will strengthen institutional effectiveness through improving staff capacity in critical areas (including improved urban service delivery, O&M of urban facilities, public private partnerships and other institutional arrangements), supporting the establishment of urban service units, and dedicated consultant support for project management. As a long-term contribution to the sector, the Project will promote gender inclusivity and finance scholarships in civil engineering for 15 women.
- (iii) **Output 3: Policy and planning environment improved.** The Project will develop urban development strategies and master plans for all three cities. It will develop a roadmap for financial sustainability for wastewater and solid waste (including a proposed roadmap and arrangement for tariffs, and mechanism for ensuring household connections). It will build community awareness on the benefits of proper sanitation and separate sewage systems and safe disposal of solid waste.

B. Subproject Description

(i) Battambang Wastewater System Subproject

24. The components for the Battambang Wastewater System subproject (the Subproject) includes a new 8,500 m³/day capacity wastewater treatment plant (WWTP), 108.6 km of new sewers, and two (2) main and four (4) small pumping stations in Battambang town and improvement of an existing access road to WWTP site. The Subproject will significantly contribute to improving the quality of life for Battambang residents. The service area for wastewater collection and treatment covers the built-up parts of the two Sangkats, Rotanak and Preaek Preah Sdech, on the east side of the Sangkae River. The extent of the service area is shown in Figure 2.

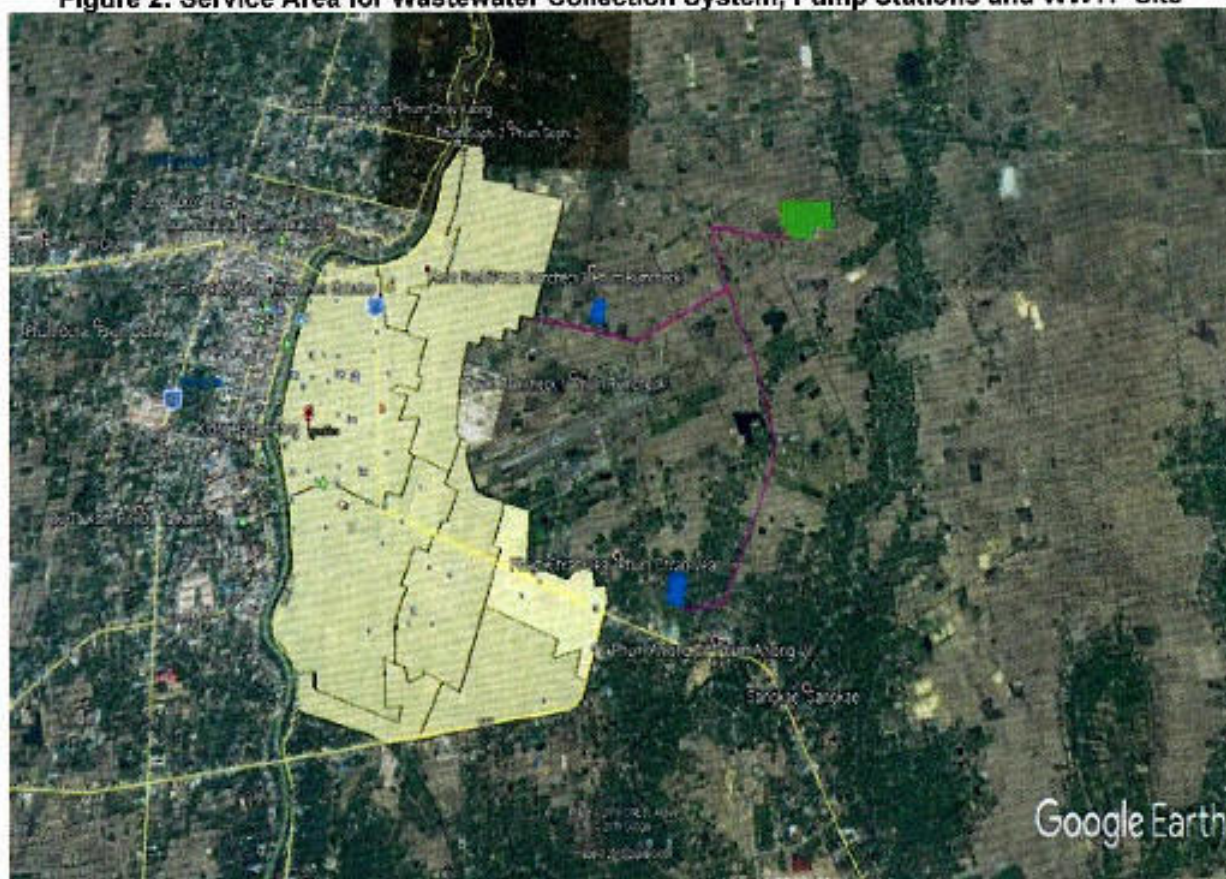
25. The sewerage system in Battambang City is designed to convey wastewater only. Another system has been built for storm water with the existing sewer pipes being retained for collection and disposal of rainwater separately. The separate drainage system has been installed recently in the

³ The Project will also finance free household connections to the sewer system (i.e. the line from the sewer to the boundary of the property). The Project also includes a financing allocation for on-site plumbing (i.e. the plumbing needed within the boundary of the property). This will be provided as a subsidy to ID poor households; however, the government may choose to recover all or part of this cost for non-ID poor households.

⁴ The capacity of the landfill sites has been updated by PMC in April 2020 based on updated population projections, anticipated service areas for waste collection, waste densities, and waste generation and collection rates.

eastern Battambang area as part of the ADB funded Greater Mekong Subregion Southern Economic Corridor Towns Development Project (SECTDP). Separate systems offer greater pollution control than combined systems. Separate systems convey all the sewage to the treatment plant, while in combined systems, during high rainfall periods, overflows allowing all pollutants to be discharged to the water bodies.

