# Initial Environmental Examination

March 2015

# TAJ: Strengthening Private Sector Participation in Technical and Vocational Education and Training

(DRAFT)

Prepared by the Ministry of Labor, Migration and Employment of the Republic of Tajikistan for the Asian Development Bank

## CURRENCY EQUIVALENTS

(as of March 20, 2015)

| | | |
|---|---|---|
| Currency unit | – | somoni (TJS) |
| SM1.00 | = | $0.1794 |
| $1.00 | = | SM5.7234 |

## ABBREVIATIONS

| | | |
|---|---|---|
| ADB | – | Asian Development Bank |
| ASTM | – | American Society for Testing and Materials |
| CAP | – | Compliance action plan |
| CEP | – | Committee for Environmental Protection |
| EA | – | Environmental assessment |
| EIA | – | Environmental impact assessment |
| EMP | – | Environmental management plan |
| GDP | – | Gross domestic product |
| GRM | – | Grievance redress mechanism |
| HES | – | Health, environment, safety |
| IEE | – | Initial environmental examination |
| IFC | – | International Finance Corporation |
| MHCSP | – | Ministry of Health Care and Social Protection |
| MOLME | – | Ministry of Labor, Migration and Employment |
| PPTA | – | Project preparatory technical assistance |
| SEE | – | State ecological expertise |
| TVET | – | Technical and vocational education and training |

## GLOSSARY

| | | |
|---|---|---|
| Dehkan | – | Peasant |
| Jamoat | | Local self-government |
| Khukumat | – | Municipality/local state administration |

## NOTE

In this report, "$" refers to US dollars.

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## EXECUTIVE SUMMARY

**The Project**

Strengthening Private Sector Participation in Technical and Vocational Education and Training Project (the Project), Tajikistan

Project activities with potential to cause environmental impacts are:

- Physical upgrading of learning facilities at Government technical and vocational education and training (TVET) lyceums schools and adult learning centers
- Operation-phase activities made possible by the upgraded learning facilities

Private sector training activities funded by the project's Market Responsive and Inclusive Training Program Environment Category B.

**Project Impact, Outcome, and Outputs**

*Impact*: a national workforce with an increased proportion of skilled workers employed in Tajikistan.

*Outcome*: a demand-driven, quality-assured, and flexible TVET system responsive to labor market needs.

*Outputs:* (i) TVET system methodology modernized; (ii) physical learning facilities upgraded; (iii) access to quality TVET programs improved; and (iv) governance and management of TVET system strengthened.

**Environmental Due Diligence**

Initial Environmental Evaluation (IEE)

**Environmental Impacts and Environmental Management Plan**

- Health and safety non-compliance at lyceums and adult learning centers. *Management:* Rehabilitation activities under the current project.
- Issues of availability of energy and water sources, and sustainability of water and energy technologies and waste management options, at proposed rehabilitation sites. *Management:* evaluation and design of each proposed site for site-appropriate primary and back-up energy and water sources, and with sustainable lighting, heating, water storage, water distribution, toilet, and sanitary and solid waste disposal technologies.
- Presence of asbestos-cement roofing materials on some existing buildings. *Management:* select sites/buildings and design rehabilitation to avoid asbestos roofing disturbance and removal. If such activities are proposed, ADB endorsement of a feasible occupational health asbestos action plan is obtained prior to construction start.
- Construction-phase impacts of a routine nature. *Management:* Inclusion of subproject environmental management plan construction-phase measures in bidding documents and requirement for contractors' environmental management plans,

and construction supervision of measures implementation and performance.

- Obsolete equipment in lyceums and ALCs. *Management:* Development of old equipment recycling program.
- Impacts of operation-phase routine building operation and of upgraded learning activities. *Management:* Depending on potential impacts, environmental management measures will be devised in collaboration with and implemented by TVET site administrators.

**Main Environmental Risks and Assurances**

- Staff and students at ADB-rehabilitated schools exposed to health and safety risks from unrectified existing safeguards noncompliance. *Assurance:* ADB - Ministry of Labor, Migration and Employment (MOLME) agreement on compliance action plans
- New equipment and upgraded facilities at rehabilitated schools do not deliver intended benefits due insufficient/unreliable energy and water supplies. *Assurance:* terms of reference for feasibility studies to include evaluation of water and energy availability and cost, and selection of technologies appropriate to local conditions, and designs include infrastructure required to bring and manage water and energy on site. Construction workers are exposed to asbestos fibers during roofing modification, repair, or replacement. *Assurance:* Designs avoid modification, repair, and replacement of asbestos roofing materials; or, such activities commence only after ADB has approved an asbestos occupational health action plan.

**Conclusion**

Project residual adverse impacts are not expected to be significant, after the implementation of feasible environmental management measures.

# I. INTRODUCTION

## A. Purpose of Report

1. This Initial Environmental Examination (IEE) has been prepared for the Strengthening Private Sector Participation in Technical and Vocational Education and Training Project (the Project), Tajikistan.

2. The Project is classified ADB Environmental Category B. Category B projects require environmental assessment in the form of an initial environmental examination (IEE), which determines whether an environmental impact assessment (EIA) is warranted. If it is not, the IEE becomes the final environmental assessment report.

3. The Project consists of four components:

(i) Component 1 – Modernize technical and vocational education and training (TVET) system methodology

(ii) Component 2 – Upgrade physical learning facilities in selected TVET institutions

(iii) Component 3 – Improve access to quality TVET programs

(iv) Component 4 – Strengthen the governance and management of the TVET system.

4. Potential environmental impacts are confined to activities within Component 2, Upgrade Physical Learning Facilities. This component consists of (i) civil works to rehabilitate existing buildings, and (ii) provision of new equipment to rehabilitated workshops, laboratories, and other rehabilitated facilities. Environmental assessment of the proposed rehabilitation civil works in Component 2 also captures the indirect impacts of non-physical Project activities, such as the potential increase in the numbers of classes and students at the rehabilitated facilities. The Project, including Component 2, is described below in Section III.

## B. Identification of Project and Project Proponent

5. The proposed Project assessed by this IEE is the "Strengthening Private Sector Participation in Technical and Vocational Education and Training (TVET), Tajikistan." Project funding consists of an ADB US$30 million grant, Clean Energy Financing Partnership Facility's cofinancing of $2 million, and Government of Tajikistan $2 million counterpart funds. The ADB project number is 46535-001. The implementing agency is the Ministry of Labor, Migration and Employment (MOLME).

## C. Nature, Size, Location, and Importance of Project

6. The Project will rehabilitate physical facilities at 21 TVET lyceums and seven Adult Learning Centers (ALCs) located throughout the country. The importance of the Project will be through its impact on the skills and employability of graduates of the rehabilitated TVET schools.

7. Approximately US$14.9 million has been allocated to physical facilities rehabilitation, including about US$5.3 million for civil works at the 28 selected schools, primarily rehabilitation of specific elements of existing buildings (classrooms, workshops, labs, dorms, etc.). The remaining $9.6 million is allocated to new equipment and furniture.

## D. IEE Boundaries

8. The IEE baseline environment section describes the national context. The IEE potential impact assessment, stakeholder consultation, and environmental management sections focus on the campuses and communities of the TVET schools selected for Project rehabilitation.

## E. Methodology

9. The IEE study was carried out from October 2014 to March 2015 during the project preparation technical assistance (PPTA), by Sara Bennett, PPTA international environment specialist; Muazama Burkhanova, PPTA national environment specialist; with inputs from other PPTA specialists in particular Jean De Spiegeleer, PPTA Procurement Specialist. Representative schools selected for rehabilitation were visited to audit existing environmental conditions and assess potential impacts. A stakeholder consultation program was undertaken (VI. B below).

## F. Constraints and Limitations

10. The IEE study was adequate to identify potential environmental impacts and suitable types of mitigation measures, monitoring, and future stakeholder engagement arrangements. During implementation, details of mitigation, monitoring, and engagement activities will need to be developed and incorporated into Project activities as needed to achieve acceptable residual impacts.

## G. Structure of Report

11. The remainder of this report consists of the following sections:

(i) policy, legal, and administrative framework
(ii) project description
(iii) description of the environment
(iv) anticipated impacts and mitigation measures
(v) information disclosure, consultation and participation
(vi) grievance redress mechanism
(vii) environmental management plan, and
(viii) conclusion.

