

Integrated Environmental and Social Safeguards Monitoring Report

Semi-Annual Report (July-December 2019)
June 2020

CAM: Rural Roads Improvement Project III

Main Report

Prepared by Korea Consultants International Co., Ltd in sub-consultancy with Khmer Associates Consulting Engineers Ltd, Moha Engineering & Consulting Co., Ltd and Khmer Consultant Engineering Corporation for the Ministry of Rural Development, the Kingdom of Cambodia and the Asian Development Bank.

NOTE

In this report, "\$" refers to United States dollars unless otherwise stated.

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ABBREVIATIONS

ADB	Asian Development Bank
CEMP	Contractor's Environmental Management Plan
COI	Corridor of Impact
CPF	community participation framework
CSI	consulting services for implementation
CW	civil works
DBST	double bituminous surface treatment
DDIS	Detail Design and Implementation Supervision
DDR	Due Diligence Report
DED	Detailed Engineering Design
DMF	Design and Monitoring Framework
DOE	Department of Environment
EA	Executing Agency
EMP	environmental management plan
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
HH	household
HHTPP	HIV/human trafficking prevention and awareness program
HIV/AIDS	human immunodeficiency virus/acquired immune deficiency syndrome
IEE	initial environmental examinations
KCI	Korea Consultants International
LGAP	labor and gender action plan
MCFA	Ministry of Culture and Fine Arts
MEF	Ministry of Economy and Finance
MOE	Ministry of Environment
MRD	Ministry of Rural Development
MOWRAM	Ministry of Water Resources and Meteorology
NR	National Road
PAM	project administration manual
PDRD	provincial department of rural development
PIU	project implementation unit
PMU	project management unit
PSA	poverty and social assessment
RGC	Royal Government of Cambodia
RRIP	Rural Roads Improvement Project
SEO	social and environment office
SPS	Safeguard Policy Statement (ADB 2009)
TOR	terms of reference
USD	United States Dollar
UXO	unexploded ordnance
VDC	village development committee

Basic Data

Project Details

Project Title: Rural Roads Improvement Project III
Executing Agency: Ministry Rural Development

Loan and Grant Details

Loan Number: 3678-CAM (COL)
Loan Amount: US\$ 58.5 Million
Grant Number: 0581-CAM (SF)
Grant Amount: US\$ 1.5 Million
Borrower: Ministry of Economy and Finance
Loan/Grant Signed: 6 July 2018
Loan Effectiveness: 29 August 2018
Physical Completion: 31 December 2025
Loan Closing Date: 30 June 2026

Civil Work Contract Details

Contract Package	Contract Amount	Contractor
CW-A	Not yet advertised	Ung Simsia Construction Co. Ltd.
CW-B1	Not yet advertised	
CW-B2	\$2,481,668.20	
CW-C	Not yet advertised	
CW-D	Not yet advertised	
CW-E	Not yet advertised	

Consulting Service for Implementation

Consultants: Korea Consultants International Co., Ltd.
in Sub-consultancy with KCEC, KACE and MOHA
Contract amount: \$3,392,300
Contract Period: 1 April 2019- 31 March 2024 (60 months)

EXECUTIVE SUMMARY

1. The Rural Roads Improvement Project III (RRIP III) project will be implemented over a period of 7 years, starting from 1 January 2019 up to Dec 2025. The project will be physically completed by 31 December 2025 and the loan will be closed on 30 June 2026. MRD is the EA for the Project. MRD is responsible for engaging consulting services and awarding civil works contracts. The Project Director will have overall administrative oversight of the consulting services and civil work contracts, and the Project Manager will have responsibility for day-to-day operations.
2. The entire RRIP III will be implemented in selected rural roads in 10 provinces of Cambodia, namely: (i) Kampong Cham, (ii) Tboung Khmum, (iii) Prey Veng, (iv) Svey Rieng, (v) Kratie, (vi) Kampong Chhnang, (vii) Kampong Speu (viii) Kandal, (iv) Takeo and (x) Kampot. The ADB Loan 3678-CAM (COL)/Grant 0581-CAM (SF) in five provinces will be cover five provinces ((i) to ((v)) while the remaining rural roads in another five provinces ((vi) to (x)) are covered by parallel financing by EDCF through Korea XEXIM Bank.
3. The civil works financed by the ADB comprise 6 contract packages (CW-A, CW-B1, CW-B2, CW-C, CW-D and CW-E) for the improvement of 22 existing earth or gravel surfaced roads in five provinces to a bitumen sealed standard using a double bituminous surface treatment (DBST), including placement as necessary of sub-base and road base, using unbound materials for the road pavement.
4. The Project is confirmed as category B for environment and an initial environmental examination (IEE) including Environment management Plan (EMP) have been conducted as part of project preparation in accordance with ADB Safeguard Policy Statement of 2009 (ADB SPS). The project is categorized as C for indigenous peoples and category as C for involuntary resettlement. The original length of RRIP III was 359.8 km, but during the detailed design carried out from 1 April 2019 until 31 December 2019, it was found that the 2 roads have been already paved by other financial sources, therefore the project roads became 20 roads, 340.76 km.
5. The detailed design carried out from 1 April 2019 until Dec 2019. The consultants completed detailed design and preparation of bidding documents for 5 contract packages. The updated due diligence report was submitted to ADB on 14 february 2020. Although 2 roads were dropped from the original Project scope, there has been no major change of scopes and alignments of the remaining 20 roads¹, therefore the IEE doesn't need to be updated for the original scopes.
6. The social safeguards / Community Participation Framework (CPF) implementation during the second half of 2019 (July to December) contained the following activities: (i) transect walks and consultations with local communities along the project roads for assessment; (ii) voluntary donation procedures of affected assets to the project; (iii) due diligence assessment of four additional roads; (iv) initial preparation of a baseline socio-economic survey preparation of TOR and survey questionnaire, and (v) monitoring of CPF implementation along two roads already under construction.
7. During the Detailed Engineering Design (DED), staff of MRD Social and Environmental Office (SEO), supported by the Detailed Design and Implementation Supervision (DDIS) consultant undertook a transect walk along each of the 18 project roads of KC1-6, KRT1,

¹ As a result of the detailed design, design will be slightly changed (e.g. number of culverts, height of embankment, area of concrete pavement, addition of short access roads (less than 1km) for school/villages etc., length of side ditches, etc.).

PRV1-5, SVR2-5 and TBK2 and 5. The transect walks were conducted from 5 August to 11 September. The alignments of the proposed project roads were finalized through results from the transect walks and community consultations held along the proposed roads.

8. A pre-announced public consultation with community representatives and residents along the project roads was arranged in each project commune to inform people about the project and the transect walk, to respond their questions and to collect their views, concerns and suggestions on the project. The alignment of the proposed project roads was then finalized based on the findings from the transect walks and views from the community consultations.

9. Prior to the start of the transect walks in July, the International social safeguards specialist provided SEO capacity building training in implementation of the Community Participation Framework (CPF) and, more specifically, in the transect walk. The consultant provided SEO with forms for the transect walk, including impact recording, community consultations and reporting of these (enclosed in Annex A). The training consisted of a one-day classroom training followed by a one-day field training along the KC2 road in Kampong Cham province. The practical transects walk exercise and its results were then discussed during a follow-up classroom training.

10. The transect walks identified a number of road shading trees that have to be cut down. Most of the trees were public property. No productive trees of importance for livelihoods of the owner were found to be affected.

11. House eaves/ roof extension structures of light material, mainly of wood and corrugated iron were identified to encroach the ROW. These need to be shifted back for the road construction. All the owners were willing to remove these structures for improvement of the road.

12. The transect walks identified totally 10 private owners who will have their brick fences affected by the road construction. They all preferred the option of demolishing and rebuilding their structures further from the road in order to give space for an improved road rather than retain the existing alignment of the road. The owners were willing to donate their structures to the project without compensation, and the donation procedures were carried out in late November 2019. Donation form template in English and copies of the signed forms, together with a photo report on the donation occasions, are enclosed in Annex B.

13. Four potential roads for the project were identified after the social safeguards due diligence was conducted in 2018. A due diligence on the project impacts according to ADB requirements was therefore undertaken along these roads. The assessment was made through transect walks along the four roads with a total distance of 30km in the area of 5 districts in 4 provinces in late July. The assessment included measuring the planned road width in locations with potential impacts on private structures, trees and other assets, and consulting the owners of the potential affected assets. A public consultation with community representatives and residents along the road was organized in each commune. The assessment found that 18 villages in 7 communes are located along these roads potentially planned to be included in the project. There are totally 2,659 households with 12,084 people in these villages to be directly benefitting from the improved transportation conditions.

14. The 20 approved project roads with a total length of 340km are located in 50 communes in 20 districts in the 5 project provinces. 160 villages with approx. 189,000 people in more than 45,000 households along the project roads will directly benefit from improved transportation conditions, while the total population in the project communes is approx. 600,000 people in 142,000 households in 590 villages.

15. In order to assess the socio-economic impacts of the project after the project completion, a baseline socio-economic survey will be undertaken before the commencement of the project construction activities. Relevant parts of the same survey can then be repeated after the project. DDIS international social safeguards consultant prepared a survey questionnaire (enclosed in Annex C) and TOR for the survey conduct in late 2019, and the survey is scheduled to be implemented during the 1st half of 2020.

16. The desired confidence level of the survey has been set at the regularly used 95% and the confidence interval (margin of error) at 3.5%. To achieve that for the 142,000 HHs, a sample size of 784 households is needed for a random sampling across the project areas containing both villages along each project road and villages off the road in the same commune.

17. The two roads of TBK1 and TBK3 in Tboung Khmum province are under construction, and DDIS international social safeguards specialist prepared a template to be used for the CPF monitoring reporting during construction (enclosed in Annex D). During this reporting period of July-December 2019, environmental monitoring was undertaken but no specific CPF monitoring. The first semi-annual monitoring of the CPF implementation will be undertaken for the 1st half of 2020 by SEO supported by the DDIS national safeguards consultant.

18. During the detailed design of project roads, international environmental specialist (Mr. Paulo Pasicolan) were mobilizes from 8 July to 13 July 2019 and national environment specialist was mobilized on 3 July 2019. They collected field environmental data and conducted public consultations for the 4 additional roads in four project provinces to be included in the project. The four roads are KC7, TBK7, SVR7 and KRT3. A Team of Consultants and SEO officers conducted public consultation in the communes of four additional rural roads on July 10-12, 15, 2019.

19. During the consultation meeting, the villagers expressed their appreciation in welcoming the proposed project in their commune. They actively participated in articulating their views, as well as their appreciation and acceptance of the road improvement project.

20. One contract, CW-B2 of RRIPIII, has been procured as pilot implementation to Ung Simsia Construction Co., Ltd. The contractor CW-B2 was signed on 25 April 2019 and two project roads of TBK1 and TBK3 have been under construction. The contractor conducted mine /UXO clearance work during May and June 2019. The contractor mobilized over 40 equipment and achieve remarkable progress of earthworks and completed by the end of December 2019. The contractor started to placed subbase during December 2019. The contractor achieved 38.95% of progress by the end of December 2019.

21. International environment specialist, Mr Paulo Pasicolan was mobilized from 3 September to 14 September 2019 to train SEO how to conduct environment monitoring of civil works and conducted environment baseline assessment of Contract CW-B2 which has been ongoing construction with national Environment specialist, Mr. Hang Sophal, and SEO environment team.

22. The team inspected contractor's 2 base camp sites in TBK1 and TBK2, construction sites, oil spillage and dust and noise control in the project sites in order to ensure compliance with ADB's Social Safeguard Policy Statement 2009.

23. For the second monitoring of environment, conducted from 16 December to 18 December 2019, the consultants with SEO environment team conducted a semi-annual environment monitoring for Contract CW-B2.

24. The contractor generally followed construction in the site according to the CEMP, but there need some more signboards to provide safety measures both for the workers and the public. Further the base camps are not well maintained to keep them as clean. Worker's living quarters are not big enough to accommodate all unskilled laborers. Most of the identified were clearly communicated to the contractor during the monitoring activity and the inspection Team was assured by the former to make the necessary mitigation and remedial measures.

25. The Grievance Redress Mechanism (GRM) for local levels has been developed by the MRD and it has been established with the members in the local authorities (communes) chaired by Project management Unit of MRD.

26. It is recommended that DDIS consultants together with SEO should inspect the construction sites monthly and closely monitor the contractor's field activities to be complied with the EMP and CEMP. Another review will take place after 6 months.

LOCATION MAP OF PROJECT ROADS (5 PROVINCES)



1. INTRODUCTION

1. The Government of the Kingdom of Cambodia has received Asian Development Bank (ADB) assistance for the Rural Roads Improvement Project III (RRIP III). The project will rehabilitate about 360 kilometers (km) of rural roads in five provinces (Kampong Cham, Kratie, Prey Veng, Svay Rieng, and Tboung Khmum) to paved condition. The objective of the project is to provide poor rural provinces with a disaster and climate-resilient, safer, and cost-effective rural road network with all-year access to markets and other social services.

2. The project is aligned with the following impact: the needs of the population served, economic development promoted. The outcome of the project is all-weather access in rural areas of the five project provinces improved. The outputs of the proposed project are (i) rural roads improved (about 360 km of rural roads rehabilitated into paved condition by double bituminous surface treatment and concrete); (ii) road asset management improved; and (iii) awareness of road safety and potential social problems strengthened.

3. The project will be implemented over a period of 7 years, starting from 1 January 2019 up to Dec 2025. The project will be physically completed by 31 December 2025 and the loan will be closed on 30 June 2026. MRD is the EA for the Project. MRD is responsible for engaging consulting services and awarding civil works contracts. The Project Director will have overall administrative oversight of the consulting services and civil work contracts, and the Project Manager will have responsibility for day-to-day operations.

4. The entire RRIP III will be implemented in selected rural roads in 10 provinces of Cambodia, namely: (i) Kampong Cham, (ii) Tboung Khmum, (iii) Prey Veng, (iv) Svay Rieng, (v) Kratie, (vi) Kampong Chhnang, (vii) Kampong Speu (viii) Kandal, (ix) Takeo and (x) Kampot. The ADB Loan 3678-CAM (COL)/Grant 0581-CAM (SF) in five provinces will be cover five provinces ((i) to ((v)) while the remaining rural roads in another five three provinces ((vi) to (x)) are covered by parallel financing by EDCF through Korea XEXIM Bank.

5. The civil works financed by the ADB comprise 6 contract packages (CW-A, CW-B1, CW-B2, CW-C, CW-D and CW-E) for the improvement of 22 existing earth or gravel surfaced roads in five provinces to a bitumen sealed standard using a double bituminous surface treatment (DBST), including placement as necessary of sub-base and road base, using unbound materials for the road pavement.

6. The project is estimated to cost \$66.0 million including physical and price contingencies. And interest charge during implementation. The ADB loan will provide (i) a concessional loan of \$58.50 million and (ii) a grant of \$1.50 million to help finance the project. The project is expected to benefit about 560,000 beneficiaries residing. The road will provide an all-year road access from provincial towns and agricultural areas, and will provide greater accessibility to basic facilities and services. It will also strengthen the capacity of the MRD to plan, manage and monitor road safety, safeguards and implementing the loan covenants and other conditions in the loan package through the Project management Unit and Social and Environmental Office (SEO) in MRD, and relevant Provincial Department Rural Development (PDRD) as project implementation unit.

7. The Project is confirmed as category B for environment and an initial environmental examination (IEE) including Environment management Plan (EMP) have been conducted as part of project preparation in accordance with ADB Safeguard Policy Statement of 2009 (ADB SPS). The project is categorized as C for indigenous peoples and category as C for involuntary resettlement. Although 2 roads were dropped from the original Project scope, there

has been no major change of scopes and alignments of the remaining 20 roads², therefore the IEE doesn't need to be updated for the original scopes. This semi-monthly environment monitoring report covers the social safeguard incorporating environment monitoring on the project implementation for the period from June 2019 to December 2019.

² As a result of the detailed design, design will be slightly changed (e.g. number of culverts, height of embankment, area of concrete pavement, addition of short access roads (less than 1km) for school/villages etc., length of side ditches, etc.).

2. PROJECT ORGANIZATION STRUCTURE

8. The project management unit (PMU) has been established and operating since 2010 for the implementation of RRIP and RRIP II. Under the RRIP II Project, PMU has reinforced technical staff, monitoring and evaluation unit, and additional staff in various units. PMU will continue to implement, manage, and coordinate project activities for RRIP III.