Figure 2: Service Area for Wastewater Collection System, Pump Stations and WWTP Site



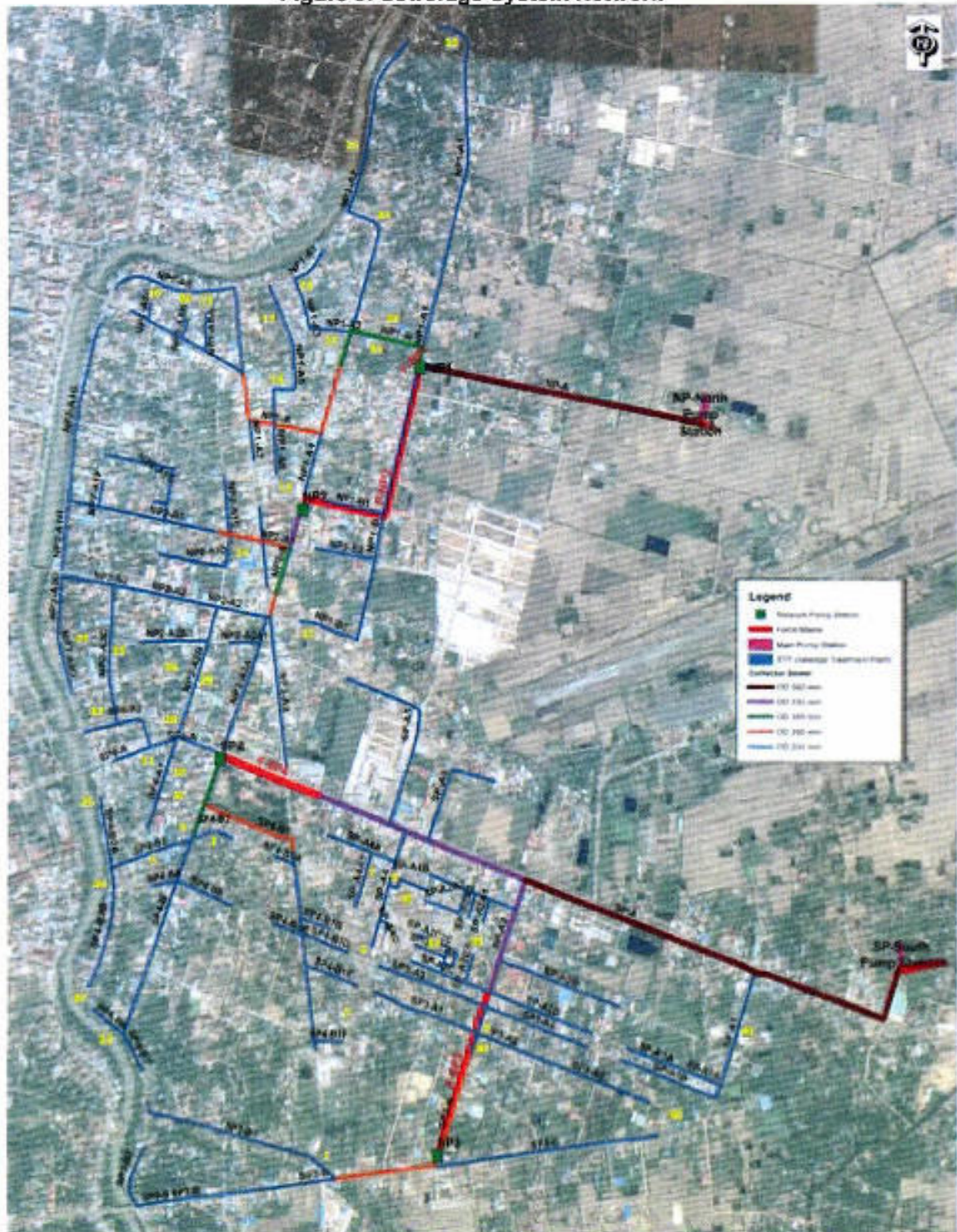
Source: PPTA Team, 2018.

26. The Subproject will include two (2) main sewage pumping stations (PS), four (4) small PSs and a WWTP. The Subproject will also include a total of 108.6 km of new sewers and mains. The location of the sewage network and main PS sites is shown in Figures 2 and 3. The two (2) main PS are built on state owned public land (Annex C) and free of encumbrances (Annex O). The four (4) small underground pumps (about 4.5m x 4.5m) are entirely within the road ROW and also free of encumbrances (Annex O). The 10-ha WWTP site, about 3.0 km east off the service area, is surrounded by paddy fields. The road to the WWTP site for a section of 3.7 km will need upgrading for enhanced access. It has no land acquisition as the works will be carried out within the ROW, but there will be a loss of land use for productive agricultural land being used within the ROW. The alignment of the access road has been changed since draft RP from street 601 to street 609, which connects the access road into street 601 just before the WWTP site. The re-alignment has been done to avoid and minimize impact on residential land and disturbances, and to follow the same alignment with the force main (see Figures 5 and 6).

27. The WWTP site will need to be protected by a dike about 3 m high. Waste Stabilization Ponds (WSPs) treatment technology was selected for the WWTP and there is good practical experience in

operating WSPs in Cambodia. The WSP technology was selected since it provides a high level of treatment with the lowest possible operating cost. Figure 3 shows the sewerage system plan and alignment of the main sewer lines from the city to the two terminal pump station sites. Figure 7 (below) shows the alignment of the force mains from the pump stations to the WWTP site.

Figure 3: Sewerage System Network



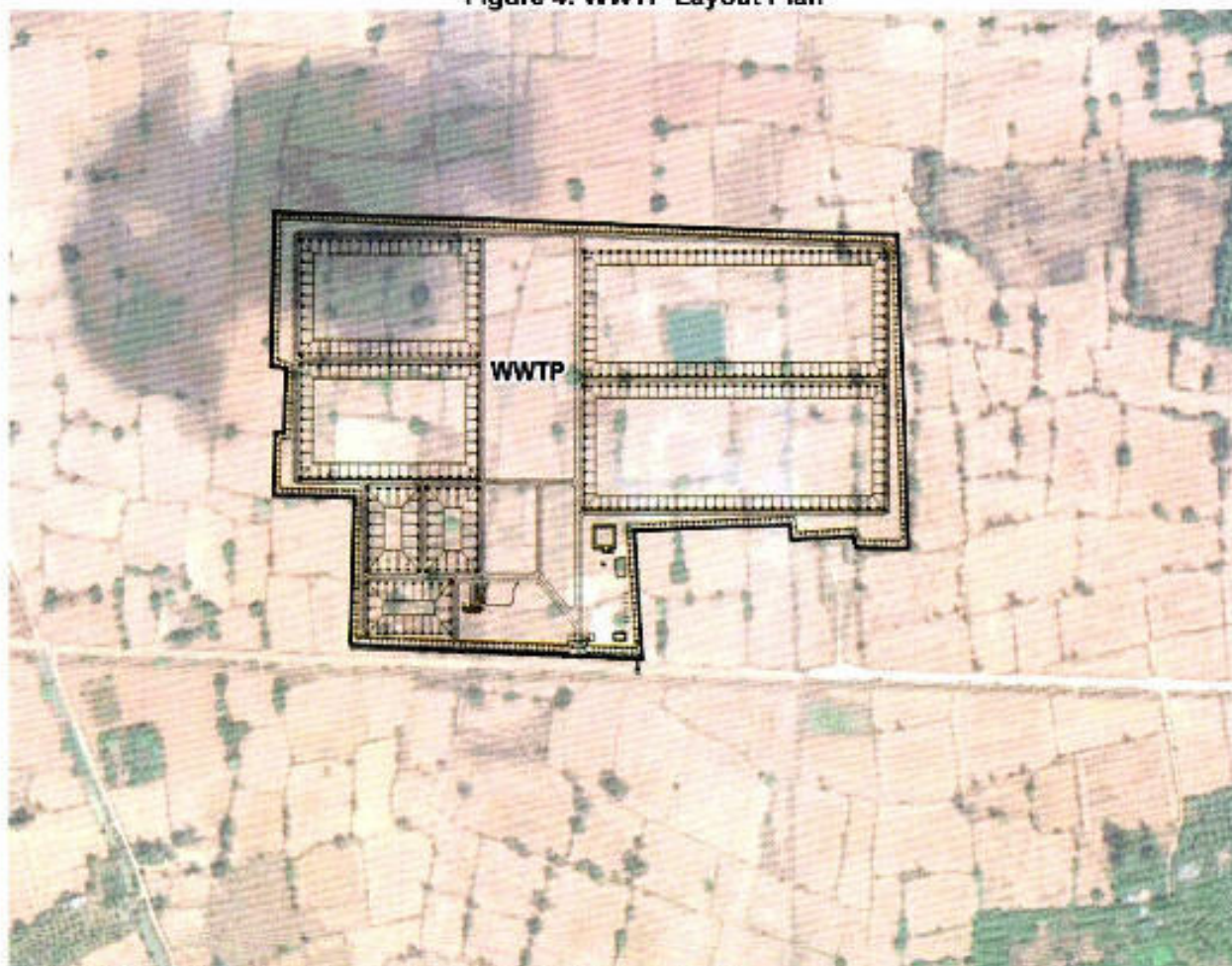
Source: PMC, 2020.

