Community Development and Investment Agency of the Kyrgyz Republic (ARIS)
International Development Association

URBAN DEVELOPMENT PROJECT

Improving Seismic Resistance and Energy Efficiency of “Archa-Beshik” kindergarten and Full Overhaul of Its Building

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

June 2018
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<td>Asbestos-containing materials</td>
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<tr>
<td>BoQ</td>
<td>Bill of Quantities</td>
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<tr>
<td>DASN</td>
<td>Architecture and Civil Engineering Supervision Department</td>
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<tr>
<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<tr>
<td>EMF</td>
<td>Environmental Management Framework</td>
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<td>ESMP</td>
<td>Environmental and Social Management Plan</td>
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<tr>
<td>FS</td>
<td>Feasibility Study</td>
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<td>FL</td>
<td>Fuels and lubricants</td>
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<td>GETI</td>
<td>Environmental Protection and Technical Safety Inspection Department</td>
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<td>GKR</td>
<td>Government of the Kyrgyz Republic</td>
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<tr>
<td>HBELs</td>
<td>Health-based exposure limits</td>
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<td>IDA</td>
<td>International Development Agency</td>
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<td>IEE</td>
<td>Initial Environmental Examination</td>
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<tr>
<td>KR</td>
<td>Kyrgyz Republic</td>
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<tr>
<td>LR</td>
<td>Laws and regulations</td>
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<td>LGB</td>
<td>Local government bodies</td>
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<td>MPC</td>
<td>Maximum permissible concentration</td>
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<td>RGKR</td>
<td>Resolution of the Government of the Kyrgyz Republic</td>
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<td>SanPiN</td>
<td>Sanitation Rules and Regulations</td>
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<td>SPZ</td>
<td>Sanitary protection zone</td>
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<tr>
<td>SW</td>
<td>Solid waste</td>
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<tr>
<td>NAPP</td>
<td>Natural area of preferential protection</td>
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<td>TS</td>
<td>Top soil</td>
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<tr>
<td>UDP</td>
<td>Urban Development Project</td>
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<td>WB</td>
<td>(the) World Bank</td>
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Executive Summary

Environment and Social Management Plan (ESMP) for capital repair of the Archa-Beshik kindergarten is developed in accordance with the Environmental Management Framework elaborated under the Urban Development Project funded by the International Development Association and the Government of the Kyrgyz Republic.

ESMP includes the procedures and arrangements of providing policy of the World Bank on safeguards and the law of the Kyrgyz Republic on Environmental Protection.

This ESMP provides with information about geographical coverage of the project, number of living people, the state of environment and seismic hazard in the project implementation area as well as location and information about selected facilities and their technical conditions.

The document contains information about decisions taken on holding capital repair works with description of main construction operations associated with increasing of energy efficiency of buildings.

One of the key chapters of ESMP is the impact of the project on environment and its mitigation measures. In this chapter the ways and methods of decreasing the adverse impact of the project on environment are described. Besides it includes the safety regulations and requirements to be kept in the working with asbestos containing materials and mercury containing wastes which can adversely effect on the health of human being. Types of impacts on the surrounding and social environment during the construction and operation of buildings are given in the Table 1, which describes about the proposed effects and mitigation measures on each environmental and social parameters (soil, water resources, atmospheric air, waste generation, noise effect, safety and health of employees and people etc.) indicating responsible people and organizations. In order to monitor the impact of construction works on the environment and to take appropriate measures the Table 2 has been developed, which specifies the parameters and methods of monitoring of the state of environment.

Document also describes the following information about:

- The potential impact of the project on the social environment which improves the conditions of workers and pupils of the kindergarten in whole. Temporary inconveniences will be regulated in accordance with the specific Social impact mitigation plan in temporary relocation of people affected by the project;
- The existing legal framework, regulating the protection and use of natural resources;
- Public hearings for population in the implementation of the project;
- Grievance redress mechanisms;

The requirements indicated in this ESMP are the mandatory for all contractors. If required, the contractor can finalize this ESMP with compulsory coordination it with ARIS.
1. Introduction

1. The objective of Urban Development Project (UDP) supported by International Development Association (IDA) and the Kyrgyz Republic is to improve the quality of public services and pilot studies of energy efficiency and retrofitting directed at seismic resilience of urban infrastructure in participating towns. This objective would be obtained by mobilization of financial resources to (i) improve the quality of public services, such as water supply, solid waste management, and street lighting; (ii) implement pilot studies of energy efficiency and retrofitting directed at seismic resilience of social infrastructure, such as schools, and (iii) urban planning capacity building of Gosstroy (State Agency for Architecture, Civil Engineering, and Housing and Communal Services under the Government of the Kyrgyz Republic), and building of capacity of participating towns to provide local services.

2. Within the framework of the project, it is planned to improve water supply in the towns of Sulyukta and Kerben and assure energy efficiency and seismic resilience of priority schools and kindergartens in the towns of Balykchy and Toktogoul, as well as operate street lighting and collect solid waste in participating towns.

3. Environmental Management Framework (EMF) was developed for the project and published on ARIS website in the Kyrgyz Republic and info-shop of the World Bank on 2 Nov and 5 Nov 2015 respectively. EMF was consequently updated to account for social and gender aspects and published again on 2 Dec 2015. Environmental and Social Management Framework (ESMF) outlines the procedures and mechanisms used in project to provide compliance with Environmental Assessment Policy (4.01) of the World Bank, and laws and regulations of the Kyrgyz Republic for environmental requirements.

4. ESMF ensures sustainability of environmental and social activities of the project for the whole project cycle and provides adequate institutional, regulatory, and technical framework for maintenance staff and ARIS consultants with guidelines of processes and procedures to follow in cases below:
   (i) identification of environmental and social assessment measures, including assessment of conflict stressors and potential transboundary impact of project activities carried out under UDP;
   (ii) development of separate ESMFs for each sub-project with comprehensive measures for mitigation of social and environmental consequences, environmental monitoring and institutional responsibility combined into general project implementation plan by incorporating such kind of document into tender documents to ensure financing and supervision of sub-projects, as well as other components of sub-projects;
   (iii) identification of requirements to environmental monitoring and strengthening of organizational structure that helps the project to bring positive impact.

5. Environmental and Social Management Plan (ESMP) is developed for Energy Efficiency of Urban Infrastructure Project with project entity being Archa-Beshik kindergarten in the town of Toktogul. This ESMP gives the description of environmental impact and measures to be taken to mitigate the impact of reconstruction of Archa-Beshik kindergarten.

2. Geophysical Coverage of the Project Area

6. The city of Toktogul is located in the northern part of the Jalal-Abad region in the valley of the Naryn river between the Talas and Suusamyr mountain ranges from the north, from the west Oynok, from the south of Babash Ata, Fergana and Kekirim mountains. Toktogul is the district

1 Information portal of Toktogul State Regional Administration: http://gov.kg/ik/?page_id=39
centre of the Toktogul district. In 2012 the town of Toktogul was given the status of a city. The population is 18,703 inhabitants (2015). The city is located on the northern shore of the Toktogul reservoir, the largest artificial reservoir in the country, created during the construction of the Toktogul hydroelectric station on the river Naryn.

7. Toktogul district is located in the northern part of the region within the valley of the river Naryn and is limited from the north by the Talas and Suusamyr mountain ranges, in the west by the At-Oynokh mountain ridge, in the south by the complex system of mountains Babash-Ata, Fergana and Kekirim-Too. Mountain areas are characterized by a high degree of terrain division. The highest marks of mountain ranges reaches 4165 m (Uzun-Akhmat ridge), 4351 m (Kekirim-Too ridge), in the valley part 650-850 m.

