

Semi-annual Environmental Monitoring Report

ProjectNo.42177-013

December 2016

Bangladesh: Urban Primary Health Care Services Delivery Project

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Environmental Monitoring Report

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ABBREVIATIONS

ADB	Asian Development Bank
CRHCC	Comprehensive Reproductive Health Care Center
DoE	Department of Environment
EA	Executing Agency
EIA	Environmental Impact Assessment
EMP	Environmental management plan
GoB	Government of Bangladesh
IA	Implementing agency
IEE	Initial environmental examination
LGD	Local Government Division
NGO	Non-government organization
O&M	Operation and Maintenance
PA	Partnership Area
PHC	Primary Health Care
PHCC	Primary Health Care Center
PPE	Personal protective equipment
PPP	Public-private partnership
REA	Rapid environmental assessment
SPS	Safeguards Policy Statement
UPHCSDP	Urban Primary Health Care Services Delivery Project

I. INTRODUCTION

A. Project Background

1. Urban Primary Health Care Services Delivery Project (UPHCSDP) in Bangladesh is the continuation of first and second phase of Urban Primary Health Care Project. The Project commenced in July 2012 and will be completed by April 2018. The total project cost is estimated at \$81 million and builds on the two previous Urban Primary Health Care Projects to further develop and institutionalize a sustainable system to deliver pro-poor primary health care (PHC) services in urban areas through public-private partnership agreements with NGOs and other service providers. The Local Government Division (LGD) of the Ministry of Local Government, Rural Development and Cooperatives is the Executing Agency (EA). Ten city corporations and four municipalities are the implementing agencies (IAs) in their respective project areas.
2. The project has three outputs: (i) Strengthened Institutional Governance and Local Government Capacity to Sustainably Deliver Urban Primary Health Care Services; (ii) Improved Accessibility, Quality, and Utilization of Urban Primary Health Care Services Delivery System, with a Focus on the Poor, Women, and Children, through Public-Private Partnership (PPP); and (iii) Effective Support for Decentralized Project Management. Majority of the outputs pertain to capacity building and strengthening institutions which have limited interaction with the natural environment and generating limited environmental impacts. However, Output 2 entails physical infrastructure wherein construction and operation may generate environmental impacts and is the focus of this environmental monitoring. The project aims to establish in each of partnership area (PA) to have at least 1 Comprehensive Reproductive Health Care Center (CRHCC) and 3 PHC Centers (PHCC) for each CRHCC. In the municipalities, there should be 2 PHCCs and 1 CRHCC in each partnership area. Therefore, the project finances the construction of 13 CRHCCs and 26 PHCCs and upgrading of 5 CRHCCs and 1 PHCC. The project will expand and upgrade the existing infrastructure network of selected PHC facilities into green clinics (with solar panel and solar water heater) and support their operation and maintenance (O&M), including medical waste management. The architectural design of the facilities included improvements over the previous two project phase's facility design to respond to the needs of doctors, visitors and in-house patients. Total investment costs for civil works under UPHCSDP is about \$15.65 million. These were all small civil works subprojects less than six stories and were not identified as category B. To date, total of 10 CRHCCs¹ and 19 PHCCs² are to be constructed under the ongoing project and to date 3 CRHCCs and 12 PHCCs have been completed and are operational; 6 CRHCCs and 2 PHCCs are almost completed; and 1 CRHCC and 5 PHCC are still under-construction (see Table I-1).
3. The UPHCSDP is classified as environmental category B and the conduct of semi-annual environmental monitoring is required in the ADB SPS (2009) and emphasized in the environmental assessment and review framework (EARF).³ The compliance to environmental safeguards of the UPHSDP is assessed based on the following: (i) environmental provisions of the loan covenant; (ii) EARF which defines the site screening and site selection for the CRHCCs and PHCCs, required environmental assessment, institutional arrangement to implement the environmental management and monitoring plans, and reports disclosure of all safeguard documents to include the initial environmental examination (IEE) and this environmental monitoring report (EMR); and (iii) environmental management and monitoring plan (EMP) and integration in the civil works bidding documents.

