MON: Improving School Dormitory Environment for Primary Students in Western Region Project

CURRENCY EQUIVALENTS
(as of 1 December 2017)

Currency unit – Mongolian tugriks

₮1.00 = $ 0.0004
$1.00 = ₮2443.72

ABBREVIATIONS

GEIA – General Environmental Impact Assessment
GEMP – Generic Environmental Management Plan
SEMP – Site-specific Environmental Management Plan
ADB – Asian Development Bank
AETA – Aimag Environment and Tourism Authority
ES – Environmental Specialist
PIU – Project Implementation Unit
MECSS – Ministry of Education, Culture, Science and Sports
DEIA – Detailed Environmental Impact Assessment
GRM – Grievance Redress Mechanism

NOTES

In this report, “$” refers to United States Dollars

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ADB Grant No. G9182-MON

MONGOLIA
IMPROVING SCHOOL DORMITORY ENVIRONMENT FOR PRIMARY STUDENTS IN WESTERN REGION PROJECT

ANNUAL ENVIRONMENTAL MONITORING REPORT - 2017
(No. 1)
(January to December of 2017)

Project Implementation Unit
Ministry of Education, Culture, Science and Sports
December, 2017
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ABBREVIATION:

GEIA General Environmental Impact Assessment
GEMP Generic Environmental Management Plan
SEMP Site-specific Environmental Management Plan
ADB Asian Development Bank
AETA Aimag Environment and Tourism Authority
ES Environmental Specialist
PIU Project Implementation Unit
MECSS Ministry of Education, Culture, Science and Sports
DEIA Detailed Environmental Impact Assessment
GRM Grievance Redress Mechanism
1.1 Description of the project

The impact of this project will be a reformed school dormitory system, improved and equal access to quality education and contribution to achieving the universal primary education in three select western provinces of Mongolia. The outcome of the project will be models to improve the physical dormitory environment and services established and implemented in three aimags of the western region. The project will have three outputs:

Output 1: Physical school dormitory environment is improved.

a) Improving the physical school dormitory environment by supporting minor civil works for soum school dormitories in the Govi-Altai, Uvs, and Zavkhan aimags of the western region, which have been identified as in need of upgrading, based on the condition of dormitory buildings and facilities, the year of dormitory construction and/or rehabilitation, the number of primary students staying in dormitories, the existence of junior and senior secondary grades, and the lack of basic infrastructure (water, wastewater, and heating). Minor civil works will include rehabilitation of buildings to adequately cope with winter temperatures, wind, and precipitation; repair and/or installation of universal-design WASH facilities that would meet the minimum requirements (including those related to gender and early grade students). These requirements have been developed by the MECSS in collaboration with the Ministry of Health, United Nations Children’s Fund, and NGOs. Under the project, the total of 12 dormitories will undergo repairs, of which 7 dormitories will have installed own sewage system such as septic tanks.

b) Provision of furniture and equipment. The plan is to provide beds and other furniture to accommodate more students; and renovate meeting rooms that will be properly furnished for studying, reading and extracurricular activities.

Funding allocated to this component is US$2.17 million.

Output 2: Capacity to deliver dormitory services is improved.

The project will support the capacity development for school dormitory staff, primary class teachers, school management and accountants, and the aimag educational department staff on matters pertaining to improving school dormitory services for primary students that stay in dormitories and their parents in Govi-Altai, Uvs, and Zavkhan aimags. All school dormitories in these three aimags will be supported. School dormitory teachers will be trained in child abuse issues and child-centered methods to facilitate studying, reading, and extracurricular activities; and improve school preparedness of students, especially in the early grades. Dormitory guards will receive training on child abuse and child-centered communication to encourage studying, reading, and extracurricular activities and on proper guarding and caring for dormitory students, especially in early grades, at nights. School staff involved in preparation of dormitory meals will receive training concerning the nutritional requirements of students, while school management, accountants, and aimag education department staff will be trained to use tools and reference materials to enhance management of financial, human and physical resources for school dormitories. Workshops will be organized for school dormitory teachers, primary class teachers, and social workers to exchange experiences regarding (i) organizing study, reading and extracurricular activities at dormitories for and by students and teachers; and (ii) communication and outreach activities for parents of primary pupils staying in dormitories.