9. The organization of PMU is shown as follows:

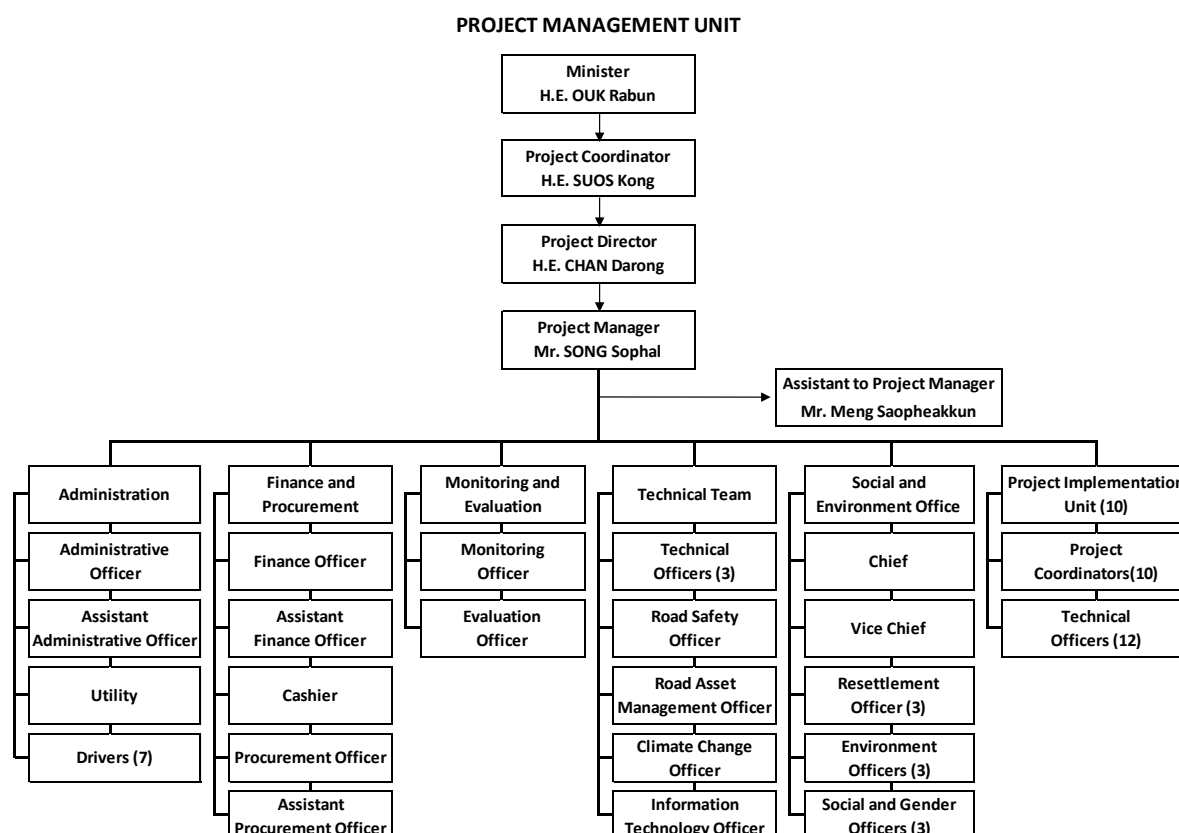


Figure 2-1 Organization Chart of PMU

10. The Korea Consultants International Co., Ltd is the Consultants for detailed design and implementation supervision for RRIP III. The consulting services started on 1 April 2019. The Consultant's work scopes consist of three stages, i) detailed design stage, ii) procurement stage, iii) preparation of future project and iii) implementation supervision stage.

3. PROJECT ROADS AND DETAILED DESIGN

11. The original length of RRIP III was 359.8 km, but during the detailed design carried out from 1 April 2019 until 31 December 2019, it was found that the 2 roads have been already paved by other financial sources, therefore the project roads became 20 roads, 340.76 km. The list of project rural roads under ADB financing is shown in Table 3-1.

Table 3-1 List of Project Roads

Province	Contract	Road No.	Road Name	Length (km)		Design Road Width
				PAM	Detailed Design	
Kampong Cham	CW-A	KC1	Kor-Tuek Cha	13.5	13.63	7.0m
		KC2	Samdaek-Sampong Chey	23.0	23.15	8.0m
		KC3	Ou Tathok-Bosthlan	11.3	11.24	8.0m
		KC4	Phav-Doun Dam	11.2	11.30	8.0m
		KC5	Dei kraham-Areak Tnaot	20.1	20.21	8.0m
		KC6	Mer Sar Chrey-Wat lor	21.5	14.12	8.0m
	Subtotal	7		100.6	93.65	
Tboung Khmum	CW-B1	TBK2	Trapeang Phlong-Stueng Toch	16.00	16.56	7.0m
		TBK5	Kondoal chrum-Char Thum	15.1	15.20	8.0m
	CW B2	TBK1	Tuol Kondaol-RN11	9.96	9.96	7.0 m
		TBK3	Sedachenchay-Chhouk	13.83	13.83	8.0 m
	Subtotal	4		61.1	55.55	
Prey Veng	CW-C	PV1	Lngeun-Boeng Kak	20.2	20.35	8.0m
		PV2	Pou Tong-Dountei	22.5	22.74	8.0m
		PV3	Svay Sokhao-Pou Rieng	9.3	9.60	7.0m
		PV4	Kampongtrabek-Preah Sdach	15.00	15.07	7.0m
		PV5	Kanh Chreach-Kouk Kongkandal	5.2	5.34	8.0m
	Subtotal	5		72.2	73.10	
Svay Rieng	CW-D	SVR2	Kroulko-Wath Svaypnem	11.00	11.09	7.0m
		SVR3	Pheasa Chork-Pongtek	9.1	9.17	8.0m
		SVR4	Prey Kearv-KomPong Ampil	24.8	24.96	8.0m
		SVR5	Pras Ponlea-Som Yong	11.9	12.01	7.0m
	Subtotal	5		64.6	57.23	
Kratie	CW-E	KRT1	Chhlong-Prama	61.3	61.23	7.0-8.0
	Subtotal	1		61.3	61.23	
Total		24		359.8	340.76	

12. The detailed design carried out from 1 April 2019 until Dec 2019. The consultants completed detailed design and preparation of bidding documents for 5 contract packages. Although 2 roads were dropped from the original Project scope, there has been no major change of scopes and alignments of the remaining 20 roads³, therefore the IEE doesn't need to be updated for the original scopes.

³ As a result of the detailed design, design will be slightly changed (e.g. number of culverts, height of embankment, area of concrete pavement, addition of short access roads (less than 1km) for school/villages etc., length of side ditches, etc.).

4. COMPLIANCE WITH ADB LOAN COVENANTS

13. The general progress of the compliance with loan covenants related to safeguards is summarized in Table 4-1.

Table 4-1 General progress of Compliance with Loan Covenants

Schedule	Para No.	Loan Covenants	Remarks/Issues (Status of Compliance)
4	3	The Borrower shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with: (a) all applicable laws and regulations of the Borrower relating to environment, health and safety; (b) the Environmental Safeguards; and (c) all measures and requirements set forth in the IEE, the EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Ongoing, Semi-annual safeguards monitoring report of Q4 2019 was submitted on 28 January 2020.
4	4	The Borrower shall ensure that the detailed engineering design of the Project roads incorporates the recommendations from the project climate risk and vulnerability analysis for managing climate change risks.	Complied.
4	5	<u>Land Acquisition</u> The Borrower shall ensure that the Project does not have any involuntary resettlement impacts, all within the meaning of the SPS. The Borrower shall ensure that: (a) the due diligence report on the Project roads is updated upon completion of detailed engineering design on those Project roads to confirm that there is no resettlement or land acquisition impacts, and submitted, together with all the relevant supporting document, to ADB for review; and (b) no Works contract will commence until ADB has given its no-objection. In the event the impact does have any involuntary resettlement impact, the Borrower shall take all steps required to ensure that the Project complies with the applicable laws and regulations of the Borrower and with the SPS.	Ongoing All project construction will take place within the existing ROW, and no private land is affected; (a) The updated Due Diligence Report was submitted on and is being revised to be submitted to ADB Q1 of 2020 and confirms that there are no resettlement or land acquisition impacts. (b) Transect walk report was submitted on 28 January 2020.
4	6	In the case of voluntary land donations for the Project, the Borrower shall ensure that: (a) eminent domain or other powers of the Borrower is not involved in the acquisition, (b) such voluntary donations are implemented in accordance with the CPF, (c) there was informed consent and power of choice of affected persons through a prior and	Ongoing. No private land is affected by the project. Voluntary donations have been carried out on permanent structures (brick fences) in November 2019 and these are reported in the Semi-annual Safeguards Monitoring

Schedule	Para No.	Loan Covenants	Remarks/Issues (Status of Compliance)
		informed consultation(s) with them, and (d) such voluntary donations do not severely affect the living standards of the affected persons but benefit them directly.	Report covering the period of July-December 2019.
4	8	Indigenous Peoples The Borrower shall ensure that the Project does not have any ethnic minorities or indigenous peoples impacts, all within the meaning of the SPS. If unanticipated impacts on Indigenous Peoples become apparent during the project implementation stage, such as a change in the Project's footprint, the Borrower shall carry out a social impact assessment and formulate an indigenous peoples plan for the Project covering all applicable requirements specified in the SPS and the Borrower's laws and regulations.	Ongoing. Social Due Diligence and transect walks conducted on the project roads confirm that there are no affected indigenous people in the project areas.
	9	The Borrower shall ensure that: (a) the due diligence report on the Project roads is updated upon completion of detailed engineering design on those Project roads to confirm that there is no ethnic minorities and/or indigenous peoples impacts, and submitted, together with all the relevant supporting document, to ADB for review; and (b) no Works contract will commence until ADB has given its no-objection.	Updated Due Diligence Report was submitted to ADB on upon completion of detailed design.
4	10	Human and Financial Resources to Implement Safeguards Requirements: The Borrower shall make available necessary budgetary and human resources to fully implement the EMP.	Ongoing.
4	11	Safeguards – Related Provisions in Bidding Documents and Works Contracts The Borrower shall ensure that all bidding documents and contracts for Works contain provisions that require contractors to: (a) comply with the measures relevant to the contractor set forth in the IEE, the EMP, and any corrective or preventive actions set forth in a Safeguards Monitoring Report; (b) make available a budget for all such environmental and social measures;	Ongoing (a) Included in the bidding documents of 5 packages and Contracts of CW-A and CW-B2. (b) Included in the bidding documents of 5 packages and Contracts of CW-A and CW-B2.

Schedule	Para No.	Loan Covenants	Remarks/Issues (Status of Compliance)
		<p>(c) provide the Borrower with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE or the EMP;</p> <p>(d) adequately records the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and</p> <p>(e) reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.</p>	<p>(c) Included in the bidding documents of 5 packages and Contracts of CW-A and CW-B2.</p> <p>(d) Included in the bidding documents of 5 packages and Contracts of CW-A and CW-B2.</p> <p>(e) Included in the bidding documents of 5 packages and Contracts of CW-A and CW-B2.</p>
4	12	<p><u>Safeguards monitoring and reporting</u></p> <p>The Borrower shall:</p> <p>(a) Submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;</p> <p>(b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE or the EMP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and</p> <p>(c) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP promptly after becoming aware of the breach.</p>	<p>Ongoing.</p> <p>(a) First semi-annual safeguards monitoring report for the period of July-December 2019 was submitted on 28 January 2020 and will be disclosed by uploading to MRD website⁴ upon clearance by ADB. For affected persons, SEO and national safeguard specialists of DDIS consultants will translate specific issue and the result of mitigation action into Khmer language and disclose information on MRD website and to relevant commune and affected persons through consultation meeting to be held in the commune offices;</p> <p>(b) No impact arose.</p> <p>(c) No actual or potential breach of compliance with the EMP.</p>
4	17	<p><u>Grievance Redress Mechanisms</u></p> <p>Within 3 months of the Effective Date, the Borrower shall ensure that: (a) a separate local safeguards grievance redress mechanism, acceptable to ADB, is established in accordance with the provisions of the EMP, the CPF and the SPS, to consider any</p>	<p>Ongoing.</p> <p>(a) Grievance Redress Mechanism has been established in areas where project construction works have commenced (TBK1 and TBK3) in Tboung Khmum province.</p>

⁴ [https:// www.mrd.gov.kh/rrip-iii/#1582875640277-25e61c45-189b](https://www.mrd.gov.kh/rrip-iii/#1582875640277-25e61c45-189b)

Schedule	Para No.	Loan Covenants	Remarks/Issues (Status of Compliance)
		<p>safeguards complaints; and (b) the local grievance redress mechanism is functioning effectively to (i) review and document eligible complaints of Project stakeholders; (ii) proactively address grievances; (iii) provide the complainants with notice of the chosen mechanism/action; (iv) prepare periodic reports to summarize the number of complaints received and resolved, chosen actions, and final outcomes/status of the grievances; and (v) make these reports available to ADB as part of the Safeguards Monitoring Report, including quarterly and semiannual reports and reports upon request. Eligible complaints include those related to the Project, any of the service providers, any person responsible for carrying out the Project, complaints on misuse of funds and other irregularities, and gender-related grievances.</p>	<p>(b) The GRM is functioned. No complaints have been received.</p>

5. SOCIAL SAFEGUARDS

5.1. Social safeguards progress

14. During the second half of 2019 (July to December), planning and implementation of social safeguards and the Community Participation Framework (CPF) contained the following activities: (i) transect walks and related consultations with local communities along 18 project roads for assessment and update of the impacts identified in the due diligence conducted in 2018; (ii) voluntary donation procedures of affected assets to the project as identified during the transect walks; (iii) due diligence assessment of four proposed additional roads through transect walks and community consultations along these roads; (iv) initial preparation of a baseline household socio-economic survey with compilation of baseline population data over all the project communes and villages along the project roads, preparation of TOR and survey questionnaire. and (v) preparing monitoring of CPF implementation along the roads under construction.

5.2. Progress of community participation

15. The Project Community Participation Framework (CPF) was prepared to guide planning and implementation of the project using three types of participatory consultation methods with the affected communities: Transect walk, Focus Group Discussions, and Socio-economic Questionnaire Survey. During the reporting period, transect walks were undertaken along the planned road sections, while at the same time preparation of a household baseline socio-economic survey to be implemented during the first half of 2020 was ongoing. Table 5-1 provides an overview of the implementation progress of participatory consultation methods according to the CPF.

5.3. Updated assessment of project impacts: Transect Walks

16. During the Detailed Engineering Design (DED), staff of MRD Social and Environmental Office (SEO), supported by the Detailed Design and Implementation Supervision (DDIS) consultant, undertook a transect walk along each of the 18 project roads of KC1-6, KRT1, PRV1-5, SVR2-5 and TBK2 and TBK5. The transect walks were conducted from 5 August to 11 September. The alignments of the proposed project roads were then finalized through results from the transect walks and community consultations held along the proposed roads.

17. The road improvement is designed to take place within the existing ROW, therefore no private land will be affected by the project. The project policy is to avoid impacts, whenever possible, on any private structures, trees and other assets, and the project has no policy to pay compensation for any such losses. The road alignment in the DED therefore has been adjusted to avoid any such identified impacts, unless the owners of affected non-productive trees and temporary structures wished to relocate/move back their affected assets or the owners of affected permanent structures and productive trees preferred to voluntarily donate these to the project in order to allow improvement/widening of the road. Following the CPF requirements, vulnerable households comprising of the poor, female-headed households with dependents, disabled, elderly, landless, or indigenous peoples (IPs) were not requested to donate any assets.

18. The construction will eventually affect trees and private structures encroaching the existing ROW. The purpose of the transect walks was to follow up the impacts identified in the Social Safeguards Due Diligence Report (2018) through a systematic measuring and recording of any structures and trees within the Corridor of Impact (COI), consequently leading to some adjustments in the road design in order to avoid impacts on permanent structures, crops and productive trees.