Fig. №1. Toktogul city on the map of the Kyrgyz Republic

3. Climate

8. The climate in Toktogul is moderately cold. In the mountains, heavy frosts and snowfalls are possible. In the valleys in the summer is very arid. The average annual rainfall in the Toktogul area is 293 mm. The cold period of the year (November-March) is characterized by a precipitation level of 115 mm, and in the warm season (April-October) -178 mm. The average annual temperature in the city of Toktogul is 10 °C.

Table 1. Average monthly and yearly temperature, °C

<table>
<thead>
<tr>
<th>Weather station</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
<th>X</th>
<th>XI</th>
<th>XII</th>
<th>Год</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toktogul</td>
<td>-5.2</td>
<td>-3.2</td>
<td>4.0</td>
<td>12.8</td>
<td>16.9</td>
<td>21.0</td>
<td>24.9</td>
<td>24.8</td>
<td>20.0</td>
<td>12.2</td>
<td>4.6</td>
<td>-2.0</td>
<td>10.9</td>
</tr>
</tbody>
</table>

2Construction climatology SNIP KR 23-02-00
4. State of Environment in Project Area

4.1. Air

9. Because of the underdevelopment of industry in the city of Toktogul, the main source of atmospheric air pollution in the city are fugitive emissions into the atmosphere from vehicles and in the autumn-winter period, emissions from burning solid fuels for heating residential premises by the population.

4.2. Water Resources

10. The main rivers of the district are r. Naryn (1% of the supply is from Uch-Terek, above the Toktogul reservoir is 2820 m³/s, above the r. Kokomeren River of 1604 m³/sec), r. Kokomeren (flow rate 1% of supply at the mouth 998 m³/s), Torkent (maximum flow of 177 m³/s), r. Chychkan (119 m³/sec), r. Uzun-Akhmat (203 m³/sec), r. Kara-Suu (48 m³/s).

4.3. Flora and fauna

11. The vegetation and animal world in the project impact area is presented by synanthropic species.

4.4. Seismic danger of the project area³

12. According to the map below, the likely seismic hazard for the period 2011-2020. There are five areas in Toktogul region where earthquakes are expected - Karasu-Kokbel (KKB), Itagar (IA), Arkit (AP) are in the first category of danger with the class of expected earthquakes of 14-16, intensity of 7-9 magnitude, Kokeritoo (KHT) and Chaartash (CT) are in the second hazard category with a class of expected earthquakes of 12.6-14.5, an intensity of 5-7 magnitude.

Figure 2: Map of probable seismic hazard in the territory of Jalal-Abad region till 2020

³ Ministry of Emergency Situations of the Kyrgyz Republic "Information on dangerous emergency situations in Toktogul region"
5. About Archa-Beshik kindergarten.

13. Kindergarten "Archa-Beshik" is located in the center of Toktogul. The building of the kindergarten was built in 1973 in an almost isolated and central area on a wide, flat area, in Chernotkach Street, 11. It is located near the school T. Satylganov. There is open access to the building from all sides of the territory. There are children from two to five years old in kindergarten. Total number of children is 180 and 12 educators/staff members.

14. The territory is surrounded by synanthropic vegetation. The impact of project is temporary and it will not have a negative impact on the vegetation. The parcel stands out against the background of neighboring residential buildings, because of its size and low density of buildings. The territory of the kindergarten is surrounded with a fence. The kindergarten is located in a green zone full of trees. In front of the building (south side) there is small cropland, surrounded by accessible ramps and sidewalks, as well as a playground.

15. On the north-west side of the site there is also a large playground. On both playgrounds (south and north-west sides) there are also many garden houses with a canopy and open on three sides. They have wooden structures and a roofing of asbestos sheets.

16. In the eastern and northern part of the territory, there are several one-story buildings, extensions of a kindergarten with different purposes. Starting from the eastern side, at the gates of the kindergarten there are two small toilets. There are also two adjacent buildings, which are a transformer station and a storage room.

17. On the north side there is another building in which an external kitchen of the kindergarten is located; this is a small room with an oven and extractor, located in the opposite side of the doorway. All external buildings are connected with paved sidewalks to the main building. Some parts are unpaved.

Fig. 3. Location of the Archa-Beshik kindergarten in the city of Toktogul
18. The building is L-shaped; consists of blocks of a building of the correct form divided by an
construction joints:
- Block A: two-story with a basement and approximate dimensions in the plan of 41 m x 12 m
  (length x width);
- Block B: two-story with approximate dimensions in the plan of 20 m x 12 m (length x width).

Fig. 4. Structure of a school building with a block designation. Archa-Beshik kindergarten.

19. At the moment, the main entrances for children are located on the first and second floors on
the south-eastern side of block A. There are also two main entrances for staff on the south-west
side of block B. Both buildings also have many emergency exits.

20. Block A consists of three floors (together with a basement) with load-bearing walls of
brickwork (external walls and internal walls with a structural thickness of 38 cm), based on a
reinforced concrete strip foundation. There are seismic belts and lintels at each level around the
openings.

21. Block B consists of two floors with load-bearing walls of brickwork (external and internal
walls with a structural thickness of 38 cm, except for the wall near the staircase which is 25 cm
thick) based on a reinforced concrete strip foundation. There are seismic belts and lintels at each
level around the openings.

22. The windows and doors of both buildings are not always vertically aligned but have large
amplitude. The floor system consists of reinforced concrete hollow-core slabs (22 cm thick).

23. The roofing system consists of a pitched roof with wooden rafters resting on the wall along the
perimeter and vertical posts supported by reinforced concrete hollow-core slabs. The roof is
covered with asbestos sheets.

24. The source of energy for heating is electricity. The premises are heated by four separate electric
boilers with a capacity of 40 kW located directly in the building. Two workers of kindergarten are
responsible for controlling the heating system. Huge losses of generated heat taking place due to
the fact that there is no insulation on the pipeline.

25. Hot water in the heating system is fed into the building through a system of distribution pipes
and cast iron radiators. Temperature of circulating water in the heating system is very low, and is
insufficient to provide the required heating needs.
26. Lighting. The internal lighting system is clearly not enough. All rooms have incandescent lamps. There are 3 lighting points on the street with mercury lamps. There is no emergency lighting.

27. Electrical equipment and distribution networks. The control panels are in poor condition, there is no proper protection, which is a certain danger. Current-carrying parts, circuit elements are not protected against accidental contact, there are also power panels not equipped with doors and locks. The electrical system as a whole must be completely replaced.

28. The project assessed the seismic vulnerability of the kindergarten building. The results of the assessment showed a minimum and medium level of seismic vulnerability of the kindergarten building, which will require certain design solutions for increasing the seismic safety of the kindergarten building.

6. Measures to Improve Seismic Safety and Energy Efficiency of the Building

6.1. Improving Seismic Resistance of the Building

29. To enhance the seismic stability of the building, the following works will be carried out:
   - Reinforced-concrete jacketing. The proposed technique uses reinforced-concrete jacketing on masonry walls, which are essentially a kind of plates. Double-layer concrete and reinforcing bars between the layers of concrete and welded wire mesh strengthened from both sides with steel anchors.
   - Reinforcement of existing reinforced concrete elements with steel profiles.
   - Maintenance of reinforced concrete of some external structures.
   - Demolition and reconstruction of some exterior structures (fire ways and escapes).
   - Improving the existing roofing system.