# II. POLICY, LEGAL, AND ADMINISTRATIVE FRAMEWORK

## A. Country Policy, Legislative, and Administrative Framework

### International Agreements and Tajikistan's Legal System

12. Under Tajikistan's unified (monist) legal system, international agreements and treaties once ratified or acceded to by the Government, have the same force as national legislation.[1]

### International Environmental Conventions

13. Tajikistan is a party to the following international environmental conventions:

- Aarhus Convention, 2001
- The United Nations Framework Convention on Climate Change, 1998

[1] "The monist legal system of Tajikistan puts a number of UN Conventions on human rights at the immediate disposal of policy makers as national law" (p. 202, OECD. 2009. *Reviews of national policies for education – Kazakhstan, Kyrgyz Republic, and Tajikistan: Students with special needs and those with disabilities*. http://www.oecd.org/countries/tajikistan/43851447.pdf )

- Kyoto Protocol, 1997
- Montreal Protocol on Substances that Deplete the Ozone Layer, 1989
- Vienna Convention for the Protection of the Ozone Layer, 1988

**Institutional Framework**

14. Various central government organizations have roles and environmental and social responsibilities:

- The Ministry of Health – responsible for development and implementation of policy, regulations, and norms related to public health;
- Ministry of Labour, Migration, and Employment – responsible for developing and implementing policies relating to employment, labour issues, and migration practices;
- Committee of Women and Family Affairs – responsible for gender issues and realization of family orientated policy;
- Architecture and Construction Committee – responsible for technical advice in relation to water supply and sewage systems, including construction and design standards, contract standards and rules, and regulation of project and construction activities;
- TajikGosstandart – responsible for drinking water quality standards;
- State Statistical Committee – responsible for collecting, filing and delivering data on drinking water supply and sanitation;
- Committee for Environment Protection (CEP) – executive body responsible for environmental protection, sustainable use of resources, forestry and hydrometeorology responsible for
  - Decision-making related to environmental issues e.g. unsustainable land use, deterioration of soil fertility, excessive use of water for irrigation, flooding problems, and obsolete/banned pesticides;
  - Defining the main strategies for the protection, study, conservation and sustainable use of natural resources, and mitigation of the effects of climate change;
  - Preparing and publish biennial state-of-the-environment reports;
  - Drafting laws and other regulatory documents, including environmental standards, instructions and methodologies for the use of resources;
  - Issuing individual permits for the use of specific resources and withdraw these if the user violates their terms;
  - Setting quotas for the hunting and collection of certain species of animals; factory emissions and the importation of ozone-depleting substances;
  - Carrying out ecological assessments of planned activities;
  - Defining the system of specially protected territories and maintain State cadastres of such territories, forests, factories, water bodies and hazardous waste; and
  - Regulating the use and protection of waters and the issuance of permits (licenses) for special water usage.

15. Local government has some environmental responsibilities and is organized in two levels:

- Khukumat – municipality / local state administration. Each khukumat is headed by a chairperson appointed as a local representative of the President in the implementation national policy and administration of State services and regulations.
- Jamoat - local self-government. A jamoat covers a smaller administrative area than a khukumat. The jamoat is responsible to organize community-based delivery of some basic public services. The jamoat has no budgeting authority and has a very limited independent role.

**Environmental Assessment Framework**

16. **Framework environment law**. The Law on Environment Protection (No. 208, 2011) states that national environmental policy should prioritize environmental actions based on scientifically proven principles and integrates nature preservation and sustainable resource use with economic development. The Law defines applicable legal principles, protected objects, and the competencies and roles of Government, local authorities, public organizations, and individuals. The Law also stipulates measures to secure public and individual rights to a safe and healthy environment, and requires a combined system of ecological expertise and environmental impact assessment to reach a decision on any activity with potential adverse environmental impacts. The Law defines environmental emergencies and ecological disasters, and prescribes the order of actions in such situations, defines the obligations of officials and enterprises to prevent occurrences and eliminate consequences, and the liabilities of the persons or organizations that damage the environment or otherwise violate the Law. The Law establishes several types of environmental enforcement: State control, ministerial control, enterprise control and public control. State control is effected by the Committee for Environment Protection, the Sanitary Inspectorate of the Ministry of Health, the Inspectorate for Industrial Safety, and the Mining Inspectorate. Public control is carried out by public organizations or trade unions and can be exercised with respect to any governmental body, enterprise, entity or individual.

17. **State ecological expertise.** The Law on Environment Protection (No. 208, 2011), the Law on State Ecological Expertise (2011) and the Procedure on Organization and Performance of Environmental Assessment (2014) stipulate that all types of economic and other activities shall be implemented in accordance with environmental standards and norms, and shall have sufficient environmental protection and mitigation measures to prevent and avoid pollution and enhance environmental quality. They define a state ecological expertise (SEE) process that examines the compliance of proposed activities and projects with the requirements of environmental legislation and standards and the ecological security of the society. SEE is a mandatory cross-sectoral process that must be scientifically justified, comprehensive, and objective. It precedes decision-making about activities that may have a negative impact on the environment. Financing of programs and projects and decisions on siting, construction, or reconstruction are allowed only after a positive SEE finding has been issued. If these requirements are violated, the Committee for Environmental Protection and/or other duly authorized control bodies may terminate construction until necessary improvements are made. SEE for investment projects is the responsibility of the Committee for Environmental Protection (CEP) and its regional offices.

18. **Projects requiring SEE.** SEE is required for the following types of projects:

- draft state programs, pre-planning, pre-project, and design documentation for economic development;
- regional and sectoral development programs;
- spatial and urban planning, development, and design;
- environmental programs and projects;
- construction and reconstruction of various types of facilities irrespective of their ownership;
- draft environmental quality standards and other normative, technology, and methodological documentation that regulates economic activities; and
- existing enterprises and economic entities, etc.

19. **EA administrative framework.** The Law on Environmental Protection states that SEE is to be conducted by the State Committee for Environment. A small unit in the ministry is entrusted with guiding and managing both EIA and SEE.

20. **EIA studies.** Preparation of the Environmental Impact Assessment (EIA) study is a responsibility of the project proponent. EIAs are to analyze the short- and long-term environmental, genetic, economic, and demographic impacts and consequences of projects, and must meet the standards of other sectors and environmental media line agencies (sanitary-epidemiological, geological, water, etc.).

21. **Environmental clearance.** The Committee of Environment Protection is the authority responsible for state review of EAs and environmental clearance of civil works.

**Occupational/Workplace and School Health and Safety**

22. Relevant national laws include:

- Labour Code, 12 May 1997
- Law on Protection of Labour No 517, 19 May 2009 / 1 August 2012
- Law on Industrial Safety at Hazardous Facilities No. 14, 28 February 2004 / 2008
- Law on Occupational Safety, December 24, 1991, amended 1998 and 2007
- Law on Public Sanitation and Epidemiology Welfare, No 1010, 22 July 2013
- Law on Health Protection of the Population, No 420, 15 May 1997 / 22 July 2013

23. Worker health and safety standards are agreed among trades unions, employer associations – who are responsible to implement the measures – and the Ministry of Health Care and Social Protection (MHCSP) – who are responsible for supervision and enforcement.

24. School health and safety standards, supervision, and enforcement are the responsibility of the Department of School Hygiene of MHCSP.

25. Relevant international agreements ratified by Tajikistan are:

- Occupational Safety and Health Convention, 1981
- Working Environment (Air Pollution, Noise and Vibration) Convention, 1977

**Asbestos**

26. Tajikistan's sole regulation on asbestos – the regional multi-state agreement Interstate Standard GOST 12871-93 signed by Tajikistan – regulates interstate trade and transport of chrysotile asbestos. Asbestos-containing products are legally available e.g. pipes and

corrugated roofing material are being imported from Russia and China and the Dushanbe cement factory resumed production of corrugated asbestos-cement sheets in September 2013.[2]

**Waste Management**

27. Environmental permits are issued and monitored by state or Hukumat regulatory authorities depending on an enterprise's level of impact. CEP, the State level regulator, is responsible for high-impact enterprises and the appropriate department of the hukumat level is responsible for middle- and low-impact enterprises.

28. All companies that store or transport more than 100 tons per annum of dangerous waste require a special license. In accordance with the Law of the RT "On Licensing the Activities Related to Hazardous Waste Management," household waste is considered hazardous and thus all companies are, in principle, required to acquire a license.