Table 5-1: Semi-annual progress of participatory consultation methods implementation according to the CPF

Type of participatory consultation	Description	Frequency and timing of consultation	Expected results	Progress
Transect Walk	<p>Transect walk will be carried out in all the project roads. The project team and key informants conduct a walk along the road, to listen, identify issues, and conditions, and to ask questions to identify possible solutions.</p> <p>Participants should include:</p> <ul style="list-style-type: none"> - Field level PIU staff - VDC - Commune Official - MRD SEO member - PIC - School teacher - Women representatives - Vulnerable groups - Advise sought from elderly people of the village 	A minimum of two transect walks to each selected road before and during construction	<p>Issues to be discussed include:</p> <ul style="list-style-type: none"> - A joint on-site inventory of the ROW, cross-checking and verification of the alignment - Land requirement beyond ROW - Affected assets requirement within the ROW - Identification of displaced people and vulnerable groups among them - Technical design features - Construction arrangement - Road safety - Environment features - Identification of grievances on ground and redressal of the same - Acceptance of the project and road alignment by the community 	Transect walks undertaken along 18 project roads during detailed design phase. Results reported in the Semi-annual safeguards monitoring report Jul-Dec 2019.
Focus Group Discussion	Structured discussion with purposely selected groups of affected persons from villages, includes vulnerable people.	A minimum of two focus group discussions for each District	Key issues of rural roads. opinion, collect knowledge, identification of current situation, consultation, proposal to success the rehabilitation activities, availability of community participation, role of community and stakeholders and other potential impacts	To be undertaken in 20 project districts by end of 2020.
Socio-economic questionnaire survey using purposive sampling method	Specifically, prepared and field-tested questionnaire is used. Purposive Sampling is a method of selecting a sample with a purpose in mind. In a situation where a specific issue/ aspect or group of people is to be studied especially within a short period with limited resources, purposive sample method is applied. Special emphasis is made to focus the households along the road.	After finalizing the candidate road list in each DS division	Family status, farming activities, income from different sources, land ownership, use of technology, productivity and production, access to communication and communication patterns, access to information, services and transport, accessibility and affordability	Population data and survey questionnaire prepared, implementation scheduled for 1 st half of 2020.

19. **The Transect walk team**, consisting of three to four SEO staff members and the DDIS national safeguards consultant, undertook an ocular view and a systematic measuring of the road width in locations with potential impacts on structures and trees. Owners of affected structures and trees were consulted on place during the transect walk, and the option of either retaining the existing alignment and width of the road to avoid impacts or the improvement of the road requiring removal of their assets were explained to them. Commune leaders, VDC members and Village leaders as well as PIU coordinator of the province PDRD assisted the team.

20. **A pre-announced public consultation meeting** with community representatives and residents along the project roads was arranged in each project commune to inform people about the project and the transect walk, to respond their questions and to collect their views, concerns and suggestions on the project. The alignments of the proposed project roads were then finalized based on the findings from the transect walks and views from the community consultations. Totally 48 public consultation meetings were arranged, covering 53 project-area communes; in some places, residents along the road in two villages belonging to two different communes but located close to each other were invited to the same public consultation. Table 5-2 provides an overview of the transect walk schedule and the held public consultations.

Table 5-2: Schedule of transect walks and community consultations (2019)

Road ID	Province	District	Commune	Consultation meeting Date and Time	Transect walk Date
KC1	Kampong Cham	Prey Chhor	Kor	5 Aug 1.30-2.30 pm	5-6 Aug
			Thma Pun	5 Aug 3.00-4.30 pm	
			Krouch	6 Aug 1.30-2.30pm	
KC2		Batheay	Sandaek	6 Aug 2.15-4.30 pm	6 Aug
		Cheung Prey	Sdaeung Chey	7 Aug 9.00-10.30 pm	7-8 Aug
			Pring Chrum	7 Aug 2.30-3.30 pm	
			Sampong Chey	8 Aug 8.00-10.30 am	
KC3		Prey Chhor	Thma Pun	See KC1	8 Aug
		Chamkar Leu	Ta Ong	9 Aug 3.00-4.30 pm	9 Aug
			Svay Teab	9 Aug 10.00-11.30 am	
KC4		Batheay	Pha'v	12 Aug 8.30-10.00 am	12 Aug
		Cheung Prey	Kouk Rovieng		
			Khnor Dambang	12 Aug 11.30-12.30 am	
			Pdau Chum	12 Aug 14.30-15.30 pm	
			Soutib	12 Aug 16.00-17.00 pm	
KC5		Stueng Trang	Soupheas	13 Aug 8.30-10.30 am	13-15 Aug
	Dang Kdar		13 Aug 3.00-4.30 pm		
	Preak Kak		15 Aug 8.30-10.30 am		
KC6		Stueng Trang	Mer Sar Chrey	14 Aug 4.00-5.30 pm	13-14 Aug
		Dang Kdar	See KC5		

PV1	Prey Veng	Kanhchriech	Kdoeang Reay	21 Aug 8.30-10.30 am	21 Aug
		Kamchay Mear	Seang Khveang	21 Aug 2.30-3.30 pm	21-22 Aug
			Trabaek	22 Aug 8.30-10.30 am	
			Doun Koeng	22 Aug 2.30-3.30 pm	
PV2		Kanhchriech	Kanhchriech	26 Aug 10.15-11.30 am	26-28 Aug
			Kouk Kong Lech	27 Aug 3.00-4.30 pm	
			Kouk Kong Kaeut	28 Aug 8.00-9.30 am	
	Tboung Khmum	Ponhea Kraek	Dountei	26 Aug 2.00-3.30 pm	
PV3	Prey Veng	Pur Rieng	Prey Kanlaong	23 Aug 8.30-10.30 am	23 Aug
			Pou Rieng	23 Aug 14.30-16.30 am	
PV4		Kampong Trabaek	Kampong Trabaek	29 Aug 3.00-4.45 pm	29 Aug
			Sena Reach Otdam	29 Aug 10.00-11.30 am	
			Preah Sdach	Angkor Reach	
PV5		Kanhchriech	Thma Pun	26 Aug8.30-9.30 am	26-27 Aug
			Kouk Kong Lech	See PV2	
SVR2	Svay Rieng	Svay Chrum	Kraol Kou	30 Aug 8.30-10.30 am	30 Aug
			Svay Angk	30 Aug 2.30-3.30 pm	
SVR3		Rumduol	Kampong Chak	2 Sep 8.30-10.00 am	2 Sep
			Pong Tuek	2 Sep 10.30-12.00 am	
SVR4	Rumduol	(Kampong Chak)	See SVR3	2-4 Sep	
		Svay Chek	2 Sep 2.00-4.30 pm		
		Meun Chey	3 Sep 8.00-10.00 am		
		Thmea	3 Sep 10.30-12.00 am		
		Kampong Ampil	4 Sep 8.00-10.30 am		
SVR5	Kampong Rou	Preah Ponlea	4 Sep 2.00-3.30 pm	3-5 Sep	
		Prey Thum	3 Sep 2.30-3.30 pm		
		Samyaong	5 Sep 9.00-10.15 am		
TBK2	Tboung Khmum	Ponhea Kraek	Trapeang Phlong	16 Aug 8.30-10.30 am	16 Aug
Kak					
TBK5		Ponhea Kraek	Kndaol Chrum	19 Aug 8.30-10.30 am	19-20 Aug
	Dambae	Chong Cheach	20 Aug 8.30-10.30 am		
KRT1	Kratie	Chhloung	Chhloung	10 Sep 10.00-11.30	10-11 Sep

				am	
			Damrei Phong	10 Sep 2.00-3.00 pm	
			Kampong Damrei	11 Sep 10.00-11.00 am	
TOTAL	5	20	53	48	

21. **Consultation agenda and comments from participants.** In the public consultation meeting with residents and business owners along the road, the transect walk Team explained the project to the participants with an overview of the planned construction activities, likely construction schedule and expected impacts, involvement of communities in project planning, design and implementation and expectation of their participation in transect walk, consultations and household survey. The Team explained the output of the transect walk and how its results and any community concerns are incorporated into the detailed engineering design. People were informed of the project aim to avoid impacts on structures and productive trees, and that road alignment would be adjusted unless owners of structures and trees wished to remove them for an improved/widened road, and the procedures of voluntary donation. Participants were also informed of their right to complain over any adverse impacts they experience and the Grievance Redress Mechanism to be put in place. They were also informed of potential environmental impacts and how these are mitigated following the Environmental Management Plan (EMP). Rebuilding affected structures are also included in the EMP as contractor's obligation. Any questions and suggestions from the community were responded and recorded by the Team. Stakeholders' willingness or unwillingness to relocate affected structures and other assets and cut down affected trees in the COI was also recorded.

22. **Comments and views from participants.** Participants in all consultations unanimously supported the project and were willing to remove structures, trees and any other assets from the COI to give space for construction of an improved road. However, they expected assistance from contractors to remove and rebuild affected structures and cut down trees. Other regularly expressed concerns dealt with construction impacts such as dust, material transportations and fast driving construction vehicles. Local people proposed extra watering of the road to reduce dust and traffic signs and lights to warn about the construction site in order to reduce accident risk. They also suggested that material transportation trucks should be covered to reduce dust and the risk of falling particles on people.

23. **Forms for recording transect walk findings and undertaking community consultations.** Prior to the start of the transect walks in July, DDIS International social safeguards consultant provided SEO capacity building training in implementation of the Community Participation Framework (CPF) and, more specifically, in undertaking the transect walk. The consultant provided SEO with forms for the transect walk, including impact recording, community consultations and reporting of these. The training consisted of a one-day classroom training followed by a one-day field training along the KC2 road in Kampong Cham province. The practical transects walk exercise and its results were then discussed during a follow-up classroom training.

24. During the transect walk, the measured impacts were recorded and consultations arranged using the following templates enclosed in Annex A-1:

- (1) Form for recording chainage-wise findings with village name, existing road width, required additional land, losses (land, structures, trees and crops, others), name of owner/user, vulnerability status, and additional remarks/suggestions;
- (2) Sex-disaggregated transect walk participants list;
- (3) Summary form for recording transect walk per commune with location and time, different categories of participants, issues and suggestions raised by participants,

major outcomes of the transect walk, proposed changes to be incorporated in the road design, extent of land take and willingness/ unwillingness of land owners/ users for donation, environmental Issues to be resolved, and other issues;

- (4) Outline for consultations during transect walk;
- (5) Summary for consultation per commune held during the transect walk with number of male and female participants, major Issues discussed during the consultation, and recommendations for road design.

25. Templates for reporting of the transect walks, including the public consultations are enclosed in Annex A-2, consisting of:

- (1) Transect walk summary report on each Project road;
- (2) Number of persons consulted during the transect walks per province;
- (3) Summary of donations needed per road.

26. Reports of the transect walk activities and results on each of the totally 18 roads prepared by SEO with support from the DDIS national consultant are enclosed in Annex A-3.

5.4. Results from the Transect Walks

27. The transect walks identified a number of road shading trees that have to be cut down. Most of the trees were public property. No productive trees of importance for livelihoods of the owner were found to be affected.

28. The transect walks identified a number of road trees that have to be cut down for the road construction. Most of the affected trees were public property, planted as shading trees for the roads. No productive trees of importance for livelihoods of the owner were found to be affected.

29. House eaves/ shading roof extension structures of light material, mainly of wood and corrugated iron were identified to encroach the ROW. These need to be removed or shifted back for the road construction. All the owners were willing to remove these structures for improving the road.

30. Ten (10) brick border walls/fences of private owners and monasteries were found to be affected by the road construction. Owners were informed that road alignment could be adjusted to remain narrower to avoid the impacts, or the road could be improved if they were willing to demolish their brick fences to be affected and reconstruct them further from the road with assistance from the contractor, as stated in the EMP. All the owners were willing to voluntarily demolish the affected structures in order to get a road of a better standard. Donation procedures were later undertaken with the owners of the permanent structures.

31. All the impacts on structures and trees identified during the transect walks are summarized in Table 5-3.

32. We It was confirmed with commune chiefs, VDC chairpersons and the affected people that no vulnerable persons were affected by the road construction. However, during the SEO transect walk field training with DDIS international social safeguards consultant along KC2 road on 5 July 2019, a temporary house built of bamboo and leaves was discovered encroaching the road and identified to be affected by the construction in Svay Prey village in Sondaek Commune. The team interviewed the resident of the house, Ms Sorn Choav, who was found to be a single woman living in poverty and making her living through petty selling of cakes to road passengers passing her house in the mornings. Consultation on the spot with her and the Sondaek Commune Chief led the commune to raise money for constructing a new house for her on land owned by the commune approx. three hundred meters away from the

road. During the ordinary transect walk along the KC2 road on 6 August 2019, DDIS national environmental specialist visited Ms Sorn in her new house and interviewed her. She appeared to be fully comfortable in her new house that was constructed of corrugated iron sheets, and she could add to her living through casual labor in agriculture and in the commune such as washing dishes and assisting in community events. Figure 5-1 show the photos of old and newly built house of Ms Sorn.



The old house of Ms Sorn along the KC2 road identified 5 July 2019 during transect walk.



Ms Sorn in front of her new house with DDIS national environmental specialist who paid a monitoring visit on 6 August 2019

Figure 5-1 Photos of Old and New House of Ms. Sorn

Table 5-3: All impacts identified through transect walks

Kampong Cham Province						
Road: KC1 in Prey Chhor District, 13.5km, running through 9 villages in 3 communes						
Chainage	Commune	Village	Observation	Comment (e.g. vulnerability)	Owner	Action
0+700–1+100	Kor	Ta Ley	Trees in COI in 14 locations	Different types of shading trees	Public	To be cut down
1+120 R	Kor	Ta Ley	End of roof extension		Mr Leng Bora	To be shifted back
6+350 R	Thmar Poun	Toul Thmar	Roof extension of grocery shop		Mr Nhel Mean	To be shifted back
6 + 360 R		Toul Thmar	Roof extension of motorbike repair shop		Mr Ly Laysim	To be shifted back
12+900 R	Krouch	Thmey	Roof extension of grocery shop		Mr Ban Ou	To be shifted back
Road: KC2 from Btheay to Chaung Prey District, 23.20km, running through 12 villages in 4 communes, Road width 7m						
Chainage	Commune	Village	Observation	Comment	Owner	Action
0+00 R	Sandaek	Po Steang	Roof extension of motorbike repair shop		Mr Chhoun Dy	To be shifted back
1+510 L		Svay Prey	End of roof		Mr Dara	To be shifted back
1+600 L			Brick wall 25mx5m	Permanent Structure	Ms Yeay Pou	Donation
8+250 R	Sdang Chey	Damnak Ampil	Brick wall with wire	Permanent structure	Mr Srey San	Donation
8+250 L			Bamboo fence		Mr Srey San	To be shifted back
Road: KC3 from Prey Chhor to Chamkar Leu District, 11.20km, running through 3 villages in 3 communes						
Chainage	Commune	Village	Observation	Comment	Owner	Action
00+50 L	Thma Pun	Ou Ta Thok	Shop roof extension		Mr Sam Hak	To be shifted back
4+100 L	Ta Ong	Sophor	Tree		Public	To be cut down
4+250 L		Sophor	Shop roof extension		Mr So Tha	To be shifted back
6+700		Sophor	Advertising billboard		Mr Keo Doeun	To be shifted back
8+310 L		Sophor	10 Sugar palms		Public	To be cut down
Road: KC4 from Batheay to Cheung Prey District, 11.30km, running through 11 villages in 5 communes						

Chainage	Commune	Village	Observation	Comment	Owner	Action
00+090 L	Phoav	Phoav	Eucalyptus tree and concrete pole		Public	To be removed
00+100 L			Tree		Public	To be cut down
00+110 L			Wire fence 40x15m and 6 Trees		Owner to be identified	To be shifted back
00+190 L			Tree		Public	To be cut down
00+600 L			Tree		Public	To be cut down
00+700 L	Kouk Roveing	Kouk Rovieng	Roof extension		Ms.Phoung Sinoun	To be shifted back
1+300 R			Tree		Public	To be cut down
1+490 L			Roof extension		To be identified	To be shifted back
1+520 R			Shop roof extension		Mr.Pronh Saroum	To be shifted back
1+590 L			Shop roof extension		Mr.Cheng Lek	To be shifted back
1+595 R			Shop roof extension		Mr.Nout Sory	To be shifted back
1+660 L			Roof extension		Ms.Chan Sath	To be shifted back
1+695 R			Grocery store roof extension		Mr.Phon Pronh	To be shifted back
1+700 R			Tree		Public	To be cut down
1+740 R			Tree		Public	To be cut down
1+910 L			Tree		Public	To be cut down
2+00 L			Tree		Public	To be cut down
2+500 L			Wooden fence 30x15m and trees		Public	To be shifted back and cut down
2+550 L			Tree		Public	To be cut down
2+700 L		Chhouk	Bamboo fence 20x15m		Mr.Ouk Sorn	To be shifted back
2+780 R			Fence and tree		Mr.Chhith Pring	To be shifted back
2+785 L			Tree		Public	To be cut down
2+800 L			Grocery store roof extension		Ms.Tong Touch	To be shifted back
2+820 L			Tree		Public	To be cut down
2+900 L			Trees		Mr Sreyneang Chor	To be cut down

