

# Environmental Due Diligence Report

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Project Number: 40448-013  
February 2018

## Loan 2859-BAN(COL): Second Teaching Quality Improvement in Secondary Education Project

Prepared by Second Teaching Quality Improvement in Secondary Education Project (TQI-II), Directorate of Secondary and Higher Education, Ministry of Education for the Asian Development Bank (ADB).

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Prepared by Teaching Quality Improvement-II (TQI-II) in Secondary Education Project, Directorate of Secondary and Higher Education, Ministry of Education for the Asian Development Bank (ADB).

## **ABBREVIATIONS**

<b>ADB</b>	Asian Development Bank
<b>CCS</b>	Cluster Center School
<b>DDR</b>	Due Diligence Report
<b>DOE</b>	Department of Environment
<b>DPP</b>	Development Project Proposal
<b>DSHE</b>	Directorate of Secondary and Higher Education
<b>EARF</b>	Environment Assessment and Review Framework
<b>ECC</b>	Environment Clearance Certificate
<b>ECR</b>	Environment Conservation Rules
<b>EED</b>	Education Engineering Department
<b>EIA</b>	Environmental Impact Assessment
<b>EMP</b>	Environmental Management Plan
<b>GOB</b>	Government of Bangladesh
<b>HSTTI</b>	Higher Secondary Teacher Training Institute
<b>ICT</b>	Information Communication Technology
<b>IEE</b>	Initial Environmental Examination
<b>MTTI</b>	Madrasa Teachers Training Institute
<b>NAEM</b>	National Academy for Educational Management
<b>PAPs</b>	Project Affected Peoples
<b>PMU</b>	Project Management Unit
<b>REA</b>	Rapid Environmental Assessment
<b>RF</b>	Resettlement Framework
<b>SPS</b>	Safeguard Policy Statement
<b>SSC</b>	Secondary School Certificate
<b>TTC</b>	Teacher's Training College
<b>TQI-II</b>	Second Teaching Quality Improvement in Secondary Education Project

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## **I. INTRODUCTION**

### **A. Report Purpose and Rationale**

1. The Second Teaching Quality Improvement (TQI-II) in Secondary Education Project (2859-BAN) implements the construction of Cluster Center Schools (CCS)/E-learning Centers in the areas which would cater and service nearby urban, hilly, haor and other areas. The construction sites are all inside the existing government school sites in sadars especially in the government schools areas. Some are located in protected areas, wetland, unstable slope, landslide, erosion area and disaster prone areas.
2. The project Category is ‘C’ for as for environment as well as involuntary resettlement. Social safeguard issues are not expected to arise since no major construction is anticipated and the proposed construction is limited to extension of small structures within the existing facilities. Under the TQI-II Project, constructions of CSSs are done in the land of existing government school campuses.
3. As the subprojects or schools for the construction of teaching facilities were identified after the Board approval, a simple Environment Assessment and Review Framework was prepared for the project, in order to ensure that any issue that may invoke ADB’s Involuntary Resettlement Policy, due to such construction, would be adequately addressed by the EARF. The framework includes guidelines for obtaining different types of land should there be such need; compensation principles and standards; monitoring and reporting; and consultation, participation, and disclosure. Though there will be no physical displacement or little economic displacement of project affected peoples (PAPs), and the social impact of civil works is anticipated to be nominal, The EARF clearly defines all anticipated mitigating measures.
4. All civil works are located in areas owned by the DSHE and inside existing government secondary schools. The CCS/E-learning project sites are located in areas where there are no secondary teacher’s training venues so the CCS will serve as training venues or resource centers.
5. This Environmental Due Diligence Report (EDDR) is one of the requirements in the Loan Agreement entered into by the GOB and ADB to implement the TQI-II project. Such report presents the progress of the project implementation and compliance of the subprojects to existing environmental laws, rules and regulations and ADB guidelines.

### **B. Project Location and Scope**

6. The project supports the upgrading of the physical facilities through the construction of training venues with 3 rooms in 51 existing secondary government schools to serve as cluster central schools/e-learning centers based on needs assessment and agreed criteria.