29. Companies or organizations involved in waste management activities including municipalities need to apply for a permit, with permit applications involving 100m$^3$ of waste or more being made to CEP. Permit applications involving less than 100m$^3$ are made to the local/municipal Committee on Environmental Protection.

30. After submission of the application, the appropriate authority coordinates with the relevant Sanitary and Epidemiological Inspectorate and the Fire Prevention Agency, depending on the level, and checks all relevant aspects of the application.

31. Within one month of submission, an approval is issued and the applicant is provided with a license. In an annex to the license the technical requirements will be listed. The license fee goes directly to the state budget.

32. Municipal departments for environmental protection are authorized to levy certain environmental fees based on pollution emissions to air and water and solid waste generation. The fee income is used, in part, to fund local and central government administration but also as a fund for environmental protection

**Other Environmental Laws**

33. Other environmental laws include:

- Law on Environmental Expertise No 818, 16 April 2012
- Law on Protection of Atmospheric Air No 915, 28 December 2012
- Law on Environmental Monitoring No 707, 25 March 2011
- Law on Environmental Information No 705, 25 March 2011
- Law on Routine Inspections Of Operating Facilities No 194, 28 July 2006
- Law on Waste Of Production And Consumption, No 109, 25 July 2005

**Environment Protection Licenses, Permits, Standards, Enforcement, and Compliance**

34. Generally speaking, regulatory powers related to environmental protection are held by ministries and their subordinate departments with an interest in hazardous activities, water use, emissions/discharges to air and water, and handling and disposal of waste and toxic chemicals.[3]

[2] Barki Tojik. 2013. Initial environmental examination, Golovnaya 240 Megawatt Hydropower Plant Rehabilitation Project, Tajikistan. http://www.adb.org/sites/default/files/project-document/78683/46418-001-taj-iee-01.pdf

[3] For a detailed description, see for example: Tajikistan Ministry of Transport. 2013. *Initial Environmental Examination, [ADB] Improved Maternal and Child Health Through Connectivity Project [Tajikistan]*. http://adb.org/projects/documents/improved-maternal-and-child-health-through-connectivity-iee

35. A number of legal acts establish liability for violations of environmental laws and assign enforcement responsibility to various State bodies. In particular, the 1998 Code of Administrative Violations establishes administrative liability for organizations, their officers and individuals for a range of violations, from the careless treatment of land to violation of the rules for water use or water protection, or failure to comply with a State ecological expertise. The most common administrative sanction is a fine of up to 10 minimal monthly salaries for individuals, and up to 15 minimal salaries to officers of organizations. The 1998 Criminal Code covers crimes against ecological safety and the environment, such as violations of ecological safety at work, poaching, and spoiling land, and violation of rules for the protection and use of underground resources. The maximum fine is up to 2000 minimal monthly salaries and the maximum sentence is up to eight years in prison. EA enforcement and compliance are the main responsibility of Environmental Inspectors of the Committee for Environment.

**Environmental Standards**

36. Environmental standards are shown in Appendix 1 for emissions to the atmosphere, ambient air, water quality and discharges to water, and drinking water standards, plus selected GOST (Russian: ГОСТ) technical standards.[4]

**MOLME Design, Construction, and Environmental Management**

37. The MOLME Department of Construction is responsible for the rehabilitation and new construction of Ministry facilities, including *inter alia* TVET facilities. As directed by the Ministry, the Department contracts the Institution of Construction Planning to prepare construction designs; prepares cost estimates and bidding documents; and selects, contracts, and supervises construction contractors; these include an in-house MOLME construction organization.

38. The Department of Construction is not itself directly involved in environmental management. The Institution of Construction Planning is responsible for obtaining required environmental clearances. In the past, it has been the custom to exclude water and electricity supply arrangements from the scope of engineering designs. Contractors therefore have had the responsibility of making necessary arrangements to bring water and electricity on site and connecting it to the building.

## B. Tajikistan and ADB Assessment Categories

39. Tajikistan does not specify EA categorization criteria.

40. ADB classifies projects by the significance of their potential environmental impacts:

41. A project's category is determined by the category of its most environmentally sensitive component, including direct, indirect, cumulative, and induced impacts in the project's area of influence. Each proposed project is scrutinized as to its type, location, scale, and sensitivity and the magnitude of its potential environmental impacts. Projects are assigned to one of the following categories:

- *Category A*. A proposed project is classified as category A if it is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works. An environmental impact assessment is required.

[4] These are standards maintained by the Euro-Asian Council for Standardization, Metrology and Certification (EASC), a regional standards organization operating under the auspices of the Commonwealth of Independent States (CIS).

- *Category B*. A proposed project is classified as category B if its potential adverse environmental impacts are less adverse than those of category A projects. These impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed more readily than for category A projects. An initial environmental examination is required.
- *Category C*. A proposed project is classified as category C if it is likely to have minimal or no adverse environmental impacts. No environmental assessment is required although environmental implications need to be reviewed.[5]

## III. PROJECT DESCRIPTION

### A. Justification and Rationale for the Project

42. The Project supports the expansion of quality training of unskilled youth and adults to prepare them for skilled employment in Tajikistan and abroad through upgrading of the public TVET system. The upgraded system will train and empower individuals to move from unemployment and underemployment into higher-paying jobs, alleviating poverty by strengthening the livelihood opportunities of trainees and their families and increasing their ability to participate in national economic development.

43. After Tajikistan's devastating civil war ended in 1997, the political and social order stabilized and gross domestic product (GDP) grew relatively rapidly, by an average of 8.7 % per year during 2000-2008, falling to 4 % in 2009 during the global financial crisis, and then rebounding to an average of over 6 % per year during 2010-2012.

44. Despite this, in 2012 Tajikistan's poverty incidence remained at 38 %, the highest of all countries in the Central and West Asian region, notwithstanding the very significant decline in poverty from 81 % in 1999. Official unemployment has been low for the past decade, at 2.2 %, but under-employment is high, particularly in rural areas where much employment is seasonal. Every year, approximately 150,000 youth without employable skills enter the labor force, adding to the predominantly unskilled existing stock of labor. At the same time, numerous jobs in industry remain unfilled due to lack of qualified and skilled applicants. Remittances from workers employed abroad make a critical contribution to livelihoods and the national economy. Tajikistan is the most remittance-dependent among the developing countries, with approximately 750,000–800,000 Tajik workers working outside the country, over 90 % in Russia. The 2012 remittances of these workers were $3.6 billion, comprising 47 % of GDP.

45. The Project addresses a range of challenges faced by the public TVET system that provides most of Tajikistan's TVET training: outdated curriculum and learning materials; obsolete and inadequate equipment; dilapidated instructional buildings; unmaintained and damaged dormitories; low-paid teachers and masters without updated training; very limited staff development and succession planning; little or no linkage with industry; outdated approaches to school management; weak interagency coordination; and continuing underinvestment generally. A large number of graduates are produced each year, but the training does no impart to them the modern skills and qualifications in demand in the labor market.

[5] ADB. Safeguard Policy Statement, 2009. http://www.adb.org/sites/default/files/pub/2009/Safeguard-Policy-Statement-June2009.pdf

## B. Impact, Outcome, and Outputs

46. The impact of the Project will be a national workforce with an increased proportion of skilled workers employed in Tajikistan. The outcome will be a demand-driven, quality-assured, and flexible TVET system responsive to labor market needs.

47. The Project has four outputs as follows: (i) TVET system methodology modernized; (ii) physical learning facilities in selected TVET institutions upgraded; (iii) access to quality TVET programs improved; and (iv) governance and management of TVET system strengthened.

## C. Project Physical Activities

48. **Types of activities.** Project physical activities consist of (i) activities during the construction phase to produce the civil works outputs (Appendix 2), and (ii) activities during the operation phase when students and teachers utilize Project-provided equipment and rehabilitated/new school facilities to achieve the Project's training outputs.

49. **Construction phase activities.** A key rehabilitation activity with potentially significant adverse impact is the removal and disposal of asbestos-cement roofing sheets. This poses occupational and public health risks (Appendix 3) requiring special management. All other rehabilitation and new construction activities are anticipated to have minimal residual environmental impacts after routine construction housekeeping.

