

Environmental Monitoring Report

Project Number: 46009
August 2013

Cambodia: Flood Damage Emergency Reconstruction Project

Semi-Annual Environment Monitoring Report

Prepared by Consultant of Project Coordination and Monitoring Unit for the Ministry of Economy and Finance and the Asian Development Bank.



Ministry of Economy and Finance
Flood Damage Emergency Reconstruction Project (FDERP)
ADB Loan No. 2852-CAM (SF) and Grant No. 0285-CAM (EF)

Semi-Annual Environmental Monitoring Report

January-June 2013



July 2013

Prepared by PCMU Consultants.

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Caption for front cover:

Photo taken during field visit on 25 June 2013: MPWT-CW6a contractor applied water to control the dust :Provincial Road No.270 in Kampong Cham Province	Photo taken from MOWRAM, Hun Sen Baray during ADB mission in Kampong Thom province, site camp management still have to improve in terms of environmental aspect	Photo taken during field visits on 25 June 2013, Toul Skea MOWRAM in Prey Veng province: remaining works need to complete such as backfilling on both abutments and grass planting along the embankment of the canal.
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I. Introduction

The Flood Damage Emergency Reconstruction Project (FDERP) will restore critical public infrastructure assets that were affected by 2011 flood in order to restore livelihood, access in project provinces. The Project focused on (i) roads (national, provincial, and rural), including bridges and culverts; (ii) irrigation facilities; and (iii) strengthen the Government's flood management capacity. The reconstruction of damaged infrastructures concentrates in Prey Veng, Kampong Cham, Kampong Thom, Siem Reap, Banteay Meanchey, and Battambang provinces. The Ministry of Economy and Finance (MEF) is the executing agency (EA) of the project. Ministry of Public Works and Transport (MPWT); Ministry of Rural Development (MRD); and Ministry of Water Resources and Meteorology (MOWRAM) are the implementing agencies (IAs). As a framework for structuring the Project activities, the restoration of flood damaged infrastructure has been divided into three stages as follows:

- (i) Stage 1 - Immediate repairs to reestablish use of the infrastructure on a temporary basis and restore minimum functioning levels. The most urgent work has already been implemented by the RGC using its own resources.
- (ii) Stage 2 - Fast track repairs where it is necessary to substantially repair the damage before the next wet season to secure the existing (undamaged) works and thus avoid more extensive damage in the coming wet season.
- (iii) Stage 3 - Remaining flood damage restoration to complete the remaining damage repairs, preferably within the following two dry season construction periods.

As the scope of emergency reconstruction works is to restore the damaged infrastructures to the pre-flood level conditions, only minor environmental and social impacts were encountered. So far, the reconstruction of 3 bridges and 2-km of ring road under stage 2 subprojects were implemented by MPWT, the emergency repair of 275.2 km of rural road under stage 2 subprojects were implemented by MRD and the emergency repair of 10 irrigation schemes under stage 2 subprojects were implemented by MOWRAM. All implementing subprojects are in category B for Environment. Hence, this monitoring report, which is the annual monitoring report on Environment, will focus on monitoring results of the EMPs during civil works construction.

II. Subprojects Description and Implementation Progress

The project is aimed at restoring livelihoods and access in the project provinces. The project had three main components:

- (1). Component 1: National and Provincial Road Restoration
- (2). Component 2: Rural Roads Restoration
- (3). Component 3: Irrigation and Flood Control

2.1 Component 1: National and Provincial Road Restoration

The project have been reconstructed flood damaged national and provincial roads in 4 provinces. In Prey Veng, 2 km of a ring road, which also serves as a flood protection dyke for Prey Veng City, have been strengthened, and 5 bridges along National Road 11 which were severely weakened by the floods have been replaced and improved. In Kampong Cham, Banteay Meanchey and Battambang provinces, 72 km of provincial roads have been repaired and upgraded, and seven structures and five bridges replaced. From the start of the project till the second quarter of 2013, the following stage 3 subprojects are on-going constructed during this semi-annual report 2013.