7. The list of recipient schools is presented in Appendix 1 while the project sites are shown in the map presented in Appendix 2. With adequate arrangements for site selection, design, construction, operations, maintenance and compliance measures, TQI-II is not expected to create any significant or long-term adverse environmental impact.

### **C. Institutional Setup and Responsibilities**

8. The TQI-II Project Management Unit (PMU) oversees the overall implementation of the construction of 51 CCS/E-learning Centers throughout the country. This mandate is provided in the Development Project Proposal (DPP/RDPP). It shall conduct regular monitoring visits to the construction sites.

9. The Educational Engineering Department (EED) assigned Executive Engineers in different zones. Each Executive Engineers is responsible for 2-3 CCS/E-learning Centers construction works. For one CCS/E-learning Center, one sub-assistant engineer is assigned to conduct the selection of contractors, supervise the construction of the projects and monitor the implementation of the vertical and horizontal constructions based on the approved plans and designs. The EED is also responsible in ensuring the implementation of the various environmental laws of GOB and ADB and its compliance by the contractors. All EED Field Offices submit periodic reports on the progress of the construction activities as well as environmental compliance reports to EED Head office which in turns submits the same to the TQI-II PMU.

10. The selected Contractor undertakes the civil works based on approved plans and designs in the selected sites, ensures the compliance of environmental laws, rules and regulations of GoB and ADB and submits regular progress reports to the EED District Offices.

### **D. Implementation Progress as of December 2017**

11. TQI-II project, through the EED, has implemented a total of 51 civil works of which 31 are vertical structures and 20 are horizontal structures. Of the total number of civil works, 31 buildings were completed by June 2017, 19 CCS construction works are on-going and 1 project is under decision pending for site selection within the government school campus.

12. On 10 April 2016, the PMU initiated the conduct of a workshop for monitoring the construction of CSS/E-learning Centers, school buildings and physical facilities with following objectives: (i) to discuss mechanisms, procedures and tools to monitor the construction of infrastructures implemented by EED under TQI-II; (ii) to discuss the monitoring formats for construction and safeguards for the small ethnic communities; and (iv) to orient the participants on Gender Action Plan and inclusive education.

13. The workshop was attended by 57 participants, most of them are EED Executive Engineers and others from DSHE, PMU, SESIP and TQI-II officials and consultants.

14. A significant development with regard to sensitization on Environment and Social Safeguards monitoring was the hosting of another workshop on 24 September 2017 that engaged Education Engineering Department (EED) Executive Engineers/Assistant Engineers responsible for the CCS/E-learning Centers construction works, along with the respective schools head teachers from 51 government secondary schools of 9 zones including TQI, DSHE officials and consultants. Resource persons from ADB, BRM conducted the sessions of the workshop.

15. This workshop, inter alia, aimed to create awareness among the stakeholders on the concept and techniques regarding Rapid Environmental Assessment (REA) as outlined in the Environmental Assessment and Review Framework (EARF). Participants also gained an understanding on Environmental Health and Safety, Safe Water Supply and Sanitation towards good environmental health. The relevant participants are expected to increasingly contribute to more effectively in conducting Initial Environmental Examination (IEE) and Due Diligence Report.

16. The TQI-II projects has distributed ICT equipment, such as computers, multimedia projectors and screens, UPS, printers, photocopiers and furniture i.e. Almirah, bookshelves, computer tables and chairs, whiteboard, etc. for one classroom and teaching aids including e-learning materials. As these CCS/E-learning Centers serve as training venues in the district for secondary school teachers already the distributed ICT equipment used for the project ICT follow up training purpose. Project yet to be provided IPS server and furniture (for another two classrooms) to the 51 CCS centers.