50. **Operation phase activities.** During operation, students, teachers, and staff will be utilizing Project-provided equipment and rehabilitated/new school facilities. Specific activities will include activities of daily living in dormitories (sleeping, hygiene and sanitation, storage of personal effects, etc.); eating, cooking, and storing food in canteen areas; learning in classrooms; hands-on training in workshops and laboratories using potentially hazardous materials, equipment, tools, and energy sources; and increased foot and vehicle traffic to, from, and within Project-assisted schools.

## D. Alternatives

### No-Action Alternative

51. The no-action alternative is defined as a decision not to undertake the proposed Project. The no-action alternative would result in the continued deterioration of the physical infrastructure of the selected TVET schools, and continued exposure of staff and students to those existing environmental hazards at these schools that Project civil works and environmental management would mitigate. All the positive benefits of the Project would be foregone.

52. The no-action alternative would result in avoidance of the Projects relatively minor, less than significant environmental impacts, such as noise and short-term air quality impacts during construction, and increased traffic near schools during operation.

### Site Alternatives

53. A total of 21 TVET lyceums and 7 ALCs were selected from the total TVET system of 63 lyceums (Appendix 4) and 30 ALCs (Appendix 5) for inclusion in the Project. These schools were selected through an analytical and consultative multi-criteria process that considered and integrated how well each school would perform in terms of (i) training for occupations in the national economic priority sectors and in occupations of high domestic and migrant employment demand; (ii) economic return on training investments; (iii) contribution to poverty alleviation;

(iv) geographic distribution among Tajikistan's regions; and (iv) acceptable environmental and resettlement outcomes. Selection of one or more alternative schools instead of those chosen for the Project therefore represents a risk of overall lower Project performance on these objectives.

# IV. DESCRIPTION OF THE ENVIRONMENT

## A. Physical Environment

### Topography and Geology

54. Geological conditions in Tajikistan are highly variable. This is due to the complexity of the geological structure, diversity of nature and properties of rocks, high seismic activity, a wide display of geological processes. The territory of Tajikistan is divided into following regions with different geological conditions:

- Chatkal-Kurama region is located on the north of the country – Sugd Province, there are high mountains dominated by intrusive and effusive-sedimentary Paleozoic sediments. The project districts include Matcha and B. Gafurov.
- Fergana region (Sugd Province) consists of ancient dissected plains and terraces. Project districts include Isfara and Kanibadam.
- Hissar-Alai region covers Central Tajikistan within the Turkestan, Zeravshan, Hissar and Karateghin ranges. These include Panjakent, Shakhristan, Istaravshan, Tursunzade and Shahrinav districts.
- South region includes Tajik depression, which brings together the broad foothill and intermountain basins, including following project districts: Rudaki, Javan, Nurek, Bohtar, Vakhsh, Farkhor, Vose, Muminabad. In the part of the Province Khatlon, where the pilot projects are located, the topography is mostly characterized by planes, undulating lands and foothills with moderate slopes and a weak inclination on the southwest side.
- North-eastern part of the Districts under the Republic subordination (DRS) include Peter the Great Ridge intermediate between the Tajik depression and Hissar-Alai region, where the project Tadzhikobad district is located.
- Northern-Pamirian region includes the south-western part of Darvoz Ridge where project Tavildara district is located.
- Pamir region (GBAO) is represented by the Western Pamirian mountains, which is characterized by a large length of canyons and ridges and narrow valleys. The low lands of the Vanj valley are moderately sloping changing gradually into relatively steep, to very steep, mountain flanks. The valley bottom offers the possibility to cultivate grains, orchards, vegetables and fodder, sloping moderately to rolling foothills with mainly pasture, intersected by adjacent narrow valleys with steep, to very steep, mountain flanks. There are two proposed districts where projects will be implemented: Vanj and Shugnan.

55. Figure 1 shows the locations of the schools to be rehabilitated under the Project.

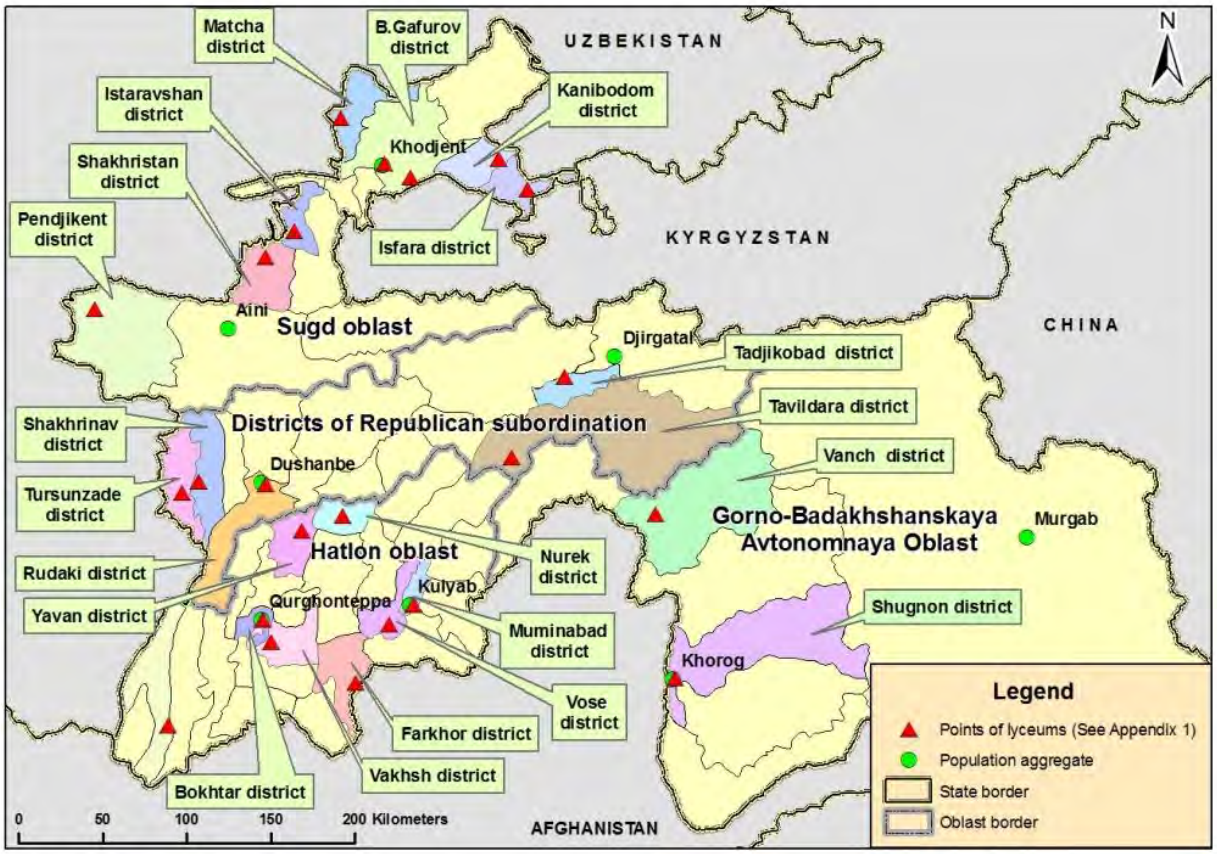


*Figure 1: Locations of schools selected for the Project*

**Soils**

56. As a typical alpine country, Tajikistan has vertical variability of soil cover. Three major vertical belts of soil distribution can be found here:

- Grey soils of valleys and idle fields;
- Brown soils of middle belts of mountains; and
- Soils of highlands