MPWT

CONTRACT No.	CONTRACT DATA	ENVIRONMENTAL REMARKS
MPWT-CW1 Stage 2 Prey Veng	Contract Value:\$3,383,059.32 Variation 1:\$328,783.95 Start date: 22 May 2012 Completion date: 22 Jan 2013 Time Extension1: 22 Mar 2013 Time Extension2: 31 Jul 2013	<ul style="list-style-type: none"> • There is no loss of trees and borrow pits. • Traffic congestion, during the peak traffic of vehicles, • Should have: i) orient the drivers to comply with the required speed limit. ii) install traffic/warning signs like “safety first” at the construction of bridge. • Shared toilet between men&women workers • No dusk controll for detouring road
MPWT-CW2 Stage 2 Prey Veng	Contract Value:\$1,992,174.25 Start date: June 2012 Completion date: 18 Mar 2013 Time Extension: No	<ul style="list-style-type: none"> • Completion Certificate issue in March 2013.
MPWT-CW3 Stage 2 Kampong Cham	Contract Value:\$1,328,276.54 Start date: June 2012 Completion date:18 Mar 2013 Time Extension: No	<ul style="list-style-type: none"> • Completion Certificate issue in March 2013.
MPWT-CW4 Stage 3 Prey Veng	Contract Value:\$806,898.27 Start date: 19 Dec 2012 Completion date:31 Oct 2013 Time Extension: Not required	<ul style="list-style-type: none"> • There is no loss of trees and borrow pits. • Should have: i) orient the drivers to comply with the required speed limit. ii) install traffic/warning signs like “safety first” at the construction of bridge. • Toilet available in the renting house/no toilet for a camp
MPWT-CW5 Stage 3 Prey Veng	Contract Value: \$1,325,663.24 Start date:11 Jan 2013 Completion date:11 Nov 2013 Time Extension: not required yet	<ul style="list-style-type: none"> • There is no loss of trees and borrow pits. • Traffic congestion, during the peak traffic of vehicles, • Should have: i) orient the drivers to comply with the required speed limit. ii) install traffic/warning signs like “safety first” at the construction of bridge. • Toilet available in the renting house/no toilet for a camp • No dusk controll for detouring road
MPWT-CW6a	Contract Value:\$1,268,752.17	<ul style="list-style-type: none"> • There is no loss of trees and borrow pits.

CONTRACT No.	CONTRACT DATA	ENVIRONMENTAL REMARKS
Stage 3 Kampong Cham	Variation: Not yet known Start date: 19 Dec 2012 Completion date: 03 Dec 2013 Time Extension: not required yet	<ul style="list-style-type: none"> • Traffic congestion, during the peak traffic of vehicles, • Should have: i) orient the drivers to comply with the required speed limit. ii) install traffic/warning signs like “safety first” at the construction of bridge. • Toilet available in the renting house/no toilet for a camp
MPWT-CW6b Stage 3 Kampong Cham	Contract Value:\$ 2,927,997.55 Variation: Not yet known Start date: 29 Apr 2013 Completion date: 17 Feb 2014 Time Extension: not required yet	<ul style="list-style-type: none"> • There is no loss of trees and borrow pits. • Traffic congestion, during the peak traffic of vehicles, • Should have: i) orient the drivers to comply with the required speed limit. ii) install traffic/warning signs like “safety first” at the construction of bridge. • The box culvert, the contractor dug deep hole close to school class, about 1.5 meters from the school building wall. • Toilet available in the renting house/no toilet for a camp • No dusk control for detouring road
MPWT-CW6c Stage 3 Kampong Cham	Contract Value:\$1,522,735.70 Variation: Not yet known Start date: 29 Apr 2013 Completion date: 05 Feb 2014 Time Extension: not required yet	<ul style="list-style-type: none"> • There is no loss of trees and borrow pits. • Traffic congestion, during the peak traffic of vehicles, • Should have: i) orient the drivers to comply with the required speed limit. ii) install traffic/warning signs like “safety first” at the construction of bridge. • Toilet available in the renting house/no toilet for a camp • No dusk control for detouring road
MPWT-CW8 Stage 3 BAT and BMC	Under Bid Evaluation	N/A
MPWT-CW7 Kampong Cham	Under Preparation/cancelled?	N/A

2.2 Component 2: Rural roads restoration

The Project has reconstructed about 450 km of flood damaged rural roads in five provinces of Prey Veng, Kampong Cham, Kampong Thom, Siem Reap and Banteay Meanchey. Of the 450km rural roads, 275.2 km rural roads in five provinces awarded in stage 2 are under emergency repair. All restoration works have completed during the first quarter of mid-march 2013.