Total of US$0.154 million is allocated for this component, mostly for consultancy services.

Output 3: Policy and regulatory frameworks to improve the school dormitory environment are developed.

The project will support the development of policy and regulatory frameworks to improve the school dormitory environment through the following:
a) Comprehensive standards for dormitories concerning both the physical dormitory environment and services, will be developed based on (i) the models that could be followed for improving the physical dormitory environment and services that are to be established and implemented in the three aimags of the western region; and (ii) the national and international good practices in boarding school management in Japan and other countries.

b) Ratios and coefficients that are currently used for determining the amount of funding for school dormitory meals will be revised to take into account the age and nutritional requirements of students.

c) A national strategy and financing policy will be developed for (i) improving the school dormitory environment, particularly at soum schools with greater involvement of the local governments; and (ii) with due consideration for hiring and recruitment of qualified dormitory teachers, and operating and maintenance of the physical dormitory environment. An impact evaluation study will be conducted upon which these models will be recommended for nationwide replication. This component will be financed at US$90.000.

Figure 1. Project implementation map

The grant of $3.38 million equivalent from JFPR funding represents 88.75% of the total project cost. In accordance with the MOU, the Government of Mongolia and local governments will provide the remaining $0.38 million equivalent or 11.25% of the total project cost as counterpart financing for training, workshops and some civil works.

1.2 Purpose of environmental management

As required under the ADB’s Safeguard Policy Statement (2009), the Project is categorized C for environmental safeguard since it is likely to have minimal adverse environmental impacts. A General Environmental Impact Assessment (GEMP) was prepared in compliance with ADB’s Safeguard Policy Statement (2009) and the Government of Mongolia’s regulation. This is the first progress report for the environmental management plan (EMP) implementation prepared by G9182-MON: Improving School Dormitory Environment for Primary Students in Western Region project with contribution of the Environmental Specialist (ES). The report covers the progress in the period from January to December 2017. According to the GEIA recommendations and the generic environmental management plan (GEMP) of the project, the objectives of monitoring are to:
Additionally:
- Evaluate if the civil works completion satisfies the project performance indicators as well as GEMP specified by ADB and GEIA, GEMP prepared by AETA.
- Assess the status of Project specific covenants-related to environmental management (EM) as shown in Table 1 below.
- Evaluate the extent and severity of environmental impacts compared to the predicted impacts as specified by ADB and AETA.
- Inspect the contractors’ performance of environmental impacts mitigation measures or compliance with relevant rules and regulations.
- Monitor implementation of the Grievance Redress Mechanism.
- Evaluate the effectiveness of the contractors’ Site specific environmental management plan (SEMP).

Table 1. Project specific covenants- related to environmental management

<table>
<thead>
<tr>
<th>Product</th>
<th>Schedule</th>
<th>Para No.</th>
<th>Description</th>
<th>Remarks/Issues</th>
<th>Type</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>G9182</td>
<td>4, GA</td>
<td>3</td>
<td>Safeguards The Recipient shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Recipient relating to environment, health and safety; (b) the Safeguard Policy Statement; and (c) all measures and requirements set forth in the Generic EMP, and any corrective or preventative actions (i) set forth in a Project Progress Report, or (ii) which are subsequently agreed between ADB and the Recipient.</td>
<td>To be complied</td>
<td>Safeguards</td>
<td>Grant 9182</td>
</tr>
<tr>
<td>G9182</td>
<td>4, GA</td>
<td>4</td>
<td>Safeguards The Recipient shall cause the Project Executing Agency to ensure that the preparation, design, construction, implementation, and operation of all activities under the Project comply with (a) all applicable laws, regulations and guidelines of the Government relating to ethnic minorities, (b) the Indigenous Peoples Safeguards’ principles and requirements set forth in Chapter V, Appendix 3, and Appendix 4 (as applicable) of the Safeguard Policy Statement; and (c) all measures set forth in the SEGAP, and any corrective or preventative actions (i) set forth in Project progress reports, or (ii) which are subsequently agreed between ADB and the Recipient.</td>
<td>To be complied</td>
<td>Safeguards</td>
<td>Grant 9182</td>
</tr>
<tr>
<td>G9182</td>
<td>3, GA</td>
<td>7</td>
<td>Conditions for Award of Works Contract The Recipient shall ensure that no Works contracts shall be awarded until the relevant provisions from the Generic EMP are incorporated into the Works contract. Being complied. The GEMP has been developed and approved by AETA. GEMP was incorporated into the Works Contract.</td>
<td>Others</td>
<td>Others</td>
<td>Grant 9182</td>
</tr>
</tbody>
</table>
1.2.1. Report preparation
This report has been prepared by the PIU with support of the Environmental specialist (ES). The report is approved by MECSS and submitted to ADB.