6.2 Improving Energy Efficiency of the Building and Full Overhaul

30. It was set out in the Feasibility Study that to improve seismic resistance and energy efficiency of the building full overhaul of the school building is required.

In the following, the main typologies construction works regarding improvement of energy efficiency and full overhaul of the building are outlined:

   - Renovation of external staircases and installation of a new non-slip floor coating;
   - Installation or replacement of railings
   - New design for associated components for the accessibility of the building (ramps and railings);
   - New wall coverings made of ceramic tiles;
   - Renovation of the floor replacement of the painted or damaged floor with new wooden floor;
   - Renovation of the floor replacing the painted or damaged floor with new ceramic tile floor;
   - Replacement and installation of new doors;
   - Replacement and installation of new customized doors for small warehouses;
   - Installation of new windows and windows sills;
   - New plaster;
   - New interior and exterior painting of all plastered walls and ceilings;
   - New design for the entrances and external paths;
   - Requalification of the exterior balconies and stairs;
   - New metal fire escapes;
- Maintenance of the stairs towards the basement: new structure and new roof with corrugated galvanized iron sheets;
- New roofing covering with corrugated galvanized steel sheets in place of asbestos sheets;
- New drywall elements;
- New partitions;
- Partial restoration of brickwork by sealing of holes for ventilation systems in load-bearing masonry.
- Insulation of exterior walls which includes application of an insulating coating panels (mineral wool) with outer plaster;
- Insulation of attics which includes application of insulating coating panels (mineral wool) applied on the precast concrete slabs;
- Dismantling of the existing heating system and installation of new mechanical ventilation system. The winter heating plant will be based on a constant-flow air system, which shall provide both heating and air exchange functions within the individual areas. High efficiency, inverter-driven air/water heat pumps, equipped with suitably rated supplementary electrical heating elements will be installed. The inertial tank and circulation pumps shall be installed in a utility room located in close proximity to the heat pumps.

7. Environmental Impact and Mitigation Measures

31. The expected problems would be limited to temporary inconveniences for local communities while construction works are under way and include the following: (I) more pollution because of construction waste; (II) dust, noise, and vibration because of the traffic created by heavy equipment and machinery; (III) risks associated with mismanagement of construction waste and asbestos, or small operational or emergency spill of oil and lubricants from heavy equipment; (IV) substandard rehabilitation of construction site after completion of works.

32. Existing outside and internal toilets are in satisfactory condition. Household-domestic wastewater enters a special septic tank and then it is pumped out by a sewage machine. It is necessary to carry out repair taking into account these works in the design estimates.

33. All potential environmental impacts are easily identified, occur in specific place, small in scale, have minimum impact and can be prevented effectively and minimized or mitigated by mentioning in labor contracts about specific measures that should be taken by contractors and supervised closely by ARIS. It is not allowed to use construction materials that are hazardous to our health (such as, for example, asbestos). The use of building materials is regulated by the Technical Regulation "Safety of buildings and structures", approved by the Law of the Kyrgyz Republic on June 27, 2011. No. 57. The use of asbestos is prohibited by the WB policy.

34. To mitigate impacts for the period of construction, Environmental Management Plan (Table 1) and Environmental Monitoring Plan (Table 2) have been developed. Expenses for mitigation of environmental impact and environmental monitoring would be considered in detailed design stage and tendering process.

35. ARIS would bear general responsibility for supervising that the measures specified in ESMP are duly implemented. The State Agency for Environmental Protection should carry out environmental monitoring of the project.
7.1. Impact of Project on Climate Change

36. Energy efficiency of the building would be improved by thermal insulation of the building which contributes to reduce heat loss and greenhouse effect. No additional greenhouse gas emissions from fuel combustion are anticipated when building is used again. Planting of trees around school should be considered as mitigation measures.

7.2. Hazardous Waste Management

37. While construction works are under way, hazardous wastes that contain asbestos or mercury can be produced. Asbestos cement-containing wastes and materials can come in the form of asbestos sheets used for roofing of the building; also, there can be asbestos-cement pipes of parts of pipes. Fluorescent lamps used to light the building contain mercury.

38. **Risks associated with asbestos exposure.** Asbestos is a natural fiber material widely used in buildings and other infrastructure in XX century for its tensile strength and high resistance to fire and heat. Asbestos is usually used in corrugated roofing sheets and asbestos-cement pipes. All kinds of asbestos fibers contain risk for human health. Usually there is more risk in direct asbestos exposure or when asbestos-containing material is broken, such as broken edges of asbestos-cement pipes or broken segments of roofing sheets. That is why certain precautionary measures are required.

39. Mercury-containing waste management. Mercury is highly dangerous substance and is recognized to be one that has significant neurological and other adverse effect on human health. Based on the amount of mercury and the length of exposure, it may cause acute and chronic poisoning. Women and children are more sensitive to mercury poisonings.

7.2.1. Asbestos-containing Waste Management

40. Asbestos exposure risk is most likely to occur when wastes from asbestos roofing sheets and asbestos-cement pipes and their parts are transported to contractor for further utilization. Workers involved in asbestos-containing waste management are susceptible to risk of asbestos exposure.

41. Principles and guidelines of the World Bank for asbestos and asbestos-containing materials management declare that repair or removal or utilization of asbestos-containing materials should be carried out only by specially-trained staff.

42. Requirements of legislation of the Kyrgyz Republic for asbestos-containing materials management are binding for all types of work that involve asbestos-containing dust and apply on:
   - use and application of asbestos-containing products and materials for technical needs;
   - new construction, expansion, reconstruction, retrofitting and upgrade, repair, preservation and demolition of buildings, built using asbestos-containing materials;
   - transportation and storage of asbestos as well as asbestos-containing materials and products;
   - manufacturing and use of construction and road transport materials that are by products of mining and dressing of asbestos-containing ores;
   - loading, unloading, ballast positioning and other works involving asbestos-containing ballast in repairing, maintenance, and construction of railways (side tracks or new railway lines), as well as storage and transportation requirements.

43. Fulfilment of these rules is binding on all legal entities, individuals and citizens that are involved in:
• construction, reconstruction, retrofitting and upgrade, as well as repair, preservation and demolition of building, facilities, installations, railways and motor roads and other special facilities using asbestos-containing materials;
• health care services provided for staff of workers exposed to asbestos and asbestos-containing materials because of their occupation.

7.2.2. Safety Rules for Handling Asbestos and Asbestos-Containing Materials

44. When there is asbestos on project site, it should be marked clearly as dangerous material. Cutting or breaking of asbestos-containing materials should be avoided as it leads to dust formation. At the time of reconstruction, all workers should avoid breaking/damaging asbestos-containing waste and store such kind of waste in specially designated places within construction site and dispose of them in duly manner at specially designated place or storage site.

45. If asbestos-containing waste is to be temporarily stored at project site, it should be stored in sealed containers and marked as dangerous material. Precautionary measures should be taken to prevent any unauthorized removal of such kind of waste from the site.

46. All asbestos-containing materials should be handled and disposed of by qualified and experienced staff only. This staff should wear PPE (masks, protective gloves and protective clothing). When handling asbestos waste, the staff should always wear special protective clothing, gloves, and face mask. Before asbestos is removed from the site (if required), special wetting agent should be used to minimize the release of asbestos dust. Removed asbestos shall never be used again.