17. A total of 28016 (Women- 5550, 20%) Govt./Non-Govt. secondary teachers including madrasah [Teacher-6425 (23% of total) women-467 (7%); Small Ethic teachers 10, women-4 (4%) ] were trained on 05 days Follow Up ICT for Digital Content Development Training in 51 CCS/E-Learning Centers. During the training period, 31 CCS/E-Learning Centers construction works were completed and TQI-II project provided ICT tools and furniture for one classroom for conducting the training program. Other 20 CCS/E-Learning Centers' training were conducted in existing classrooms of the schools as these are selected as CCS centers while the building construction works were ongoing or processing. (Appendix-5).

18. The PMU, consultants and EED Engineers conducted monitoring visits to ongoing constructions sites to collect data on the progress of the civil works, compliance to environmental laws, rules and regulations and its impacts on environment.

19. On-site consultations with school and local officials, contractors and laborers were conducted by the PMU and consultants in coordination with the EED zonal Executive Engineers to assess the progress of the implementation of CCS/E-learning constructions as to its physical



accomplishment and concerns related to environmental impacts. Laborers were interviewed on their social and economic backgrounds and their conditions in their living quarters at the job sites.

20. The 2 consultation meetings were attended by ADB representatives, PMU/consultants, school officials, EED Executive Engineer and district engineers, community representative, contractors' representatives, and laborers.

21. The International and National Inclusive Education Specialists of the project and USEO of Manikganj Sadar visited the CCS Center in Manikganj District on 2 December 2015 for monitoring the Safeguard Issues (Environment, Resettlement and IP) which is in the Govt. High School, Manikganj.



Pic: Consultation meeting held at the school office of Asstt. HT, Manikganj Govt. H/S with the Team member

22. Major findings during the Manikganj CCS visit include- (i) No land acquisition and resettlement of population were done; (ii) No resettlement; (iii) Delay in construction works; (iv) Workers have no protective gears; (v) Water and toilet facilities of the school were used during construction by the workers; (vi) No household was affected by the construction; (vii) Some workers' families stayed in the partially completed rooms; (viii) Male and female unskilled workers were given equal salaries; and (ix) Construction works were satisfactory although delay in works were observed. The contractor's representative was requested to act on issues raised while the EED District Engineer was reminded to follow up the actions taken by the contractor.

23. PMU Officer and Gender Focal Point, EED Executive Engineer, Sub Asstt. Engineer, Contractor and Workers of the site, International and National Inclusive Education Specialists of

the project and TSEO, Dhanmondi visited the CCS Center in Dhanmondi, Dhaka District on February 13, 2017 for monitoring the Safeguard Issues (Environment, Resettlement and IP) which is in the Dhanmondi Govt. High School, Dhaka.

24. During the meeting, the visiting team discussed issues related to progress of accomplishment of construction, safety of students, teachers and school officials, environmental pollution and sanitation, concerns on laborer's safety and welfare, implementation of labor laws, and social safeguards of affected population in the community.

25. Major findings during the Dhanmondi visit include: (i) No land acquisition and resettlement of population were done; (ii) No resettlement done; (iii) Workers have no protective gears; (iv) Water and toilet facilities of the school were used during construction by the workers; (v) Workers were housed in bunkers since they came from the villages; (vi) Construction surrounding were clean and (vii) No household was affected by the construction; and (viii) Crack on the soil around the hole for the septic tank. The contractor's representative was requested to act on issues while the EED District Engineer's attention was directed to follow up the compliance of the actions needed.



Pic: Consultation meeting held at the CCS Building of HT, Dhanmondi Govt. Girls' H/S with the Team member.

## **II. COMPLIANCE WITH ENVIRONMENTAL SAFEGUARDS REQUIREMENTS AND IMPLEMENTATION**

26. The 3-classrooms of 51 constructions (20 vertical structures and 31 horizontal structures) in government secondary school sites were compliant with the national policies and legal framework for environmental safeguard requirements in Bangladesh. The implementation of the Project related infrastructural works and other the subproject further followed the Asian Development Bank Safeguard Policy Statement (SPS, 2009) and the environmental laws, policies and regulations of the Government of Bangladesh (GOB).