MRD

CONTRACT No.	CONTRACT DATA	ENVIRONMENTAL REMARKS
MRD-CW1 Stage2 Prey Veng	Contract Value: \$1,260,437.64 Final Contract: \$997,637.02 Completion date: 23 Dec 2012 Actual Completion: 21 Dec 2012 End of Defects Liability: 21 Jun 13	<ul style="list-style-type: none"> • Civil works already completed
MRD-CW2 Stage2 Kampong Cham	Contract Value: \$2,094,309.21 Final Contract: \$1,825,950.86 Completion date: 23 Dec 2012 Actual Completion: 23 Dec 2012 End of Defects Liability: 23 Jun 13	<ul style="list-style-type: none"> • Civil works already completed

CONTRACT No.	CONTRACT DATA	ENVIRONMENTAL REMARKS
MRD-CW3 Stage 2 Siem Reap	Contract Value: \$1,297,196.78 Final Contract: \$1,061,470.35 Completion date: 23 Dec 2012 Actual Completion: 21 Dec 2012 End of Defects Liability: 21 Jun 13	• Civil works already completed
MRD-CW4 Stage 2 Banteay Meanchey	Contract Value: \$2,041,088.89 Final Contract: \$1,947,233.55 Start date: 16 July 2012 Completion date: 16 Jan 2013 Actual Completion: 20 Mar 2013 Defects Liability: 6 months	• Civil works already completed
MRD-CW8 Stage 2 Kampong Thom	Contract Value: \$648,259.88 Final Contract: \$588,885.31 Completion date: 23 Dec 2012 Actual Completion: 21 Dec 2012 End of Defects Liability: 21 Jun 13	• Civil works already completed
MRD-CW5-Lot1 Stage 3 Prey Veng	Contract Value: \$1,349,667.97 Start date: 02 July 2013 Completion date: 02 Jan 2015 Defects Liability: 365 days	• Contractor mobilizing
MRD-CW5-Lot2 Stage 3 Kampong Cham	Contract Value: \$1,921,755.89 Start date: 02 July 2013 Completion date: 02 Jan 2015 Defects Liability: 365 days	• Contractor mobilizing
MRD-CW6-Lot1 Stage 3 Kampong Thom	Contract Value: \$1,659,607.16 Start date: 02 July 2013 Completion date: 02 Jan 2015 Defects Liability: 365 days	• Contractor mobilizing
MRD-CW6-Lot2 Stage 3 Siem Reap	Contract Value: \$1,299,162.73 Start date: 02 July 2013 Completion date: 02 Jan 2015 Defects Liability: 365 days	• Contractor mobilizing
MRD-CW7 Stage 3 Banteay Meanchey	Under preparation	• Bidding documents under preparation

2.3 Component 3: Irrigation and Flood Control

Under this component, about 26 flood damaged irrigation schemes covering about 25,000 ha will be repaired in at least 5 provinces: Prey Veng, Kampong Cham, Kampong Thom, Siem Reap, and Battambang. From the start of the project till the semi-annual, June 2013, the following some stage-2 and stage 3 subprojects are under construction:

MOWRAM

CONTRACT No.	CONTRACT DATA	ENVIRONMENTAL REMARKS
MoWRAM-CW1 Stage 2 Prey Veng	Contract Value: \$1,140,859.39 (\$230,842.37 for Lam Loang +\$910,017.02 for Toul Skea) Start date: June 2012 Completion date: 25 Dec 2012 Time Extension1: 30 Mar 2013 Time Extension2: 31 Jul 2013	<ul style="list-style-type: none"> • There is no loss of trees. • Should have: i). install traffic/warning signs like "safety first" at the construction of bridge. • No toilet for a camp
MoWRAM-CW2 Stage 2 Prey Veng	Contract Value: \$1,188,483.46 Start date: 16 July 2012 Completion date: 16 Jan 2013 Time Extension: 31 Mar 2013	<ul style="list-style-type: none"> • There is no loss of trees • Toilet available in the renting house/no toilet for a camp
MoWRAM-CW3 Stage 3	Waiting for contract signing with contract value of	• Contractor mobilizing