4+040 L&R			8 trees		Public	To be cut down
4+200 L			Tree		Public	To be cut down
44+ 040– 4+400 L&R	Khroul Dambang	Khroul Dambang	Eucalyptus and sugar palm trees		Public	To be cut down
4+350 L			Wire fence		Mr.Lan Sary	To be shifted back
4+500 R	Khroul Dambang	Khroul Dambang	Wooden fence		Mr. Pou Oeun & Ming Neang	To be shifted back
4+600 L			Wooden fence		Mr.Heng Chheang	To be shifted back
4+800 L&R			Wire fences		Mr.Choun Koeun	To be shifted back
4+970 L			Wire fence		Mr.Moeun Bun Thoeun	To be shifted back
5+000 L			Wire fence		Mr. Srun Narin	To be shifted back
6+490 L	Pdoa Chum	Phoay Lech Chou	Pagoda brick wall	Permanent structure	Watanaram pagoda/ monastery	Donation
9+100 L			Advertising billboard		To be identified	To be shifted back
Road: KC5 in Stung Trang District, 20.20km, running through 5 villages in 3 communes						
Chainage	Commune	Village	Observation	Comment	Owner	Action
			No impacts recorded	DDR recorded rubber trees owned by Boeung Ket Rubber Tree Plantation Company, and the company was willing to donate the affected trees to the Project		Rubber trees far enough from the centre line, approx.6.5m, only in some location 4.5m and impacts can be avoided during the construction.
Road: KC6 in Stung Trang District, 14.10km, running through 6 villages in 2 communes						
Chainage	Commune	Village	Observation	Comment	Owner	Action
0+00–0+700	Mer Sar Chrey		No impacts			Road width has been adjusted to 7m where houses on both sides near the road
	Dang Kda		No impacts			
Kratie Province						

Road: KRT1 in Chhlong District, 61.20 km, running through 10 villages in 3 communes Pictures in report						
Chainage	Commune	Village	Observation	Comment	Owner	Action
			No impacts			No impacts requiring action
Prey Veng Province						
Road: PV1 in Kanh Chreach (Kanhchriech) District, 20.40km, running through 14 villages in 4 communes Picture file						
Chainage	Commune	Village	Observation	Comment	Owner	Action
1+400	Kdoeang Reay	Samraong	Tree of private owner		Mr.Chhun Ley	
2+650		Ta Nal	Several Eucalyptus trees		Mr.Hen Phally	To be cut down
6+590 R		Kdoeang Reay	Temporary wooden roof in front of a grocery shop; area used for motorbike parking and not for selling goods		Ms Meas Hot	To be shifted back
6+590 L		Kdoeang Reay	Motorbike repair shop roof extension on the edge of COI		Mr Phal Vanna	To be shifted back
6+660		Kdoeang Reay	Shading tree		Public	To be cut down
6+700-6+760 6+760 -6+873 R		Kdoeang Reay	Monastery border walls (fences) of brick	Willing to demolish and rebuild further back	Monastery, Kdoeung Reiy pagoda	Donation
7+240 R		Doun Veal	Brick wall of private owner, 18.5mx1.8m	Willing to demolish and rebuild further back	Ms Hourn Kheak	Donation
7+950 L		Doun Veal	Advertising billboard		Mr Chhean An	To be moved back
7+960 R		Doun Veal	Grocery store roof extension		Ms Koeng Khoun	To be moved back
8+740 L	Seang Khveang	Chhouk	Monastery Brick wall	Willing to demolish and rebuild further back	Monastery, Chhouk pagoda	Donation
15+230 LR	Seang Khveang	Tout Sophy	Eucalyptus trees both sides		Public	To be cut down
Road: PV2 from Kanh Chreach (Kanhchriech) District to Ponhea District, 22.80km, running through 13 villages in 4 communes						
Chainage	Commune	Village	Observation	Comment	Owner	Action
			No impacts			No impacts requiring action
Road: PV3 in Pou Rieng District, 9.60km, running through 2 villages in 2 communes						
Chainage	Commune	Village	Observation	Comment		Action
2+200 L		Kampong	Wire fence 32.5m x		To be identified	To be shifted back

		Trakoun	1.5m			
Road: PV4 from Kampongtrabek District into Preah Sdak District, 15.10km, running through 11 villages in 3 communes Picture file						
Chainage	Commune	Village	Observation	Comment		Action
13+580 L	Angkor Reach	Thom	Bamboo fences	These impacts are not listed in the report, only in picture file	Ms Hem Neth	To be shifted back
13+580 R			Bamboo fences		Mr Peng Sophorn	To be shifted back
14+20 L			Shop roof extension		Ms Meas Moa	To be shifted back
Road: PV5 in Kanh Chreach District, 5.30km, running through 6 villages in 2 communes Pictures in report						
Chainage	Commune	Village	Observation	Comment		Action
			No impacts			No impacts requiring action
Svay Rieng Province						
Road: SVR2 in Svay Chrum District, 11.10km, running through 11 villages in 2 communes						
Chainage	Commune	Village	Observation	Comment	Owner	Action
	Kraol Kou		No impacts recorded			
	Svay Angk					
Road: SVR3 in Rumdul District, 9.20km, running through 8 villages in 2 communes						
Chainage	Commune	Village	Observation	Comment	Owner	Action
0+00 C	Kampong Chak	Campong Chak	Pagoda gate	Beginning of the road	Monastery	Road width adjusted
00+100 R			Bamboo fence		To be identified	To be shifted back
00+300 R			Stall selling chicken		Ms.Phalla	To be shifted back
00+350 L			Bamboo fence 9.2x1.5m		Mr.Loek Samean	To be shifted back
00+420 R			Box culvert		Public property	
00+470 R			Box culvert		Public property	
2+400 L&R		Prek Chonlouch	Eucalyptus trees		Public	To be cut down
3+100 L&R		Lak Reachea	Eucalyptus trees		Public	To be cut down
3+200 R		Lak Reachea	Wooden fence		Mr.Oum Than	To be shifted back
3+280 L&R		Lak Reachea	Eucalyptus trees		Public	To be cut down
3+300 L		Lak Reachea	Wooden fence		Mr Som Saphan	To be shifted back
3+350 L		Lak Reachea	Shop roof extension		Ms. Khem Vannak	To be shifted back
3+420 L			Wire fence 37 m		Mr.Ouk Chheang	To be shifted back

3+430 R			Wooden fence 16m		Mr.Tith Samoun	To be shifted back
Road: SVR4 in Rumdul District, 25.00 km, running through 22 villages in 5 communes					Picture file	
Chainage	Commune	Village	Observation	Comment	Owner	Action
0+00	Kampong Chak					
3+700 L	Svay Chek	Anlong Spean	Store selling pork		Ms.Sam Oeun	To be shifted back
3+720 L			Store selling vegetables		Ms.Prak SoPhorn	To be shifted back
3+730 L			Store selling vegetables		Ms.Ech Sreymoa	To be shifted back
3+735			Store selling pork		Ms.Ech kech	To be shifted back
3+740 L			Store selling pork		Ms.Ech Tith	To be shifted back
3+750 R			Shop roof extension		Ms.Vann	To be shifted back
8+620 L	Meun Chey	Meun Chey	Shop roof extension		Ms.Ouk Chanthan	To be shifted back
8+625 R			Shop roof extension		Ms.Ouk Chanthan	To be shifted back
8+635 L			Shop roof extension		Ms.Sok Sakhan	To be shifted back
8+660 L			Shop roof extension		Ms. Im Chea	To be shifted back
8+670 L			Shop roof extension		Ms.Kuet Socheat	To be shifted back
8+700 L			Advertising billboard		Mr.Ouk Sopha	To be shifted back
15+400 L	Thmea	Thmear	Eucalyptus trees		Public	To be cut down
Road: SVR5 in Kom Pong Ro District, 12.00km, running through 5 villages in 3 communes					Picture file	
Chainage	Commune	Village	Observation	Comment	Owner	Action
1+100 L&R	Preah Ponlea	Toul Trabek	Trees		Public	To be cut down
1+100 L&R			Wire fences		To be identified	To be shifted back
6+100 R	Prey Thom	Ta Koeng	Brick wall with wire 22.5 mx 2m		Mr Deap Sam Onn	Donation
6+100 L			Eucalyptus trees planted as border 50 m + wire fence		To be identified	To be cut down/ shifted back
6+200 R			Wire fence 20m x2m		To be identified	To be shifted back
6+560 L			Grocery store roof extension		To be identified	To be shifted back
7+400 L&R			Eucalyptus and sugar palm trees		Public	To be cut down

8+00 L		Kor Krous	Wooden fence and tree		To be identified	To be shifted back/ cut down
8+100 R		Kor Krous	Tree		To be identified	To be cut down
Tboung Khmum Province						
Road: TBK2 in Ponhea Krek District, 15.60km, running through 5 villages in 2 communes						
Chainage	Commune	Village	Observation	Comment	Owner	Action
00+900 R	Trapeang Phlong	Trapeang Phlong	Brick wall		Ms.Khvav Mom	Donation
1+200 L			Brick wall		Mr.Ta Moa	Donation
1+200 L			Wooden fence & roof extension		Ms.Yit Yong	To be shifted back
1+200 R			Brick wall with wire		Commune chief	Donation
6+400 R			Wooden fence and roof extension, Tree		Mr.Kong Pearom	To be shifted back
6+400 L			Wooden fence		Mr.Sok Sophal	To be shifted back
Road: TBK5 from Ponhea Krek to Dambe District, 15.20km, running through 8 villages in 2 communes						
Chainage	Commune	Village	Observation	Comment	Owner	Action
	Chong Cheah	2	No impacts recorded			
	Kandaol Chrum	6				

5.5. Voluntary Donations made to the project

33. The Project recognizes that voluntary donation of assets is a standard practice adopted for rural road improvement projects in Cambodia. The donation process emphasizes the spirit of free will with no element of coercion. Individual verification to ensure that people are volunteering for donation of their assets toward the Project is therefore mandatory.

34. The transect walks identified totally 10 private owners (of them three were monasteries and one was a primary school connected to a monastery) who will have their brick fences affected by the road construction. All the owners were willing to demolish and voluntarily donate their structures to the project in order to give space for an improved road that will benefit the community. The owners were willing to break down the walls and reconstruct these further from the road without compensation from the project. Donation procedures with certification from each commune chief and Village Development Committee (VDC) Chairperson were organized in late November 2019. Table 5-4 provides a list of the made donations.

35. The Donation Form in English is enclosed in Annex B-1. Photo report from all the donation occasions is found in Annex B-2, and the signed donation certificates (in Khmer) are enclosed in Annex B-3

Table 5-4: List of voluntary donations

Province	Road	Chainage PK	District	Commune	Village	Impact	Owner
Kampong Cham	KC2	1+600L	Batheay	Sandaek	Svay Prey	Brick wall	Ms Yeay Pou
		8+250R	Cheung Prey	Sdaeung Chey	Damnak Ampil	Brick wall with wire	Mr Srey San
	KC4	6+490L		Pdau Chum	Phdau Chum Lech	Pagoda/monastery brick wall	Monastery/ Watanaram pagoda
Prey Veng	PV1	6+700–760	Kanhchriech	Kdoeang Reay	Kdoeang Reay	Primary school brick wall	Kdoeang Ray Primary School
		6+760–873R				Pagoda/monastery brick walls	Monastery/ Kdoeang Reay pagoda
		7+240R			Doun Veal	Brick wall	Ms Hourn Kheak
		8+740L	Kamchay Mear	Seang Khveang	Chhuk	Pagoda/monastery Brick wall	Monastery/ Chhuk pagoda
Svay Rieng	SVR5	6+100R	Kampong Rou	Prey Thum	Ta Koeng	Brick wall with wire	Mr Deap Sam Onn
Tboung Khmum	TBK2	00+900R	Ponhea Kraek	Trapeang Phlong	Trapeang Phlong	Brick wall	Ms.Khvav Mom
		1+200L				Brick wall	Mr Ta Moa
		1+370R				Brick wall with wire	Mr Ith Yiep, Commune Chief

5.6. Due Diligence on Four Additional Roads

36. Four potential roads for the project were identified after the social safeguards due diligence was conducted in 2018. A due diligence on the project impacts according to ADB requirements was therefore undertaken along these roads. The assessment was made through transect walks along the four roads with a total distance of 30km in the area of 5 districts in 4 provinces in late July. The assessment included measuring the planned COI in locations with potential impacts on private structures, trees and other assets, and consulting the owners of the potential affected assets. A public consultation with community representatives and residents along the road was organized in each commune. The assessment found that 18 villages in 7 communes are located along these roads potentially planned to be included in the project. There are totally 2,659 households with 12,084 people in these villages to be directly benefitting from the improved transportation conditions.

37. The initial data and draft reporting of the assessment was prepared by the DDIS national social consultant, and revised together with the international consultant in late November. The assessment found that the road alignment/width should be adjusted in a few locations to avoid impacts, but no serious impacts on any private assets were identified. Results from the assessment were brought into the detailed engineering design of the roads. The Draft Social Safeguards Due Diligence report was submitted to ADB in late January 2020.

5.7. Household Baseline Socio-economic Survey

38. Population data was compiled in late November by DDIS international social safeguards consultant on all the project areas, including communes and all the villages along the 20 approved project roads, as well as the 4 additional roads to be potentially included in the project. The data is based on the Cambodia Community Database 2017 and information from the project communes.

39. The 20 approved project roads with a total length of 340km are located in 50 communes in 20 districts in the 5 project provinces. 160 villages with approx. 189,000 people in more than 45,000 households along the project roads will directly benefit from improved transportation conditions, while the total population in the project communes is approx. 600,000 people in 142,000 households in 590 villages.

40. In order to assess the socio-economic impacts of the project after the project completion, a baseline socio-economic survey will be undertaken during the 1st and 2nd quarter of 2020, before the commencement of the project construction activities. Relevant parts of the same survey can then be repeated after the project as part of the project impact evaluation. The international social safeguards specialist prepared a survey questionnaire and TOR for the survey conduct in early December, and KCI has initiated discussions on the implementation arrangements with SEO and a national consultancy company for external data management services. The survey questionnaire is enclosed in Annex C.

41. The desired confidence level of the survey has been set at the regularly used 95% and the confidence interval (margin of error) at 3.5%. To achieve that for the 142,000 HHs, a sample size of 784 households is needed for a random sampling across the project areas and containing both villages along each project road and villages off the road in the same commune.

5.8. Monitoring of CPF implementation along roads under construction

42. The two roads of TBK1 and TBK3 in Tboung Khmum province are under construction and the first semi-annual monitoring covering environmental safeguards and EMP was undertaken in December 2019 by SEO staff and DDIS national environmental specialist.

Community consultations undertaken along the two roads are reported under the environmental monitoring part of this report in Chapter 5. DDIS International social safeguards Specialist prepared forms to be used for the CPF monitoring reporting during construction (enclosed in Annex D), but no separate CPF monitoring was yet undertaken for the 2nd half of 2019. The first proper semi-annual social safeguards monitoring using the prepared CPF monitoring forms will be implemented in June 2020.

43. DDIS consultant on the site is checking the impacts daily along the project roads of TBK1 and TBK3, and up to the end of December 2019, neither resettlement issues nor complaints from any owners of affected assets had appeared. The issues related to the CPF monitoring will include:

- Community consultations/ meetings organised on the project;
- Community views, questions and concerns recorded, answered and responded to;
- Transect walks and their results;
- Impacts recorded and voluntary donations processed;
- Shifting back of temporary structures and removing trees, assistance received;
- Information flow between PIU/PMU, contractor and local communities;
- Regular information of project progress to communities along the road;
- Communities aware of GRM and how to complain (as stated in the EMP);
- Complaints log/records; Complaints made, recorded, processed, solved or unsolved.

44. According to the CPF, the monitoring methodology will consist of:

- Community consultation with households along the road, with gender balanced participation of men and women;
- Inspection on place of any problem issues raised by people, interview and discuss the problem/complain with the household(s) concerned;
- Complaints log/records copied;
- Focus group discussion separately with men and women on road condition, road use, travel time, construction impacts, concerns and suggestions on the improved road and benefits to local people. One FGD with men and one with women in each district during the project life time.