47. Unauthorized personnel are not allowed on the territory of project site.
  • Everyone working in asbestos production and use should be informed about its danger for health.
  • All workers should be provided with PPE, including face mask, helmet, glasses, and safety boots.
  • In loading and unloading of old roofing (asbestos sheet), hooks and other sharp tools are not allowed to avoid damaging them.
  • Drop of asbestos roofing sheets from any height is not allowed in dismantling and loading and unloading works.
  • In case asbestos roofing sheets have been broken, damping of resulting waste is required to prevent from dust formation.
  • Fine fibres of asbestos-cement waste should be collected into container and kept closed until it is transported from construction site.
  • Transportation of asbestos-cement materials to disposal or storage sites should be carried out by automobile transport avoiding drops and damages;
  • In case asbestos-containing materials fall or break on the road to disposal or storage site, that area should be cleaned from waste and the rest should be transported to disposal or storage site.
  • After asbestos-containing waste is unloaded at disposal site, all exposed waste should be covered with 2 m earth.

7.2.3. Mercury-Containing Waste Management

48. All mercury-containing waste should be collected and returned to specialized factories for further re-generation of mercury. Only electricians and wiremen are allowed to perform work related to replacement and collection of used mercury-containing lamps after their knowledge of the subject is tested and after they are instructed about safety rules.
49. The main rule in replacement and collection of used mercury-containing lamps is to keep them airtight. Used mercury-containing lamps should be collected and stored in specially equipped premises. Mercury-containing waste should be stored in accordance with safety and sanitation rules.

50. Cardboard boxes out of fluorescent lamps, plywood boxes, pressed wood boxes, and PE and paper bags are used for collection and storage of used lamps. Used lamps and other mercury-containing waste that had been packed should be stored on shelves avoiding package damaging.

51. Collection and storage of waste. Broken mercury-containing lamps should be collected and stored in sealed steel container with handles and sign «For broken mercury-containing lamps». It is not allowed to break and take mercury-containing waste to disposal and other sites that are not designated for removal of hazardous waste.

52. Mercury-containing waste should be transported by special transport vehicle. In case there is no special vehicle, waste is transported by other transport vehicles that ensure no emergencies happen and no harm is done to environment and human health.

53. In transportation of mercury-containing waste, boxes should be shelved appropriately to avoid damaging of boxes on the road and prevent from leak of mercury and its spread all over the transport vehicles and the site. Broken lamps should be transported in sealed containers with handles. It is not allowed to drop boxes when loading. Boxes should be placed so that the most solid box is in the bottom row.

8. Social Impact

54. Construction of new buildings and facilities is not anticipated under the project. Project shall have a positive social impact, as reconstruction of the school building improves the safety of child care institution and creates more convenient sanitary and hygienic conditions for children and improves heat resistance of the building.

55. Positive impacts are: (a) improvement of energy efficiency of the existing school and kindergarten buildings in the towns of Balykchy and Toktogoul which can reduce heat and electric energy loss; (c) introduction of renewable sources of energy can ensure sustainable green development; (d) lessening of greenhouse effect. In general, positive social impact would include better standards of living in participating towns.

56. Apart from that, it is expected that there would be no essential potentially adverse environmental and social impacts, and any displays of such can be effectively prevented by corresponding preventive and/or mitigation measures.

The main people affected by the project during the implementation of the project will be administrative staff and pupils of the kindergarten.

Social Impact Mitigation Plan has been developed for temporarily displaced people affected by project (http://www.aris.kg/files/media/3/3369.pdf). This document provides for the measures, arrangements and procedures on project impact mitigation and risk management for the period of repair works.

57. Potential impact in construction and operation stage is described in Table 1. Environmental monitoring is shown in Table 2.
Table 1. Environmental and Social Management Plan

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN
Improving Seismic Resistance and Energy Efficiency of Archa-Beshik kindergarten and Full Overhaul of Its Building

<table>
<thead>
<tr>
<th>Environmental and social factors</th>
<th>Impact</th>
<th>Actions/measures proposed for mitigation(^a)</th>
<th>Institutional responsibility for mitigation measures/ actions</th>
<th>Cost of mitigation measures/ actions(^b)</th>
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<td></td>
<td></td>
<td>1. Contractor is responsible for implementation of environmental impact mitigation measures</td>
<td>The cost of mitigation measures will be determined in the bill of quantities when preparing the Working Draft</td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td><strong>Physical Environment</strong></td>
<td></td>
<td>2. Construction site inspection will be carried out by specialists, technical supervisions of ARIS and city hall</td>
<td></td>
</tr>
<tr>
<td>Soil</td>
<td>Leak detection</td>
<td>1) Proper selection of construction site and ensure that solid waste is collected there and provide safe toilets (possibly, biotoilets); 2) Timely cleaning of the site from petroleum products in case of leak onto the soil; 3) Prohibition of car and other machinery wash at construction site; 4) Refilling should be done at refill stations.</td>
<td>3. State control by State Inspectorate for Environmental and Technical Safety</td>
<td></td>
</tr>
<tr>
<td>Water resources</td>
<td>1) Leak of oil in the process of transport vehicle operation. 2) Pollution of groundwater in case of preservation of the outdoor toilet</td>
<td>1) Timely cleaning of the site from petroleum products to prevent them from being swept into local rivers and ground waters by rainfall. 2) Cleaning of the cesspool of the outdoor toilet from liquid wastes and their removal to municipal sewage treatment plants under the Export Act;</td>
<td>1. Contractor is responsible for implementation of environmental impact mitigation measures</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Possible actions include: excavation, soil testing, soil replacement, soil stabilization, site characterization, soil treatment, soil compaction, etc.

\(^b\) The cost of mitigation measures will be determined in the bill of quantities when preparing the Working Draft.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Measures and Requirements</th>
<th>Responsibility</th>
<th>Cost of Mitigation Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air</td>
<td>Operation of automobile transport and heavy equipment</td>
<td>1. Contractor is responsible for implementation of environmental impact</td>
<td>The cost of mitigation</td>
</tr>
<tr>
<td></td>
<td>1) provide timely maintenance, and repair of vehicles and machinery in accordance with</td>
<td>mitigation measures</td>
<td>measures will be determined</td>
</tr>
<tr>
<td></td>
<td>the requirements of original manufacturer's brochure;</td>
<td></td>
<td>in the bill of quantities</td>
</tr>
<tr>
<td></td>
<td>2) autotransport vehicle with faulty fuel pump and high emission standards is not allowed</td>
<td></td>
<td>when preparing the Working</td>
</tr>
<tr>
<td></td>
<td>for use.</td>
<td></td>
<td>Draft.</td>
</tr>
<tr>
<td></td>
<td>3) Speed limit and selection of suitable transport vehicles to minimize effect on</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>environmental receptors sensitive to dust.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4) autotransport vehicle for transportation of granular particles should be equipped</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>with vehicle tents. Cement should be transported to construction sites sealed bags only.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5) Neighborhood area should be kept clean of construction waste to minimize dust</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>formation and littering.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Welding, insulation, and finishing</td>
<td>Proper storage and transportation of flammable and toxic materials (gas cylinders,</td>
<td>1. Contractor is responsible for implementation of environmental impact</td>
<td>The cost of mitigation</td>
</tr>
<tr>
<td></td>
<td>bitumen-containing materials, paints, solvents, glass, and stone wool).</td>
<td>mitigation measures</td>
<td>measures will be determined</td>
</tr>
<tr>
<td></td>
<td>2. Construction site inspection will be carried out by specialists, technical</td>
<td></td>
<td>in the bill of quantities</td>
</tr>
<tr>
<td></td>
<td>supervisors of ARIS and city hall</td>
<td></td>
<td>when preparing the Working</td>
</tr>
</tbody>
</table>
| Masonry                              | Dust should be damped down by spraying water while performing demolition and masonry works. | 1. Contractor is responsible for implementation of environmental impact mitigation measures  
2. Construction site inspection will be carried out by specialists, technical supervisions of ARIS and city hall  
3. State control by State Inspectorate for Environmental and Technical Safety | The cost of mitigation measures will be determined in the bill of quantities when preparing the Working Draft |
|-------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------|
| Loading and unloading               | Reduce dusting by damping it down.                                                             | 1. Contractor is responsible for implementation of environmental impact mitigation measures  
2. Construction site inspection will be carried out by specialists, technical supervisions of ARIS and city hall  
3. State control by State Inspectorate for Environmental and Technical Safety | The cost of mitigation measures will be determined in the bill of quantities when preparing the Working Draft |
<table>
<thead>
<tr>
<th>Burning waste at construction site</th>
<th>It is not allowed to burn industrial and domestic waste at construction site.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Contractor is responsible for implementation of environmental impact mitigation measures</td>
<td></td>
</tr>
<tr>
<td>2. Construction site inspection will be carried out by specialists, technical supervisions of ARIS and city hall</td>
<td></td>
</tr>
<tr>
<td>3. State control by State Inspectorate for Environmental and Technical Safety</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Industrial (construction) and domestic waste</th>
<th>Site organization. Execution of construction works. Pollution and contamination of the neighbourhood, soil pollution, possible contamination of water resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) To identify ways of collecting and removing waste, as well as sites for disposal of demolition and construction waste before starting with construction works.</td>
<td></td>
</tr>
<tr>
<td>2) Mineral waste left after construction and demolition of buildings should be collected separately from regular waste, and organic, liquid and chemical waste by waste sorting on construction site; after waste is sorted, it should be placed in special containers.</td>
<td></td>
</tr>
<tr>
<td>3) All materials and documents related to removal and disposal of waste should be kept in due order as an evidence of proper waste management at project site.</td>
<td></td>
</tr>
<tr>
<td>4) Whenever possible, contractor should ensure recycling of resistant materials (except for asbestos).</td>
<td></td>
</tr>
<tr>
<td>5) Construction waste should be collected and removed by specialized contracting companies.</td>
<td></td>
</tr>
</tbody>
</table>

