

# Environmental Monitoring Report

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Quarterly Report No. 10  
October-December 2014

## Cambodia: Flood Damage Emergency Reconstruction Project—Additional Financing

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

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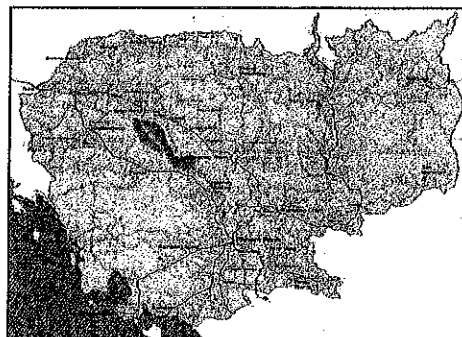
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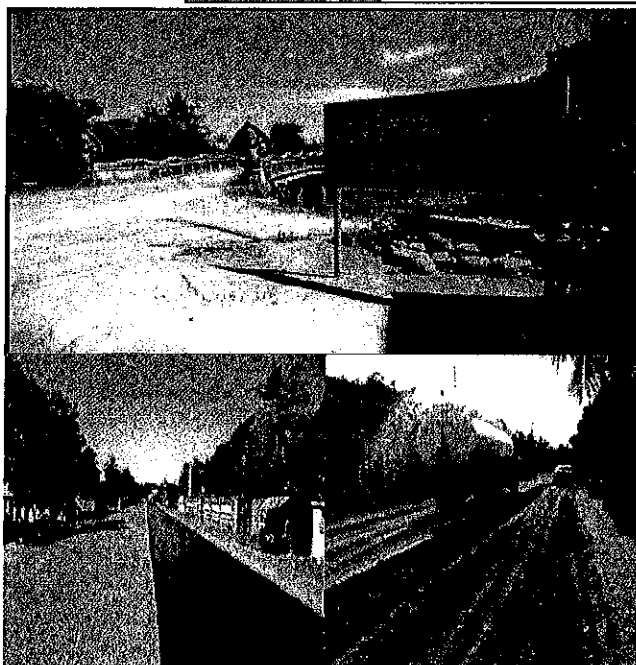
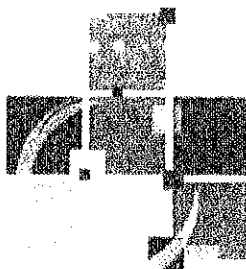
FLOOD DAMAGE EMERGENCY RECONSTRUCTION PROJECT (FDERP) AND  
FDERP – AF (ADDITIONAL FINANCING)

Construction Supervision

**Safeguards Monitoring  
Report No.10**



October-November-December 2014



 **egis International**

In Association with VIDO Engineering Consultant Co., Ltd

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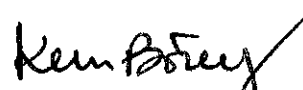
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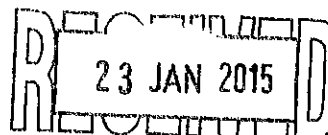
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## Abbreviations

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### Abbreviations

ADB	Asian Development Bank
AP	Affected Persons (those directly affected by the project activities)
COI	Corridor of Impact (a width over the road centerline agreed to as being the width within which resettlement-related impacts would be measured)
CSC	Construction Supervision Consultant
DDIC	Detailed Design and Implementation Consultant
EA	Executing Agency
EIA	Environmental Impact Assessment
EMoP	Environmental Monitoring Plan
EMP	Environmental Management Plan
FDERP-AF	Flood Damage Emergency Reconstruction Project – Additional Financing
IA	Implementation Agency
IEE	Initial Environmental Examination
IOL	Inventory of Losses (part of RP work)
MRD	Ministry of Rural Development
MOE	Ministry of Environment
MPWT	Ministry of Public Works and Transport
NR	National Road
PIU	Project Implementation Unit
PMU	Project Management Unit
PPE	Personal Protective Equipment
PR	Provincial Road
RCG	Royal Cambodian Government
ROW	Right-of-Way for road as defined by law
RP	Resettlement Plan
SEU	Social and Environment Unit –within MPWT-Phnom Penh
TL	Team Leader
UXO	Unexploded Ordnance

## Summary

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This Safeguards Monitoring Report focuses on environmental management, monitoring plan and some gender concerns for the following subprojects which are implemented under Stage 3 of FDERP and under Stage 2 of FDERP-AF:

### I. FDERP Projects:

- CW6b - replace 3 structures on PR No. 270 section from Koh Roka to Peam Chikang in Kampong Cham province;
- CW7 – the Emergency Reconstruction of 8.1 km DBST on PR No. 270 in Kampong Cham province;
- CW8 – the Emergency Reconstruction of 34.6 km DBST on PR No. 159 in Banteay Meanchey and Battambang provinces;

### II. FDERP-AF Projects:

- CW9b – the Emergency Reconstruction of Prek Chiek Bridge on PR No. 270 in Kampong Cham province;
- CW11/12 – the Emergency Reconstruction of 8.15 km DBST on PR No. 264E and 7.375 Km DBST on PR No. 264D in Kampong Thom province and
- CW10a – the Emergency Reconstruction of PR No. 156D in Banteay Meanchey provinces.

Based on field observations, mitigation measures that are being implemented by the contractors are the following safeguards issues under consideration: use of approved borrow pit areas, installation of soil erosion/slope protection structures like stone masonry, gabion mattress, geotextile, investigation of the presence of UXOs and its safe removal, regular sprinkling of water on access roads, disposal of unsuitable excavated materials and other residual construction wastes to designated dumpsites, provision of PPE to workers and facilities such as kitchen, access to communication, toilet, bathroom, potable water, installation of warning/safety signs and employment of unskilled workers including women.

The project as whole has no significant negative environmental and social impacts. The implementation of the above mitigation measures reduces the occurrence of the following negative impacts: Loss of trees (during site clearing and quarrying of construction materials), damage to existing structures, risk of land mine or UXO, dust generation control, noise and vibration disturbance, water contamination, water-borne disease control, loss of agricultural land for borrow pits, soil erosion protection, generation of wastes, safety and health, traffic congestion, transmission of sexually transmitted disease (HIV), while the generation of employment is enhanced.