28. With a design life of 20 years, the Subproject components/facilities are planned up to Year 2040. Investment works to be implemented under the Subproject comprises:

- Construction of a primary and secondary sewage collection network and tertiary sewer network consisting of UPVC pipe of 55.85 km, gravity collector HDPE OD pipe 200 mm-560 mm of 43.036 km and force main HDPE pipe of 7.50 km and force main steel pipe of 2,21 km. The pipeline works include service connections for households, commercial and institutional buildings;
- Construction of two (2) main sewer PS, four (4) small support PS and associated pumping mains (for location please refer to Figure 3 and layout plans Annex O);
- Construction of 8,500 m³/day WWTP above flood levels;
- Construction of administration, workshop, generator and security buildings at WWTP;
- Upgrade 3.7 km of access road to the WWTP site above flood levels; and
- Provision of Operations & Maintenance Equipment.

29. The WWTP access road ROW is 20 m (street 609) to 30 m (street 601). Figures 4 to 7 shows the WWTP layout plan, and the access road previous and current alignments, and current access road COI, and force mains to the WWTP site, respectively.

Figure 4: WWTP Layout Plan



Source: PMC, 2020 (Satellite image dated 14.4.2019 at GoogleEarth).

Figure 5: Re-aligned WWTP Access Road COI



Source: PMC, 2020 (Satellite image dated 14.4.2019 at GoogleEarth)

Figure 6: Original WWTP Access Road Alignment as per draft RP



Source: PPTA, 2018

Figure 7: Force Main to WWTP Site



Source: PMC, 2020.

30. Temporary impacts concern mainly disruption of the use of roads, tracks, footpaths, and/or property road access points along the public ROW caused by sewerage system construction works and the movement of construction plant and materials, and will be addressed during subproject implementation based on actual impacts and in accordance with the national laws and ADB's SPS (2009). All sewerage networks have minimal working widths and will be installed on the edge of road shoulders or easements, which are wide enough to accommodate the digging of trenches or will be moved inside the road carriageway to avoid any impacts. Civil works contract and environmental management plan (EMP) will require contractors to reinstate the ROW to its original condition after the installation of pipes is completed. Effective construction supervision and monitoring at all stages of subproject implementation will ensure this outcome.

(ii) Due Diligence of Social Impacts

31. This detailed resettlement plan (DRP) covers only the WWTP and sewerage network Subproject in Battambang. In line with draft RP (May 2018) para. 7 a due diligence on past, present and future social impacts, including any outstanding claims, has been conducted for the WWTP, WWTP access road, 2 main PS sites and 4 network PS sites

32. The Subproject does not include a drainage component, because the works has been carried out under SECTDP Battambang Storm Drain component of Wastewater Treatment Subproject. The drainage is being constructed on the same target area on the East side of the town, located at Rotanak and Preak Preah Sdach Communes. Total length of SECTDP Storm Drain is approximately 13.50 km. The SECTDP also constructed an open earth canal length approximately 3 km and pipe culvert and box culvert crossing to the properties. The storm drain was laid along unimproved walkways to minimize the impact and reduce the construction cost. Resettlement plan for SECTDP Battambang Storm Drain component of Wastewater Treatment Subproject was updated in October

2019⁵. All the impact was compensated for and other entitlements and assistance paid to affected persons under SECTDP.

33. No land acquisition is required for the Subproject since the land for the construction of WWTP with the area of 10 ha and the two main PS's (PS 1 in Phum Rumchek 1 and PS 2 in Phum Chrab Veal) are already acquired/purchased by the MEF under willing buyer/willing seller arrangement in 2015 (Annex C). The land for main PS's has been unused and vacant ever since (see GoogleEarth time series in Annex O). No land acquisition was required for the small "network" PS's (4) as these will all be constructed in the ROW of the roads. Land for all the small PS's is currently free of any encumbrance. A sample of this type of small PS, and their locations (plans and drone imagery) is included in Annex O.

34. The Subproject was originally proposed to be financed under the SECTDP. Official approval for land swap for the WWTP site from SECTDP to the Project was approved in March 2020 by MEF and ADB (Annex B)⁶. Based on GoogleEarth imagery (Figure 11) from rainy season, the acquired land for the WWTP site has only partially been in active use for farming, which was confirmed during the DMS with 1 AH still farming the WWTP site.

35. WWTP access road upgrade and sewerage network pipelines will both be within the existing ROW, hence not requiring land acquisition. However, compensation will be paid for any impact on secondary structures, loss of land use and trees as per the Entitlement Matrix. The WWTP access road alignment was changed to follow the sewer force main. The access road realignment is detailed in additional technical drawing revision dated 24 September 2019. In the original designs, the impact of the road widening on land use was not fully covered.⁷ However, the design of the access road has been revised since the original DED drawings to take into account flooding. Therefore, the access road will now be raised to above flood level, causing some widening of the existing roadway (carriage way, shoulders and slopes) impacting on the land in the ROW.