27. TQI-II project has complied with the provisions of covenant entered into with ADB in the implementation of CCS/E-learning Centers' construction regarding safeguards on environmental impact.

28. The following is the list of Loan Covenants complied by TQI-II related to the construction of CCS/e-learning Centers:

Item	Description	Status/Remarks
Schedule 5, Para. No. 19	<p>Environment</p> <p>The Borrower shall ensure that the preparation, design, construction, implementation, operation and decommissioning of each Sub project comply with (a) all applicable laws and regulations of the Borrower relating to environment, health, and safety and other pertinent laws of the gob and ADB commitment; b)the Environment Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the re respective IEE and EMP, if any, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.</p>	<p>Being complied with</p> <p>To ensure the structural integrity of the CCS/E-learning Centers, the EED prepared sound engineering designs and approved by MOE. The construction works were strictly supervision by the EED Zonal Engineers according to the approved designs and any deviation from the plan was immediately addressed.</p> <p>During the construction, the EED Zonal Executive/Sub Asstt. Engineers ensured that negative impacts of the construction activities were mitigated by implementing applicable laws of GOB and ADB rules including Environmental safeguards and the EARF related to environment, health and safety. Corresponding measures were instituted whenever issues on environment within the construction sites and its periphery were encountered.</p> <p>Since the project is classified as Category "C", no IEE/EMP was implemented. All CCS/e-learning centers were constructed within the existing secondary government high schools' compound.</p>
Schedule 5, Para. No. 24	Fully reinstate pathways, other local infrastructure	<p>Being complied with</p> <p>After the construction of CCS/e-learning centers, the contractors</p>

		cleared up the immediate surroundings of the project sites from waste and unused construction materials. Pathways were reinstated and pre-construction conditions within the schools/institutions were restored. Damages resulting from construction facilities were repaired.
Schedule 5, Para. No. 25	<p>Safeguard Monitoring and Reporting</p> <p>The Borrower shall do the following:</p> <p>a) Submit semi-annual Safeguards Monitoring reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;</p> <p>(b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, the RP or the SECP, if any, promptly inform ADB of the occurrence of such risks or impacts with detailed description of the event and proposed corrective action plan; and</p> <p>(c) Report any actual or potential breach of compliance with the measures and requirements set forth</p>	<p>Being complied with</p> <p>(a) EED Zonal Executive/Sub Asstt. Engineer submitted to PMU Environment Screening Reports and reports on the pollution and sanitation issues of the construction of the CCS/E-learning Centers. The reports also contained information about the socio-economic and welfare condition of the laborers as well as environmental and social risks and other impacts arising from the construction.</p> <p>(b) No major untoward incidence on issues related to environment, health and safety nor breach of compliance of applicable laws during the construction was reported.</p> <p>(c) No breach of compliance was encountered.</p>

	in any EMP, RP, or SECP promptly after becoming aware of the breach.	
Schedule 5, Para. No. 26	<p><b>Prohibited List of Investment</b></p> <p>The Borrower shall ensure that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.</p>	<p>Being complied with</p> <p>All funds/financial requirements allocated for the construction of the CCS/E-learning Centers have been utilized according to its financial plan. Release of funds were based on the contract of works and government accounting and auditing rules.</p>
Schedule 5, Para. No. 27	<p><b>Labor Standards</b></p> <p>The Borrower shall ensure that the contracts for Works in relation to the Project included specific provisions to ensure that the contractors (a) comply with applicable core labor standards, labor laws and incorporate applicable workplace occupational and health and safety principles; (b) eliminate discrimination in respect of employment and do not differentiate payment between men and women</p>	<p>Being complied with</p> <p>The EED Zonal Engineers supervised regularly the enforcement of labor standards.</p> <p>Based on EED reports and field monitoring visits of PMU/consultants, the contractors complied with applicable core labor standards, labor laws and incorporated applicable workplace occupational and health and safety principles. Living quarters and cooking areas were provided by the contractors for laborers who came from far villages. Women laborers who brought their children were provided with separate living quarters.</p> <p>Additional data collected showed that gender equality and respect to women were observed in the workplace. Labor fees among unskilled men and women were the same.</p>

### III. ENVIRONMENTAL MONITORING AND REPORTING AND IMPLEMENTATION OF SUBPROJECT

29. Before the construction works started, EED has determined the adequacy and quality of water supply in the selected sites. The available water for the new structures is adequately sourced from existing school water supply in the campus which has been tested as safe water. The water connection is tapped from the existing water system of the area.