The contractors were able to minimize the impacts to acceptable levels during pre-construction and construction period, particularly the removal of UXO during the pre-construction phase. Required procedures were properly implemented with the details shown in the Annexes of this report.

To conclude, the contractors should continue the implementation of the Environmental Management Plan (EMP) until the completion of their contract works as specified in the contract; perform self-monitoring works including the implementation of the Labor and Gender Action Plan. Monthly Reports with proper documentation should be submitted to MPWT and the CSC.

## Chapter 1 - General Background

---

### 1.1 Project Background and Objective

#### 1.1.1 FDERP

1. The "Flood Damage Emergency Reconstruction Project" (FDERP) is an emergency infrastructure restoration project in Cambodia with an objective to implement a number of reconstruction projects in the following 5 Provinces; Prey Veng, Kampong Cham, Siem Reap, Banteay Meanchey and Battambang, See **Figure 1**.

2. FDERP was introduced after a reconnaissance mission by ADB to Cambodia in December 2011. This Mission was conducted as a result of destructions to 18 of the country's 24 Provinces, caused by severe typhoons in September and October 2011.

3. The project aims to restore key infrastructure damaged by these floods in the following fields: (i) National and provincial road restoration; (ii) Rural roads restoration; (iii) Irrigation and flood control; and (iv) Project and flood management in the above flood-affected Provinces.

4. The intended impact of FDERP's implementation is economic and social recovery from the damages caused by the 2011 floods in the relevant Provinces. The ultimate outcome of the project is to restore critical public and social infrastructure assets to their original standards or better.

5. The emergency reconstruction project will be implemented over a 3.5 year period and co-funded between ADB and Australia Aid through an Emergency Assistance Loan (EAL). The Project was approved on 27 March 2012 and became effective on 14 May 2012, with a loan closing date of 30 September 2015 and the Grant closing date is March 31<sup>st</sup> 2015.

6. The overall Project cost is \$67.18 million equivalent. An amount of SDR 35,347,000 (\$55 million equivalent at the time of loan negotiation) is provided by the Asian Development Fund (ADF). The Government of Australia provides a grant of A\$ 5.0 million (\$5.25 million equivalent), while the Government of Cambodia contributes \$6.93 million equivalent in safeguards costs, in-kind expenditures by providing staff and office facilities plus covering the costs of taxes and duties.

7. The FDERP project includes three components which are managed by three Implementation Agencies (IA): i) Ministry of Public Works and Transport (MPWT), ii) Ministry of Rural Development (MRD) and iii) Ministry of Water Resources and Meteorology (MOWARM). All IAs report to the Ministry of Economy and Finance (MEF) which is the Program's overall official Executing Agency (EA). The MEF is coordinating and managing the Emergency Program through the Project Coordination and Monitoring Unit (PCMU).

#### 1.1.2 FDERP-AF

8. As a result of severe storms and floods during the months of September and October MPWT submitted various proposals for rectification works of ongoing projects and also an expansion of emergency flood protection efforts to Provinces in the North which had suffered



from extensive damages; areas which were not included in the 2011/2012 FDERP.

9. Starting in the third week of September 2013, Cambodia experienced serious flooding due to flash floods from heavy rainfall, including some areas in Thailand which drained into Cambodia, especially in the north-western provinces of Banteay Meanchey, Battambang, Pailin and Siem Reap, where the water receded slower than expected. The heavy rains only stopped in the second week of October 2013. Overall, 20 provinces have been affected, and as of 15 November 2013, over 1.7 million people have been affected, which is about 12% of the national population. The damage from the 2013 flooding is expected to exceed that of the floods in 2011, both in terms of loss of life and impacts on infrastructure and agricultural crops, largely because the prolonged period of inundation preventing the initiation of meaningful remedial measures. An initial damage estimate, approaching \$1 billion along with 188 deaths was released by the NCDM, and as of 8 November. According to NCDM, approximately 45,905 households (about 211,163 people) had to be evacuated from their homes, although many have since been able to return. More than 240,195 houses, 1,254 schools, 92 health centers and hospitals, and 533 pagodas have been affected, with sizeable infrastructure damage incurred, including 440 km of national roads and 3,569 km of rural roads. Over 118,357 ha of transplanted rice, and 57,443 ha of other crops have also been damaged, about 7% of total cultivated areas.

10. These events and disasters were highlighted and discussed at the ADB Mid Term Mission. As a result it was agreed to conduct a joint reconnaissance mission to the Northern Provinces to investigate damages and assess a potential extension to the existing emergency program by incorporating new projects, primarily funded by ADB, and within the same format as the existing program. The location of the project is shown in **Figure 1**.