<p>| The cost of mitigation measures will be determined in the bill of quantities when preparing the Working Draft |  |</p>
<table>
<thead>
<tr>
<th>Noise</th>
<th>Noise from air compressors and hammers</th>
</tr>
</thead>
</table>
|       | 1) Use of shaking devices that meet the standards, as well as anti-vibration and noise attenuation devices, etc.  
|       | 2) Covers of engines, air compressors, and other drive mechanisms should be kept closed while under operation; equipment should be installed at a place which is as remote from residential settlements as possible.  
|       | 3) Noise from construction works should be temporary and limited to certain hours. |
|       | 1. Contractor is responsible for implementation of environmental impact mitigation measures  
|       | 2. Construction site inspection will be carried out by specialists, technical supervisions of ARIS and city hall  
|       | 3. State control by State Inspectorate for Environmental and Technical Safety |

**Biological Environment**

| Wildlife and vegetation | Adverse impact on flora and fauna is temporary. Tree cutting is not expected, since all works will be carried out mainly inside of the building and around the perimeter of building, outside where, there is no plants |

**Social Environment**

<table>
<thead>
<tr>
<th>Aesthetics and landscape</th>
<th>Ruin of landscape can be associated with accumulation of construction waste</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>After construction works are completed, planning and rehabilitation works should be organized at school neighborhood area.</td>
</tr>
</tbody>
</table>
|                          | 1. Contractor is responsible for implementation of environmental impact mitigation measures  
|                          | 2. Construction site inspection will be carried out by specialists, technical supervisions of ARIS and city hall  
|                          | 3. State control by State Inspectorate for |

The cost of mitigation measures will be determined in the bill of quantities when preparing the Working Draft.
<table>
<thead>
<tr>
<th>Environmental Safety and Technical Safety</th>
<th>The cost of mitigation measures will be determined in the bill of quantities when preparing the Working Draft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Works shall be carried out inside the facility and shall have no effect on cultural and historical monuments</td>
<td>1. Contractor is responsible for implementation of environmental impact mitigation measures. 2. Construction site inspection will be carried out by specialists, technical and supervisory ARIS and city hall. 3. State control by State Inspectorate for Environmental and Technical Safety.</td>
</tr>
<tr>
<td>Occupational injury</td>
<td>1. Local inspection agencies supervising construction works and ensuring environmental safety, as well as local environmental impact mitigation measures, will be carried out.</td>
</tr>
<tr>
<td>Possible access of the local population to the construction site</td>
<td>2. Local population should be duly informed about planned project activities via publications and/or information boards at public places (including project site).</td>
</tr>
<tr>
<td>Occupational health and safety, as well as health and safety of local population</td>
<td>3. All permits required by the legislation have been obtained (namely, permits for operations use of natural resources, and disposal of waste, as well as permit from Environmental inspection agency, etc.) for construction and rehabilitation works at the site.</td>
</tr>
<tr>
<td>4. All works shall be implemented in a safe and disciplined way and shall be organized in such a way as to minimize negative impact on population and the environment.</td>
<td></td>
</tr>
<tr>
<td>5. Personal protective equipment of workers should meet operational safety standards.</td>
<td></td>
</tr>
</tbody>
</table>
standards (including mandatory helmets, face mask, where necessary, protective glasses, safety belt, and protective boots). 6) Corresponding direction signs and information boards shall be installed at the site, informing the workers about basic work rules and standards that should be followed.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Physical Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil</td>
<td>No impact</td>
</tr>
<tr>
<td>Water resources</td>
<td>Domestic use of water</td>
</tr>
<tr>
<td>Air</td>
<td>Air emissions</td>
</tr>
<tr>
<td></td>
<td>1) periodic repair of the school building 2) make sure that all assurances and certifications obtained meet fire safety and emissions/air-borne concentrations monitoring requirements</td>
</tr>
<tr>
<td>Wildlife and vegetation</td>
<td>Preservation of trees</td>
</tr>
<tr>
<td>Biological Environment</td>
<td></td>
</tr>
<tr>
<td>Social Environment</td>
<td></td>
</tr>
<tr>
<td>Aesthetics and landscape</td>
<td>Development and grounds maintenance of the school neighborhood.</td>
</tr>
<tr>
<td>Historical and cultural monuments</td>
<td>No impact</td>
</tr>
<tr>
<td>Population safety</td>
<td>In general, positive social impact shall include better standards of living at participating towns.</td>
</tr>
</tbody>
</table>

21
Table 2. Environmental Monitoring Plan

Environmental Monitoring Plan

Improving Seismic Resistance and Energy Efficiency of *Archa-Beshik kindergarten* and Full Overhaul of Its Building

<table>
<thead>
<tr>
<th>Sub-projects implementation stage</th>
<th>Which factor should be monitored</th>
<th>Where it should be monitored?</th>
<th>How it should be monitored? / what kind of equipment required for monitoring</th>
<th>When? (how often it is measured)</th>
<th>Cost of monitoring (cost of equipment or amount required by contractor for monitoring?)</th>
<th>Institutional responsibility for monitoring</th>
<th>(Dates) Start</th>
<th>(Dates) End</th>
</tr>
</thead>
</table>
| Construction                     | Noise                            | On construction site          | Portable device for measuring level of noise (noise meter)                | Always                          | The cost of work will be determined in the Bill of Quantities.                  | 1. Construction site inspection will be carried out by technical supervisions of ARIS and city hall  
2. State inspection agents of (Architecture and Civil Engineering Supervision Department) shall | | |
<table>
<thead>
<tr>
<th>Transport</th>
<th>On construction site</th>
<th>Visual inspection</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste disposal and storage</td>
<td>On construction site and disposal site</td>
<td>Visual inspection</td>
<td>In accordance with the plan but minimum weekly</td>
</tr>
<tr>
<td>Soil pollution</td>
<td>On construction site</td>
<td>Visual inspection and by measurement devices</td>
<td>Always</td>
</tr>
<tr>
<td>Site decommissioning</td>
<td>On construction site</td>
<td>Visual inspection</td>
<td>In accordance with the plan</td>
</tr>
<tr>
<td>Trees and shrubs</td>
<td>On and around construction site</td>
<td>Visual inspection</td>
<td>Always</td>
</tr>
<tr>
<td>Personnel safety</td>
<td>On construction site</td>
<td>Visual inspection</td>
<td>Always</td>
</tr>
</tbody>
</table>

supervise implementation of design solutions of construction and installation works during reconstruction, as well as quality of construction materials and structures. These agents shall take part at commissioning of complete construction facilities.