5.9. Summary of impacts and mitigation measures on all 24 roads

45. The assessments made along the 18 roads and the four additional roads to be potentially included to the project show no involuntary resettlement impacts of physical or economic displacement of people. The road construction will impact on ten (10) permanent brick border walls that the owners agreed to demolish and to be rebuilt further from the road, and several temporary fences of light material will need to be shifted backwards. Trees to be affected along the roads are mainly shading trees belonging to the public road. Table 4-6 summarizes impacts on each of the 24 roads (18 through transect walks, 4 additional roads assessed and 2 roads already under construction that were assessed through Due Diligence in 2018). Table 5-5, following the Mitigation Measures Matrix of the CPF, shows the actual impacts and progress of mitigation measures implementation.

Table 5-5: Summary of impacts on all 24 roads

Road ID	Road length km	Transect walk date 2019	IR impact Yes/No	Remarks
KC1	13.6	5-6 Aug	No	Trees to be removed; temporary structures to be shifted back.
KC2	23.2	6-8 Aug	No	Two brick fences to be demolished and rebuilt with owners' agreement; temporary structures to be shifted back.
KC3	11.2	8-9 Aug	No	Trees to be removed; temporary structures to be shifted back
KC4	11.3	12 Aug	No	One brick fence to be demolished and rebuilt with owner's agreement; trees to be removed; temporary structures to be shifted back.
KC5	20.2	13-15 Aug	No	-
KC6	14.1	13-14 Aug	No	Road width adjusted to avoid any impacts.
KRT1	61.2	10-11 Sep	No	-
PV1	20.4	21 Aug	No	Three brick fences to be demolished and rebuilt with owners' agreement; temporary structures to be shifted back.
PV2	22.8	26-28 Aug	No	-
PV3	9.6	22 Aug	No	One temporary structure to be shifted back.
PV4	15.1	29 Aug	No	Temporary structures to be shifted back.
PV5	5.3	27 Aug	No	-
SVR2	11.1	30 Aug	No	-
SVR3	9.2	2 Sep	No	Road width adjusted to avoid impacts; trees to be removed; temporary structures to be shifted back
SVR4	25.0	2-4 Sep	No	Temporary structures to be shifted back, trees to be removed
SVR5	12.0	3-5 Sep	No	One brick fence to be demolished and rebuilt with owner's agreement; temporary structures to be shifted back, trees to be cut down
TBK2	15.6	16 Aug	No	Three brick fences to be demolished and rebuilt with owners' agreement; temporary structures to be shifted back
TBK5	15.2	19 Aug	No	-
Due Diligence on Additional Roads and Ongoing construction				
KC7	8.5	24 July 2019	No	Road alignment adjusted to avoid impacts.
KRT3	8.6	30 July 2019	No	Shading trees along road to be cut down.
SVR7	7.3	29 July 2019	No	Shading trees along road to be cut down.
TBK7	5.7	26 July	No	Temporary structures to be shifted back.
TBK1	9.96	April 2018	No	Ongoing construction. Rubber company with affected trees cut down trees growing in the COI by own initiative to give space for a wider and improved road.
TBK3	13.83	April 2018	No	Ongoing construction. No impact issues.

Table 5-6: Progress of mitigation measures according to CPF Mitigation Measures Matrix

Impact Category	Mitigation Measures	Progress
Loss of Agricultural Land (Very small strips)	<ul style="list-style-type: none"> - Willing transfer of land by means of MOU - Advance notice to harvest standing crops - For vulnerable affected persons no voluntary donation is accepted - For land involving traditional rights, the road will not be financed by the project 	Road improvement follows existing alignment. No agricultural land affected.
Loss of Structure	<ul style="list-style-type: none"> - For loss of boundary walls and fences, affected during construction, contractor will rebuild the affected structure as part of environmental management plan to pre-existing conditions; - For tenants, assistance to find alternative rental arrangements by VDC; 	<ul style="list-style-type: none"> - Temporary fences of light material to be shifted back under EMP; - Brick fences to be demolished and reconstructed under EMP; - No affected tenants.
Loss of livelihood	<ul style="list-style-type: none"> - In case of permanent shops impacted, impact will be avoided through agreed technical solutions. If not possible, road will be dropped from financing; - For mobile vendors, project will help moving them back for the duration of construction in order to avoid business interruption and livelihood loss 	<ul style="list-style-type: none"> - No affected permanent shops; - Shop front eaves of light material to be shifted back.
Loss of Assets such as Trees, Well, and Ponds	<ul style="list-style-type: none"> - Willing transfer of the asset by means of MOU. - For vulnerable affected persons, the project will not accept donation. Impact will be avoided through agreed technical solutions as detailed above 	<ul style="list-style-type: none"> - Road alignment and technical design prepared to avoid impacts; - Few trees with private owners affected; - No vulnerable affected persons.
Loss of community owned assets such as temple, wells, ponds, etc.	Civil works contract conditions to include provisions to obligate the contractor to implement appropriate mitigation measures for the temporary impacts include disruption of normal traffic, increased noise levels, dust generation, and damage to adjacent parcel of land due to movement of heavy machinery to be included the Civil Works Contract	No community-owned assets affected.
Other unanticipated impacts	Unforeseen impacts will be documented and mitigated based on the principles in this framework. If required, ADB will be informed and project categorization will be revisited based on ADB concurrence and follow-up actions taken to mitigate these impacts	<ul style="list-style-type: none"> - Daily monitoring undertaken on site by DDIS consultant. - Impact monitoring to be conducted and reported semi-annually.

6. ENVIRONMENT MONITORING

6.1. Environmental Monitoring Mechanism

46. The essence of monitoring is to ensure compliance with environmental legislation and

ADB SPS 2009. The contractor has a duty to comply with the relevant legislation. The DDIS consultant must check jointly with the SEO officers the contractor's field activities and report to MRD periodically. In the event of noncompliance with EMP, MRD can instruct the contractor to comply.

47. It may be necessary to carry out measurements to establish if the regulations are being met. In fact, simple compliance with the standards is not necessarily the final objective. There is no harm in the contractor "going beyond compliance" and running an operation better than that required by the law. The measurements to be made and standards to be met are given below. There will be a "hierarchy" of monitoring and measurements. This would be based on:

- Contractors
- Consultants inspectors
- SEO environmental staff from MRD
- Ministry of Environment (MOE would only involve if an official complaint was made to them)

48. Initially, contractors should check daily that all operations are being conducted correctly. In general, "good housekeeping" must be employed. If contractor's camps are established, then overflowing of septic tanks must be checked by visual inspection. Dust must be controlled by covering of stockpiles and water sprays. Solid waste, engine oil and grease, must be taken away by waste removal contractors and records kept.

49. For road construction operations, dust suppression and noise control are usually the main sources of potential nuisance if activities take place near residential dwellings. Crusher plants and borrow areas can also be sources of noise and dust. Inspection of borrow areas should also include borrow roads used by contractor's vehicles. After extraction from borrow areas is finished, reinstatement must be carried out. Warning signs must be erected to avoid drowning if deep ponds are left. Inspectors and SEO staff must make regular checks by visual inspection.

50. DDIS inspectors are making daily spot checks and weekly formal checks on site operations. They check all of the above and view records for waste disposal. They must also investigate any pollution incidents or complaints. They are using checklists for record purposes and ensure that any complaints or incident are brought to the notice of the contractor immediately, verbally and with a follow up written notice.

51. Initial monitoring is based on visual inspection and site assessment. Measurements require specialist equipment and this only needed if a significant incident occurs. Normally, implementation of "Good Housekeeping" and the contractor demonstrating a responsible attitude are sufficient to ensure an environmentally satisfactory operation.

52. If vibration measurements or dust measurements are required then specialized equipment will be needed. The responsibility for requesting the measurements will be the consultant's. SEO will liaise with MOE and DOE to arrange the measurements if necessary. MOE have vibration equipment for measurement of traffic and blasting vibrations.

6.2. Environment Monitoring Activities Implemented

6.2.1. Consultation

53. During the detailed design of project roads, international environmental specialist (Mr. Paulo Pasicolan) was mobilized from 8 July to 13 July 2019 and national environment specialist was mobilized on 3 July 2019. They collected field environmental data and conducted public consultations for the 4 additional roads in four project provinces to be included in the project. The four roads are KC7, TBK7, SVR7 and KRT3. A Team of

Consultants and SEO officers conducted public consultation in the communes of four additional rural roads on July 10-12, 15, 2019.

54. **KC7 Road:** The public meeting was held on 10 July 2019 from 10.30 am to 12.00 noon at Chhoeu Bak Pagoda, Chhoeu Bak Village, **Boeung** Nay Commune, Prey Chhor District, Kampong province. A welcome remarks was given by Mr. Koa Sour, Chief of Boeung Nay Commune. Three (3) KCI consultants, two (2) staff from PMU-MRD, one (1) staff from Kampong Cham PIU and commune councils, VDCs and on-site stakeholders attended the meeting. There were a total of 63 participants, including 17 women. (Photo 1)



55. **TBK7 Road:** The consultation meeting was held on 11 July 2019 from 10.45 am to 12.40 am at Chhouk Commune Hall, Krach Chbar District, Tbong Khum Province. A welcome address was given by Mr. Yin Phon, Chief of Chhouk Commune. There were a total of 26 participants, including 5 women.



56. **SVR7 Road:** The meeting was held on 15 July 2019 from 10.30 am to 11.45 am at Po Thom pagoda, Lvea Village, Krous Commune, Svay Chhrom District, Svay Rieng Province. A Welcome address was given by Mr. Net Sanin, First Deputy Chief of Krous Commune. There were a total of 65 participants, including 47 women.



57. **KRT3 Road:** The consultation meeting was held on 12 July 2019 from 10.30 am to 12.00 noon at Svay Chras Commune Hall, Snoul District, Kratie Province. A welcome remark was given by Mr. Khiev Sokha, Chief of Svay Chras Commune. There were a total of 36 participants, including 8 women.



58. During the consultation meeting, the villagers expressed their appreciation in welcoming the proposed project in Svay Chras commune. They actively participated in articulating their views, as well as their appreciation and acceptance of the road improvement project.

59. Local people anticipated minor, localized and temporal adverse environmental impacts, such as dust and noise disturbance during the construction phase, however, they perceived more positive gains than momentary inconvenience in terms of the economic benefits, comforts and advantages the project will bring to them. The project will control environment impacts such as dust, noise and vibrations as minimal during construction.

60. As an expression of the high social acceptability of the project to the communities, those whose properties are affected by road works expressed willingness to donate their properties, if necessary, for the improvement of roads without any compensation. The consultation team expressed appreciation to the local people participated and requested for cooperation for successful implementation of the project. Sensitive receptors such as pagoda, schools, and health centers have been identified with villagers.

6.2.2. Environmental Monitoring of Contract CW-B2

61. One contract, CW-B2 of RRIP III, has been procured as pilot implementation to Ung Simsia Construction Co., Ltd. The contractor CW-B2 was signed on 25 April 2019 and two project roads of TBK1 and TBK3 have been under construction. The location map of Contract

CW-B2 is shown in Figure 6-1

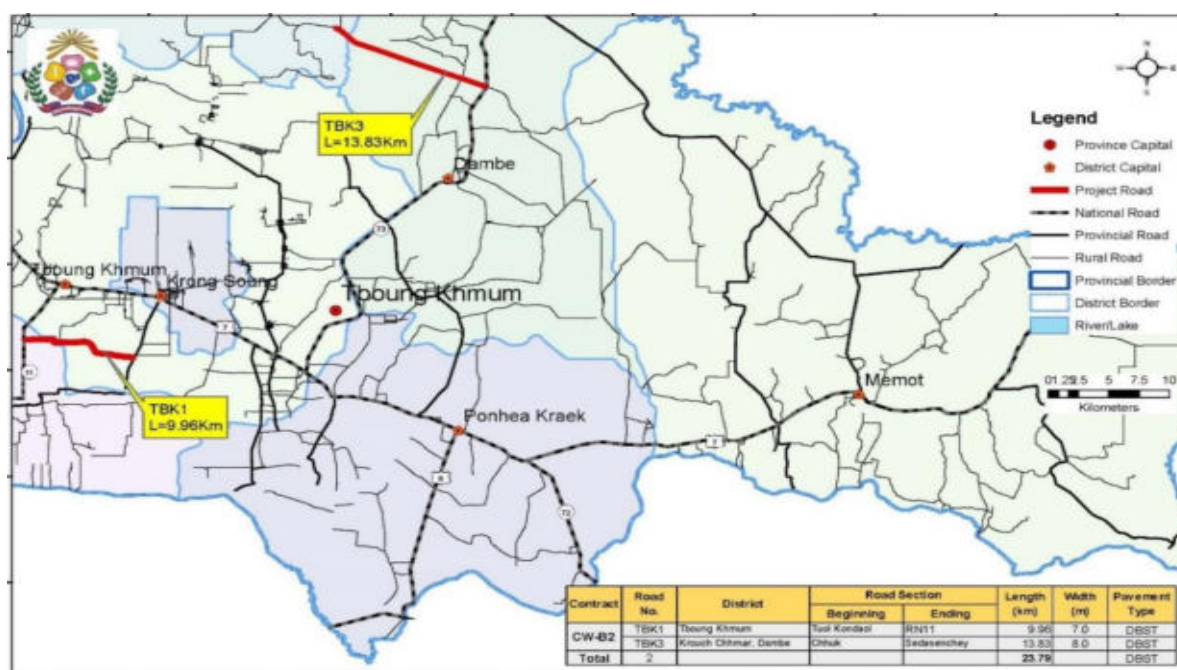


Figure 6-1 Location map of Contract CW-B2

(1) TBK 1 Road (9.96 km)

62. This road is located in two districts, Krong Soang and Orang Ove, of Tbong Khmum province. It starts from NR73 junction at Chikor and ends at Presteat (National Road No.11 Junction). The road traverse villages with agriculture crops and passes hilly terrains in the middle. Most of agricultural lands are cultivated for rice, rubber trees, cassava, vegetables and corns. Houses and villages are distributed along the road. The existing road length is 9.96 km, and the surface is with laterite.

63. The existing structures are 21 pipe culverts most of them will be replaced. This road has been recently improved to laterite road in 2014. Along the road, there are 8 villages (Toul Kandal, Chikork Khnong, Andoung Kdey, Khnach Krasang, or Stoeung Penh, and Phum Samaky), 2 pagodas (Serey Odom, Andoung Kdey) and 3 Primary schools. (Toul Kandal, Stoeung Penh and Mphai Bram Pi).

64. There is neither protected area, protected forest and wildlife nor sensitive ecological sites located in the project road.

(2) TBK3 Road (13.83 km)

65. This road is located in Krouch Chhmar District and Dambae District of Tbong Khmum Province. It starts from NR 73 junction at Seda Senchey and ends at Krabei kreak located at Chhuk Commune. The land consists of open fields which contains agriculture lands for rice fields, and rubber tree plantation. Low density of houses and villages are distributed along the road.

66. The existing road length is 13.834 km, and the road surface is laterite. The existing structures are 1 bridge and 14 pipe culverts. There are 3 villages (Sedasenchey, Senmonkol, Krabei kreak), 2 Primary Schools (Sedasenchey and Senchamreun), 2 Pagoda (Pras Neang Sedasenchey and Senchamreun or Kos KraNhanh) and 1 Health Center (Sedasenchey).

67. There is neither protected area, protected forest and wildlife nor sensitive ecological sites located in the project road.

6.2.3. Progress of Contract CW-B2

68. The notice to commencement and possession of site was issued to the contractor on 6 May 2019. The contractor conducted mine /UXO clearance work during May and June 2019.

69. The contractor mobilized over 40 equipment and achieve remarkable progress of earthworks and completed by the end of December 2019. The contractor started to place subbase during December 2019.

70. The contractor achieved 38.95% of progress by the end of December 2019. The detailed progress as of the end of December 2019 is shown in Table 6-1.

Table 6-1 Progress of Civil Work CW-B2

Description	Up to Q3 2019 (%)	Q4 2019 (%)	Cumulative Progress (%)	Remarks
Planned	4.99%	5.05%	10.04%	
Achieved	18.37%	20.58%	38.95%	
Deviation	+13.38%	15.56%	+28.94%	

71. The EMP (Environmental Management Plan) has been incorporated in the contract document. The contractor developed Contractor's CEMP on and approved by the consultant on 1 July 2019. The CEMP included more detailed information and construction plan such as location map, contractor's personnel, list of sensitive area, summary of material sources of subbase and base including quarry, environment monitoring and reporting, mitigation measures and monitoring.

6.2.4. Environment Monitoring of Contract CW-B2

72. International environment specialist, Mr Paulo Pasicolan was mobilized from 3 September to 14 September 2019 to train SEO how to conduct environment monitoring of civil works and conducted environment baseline assessment of Contract CW-B2 which has been under ongoing construction with national Environment specialist, Mr. Hang Sophal, and SEO environment team.