1.3 Project progress
The following activities were carried out pertaining to performance of the civil works.

1. A consultancy service contract for drawings and design specifications was made between engineering firm “Tatakh Khuch” Co., ltd and MECSS on 2 March, 2017. The engineering firm conducted field visits to all 20 dormitories of Zavkhan and Gob-Altaï on 14-28 April and 28 June-10 July 2017. Field trip reports covering all three targeted aimags were submitted to MECSS.

2. Based on the field trip reports presented by the engineering firm, MECSS organized a consultation meeting involving MECSS officials, engineering firm, PIU and individual consultants. As a result, a number of school dormitories that need drawing and designs has been determined at 20, and the issues that are required resolution at the local levels were identified. Following a decision of the consultation meeting, the State Secretary of MECSS sent an official letter on 15 June, 2017, to Governors of Gobi-Altaï, Uvs and Zavkhan aimags discussing the issues to be resolved at the local level such as deep well digging, provision of electricity and heating systems and management. The Governors addressed these issues as requested by the State Secretary and final decisions were reported back to the State Secretary.

3. Under the joint actions of local governors and local project coordinators, three deep wells were newly built in Jargalan Tsogt and Sharga soum school dormitories of Gobi-Altai aimag. The government of Gobi-Altaï aimag provided financial support in the total amount of 29,100,000 MNT for deep wells. If the deep wells work properly, they can be connected to water-supply systems of dormitories. Two targeted dormitories at Tes and Tarialan of Uvs aimag were connected to 380W power supply grid. The Government of Uvs aimag spent the total amount of 7,000,000 MNT for connecting to 380W power grid. The school dormitories of Zuungovi, Ulgii, Sagil, Khovd and Khurgas soums of Uvs aimag were connected to the central heating system. Total of 0.5 million MNT were spent for this work.

4. The first batch of drawings and budgets for rehabilitation of 5 dormitories was approved by the State Expertise Board of the Construction Development Centre on 25 August 2017. The engineering firm has completed the drawing and budget for the second batch for 5 dormitories on 25 November, 2017. It was reviewed by the state expertise board in December 2017. Now, the engineering firm is working for the 3rd batch of drawing and budgets, including 4 dormitories. This work is expected to be completed in early February, 2018. The next set of drawings and budgets for 8 dormitories will be completed by 15 March 2018.

Table 2. Progress schedule for drawings and budgets

<table>
<thead>
<tr>
<th>№</th>
<th>Aimags</th>
<th>Dormitory</th>
<th>Progress status by batch</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Govi-Altaï aimag</td>
<td>Altai</td>
<td>1st approved</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Bugat</td>
<td>2nd approved</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Sharga</td>
<td>3rd Reviewed by the state expertise</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Tsogt</td>
<td>4th Technical plan approved</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Jargalan</td>
<td>Technical plan approved</td>
</tr>
<tr>
<td>6</td>
<td>Zavkhan aimag</td>
<td>Tosontsinel 1</td>
<td>approved</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>Tosontsinel 2</td>
<td>approved</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>Urgamal</td>
<td>approved</td>
</tr>
</tbody>
</table>
5. In accordance with CS01 contract, MECSS, PIU and local coordinators performed the following tasks and prepared the following documents:

- The approval of building design specifications and drawing plans of all 20 dormitories ofUvs, Gobi-Altai and Uvs aimags by the principals of the relevant schools and MECSS.
- The approval of TOR for the drawings by State Secretary of MECSS based on current conditions of the school dormitory buildings and technical conditions of the electricity, water supply and heating systems. If found necessary, this TOR can be changed.
- Geotechnical survey reports for all 17 septic tanks, almost all geotechnical survey reports were reviewed by the state expertise board.
- State inspector’s conclusion for the quality and utilization of dormitory buildings in Uvs, Zavkhan and Govi-Altai aimags for all 20 dormitories
- Technical conditions certificates for electrical and water systems
- Agreement with the local authority to expand the soums’ cadaster maps for the purpose of installing septic tanks in 2 soums of Uvs aimag.
- Technical conditions for connecting the dormitories of 3 soums with the central heating system of Uvs aimag
- The approval from the Environment and Tourism Agency to install septic tanks in all the project locations arranged the land possession certificates to be issued by the local authorities to all dormitories.

6. The engineering firm requested to extend the contract completion date due to the fact that the consultant was not able to complete the preparation of designs and drawings for all 20 school dormitories in the specified time. The explanation was that the firm had to carry out some additional tasks in order to complete the assignment. The contract with the engineering firm was extended to 30 October 2017 as consulted with ADB. The contract with the consulting firm is extended to 30 September 2018, and the contract amount is increased by US$ 3,800 to develop a geotechnical report.

7. The architectural engineer (CS15/01) of the PIU resigned of his duties staring from 16 June 2017. The next architectural engineer (CS15/02) was recruited and commenced her assignment from 27 November, 2017.

8. At the request of Minister of Finance, the Minister of Education, Culture, Science and Sports transferred the responsibility for procurement for the civil works for 5 dormitories to the Government Agency for Policy Coordination on State Property /GAPCSP/. The State Secretary of MECSS issued an official letter establishing a Bid Evaluation Committee at the State Property Policy Coordination Agency. NCB for civil works of 1st batch has been arranged through GAPCSP,
the Bid Evaluation Committee organized its 1st meeting and finalized the bidding documents. The Committee is now ready to announce a tender once the ADB reviews the bidding documents. The second batch of the NCB will be announced through MECSS in early January 2018.
2.1. Roles and responsibilities for EMP, performance of monitoring

Based on the requirements presented by by AETA, the general environmental definitions have been written, and submitted to AETA for inclusion in the GEIA. Pursuant to the clause 7.3 of Law on Environmental Impact Assessment of Mongolia, AETA performed the GEIAs in Govi-Altai, Uvs and Zavkhan aimags.

A detailed environment impact assessment is not required for category C projects, but potential environmental implications of the project have been reviewed based on (i) the location of the participating schools; and (ii) the nature of works supported by the project. Under GEIA recommendations as presented by AETA, the DEIA is not required, and the construction can start under certain conditions specified in Appendix 1, here:

1. An environmental management plan should be developed and approved by the AETA prior to launching the construction works
2. Some soil protection measures are to be developed and implemented
3. Certain waste management actions should be carried out
4. The water quality must be monitored and any changes should be recorded
5. A training session on environmental management of the project must be conducted for construction workers
6. Comply with the labor health and safety regulations
7. Develop land management measures
8. Any additional requirements put forward by the local administration and/or inspection agency should be properly reviewed and followed.

9. Re-assessment is required if a location and volume of the construction works change.

10. Report the implementation of GEMP to the AETA.

According to the clause 6.2 of Law on Environmental Impact Assessment, clause 2.5 of Regulation on EMP development, approval and reporting, and clauses 1.1, 1.2 of EIA methodology regulation, the EMP development and environmental monitoring must be performed by a special licensed company. When construction contractors are selected, they will have to make sub-contracts for environmental monitoring with assistance of ES. The ES will be in charge for ensuring effective and timely monitoring process and its results.

2.2. The progress in implementation of EMP and monitoring

Under the GEIA recommendations, GEMP for the construction works was developed and approved by the AETA (Appendix 2). Pursuant to the GEMP, the construction contractors should develop SEMP with assistance of ES. However, the following mitigation measures should be included in the SEMP and developed by the contractors prior to the construction works.