3. (State Inspectorate for Environmental and Technical Safety) that is responsible for environmental supervision can organize supervision in accordance with established procedures after corresponding identification documents are presented as per environmental rules and regulations, as well as environmental protection actions developed within project implementation period.
<table>
<thead>
<tr>
<th>Operation</th>
<th>Air</th>
<th>At sanitary protection zones of schools</th>
<th>Portable measurement devices</th>
<th>In accordance with (State Inspectorate for Environmental and Technical Safety) schedule</th>
<th>financed by (State Inspectorate for Environmental and Technical Safety) that is responsible for environmental supervision can organize supervision in accordance with established procedures after corresponding identification documents are presented as per environmental rules and regulations, as well as environmental protection actions developed within project implementation period.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste disposal and storage</td>
<td>At school and around it</td>
<td>Visual inspection</td>
<td>Always</td>
<td>financed by Project owner</td>
<td>1. City hall, rayon department of education</td>
</tr>
<tr>
<td>Trees and shrubs</td>
<td>At school</td>
<td>Visual inspection</td>
<td>Always</td>
<td></td>
<td>2. (State Inspectorate for Environmental and Technical Safety) that is responsible for environmental supervision can organize supervision in accordance with established procedures after corresponding</td>
</tr>
</tbody>
</table>
Identification documents are presented as per environmental rules and regulations, as well as environmental protection actions developed within project implementation period.
9. Legislative Framework

58. Basic principles of natural resources management and environmental management to ensure favourable conditions of living are provided in the Constitution of the Kyrgyz Republic (art. 48), including liability and the level of compensation for damage. Legal framework for natural resources management and environmental management has been developed in Kyrgyzstan for regulation of legal relationships between consumers and the state. The existing legislation regulates protection and use of all kinds of natural resources: land, water, air, biodiversity, and mineral resources.

59. The legislation provides the following kind of regulation procedures and mechanisms: main rules and regulations for management of resources, including rules and regulations for natural resource management and environmental pollution charges, as well as environmental monitoring, impact assessment, environmental standards, environmental examination, environmental control, etc.

60. Basic laws regulating natural resource management, environmental protection, and the need for environmental impact assessment in the Kyrgyz Republic are:

(i) Environmental protection law (1999);
(ii) Environmental examination law (1999);
(iii) Environmental Safety Regulations in the Kyrgyz Republic (2009);
(iv) Drinking Water Safety Regulations (2011);
(v) Law concerning Waste generated by Production and Consumption Activities (2001);
(vi) Law concerning Sustainable Development of Issyk-Kul Environmental and Economic System (2004);
(vii) Law concerning Biosphere Reserves in the Kyrgyz Republic (1999)
(viii) no. 623 Government Decree of the Kyrgyz Republic dated from 25 Sep 1998 on founding Issyk-Kul biosphere reserve;
(ix) Disease control and prevention requirements to organization of learning process in general education schools established by no. 201 Government Decree of the Kyrgyz Republic dated from 11 Apr 2016, Disease control and prevention rules and regulations;
(x) Disease control and prevention requirements to organization of working process in pre-school educational institutions established by no. 201 Government Decree of the Kyrgyz Republic dated from 11 Apr 2016, Disease control and prevention rules and regulations;
(xi) Other laws regulating protection and management of natural resources.

61. Framework laws require development of agency rules and regulations. Environmental quality standards are established by administrative orders registered in the Ministry of Justice of the Kyrgyz Republic. Rules and regulations approved by documents that have less enforceable power than government decrees are no longer valid because of law concerning rules and regulations (2009). They are still legally non-binding and are only recommendations. Ministries, state committees, administrative agencies, and other government agencies and local authorities can issue non-binding acts only in terms of technical regulations.

62. Environmental quality regulations and standards establish quantitative indicators for quality of surface and ground water, air, land resources and noise level in residential settlements and industrial zone, as well as procedures for sampling and measuring.

63. Kyrgyz Republic is a party to 13 international environmental Conventions and 3 Protocols. Environmental Protection Law ensures that international agreements are applied.

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4 art. 36, no. 241 Law concerning Rules and Regulations dated from 20 July 2009;
5 art. 3, no. 67 Law of the Kyrgyz Republic concerning Technical Regulations dated from 22 May 2004;
64. Law concerning Public Regulation and Greenhouse Gas Emission and Absorption Policy (2000), which was adopted in the Kyrgyz Republic in 2007 to implement the United Nations Convention on Climate Change, establishes the framework for public regulation and specifies operating procedures, rights, obligations and responsibilities of the state bodies, local authorities, individuals and legal entities in the area of greenhouse gas emission and absorption in the Kyrgyz Republic.

65. **Environmental Protection Law** is a framework law and establishes basic principles of environmental protection, including the requirement to provide Environmental Impact Assessment report before implementation of the project is started. It also contains brief basic descriptions of the main regulated aspects which forms the base for development of new legal tools in specific environmental protection domains.

66. **Environmental Examination Law** provides detailed procedures for environmental examination and environmental impact assessment and includes both existing and new environmental protection programmes, plans and legislation. It is directed at prevention of negative impacts of economic or other activities on human health and environment and ensuring that such activities meet environmental requirements of the country.

67. **General Environmental Safety Regulations in the Kyrgyz Republic** define main environmental safety rules and establish general environmental safety requirements for production, storage, transportation and disposal of product on operational and other facilities. Requirements set out by this regulation are enforceable within the Kyrgyz Republic and govern product production, storage, transportation and disposal processes and binding on all legal entities and individuals involved in these activities.

68. **Public Health Care Law** is directed at better health of population by better access to public health services, promotion of health and safety issues, in general. According to Public Health Care Law, potable water should be safe and conform to technical regulations of the Kyrgyz Republic approved in accordance with legally established procedures of the Kyrgyz Republic. Water-bearing bodies should be safe in terms of disease control and prevention, radiation, and physical and chemical properties and meet the requirements set out in technical regulations and other laws and regulations approved in accordance with legally established procedures of the Kyrgyz Republic.

69. **Safe Potable Water Regulation** adopted in accordance with Technical Regulation Law of the Kyrgyz Republic is a regulatory document that establishes the requirements mandatory for use and fulfillment by regulated entities. The objectives of Safe Potable Water Regulation are the following:

- prevention of human health and life from negative impact of pollutants present in drinking water;
- prevention of consumers from fallacies when using drinking water

70. This Regulation shall apply to potable water designed to meet the requirements of population and shall regulate the principles, liabilities, procedures and organizational measures to ensure safe potable water. This Regulation is binding on all individuals and legal entities involved in financial and operational activities (industrial, agricultural, and other institutions) and operating water supply systems.