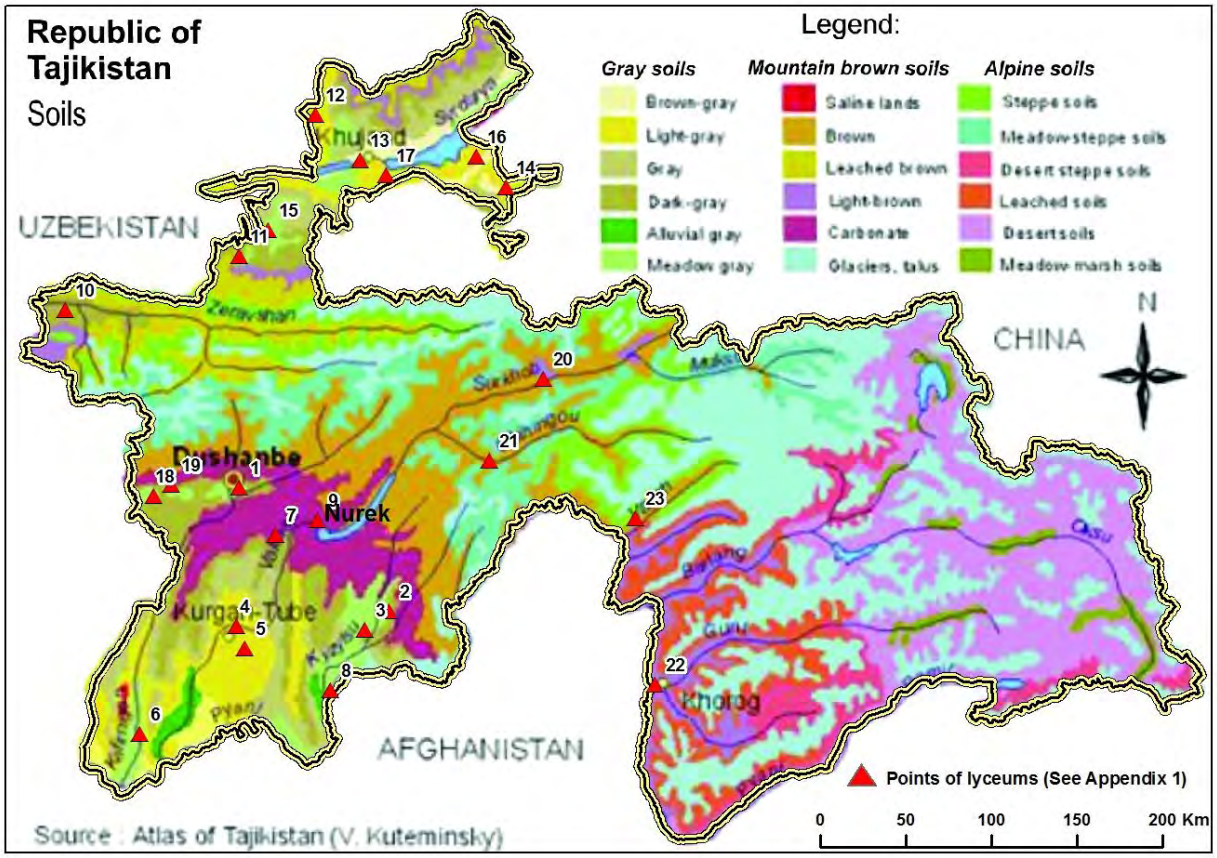


*Figure 2: Soil types*

57. The following soil types can be observed in districts of the selected schools (Figure 2):[6]

- Sughd Region – plains and mainly gray soils (gray-brown, light, ordinary and dark) in Panjakent, Shahriston, Mastchoh, Khujand, Isfara, Istaravshan, Konibodom, Bobojon Gafurov

[6] In Figures 2 and __, the locations of Project schools are numbered as follows:

1. Dushanbe

*Khatlon Region*
2. Kulob
3. Vose
4. Qurghonteppa
5. Vakhsh
6. Shahrtuz
7. Yovon
8. Farkhor
9. Norak

Sughd Region
10. Panjakent
11. Shahriston
12. Mastchoh

*Sughd Region (cont'd)*
13. Khujand
14. Isfara
15. Istaravshan
16. Konibodom
17. Bobojon Gafurov

*Districts of Republican Subordination*
18. Tursunzoda
19. Shahrinaw
20. Tojikobod
21. Tavildara

*Gorno-Badahshan Autonomous Region (GBAO)*
22. Shugnon
23. Vanj

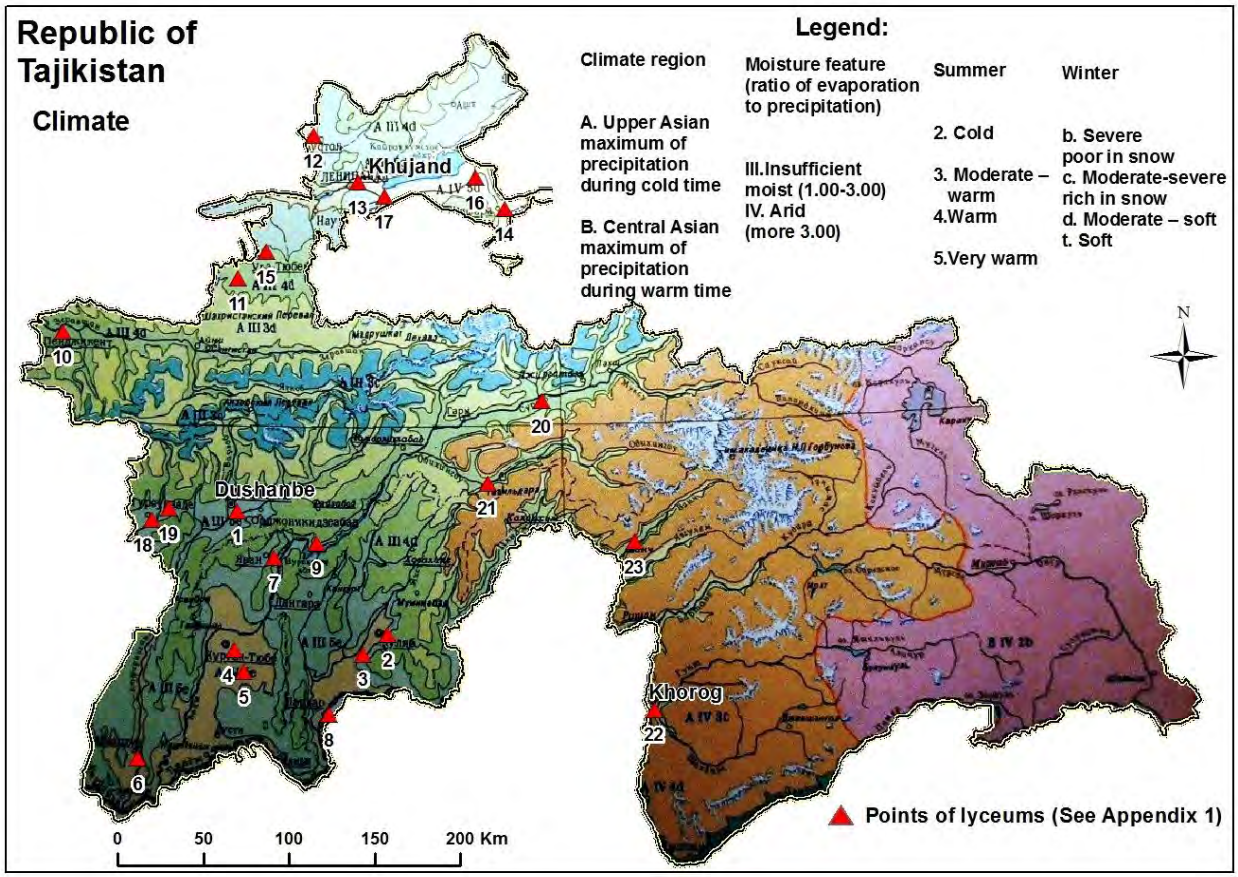


*Figure 3: Tajikistan climate regions*

- Khatlon Region – typically loess, loamy sands and loamy soils, occasionally bench gravel of the Upper Quaternary age, classically formed through wind deposition over arid or semi-arid areas. Soils are brown-gray, light gray, gray and light sierozem (Qurghonteppa, Vakhsh, Shahrtuz)
- Dushanbe and Districts of Republican Subordination – light-brown and carbonate (Shahrinaw, Dushanbe, Tursunzoda) and mountain brown (brown and alpine meadow-steppe) (Tojikobod and Tavildara)
- GBAO – Mountain brown soils prevail in highland patches (Vanj); desert soils (Shughnon).

**Climate**

58. Tajikistan is divided into three main major climate zones (Figure 3).

59. The geographical location of Tajikistan, without access to the sea, defines two features of its climate: sharply continental and arid. Extreme continental climate is expressed in large temperature fluctuations as during the year, and in the daily section.