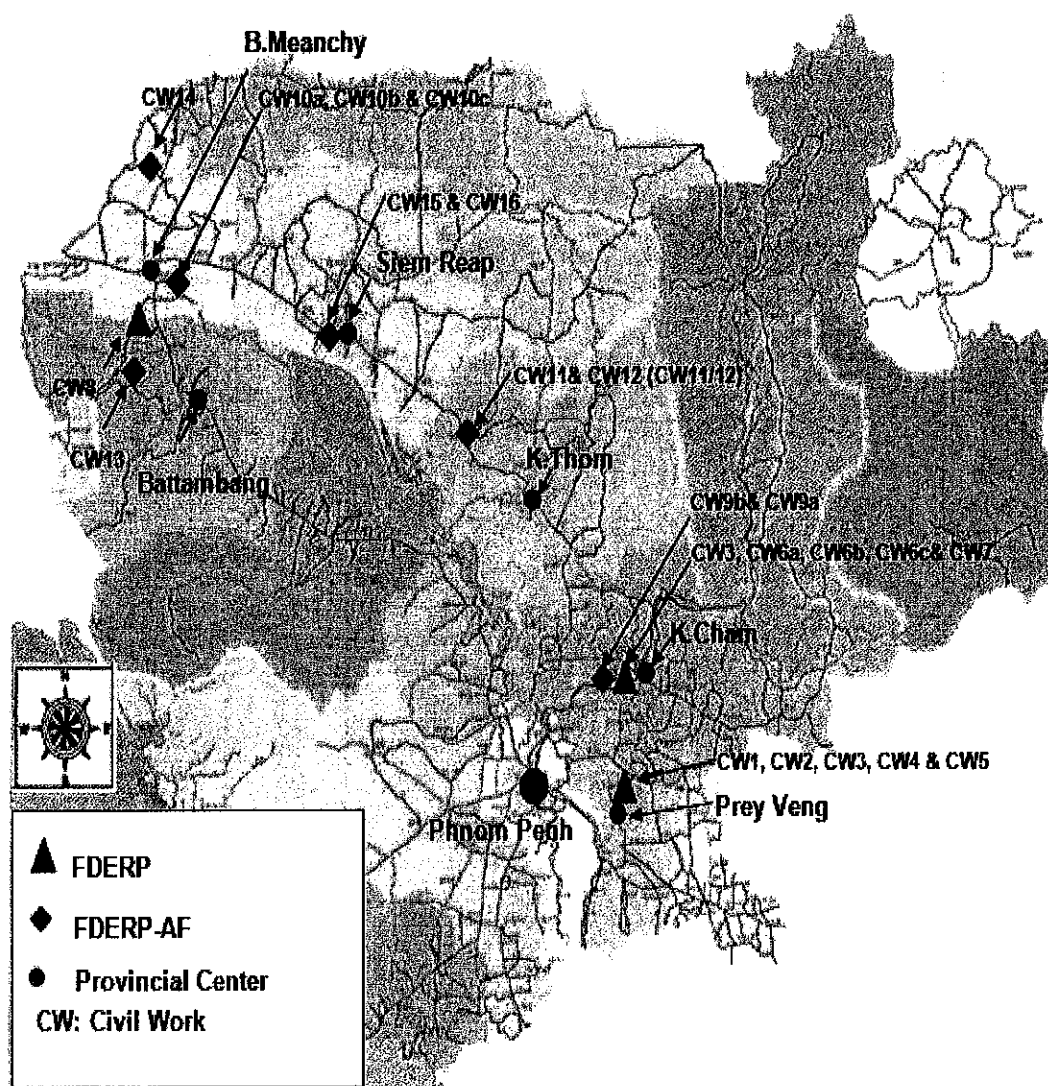


Figure 1: Overall Map for FDERP and FDERP-AF

## 1.2 Project Progress and Status

### 1.2.1 FDERP Projects

11. The progress and status of 3 Civil Works (CW) sub-projects from October-November-December 2014 are shown below:

12. CW6b is the Emergency Reconstruction of 3 Bridges in PR 270 at Kampong Cham Province. Seaboard Cambodian Development Construction Co., Ltd. is the contractor. Construction works commencement date was on 29 April 2013 for an initial 10 month-periods, to be completed in February 2014. The project was later extended to 15 October 2014. CW6b which consists of 3 bridges is a challenging construction project in Kampong Cham. Due to early rise of water in Mekong River, complex site conditions of CW6b-1 (Svay Taken Bridge), resettlement issues at CWb-2 and the severe floods that lasted from September and continued through October 2013 the contractor applied for an extension to July 31<sup>st</sup> 2014, with a further extension to October 15<sup>th</sup> which were approved. Another major set of extra works are related to the slope protection for CW6b-1. A total of 100m slope protection is planned to be constructed. For this, an extra budget of approximately \$362,000 is needed to finance this added work on slope protection. The Contract variation for CW6b was prepared and sent to MEF on 1 October 2014 for review and approval. Work progress is slightly behind schedule i.e. 100% vs. a target of 90.5%. the Contractor is requesting a completion certificate. The technical solution, with related time and cost of protection of the bridge and adjacent areas of CW6b-1 are issues which are being reviewed by all parties.

13. CW7 is the Emergency Reconstruction of 8.1 km DBST along PR 270 at Kampong Cham Province (starting from Peam Chikong to Angkor Ban commune). Tang Kim Eng Co., Ltd. is the contractor. Construction works commencement date was 23 December 2013 and the expected completion date is October 2014, and was extended to December 7, 2014. Work progress is approximately 12% behind schedule i.e. 88 % vs. a target of 100%, primarily as a result of late mobilization of contraction equipment and late supply of sub base and base course material. Contractor was requested to speed up the work in order complete within the given time extension above.

14. CW8 is the Emergency Reconstruction of 34.6 km road along PR 159 at Banteay Meanchey and Battambang Province. Ung Simsia Construction Co., Ltd./Seaboard Co., Ltd. joint venture are the contractors. This contract is the only ICB contract under FDERP. It was awarded on 30 September 2013 for 20-month period. Work progress is 18 % behind schedule i.e. 44.59% overall status vs. a target of 62.57%, after a period of 55% of the contract duration. A large section of the 34 Km project faces sub-quality soil. In addition, some revisions to drainage structures are required, in particular at the bridge site. CW8 is the biggest and the last subproject to be completed under current FDERP. The project is still slow due to wet borrow pits, presence of vast of unsuitable existing soil. The Consultant, MPWT and the Contractor are meeting frequently to speed up the work progress. The Client has instructed the contractor to widen the bridge by adding the sidewalks. The lack of site staff of the contractor has caused late preparation of shop drawings, which is presently addressed through added inputs by the Consultant. A contract variation for CW8 which include extra scope as mention above was prepared and sent to MEF for review and approval in early October. The amount of proposed contract variation can be found in Table 1