CONTRACT No.	CONTRACT DATA	ENVIRONMENTAL REMARKS
Prey Veng	\$521,873.83	
MoWRAM-CW4 Stage 3 Kampong Cham	Under Bid Evaluation	<ul style="list-style-type: none"> Contractor mobilizing
MoWRAM-CW5 Stage 3 Kampong Cham	Contract Value:\$754,754.58 Start date:21 May 2013 Completion date:16 Nov 2014	<ul style="list-style-type: none"> Contractor mobilizing
MoWRAM-CW6 Stage 3 Siem Reap	Under Preparation	<ul style="list-style-type: none"> Contractor mobilizing
MoWRAM-CW7	Cancelled	N/A
MoWRAM-CW8	Cancelled	N/A
MoWRAM-CW9 Stage 2 Kampong Cham	Contract Value:\$ 318,842.81 Start date: 16 July 2012 Completion date:16 Nov 2012 Time Extension: No	<ul style="list-style-type: none"> Civil works already completed
MoWRAM-CW10/11 Stage 2 Battambang	Contract Value:\$ 898,489.89 Start date: 16 July 2012 Completion date:16 Feb 2013 Time Extension: 31 Jun 2013	<ul style="list-style-type: none"> There is no loss of trees. Should have: i) install traffic/warning signs like "safety first" at the construction of bridge. Shared toilet, only men workers here
MoWRAM-CW12 Stage 2 Kampong Thom	Contract Value: \$877,937.49 Start date:16 July 2012 Completion date:16 Jan 2013 Time Extension: 31 May 2013	<ul style="list-style-type: none"> Civil works already completed
MoWRAM-CW13 Stage 3 Kampong Thom	Waiting for contract signing with contract value: \$ 686,982.25	<ul style="list-style-type: none"> Civil works already completed
MoWRAM-CW14	Cancelled	N/A
MoWRAM-CW15a-b	Failed bid	N/A
MoWRAM-CW15c	Seeking NOL from ADB	N/A

II. Environmental Categorization

3.1 ADB's classification system

Prior to civil works implementation, all the subprojects described in the above section have been screened and classified using ADB's classification system as follows:

- Category A. A proposed subproject is classified as category A if it is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works.
- Category B. A proposed subproject is classified as category B if its potential adverse environmental impacts are less adverse than those of category A projects. These impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed more readily than for category A projects.
- Category C. A proposed subproject is classified as category C if it is likely to have minimal or no adverse environmental impacts.

3.2 Subprojects Category

Under component (i), all of the subprojects implemented under stage 2 are in category B for Environment, and they are completed the civil work/construction works.

Bellow are the subprojects implemented under stage 3 are in category B for Environment, which can be briefed as follows:

- Emergency reconstruction of Baray Koeut Bridge: There is no loss of trees for the three bridges and there is no borrow pits. The issue is a management of **traffic congestion, the** traffic congestion normally occurs during the peak traffic of vehicles, passing the bypass/detouring roads, the management consultants should install the following signs: i) orient the drivers to comply with the required speed limit. (ii) allows one side to pass through and then other side pass, (iii) having signs to warn such as detouring/bypass roads on the right/left hand sides, slow down and the site in front 200 meters, (iv) install traffic/warning signs like “safety first” at the construction of bridge.
- Emergency reconstruction of Sam Puthor and Ampil Krao bridges: Subproject CW5 involves the reconstruction of Ampil Krao Bridge at PK 127+300, Samput Thour Bridge at PK 103+600 and detour road in Svay Anthor/Prey Veng District, Prey Veng Province.

There is no loss of trees for the three bridges and there is no borrow pits. The issue is a management of **traffic congestion, the** traffic congestion normally occurs during the peak traffic of vehicles, passing the bypass/detouring roads, the management consultants should install the following signs: i) orient the drivers to comply with the required speed limit. (ii) allows one side to pass through and then other side pass, (iii) having signs to warn such as detouring/bypass roads on the right/left hand sides, slow down and the site in front 200 meters, (iv) install traffic/warning signs like “safety first” at the construction of bridge.