73. The international environment specialist provided the SEO Capacity Building on environmental management of project and method of environment monitoring as follows:

1. Training Subject: Environmental Management
2. Training Period: 10-11 September 2019
3. Trainer: Mr. Paulo N. Pasicolan, International Environmental Specialist,
4. Participants: SEO Environment team (3 persons), PDRD (2 persons), Consultants (3 persons), Contractor (2 persons)
5. Training schedule:

Date/Time	Description	Location
10 Sept (Tue) 14:00-17:00	Classroom training on Environment management	MRD 1 st Floor meeting room
11 Sept (Wed) 06:30-17:30	-Field training to CW-B2 site in Tboung Khmum Province	TBK1 and TBK3 road.



74. The team inspected contractor's 2 base camp sites in TBK1 and TBK2, construction sites, oil spillage and dust and noise control in the project sites in order to ensure compliance with the project EMP and ADB Safeguard Policy Statement 2009.

75. The international environment specialist was accompanied by the National Environmental Specialist, SEO and PDRD staff of MRD and the DDIS consultants and the contractor's representatives.

76. For the second monitoring of environment, conducted from 16 December to 18 December 2019, the consultants with SEO environment team conducted semi-annual environment monitoring for Contract CW-B2. The monitoring team were:

- Mr. Chhun Sophea, Environmental Officer, SEO/MRD
- Mr. Siv Veasna Environmental Officer, SEO/MRD
- Mr. Kim Il Hwan, Team Leader of DDIS /RRIP.III
- Mr. Hang Sophal National Environmental Specialist

77. The objectives of the site visit are as follows:

- a. Conduct environmental and social monitoring and discuss with Contractors, labor force and local communities and GRM focals to check on systematic recording and resolution issues under RRIP.III.
- b. Monitor compliance with the implementation of the Environmental Management Plan (EMP) as provided in the civil works package.
- c. Check labor camp sites, health condition, toilet facilities and cleanness.
- d. Check construction site, dust, noise, air, water and oil spillage etc.
- e. Conduct monitoring of the implementation of the EMP checklist, checking appropriateness of compliance, on-site discussion of findings and providing advice and recommendations;
- f. Identify any adverse environment impacts or any complaints from local inhabitabts.

6.2.5. Monitoring of CEMP

78. The contractor of CW-B2 submitted the CEMP on 30 May 2019, and the the consultant approved the CEMP on 1 June 2019. After the field activities commenced, the CEMP has been monitored and enforced by the Supervision Consultants field inspectors who use checklists included in the EMP. By using the checklists, the consultant checked environment compliance monthly so that consistency is maintained. The checklists signed have been compiled every month and the checklists for Contract Packages CW-B2 for May 2019 to December were reviewed by the monitoring team.

79. The checklists had been filled in correctly and reporting was thorough. No environmental issues were identified. Dust from roads was commented upon but was not a significant level during rainy season and frequency of spraying water over the road surface was increased during dry season as remedial action. No complaints from villagers were reported and villagers were happy to see the construction work ongoing.

6.2.6. Status of EMP Compliance

80. In general, except for the two (2) aforementioned conditions, majority of the mitigation measures are met by the Contractor as presented in Table 6-2.

Table 6-2 Environmental Impacts and Mitigation Measures

PROJECT ACTIVITY	POTENTIAL ENVIRONMENTAL IMPACTS	PROPOSED MITIGATION MEASURES	COMPLIANCE (Yes, No, Partial or Not Applicable)	REASON FOR NON-COMPLIANCE	ISSUES FOR FUTURE ACTION
Pre-Construction Phase					
Location of project roads	Safety risks due to presence of UXO	The DDIS consultant shall engage a UXO specialist to determine the level of risk of the project roads and advise on the need for clearance.	YES		
		Any clearance that is required will be undertaken through the civil works contracts, by the engagement of qualified local UXO clearance firms.	YES		
		The contractor shall only commence site works after the UXO clearance firm has certified that areas are already cleared.	YES		
	Mechanism to address environmental complaints	Establish a GRM, as described in Chapter VII of this IEE.	YES		
		Make public the existence of the GRM through public awareness campaigns; place flyers in the commune and district offices as well as in all contractor site offices and active construction sites; replace old and non-readable flyers from time to time throughout the construction period.	YES		
		Ensure that names and contact numbers of representatives of MRD and contractors are placed on the notice boards outside the construction site and at local government offices (e.g., provincial and commune levels)	Yes		Next to "hotline" number on the project sign board, it need to add "MRD".
Location of quarry and borrow areas	Siting of quarry and borrow areas could cause damage to ecologically sensitive sites,	Sourcing of quarry and borrow materials from existing sites shall be preferred over establishment of new sites, as much as possible.	YES		
		Quarries and borrow pits shall not be established in national, provincial,	YES		

PROJECT ACTIVITY	POTENTIAL ENVIRONMENTAL IMPACTS	PROPOSED MITIGATION MEASURES	COMPLIANCE (Yes, No, Partial or Not Applicable)	REASON FOR NON-COMPLIANCE	ISSUES FOR FUTURE ACTION
	productive land and nuisance to sensitive receptors (residential areas, schools, etc.,	district and village conservation forests and other ecologically sensitive and protected areas.			
		Borrow/quarry sites shall not be located in productive land. In case the Project will involve new quarry/borrow sites, necessary approvals from environmental authorities shall be obtained prior to operation of such sites. The need to update ADB IEE/EMP will also be considered. Such sites shall be located over 500 m away from residential areas, school, hospital and other sensitive receptors Contractor should use existing facilities and sites.	YES		
Location of construction camps/ workers camps and other project facilities	Siting of various project facilities could adversely affect sensitive receptors (residential areas, etc.) due to dust emission, wastewater generation, etc	Workers camp location and facilities shall be located at least 500 m from settlements and agreed with local communities and local officials.	YES		
		Siting of asphalt plants, concrete mixing plants, crushing plants and other facilities that cause high dust and/or gaseous emissions will be at least 500 m from settlements and other sensitive receptors (schools, hospitals, etc.)	NA No plant will be installed in the site.		
		Necessary environmental clearance/ approval shall be obtained prior to establishment and operation of asphalt mixing plants, crushing plants and other facilities.	NA No plant will be installed in the site.		
Project design (Detailed Engineering Design)	Climate change and hydrological Impacts	Incorporate in the project design the measures that have been recommended in the Project Climate and Disaster Risk Assessment (PCDRA) for the Project (e.g. Provincial and district roads should be designed to withstand a 1 in 10-year flood level with 0.25m freeboard, etc.).	YES		
		Provide for appropriate design of roadside and cross drainage systems, where necessary, to avoid flooding on project roads as well as in areas surrounding the project roads, especially at sections where road embankments will be raised to prevent flooding of roadways.	YES		
		The road embankment, bridges and drainage facilities shall be designed based on the historical flood data and flood forecasting.	YES		
		Erosion control and slope stabilization measures shall be included in the design, as appropriate, such as side ditches and berms, rock lining and slope walls along the road, shrub buffer strips sites in areas of high erosion risk, cross drainage to accommodate floodwater/run-off in case road sections are on elevated	YES		

PROJECT ACTIVITY	POTENTIAL ENVIRONMENTAL IMPACTS	PROPOSED MITIGATION MEASURES	COMPLIANCE (Yes, No, Partial or Not Applicable)	REASON FOR NON-COMPLIANCE	ISSUES FOR FUTURE ACTION
		fills that will obstruct natural drainage. Update IEE and EMP to include results of detailed engineering design. Include update information as part of the tender documentation. Contractor required to prepare and submit CEMP addressing environmental requirements in the tender documentation.			
Site preparation	Disruption to community utilities	Prior to commencement of site works, relocate or re-provision water supply pipelines, irrigation canals and other facilities that may be affected by construction works This will be done in agreement with the local community and the utility company.	YES		
Construction Phase					
Operation of construction equipment excavation works, spoils and waste disposal, transport of construction materials	Archaeological Chance Finds.	<p>In the event of any construction work uncovering or revealing archaeological relics in any of the project roads, these shall be deemed a "chance find" and reported as such to the MCFA.</p> <p>The following 'chance-find' principles will be implemented by the contractor for all Project roads to account for any undiscovered items identified during construction:</p> <p>In coordination with MCFA, workers will be provided orientation in the location of cultural/heritage zones within the construction area and in the identification of potential items of cultural/heritage significance.</p> <p>Upon discovery of any objects of possible archaeological significance that may be uncovered during construction, the site supervisor shall immediately suspend construction activities affecting the area and shall alert MCFA or its provincial or district offices to inspect the site.</p> <p>Work will remain suspended until a site assessment has been made by the concerned authority (MCFA, etc.), an agreement has been reached as to any required mitigation measures (which may include excavation and recovery of the item), and the contractor has been given permission by the concerned authority to proceed with the construction activities</p>	YES		
Earthworks, excavation activities, transport of	Air pollution due to elevated levels of dust and gaseous	Construction equipment will be maintained to a good standard. Immediate repairs of any malfunctioning construction vehicles	YES		

PROJECT ACTIVITY	POTENTIAL ENVIRONMENTAL IMPACTS	PROPOSED MITIGATION MEASURES	COMPLIANCE (Yes, No, Partial or Not Applicable)	REASON FOR NON-COMPLIANCE	ISSUES FOR FUTURE ACTION
materials, operation of construction equipment, and vehicles	Emissions	and equipment shall be undertaken.			
		Equipment and vehicles not in use shall be switched off.	YES		
		Machinery and vehicles causing excessive pollution (e.g., visible smoke) will be banned from construction sites.	YES		
		All construction equipment and vehicles shall have valid certifications indicating compliance to vehicle emission standards	YES		
	Elevated noise and vibration levels that could cause nuisance and damage to properties	No noisy construction-related activities (e.g., transport of materials along residential areas and other sensitive receptors, piling, use of jackhammer, etc.) will be carried out from 2100 hours to 0600 hours along residential areas, hospitals and other sensitive receptors.	YES		
		Noisy construction activities will be avoided during religious or cultural events in close proximity to the roadside such as Friday prayers attended by Muslim Cham, when ethnic Khmer are attending temple festivals or holding weddings, etc.	YES		
		All construction equipment and vehicles shall be well maintained, regularly inspected for noise emissions, and shall be fitted with effective muffler and other appropriate noise suppression equipment consistent with applicable national and local regulations.	YES		
		Use only vehicles and equipment that are registered and have necessary permits.	YES		
		Truck drivers and equipment operators shall avoid, as much as possible, the use of horns in densely populated areas and where other sensitive receptors are found such as schools, temples, hospital, etc. are located.	YES		
		Impose speed limits on construction vehicles to minimize noise emission along areas where sensitive receptors are located (houses, schools, temples, hospitals, etc.).	YES		
		Provide temporary noise barriers (35 meters high barrier can reduce 5–10 dB(A), as necessary, if site works will generate high noise levels that could disturb nearby households, hospital, school and other sensitive receptors	YES		Noise level is bearable and below threshold limits
		Avoid noisy construction activities in vicinity of sensitive receivers during nighttime or other sensitive periods (e.g. during school hours in vicinity of schools)	YES		No night work is allowed.
		Truck drivers and equipment operators shall avoid, the use of horns	YES		
		Restrict use of vibrating rollers and	YES		

PROJECT ACTIVITY	POTENTIAL ENVIRONMENTAL IMPACTS	PROPOSED MITIGATION MEASURES	COMPLIANCE (Yes, No, Partial or Not Applicable)	REASON FOR NON-COMPLIANCE	ISSUES FOR FUTURE ACTION
		operation of heavy equipment near vibration sensitive structures			
Establishment and operation of construction and workers camps	Operation of these facilities will generate solid and liquid wastes and if improperly handled, these could cause health problems and pollution .	Drainage shall be provided to facilitate the rapid removal of surface water from all areas and prevent flooding and accumulation of stagnant water. Provide adequate housing for all workers at the construction camps and establish clean canteen/eating and cooking areas.	YES		
		Portable lavatories (or at least pit latrines in remote areas) shall be installed and open defecation shall be prohibited and prevented by cleaning lavatories daily and by keeping lavatory facilities clean at all times.	YES		
		Provide separate hygienic sanitation facilities/toilets and bathing areas with sufficient water supply for male and female workers.	YES		
		Wastewater effluents from contractors' workshops and equipment washing-yards will be passed through gravel/sand beds and all oil/grease contaminants will be removed before wastewater is discharged. Oil and grease residues shall be stored in tightly covered drums. Such wastes shall be disposed consistent with national and local regulations.	YES	No exclusive washing yards for construction equipment	Ground contamination
		Construction/workers camps shall be cleaned up after use to the satisfaction of MRD/SEO/DDIS and local community. All waste materials shall be removed and disposed to disposal sites approved by local authorities.	NO	No solid waste disposal system in place in rural area.	Periodically transport collected solid waste to dump site by disposal company.
		Land used for campsites shall be restored to the original condition as far as practicable and the area shall be planted with appropriate trees/ shrubs as soon as practicable after it is vacated and cleaned.	YES		Will be checked during taking over inspection.
Quarry and borrow site operation	Operation of quarry and borrow sites could cause adverse impacts to surface water quality, elevated dust emission during excavation siltation of nearby water courses, damage to productive land and ecologically sensitive areas and pose health and safety risks.	Prior to extraction, topsoil (about 15 centimeter) shall be stockpiled, preserved and then refilled after completion of quarry/borrow pit operation for rehabilitation purposes after excavation is over.	YES		
		Dust control during transport (e.g., water spraying on access roads and provision of truck cover) and excavation shall be undertaken in areas where there are sensitive receptors such as residential areas, school, hospital, etc.	YES		
		Long-term material stockpiles shall be covered to prevent wind erosion.	YES		
		During quarry and borrow site operation, provide adequate drainage to avoid accumulation of stagnant water.	YES		

PROJECT ACTIVITY	POTENTIAL ENVIRONMENTAL IMPACTS	PROPOSED MITIGATION MEASURES	COMPLIANCE (Yes, No, Partial or Not Applicable)	REASON FOR NON-COMPLIANCE	ISSUES FOR FUTURE ACTION
		The use of riverbed sources shall be avoided, as much as possible, however if this is unavoidable the contractor shall minimize use of river bed for construction materials and sources of fill and quarry materials lying on small rivers and streams shall be avoided. Alluvial terraces or alluvial deposits which lie on the riverbeds but not covered by water in normal hydrological conditions shall be preferred.	YES		
		Upon completion of extraction activities, re-contour borrow/quarry pit wall or fill-up when there are available and suitable materials such as excavation spoils, replace topsoil, and re-vegetate with native species such as grasses and fast-growing shrubs and trees.	YES		
		Upon completion of extraction activities, borrow pits shall be dewatered and fences and warning signs shall be installed, as appropriate, to minimize health and safety risks.	YES		
		In quarries in mountainous or hilly areas, or wherever slopes are important, terraces shall be cut after extraction, drainage system and vegetation cover shall be provided for rehabilitation to enhance slope stability	NA Purchase from existing commercial quarry		
		Implement compensatory planting (at least one is to one ratio) if trees will have to be removed at quarry and borrow sites.	NA		
		Borrow pits will be left in a tidy state with stable side slopes and proper drainage in order to minimize soil erosion, siltation of nearby bodies of water and to avoid creation of water bodies favorable for mosquito breeding.	NA		
		To avoid drowning when pits become water-filled, measures such as fencing, providing flotation devices such as a buoy tied to a rope, etc. shall be implemented.	NA		
		It is possible that villagers may request borrow pits to be left excavated so that they may be used as water reservoirs or fishponds. If this were to be agreed between the contractors and the villagers, all the full safety measures detailed above must be observed. Such agreements would be formalized in writing between the contractors and the villagers after full discussion with all concerned parties	NA		
Solid waste management	Pollution and safety risks due	Prohibit disposal of solid wastes into canals, rivers, other watercourses,	No.	No solid waste	Periodically transport