15. The status of implementation of Stage 3 under FDERP is shown in Table 1 below.

Table1: The progress and status of implementation of Stage 3 under FDERP

CW	Contractor	Province (Road)	Work Description	Contract Amount	Project Status	Civil Works Implementation completed
CW 6b	Seaboard	Kg. Cham PR270	Reconstruction of 1) CW6b-1: Sway Taken Bridge, 9m x 51m 2) CW6b-2: Phum Thmey Bridge, 9m x 80m 3) CW6b-3: Rokar Koy Bridge 9 x 20m	2.927 Mill	Contract Signed on 18-Apr-12 Intended completion: 31-Jul-14 Intended completion: 15-Oct-14  Contract Amendment prepared and submitted to PCMU in 21-Aug-14 for review/approval. (Additional cost: \$362,526.23 Revised amount: \$3,290,523.78)	-As of 25-Oct-2014 -Work progress: Planned: 100% Actual: 93.03% -extended to 15 October 2014 CW6b-1: road markings, open to traffic CW6b-2: road markings, open to traffic CW6b-3: Open to traffic, open to traffic
CW 8	Ung Simsia / Seaboard	Battam bang / Banteay Mean Chey PR159	Reconstruction DBST 34.6km (bridge 36m, box culverts: 15, pipe culverts 41)	8.795 Mill	Contract Signed on 30 Sept 13 Intended completion: 16-Jun-15  (Additional cost: \$1,056,510.31 Revised amount: \$9,852,155.89)	-Work progress: planned: 70.27%, actual: 46.67 % -Time elapsed: 55% of 20 months -Embankment: 32.2 km (93%) -Subgrade: 29.85 km (86.27%) -Subbase: first layer, spreading 22.7km -Base course: produced, stockpile 65% -Structures: 71%; Box culverts: 6 completed and 9 operating, Reinforced pipes: 22 completed, operating 1. -Bridge: 4 piers done, all girders (15) done; 65% completed -Work progress: planned: 100%, actual: 90.11 % -Time elapsed: 90% of 10 months -Structures: All Pipe culvert are done (100%) -Sub-Base: completed. 100 Km - Base Course: completed.. 5 km
CW 7	Tang Kim Eng	Kg. Cham PR270	Reconstruction of DBST 8.1 Km	1.43 Mill	Contract Signed on 20-Dec-13 Intended completion: 19-Oct-14	

### 1.2.2 FDERP-AF Projects

16. The progress and status of 3 Civil Works (CW) sub-projects from October-November-December 2014 is shown below:

17. CW9b is the Emergency Reconstruction of Prek Chiek Bridge on PR 270 in Kampong Cham province. Seaboard Co., Ltd is the contractor.

- Earth Works and Allied Activities: Clearing and grubbing (3750sq.m), Roadway Excavation and Structural Excavation (640cu.m), Structural backfill (160cu.m), and embankment (800cu.m)
- Sub-base and Base Course: Sub-base material (672 cu.m), Aggregate base-course (420 cu.m)
- Pavement (Bituminous) works: Bituminous prime coat (800 sq.m), and AC pavement (800sq.m)
- Structures: Bridge substructure, Bridge superstructure (concrete 271.3 cu.m, RC Pile 1,568m, PSC Deck unit 28nr)
- Drainage and Protection Works: Block sodding, top soil for embankment slope (860 sq.m), gabion and mattress for river bed protection and slope protection (552.44 cu.m)
- Ancillary Works: Steel guardrail (80 m), Guide post (72 nr), Sign post (4 nr), Road sign and marking (70 sq.m)
- Unexploded Ordnance: the total survey area is 1.2 ha
- Miscellaneous

18. CW11/12 is the Emergency Reconstruction of 8.15 km DBST road in PR 264E and 7.375 km DBST road in PR 264D at Kampong Thom Province. Seaboard Co., Ltd. is the contractor.

- Clearing, Earthworks to raise embankment and widen the roads (2 roads; 149,930m3)
- Sub-base and Base Course to support traffics: (2 roads; 37,883 m3)
- Pavement (Bituminous) Works to cover the base course (1 road; 44,250m2)
- Structures: (2 roads, new box culvert: 5 locations, Concrete: 710 m3)
- Drainage and Protection Works: (2 roads, cross drains and side drains: 640m long pipe culverts , rip-rap: 500m2 )
- Ancillary Works (Guide posts, road signs, road markings)
- Unexploded Ordnance to clear UXOs/mines: (46.7 ha.)
- Miscellaneous

19. CW10a is the Emergency Reconstruction of 8.0 km DBST road of PR 156D in Banteay Meanchey Province. Ung Simsia Construction Co., Ltd. is the contractor.

- Clearing, Earthworks to raise embankment and widen the roads (65,576m3)
- Sub-base and Base Course to support traffics: (23,680m3)

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- Pavement (Bituminous) Works to cover the base course (48,000m<sup>2</sup>)
- Structures: (new box culverts: 4 locations, Concrete: 737 m<sup>3</sup>)
- Drainage and Protection Works: (cross drains: 152m long pipe culverts)
- Ancillary Works (Guide posts, road signs, road markings)
- Unexploded Ordnance to clear UXOs/mines: (7.2 ha.)
- Miscellaneous

20. The progress and status of implementation of Stage 2 under FDERP-AF is shown in Table 2 below:

Table 2: The progress and status of implementation of Stage 2 under FDERP-AF

CW	Contractor	Provincial Road	Work Description	Contract Amount	Project Status	Civil Works Implementation Completed
CW9b	Seaboard	Kg. Cham PR270	Reconstruction of Prek Chiek Bridge, 9m x 40m, PSC deck unit	0.938 Mill	-Contract awarded: 10-Jul-14 -Work starts: 10-Jul-14 -Contract Period: 300 days -Intended Completion date: 6-May-15 -Advance payment: submitted on 4-Aug-2014, certified on 4-Aug-14 Time wise: 2.7 months, 27% Planned: 34.00%, Actual: 20%	-UXO clearance 100% -Soil Investigation: 100% -Project sign board -Clearing/grubbing in progress -Detour road in progress -Pile production in progress
CW10a	Ung Simsia	Banteay Mean chey PR156D	Reconstruction of 8.0km DBST of PR156D	2.126 Mill	-Contract awarded: 10-Jul-14 -Work starts: 10-Jul-14 -Contract Period: 365 days -Intended Completion date: 10-Jul-15 -Advance payment: submitted on 16-Jul-2014, certified on 17-Jul-14 Time wise: 2.7 months, 14% Planned: 19.18%, Actual: 19.96%	-UXO clearance 100% -Project signboard 100% -Clearing/Grubbing 100% -Resurvey of existing road -Provide living & Office accommodation for Engineer 100% -Embankment -Unsuitable
CW11/12	Seaboard	Kg. Thom PR265E and PR265D	Reconstruction Laterite road 8.15km of PR265E 7.375 km DBST of PR256D	2.799 Mill	-Contract awarded: 10-Jul-14 -Work starts: 10-Jul-14 -Contract Period: 420 days -Intended Completion date: 3-Sep-15 -Advance payment: submitted on 4-Aug-2014, certified on 4-Aug-14 Time wise: 2.7 months, 14% Planned: 25.96, Actual: 16.39%	-UXO clearance 100% -Project signboard -Clearing/Grubbing -Resurvey of existing road -Embankment: 0.81%

### **1.3 Purpose of the report**

21. The Safeguards Monitoring Report is a document which provides records to PCMU and funding agencies, ADB through a loan and AusAID through a grant, on the status of compliance with the environmental and gender requirements.