¹ Comprehensive Reproductive Health Care Centre

² Primary Health Care Centre

³ <https://www.adb.org/sites/default/files/project-document/59845/42177-013-ban-earf-draft.pdf>

4. This EMR covers all health care centers identified under the UPHCSDP including ongoing construction and those operational as of December 2016. Compliance information were gathered through the review of secondary data available in the PMU. This EMR also covers the period from July 2016 to December 2016.

Table I-1. Status of CRHCC and PHCC Construction, UPHCSDP (as of December 2016)

UPHCSDP Partnership Areas	Target		Status					
	CRHCC	PHCC	Completed and Operational		Completed not Operational		Under Construction	
			CRHCC	PHCC	CRHCC	PHCC	CRHCC	PHCC
Dhaka South City Corporation (DSCC)								
Dhaka North City Corporation (DNCC)	1		1					
Narayanganj City Corporation (NCC)	1	3	1	3				
Sylhet City Corporation		1				1		
Barisal City Corporation								
Rajshahi City Corporation	1		1					
Rangpur City Corporation	1	3			1	1		2
Khulna City Corporation	1				1			
Gazipur City Corporation	2	2			1		1	2
Comilla City Corporation		3		3				
Kishoregonj Municipality	1	2		2	1			
Gopalganj Municipality	1	2		2	1			
Sirajgonj Municipality		1						1
Kushtia Municipality	1	2		2	1			

II. INSTITUTIONAL ARRANGEMENTS

5. The LGD through the PMU is responsible for the overall implementation of the EMP. The design, procurement, and construction supervision are the responsibility of the LGED that serves as a consultant of the project. Review of bidding documents and discussions with the PMU and LGED confirmed that bidding documents included the environmental management and monitoring plans detailing the roles and responsibilities of the contractors. During the construction stage, the contractors are responsible to mitigate all environmental impacts related with the construction activities while the LGED is responsible for the construction supervision including environmental monitoring. Ensuring environmental compliance during operation of the health care centers is the responsibility of the environmental specialist consultant of the PMU.
6. Grievance redress mechanism is set up through the catchment community’s ward urban health coordination committee led by two elected councilors (one male and one female) and at the central level through the project website with all names and contact information clearly identified. To date no complaints have been received.
7. However, the resignation of the consultant and the inability of PMU to find a suitable replacement to date have hampered the proper documentation of the health centers compliance to the Medical Waste (Management and Processing) Rules (2008), Solid Waste Management Rules (2010), other relevant laws, ADB’s environmental safeguards policies, and the requirements specified in the EARF.

III. SAFEGUARDS COMPLIANCE PERFORMANCE OF UPHCSDP

B. Compliance with the Environmental Provisions of the Loan Covenant

8. Overall, the UPHCSDP has partly complied with the environmental provisions of the loan covenant. It has complied with the need to prepare and disclose the EARF that formed part of the Project Administration Manual, and the integration of the construction-phase environmental management plan (EMP) into the bidding documents that was prepared by the LGED. Although the LGED has conducted periodic and rigorous environmental monitoring of each CRHCC and PHCC construction, a compilation of these reports at the project level was not disclosed. Status of compliance with the environmental provisions of the Loan Covenant and National Legal Instruments Related to the UPHCSDP are shown in Tables III-1 and III-2, respectively.

Table III-1. Status of Compliance with the Environmental Provisions of the Loan Covenant 2878-BAN (SF)

Environmental Provision	Status of Compliance
<p>Schedule 4. Conditions for Award of Contract. The Borrower shall not award, and shall ensure that an Implementing Agency does not award any Works contract which involves environmental impacts until (i) all government environmental clearances have been obtained for the IEE; (ii) the IEE has been cleared by ADB; and (iii) relevant EMP provisions have been incorporated into the respective Works contract;</p>	<p>Partially complied with: Based on (i) the ECR 1997 of DOE, this project was under category Orange B and (ii) based on ADB (SPS 2009), this project was under category B and therefore IEE was required. But due to minor civil works (according to the proponent opinion) the proponent (PMU of LGD) treated this project not under category B (ADB) and Orange B (DOE) but under category C (ADB) and Orange A (DOE) and therefore no objection certificate (NOC) from local authority and environmental clearance certificate (ECC) from the Department of Environment (DOE) was not obtained.</p>