PROJECT ACTIVITY	POTENTIAL ENVIRONMENTAL IMPACTS	PROPOSED MITIGATION MEASURES	COMPLIANCE (Yes, No, Partial or Not Applicable)	REASON FOR NON-COMPLIANCE	ISSUES FOR FUTURE ACTION
and use of hazardous substances such as fuel, oil, bitumen, etc.	to use of hazardous materials and disposal of hazardous wastes	agricultural fields and public areas and ensure that wastes are not haphazardly dumped within the project site and adjacent areas.		disposal system in place in rural area.	collected solid waste to dump site by disposal company.
		No site-specific landfills will be established by the Contractors. All solid waste will be regularly collected and removed from the work camps and disposed to areas approved by local authorities.			
		Prohibit burning of construction and domestic wastes; recyclables shall be recovered and sold; residual and hazardous wastes shall be disposed of in sites approved by local authorities; segregate and regularly collect wastes at worker camps and offices; construction/workers' camps shall be provided with garbage bins.			
		Store fuel and hazardous substances and wastes on bounded paved area with roof and interceptor traps so that accidental spills do not contaminate the environment. If spills or leaks do occur, undertake immediate clean up.			
		Train relevant construction personnel in handling of fuels and other hazardous substances as well as spill control procedures.	YES		
		Ensure availability of spill cleanup materials (e.g., absorbent pads, etc.) specifically designed for petroleum products and other hazardous substances where such materials are being stored.	YES		
		Segregate hazardous wastes (oily wastes, used batteries, fuel drums) and ensure that storage, transport and disposal shall not cause pollution and shall be undertaken consistent with national and local regulations.	YES		
		Store waste oil, lubricant and other hazardous materials and wastes in tightly sealed containers to avoid contamination of soil and water resources.	YES		
		Ensure all storage containers of hazardous substances and wastes are in good condition with proper labeling.	YES		
		Regularly check containers for leakage and undertake necessary repair or replacement.	YES		
		Store hazardous materials above flood level.	YES		
		Storage areas for fuel, oil, lubricant, bitumen and other hazardous substance will be located at least 100 m away from any watercourses.	YES		
		Storage, transport and disposal of	YES		

PROJECT ACTIVITY	POTENTIAL ENVIRONMENTAL IMPACTS	PROPOSED MITIGATION MEASURES	COMPLIANCE (Yes, No, Partial or Not Applicable)	REASON FOR NON-COMPLIANCE	ISSUES FOR FUTURE ACTION
		hazardous wastes, including spill wastes, shall be consistent with national and local regulations.			
		Wherever possible, refueling will be carried out at a fuel storage area.	YES		
		Where significant amount of oily wastewater or spill/leakage of oil and grease may occur (e.g., equipment maintenance areas), drainage leading to an oil-water separator shall be provided for treatment of wastewater. The oil- water separator shall be regularly skimmed of oil and maintained to ensure efficiency. Discharge of oil-contaminated	YES		
		Refueling shall not be permitted within or adjacent to watercourses.	YES		
		Vehicle maintenance and refueling will be confined to areas in construction sites designed to contain spilled lubricants and fuel.	YES		
		Bitumen shall not be allowed to enter either running or dry streambeds and nor will be disposed of in ditches or small waste disposal sites prepared by the contractor.	YES		
		Bitumen storage and mixing areas as well as storage areas for other petroleum products used in the preparation of the bitumen mixture shall be protected against spills and all contaminated soil must be properly handled according to national and local regulations. As a minimum, these areas must be provided with concrete flooring and surrounded by an embankment to readily contain and clean- up spills.	YES		
		Adequate precaution will be taken to prevent oil/ lubricant/ hydrocarbon contamination of channel beds. Spillage if any will be immediately cleared with utmost caution to leave no traces.	YES		
		All areas intended for storage of hazardous materials will be quarantined and provided with adequate facilities (e.g., fire-fighting equipment, sorbent pads, etc.) to combat emergency situations complying with all the applicable statutory stipulation.	YES		
Blasting	Safety risks to workers and the Public	Blasting will be carried out only with permission of the concerned authority, using a pre- established schedule.	NA		
		All the statutory laws, regulation, rules etc., pertaining to acquisition, transport, storage, handling and use of explosives	NA		
		The timing will be made available to the local people within 500 m of the blasting site in all directions, depending on the total charge used.	NA		

PROJECT ACTIVITY	POTENTIAL ENVIRONMENTAL IMPACTS	PROPOSED MITIGATION MEASURES	COMPLIANCE (Yes, No, Partial or Not Applicable)	REASON FOR NON-COMPLIANCE	ISSUES FOR FUTURE ACTION
		Blasting will be held only during daytime and shall be carried out not using high powered explosives. Under no circumstance will blasting be undertaken at night.	NA		
		Where possible blasting mats will be used to reduce noise levels when blasting is carried out to reduce flying rock.	NA		
		No blasting will take place without condition survey of the buildings/residential/institutional structures within 500 m and permission and monitoring by the DDIS.	NA		
		People living near blasting sites will be informed of blasting times prior to the blasting.	NA		
		Warning sirens will be sounded before blasting.	NA		
		Pre-splitting shall be undertaken.	NA		
		Where the vibration from blasting is exceeding the maximum permissible level, or damage occurs to local property information from the blasting shall be used to modify blasting patterns and calculate a reduced charge for future blasts.	NA		
		Blasting shall be under careful and strict management/ supervision of properly trained and licensed personnel. Workers at blasting sites will be trained prior to blast operations and provided with safety equipment and earplugs.	NA		
		Observe proper warning and precautionary measures to ensure safety of residents, pedestrians, motorists and structures during blasting.	NA		
		All expenses/costs to address injuries, damage to properties, accidents, etc. due to blasting shall be shouldered by the contractor.	NA		
Earthworks/ excavation	Improper spoils disposal could Cause deterioration of water quality, damage to productive land and flow obstruction of water courses	Provide grass cover and other suitable slope stabilization measures on road embankment slopes and on long term stockpile of spoils.	YES		
		Spoil disposal shall not cause sedimentation and obstruction of flow of watercourses, damage to agricultural land and densely vegetated areas. As several of the roads pass very close to rice paddy, and in fact the road shoulder is contiguous with the rice fields, excess spoil shall not be dumped on rice production land, either temporarily or permanently. If temporary storage space is needed then work should take place alternately on opposite traffic lanes.			

PROJECT ACTIVITY	POTENTIAL ENVIRONMENTAL IMPACTS	PROPOSED MITIGATION MEASURES	COMPLIANCE (Yes, No, Partial or Not Applicable)	REASON FOR NON-COMPLIANCE	ISSUES FOR FUTURE ACTION
		The spoils disposal site shall be located at least 50 m from surface water courses and shall be protected from erosion by avoiding formation of steep slopes, provisions of adequate drainage and grassing.	YES		
		Spoils shall only be disposed to areas approved by local authority.	YES		
		Water courses (rivers, canals, etc.) shall be kept free of excavation spoil and construction debris, floating and submerged.	YES		
		Spoil and construction materials stockpile area shall be located away from water bodies and under no circumstances will these materials be dumped into water courses	YES		
		Dredged and excavated materials shall be reused or provided to local residents as soon as possible, if they require such materials, for land reclamation. The remaining spoils can be disposed into low elevation sites for road construction.	YES		
Bridge works	Bridge repair and replacement could cause obstruction of river flow and deterioration of water quality due to siltation	Rocks, stones, soil and other materials shall not be dumped onto rivers and streams.	NA No bridge.		
		Ensure bridge works shall not cause obstruction of river flow and flooding of adjacent area.	NA		
		At bridge repair and demolition sites, the bridge structure will not be dropped into the river but alternative means will be used to avoid "dropping the bridge" into rivers/ streams. This shall be done by "sawing" appropriate sections of the bridge and using cranes to lift these sections away or alternatively by construction of a platform onto which the bridge could be lowered.	NA		
		Cofferdams, silt fences, sediment barriers or other devices will be used as appropriate based on the design to prevent migration of silt during excavation and boring operations within streams. If cofferdams are used, these will be dewatered and cleaned to prevent siltation by pumping from cofferdams to a settling basin or a containment unit.	NA		
		Exposed surfaces shall be provided with native grasses and creepers to reduce runoff as early as possible in construction.	NA		
Transport of materials and spoils, operation of construction equipment and various construction	Damage to community utilities such as water supply pipes, irrigation canals, drainage, etc. may occur	The contractor shall not allow overloading of trucks used for all project- related activities.	YES		
		The contractor shall immediately repair any damage caused by the Project to community facilities such as water supply, power supply, irrigation canals, drainage and the	YES		

PROJECT ACTIVITY	POTENTIAL ENVIRONMENTAL IMPACTS	PROPOSED MITIGATION MEASURES	COMPLIANCE (Yes, No, Partial or Not Applicable)	REASON FOR NON-COMPLIANCE	ISSUES FOR FUTURE ACTION
activities	during construction activities	like. Adequate compensation shall be paid to affected parties, as necessary.			
		Access roads damaged during transport of construction materials and other project-related activities shall be reinstated upon completion of construction works.	YES		
Bridge works, stockpiling of construction materials and spoils, use of hazardous materials and earthworks	Deterioration of Surface water quality, flooding and flow obstruction of watercourses	Firmly consolidate riverbanks using stones, concrete and other suitable retaining measures at each bridge construction site and ensure that water courses (rivers, canals, etc.) shall be kept free of excavation spoil and construction debris.	NA		
		Spoils, construction wastes and construction materials stockpile area shall be located away from water bodies and under no circumstances will these materials be dumped into watercourses.	NA		
		Do not fill up canals and creeks at the construction site. In case filling of local drainage system is extremely necessary, consultation with local authorities shall be undertaken and their permission obtained beforehand. An alternative drainage shall be established before the existing canal is filled-up.	NA		
		Prohibit placement of construction materials, waste storage areas or equipment in or near drainage channels and water courses.	NA		
		Discharge of oily wastewater, fuel, hazardous substances and wastes, and untreated sewage to watercourses/canals and on the ground/soil shall be prohibited.	NA		
		Provide adequate drainage at the construction sites and other project areas to avoid flooding of surrounding areas and minimize flow obstruction of existing watercourses.	YES		
		Regularly inspect and maintain all drainage channels to keep these free of obstructions.	YES		
		Slope stabilization measures (e.g., planting of fast-growing native species of grass and shrubs, etc.) shall be implemented on exposed surfaces along river embankments to reduce material wash- away.	YES		
		Construct retaining structures such as gabion baskets, rip-rap, etc. for riverbanks protection.	NA		
Road and bridge works	Traffic disruption and obstruction of access to roadside Properties	In cooperation with the local traffic authorities, properly organize transport of materials for the project to avoid congestion.	YES		
		Set up clear traffic signal boards and traffic advisory signs at the roads going in and out the road and bridge construction sites to minimize traffic	YES		

PROJECT ACTIVITY	POTENTIAL ENVIRONMENTAL IMPACTS	PROPOSED MITIGATION MEASURES	COMPLIANCE (Yes, No, Partial or Not Applicable)	REASON FOR NON-COMPLIANCE	ISSUES FOR FUTURE ACTION
		build-up.			
		Regularly monitor traffic conditions along access and Project roads to ensure that project vehicles are not causing congestion.	YES		
		Provide sufficient lighting at night within and in the vicinity of construction sites.	YES		
		Implement suitable safety measures to minimize risk of adverse interactions between construction works and traffic flows through provision of temporary signals or flag controls, adequate lighting, fencing, signage and road diversions, as necessary.	YES		
		Provide safe temporary accesses to properties and establishments affected by disruption to their permanent accesses.	YES		
		Reinstate good quality permanent accesses following completion of construction.	YES		
		Provide safe vehicle and pedestrian access around construction areas.	YES		
		Provide adequate signage, barriers and flag persons for traffic control.	YES		
		If necessary, traffic will be diverted for safe and smooth movement of vehicles to ensure smooth traffic flow and minimize accidents, traffic hold ups and congestion.	YES		
		The diversion signs would be bold and clearly visible particularly at night.	YES		
		Temporary bypasses will be constructed and maintained (including dust control) during the construction period particularly at bridge crossings. Location of temporary bypasses shall be agreed with local authorities and such sites shall be reinstated upon completion of works.	NA		
Earthworks, stockpiling and road works	Soil erosion	On hill slopes and other potentially erodible places along the roadside, appropriate native vegetation that retards erosion will be planted.	NA		
		As much as possible, construction activities in hilly areas are to be undertaken during dry season only.	NA		
		Road embankments and slopes shall be monitored during construction for signs of erosion, vegetative cover shall be provided on slopes by planting native grass and creepers on erosion prone sections.	YES		
		Long-term material stockpiles will be covered with native species of grass or other suitable materials to prevent wind erosion.	YES		
		Use appropriate erosion control and stabilizing measures such as benching, geotextiles, mats, fiber	NA		

PROJECT ACTIVITY	POTENTIAL ENVIRONMENTAL IMPACTS	PROPOSED MITIGATION MEASURES	COMPLIANCE (Yes, No, Partial or Not Applicable)	REASON FOR NON-COMPLIANCE	ISSUES FOR FUTURE ACTION
		rolls, soil binders, etc. that are not toxic to the environment, or vegetation measures/ temporary landscaping in disturbed areas and on graded slopes.			
Operation of construction equipment and vehicles, site works, spoils disposal and presence of workers	Impacts to flora and fauna	Hunting of wildlife and cutting of trees for fuel shall not be undertaken by workers, and strict prohibitions shall be imposed by the contractor.	NA		
		Spoils and all types of wastes shall be disposed at approved sites,			
		Workers shall be prohibited from collecting firewood and construction materials from surrounding forests, and from hunting wild animals.	NA		
		As the project will not require road widening, ensure that construction works are carried out without unnecessary clearing of roadside vegetation.	YES		
		The contractor shall prohibit cutting of trees for firewood and for use in for construction-related activities	YES		
		Construction vehicles will operate only within the right-of-way, to avoid damaging soil and vegetation on adjacent areas. It will be most important to avoid soil compaction around trees. Generally, the rule will be to avoid driving heavy equipment or trucks anywhere into the 'drip-line' of a tree (defined as imaginary line around a tree where rainwater falls freely to ground unimpeded by the tree's foliage)	YES		
		The contractor will not use or permit the use of wood as a fuel for the execution of any part of the Works, including but not limited to the heating of bitumen and bitumen mixtures, and to the extent practicable shall ensure that fuels other than wood are used for cooking, and water heating in all camps and living accommodations.	YES		
		Contractor shall not buy or use wood from the illegal sources (that come from the illegal logging).	YES		
		Construction camps, asphalt mixing plants, material storage sites and other project facilities shall not be located in forest areas and other densely vegetated sites.	YES		
		Contractor will take all precautions necessary to ensure that damage to vegetation is avoided due to fires resulting from execution of the works. The Contractor will immediately suppress the fire, if it occurs, and shall undertake replanting to replace damaged vegetation.	YES		
		As much as possible, bridge works	NA		

PROJECT ACTIVITY	POTENTIAL ENVIRONMENTAL IMPACTS	PROPOSED MITIGATION MEASURES	COMPLIANCE (Yes, No, Partial or Not Applicable)	REASON FOR NON-COMPLIANCE	ISSUES FOR FUTURE ACTION
		will be scheduled during the dry season to minimize adverse impacts to fishery, river water quality and other aquatic resources.			
Construction works, operation of workers' camps	Health and safety risks to workers and the public	Conduct orientation for construction workers regarding emergency response procedures and equipment in case of accidents (e.g., burns from hot bitumen, spills of hazardous substances, etc.), fire, etc.; health and safety measures, such as on the use of hot bitumen products for paving of Project roads, etc.; prevention of HIV/AIDS, malaria, diarrhea, and other related diseases.	YES		
		Provide drainage at construction sites and workers camps to prevent water logging/ accumulation of stagnant water and formation of breeding sites for mosquitoes.	YES		
		Provide fire-fighting equipment and appropriate emergency response equipment (based on on-going construction activities) at the work areas and at construction and workers camps.	YES		
		Provide first aid facilities that are readily accessible by workers.	YES		
		At the workers camps, provide adequate housing for all workers at the construction camps, provide reliable supply of potable water, install separate hygienic sanitation facilities/toilets and bathing areas with sufficient water supply for male and female workers and establish clean eating areas and kitchen.	YES		
		Provide workers with appropriate safety equipment/devices (such as dust mask, hard hats, safety shoes, goggles, ear plugs, etc.) and strictly require them to use these as necessary.	YES		
		Install sign boards, lighting system at the construction sites, borrow pits, or places which may cause accidents for people and workers	YES		
		Strictly impose speed limits on construction vehicles along residential areas and where other sensitive receptors such as schools, hospitals, and other populated areas are located.	YES		
		Educate drivers on safe driving practices to minimize accidents and to prevent spill of hazardous substances and other construction materials during transport.	YES		
		Barriers (e.g., temporary fence) shall be installed at construction areas to deter pedestrian access to these areas except at designated crossing points.	YES		

PROJECT ACTIVITY	POTENTIAL ENVIRONMENTAL IMPACTS	PROPOSED MITIGATION MEASURES	COMPLIANCE (Yes, No, Partial or Not Applicable)	REASON FOR NON-COMPLIANCE	ISSUES FOR FUTURE ACTION
		Sufficient lighting at night as well as warning signs shall be provided in the periphery of the construction site.	YES		
		The general public/local residents shall not be allowed in high – risk areas, e.g., excavation sites and areas where heavy equipment is in operation.	YES		
		Ensure proper collection and disposal of solid wastes within the construction camps consistent with local regulations.	NO	No waste disposal system in rural area.	Contract with private disposal company.
		Provide fencing on all areas of excavation greater than 2 m deep.	NA		
		Ensure reversing signals are installed on all construction vehicles.	YES		
		Measures to prevent malaria shall be implemented (e.g., provision of insecticide treated mosquito nets to workers, spraying of insecticides, installation of proper drainage to avoid formation of stagnant water,	YES		
		Discharge of untreated sewage shall be prohibited.	YES		
Operation of construction/ workers camps	Social conflicts	Regularly inform in advance the local officials and local residents on the location and schedule of construction activities which may cause impacts on the environment and life of people.	YES		
		Locate construction camps away from communities (at least 500 m away) in order to avoid social conflict in using resources and basic amenities such as water supply.	YES		
		Maximize number of local people employed in construction works.	YES		
		Maximize goods and services sourced from local enterprises.	YES		

6.3. Observation and Corrective Action Taken





81. The contractor generally followed construction in the site according to the CEMP. The contractor installed project signboard including hotline telephone number for complaint redress but it is necessary to show the organization of such number, i.e. MRD or PDRD etc. And there need some more signboards to provide safety measures both for the public. Further the base camps are not well maintained to keep them as clean. Worker's living quarters are not big enough to accommodate all unskilled laborers. Most of the identified were clearly communicated to the contractor during the monitoring activity and the inspection Team was assured by the former to make the necessary mitigation and remedial measures.