- Emergency reconstruction of CW6-(a,b,c) DBST provincial road 270, bridges and box culverts: A few trees within the corridor of impact (CW6a) were voluntary donation to the project and there is no borrow pits. The issue is a management of **traffic congestion, and the detour road/bypass, the** traffic congestion normally occurs during the peak traffic of vehicles, passing the bypass/detouring roads, the management consultants should install the following signs: i) orient the drivers to comply with the required speed limit. (ii) allows one side to pass through and then other side pass, (iii) having signs to warn such as detouring/bypass roads on the right/left hand sides, slow down and the site in front 200 meters, (iv) install traffic/warning signs like “safety first” at the construction of bridge.



Under component (ii), all of the 275.2km rural roads implemented under stage 2 are in category B for environment. The restoration works for those flood-damage laterite roads did not involve any road widening, embankment raising or changing the existing alignments. The scope of works was to reconstruct the road subbase and top up with either 10cm or 15 cm with laterite layer. The rural roads normally are generated of dust the dust pollution is nuisance to communities, who live adjacent to the roads, especially during dry season. The dusts also affect aesthetics. And other issue is site management for construction of box culverts and/or culverts; the contractor has to be responsible for site management include traffic, site camp and pollutions from human. The civil work for stage 2 is completed during the first quarter of 2013.

Under component (iii), all of the 10 irrigation subprojects implemented under stage 2 are in category B for environment issue, therefore, it is designing the IEEs and EMPs reports to monitor. The scope of works was to reconstruct the flood-damage embankments or replaced existing damage structures and to restore to the pre-flood conditions. The civil work for irrigation subprojects mainly impact by generation of domestic wastes which is from camps or living quarters if not properly managed. Other issue is the loss of agricultural land for borrows pits.

3.3 Grievance Redress Mechanisms

Provincial Sub-committees for Resettlement have been established in the project provinces especially in the subproject commune in order to solve any environmental issues that not comply with the (EMP) including complaints from local people. All affected persons will be made fully aware of their rights, and the detailed grievance redress procedures will be publicized through an effective public information campaign. The following mechanisms, which are in line with the project framework, were adopted and implemented for complaint handling. The grievance redress process includes four stages:

- First stage: Complaints and grievances will be provided verbally or in writing to the village chief, commune chief or field PIU staff. The receiving agent will provide immediate written confirmation of receiving the complaint. If after 15 days the complainant does not hear from the village and commune chiefs or field PIU staff, or if he/she is not satisfied with the decision taken in the first stage, the complaint may be brought to the District Office.
- Second stage: The District Office has 15 days within which to resolve the complaint to the satisfaction of all concerned. If the complaint cannot be solved at this stage, the District Office will bring the case to the Provincial Grievance Redress Committee.
- Third stage: If the aggrieved affected household does not hear from the District Office or is not satisfied, he/she can bring the case to Provincial Court. The Court will make a written decision and submit copies to the executing agency and implementation agencies.
- Fourth stage: If any party is still unsatisfied with the Provincial Court judgment, he/she can bring the case to a higher-level court.

IV. Method of Monitoring

PCMU consultant frequently conducted field visits to each subproject site. During each field visits particular attention have been paid to the environmental issue i.e. the statement issues of the Environmental Management Plan have been verified with the implementation of civil works of contractors. Table below indicated the field visits to IAs subprojects by PCMU consultants:

No	Date of field visits	Subprojects-IAs	Remarks
1	2-4 Jan 2013	Field visits to Siem Reap province with MOWRAM/Krapeu main canal project	by PCMU consultants
2	14-15 Jan 2013	Field visit to Kampong Cham, MPWT/ CW6a, double checking and verifications with independent consultant	
3	22-26 Jan 2013	Accompsnied ADB mission/site visite to 3-IAs	
4	30-31, Jan and 1 Feb 2013	Field visit to verify CW6a with MPWT from the recommendation of ADB mission.	
5	22-23 Feb 2013	Field visits and consultative meeting at CW7/MPWT	
6	20-22 Mar 2013	Checking environmental safeguards MRD/rural road in BMC and MOWRAM/Kamping Pouy irrigation	
7	25-25 Mar 2013	Field visits to Prey Veng and Kampong Cham provinces MPWT and MOWRAM	
8	4-5 April 2014	Conducted field visit to Boeung Kak&Srok Dams, Hun Sen Baray /MOWRAM subprojects	
9	8 May 2013	Field Visit to CW5, CW4 of MPWT, Toul Skea and Lamloang irrigations system/Mowram	
10	25-28 June 2013	Conducted field visits to Prey Veng, Kampong Cham, Battambang and Kampong Thom provinces, all MPWT and MOWRAM subproject	
11	1-31 July 2013	No field visits	election compaign
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V. Monitoring Results

Under component (i), all environmental management plan had been monitor during constructions. The results of the monitoring are summarized as follows:

- Emergency repair of Baray Koeut Bridge in Prey Veng Province: It was observed that there is no potential impact on environmental issue. The EMPs had been followed under construction. It was also confirmed by local authorities that no complaint has been received regarding construction works.