Environmental Provision	Status of Compliance
<p>Schedule 5. Execution of Project: Financial Matters Environment Safeguards. The Borrower shall ensure, and shall cause each Implementing Agency to ensure, that the preparation, design, construction, implementation, operation and decommissioning of the Project and each subproject under the Project comply with: (a) all applicable laws and regulations of the Borrower relating to environment, health, and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the IEE and the EMP, and any corrective or preventative actions set forth in the Safeguards Monitoring Reports.</p>	<p>Partial Complied with: An EARF was prepared for the project. However, site clearances were not obtained, DDRs for the Category C not prepared as EARF requirement. Submission of semi-annual environment monitoring reports (EMRs) to ADB were compliance.</p>
<p>Schedule 5. Safeguards – Related Provisions in Bidding Documents and Works Contracts 6. The Borrower shall ensure, and shall cause each Implementing Agency to ensure, that all bidding documents and contracts for Works contain provisions that require contractors to: (a) comply with the measures and requirements relevant to the contractor set forth in the IEE, the EMP and any corrective or preventative actions set out in a Safeguards Monitoring Report; (b) make available a budget for all such environmental and social safeguards measures; and (c) provide the Borrower and ADB with a written notice of any unanticipated environmental and other safeguards-related risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP.</p>	<p>Not Complied with: EMP was prepared and added in the Environmental Assessment and Review Framework (EARF). However, the EMP was not included into the bidding document.</p>

Table III-2: National Legal Instruments Related to the UPHCSDP

Policies, Laws and Regulations	Responsible Agency/Ministry/Authority	Potential Applicability	Compliance Status
The Environment Conservation Act, 1995	Ministry of Environment and Forest; Department of Environment	➤ According to this law “no industrial unit or project shall be established or undertaken without obtaining, in the manner prescribed by rules, an Environmental Clearance Certificate from the Director General”.	Not complied with: Environmental clearance procedure not followed and no objection certificate from the local authority not obtained.
Environment Conservation Rules, 1997	Ministry of Environment and Forest; Department of Environment	<ul style="list-style-type: none"> ➤ The Rule sets out procedure for issuing Environmental Clearance Certificate. ➤ According to the Rule, proposed project is an orange B category project and needs to fulfill following requirements <ul style="list-style-type: none"> ❖ Prepare Initial Environmental Examination report. ❖ Report on the Environmental Management Plan (EMP). ❖ Obtain No objection certificate of the local authority. 	Not Complied with: Construction of multi-storied buildings is considered as the ‘Orange B’ category in ECR 1997. and therefore IEE study, NOC from local authority and ECC from DOE were required. But these requirements were not fulfilled by the project proponent.
Environmental Courts Act, 2000	Ministry of Environment and Forest; Department of Environment	➤ Sets out policy for effective pursuance and completion of legal proceedings related to environmental crimes.	Complied with. According to this act, government can take legal actions if any environmental problem occurs due to project interventions. To date, no notice of violation was received by the PMU.
National Land Use Policy, 2001	Ministry of Land	➤ The policy provides guidelines for the protection of agricultural land, waterbodies, and the optimal use of other land, as well as for restriction or minimization of the acquisition of land for non-productive use.	Complied with. The project area does not involve any land acquisition.
Bangladesh Climate Change Strategy and Action Plan (BCCSAP) 2009	Ministry of Environment and Forest	➤ This strategy prioritizes adaptation and disaster risk reduction. The climate change action plan is built on six pillars. One of them is research and knowledge management to predict the likely scale and timing of climate change impacts on different sectors.	Complied with. The UPHCSDP introduced the concept of green clinics and introduced solar energy systems.
Bangladesh Labour Act 2006	Ministry of Labour and Employment	➤ The Act provides the guidance of employer’s extent of responsibility and workmen’s extent of right to get compensation in case of injury by accident while working. Provides for safety of work force during construction period.	Complied with. Occupational Health and Safety has been addressed both in the EMP and mitigation measures are listed in Annex 1 of the EARF. Occupational Health and Safety also addressed in contract documents.