Table 3. Environmental mitigation measures

<table>
<thead>
<tr>
<th>Environmental components</th>
<th>Environmental impact</th>
<th>Mitigation and management arrangements</th>
</tr>
</thead>
</table>
| General issue            | Indirect impact      | ~ buy local goods to support local business  
~ hire local people as support workforce  
~ introduce the project to local people and place an information board at the site  
~ assign environmental responsibilities to one of the managerial personnel or hire a professional employee  
~ make a sub-contract on environmental monitoring  
~ report EMP implementation to the PIU monthly |
| Water                    | Quality of treatment | ~ make laboratory tests of the treated wastewater for assessing and approving a quality of the system  
~ monitor surface and ground water quality |
| Atmosphere               | Transportation dust  | ~ sprinkle with water the road during dry seasons  
~ monitor dust around the construction site |
|                         | Construction dust    | ~ shield the dust area to prevent spreading dust  
~ cover the carriage of trucks when transporting light materials that can be flown away by wind |
|                         | Gas emission         | ~ control and inspect gas emission from vehicles, and keep the emission under the permissible level  
~ monitor gas emission from vehicles |
| Noise                    | Noise from construction | ~ work only daytime  
~ monitor a noise level around the construction site |
| Solid waste              | Construction waste   | ~ collect waste in one site and water it to prevent winding away and prohibit burning the waste  
~ segregate waste at the construction site into solid, construction, liquid, toxic and put clear signs.  
~ toxic waste should be kept in a safety place such as a container.  
~ build a temporary storage for domestic, solid, liquid and toxic waste  
~ dispose waste to an appropriate site allocated by the soum governor. |
2.3. Monitoring method, evaluation standard

According to the relevant national regulations, the environmental quality should be compared and assessed against the following standards.

<table>
<thead>
<tr>
<th>Environmental components</th>
<th>Evaluation standards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MNS 6148:2010 “Water quality. Maximum level of the substances contaminating ground water”</td>
</tr>
<tr>
<td>Atmosphere</td>
<td>Air quality, general technical requirements, MNS 4585:2016</td>
</tr>
<tr>
<td></td>
<td>Petrol engine vehicle – Maximum acceptable level and measuring method of exhaust emission, MNS 5013:2009</td>
</tr>
<tr>
<td>Noise</td>
<td>Air quality, general technical requirements, MNS 4585:2016</td>
</tr>
<tr>
<td>Solid waste</td>
<td>Observation</td>
</tr>
<tr>
<td>Soil</td>
<td>MNS 5850:2008 “Soil quality. Soil pollutants elements and substances”</td>
</tr>
<tr>
<td>Health and safety</td>
<td>Checklist</td>
</tr>
<tr>
<td>Flora</td>
<td>Geobotanical survey</td>
</tr>
</tbody>
</table>

2.4. Environmental monitoring data and record

For the environmental monitoring, all samples should be collected by a special licensed company, and laboratory tests should be carried out by an accredited laboratory only. The monitoring report needs to be written by the company in English and Mongolian languages, and an ES needs to be in charge for the process of monitoring. Every process of sampling, transporting, and analyses should be accompanied with evidencing photos, and should be kept for further audit. The environmental quality monitoring shall be done twice a year.
2.5. Environmental institutional capacity building and training

After contracts are awarded to the civil work contractors and before civil work commencement, training will be conducted for contractors on development and implementation of SEMP.

Table 5. Environmental training seminars and workshop

<table>
<thead>
<tr>
<th>Topic</th>
<th>Trainer</th>
<th>Attendees</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training on environmental management system of the project and development of site-specific EMP</td>
<td>O.Altansukh</td>
<td>Contractors</td>
<td>10</td>
</tr>
<tr>
<td>Site inspection of EMP implementation</td>
<td></td>
<td>EA of aimags, environmental officers of soums</td>
<td>3</td>
</tr>
<tr>
<td>Training on report writing</td>
<td></td>
<td>Contractors</td>
<td>10</td>
</tr>
</tbody>
</table>
3.1. Public consultation and disclosure

According to the approved GEMP, the implementation of the GEMP should be reported by the ES to the following parties.