60. Arid climate characterized by an almost complete lack of rain in the valley and foothill areas in the long summer months. The highest daily amplitudes of air temperature observed in August and September and 16-17ºC up in the valleys of Northern Tajikistan (which posted 5

selected schools of Sughd region) and 19-20ºC - in the valleys of central and southern Tajikistan (3 school in Zarafshan zone, 8 schools in Khatlon province and Dushanbe). In lowland areas of Tajikistan there are very high summer temperatures, and in the south of the country (Shahrituz disrtict) temperature can reach 48ºC. The project areas in Khatlon province are located in the arid and semi-arid zones with very low precipitations, hot dry summer climate and moderate as well as relatively dry winter periods. The Vanj district in GBAO is characterized by a continental climate with a sunny summer and a moderate winter, with temperatures ranging from -7.9$^{o}$C in January, to 19$^{o}$C to 22°C during the hottest months (June-August).

61. Climate types in the districts of the selected schools are:

- A III zone – Sufficient moisture (wet) climate zone
- A IV zone – Dry climate zone
- A IV 5d, 5e – Dry climate (very warm), typical for Shahrtuz, Qurghonteppa, Farkhor, Vakhsh, Vose, and Kulob in the south and for Isfara, Konibodom, Khujand, and Mastchoh in the north
- A IV 3c – Dry climate (moderate heat), typical for areas of GBAO eg Shughnon
- A III 5d, 5e – Lack of humidity and very warm, typical for Dushanbe, Yovon, Shakhrinaw, and Tursunzoda
- A III 4d – Insufficient moisture and warm - typical for Istaravshan, Panjakent, Tojikobod, Tavildara, and Vanj
- A III 3d – Relatively low humidity and moderate heat, typical for Shahriston

62. Figure 4 below illustrates precipitation levels in Tajikistan and clearly shows that the lowest amounts of rainfall are in the large river valleys, in the plains in the north and south west and in the very east of the country. The minimum amount of precipitation (50-200 mm / year) is characteristic for the south districts of Tajikistan (Shahrtuz, Vakhsh, Qurghonteppa), GBAO (Khorog, Vanj), and parts of northern Tajikistan. More rainfall (200-400mm / year) is observed in Dushanbe, the Districts of Republican Subordination (Tursunzoda, Shakhrinav, Tadzhikobod, Tavildara), and in some southern districts (Yovon, Norak, Kulob, Farkhor, Vose) and in Shahriston in the north.

**Water Resources**

63. Tajikistan is rich in water resources. High altitudes and mountainous terrains in the country resulted to the creation of a dense river network. Most of the rivers of Tajikistan lie within the Amu Darya basin, in the territory from Hissar Valley to the Eastern Pamir. The rest of the country lies within the Zarafshan basin and the Syr-Darya basin (Figure 5). Most of the rivers in the Amu Darya basin rivers, and the Isfara river of the Syr-Darya basin, are of glacier-snow fed type, and their maximum flow occurs in July-August. The Kafirnigan, Varzob, Khanaka rivers in the Districts of Republican Subordination are of snow-glacier fed type, and their maximum flow occurs in May-June. Figure 6 shows Tajikistan’s river network.

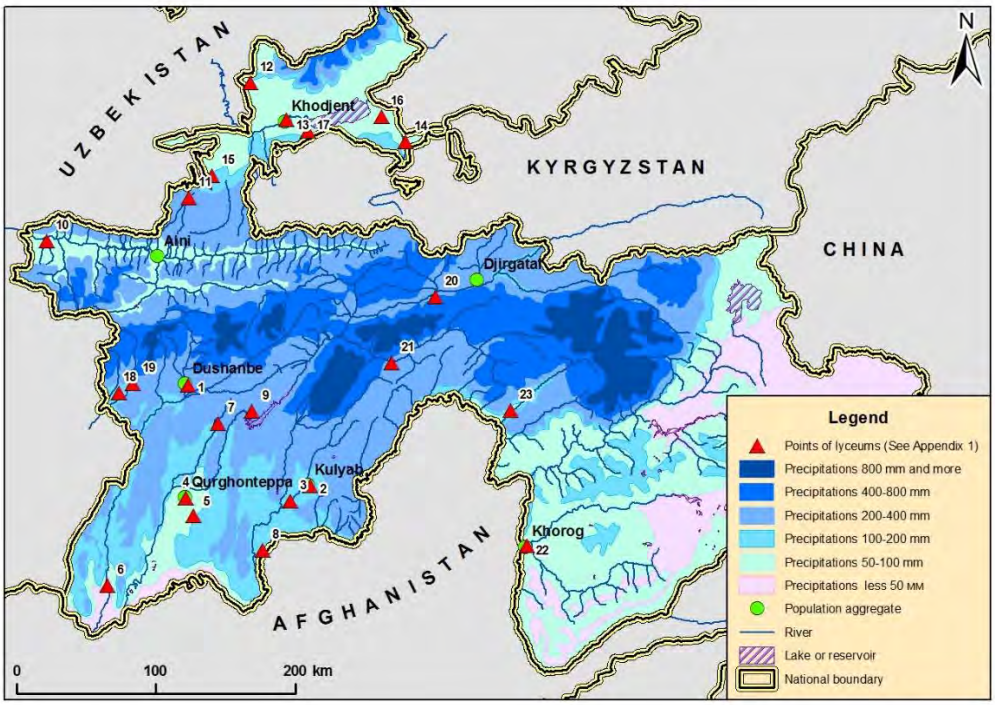


*Figure 4: Tajikistan precipitation map*

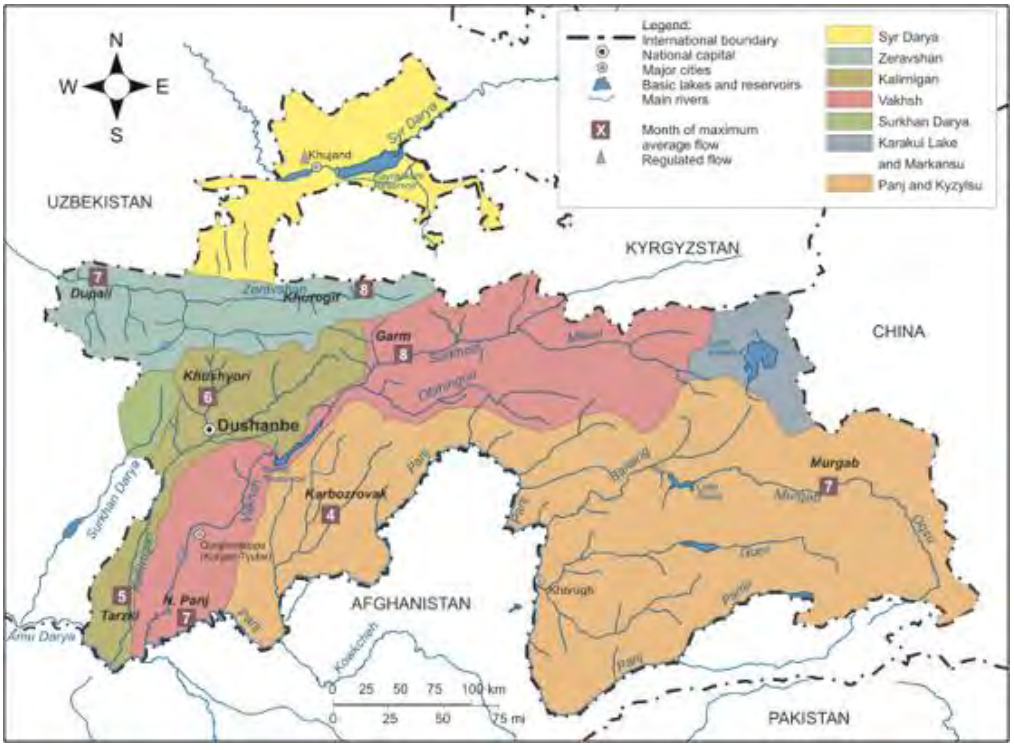


*Figure 5: River basins of Tajikistan*[7]