C. Compliance with the Environmental Management Plan

9. The environmental management plan (EMP) attached in the Environmental Assessment and Review Framework (EARF) is prepared for all the identified environmental impacts during construction and operation stages due to implementation of various project activities and associated development. The aim of the EMP is to ensure implementation of the recommended mitigation measures effectively. The mitigation measures are designed either to prevent impacts or by mitigating those to reduce the effect to an acceptable level that complies with the environmental guidelines of DOE and with the guidelines of the ADB's SPS (2009) by adopting the most suitable cost-effective options. The EMP also ensures that the positive environmental impacts are conserved and enhanced. However, the EMP has been prepared during the project preparatory stage but it was not included in the bid document. Compliance to the EMP is shown in Table III-3. Quantitative monitoring data (for noise, water pollution, air quality) has not been taken during the entire project period since the subprojects are small-scale civil works (average package valued at \$520,000).

10. Recommended mitigation measures for each of the impacts are listed in Annex 1 of the EARF. Responsible institutions/departments for the implementation and supervision of each of the environmental issues have also been illustrated. Project processing for Additional Financing identified environment-related capacity development programs and trainings and made budget allocation for the same. These specific provisions were not identified in the original project. However, programs such as medical waste management, operations and maintenance, energy conservation, etc. will be addressed in the forthcoming additional financing.

Table III-3: Compliance to Environmental Management Plan (EMP)

Concern Issue	Recommended Mitigation Measures	Action Taken	Compliances		
			Substantial	Partial	No
During Construction Stage					
Drainage congestion/water logging	Consider the drainage system of the whole area in subproject design;	Considering during design;	√		
	Maintain cross-drainage at all times during construction;	Cross drain is maintained;	√		
	Prevent all solid and liquid wastes entering waterways by collecting solid waste and wastewater from brick, concrete;	Proper management of solid and liquid waste;	√		
	Drainage facilities will be integrated with water supply options and sanitary latrine facilities in planning and design;	Considering during planning and design;	√		
Losses of trees and vegetation	Consider alternation options to reduce the loss of trees and vegetation;	Considered;	√		
	A green fence will be raised with native tree species around the clinic/hospital;	Trees are planted around the clinic/hospital;	√		
	Plant same species of trees and vegetation as compensatory measures;	Trees are planted around the clinic/hospital;	√		
Dust and noise pollution	Spray of water during dry season and in windy conditions;	Spray of water regularly;	√		
	Immediate compaction after construction of base course;	Compacted after construction of base course;	√		
	Cover the stockpiles of fine materials in construction yard;	Covered the stockpiles of fine materials;	√		
	Plan the work schedule of noise creating activities in consultation of local community;	Work only during day time;	√		
	Employ best available work practices on-site to minimize occupational noise levels;	Best available work practices on-site to minimize occupational noise levels is implemented;	√		
Soil erosion during construction	Careful arrangement to stop soil erosion by adopting proper protection measure before starting earthworks;	During earth work no soil erosion occurs;	√		
Blocking of Roads/access/approach	Construction materials and machinery should not be placed in a manner that blocks any roads, paths or local accesses;	Construction materials and machinery placed on road side;			√
	Unloading of construction materials should be carried in a manner and time so as to avoid blockage of roads/paths/access;	Unloading of construction materials had blocked the roads;			√
	Waste should not be placed on the roads;	Construction waste are placed in the road;			√