Table 6. Schedule for EMP consultation

<table>
<thead>
<tr>
<th>№</th>
<th>Parties</th>
<th>Format</th>
<th>Content</th>
<th>Period</th>
<th>Comment on</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AETA</td>
<td>Report</td>
<td>EMP</td>
<td>Before, during and after construction</td>
<td>EMP</td>
<td>Aimag</td>
</tr>
<tr>
<td>2</td>
<td>ADB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Capital city</td>
</tr>
<tr>
<td>3</td>
<td>Soum governor and representatives of local people</td>
<td>Reporting meeting</td>
<td>EMP</td>
<td></td>
<td>EMP</td>
<td>Soum</td>
</tr>
<tr>
<td>4</td>
<td>Environmental officer of the soum</td>
<td></td>
<td>EMP</td>
<td></td>
<td>EMP</td>
<td>Soum</td>
</tr>
<tr>
<td>5</td>
<td>School administration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>PIU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Local residents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2. Project grievance records and resolution

The PIU developed a GRM based on the existing process of dealing with complaints in Mongolia (Attachment 3). It is used during the project implementation. In 2017, there was no complaint received.
### 4.1. Status of EMP compliance

The GEMP follows Government of Mongolia (GoM)’s regulations relevant to this Project, as well as ADB’s Safeguards Policy Statement (2009). The GEMP will be included as a separate annex in the civil work contract(s). MECS, through the PIU and their regional representatives, and assisted by the PIC, will be responsible for ensuring contractor(s)’ compliance with the GEMP. A year of 2017 was a preparation phase of the construction work. Therefore, mitigation measures during the construction phase were not applicable.