30. **Environmental Screening Format (REA Checklist):** The EED conducted two rounds of monitoring the environmental impacts of the CCS/E-learning Center constructions in the project sites using two formats. The first checklist called Environmental Screening Format (REA Checklist) consisted of 5 components, namely, sub-project sites, potential environmental impacts, other potential impacts, potential positive environmental impacts and environment assessment category as per GOB: (Data from these reports give the trend and anecdotal evidences on the impact of the construction projects on environment. The remaining reports from other schools will show the same trend.)

31. **On Subproject siting:** The data below present the various environmentally sensitive areas which are sensitive to land development such as construction of building.

Subproject siting condition	Yes/ (%)	No (%)	No answer (%)	Total
Is the area adjacent to or within any of the following environmentally sensitive areas?				
• Protected area	15 (71%)	6 (29%)		21
• Wetland		21 (100)		21
• Unstable slope, landslide , erosion area	1 (5%)	16 (76%)	4 (19%)	21
• Disaster prone area(e.g. flood, cyclone, storm surge)	1 (5%)	15 (71%)	5 (24%)	21

36. Of the submitted environmental screening reports, 71% of the CCS/E-learning Centers construction sites were located in protected areas. However, the other sites were neither near to any environmental sensitive areas.

37. **On Potential Environmental Impacts:** The data below show the situations in the CCS/E-learning Center construction sites covering the 17 indicators to describe environmental impact of the CCS/E-learning Centers construction:

Potential Environmental Impacts	Yes/ (%)	No (%)	No answer	Total
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			(%)	
Will the project cause.....				
• Loss of agricultural/forest lands?		21 (100%)		21
• Negative effects on rare(vulnerable), threatened or endangered species of flora and/or fauna or their habitat?		20 (95%)	1 (5%)	21
• Negative effects on designated wetlands?		20 (95%)	1 (5%)	21
• Negative effects on locally important or valued ecosystems or vegetation's?		21 (100%)		21
• Destruction of trees and vegetation?		21 (100%)		21
• Insufficient drainage leading to water logging?	1 (5%)	20 (95%)		21
• Block any road/access/approach?	1 (5%)	20 (95%)		21
• Produce significant quantities of construction wastes?	4 (19%)	17 (81%)		21
• Negative effects on surface water quality, quantities or flow?		20 (5%)	1 (5%)	21
• Increased noise due to day-to-day construction activities?	7 (33%)	14 (67%)		21
• Increased wind-blown dust or air pollution from material (e.g. fine aggregate) storage areas?	2 (10%)	18 (85%)	1 (5%)	21
• Long term impact on local hydrology; disruption of drinking or irrigation water supplies?	1 (5%)	16 (76%)	4 (19%)	21
• Availability of adequate of water supply to school?	15 (71%)	4 (19%)	2 (10%)	21
• Insufficient drainage leading to water logging?	2 (10%)	19 (90%)		21
• Occupational and community health and safety risks?		19 (90%)	2 (10%)	21
• Possibility of conflict with local people and community?		19 (90%)	2 (10%)	21
• Presence of climate induced (cyclone, cold wave) and disaster related risks?	2 (10%)	16 (76%)	3 (14%)	21

38. Based on the above data, majority of construction and civil works pose no potential environmental impacts. All secondary school sites have adequate water supply. However, it is noteworthy that air pollution, noises, water clogging, construction wastes and water blocking were observed in some schools. Since civil works are all inside the school premises, the student's

movement are constrained and their health endangered. Furthermore, there is a little possibility that the projects will result to climate induced and disaster risks.