C. Measures Adopted to Minimize Resettlement

36. The GDR's DMS team worked closely with Project Management Consultant (PMC) resettlement specialists and engineering design team on the ground to avoid and mitigate IR impacts for the sewage network and WWTP access road. The impact mitigation and avoidance conducted during the update of draft RP allowed the anticipated impact during the PPTA on the residential land and businesses to be avoided completely, as well as to reduce the number of vulnerable AHs from 18 AHs in the draft RP to 1 AH in this DRP as confirmed by the DMS/SES conducted in April-July 2020. The avoidance and mitigation were done as follows:

- The sewerage network working widths depend on trench width and pipe diameter, soil conditions, installation depth and working method, but is maximum 1.5m top width as per detail engineering design (DED). They will be installed within road carriageway or edge of pavement, which are wide enough to accommodate the digging of trenches or will be moved closer to the road centerline to avoid impacts on structures. The collector sewer (rider) are designed to be aligned next to the existing drainage lines (if any), but not installed where any obstacles are on the way, but rather have riders change flow direction and link to the main sewer from the other side of the obstacle;

⁵ https://www.adb.org/sites/default/files/project-documents/43319/43319-033-rp-en_2.pdf

⁶ The Minutes of Consultation Meeting dated 16 May 2014 stipulates that the 10-ha land purchased was for the WWTP.

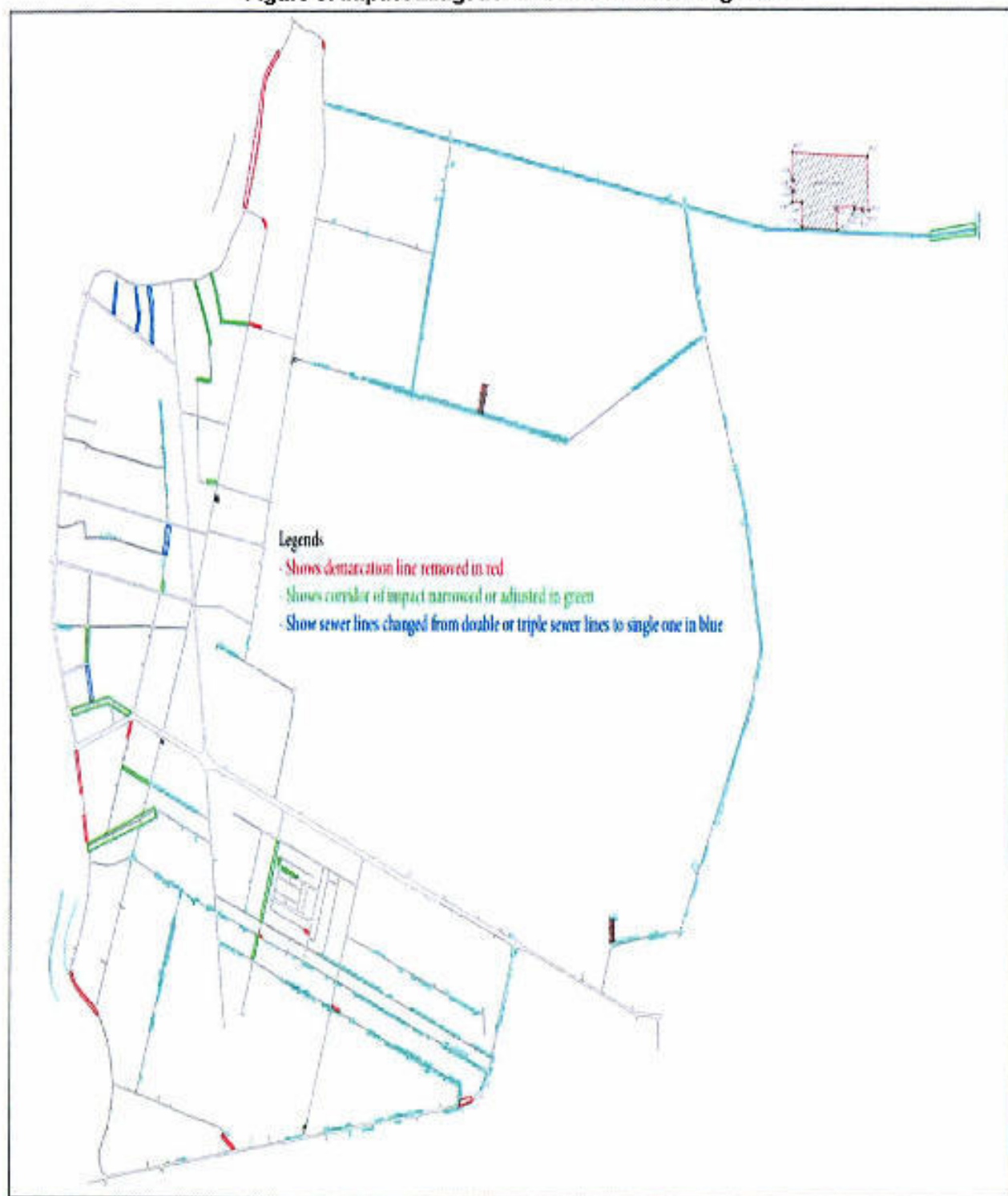
⁷ The Draft RP of May 2018 para. 18 stated that no crops, other than 45 small fruit trees, would be affected. In fact, the draft RP para. 17 incorrectly identified the ROW as private land.

- Avoidance for impact along sewer lines has been achieved through narrowing COI of the sewerage alignments at certain road sections (varying widths depending on existing ROW and carriageway width), or by resorting to use of a single collector in the middle of narrow alleyways rather than one sewer each side of the alleyway (Figure 8). Also, the roadway center line along the WWTP network was checked by Cadastral Department, after which the alignment and width of the COI was adjusted to minimize impact. This reduced the potential impact for businesses to no impact (Figure 8);
- In five (5) locations along the network on the river side, the sewer alignment has been completely removed due to potential impact on roads and river embankment. In these locations, the road condition and river embankment have nearly collapsed and any further disturbance at these locations may cause the river embankment to collapse during construction (Figure 8);
- Sewer alignment has been adjusted in two (2) sections where road improvement is being done under provincial and commune budgets to avoid impact. In one section the commune will delay the road improvement until the sewer has been installed;
- The existing access road to WWTP has been re-aligned to follow force main to avoid impact on residential land and structures (Figures 5 and 6). Furthermore, the DED was adjusted and finalized to avoid impact on irrigation canal along the access road to the WWTP site. The issue has been extensively consulted with the Provincial Department of Water Resources and Meteorology (PDOWRAM) (Annex F);
- Any temporary impact on secondary structures within COI and construction area will be responsibility of the construction contractor, as detailed in bidding documents and updated EMP. The contractor is to conduct estimation on the extent of temporary impact, report to PMU, and restore and rebuild any temporary impacts; and
- There are many street vendors/small businesses near two Battambang market areas (13 Makara and Sophy market) along the roads where excavation will be carried out for laying the pipes (Figure 9 and 10). These businesses will have to temporarily move for short periods during the excavation and until the laying of the pipes are completed. The work will be carried out section by section so that there is minimum interruption to their businesses. The sellers will be temporarily relocated to a designated nearby carpark at eastside of the 13 Makara market and rented by PIU for the purpose of continuing business of vendors for selling the products to avoid impact on livelihoods and income. Sophy market will be temporarily located in front of the pagoda near to the old Sophy market about 50 m away (Annex H).