<table>
<thead>
<tr>
<th>Stage/Activity</th>
<th>Potential impacts and/or issues</th>
<th>Mitigation measures</th>
<th>Implementer</th>
<th>Supervisor</th>
<th>Monitoring indicators</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-construction phase</td>
<td>~ Confirm that facility upgrading plan corresponds to the contract clauses;</td>
<td>Contractor</td>
<td>School, PIU, aimag ASI</td>
<td>Confirmation letter by Contractor to PIU and School</td>
<td>Yes</td>
<td>Pursuant to the clause 7.3 of Law on Environmental Impact Assessment, AETA did the GEIs in Govi-Altai, Uvs and Zavkhan aimags. Following the GEIA requirements, GEMP for the construction work was developed, and approved by AETA. Appendix 2.</td>
</tr>
<tr>
<td>Stage/Activity</td>
<td>Potential impacts and/or issues</td>
<td>Mitigation measures</td>
<td>Implementer</td>
<td>Supervisor</td>
<td>Monitoring indicators</td>
<td>Status</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------</td>
<td>---------------------</td>
<td>-------------</td>
<td>------------</td>
<td>----------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Construction phase</td>
<td>Dust generated during construction, air emissions from construction vehicles and machinery</td>
<td>~ During interior demolition use debris-chutes above the first floor; ~ Keep demolition debris in controlled area and spray with water mist to reduce debris dust; ~ Keep surrounding environment free of debris to minimize dust; ~ There will be no open burning of construction/waste material at the site ~ There will be no excessive idling of construction vehicles at sites Regularly (at least once a day) spray water on construction sites where fugitive dust is generated; ~ Store harmful materials in appropriate places and covering to minimize emission; ~ Cover trucks with tarps or other suitable cover to avoid spilling; ~ Regularly consult with School administration and nearby residents to identify concerns, and implement additional measures as necessary.</td>
<td>Contractor</td>
<td>School, PIU, aimag ASI</td>
<td>Inspection checklist (School); Progress report (PIU)</td>
<td>Not applicable in 2017</td>
</tr>
<tr>
<td>(B) General rehabilitation and/or construction works</td>
<td>Facility design in compliance with design codes</td>
<td>~ Ensure that the building envelopes (external walls) are built to a good quality standard, using high quality insulating materials. ~ Confirm that facility extension or rehabilitation complies with relevant MON design standards and codes for energy-efficient, safe buildings, including but not limited to: MNS 3838:2008 and Construction standard package # 91.040, #91.140.99 and other standards listed in Appendix xxx.</td>
<td>DC</td>
<td>PIU, ADB</td>
<td>Detailed design drawings</td>
<td>Not applicable in 2017</td>
</tr>
<tr>
<td>Stage/Activity</td>
<td>Potential impacts and/or issues</td>
<td>Mitigation measures</td>
<td>Implementer</td>
<td>Supervisor</td>
<td>Monitoring indicators</td>
<td>Status</td>
</tr>
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<td>Noise from construction activities</td>
<td>~ Ensure that only low or no VOC-emitting materials will be used (including paints, coatings, adhesives, carpet and furniture’s). ~ Select water-based nontoxic, no allergenic paint for drywall or plaster surfaces (no latex or oil-based paints).</td>
<td>Contractor</td>
<td>School, PIU, aimag ASI</td>
<td>Inspection checklist (School); Progress report (PIU)</td>
<td>Not applicable in 2017</td>
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<td>Vegetation, re-vegetation of disturbed areas; greening of sites</td>
<td>~ Cutting or removal of trees for any reason outside the approved construction area is strictly prohibited; ~ Properly re-vegetate disturbed areas after completion of civil works.</td>
<td>Contractor</td>
<td>School, PIU, aimag ASI</td>
<td>Inspection checklist (School); Progress report (PIU)</td>
<td>Not applicable in 2017</td>
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<td>Toxic and hazardous wastes, products</td>
<td>~ Prior to renovation, search existing facilities for chemicals and any other substances such as asbestos or asbestos containing materials (ACM); ~ If toxic solid waste is found during construction, construction activities should be suspended and the aimag ASI inspector consulted to define appropriate actions; ~ Store chemicals/hazardous products and waste on impermeable surfaces in secure, covered areas; Provide spill cleanup</td>
<td>DC, Contractor</td>
<td>School, PIU, aimag ASI</td>
<td>Inspection checklist (School); Progress report (PIU)</td>
<td>Not applicable in 2017</td>
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<td>Stage/Activity</td>
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<td>Implementer</td>
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<td>Construction and domestic wastes and wastewater generated on construction sites</td>
<td>~ Discharge construction wastewater and domestic wastewater to sewer systems (if possible), or provide on-site treatment/disposal facilities to ensure compliance with effluent discharge standard; ~ All valuable materials (doors, windows, sanitary fixtures, etc) should be carefully dismantled and transported to an assigned storage area. Valuable materials should be recycled within the project or sold; ~ Provide appropriate waste storage containers for worker’s construction and hazardous wastes; ~ Install confined storage points of solid wastes away from sensitive receptors, regularly haul to an approved disposal facility; ~ Use licensed contractors to remove wastes from the construction sites; ~ Indiscriminate disposal of rubbish or construction wastes or rubble, and burning of waste, are strictly prohibited. ~ Provide adequate solid waste collection facilities in all buildings; ~ Regularly clean and disinfect waste collection facilities.</td>
<td>Contractor, School admin, LIC-CF, aimag ASI</td>
<td>School admin, LIC-CF, PIU, aimag ASI</td>