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71. Law concerning Sustainable Development of Issyk-Kul Environmental and Economic System is directed at regulation of relationships connected with maintenance, use, and development of Issyk-Kul environmental and economic system.

72. Biosphere Reserves Law establishes legal framework for foundation and operation of biosphere reserves in the Kyrgyz Republic. To account for salience of the environmental component in sustainable human development strategy and to attract foreign investments to profitable and eco-oriented economy and service field of Issyk-Kul oblast (province), Issyk-Kul biosphere reserve was established by no. 623 Government Decree dated from 25 Sep 1998.

73. Disease control and prevention requirements to organization of learning process in general education schools, established by no. 201 Government Decree of the Kyrgyz Republic dated from 11 Apr 2016, are directed at health care of students studying in general education institutions. Disease control and prevention rules apply to general education institutions that are being designed, that already exist, that are under construction and rehabilitation, irrespective of ownership, and that provide primary and secondary general education and secondary (complete) general education.

74. Disease control and prevention requirements to organization of working process in pre-school educational institutions are directed at health care of children in the process of providing training, learning, development and health care in pre-school educational institutions, irrespective of form of incorporation and ownership.

75. Requirements of legislation of the Kyrgyz Republic for hazardous waste management. In accordance with no. 885 Government Decree of the Kyrgyz Republic dated from 28 Dec 2015, establishing rules and procedures for hazardous waste management in the Kyrgyz Republic, asbestos-containing and mercury-containing wastes should be disposed in accordance with environmental safety requirements.

76. Safe Buildings and Facilities Regulation adopted by no. 57 Law of the Kyrgyz Republic dated from 27 Jun 2011 establishes the requirements to be followed in designing (including engineering surveys), construction, operation, full overhaul, reconstruction, remodeling, and demolition of buildings and facilities; 2) sets out requirements to public utilities system of buildings and facilities; 3) defines rules and procedures for compliance with building safety requirements. This Regulation shall apply to residential and municipal buildings and facilities, as well as industrial, water supply, rural and municipal services buildings and facilities, transportation and communication facilities, energy facilities, and hydraulic engineering and irrigation facilities that are built in the Kyrgyz Republic.

10. Public Hearings

77. According to Operational Manual OM4.01, there are special requirements of the World Bank for information disclosure and public hearings. Information disclosure includes informing the affected wider audience and population and other stakeholders about the project, starting from the earliest project cycle and covering the whole duration period of the project. Idea behind disclosing information is to foster positive cooperation with affected population and stakeholders for the entire period of project implementation.

78. Besides, Kyrgyz Republic is a member to Aarhus Convention on Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters, as well as to

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7 The World Bank Operational Manual (OM) 4.01, Environmental Assessment, section 3
European Economic Community of the United Nations, which also provides for disclose of intents and environmental objectives of the project.

79. Public hearings at the town of Toktogul were held on 22 Nov 2017. 39 people in total took part at public hearings; these are delegates of administration of the town of Toktogul and schools, student parents, design engineers, and ARIS agents. Engineering solutions of project and its environmental and social impact and prevention and mitigation measures were discussed at public hearings. See Minutes of Public Consultation Meeting attached.

11. Complaints mechanism
80. At the ARIS level, there is a single system for processing complaints and appeals from citizens. An operational manual (regulation) has been developed, which contains procedures for handling appeals and complaints, responsibilities among ARIS officials have been distributed, and verification control measures have been described. All appeals and complaints of citizens that will come under the Urban Development Project will be sent to a single system for further processing and control.

81. The complaints mechanism is provided to project participants for questions, comments, suggestions and / or complaints, or any form of feedback on all activities funded by the project and ARIS.

82. Beneficiaries of the project; persons affected by the project (that is, those who will and / or can be affected by the project directly or indirectly, positively or negatively), and the general population can use the Complaints mechanism to file complaints either verbally or in written form.
13. Minutes of Public Consultation Meeting held in the city of Toktogul
Протокол консультаций с общественностью по вопросам охраны окружающей среды в рамках проекта Всемирного Банка «Проект городского развития» компонент «Энергетическая эффективность и сейсмическая устойчивость приоритетных школ и детских садов в г. Токторого»

22 ноября 2017 г.
г. Токторого

Присутствовали со стороны Проекта:
Мамбеткулова А.Ж. – Координатор ПГР, АРИС
Уметов Б.У. – старший инженер ПГР, АРИС
Чонов У. – специалист по ООС ПГР, АРИС
Айтматова Д.И. – консультант по охране окружающей среды, CAIC - суб-консультант ALL INGEGNERIA и AIRES INGEGNERIA
Улукбек Болот уулу – ассистент проекта, CAIC- суб-консультант ALL INGEGNERIA и AIRES INGEGNERIA

Присутствовали со стороны местного сообщества: список прилагается.

В общественных слушаниях приняли участие 39 человек: администрация города – Вице-мэр, глава Городского Кенеша, представители администраций школ, детских садов, родительских комитетов школ и детских садов.

Вступительное слово - от Вице-мэра города Токторого, отметившего, что выполняемый проект имеет очень большое значение для города. Затем было представлено слово Мамбеткуловой А.Ж.- Координатору ПГР. Она рассказала о целях и задачах проекта. В целом, - отметила, что - этот проект состоит и ряда пилотных под-проектов, включающих ремонт школ и детских садов, преобразование сейсмических характеристик зданий, их энергоэффективность. Она пояснила, что ПСД в стадии подготовки и разработкой занимается итальянская компания с участием местного субконтракта ОАО «Промстрой». Затем она кратко пояснила, что экологические аспекты имеют большое значение не только при реализации данного проекта, но и в целом, при реализации проектов по всей стране. После этого слово было предоставлено консультанту по охране окружающей среды.
С презентацией по воздействию проекта на окружающую среду выступила консультант Айтматова Д.
Задача оценки окружающей среды заключается в том, чтобы выявить воздействие предлагаемого проекта на окружающую среду, определить соответствующие превентивные меры и меры по смягчению воздействия, направленные на предупреждение, минимизацию или устранение любого ожидающего необратимого воздействия.
Основополагающие принципы управления природными ресурсами, окружающей средой в целях обеспечения благоприятных условий для жизни человека, определяя ответственность и возмещение причиненного вреда, заключены в Конституции Кыргызской Республики (ст.48).
В Кыргызстане разработана правовая база, обеспечивающая текущее управление природными ресурсами и средой и регулирующая правовые взаимоотношения между пользователями природы и государством. Действующее законодательство регулирует охрану и использование всех видов ресурсов: земли, воды, воздуха, биоразнообразия, минеральных ресурсов.
Опыт предыдущих проектов показывает положительное воздействие предлагаемого проекта на окружающую среду. В действительности, в ходе оценки окружающей среды выявлено много положительных воздействий проектов.

- Повышение энергоэффективности выбранных объектов за счет капитального ремонта;
- Безопасность выбранных школ и детского сада за счет повышения сейсмостойчивости;
- Улучшение социальной среды за счет повышения гигиены и комфорта для детей.

Вместе с тем, при проведении строительных работ, возможно проявления некоторых потенциально негативных воздействий на здоровье окружающей среды в проектных площадях, на которые необходимо обратить внимание, принять превентивные действия и соответствующие меры по их смягчению во время планирования, разработки, строительства, эксплуатации и технического обслуживания.