## **Chapter 2 – EMP Implementation and Monitoring**

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### **2.1 EMP Implementation and Monitoring Arrangement**

22. The Environmental Management Plan (EMP) is given in specification for guidance on how to mitigate the environmental concerns identified in connection with this project. The EMP deals with mitigation and management measures to be taken during the project implementation in order to avoid, reduce and mitigate the adverse environmental impacts.

23. IAs will ensure that the EMP is included in the tender documents for civil works. It will form part of the contract between the IA and the selected contractor and the requirements of the EMP will be contractually binding on the contractor. The conformity of contractors with environmental contract procedures and specifications shall be regularly monitored by the PCMU through the Social and Environmental Unit (SEU) during project implementation. PCMU/SEU shall be assisted by the Construction Supervision Consultant (CSC) to undertake EMP monitoring and to prepare corresponding semi-annual reports for submission to ADB.

### **2.2 Scope of Environmental Monitoring**

24. The main tasks being performed for environmental monitoring during the implementation phase of the project covers the following:

- Review of available reports e.g. monthly progress report
- Site verification, observation, informal interview (if necessary), taking of photographs
- Use of monitoring checklist enclosed in the EMP and EMoP
- Modify and add items to the checklist, if necessary.

### **2.3 Methodology**

25. As the construction of subprojects under FDERP and FDERP-AF generate manageable impacts, the construction activities are also closely checked to control any negative effects at the least or minimal level. The procedures being carried out are identified below:

- Review of available reports e.g. monthly progress reports
- Site verification, observation, informal interview (if necessary), taking of photographs
- Use of monitoring checklist enclosed in the EMP and EMoP
- Modify and add items to the checklist, if necessary.

## **Chapter 3 – Environmental Reports and Results of Monitoring**

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### **3.1 Environmental Reports Prepared by the CSC**

#### **3.1.1 Environmental Categorization**

26. Environmental Categorization was performed for sub-projects in FDERP (CW6b, CW7 and CW8) and FDERP-AF (CW9b, CW11/12 and CW10a). Based on the rapid environmental assessment conducted, sensitive areas such as cultural heritage site, protect area, wetland, mangrove, estuarine and buffer zone of protected areas are not adjacent nor within the project area. During construction, impacts on surface water quality, occupational health and safety, noise and vibration, poor sanitation and solid waste disposal are expected, however, these are minimal and short term where mitigation measures can be readily formulated and be implemented. As concluded, all sub-projects fall under Category B which means that its potential adverse environmental impacts are less adverse than those of Category A projects.

#### **3.1.2 IEE and EMP**

27. In compliance with ADB's Requirements, the Initial Environmental Examination (IEE) Report was prepared, one (1) for stage 2 and a separate document for stage 3. Environmental Management Plan (EMP) and Monitoring Plan for each subproject was also completed and officially transmitted to ADB.

#### **3.1.3 Safeguards Monitoring and Reporting**

28. To facilitate Safeguards Monitoring and Reporting on the status of EMP as well as LGAP implementation, forms were provided to the contractors which will be completed and submitted to MPWT on a monthly basis. Quarterly Safeguarding Report No. 10 was issued in December 2014.

29. The contractors shall adhere to the policies related to good governance and gender mainstreaming. As stipulated in term 2 of Social and Gender dimension under Section IV of the Special Conditions of Contract (SCC), the contractors are required to (a) use local unskilled labor and prioritized employment of women and the poor based on targets set forth in the LGAP; (b) provide equal pay for equal work; (c) provide the timely payment of wages; (d) comply with all core employment; and (e) not employ child labor.

### **3.2 Environmental Report of the Contractor**

30. As stipulated under Clause 1.10 PROTECTION OF THE ENVIRONMENT of Part B – Special Technical Specification of the Contract Document, the Contractor shall observe and comply with all the National Laws, Government Regulations, and Ministerial Regulations pertaining to environmental protection, pollution control, waste management and biodiversity protection.

31. In support to the Special Technical Specification, subproject-specific Environmental Management Plans (EMP) and Environmental Monitoring Plans (EMoP) were prepared. Contractors are obliged to implement the measures stipulate in the plans.

32. For the period, site instructions with the monitoring forms were issued to the contractors for them to completed and submit to the MPWT and CSC on a monthly basis. Through close coordinator with the contractors by the CSC, advance information were collected and incorporated in this Safeguards Monitoring Report.

### 3.3 Field Monitoring by CSC/Environmental Specialists

33. Based on field monitoring and interviews were conducted, the mitigation measures being implemented by the contractors as following:

- Approved borrow pit/quarry areas are being used;
- The contractors are trying to minimize the impacts to nearby the structures as much as they could;
- The contractors are trying to minimize the trees clearance as much as possible;
- Not regular sprinkling of water on access roads/detour roads during day time;
- Vehicles transporting materials were not covered with tarpaulin or similar material;
- There were some complaints received from local people regarding to noise and dust pollution due to vehicles transporting materials;
- There was no spilled oil/fuel observed on various project sites. However, the contractors were also advised to improve oil/fuel storage facilities;
- Slope protection structures like stone masonry, gabion mattress, geotextile are being installed to minimize soil erosion;
- PPE are provided to workers;
- Facilities such as kitchen, communication, toilet, bathroom, potable water are provided to workers but could be improved;
- There was no complaints received from local people regarding water quality impacts by project activities,
- There were some complaints received from local people on health impacts by dust pollution,
- Training on water-borne disease were provided to worker,
- Warning/safety signs are installed at the paces;
- The contractor also provides workmen's compensation insurance (by Asia Insurance);
- Traffic/safety signs are installed;
- Temporary bypass or Bailey bridge are provided;
- Contractors submitted updates regarding employment generation, hiring of women workers in compliance with LGAP;
- Commune Chief has complained on overloaded truck which is causing serious damage to the access roads between National Road No. 5 and the project site of CW 8 on Provincial Road No. 159 in Battambang and Beanteay Meanchey provinces. They also concern that the MRD road is being damaged by overloaded truck. Contractor has agreed to maintain of damage road.