Concern Issue	Recommended Mitigation Measures	Action Taken	Compliances		
			Substantial	Partial	No
Water pollution from construction activities	Prohibit direct disposal of solid and liquid wastage into nearby water body;	No direct disposal into the nearby waterbody;	√		
	Spoil Management Plan should be implemented by the contractor;	Proper management of solid and liquid waste;	√		
Occupational health and safety	Implement suitable safety standards for all workers and site visitors;	No PPE are provided;			√
	Provision of first aid facility;	First aid facility is available;	√		
	Arrangement of safe drinking water and sanitation facilities for the labors working in the subprojects;	Water Jar is provided in construction site;	√		
Day lighting and ventilation system	Adequate windows in proper direction in consultation;	Adequate window is available;	√		
	Provision for adequate ventilation in the classrooms and office;	Adequate ventilation is available;	√		
Arsenic contamination in drinking water	Identify unions and upazillas based on DPHE survey where shallow or deep tube-wells are feasible;	During design, it is considered;	√		
	Analyze local surrounding arsenic test results and recommend for tube-wells or not;	During design, analyse arsenic test result;	√		
	Adopt rain water harvesting, pond sand filter, piped water supply;	Piped water supply is adopted;	√		
	After installation of tube-wells, presence of arsenic in the drinking will be tested and be used only it satisfy the Bangladesh standard;	No testing is done;			√
Selection of appropriate location for water source and sanitary latrine	Discuss with management committee and doctors and select a location which is convenient for clinic and not impacting on trees or any other common property resources;	Discussion is done;	√		
	A minimum distance of 15 m should be maintained between a tube-well and a latrine to prevent contamination of water resources. In case of shallow shrouded hand tube-wells, this distance should be 20 m as horizontal filters are used in this type of tube-wells;	Appropriate location for water source and sanitary latrine is selected.	√		
Extreme climate (e.g. cyclone, storm surge) and natural disasters (e.g. earthquake), etc.	Adoption of appropriate adaptation and disaster risk reduction strategy, emergency preparedness and recovery, training/orientation program for patients and doctors on climate change, disaster and earthquake, etc.	Training is provided.	√		
During Operation Stage					

Concern Issue	Recommended Mitigation Measures	Action Taken	Compliances		
			Substantial	Partial	No
Waste Management	Assign clear responsibility for waste management to members of management team;	Responsibility assigned;	√		
	Developed a waste management plan for the project assisted hospitals, with the emphasis on minimization of waste - segregation, source reduction, treatment and proper disposal Train hospital staff, including health care professionals, who produce waste;	Arrangement of three color collection bin for waste segregation in every rooms is present; Training conducted;	√		
	Envision waste disposal stores in hospital designs for full control of medical waste waiting for off- site transportation.	Assigned sub-contractor for Collection of Medical Waste Management;	√		
	Treat infectious waste (sharps) prior to disposal;	Sharps waste are burned without environmental safe procedure;			√
	Dispose waste only in landfill areas assigned by the local governments.	Disposed waste in local governments assigned area;	√		
	Ensure that adequate resources are allocated for health care waste management, including plastic bags, waste collection bins, sharp containers, trolleys, etc.	Adequate resources are allocated;	√		

IV. CONCLUSIONS AND RECOMMENDATIONS

11. Overall, the UPHCSDP has substantial compliance to the environmental safeguards requirement set by the ADB and the GoB. There is no need to prepare IEEs since the subprojects were all small civil works subprojects less than six stories and were not categorized as B. No notices of violation were received by the PMU for any of the centers. On-site monitoring was conducted for 7 centers and no significant adverse impacts or unanticipated impacts were recorded. Substantial compliance was achieved on the legal requirements.
12. Since the Consultant of PMU has resigned during the monitoring period, thus it was difficult to comply with all the safeguard related issues. Therefore, the engagement of the Consultant is an urgent requirement for successful implementation of the EMP.
13. UPHCSDP has complied with the environmental provisions of the loan covenant and the environmental safeguards requirement set by the ADB and the DOE. According to proponent opinion, there was no need to prepare IEE since the subprojects were all minor civil works subprojects and therefore were not categorized as B (ADB) and Orange B (DOE). But according to ADB and DOE, this project was under Category B (ADB) and Orange B (DOE) and therefore IEE was required which was not done by the project proponent. However, the project activities are partially or not complied with getting the permits from relevant authorities and other safeguard related activities such as preparation and implementation of the EMP as well as inclusion of EMP in the bidding document. These drawbacks are need to be addressed.

APPENDIX A: PHOTOGRAPHS OF CRHCC & PHCC



PHCC at Kamalpur, Comilla



PHCC at Baubond, Comilla