Photos: Baray Koeut bridge construction:

General information	DD/MM/YY	28 June 2013		
	Report prepared by	Andrelita J. Sto.Domingo Bun San		
	Name of road and location of construction site	Baray Koeut Bridge, Prey Veng province		
	Name of contractor/ subcontractor	Ung Sim Sia Construction Co., LTD		
Permits, agreements	Request for obtaining a permit for quarry /borrow pit opening during construction	√	<input type="checkbox"/>	<input type="checkbox"/>
	Request for obtaining an agreement for disposal of construction waste	√	<input type="checkbox"/>	<input type="checkbox"/>
Management of construction Sites	Proper location of construction site/camp	√	<input type="checkbox"/>	<input type="checkbox"/>
	Aggregate/asphalt batching plants properly licensed and approved by Ministry of the Environment (MOE).	√	<input type="checkbox"/>	<input type="checkbox"/>
	Availability of proper storage for fuel, oil and construction materials	√	<input type="checkbox"/>	<input type="checkbox"/>
	Proper maintenance of construction machinery and equipment (prevent leakage of fuel, oil, lubricants, etc.)	√	<input type="checkbox"/>	<input type="checkbox"/>
	Availability of temporary storage areas for excavated and demolished materials and construction wastes within the existing right-of-way	√	<input type="checkbox"/>	<input type="checkbox"/>
	Timely removal of excavated and demolished materials and construction waste from the temporary storage areas to planned and agreed places.	√	<input type="checkbox"/>	<input type="checkbox"/>
	Use covered trucks for transportation of construction materials and waste	√	<input type="checkbox"/>	<input type="checkbox"/>
	Clean the surrounding area from dust by water sprinkling in construction zone (when necessary)	√	<input type="checkbox"/>	<input type="checkbox"/>
	Clean/ wash tires of vehicles before they get to dwellings and/or drive on highways (when necessary)	√	<input type="checkbox"/>	<input type="checkbox"/>
	Implementation of works at the established time (e.g. work during daytime 07.00 to 17.00) <i>Note: The Contractor should consider proper scheduling of construction activities particularly in sensitive areas. Acoustic barriers or enclosures for working areas should be provided</i>	√	<input type="checkbox"/>	<input type="checkbox"/>
	Installation of road signs in construction sites, camps and along access roads	√	<input type="checkbox"/>	<input type="checkbox"/>
	Ensure proper sanitary/ hygienic conditions for workers at the construction site	√	<input type="checkbox"/>	<input type="checkbox"/>
Management of constructionsites	Restoration of the area of construction sites and camps when the construction works are over	√	<input type="checkbox"/>	<input type="checkbox"/>
	Replanting/planting of finished work areas (i.e. embankment slopes, borrow pits, etc.)	√	<input type="checkbox"/>	<input type="checkbox"/>

- Emergency reconstruction of Samputhor and Ampil Krao bridges: It was observed that there is no environmental impact for bridges constructions. It was also confirmed by local village chief that there has never been any complaint from the local people so far regarding the bridge constructions.



Photos: Employed F workers for basal

Photo: Trimming the head piles/worker with hammer.