37. Figures 8 shows the involuntary resettlement impact mitigations by narrowing down the COI, removing some sewer sections and realigning the sewers/COI.

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Figure 8: Impact Mitigation with Network Re-alignment



Source: PMC, 2020.

2

Figure 9: Market Stall Temporary Relocation Site (13 Makara)



Source: PMC, 2020.

Figure 10: Market Stall Temporary Relocation Site (Sophya)



Source: PMC, 2020.

2

Figure 11: WWTP most recent evidence of farming activities (December 2018)



Source: PMC, 2020 (GoogleEarth, 12.12.2018).

III. SCOPE OF LAND ACQUISITION AND RESETTLEMENT

38. A draft resettlement plan (RP) for the Subproject was prepared in May 2018 and disclosed on ADB's website. The Subproject was classified as category "B" on IR impact as it included some resettlement impacts which were not deemed significant. This DRP is an update of the May 2018 draft RP for the Subproject following the completion of DED, DMS, SES and RCS.

39. The DRP is consistent with the ADB's SPS (2009) and relevant laws and regulations of the RGC. This DRP must be read in conjunction with the Resettlement Framework (RF) and the draft RP of May 2018 for the Project.⁸ The Subproject is classified as category "B" for IR impacts.

A. Methodology

40. The Inter-ministerial Resettlement Committee Working Group (IRC-WG) conducted the DMS and SES on AHs/APs from April - July 2020 to determine the potential impacts on land and physical and economic assets of the AHs/APs. The scale of impact on land and other physical assets was done by the survey team via a walk-through of the entire stretch of the sewerage alignment to demarcate the COI. The COI was defined and all assets within COI, such as productive lands, primary and secondary structures, loss of land use, and other assets such as trees among others were measured. The IRC-WG, PRSC-WG and PIU measured the areas of affected structures, identified the types of materials of affected secondary structures. They identified the types of trees to be impacted and established their productive ages. The area of productive land in use along the ROW and the WWTP site, and total productive land of each AHs, was measured. The DMS data obtained information on the names of the AHs and all assets that are within the scope of the ROW. The DMS included 100% of the AHs. The SES was conducted in parallel with DMS by employing a survey questionnaire which contained questions on demographic and socio-economic profiles of AHs and APs. There are 73 AHs (302 APs) which represent 100% of the AHs.

41. Due to restrictions on public meetings and gatherings caused by COVID-19 pandemic it was not possible for the IRC-WG and PRSC-WG to conduct initial public consultation with APs. Instead, consultations were done on one-to-one basis as the DMS/SES progressed from house-to-house. Public Information Brochure (PIB) was distributed to all households at the same time. Limited public consultations were conducted towards the end of the preparation of the DRP with specific groups of AHs/APs once the COVID-19 situation improved.

B. Summary of LAR Impacts

42. Summary of LAR impacts are in Table 2 and the details of LAR impacts are in Annex A. The Subproject will cause impact on assets and/or economic displacement of 73 AHs (302 APs). The Subproject does not require involuntary land acquisition or cause physical relocation. The impacts on assets are on secondary structures, trees and loss of land use. Out of 73 AHs/302 APs, 1 AH/2 APs are vulnerable (income under poverty line) and 1 AH/4 APs is severely impacted on loss of land use.

Table 2: Summary of LAR Impact Type under the Subproject

Impact Type	Quantity (measurement units)
Affected Households/Affected Persons	73 AHs/302 APs

⁸ The Resettlement Framework and the draft Resettlement Plan are available here: <https://www.adb.org/projects/50102-002/main#project-documents>

Vulnerable AHs/APs	1 AH/2 APs
Severely Affected AHs/APs	1 AH/4 APs
Temporary impact on business	Estimated 107 market vendors
Loss of land use (within ROW)	9,799 m ² of 15 AHs/74 APs
Agricultural / residential land	None
Primary/Residential structure	None
Secondary/auxiliary structures:	38 structures of 37 AHs/141 APs*
Perennial trees	167 trees of 57 AHs/235 APs
Timber trees	35 trees of 27 AHs/128 APs

Source: DMS/SES, April - July 2020.

* Note: Each AH can have more than one type of impact.

C. LAR Impacts by Type

(i) Impact on Land

43. All impacts on land are within the ROW of all the roads, including the small PS's (4), and there will be no additional land acquisition required. Both the state-owned and private land has been acquired in anticipation of the ADB financing for the WWTP site under SECTDP, which has been transferred for the construction of the Subproject (Annex A). The main PS's (2) have also been acquired in 2015 and are free of encumbrances. A land acquisition report for ADB's due diligence has been prepared to confirm transaction history of the acquired WWTP site already under SECTDP. The documents for land acquisition process has been reviewed by ADB at GDR office.

44. WWTP access road widening has an impact on loss of land use for AHs farming the COI within the existing ROW. Similarly, there is loss of land use for continuing to farm on the WWTP site, even though the Minutes of the Meeting dated 16 April 2014 on purchase of the land stipulates that the land purchased was for the WWTP subproject. Therefore, after compensation payment, which included the loss of use of land, the willing seller was to have vacated the purchased land for the WWTP subproject. The cut-off date was not demonstrated effectively at the time of purchase, and therefore the AHs still farming on the WWTP site will be compensated for their loss of land use. Loss of land use of 12,031.86m² will be compensated for 15 AHs/74 APs. One AHs (4 APs) have loss of land use of more than 10% of the productive land they farm, and hence experiences major impacts and is eligible to participate in the income restoration program.

(ii) Impact on Structures

45. There is no impact on primary structures, or houses. However, the sewerage network causes impact on secondary structures (38 units) as detailed in Table 3. Some of the AHs can have impact on more than one kind of secondary structure. Details of impact on assets is in Annex A.

Table 3: Summary of Impacts on Secondary Structures

Affected secondary structures	Units impacted	AHs / APs
Kitchen (secondary)	1	1 / 2
Stall covered with plastic	1	1 / 4
Extended eaves (and associated structures)	10	9 / 42
Wash basin	1	26 / 93
Door / gate (including poles)	2	
Fence (including poles)	10	
Column / pole	2	
Spirit house	9	

Stairs / staircase	2	
Total	38	37 / 141 *

Source: DMS/SES, April - July 2020.