39. **On Other Potential Impacts.** The following data below show other potential impacts which may be caused by the construction of CCS/E-learning Centers:

Other potential impacts	Yes (%)	No (%)	No answer (%)	Total
Will the subproject cause.....				
• Degradation or disturbance of historical or culturally important sites (mosque, graveyards, monuments, etc.)?		20 (95%)	1 (5%)	21
• Conflicts in water supply rights and related social conflicts?		20 (95)	1 (5%)	21
• Health risks to labors involved in activities?		20 (95)	1 (5%)	21

40. No other potential impacts were noted in the project sites inside the secondary government high schools along degradation, water supply rights and health risks.

41. **On Potential Positive Environmental Impacts:** The construction of the CCS/E-learning Centers are expected to promote positive environmental impacts such as the following:

Potential Positive Environmental Impacts	Yes/ (%)	No/ (%)	No answer (%)	Total
• Improved sanitation and personal hygiene	14 (67%)	4 (19%)	3 (14%)	21
• Enhanced quality of school environment	16 (76%)	2 (10%)	3 (14%)	21
• Safe School resilient to climate and disaster risks	14 (67%)	3 (14%)	4 (19%)	21

42. The above data show that there will be positive environmental impacts emanating from the construction of CCS/E-learning Centers such as improved sanitation and personal hygiene of students, teachers, school officials and other school users, quality school improvement and safe schools resilient to climate/disaster risks.

43. **On Environmental assessment category as per GOB:** The construction of the CCS/E-learning Centers is categorized as DDR.

	DDR/ (%)	No answer (%)	Remarks
What is the environment assessment category (DDR or IEE) as per ECA 97 and ECR97 and ADB's SPS?	2 (10%)	19 (90%)	In one report, it was mentioned that the project is 'C' category. No other answer given.



44. **Pollution and Sanitation Issues Monitoring Checklist:** The EED used another format to monitor the Environmental Impact of the CCS/E-learning Centers' construction which covered two aspects of the subprojects namely the Pollution issues and Sanitation Issues.

45. The Pollution issues considered on the impact of CCS/E-learning constructions were on water, air and noise.

46. From the monitoring reports collected by the Education Engineering Division from the 30 CCS/E-learning Center construction sites, the following table presents the overall pollution condition of the secondary education institutions along water, air and noise pollution:

Pollution Indicators		Have pollut ion	Exceed value/ %	Tolerable/ %	Value within limit/ %	Not applicable/ %	No Reply/ %	Total
Water Pollution	Arsenic/mg/l (0.05 to 0.01)			2 (7%)	21 (70%)	4 (13%)	3 (10%)	30
	Coliform (fecal)/ (0.00)		3 (10%)	1 (3%)	20 (67%)	3 (10%)	3 (10%)	30
	Salinity pH (6.75-8.75)			1 (3%)	23 (77%)	3 (10%)	3 (10%)	30
Air Pollution	Suspended dust particle/Mg/N m <sup>3</sup> (340)			3 (10%)	19 (63%)	3 (10%)	5 (17%)	30
Noise Pollution	Shrillness of sound (35-45 Decibel)	2 (7%)		1 (3%)	20 (67%)	4 (13%)	3 (10%)	30

47. The general findings of the pollution situation in the construction sites were as follow:

- (i) Arsenic indicator: 83% of the project sites had arsenic level within the standard limit. Two construction sites (7%) have tolerable arsenic level. One measure recommended was the installation of the submersible pump.

- (ii) On coliform incidence: 77% of the construction sites have no problem of coliform incidence although 3 schools (10%) have been reported to have a level which exceeded the standard value.
- (iii) On salinity: 80% of the construction sites have values within the standard.
- (iv) On air pollution: 83% of the construction sites have noise pollution within the allowable limit.
- (v) On noise pollution: 80% of the construction sites have posted a noise level within the acceptable level. However, in two sites (7%) noise level was beyond the standard.