[7] Source: Environmental Performance Review, Tajikistan. UN, 2004

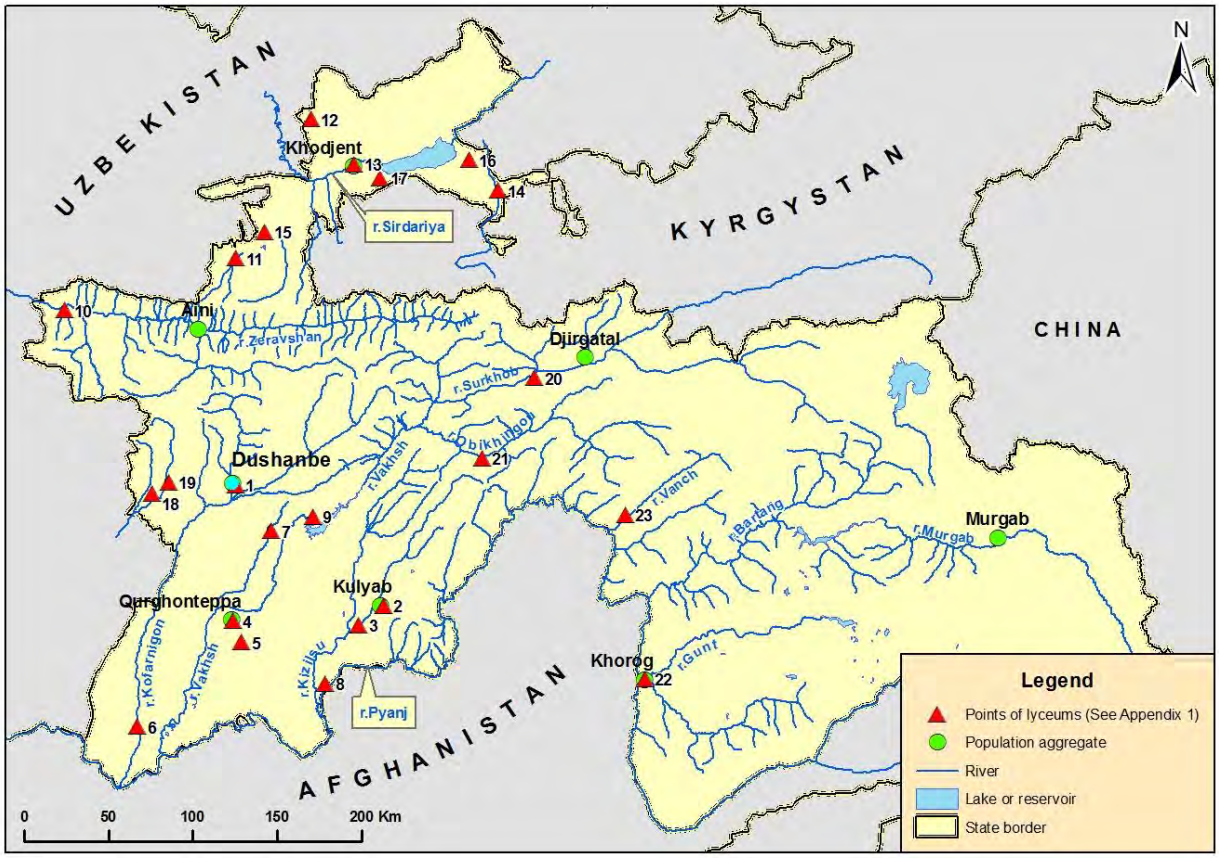


*Figure 6. Tajikistan river network*

## Seismicity

64. Tajikistan is the country of intense tectonic movements and high seismicity. Earthquakes are dependent on many factors: geotechnical conditions, the nature of the soil, the presence of groundwater, landforms, etc.

65. Figure 7 shows three major seismic zones in Tajikistan with 7, 8 and 9 degree seismic intensity on the MSK-64 scale. In each of these zones, earthquakes at the mentioned level are possible.[8] Most southern districts are in seismic zone 7 and 8. Northern districts are in zone 8 except for Mastchoh district in zone 7. Dushanbe, the Districts of Republican Subordination, and GBAO are in zone 9.

[8] This normative map of seismic zoning was compiled in 1978 by A.M. Babayev, T.A. Kinyapina, K.M. Mirzoev, R.S. Mikhailova and G.V. Koshlakov under the guidance of S.Kh. Negmatullaev

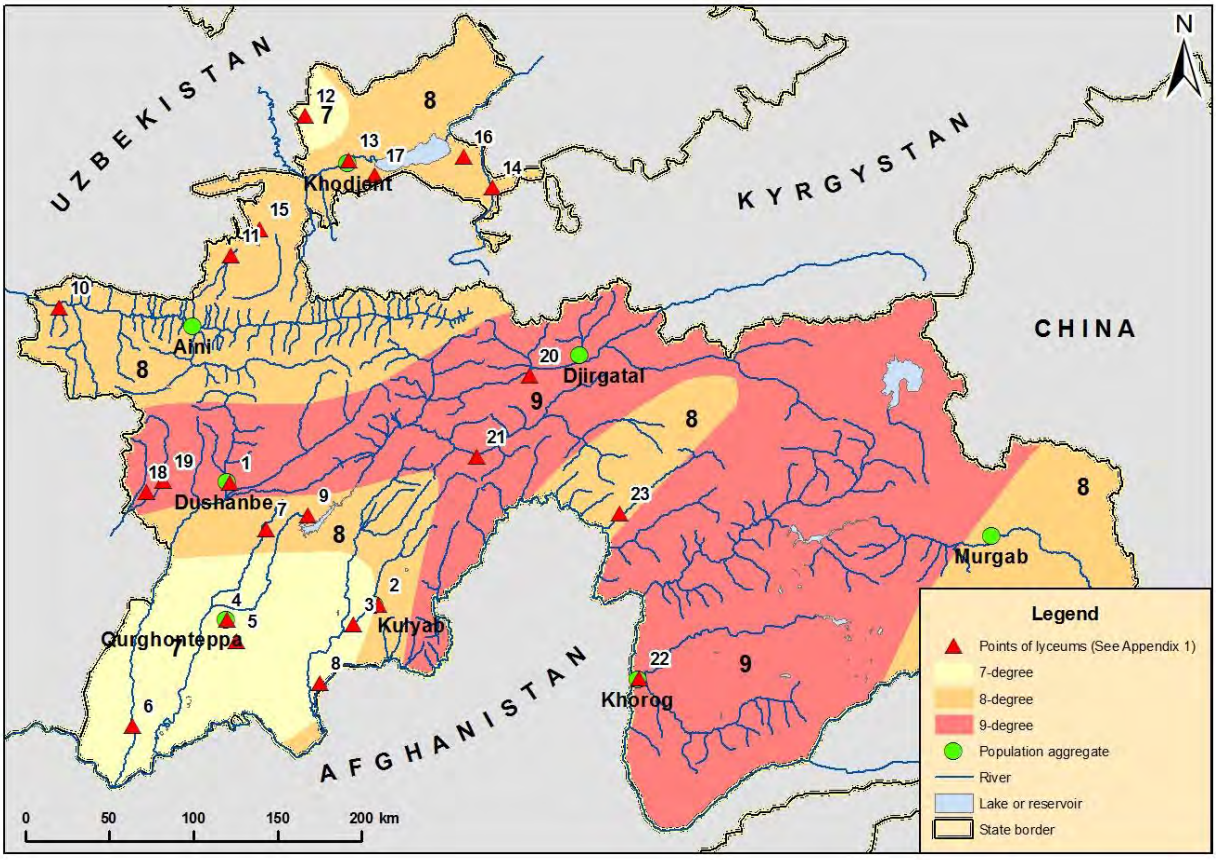


*Figure 7: Tajikistan seismic zones*

**Air Quality**

66. The problem of air quality is one of the basic ecological issues of industrial and urbanized areas in Tajikistan. The main stationary sources of air pollution in Tajikistan are mining, metallurgy, chemical industries, building, mechanical processing, light industries, heat and power generation and agriculture. However, in general no industrial stationary sources of atmospheric air pollution are ocated within the sub-project cities.

67. In 2005, the share of motor transport emissions was 170,300 tons or 83 % of the total amount of pollutants released into the atmosphere. Motor transport is the main source of substances accumulating in the atmospheric surface layer. Products of fuel combustion are released to the atmosphere and generate smog. Outdated vehicles with increased toxic gas emissions comprise 30 to 40 % of the total number of road transport. The exhaust emissions include about 200 chemical components and dangerous substances: carbon monoxide, nitrogen oxide, hydrocarbons, lead, etc. Typically, a vehicle with an internal combustion engine using 1,000 litres of fuel emits about 200 kilograms of carbon monoxide, 20 kilograms of nitrous oxides, 1 kilogram of ash and solid particles, and 200 to 400 grams of lead components. In urban conditions, emissions from road transport potentially rise because of frequent changes in operation mode and traffic jams.