<td>Inspection checklists (LIC-CF), Progress report (PIU, LIC-CF)</td>
<td>Not applicable in 2017</td>
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<td>(C) Extension of water supply and sanitation facilities</td>
<td>WASH facilities, including water supply, sanitation facilities, and ~ Secure approval from relevant water authority for proposed water supply and wastewater collection and treatment systems;</td>
<td>Contractor, School, PIU, aimag ASI</td>
<td>School, LIC-CF, PIU, aimag ASI</td>
<td>Inspection checklists (LIC-CF), Progress report (PIU, LIC-CF)</td>
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<td>wastewater collection and/or treatment design in compliance with design codes</td>
<td>~ Ensure compliance with relevant standards and codes for water supply, including but not limited to: MNS 0899:1992 (requirements/rules for selecting water supply source &amp; hygienic requirements); MNS 4586:1998 (Indicator of water environment quality and general requirements); MNS 900:2005 (Hygienic requirements and quality control for drinking water); construction standard package # 91.140.60 (construction regulation for water supply system); ~ Ensure connection of rehabilitated buildings to on-site pre-treatment facilities and to municipal sewer system that comply with relevant design standard and codes, including but not limited to construction standard package # 91.140.80. ~ Adhere to Guideline on Minimum requirements for WASH in schools, dormitories and kindergartens (Unicef Mongolia)</td>
<td>~ Ensure compliance with relevant standards and codes for water supply, including but not limited to: MNS 0899:1992 (requirements/rules for selecting water supply source &amp; hygienic requirements); MNS 4586:1998 (Indicator of water environment quality and general requirements); MNS 900:2005 (Hygienic requirements and quality control for drinking water); construction standard package # 91.140.60 (construction regulation for water supply system); ~ Ensure connection of rehabilitated buildings to on-site pre-treatment facilities and to municipal sewer system that comply with relevant design standard and codes, including but not limited to construction standard package # 91.140.80. ~ Adhere to Guideline on Minimum requirements for WASH in schools, dormitories and kindergartens (Unicef Mongolia)</td>
<td>Contractor</td>
<td>School, PIU, aimag ASI</td>
<td>Inspection checklist (School); Progress report (PIU)</td>
<td>Not applicable in 2017</td>
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<td>Heating system design in compliance with relevant design codes</td>
<td>~ Secure approval from relevant authority for proposed heating system; ~ Ensure that on-site heating system design complies with relevant design codes, including but not limited to MNS 3238 : 2001 (design for heating system); MNS 5041 : 2001, MNS 5043 : 2001 (technical requirements for Heat-only Boilers)</td>
<td>Contractor</td>
<td>School, PIU, aimag ASI</td>
<td>Inspection checklist (LIC-CF), Progress report (PIU, LIC-CF)</td>
<td>Not applicable in 2017</td>
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<td>Occupational health and safety</td>
<td>~ Provide safe supply of clean water and an adequate number of latrines and other sanitary arrangements at the site and work areas;</td>
<td>Contractor</td>
<td>School, PIU, aimag ASI</td>
<td>Inspection checklist (LIC-CF), Progress report (PIU, LIC-CF)</td>
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<td>Community health and safety</td>
<td>~ Assess potential disruption to services and identify risks before starting construction; If temporary disruption is unavoidable, develop a plan to minimize the disruption and communicate the dates and duration in advance to all affected people, in coordination with the School administration;</td>
<td>~ Provide clean area to rest and eat for workers, away from potential exposure to hazardous substances; ~ Provide garbage receptacles at construction site; ~ Provide personal protection equipment (PPE) for workers in accordance with relevant health and safety regulations; ~ Develop an emergency response plan to take actions on accidents and emergencies; ~ Document and report occupational accidents, diseases, and incidents; ~ Emergency contact numbers for local fire, medical and police services shall be kept at prominent place.</td>
<td>Contractor</td>
<td>School, PIU, aimag ASI</td>
<td>Inspection checklists (LIC-CF), Progress report (PIU, LIC-CF)</td>
<td>Not applicable in 2017</td>
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4.2. Conclusion

In 2017, the construction works have not been done. Therefore, no impacts assessed and mitigated. However, all environmental permissions have been obtained from different government organizations, this includes GEIA and GEMP. For instance:

- Official requests for the GEIA were sent to AETA.
- AETA carried out GEIAs in Govi-Altai, Uvs and Zavkhan aimags.
- Under the GEIA recommendations, GEMP for the construction works was developed and approved by AETA.
- PIU developed GRM based on the existing process of dealing with complaints in Mongolia.

Next year, there will be no need for obtaining additional authorizations and permits on environmental issues.

4.3. Required corrective actions

In 2017, contractors for the construction works have not been selected. Therefore, SEMP's are not ready yet. However, PIU prepared GRM, and it is ready to be presented to the contractors. Moreover, an example of SEMP was prepared by ES.

In 2018, the civil work contractors will develop SEMP for each construction site with assistance of ES. And, the contractors will hire an environmental professional or assign a qualified person to coordinate the SEMP implementation, including the workplace safety. The contractors also need to work with a special licensed company for environmental monitoring. During the construction phase, the ES will visit the construction site at least two times, and check the compliance with SEMP.