34. In general it is observed that the projects have small significant impacts on the environment and people as well. The implementations of the above mitigation measures reduce the occurrence of the following negative impacts: Loss of trees (during site clearing and quarrying of construction materials), damage to existing structures, risk of land mine or UXO, dust generation control, noise and vibration disturbance, water contamination, water-disease control, loss of agricultural land for borrow pits, soil erosion protection, generation of wastes, safety and health, traffic congestion, transmission of sexually transmitted disease (HIV), while the generation of employment is enhanced (Refer page 5- "summary").

35. The contractors were able to minimize the impacts to acceptable levels during pre-construction and construction period. Please see details on Annex 1 regarding the status of EMP compliance with other concerns reflected in Annex 2 or Monitoring Checklist.

## Chapter 4 – Conclusion and Recommendation

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### 4.1 Conclusion

36. For the quarterly period in this report, site instructions with the monitoring forms were issued to the contractors for them to complete and submit to the MPWT and CSC on a monthly basis. Through Sites Inspection and close coordination with the contractors, the CSC was able to collect advance information relative to their compliance with the environmental requirements. As to date, the contractors are currently implementing the applicable mitigation measures.

### 4.2 Recommendation

37. The contractors shall be reminded and monitored to continue the implementation of the Environmental Management Plan which has been signed in the contract; perform self-monitoring works including the implementation of the Labor and Gender Action Plan. Monthly reports with proper documentation should be submitted to MPWT and CSC.

38. During site inspection, the Resident Engineers and other Project Personnel were again advised to submit the monthly reports and monitor the environmental safeguard issues. Verbal instruction was also provided to enhance the following mitigation measures:

- Ensure that need to retain of water flow as much as possible in order to provide water to downstream for bridge construction project;
- Regular sprinkling of water of access roads/detour roads during day time;
- Regular collection and disposal of spoils and excavated materials to designated location to avoid sedimentation/siltation of nearby water bodies;
- Proper storage of toxic materials like fuel and oil;
- Provide the first aid kit and additional sanitary facilities at site camp and worker camps;
- PPE should be provided to workers at construction sites;
- Backfill open borrow pits;
- Improve sanitary facilities for workers;
- Adequate sign boards, advisory on speed limit, humps, lights, barriers, refectories should be placed on critical locations;
- Vehicles transporting materials must be covered with tarpaulin or similar material;
- The contractor have to install soil erosion/slop protection structure;
- Appropriate plants species shall be planted on the slopes and other areas considered;
- Contractors were advised and agreed to repair of damaged when the Project CW 8 will be completed.

## Chapter 5 - Annexes

### Annex 1: Status of EMP Compliance

#### A. Pre-Construction and construction phases

Project Activity	Potential Environmental Impacts	Proposed Mitigation Measures	Status of Compliance (Note: photos were additional attached for reference)
Detailed Engineering Design and construction phases: Earthworks, site clearing, hauling of construction materials, piling works, Operation of construction/workers' camps, borrow operation, hauling of construction wastes to spoil sites	1. Loss of trees (during site clearing and quarrying of construction materials)	<ul style="list-style-type: none"> <li>On the design stage, ensure that there are acceptable alternative borrow pit areas that would have an overall beneficial advantage in terms of improved livelihood and reduced environmental impacts.</li> </ul>	<ul style="list-style-type: none"> <li>Complied during clearance and earthwork activities construction for subprojects.</li> </ul>
	2. Damage to existing structures	<ul style="list-style-type: none"> <li>The design should maximize benefits or avoid impacts on assets. Resettlement framework for the Project and Cambodian laws, policies, and regulations should be complied with.</li> </ul>	<ul style="list-style-type: none"> <li>The contractors are trying to minimize the impact to nearby structures as much as they could.</li> <li>The contractor installed soil erosion/slope protection structures</li> </ul>
	3. Risk of land mine or UXO	<ul style="list-style-type: none"> <li>Consultative meetings with local communities are necessary to know clearly where there are risks of mines or UXO. Unsafe areas should be cleared before project implementation.</li> </ul>	<ul style="list-style-type: none"> <li>UXOs had been cleared and destructed for subprojects of CW6b, CW7, CW8, CW 9b, CW1 1/12 and CW10a</li> <li>There was no any accident encountered of mines or UXO.</li> </ul>
Environmental Engineering	4. Dust generation	<ul style="list-style-type: none"> <li>The Contractor will be required to formulate and implement a Dust Abatement Program that includes spraying of water on roads and work areas within villages close to the road.</li> <li>Vehicles transporting materials should be covered with tarpaulin or similar material</li> </ul>	<ul style="list-style-type: none"> <li>Not regular sprinkling of water on access road and including detour road</li> <li>Complaints received from people of dust pollution.</li> <li>No cover with tarpaulin of vehicles transporting materials.</li> </ul>

Project Activity	Potential Environmental Impacts	Proposed Mitigation Measures	Status of Compliance (Note: photos were additional attached for reference)
	5. Noise and vibration	<ul style="list-style-type: none"> <li>The Contractor should consider proper scheduling of construction activities particularly in sensitive areas. Acoustic barriers or enclosures for working areas should be provided</li> </ul>	<ul style="list-style-type: none"> <li>Complaints received from the people so far as proper scheduling of works is being done.</li> </ul>
	6. Water contamination	<ul style="list-style-type: none"> <li>Waste/used oil should be collected, properly stored and disposed to an approved site (according to national standard). Storage should be in drums raised off the ground and properly covered to keep rain water out. Lining or pan should be provided to contain any spills and simplify clean up.</li> <li>The Contractor shall prepare a Spill Management Plan (including measures to be taken and equipment to be used) to ensure adequate clean-up of any spills.</li> </ul>	<ul style="list-style-type: none"> <li>There is no spilled oil/fuel into water resources observed. Moreover, the contractors were also advised to improve oil/fuel storage facilities.</li> <li>There were no complaints received from local people regarding water contamination impacts by project activities.</li> </ul>
	7. Water-borne disease	<ul style="list-style-type: none"> <li>Fill-up depressed areas to prevent water ponding which may be used as breeding ground for disease-carrying organisms mosquitoes.</li> <li>Borrow pits may be utilized for aquaculture or be developed as water reservoir for community use.</li> </ul>	<ul style="list-style-type: none"> <li>No complaints received regarding water-borne disease from local people for all subprojects.</li> <li>Training were provided on water-borne disease to project's workers.</li> </ul>
	8. Water flow	<ul style="list-style-type: none"> <li>The Constructor has to ensure that road and bridge construction will not be impacted of water flow. The alternative approaches should be: <ul style="list-style-type: none"> <li>i. do not blockage of water</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Complied.</li> <li>There were no complaints received from people regarding water flow.</li> </ul>