Воздействие на окружающую среду будут носить локальный характер по месту и ограничены по времени.

Для предотвращения или смягчения негативного воздействия строительства для каждого объекта реабилитации составляется ПУС. Он включает в себя план смягчающих мер и мониторинга, как для фазы строительства, так и для фазы Э и ТО.

Все риски фазы строительства легко контролируются и устраняются. Они могут быть сведены к мнимуму при должном проектировании смягчающих мер и контроле над Подрядчиком при выполнении работ.

Вопросы:
Председатель Горженеш, Дербишев К.: Кто будет проверять ход выполнения работ? ГЭТИ, АРИС?
Айтатова Д.: Да, ГЭТИ, АРИС, и еще представители Госагентата по архитектуре и строительству.

Далее обсуждение перешло в социальную плоскость, связанную с размещением учеников в период ремонта.

Мамбеткулова А.Ж.: обратилась к представителям эмрии и Горженеша, что АРИС провел ряд встреч с эмрией по вопросу размещения детей и работников школ и детского сада во время проведения строительных работ в рамках проекта, однако до настоящего времени данный вопрос все же еще остается не решенным. В связи с чем, попросила ускорить подготовку плана мероприятий по размещению детей.

Председатель Горженеш, Дербишев К.: Да, данный вопрос неоднократно обсуждался и мы должны подумать над этим вопросом. Может быть, надо учеников в имеющихся помещениях школ размещать в три смены? Надо подумать. Кроме того, надо спросить учителей, как они видят распределение своих нагрузки в изменившихся условиях ремонта школы.

Родительница ребенка из детского сада Арча-Бешим: Возможно, ли арендовать частные помещения для размещения детей детского сада? Кто будет платить за аренду? У нас в Токтогуле с помещениями сложно.

Мамбеткулова А.Ж.: Есть общественные здания, которые могут быть получены без арендной платы. Эти вопросы мы просим решить эмрии. Проектом не предусмотрено выплата арендной платы. Проект начнет ремонтные работы в школах и детском саду в г.Токтогул,
после детальной проработки и решения мэрии по размещению детей, обеспечению беспрерывного процесса обучения и обеспечения заработной платы работников.

Председатель Горкенеша, Дербишев К.: Предложил предоставить мэрии срок по решению данного вопроса.

Мамбеткулова А.Ж.: По результатам обсуждения срока по финализации данного вопроса созвучила, что к 15 декабря АРПС придет в Токтоял для ознакомления с финальным решением мэрии по размещению детей. Также поблагодарила всех присутствующих за участие в общественных слушаниях и высказанных предложениях по решению вопросов социального характера.

На этом общественное слушание было завершено.

Координатор ПГР: ____________________________ Мамбеткулова А.Ж.

Консультант по охране окружающей среды: ____________________________ Айтматова Д.
Minutes of Public Consultation Environmental Meeting held under Urban Development Project of the World Bank, Energy Efficiency and Seismic Resistance of Priority Schools and Kindergartens in the city of Toktogul

22 Nov 2017

Toktogul

Attended by:
(project team)
Mambetkulova A.J. - Coordinator, Urban Development Project, ARIS
Umetov B. U. – Chief engineer, Urban Development Project, ARIS
Chonoyev U. – Environmental Specialist, Urban Development Project, ARIS
Aitmatova Dzh. – Environmental Consultant, CAICO, All Ingegneria and Aires Ingegneria sub-consultant
Ulukbek Bolot uulu - Project Assistant, CAICO-sub-consultant ALL INGEGNERIA and AIRES INGEGNERIA

Attended by:
(local community)

See attendance list attached.

39 people in total took part at public hearings; these are delegates of administration of the city of Toktogul represented by Vice-mayor and the Chairman of the city Council, as well as representatives of school administrations, school and kindergarten parent-teacher-student associations.

The Vice-mayor of the city of Toktogul, made introductory speech. He highlighted the importance of the project for the city.

Urban Development Project coordinator, Ms Mambetulova A.J.: She outlined aims and objectives of the project. In general, he said that the project was composed of several pilot sub-projects that involve repair of school and kindergarten buildings, improving seismic resistance of buildings and improving their energy efficiency. She added that design specifications and cost estimates have already been prepared by Italian company and local engineering company called Promprojekt. He also added that environmental aspects were very important for implementation of all projects across the country and not only this project. After that, the floor was given to environmental expert of the project.

Aitmatova Dzh., environmental consultant (CAIC), delivered ppt presentation about impact of project activities on environment.

The aim of environmental impact assessment is to reveal the impact of the project on environment, identify corresponding preventive and mitigation measures oriented at prevention, minimization, and elimination of any irreversible environmental impact.

Basic principles of natural resources management and environmental management to ensure favourable conditions of living are provided in the Constitution of the Kyrgyz Republic (art. 48), including liability and the level of compensation for damage. Legal framework for natural
resources management and environmental management has been developed in Kyrgyzstan for regulation of legal relationships between consumers and the state. The existing legislation regulates protection and use of all kinds of natural resources: land, water, air, biodiversity, and mineral resources.

Prior project experience shows positive environmental impact of the project. In fact, many positive environmental impacts of the project were revealed in the process of environmental impact assessment.

- Improvement of energy efficiency of these buildings after full overhaul;
- Seismic safety of schools and kindergartens due to higher seismic resistance;
- Better social environment due to better hygienic conditions and more convenience for children.

Some negative environmental impact can possibly be seen at project sites during construction works. These should be taken care of by taking preventive and corresponding mitigation measures in planning, development, construction, operation, and maintenance.

Environmental impacts shall be of localized nature limited to space and time.

To prevent or mitigate the negative impact of construction, Environmental Management Plan is developed for each facility under rehabilitation. It includes mitigation measures and monitoring plan both for construction and O & M stage.

All construction stage risks are easily prevented and eliminated. They can be minimized given that due mitigation measures were taken, and proper supervision of construction works was performed.

Questions:

The representative of the City Council, Mr. Derbishev: Who will check the progress of work?

ARIS, State Inspectorate for Environmental and Technical Safety?

Aytmatova J.: Yes, State Inspectorate for Environmental and Technical Safety, ARIS and also governmental agency for Architecture and Construction.

And social issues were discussed. The audience wanted to know what’s the study plan for students.

Ms. Mambetkulova A.J. appealed to the representatives of City Council and said ARIS has made couple of meetings with City Council about moving the students to another building during the construction works will be carried out. However the problem has not been solved yet. And asked to speed up the preparation of plans on moving of students.

The representative of the City Council, Mr. Derbishev: Yes, this issue have been discussed several times and we have to think about it. Maybe we should accommodate students in other rooms with 3 shifts? We have to think about it. We should ask the teachers as well, what they think about the workload.

Parent of a kid from kindergarten Archa-Beshik: Is it possible to rent a private building for kids? Who will pay the rent? We don't really have buildings for rent in Toktogul.

Ms. Mambetkulova A.J.: There are public buildings which can be obtained without a rent. This issues we address to City Council to solve. The project doesn't include the payment of rent. The
The project will start construction works in schools and a kindergarten in Toktogul city after City Council will solve the problem.

The representative of the City Council, Mr. Derbishev: Asked for a date until the City Council should provide solution.

Ms. Mambetkulova A.J.: ARIS will be back in Toktogul to see the final decision of City Council on moving the Students and kids to a different building on 15 of December. She had also thanked everyone for attending public hearings.

So ended public hearings.

The coordinator: [signed] Mambetkulova A.J.

14. Public Hearings in Toktogul, Photographic Evidence