82. The following comments and recommendations have been given to the contractor to improve the environmental condition of the base camps and the working areas. The summary of comments is as follows:





- a. The Contractor should give priority attention in addressing the quality of the workers' quarters, construction of separate storage room, drainage system inside the camp, and maintaining cleanliness and orderliness inside the camp and work area,
- b. The contractor should install warning traffic signs at the main points 1) at entrance in to the site camp 2) at location under construction 3) at entrance in to the site borrow pit 4) along the road under trucks transportation materials.
- c. No parking of broken equipment or machines along the road without installing advance warning devices of emergency traffic light at night time Likewise, there should be no loitering inside the camp during the night.
- d. Maintain camp site clean and install fences around the camp site to avoid theft.
- e. The contractor should construct drainage channel to discharge waste water from the camp.
- f. The Contractor should give priority attention in addressing the quality of the workers' quarters, such as the construction of separate storage room, drainage system inside the camp, and maintaining cleanliness and orderliness inside the camp and the working area.
- g. The contractor should install warning traffic signs at the following points: 1) entrance to the camp 2) areas where there are on-going construction activities 3) sites of borrow pits 4) along the road where trucks transporting materials pass through.
- h. Cleaning camp site's premise with peripheral fences around it.
- i. Stored oil drums, fuel container, and others construction materials should keep in order at proper place.
- j. The contractor should install information board to disclose all information relevant about the progress of the project activities.
- k. There should be firefighter-equipment inside the camp in case of fire accident.
- l. Trucks transportation materials should be covered tightly to protect dust flow affected travelers.





83. Results of Environmental Monitoring Inspection on TBK1 and TBK3 site and the contractor's corrective action are shown below.





(1) TBK 1 Road



Photos	Assessment	Remark	Corrective Action
Workers' Quarters and Sanitary Conditions			
	<p>-Not conducive and healthy quarters. No privacy and congested for workers living in long period.</p>	<p>-This condition calls for further improvement. And the contractor has to construct additional unit is recommended.</p> <p>-The worker sleeping on equipment machines, it causes to affected workers health. Therefore, the contractor has to build one more Quarter for male workers staying.</p>	<p>The contractor built one more tent for labors</p> 
	<p>There is only one bathroom for labor.</p>	<p>The contractor should build another bathroom in the camp site, one for male workers and other one for female workers.</p>	<p>The contractor built another bathroom.</p> 

Photos	Assessment	Remark	Corrective Action
Workers' Quarters and Sanitary Conditions			
	<p>The camp has a 2-door toilet, sealed latrine with 2 labels to distinguish between what if for male and for female, but still poor condition with muddy close to the toilets house without construct drainage properly.</p>	<p>Provide proper drainage around toilet and filled with soil to make flat.</p>	<p>Drained out water and filled with soil.</p> 
Workplace Quality and Safety Measures			
	<p>No warning traffic signs installed in front of the entrance into the site camp. And no board information in the site camp.</p>	<p>The contractor should install signboard in front of camp.</p>	<p>The contractor installed signboard.</p> 





Photos	Assessment	Remark	Corrective Action
Workplace Quality and Safety Measures			
	<p>It has no separate stockroom for tires and oil drums, and all kept outside room without cover.</p>	<p>The contractor should keep tire and oils inside warehouse.</p>	<p>Contractor kept tires and oils inside the warehouse.</p> 
	<p>Rubbishes and other discarded items are put in one place for burning.</p>	<p>Rubbishes should be collected at one place for disposal.</p>	<p>The contractor provided a trash container to collect rubbishes.</p> 




Photos	Assessment	Remark	Corrective Action
Workplace Quality and Safety Measures			
	Most workers are wearing helmets, but not in full working gears	The contractor shall supply a full set of personal gear for safety operation.	<p>All field workers are equipped with proper personal gears in the site.</p> 
	Broken heavy equipments are placed at the project road side.	Contractor has to move Broken equipment machines parked in site the camp.	<p>The contractor moved the broken equipment to the camp for repair.</p> 







Photos	Assessment	Remark	Corrective Action
Civil Works' Related Environmental Impacts			
	There is dust caused by contractor's dump trucks.	The contractor should spray water more frequently during dry season.	<p>The contractor spray water using water trucks.</p> 
	Some trucks do not use cover on top of soil in the loading box.	The contractor should use cover during transportation of soil.	<p>Use cover when transporting soil in the site.</p> 

Photos	Assessment	Remark	Corrective Action
Civil Works' Related Environmental Impacts			
	<p>The way entrances the borrow pit is not clearing, no watering and no warning traffic signs installation.</p>	<p>-The contractor has to clearing and watering on the way entrance the borrow pit with warning traffic signs installation to prevent traffic accident.</p>	<p>The contractor spray water at access to borrow pits and installed warning signboard.</p> 

(2) TBK 3 Road

Photos	Assessment	Remark	Corrective Action
Workers' Quarters and Sanitary Conditions			
	<p>-Bedroom and kitchen are all in one common room.</p>	<p>-This condition calls for further improvement. And the contractor has to construct separate Bedroom and kitchen room.</p> <p>-Construct Quarter one more for male workers sleeping</p>	<p>Contractor built one more tent for labors.</p> 
	<p>First AIDs kit keeps on the wooden shelter in the open space without medical cup-board.</p>	<p>-The contractor has to keep first Aids kit in medical cup-board in the cool place to keep quality medicines.</p>	<p>First AID kit was provided in the camp.</p> 

Photos	Assessment	Remark	Corrective Action
Workers' Quarters and Sanitary Conditions			
	<p>-The camp has a 2-door toilet, sealed latrine with 2 labels to distinguish between what if for male and for female</p>	<p>-This is considered a good practice. But still poor sanitary. The contractor has to clearing small brush around toilet house to reduce mosquitos.</p>	<p>Keep maintained.</p>
	<p>--Water for cooking, bathing and laundry stored in plastic drum and drum are clean. But the premise keeping drum are dirty, Drums without covers, no bathroom, the workers take bath at open field, standing water with muddy.</p>	<p>--The contractor should to build the bathroom in the camp site, one for male workers and other one for female workers. And cleaning the premise keeping drums to reduce mosquitos spreading.</p>	<p>The contractor built two shower rooms for workers.</p> 

Photos	Assessment	Remark	Corrective Action
Workers' Quarters and Sanitary Conditions			
	-No garbage bin in the camp site, the contractor collects solid waste & discard items to burn in the camp site. No drainage and discharge water run-off in the premise cause to have standing water, muddy and mosquitos could be spreading.	-The contractor has to construct the drainage to discharge water from the camp site and collect rubbishes, discard items to dispose at the dump site which approved by local authorities.	The contractor cleaned up the site. 
	-No traffic signs board installed in front of the entrance into the site camp. And no board information in the site camp.	-To keep traffic safety, the contractor has to installed traffic sign board in front of the entrance in to the site camp. And inside the camp has to install board information to disclose all information of project activities and Grievance Redress Mechanism paper.	
	-disorder keeping materials in the camp site, it causes narrow space and congesting during movement equipment machines.	- The contractor has to rearrange in the camp site premise	Rearranged used materials in order. 

6.4. Review of Environmental Parameters

84. Environment parameters were checked and reviewed. The Contract CW-B2 has been evaluated satisfactory and only minor issues involved with base camp management were found, remedial action of which could be undertaken by the contractor and subsequently be followed up by the DDIS consultants and SEO. The review results on environment parameters of each contract package are shown in Table 6-3.

Table 6-3 Review of Environmental Parameters Contract Packages CW-B2

Environmental Issue	Parameter	Standard	Contract Package CW-B2
EMP implementation	Notification of EMP to contractors	ADB Social Safeguards Policy Statement 2009	Completed. EMP included in Bidding Documents and incorporated in the contract
CEMP Submission	Submission of CEMP from contractor to MRD	Specific details must be supplied on construction camps, borrow areas, quarries, crushing plants.	-Submitted CEMP in June 2019 by contractor and approved by the Consultant.
Monthly Checklists	All environmental parameters	As per individual checklists given in EMP	Checklists completed by consultant's inspectors for May to December 2019. Checklists sighted and confirmed to be in order. No environmental issues identified.
1. Community Facilities	Power lines, irrigation canals etc.	Relocation outside of impacts	3 electric poles were relocated in TBK1
2. Air Quality	Dust and gaseous emissions	Visual Check	-Reduce dust by spraying water. -Use cover while transporting soil.
3. Noise Level	Noisy equipment and construction activities	Only daily daytime work within 200m of a settlement Batching plant at least 500m away from inhabited area.	No issues identified
4. Vibration Levels	Heavy equipment and simultaneous activities	Avoid working simultaneously near sensitive receptors	No issues identified
5. Erosion and Sedimentation	Excavation and stockpiles	Suitable erosion control avoids spoils at least 50m from watercourse.	No issues identified
6. Spoils Disposal	Spoils and oil leaks	Immediate transport of spoils and clean up oils	No issues identified
7. Water availability	Canals/irrigation channel Disruption	Prevent disruption of irrigation channels to farmlands	No irrigation system in the project area
8. Water Quality	Control of bentonite slurry, oil spills,	Fueling area at least 30 m from storm drains and surface water	No visual evidence was sighted of impacts on water quality. No spills were observed. There are no major water courses near project roads.

Environmental Issue	Parameter	Standard	Contract Package CW-B2
9. Solid Waste	Garbage and waste clean	Regular collection and disposal	No issues identified
10. Borrow Pits	Condition of Borrow Pits	Not located productive land, filled after Project Completion, Topsoil resurfaced	No issues identified.
11. Traffic Management and Local Access	Signs, flag person, lighting at night	Proper sign and flag person are located for safety control of traffic.	No issues identified.
12. Damage to Property and Community	Local access and repair damage to property	Existing access routes are maintained	No issues identified.
13. Accidental Discovery of Artefacts	Artefacts/archaeological finds	Immediately stoppage of operation on the section and report to the Engineer	No Artefacts/archaeological found.
14. Occupational health and safety	Workers health and safety	Clean sanitation of workers' camp and equipped with personal safety gears	<ul style="list-style-type: none"> -Installed two toilets for separate use of man and woman -Provided first-aid kit at each worker's camp. -Septic tanks are installed for toilets. -Shower rooms are provided -Separate tent for man and woman sleeping in the camp sites -Workers equipped with helmet and boots.
15. Public safety	Signage and speed limit.	Speed limit is 25 km per hour.	<ul style="list-style-type: none"> -Training driver for road safety. -Barriers were installed at excavated area. -Warning signboards are installed at camp entrance and borrow pits.
16. Flora and fauna	Vegetation and tree cutting	Tree cutting is secured. Construction camps are located 1 km outside the protected area.	No issues identified.

6.5. Grievance Redress Mechanism

85. The IEE stated that MRD, through a Grievance Redress Committee (GRC), shall promptly address affected people's concerns, complaints, and grievances about the Project's environmental performance at no costs to the complainant and without fear of retribution. The GRC, which shall be established before commencement of site works, shall be chaired by PMU to be assisted by the SEO. The GRC shall have members from the PDRD, commune councils, local NGO, and women's organization. Grievances can be filed in writing or verbally with the Contractor, or any member of the GRC. If the complaint is directly related to Contractor activities, a formal copy of the complaint or verbal complaint shall be provided to the Contractor who shall record such complaint(s) in a Complaints Register to be submitted as part of the monthly progress report. Contractor is expected to resolve construction-related complaints immediately and corrective action reported accordingly. Contractor shall designate a GRM focal point and provide names and contact numbers. During this reporting period, there was no complaints raised by local people, and the consultation was made and confirmed that local people know how to access GRM (most people knew to report their issues to commune chief or village chief) if they have experienced any issues involved with the project implementation to be addressed.

86. The form of GRM for CW-B2 has been developed and it has been established on 18 December 2019. The list of established GRM members are as shown in Table 6-4.

Table 6-4 The list of Established GRM members for CW-B2

No.	Name	Position	Organization
1	Mr. Song Sophal	Chairman	Deputy Director General/ Project Manager, MRD
2	Mr. Sar Sen	Member	PDRD Kampong Cham, PIU member
3	Mr. Mom Sitha	Member	Chief of Seda Commune
4	Ms. Chhin Narin	Member	Seda Commune Council in charge of Women's Affair
5	Mr. Yin Phon	Member	Chief of Chhouk Commune
6	Ms. Hun Chiheng	Member	Chhouk Commune Council in charge of Women's Affair
7	Mr. Oung Sambou	Member	Deputy Chief of Chikor Commune
8	Ms. Khat Samath	Member	Chikor Commune Council in charge of Women's Affair
9	Mr. Try Pov	Member	Chief of Prah Theat Commune

6.6. Conclusion and Recommendations

87. Through the semi-annual environment monitoring on the ongoing civil works sites of the Project by the international environment specialist, national environment specialist and SEO of MRD, at the present time there is no adverse environmental issues associated with the project implementation. The CEMP has been submitted by the contractor of CW-B2 and it was approved by the consultant on 1 July 2019. Record of monthly inspector's checklists are properly recorded up to December 2019 and kept.

88. During the detailed design of project roads, international environmental specialist (Mr. Paulo Pasicolan) were mobilizes from 8 July to 13 July 2019 and national environment specialist was mobilized on 3 July 2019. They collected field environmental data and conducted public consultations for the 4 additional roads in four project provinces to be included in the project.

89. As initial monitoring, International environment specialist, Mr Paulo Pasicolan was mobilized from 3 September to 14 September 2019 to train SEO how to conduct environment monitoring of civil works and conducted environment baseline assessment of Contract CW-B2 which has been ongoing construction with national Environment specialist, Mr. Hang Sopal, and SEO environment team.

90. Based on the environment baseline, the second monitoring of environment, conducted from 16 December to 18 December 2019, the national environmental specialist and SEO environment team conducted an semi-annual environment monitoring for Contract CW-B2.

91. The contractor generally followed construction in the site according to the CEMP, but there need some more signboards to provide safety measures both for the workers and the public. Further the base camps are not well maintained to keep them as clean. Worker's living quarters are not big enough to accommodate all unskilled laborers. Most of the identified were clearly communicated to the contractor during the monitoring activity and the inspection Team was assured by the former to make the necessary mitigation and remedial measures.

92. The Contract CW-B2 has been evaluated satisfactory and only minor issues involved with base camp management were found, remedial action of which could be undertaken by the contractor and subsequently be followed up by the DDIS consultants and SEO.

93. The Grievance Redress Mechanism (GRM) for local levels has been developed by the MRD and it has been established with the members in the local authorities (communes) chaired by Project management Unit of MRD.

It is recommended that DDIS consultants together with SEO should inspect the construction sites at least once every month and closely monitor the contractor's field activities to be complied with the EMP and CEMP.