* Note: Each AH can have more than one type of impact.

(iii) Impact on Crops and Trees

46. There are no crops affected. A total of 84 AHs/363 APs will lose trees planted on ROW (202 trees) due to the sewer construction. Some households lose both fruit and timber trees, and are hence counted twice. 57 AHs/235 APs have impacts on 167 perennial (fruit) trees, and 27 AHs/128 APs have impact on 35 other (timber) trees. Age of the trees has been recorded during DMS which is the basis for the compensation rate with the species. Details of tree age is also listed in Annex A. Table 4 summarizes the affected trees by type.

Table 4: Summary of Affected Trees

Trees	Units impacted	AHs/APs *
Perennial (fruit) trees	167	57/235
Timber trees	35	27/128
Total	202	84/363

Source: DMS/SES, April - July 2020.

* Note: Each AH can have more than one type of impact.

(iv) Impact on Businesses

47. The Subproject will also cover the market areas. There are estimated 107 market vendors selling goods along the streets around 13 Makara (70 vendors) and Sophy (37 vendors) markets (see pictures below), and they will be temporarily impacted during construction. The street vendors have tables/stalls made of light-weight material which can easily be transported. During construction, the street vendors will be relocated to carpark near 13 Makara market and 50m away outside pagoda for Sophy market, as identified and agreed by the local authorities (see request and maps in Annex H), where they can continue their sales without any disruption to their livelihoods. This temporary arrangement and location of temporary business place was agreed with vendors. To minimize inconvenience for these vendors, the vendors will be given advance notice of minimum 2 weeks before the start of civil works in the streets where they conduct their businesses. Temporary relocation for each vendor is expected to be between 4-8 weeks during construction. After construction completion, they will move back to their original locations and re-establish their businesses. Temporary loss of business income from disruption during construction will be covered under one-time cash assistance.



Pictures: Temporary market sites for market vendors (BTB-PIU, 2020).

48. There are some mobile vendors (see pictures below) along the west side of Lok Ta Dambang Kranhuong (estimated 15 vendors), who mostly use their cars as a base to install stall and umbrella for selling goods and street 212 with wooded mobile stall (approximately 4 stalls) selling breakfast (see pictures below). These stall/selling locations are established by the mobile vendors each day along the road, therefore setting up at a different location during construction is not an issue and hence they do not have any impact on their livelihoods.



Pictures: Mobile vendors not impacted by the Project (PMC, 2020).

(v) Major Impact

49. The draft RP defines major impact for those who would lose 10% or more of their total productive land and/or assets and physical relocation. 1 AH/4 APs of the 73 AHs surveyed is experiencing major impact as they will lose access to more than 10% of their total productive land. This AH will be entitled to participate in the IRP.

(vi) Impact on Vulnerable Groups

50. The draft RP identified 18 vulnerable AHs impacted. Due to significant avoidance and mitigation activities (as per Chapter II, Section C) the number has been reduced to one vulnerable AH. The SES and DMS (April - July 2020) verified only 1 vulnerable AHs (2 APs) in total, who are therefore eligible for income restoration on this basis alone. This AH is a poor household (30 USD/month/AP income), and hence living below the poverty line established by the RGC. These APs will be provided with a special package which includes doubled lump sum amount for loss of income, transition allowance or subsistence allowance. They are also entitled to participate in the Income Restoration Program (IRP) depending on their preferred choice. Table 5 summarizes impacted vulnerable AHs.

51. No encroachers, squatters or any other non-title holders are affected. No Indigenous Peoples or Ethnic Minority groups are affected by acquisition of land, as all the affected persons are Khmer.



Table 5: Summary of Vulnerable AHs / APs

Poor household under poverty rate (<\$33/month)	Single female headed households with dependents living below the national poverty rate	Disabled headed households with no other means of support	Elderly headed households who are landless and with no other means of support	Landless poor living below the national poverty rate	Indigenous people or ethnic minorities	Severe impact on livelihoods
1AH/2AP	0	0	0	0	0	1AH/4AP

Source: DMS/SES, April - July 2020.

D. Temporary Impact

52. Temporary impacts concern mainly disruption of the use of roads, tracks, footpaths, and/or property road access points along the public ROW caused by sewerage network construction works, the movement and storage of construction equipment and materials, and any unanticipated impacts. These will be addressed during the subproject implementation based on actual impacts and in accordance with the national laws and ADB's safeguards policy statement (SPS, 2009). The civil works contract as well as EMP will require the contractor to reinstate the temporary structures within the COI and any impacted structures along the construction works area to their original condition after the installation of pipes is completed, including pavements/walkways, roadside kerbs, signposts and eaves.

53. Stalls and vendors, especially at market area, will be provided an alternative temporary location by the local authorities in near-by 13 Makara and Sophy markets for continuing business uninterrupted (Annex H). Construction around the market area will be done on short segments to mitigate the duration away from usual place of business, estimated at 4-8 weeks per segment. The contractor will need to assist dismantling, moving and reinstalling stalls when they need to be temporarily moved out of the way of construction. In addition, the dismantling and reassembling of the stalls and shops will be covered under one-time cash assistance to each AH.

54. As the sewerage works will be carried out within existing road ROW, public facilities such as existing roads of bituminous surface and walkways will be temporarily affected during construction. Design of the sewerage includes improvement of roads and sidewalks along the sewerage alignment. Thus, these temporarily affected public facilities will not just be restored but will be enhanced after construction as part of the Subproject design. The rehabilitation and improvement of sidewalks and pavements is the responsibility of the contractor.

55. For any temporary site installation or other area, the contractor will have to propose in a site installation and access plan and obtain approval from the PMU. Where possible, unoccupied, and unused public land will be used for temporary land use or storage. The contractor shall rent the private space with agreed rental fee. Both private and public space shall be returned in the same or improved condition compared with pre-project situation. Through a transparent and contractual approach, the PMU will provide the contractor with the project's land acquisition and compensation principles to ensure that (i) official compensation rates are applied, (ii) re-instatement of affected assets contractually defined, (iii) consultation takes place, (iv) the grievance mechanism is followed, (v) the EMP is applied, and (vi) other items specified are complied with, in compliance with the ADB SPS and RGC's SOP.

E. Unanticipated Impact

56. In case there are changes in the Subproject's scope and/or location during the Subproject implementation, social impact screening of new impacts shall be conducted, and corrective action plan prepared, if required. Unanticipated impacts will be documented and mitigated based on the principles provided in this DRP. Any new APs that will be identified (i.e., those who will be included among the adversely affected because of changes to the Subproject design or alignment prior to or even during construction works) are entitled to the same entitlements as those of the other APs. The new APs will not include any occupant entering the COI or construction area after the cut-off date.