48. The same source of data provided by the EED from the 30 CCS/E-learning Center construction sites revealed the following statuses of sanitation in the secondary government high schools:

Sanitation Indicators	Yes	No	No reply	Total	Remarks
*Is the latrine and the areas around it clean?	29 (97%)	0 (0%)	1 (3%)	30	No mitigation measure suggested
*Is the latrine and area around it free from fly/insect nuisance?	27 (90%)	2 (7%)	1 (3%)	30	No mitigation measure suggested
*Is there a cover or other means to keep the flies out?	28 (94%)	1 (3%)	1 (3%)	30	No mitigation measure suggested
*Is the latrine and the area free from odors?	27 90%	2 7%	1 (3%)	30	No mitigation measure suggested
*Is the area around the latrine free from stagnant water?	29 (97%)	0 (0%)	1 (3%)	30	No mitigation measure suggested
*Is the latrine slab smooth and easy to clean?	29 (97%)	0 (0%)	1 (3%)	30	No mitigation measure suggested
*Is the tube-well platform clean?	29 97%	0 (0%)	1 (3%)	30	No mitigation measure suggested
*Are there proper drainage facilities	25 83%	4 (13%)	1 (3%)	30	No mitigation measure suggested
*Are hand-washing facilities available in or near the latrine?	29 (97%)	0 (0%)	1 (3%)	30	No mitigation measure suggested

49. The following are the major findings on the sanitation condition of the construction sites:

- (i) **On latrine situation-** Almost all the latrines are clean, free from flies and insects, covered and free from odor. All available data showed that majority of the project sites are free from stagnant water.
- (ii) **On tube-well platforms-** The tube well platforms are practically all clean.
- (iii) **On drainage-** A big majority of the construction sites have proper drainage facilities.
- (iv) **Hand washing facilities-** All CCS/E-learning centers have hand-washing facilities available in or near the latrines.

#### IV. FINDINGS AND RECOMMENDATIONS

50. **Findings:** The construction of CCS/e-learning centers were implemented in conformity with the duly approved design prepared by the EED. The civil works and activities were undertaken through the contractors who have fully complied requirements of existing rules and regulation of ADB and the GOB.

51. The results of the environmental screening reports showed that the CSS/e-learning facilities were constructed according to plans and designs and have been found to have minimal impact on the environment. All structures were constructed inside the existing school sites located in sadar.

52. With respect to the teaching-learning process, the following impact of the constructed facilities have been revealed :

- a. Improved access to education. The construction of additional classrooms had eased the excess of students in the classroom by providing better environment conducive to learning. Furthermore, the additional classrooms will enable the school officials to accommodate students thereby contributing to the increase of the participation rates.
- b. Improved teaching strategy. The e-learning facilities are equipped with ICT facilities which can greatly help the teachers impart the subject matters to the students. This methodology can enable the students to actually perform activities which will deepen their learnings on the subject matter and gain competence.
- c. Diffusion of teaching technology in the radiation areas of the e-learning centers. The e-learning centers are designed to be a hub of learning for the secondary school within a specified area it can serve. School officials and teachers from the nearby areas can have a visit to these facilities to gain information on the use of ICT in the teaching learning process. On the other hand, the school officials and

teachers where the e-learning centers are located are expected to take a lead in various capabilities building on the use of ICT facilities.

53. **Recommendations:** The following are the recommendations to ensure strict implementation of environmental laws in remaining construction activities: (i) The Borrower should continue ensuring that the existing laws, rules and regulations on environment pertinent to the construction of remaining CCS/e-learning centers are being complied with; (ii) The EED, as the lead implementer of the project construction, should exercise due diligence in supervising the contractor/construction workers to strictly adhere to relevant environmental laws; (iii) The regular visits to the construction sites by the DSHE/TQI-II PMU, consultants and EED engineers should be sustained to ensure holistic enforcement of environmental laws while the construction is on-going; (iv) Regular consultation with the PAPs should be conducted to be able to promptly act on concerns affecting them or the environment to avoid undesirable effects; and (v) Periodic reports should be submitted on time to EED and TQI-II PMU.

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