Project Activity	Potential Environmental Impacts	Proposed Mitigation Measures	Status of Compliance (Note: photos were additional attached for reference)
		<ul style="list-style-type: none"> <li>ii. provide adequate cross drainage of water flow</li> <li>iii. construct divert of water flow.</li> </ul>	
	9. Loss of agricultural land for borrow pits	<ul style="list-style-type: none"> <li>The contractor will use only licensed borrow operators. There will be no side borrow permitted, unless agreed to with roadside residents.</li> <li>The contractor will be responsible for rehabilitating any borrow sites opened and operated by them</li> </ul>	<ul style="list-style-type: none"> <li>Complied.</li> </ul>
	10. Loss of trees	<ul style="list-style-type: none"> <li>Tree clearing should be avoided as much as possible.</li> <li>The borrow pits will need to be re-vegetated before being handed back to the owner, or could be used for aquaculture.</li> <li>Tree planting should be carried out in the appropriate location of the road in consultation with competent authority(ies) regarding the species of trees to be used.</li> </ul>	<ul style="list-style-type: none"> <li>Complied</li> <li>Appropriate vegetation will be planted on the slope and other areas required after project completed.</li> </ul>
	11. Soil erosion	<ul style="list-style-type: none"> <li>The contractor will be required to implement soil erosion control to minimize soil erosion and sedimentation of waterways. The alternative approaches should be: (1) provide adequate cross drainage to avoid over flow or flooding and (2) re-vegetation of erosion-prone areas.</li> </ul>	<ul style="list-style-type: none"> <li>Slope protection structures like stone masonry, gabion mattress, geotextile are installed to minimize soil erosion.</li> </ul>
	12. Generation of	<ul style="list-style-type: none"> <li>Sufficient garbage containers should be</li> </ul>	<ul style="list-style-type: none"> <li>Unsuitable excavated materials and other residual</li> </ul>



Project Activity	Potential Environmental Impacts	Proposed Mitigation Measures	Status of Compliance (Note: photos were additional attached for reference)
	wastes	<p>provided in construction camps and work sites</p> <ul style="list-style-type: none"> <li>• Employ regular disposal of waste in an approved landfill or site</li> <li>• Maintain cleanliness/orderliness at camps and work sites</li> </ul>	<p>construction wastes are brought to designated dumpsite</p> <ul style="list-style-type: none"> <li>• Contractor should improve construction camp, living quarters, particularly a sanitary facility</li> </ul>
	13. Safety and Health	<ul style="list-style-type: none"> <li>• The Contractor should formulate and implement a Health and Safety Plan to protect both the public and the workers. A trained first aid personnel and health facility should be provided on site.</li> <li>• Provide potable water and sanitary facilities to workers</li> <li>• Install warning signs like "safety first" at the construction area including fences or enclosures</li> <li>• Provide Protective Personal Equipment (PPE) to workers e.g. safety shoes, hardhats, earplugs, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• PPE are provided to workers</li> <li>• Facilities such as kitchen, communication, toilet, bathroom, first aid kits, and potable water are provided to workers.</li> <li>• Warning/safety signs are installed.</li> <li>• The contractor also provides workmen's compensation insurance (by Asia Insurance).</li> <li>• No complaints received on health impacts by project activities.</li> </ul>
	14. Traffic congestion	<ul style="list-style-type: none"> <li>• Contractor should perform the following: i) orient their drivers or equipment operators to comply with the required speed limit. (ii) drive at low speeds, especially in market, school, hospital, urban areas. (iii) keep the roadway or bypass accessible to commuters to avoid traffic jams. (iv) park at designated area.</li> <li>• Prepare and implement a Traffic</li> </ul>	<ul style="list-style-type: none"> <li>• Temporary bypass and Bailey bridges are provided.</li> <li>• Traffic safety measures should be implemented e.g. placing of traffic /warning signs including advisory on speed limit, provision of humps on the approach of the bridge, light/reflectorizes especially on deep excavations and work areas, deployment of flagmen on critical locations.</li> </ul>

Project Activity	Potential Environmental Impacts	Proposed Mitigation Measures	Status of Compliance (Note: photos were additional attached for reference)																																
		<p>Management Plan</p> <ul style="list-style-type: none"> <li>• Provide appropriate storage area for the construction materials</li> <li>• Detour road should be provided and accessible to commuters</li> <li>• Temporary access of equipment and trucks must be established and approved by the sub-district officials</li> </ul>																																	
15. Transmission of sexually transmitted disease (HIV)		<ul style="list-style-type: none"> <li>• Prepare and implement a Health and Safety Plan including education of workers on sexually transmitted disease should be done.</li> </ul>	<ul style="list-style-type: none"> <li>• Workers were well trained regarding HIV/AIDS.</li> <li>• No complaints received regarding HIV/AIDS</li> </ul>																																
16. Generation of employment		<ul style="list-style-type: none"> <li>• The contractor should comply with the <b>Labor and Gender Action Plan</b>; employ people from villages including women and unskilled workers.</li> </ul>	<ul style="list-style-type: none"> <li>• Contractors submitted updates regarding employment generation and LGAP implementation. Data as of October-November, December 2014 are tabulated below:</li> </ul> <table border="1"> <thead> <tr> <th colspan="4">% women employed in the project (2014)</th></tr> <tr> <th></th><th>October</th><th>November</th><th>December</th></tr> </thead> <tbody> <tr> <td>CW6b</td><td>31.42</td><td>31.5</td><td>0</td></tr> <tr> <td>CW7</td><td>13</td><td>0</td><td>0</td></tr> <tr> <td>CW8</td><td>42.5</td><td>42.5</td><td>50</td></tr> <tr> <td>CW9b</td><td>30</td><td>31</td><td>31.91</td></tr> <tr> <td>CW11/12</td><td>25.80</td><td>23.33</td><td>25.53</td></tr> <tr> <td>CW10a</td><td>37.5</td><td>37.5</td><td>37.5</td></tr> </tbody> </table>	% women employed in the project (2014)					October	November	December	CW6b	31.42	31.5	0	CW7	13	0	0	CW8	42.5	42.5	50	CW9b	30	31	31.91	CW11/12	25.80	23.33	25.53	CW10a	37.5	37.5	37.5
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CW9b	30	31	31.91																																
CW11/12	25.80	23.33	25.53																																
CW10a	37.5	37.5	37.5																																