IV. SOCIO ECONOMIC INFORMATION AND PROFILE

57. A socio-economic survey (SES) of the 73 AHs/302 APs, or 100% was conducted simultaneously with DMS by the IRC-WG. The SES respondents consisted of affected household heads (AHHs) and household (HH) representatives. The SES questionnaire contained demographic variables (age, marital status, employment, and gender of respondents), means of employment of APs, households' monthly income and expenditures. The SES provides baseline information on the socio-economic situation of the AHs/APs in gender disaggregated format.

A. Demographic Information of the AHHs

58. The Subproject sewerage network is for Battambang Town that covers three communes (namely Sangkat Rotanak and Sangkat Preaek Preah Sdech), whereas the WWTP is located in Sangkat Sangke.

59. **Gender and Age.** Out of the 73 AHHs of the Subproject, the majority or 56 AHHs are males (77%) and remaining 17 AHHs or 23% are females. As for age, the largest groups are 46-64 years (54%), 31-45 years (22%) and over 65 years (22%). Average AH size is 4.1 persons/household. Largest age group in household members is 26-46 years (37%), followed by 46-66 years (23%) and 17-26 years (18%). Tables 6, 7 and 8 summarizes gender of AHHs, age of AHHs and AHs members respectively.

60. The elderly household heads (over 65 years) are considered vulnerable in case they are landless and with no other means of support. Based on the SES one is poor (<\$33) and without any support, hence eligible for special vulnerability support. The remaining elderly people (total of 15 AHHs, including 7 female AHHs) still have employment income, or support from their children.

Table 6: Summary on Gender of AHHs

Subproject	Male		Female		Total	
	No.	%	No.	%	No.	%
WWTP	56	76.70	17	23.30	73	100.00
Total	56	76.70	17	23.30	73	100.00

Source. DMS/SES, April - July 2020.

Table 7: Summary on Age of AHHs

Subproject	Gender (HHH)	Under 20 yrs	21 - 30 yrs	31 - 45 yrs	46 - 64 yrs	Over 65 yrs	Total	
		No.	No.	No.	No.	No.	No.	%
WWTP	Male	1	1	11	34	9	56	77
	Female	0	0	5	5	7	17	23
	Total	1	1	16	39	16	73	100
	Percentage	1	1	22	54	22	100	

Source. DMS/SES, April - July 2020.

Table 8: Gender and Age of AH Members

Subproject	Gender	<5 yrs	6-16 yrs	17-26 yrs	26-46 yrs	46-66 yrs	>65 yrs	TOTAL
WWTP	Male	7	12	27	50	36	12	144
	Female	6	13	26	62	34	17	158
TOTAL		13	25	53	112	70	29	302
Percentage		4	8	18	37	23	10	100

Source. DMS/SES, April - July 2020.

61. **Civil Status.** Majority or 55 AHHs (75%) are married and 10 AHHs or 14% are widowed. Total of 5 AHHs are single. Table 9 summarizes the civil status of AHHs.

Table 9: Summary of Civil Status of AHHs

Subproject	Gender (AHH)	Divorce/separate	Married	Single	Widow/Widower	Total
WWTP	Male	2	49	4	1	56
	Female	1	6	1	9	17
	Total	3	55	5	10	73
	Percentage	4	75	7	14	100

Source. DMS/SES, April - July 2020.

62. **Education Attainment Levels.** Most or 29 AHHs or 40% has secondary education level, followed by primary education 26 AHHs or 36% and high school/university education 8 AHHs or 11%. 2 AHHs or 3% under the Subproject attained education in technical training and 5 AHHs or 7% had no education. 3 AHHs did not provide the information on their education level attainments. The male AHHs of the Subproject generally are better educated than females. Most or 125 APs (41%) has secondary education level, followed by primary education 106 APs (35%) and high school level 27 APs (9%). 8 APs have no education and education level was not shared by 19 APs. Table 10 summarizes the education levels of the AHHs by gender and Table 11 of the APs by gender.

63. During the DMS consultations, the GDR team explained the project and subproject scope from house to house and distributed the updated PIBs. For the illiterate people (as seen in Tables 10 and 11), the GDR team assisted the illiterate AHs by reading out all the information in the updated PIBs to them. Any questions the illiterate AHs had was also followed up by BTB PIU.

Table 10: Summary of Education Levels of AHHs by Gender

Subproject	Gender (AHH)	N/A (Missing)	None	Primary School	Secondary School	Technical Training	High school / University	Total
WWTP	Male	3	3	21	21	1	7	56
	Female	0	2	5	8	1	1	17
	Total	3	5	26	29	2	8	73
	Percentage	4	7	36	40	3	11	100

Source. DMS/SES, April - July 2020..

Table 11: Summary of Education Levels of AH Members by Gender

Subproject	Gender (HHH)	N/A (Missing)	None	Primary School	Secondary School	High school / University	Total
WWTP	Male	10	11	44	63	16	144
	Female	9	14	62	62	11	158
	Total	19	25	106	125	27	302
	Percentage	7	8	35	41	9	100

Source. DMS/SES, April - July 2020.

B. Occupation, Income and Expenditure

64. **Occupation.** For the Subproject, majority or 23 AHHs (32%) are in business, 14 AHHs are in agriculture and 9 AHHs are government officers. Out of 73 AHHs, 49 AHHs (67%) have secondary occupation. Majority, or 45 APs, work in selling goods (15%) and 20 APs are farmers (7%). 26 APs (9%) are not working, are at school or are retired. Tables 12-14 summarizes the primary and secondary occupation of the AHHs and AH members respectively.

Table 12: Summary of Primary Occupation of AHHs

Primary Occupation of AHHs	WWTP			
	Male	Female	Total	%
Government Officer	8	1	9	12
Private Staff	5	2	7	10
Service Provider	9	0	9	12
Business	16	7	23	32
Construction	1	0	1	1
Agriculture	13	1	14	19
Daily Labor	2	3	5	7
Other	2	3	5	7
Total	56	17	73	100

Source. DMS/SES, April - July 2020.

Table 13: Summary of Secondary Occupation of AHHs

Secondary Occupation of AHHs	WWTP			
	Male	Female	Total	%
Government Officer	4	0	4	12
Private Staff	1	0	1	3
Service Provider	1	0	1	3
Business	7	1	8	24
Construction	0	0	0	0
Agriculture	2	0	2	6
Daily Labor	1	0	1	3
Other	13	3	16	49
Total	29	4	33	100

Source. DMS/SES, April - July 2020.