General information	DD/MM/YY	28 June 2013		
	Report prepared by	Andrelita J. Sto.Domingo Bun San		
	Name of road and location of construction site:	- CW5+1: Ampil Krao Bridge (PK127+300) - CW5+2: SamputThour Bridge (PK103+600), Prey Veng province		
	Name of contractor/ subcontractor:	Royal Mekong Construction & Development PTE., Ltd. CW5 (1+2)		
Permits, agreements	Request for obtaining a permit for quarry/borrow pit opening during construction	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Request for obtaining an agreement for disposal of construction waste	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Management of constructionsites	Proper location of construction site/camp	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Aggregate/asphalt batching plants properly licensed and approved by Ministry of the Environment (MOE).	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
	Availability of proper storage for fuel, oil and construction materials	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
	Proper maintenance of construction machinery and equipment (prevent leakage of fuel, oil, lubricants, etc.)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Availability of temporary storage areas for excavated and demolished materials and construction wastes within the existing right-of-way	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Timely removal of excavated and demolished materials and construction waste from the temporary storage areas to planned and agreed places	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Use covered trucks for transportation of construction materials and waste	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Clean the surrounding area from dust by water sprinkling in construction zone (when necessary) <i>(Two times per day)</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Clean/ wash tires of vehicles before they get to dwellings and/or drive on highways (when necessary)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
	Implementation of works at the established time (e.g. work during daytime 07.30 to 17.30)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Installation of road signs in construction sites, camps and along access roads	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Ensure proper sanitary/ hygienic conditions for workers at the construction site	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
Management of construction sites	Restoration of the area of construction sites and camps when the construction works are over	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Replanting/planting of finished work areas (i.e. embankment slopes, borrow pits, etc.)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A

- Emergency reconstruction of DBST/CW6-a,b,c: It was observed there have been good dust control by applying the water, please see picture below during the field visits.



Photo: Dust control/water spraying

Photo: CW6c, the hole is so deep, no fence to prevent the pupil from school class falling down

General information	DD/MM/YY	28 June 2013		
	Report prepared by	Andrelita J. Sto.Domingo Bun San		
	Name of road and location of construction site:	CW6a: 8.1km DBST road along PR270, CW6b: 3 bridges, CW6c: 7 structures (3RC bridges&4 RC BCs) Kampong Cham province		
	Name of contractor/ subcontractor:	Royal Mekong Construction & Development PTE., Ltd. CW5 (1+2)		
Permits, agreements	Request for obtaining a permit for quarry/borrow pit opening during construction	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
	Request for obtaining an agreement for disposal of construction waste	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
Management of constructionsites	Proper location of construction site/camp	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Aggregate/asphalt batching plants properly licensed and approved by Ministry of the Environment (MOE).	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
	Availability of proper storage for fuel, oil and construction materials	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Proper maintenance of construction machinery and equipment (prevent leakage of fuel, oil, lubricants, etc.)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Availability of temporary storage areas for excavated and demolished materials and construction wastes within the existing right-of-way	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Timely removal of excavated and demolished materials and construction waste from the temporary storage areas to planned and agreed places	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Use covered trucks for transportation of construction materials and waste	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Clean the surrounding area from dust by water sprinkling in construction zone (when necessary) (Two times per day)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Clean/ wash tires of vehicles before they get to dwellings and/or drive on highways (when necessary)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Implementation of works at the established time (e.g. work during daytime 07.30 to 17.30)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Installation of road signs in construction sites, camps and along access roads	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Ensure proper sanitary/ hygienic conditions for workers at the construction site	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
Management of construction sites	Restoration of the area of construction sites and camps when the construction works are over	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Replanting/planting of finished work areas (i.e. embankment slopes, borrow pits, etc.)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A

VI. Conclusions and Recommendations

During construction under component (i) a series of temporary negative impacts including dust, noisy, road safety, worker's safety, wastewater, solid waste and water contamination have been occurred, However, those impacts are avoidable and reduced by environmental control measures and mitigation measures and there is a need to regular check by the safeguards specialists.

In order to reduce the impacts, the alternative approaches are recommended as below: The environmental mitigation measures and environmental monitoring plan which present in the IEE and EMP reports should be implemented. Good cooperation between all stakeholders, especially IAs, EA and local authorities should be undertaken.

Further investigations are needed with regard to developing a suitable design for the excavation and borrow pit, mainly MOWRAM and MPWT subprojects so that these may provide a range of multiple uses for the farmers whose land they will be excavated on and for MPWT/CW6b the hole so deep and close to classroom of one school so the contractor needs to construct the fence to prevent the pupil from falling down into hole.

The safeguard specialist immediately during his site visit on 25th June 2013 recommended to the contractor to build the fence to prevent the pupils from falling into the hole. One week later safeguards specialist followed up the progress of the work and found that the contractor has built the fence already to prevent pupil from falling down into the hole.