## Annex 2: Monitoring Checklist (FDERP)

### A. CW6b: Replacement of 3 Structures on PR 270 (Kampong Cham)

<b>General information</b>	DD/MM/YY	30/12/2014		
	Report prepared by	Sao Vibol		
	Name of road and location of construction site	PR No.270-CW6b-FDERP-MPWT		
	Name of contractor/ subcontractor	Seaboard		
<b>Permits, agreements</b>	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
<b>Management of construction sites</b>	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 Environment (MOE).	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input 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)	<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 06.00 to 18.00)	<input type="checkbox"/> Yes	<input checked="" 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
<b>Management of construction sites</b>	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

**B. CW7 Emergency Reconstruction of 8.1km DBST of PR 270 (Kampong Cham)**

<b>General information</b>	DD/MM/YY	30/12/2014		
	Report prepared by	Sao Vibol		
	Name of road and location of construction site	PR No.270-CW7-FDERP-MPWT		
	Name of contractor/ subcontractor	Tang Kim Eng		
<b>Permits, agreements</b>	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
<b>Management of construction sites</b>	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 Environment (MOE).	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input 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)	<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 06.00 to 18.00)	<input type="checkbox"/> Yes	<input checked="" 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
<b>Management of construction sites</b>	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

**C. CW8 Emergency Reconstruction of 34.6km DBST of PR 159 (Battambang and Banteay Meanchey)**

<b>General information</b>	DD/MM/YY	30/12/2014		
	Report prepared by	Sao Vibol		
	Name of road and location of construction site	PR No.159-CW8-FDERP-MPWT		
	Name of contractor/ subcontractor	Ung Simsa/Seaboard		
<b>Permits, agreements</b>	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
<b>Management of construction sites</b>	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 Environment (MOE).	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input 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)	<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 06.00 to 18.00)	<input type="checkbox"/> Yes	<input checked="" 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	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
<b>Management of construction sites</b>	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

### Annex 3: Monitoring Checklist (FDERP-AF)

#### A. CW9b Emergency Reconstruction of Prek Chiek Bridge on PR 270 (Kampong Cham)

<b>General information</b>	DD/MM/YY	30/12/2014			
	Report prepared by	Sao Vibol			
	Name of road and location of construction site	PR No.270-CW9b-FDERP-AF-MPWT			
	Name of contractor/ subcontractor	Seaboard			
<b>Permits, agreements</b>	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	
<b>Management of construction sites</b>	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 Environment (MOE).	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input 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)	<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 06.00 to 18.00)	<input type="checkbox"/> Yes	<input checked="" 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
	<b>Management of construction sites</b>	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

**B. CW11/12 Emergency Reconstruction of 8.15km of PR 264E and 7.375km of PR 264D (Kampong Thom)**

<b>General information</b>	DD/MM/YY	30/12/2014		
	Report prepared by	Sao Vibol		
	Name of road and location of construction site	PR No.264E&264D-CW11/12-FDERP-AF-MPWT		
	Name of contractor/ subcontractor	Seaboard		
<b>Permits, agreements</b>	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
<b>Management of construction sites</b>	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 Environment (MOE).	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input 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)	<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 06.00 to 18.00)	<input type="checkbox"/> Yes	<input checked="" 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	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
<b>Management of construction sites</b>	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

**C. CW10a Emergency Reconstruction of 8.0km DBST of PR 156D (Banteay Meanchey)**

<b>General information</b>	DD/MM/YY	30/12/2014		
	Report prepared by	Sao Vibol		
	Name of road and location of construction site	PR No.156D-CW10a-FDERP-AF-MPWT		
	Name of contractor/ subcontractor	Ung Siamasia		
<b>Permits, agreements</b>	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
<b>Management of construction sites</b>	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 Environment (MOE).	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input 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)	<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 06.00 to 18.00)	<input type="checkbox"/> Yes	<input checked="" 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	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
<b>Management of construction sites</b>	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



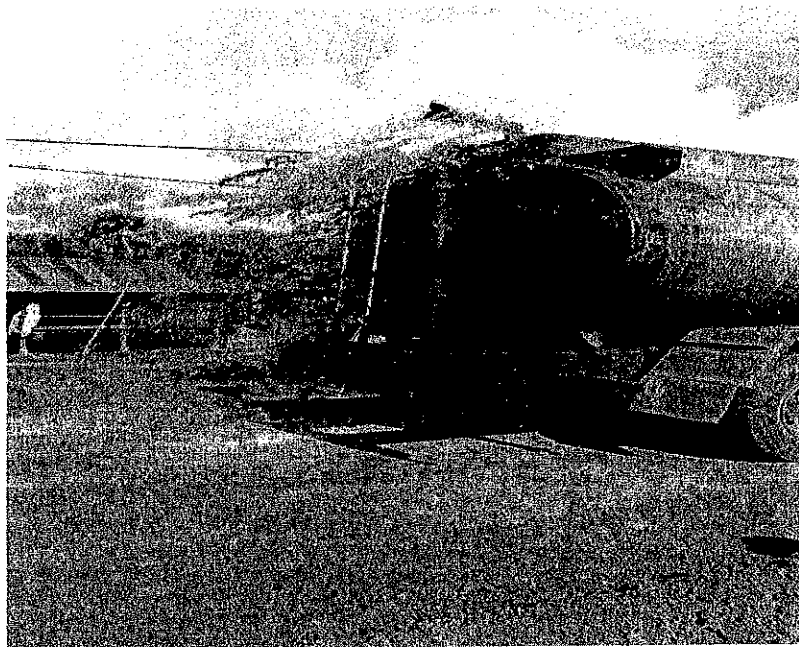
## Annex 4: Photos



Women worker were provided during project construction



Sign of safety first was installed at project site



Watering along the alignment



Complaints were received from people regarding on dust pollution



Complaints were received from people regarding no cover with tarpaulin of vehicles  
transporting materials