Table 14: Summary of Secondary Occupation of AH Members

Occupation	WWTP			
	Male	Female	Total	%
None, still in school	14	12	26	9
Noneretire/old/sick/	7	10	17	6
Farming	13	7	20	7
Raising livestock	1	4	5	2
Selling goods	13	32	45	15
Restaurant	2	3	5	2
Farm Laborer	2	0	2	1
Factoryshop worker/	6	7	13	4
Government employee	10	4	14	5
Private employee	8	10	18	6
Driver	6	0	6	2
Remittances (abroad)	0	1	1	0
Service Provider	0	2	2	1
Construction Worker	1	1	2	1
No information given	61	65	126	42
Total	144	158	302	100

Source. DMS/SES, April - July 2020.

65. **Income.** Regarding income, majority of 45 AHs or 62% reported household monthly income of less than \$600, while 3 AHs or 4% reported income less than \$100/month/AH. Table 15 summarizes the monthly income of the AHs.

Table 15: Summary of Monthly Income of AHs

Income Rank (\$)	WWTP			
	Male	Female	Total	%
0 - 50	0	1	1	1
50 - 100	1	1	2	3
100 - 200	5	1	6	8
200 - 300	6	2	8	11
300 - 400	8	2	10	14
400 - 500	6	1	7	10
500 - 600	9	2	11	15
600 - 700	2	0	2	3
700 - 800	6	2	8	11
800 - 900	2	2	4	6
900 - 1000	2	0	2	3
Over 1000	9	3	12	16
Total	56	17	73	100

Source: DMS/SES, April - July 2020.

66. **Expenditure.** Housing expenditure for most, or 55 AHs or 75% is under \$400/month/AH. Table 16 summarizes the monthly expenditure of the AHs.

Table 16: Summary of Monthly Expenditure of AHs

Income Rank (\$)	WWTP			
	Male	Female	Total	%
0 - 50	11	4	15	21
50 - 100	2	1	3	4
100 - 200	8	2	10	14
200 - 300	16	3	19	26
300 - 400	6	2	8	11
400 - 500	2	4	6	8
500 - 600	4	0	4	4
600 - 700	1	0	1	1
700 - 800	3	1	4	6
800 - 900	3	0	3	4
Total	56	17	73	100

Source: DMS/SES, April - July 2020.

C. Poverty

67. Cambodia uses an absolute poverty line definition. In 2013, the Ministry of Planning (MOP) introduced new poverty lines. The revisions to the poverty lines include (a) food poverty line based on 2,200 calories per person per day (up from 2,100); and (b) a non-food component that is estimated separately for Phnom Penh, other urban, and rural areas. Cambodia Socioeconomic Survey 2014 identified those who earned less than \$33 per person per month considered living under poverty line for other urban area.

68. As part of the social impact assessment conducted during the update of the RP, the poor and vulnerable AHs who may be differentially or disproportionately affected by the subproject have

been identified based on the criteria established by the GDR. The Subproject has one (1) poor AHs (2 APs) living below the poverty line, and hence vulnerable. Targeted measures have been designed for the vulnerable household under the income restoration program (chapter X) to ensure the adverse impacts do not fall disproportionately on them and they are not disadvantaged in relation to sharing the benefits and opportunities resulting from development. The impact in the case of the poor AH is partial impact on separate outside kitchen, which can be rebuilt on-site. There is no impact on livelihoods of the vulnerable AH. The Project will ensure that vulnerable groups are not disadvantaged and that they are equal beneficiaries of the Subproject's infrastructure. Table 17 summarizes AHs below and above the national poverty line.

Table 17: Summary of AHs below and above Poverty Line

Poverty line	AHs			
	Male	Female	Total	%
Poor below Poverty line (<\$33 /person/month)	0	1	1	1
Not Poor above poverty line (>\$33/person/month)	56	16	72	99
Total	56	17	73	100

Source. DMS/SES, April - July 2020.

D. Indigenous Peoples

69. There is no indigenous peoples, Cham or ethnic Vietnamese impacted by the Project. Hence, as per Indigenous Peoples Planning Framework (IPPF) para 34, Indigenous Peoples Safeguards policy is not triggered.

V. INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

70. Public consultation and participation aim to develop and maintain avenues of communication between the Project, stakeholders, and AHs. To ensure that the views and concerns of the AHs are considered in Project/subproject preparation and implementation and to reduce or offset adverse impacts and enhance benefits from the Project, a strategy of meaningful participatory has been adopted by and implemented under the Project for information disclosure, consultation and participation. All consultations have been presented verbally in Khmer language for illiterate to fully understand and be able to participate, while using visual tools such as maps and drawings. During the DMS consultations, the GDR team explained the project and subproject scope from house to house, distributed and explained the updated PIBs. For the illiterate people, the GDR team assisted the illiterate AHs by reading out all the information in the updated PIBs to them. Any questions the illiterate AHs had was also followed up by the PDOMPWT PIU.

A. Consultation and Participation

71. The **first public consultation** in Battambang was conducted during the feasibility study under the project preparatory technical assistance by the consultants in February 2018. The **second public consultation** was conducted one-to-one with all AHs during to the commencement of the DMS/SES led by IRC-WG and assisted by PRSC-WG between April and July 2020. One-to-one consultations were required due to restrictions on public gatherings and need for social distancing caused by COVID-19 pandemic. A standard consultation structure presented to all AHs is presented in Annex E. During this second public consultation meeting the AHs were informed about the Project and subproject scope, entitlements, and compensation for lost assets, GRM, including contact persons, and DMS/SES. The PIB which included the entitlements, attachments on GRM steps and DMS Questionnaire, and key contact persons including the members of the PGRC were distributed and explained to the all attendees (Annex D). The attendees were informed that they will be provided the ID cards detailing their affected assets, income, and land after the completion of DMS. The PIB was shared with and explained to individual APs during the house to house DMS and measurement of land and property losses. During house to house DMS, the DMS Questionnaire was further explained to individual APs. This enabled the APs to confirm the loss of assets and the measurements and fully understand the basis on which the compensation will be paid for the loss of assets and other entitlements. All APs were required to confirm the loss of assets and the measurements.

72. The **third public consultative** meeting was conducted with PDOWRAM on the design and upgrade of the access road to the WWTP site, as well as effluent discharge from WWTP via the existing canal to the river.

73. The **fourth round of public consultations** was conducted with (i) market vendors (Annex G) with total of 77 participants (4 males and 73 females), (ii) farmers along the access road to WWTP with 20 participants (13 male, 7 female) (Annex Ia) and (iii) mobile vendors with 10 participants (3 male and 7 female) (Annex K). The APs were informed of the Subproject, entitlements, resettlement, and compensation policies and GRM. The consultation also detailed the upcoming DMS/SES and division of responsibilities between GDR, PIU and contractor. The market vendors were explained in detail of the temporary relocation to near-by location (Annex H).

74. The **fifth consultative meeting** on income restoration plan (IRP) and support to vulnerable households was conducted in on 29 May 2020 with 1 participant (1 female) covering vulnerable AH