68. Illegal burning of leafage, street litter and household wastes contributes to the pollution of urban atmospheric air. It is dangerous as leaves absorb harmful elements and heavy metals,

such as lead, while household wastes contain rubber, plastic and other organic substances that emit 40 harmful and toxic components when burning.

69. The emissions of harmful substances into the atmospheric air potentially affect many natural and societal objects not depending on the pollution source and distance. As a result of air pollution, cultural values, vulnerable ecosystems, agricultural lands and population might be damaged.

## B. Ecological Resources

70. While Tajikistan is home to a wide diversity of animals, birds, vegetation, and habitats, biodiversity in the Project areas is low as schools are located in urbanized areas. No important, rare, endangered, or protected species or critical habitats are found in potentially Project-affected areas.

71. Urban vegetation includes ornamental trees and shrubs (eg plane, sycamore, elm, ligustigum, maple, poplar, pine, mictobiota spp., cedar, Chinese rose, Russian silverberry) and orchard/garden fruit-bearing species (eg mulberry, apple, fig, apricot, cherry, walnut, pomegranate, grape, Pontic hawthorn, Albert's pearl bush, and dog rose).

## C. Social and Economic Conditions

### Demographics

72. Tajikistan has a population of 8.3 million people with a large number of the people living in rural areas. The level of poverty is quite high in the rural areas: in 2009, the poverty headcount ratio living on US$ 1.25 per day was 6.6 % as determined by the World Bank's atlas method; for the same year, the UNDP Human Development report reported 22 %. Poverty is multidimensional as it touches the three sectors of education, health, and living standards, implying that there is severe deprivation in these three dimensions.

73. With regard to gender, females with secondary education are at least at 93.2 % compared to males at 85.8 %, at the national level for those 25 years and older. In the Project areas the situation is reversed, with female education levels lower than male education levels, and the male education level lower than the national level, reflecting the more limited education facilities in remote areas, particularly beyond the primary level.

### Economic Characteristics of Project Districts and Cities

74. Agriculture is the main economic activity in the region. The main crops and agricultural products are cotton, cereals, oilseed, potatoes, carrots, onions, cucumbers, cabbage, melons, vines, milk, wool, honey and eggs. Orchards (grown in yards) are also an important part of the economy. These include apples, peaches, apricots, almonds, pears, pomegranates, mulberries and walnuts. Cotton is a profitable cash crop but it is controversial. It involves high levels of irrigation and chemicals while many local farmers receive little profit from its sale (compared to middle men and dealers).

75. The irrigation infrastructure, inherited at the end of the Soviet era, has suffered from a lack of investment in routine maintenance. This has led to a progressive loss of cultivable land and damage to embankments, intakes and canals. So-called 'futures' contracts for cotton production effectively indebt the farming community and limit their disposable income. Therefore rural household incomes in the project area are generally below the Tajikistan average.

76. Table 1 below shows the area of the cities and districts, number of population and the main economy indicators in the selected regions and cities: the sown area of crops production in the main categories, livestock and poultry production.

*Table 1: Economic data of Project districts and cities*

| Name of city or district | Area, '000 km² | Population, '000 persons | Economic facilities |
|---|---|---|---|
| Dushanbe (city) | 0.1 | 776 | • Sown area, all crops, all categories of farms – 174 ha<br>• Crop prod'n (tonnes): grain 11, cotton NA, potato 100<br>• Livestock and poultry production (tones) – NA |
| **Khatlon Region** | | | |
| Kulob (city) | 0.0 | 100 | • Sown area, all crops, all categories of farms – 10729 ha<br>• Crop prod'n (tonnes): grain 20417, cotton 8132, potato 7866<br>• Livestock and poultry production (tones) – 2959 |
| Vose | 0.8 | 191 | • Sown area, all crops, all categories of farms – 33044 ha<br>• Crop prod'n (tonnes): grain 74886, cotton 20700, potato 11565<br>• Livestock and poultry production (tonnes) – 3218 |
| Qurghontepa (city) | 0.0 | 102 | • Sown area, all crops, all categories of farms – 1195 ha<br>• Crop prod'n (tonnes): grain – 1756, cotton – 735, potato - 1510<br>• Livestock and poultry production (tones) – 50 |
| Vakhsh | 1.0 | 172 | • Sown area, all crops, all categories of farms – 23278 ha<br>• Crop prod'n (tonnes): grain 44248, cotton 22350, potato 17745<br>• Livestock and poultry production (tones) – 7301 |
| Shahrtuz | 1.5 | 111 | • Sown area, all crops, all categories of farms – 12985 ha<br>• Crop prod'n (tonnes): grain 31472, cotton 11191, potato 11533<br>• Livestock and poultry production (tones) – 4274 |
| Yovon | 0.9 | 198 | • Sown area, all crops, all categories of farms – 31704 ha<br>• Crop prod'n (tonnes): grain 54688, cotton 28121, potato 12843<br>• Livestock and poultry production (tones) – 4842 |
| Farkhor | 1.2 | 148 | • Sown area, all crops, all categories of farms – 28722 ha<br>• Crop prod'n (tonnes): grain 67227, cotton 22341, potato 17654<br>• Livestock and poultry production (tones) – 6145 |
| Norak (city) | 0.0 | 27 | • Sown area, all crops, all categories of farms – 1186 ha<br>• Crop prod'n (tonnes): grain 1494, cotton NA, potato 575<br>• Livestock and poultry production (tones) – 997 |
| **Sugd region** | | | |
| Panjikent city | 3,7 | 40,0 | • Sown area, all crops, all categories of farms – 25776 ha<br>• Crop prod'n (tonnes): grain 42185, cotton NA, potato 100009<br>• Livestock and poultry production (tones) – 3756 |
| Shahriston district | 1,1 | 37,5 | • Sown area, all crops, all categories of farms – 16707 ha<br>• Crop prod'n (tonnes): grain 31588, cotton NA, potato 34222<br>• Livestock and poultry production (tones) – 754 |
| Mastchoh district | 1,0 | 110,3 | • Sown area, all crops, all categories of farms – 24204 ha<br>• Crop prod'n (tonnes): grain 6374, cotton 25121, potato 2090<br>• Livestock and poultry production (tones) – 2559 |
| Khodjand city | 0,0 | 167,7 | • Sown area, all crops, all categories of farms – 24 ha<br>• Crop prod'n (tonnes): grain 24, cotton NA, potato NA<br>• Livestock and poultry production (tones) – 121 |
| Isfara city | 0,8 | 45,9 | • Sown area, all crops, all categories of farms – 7082 ha<br>• Crop prod'n (tonnes): grain 14882, cotton 136, potato 12963<br>• Livestock and poultry production (tones) – 2435 |
| Istaravshan city | 0,7 | 58,5 | • Sown area, all crops, all categories of farms – 29000 ha<br>• Crop prod'n (tonnes): grain 33243, cotton 147, potato 44008<br>• Livestock and poultry production (tones) – 3709 |
| Konibodom city | 0,0 | 48,9 | • Sown area, all crops, all categories of farms – 12997 ha<br>• Crop prod'n (tonnes): grain 6115, cotton 11776, potato 4516 |

| Name of city or district | Area, '000 km² | Population, '000 persons | Economic facilities |
|---|---|---|---|
| | | | • Livestock and poultry production (tones) – 1844 |
| Bobojon Gafurov city | 2,7 | 339,8 | • Sown area, all crops, all categories of farms – 29367 ha<br>• Crop prod'n (tonnes): grain 25712, cotton 16401, potato 9943<br>• Livestock and poultry production (tones) – 6271 |
| **Districts of Republican subordination (DRS)** | | | |
| Tursunzoda city | 0,0 | 50,9 | • Sown area, all crops, all categories of farms – 22518 ha<br>• Crop prod'n (tonnes): grain 41295, cotton 4571, potato 9908<br>• Livestock and poultry production (tones) – 5365 |
| Shahrinav district | 1,0 | 105,2 | • Sown area, all crops, all categories of farms – 12842 ha<br>• Crop prod'n (tonnes): grain 19449, cotton 1347, potato 5101<br>• Livestock and poultry production (tones) – 1604 |
| Tojikobod city | 0,7 | 40,3 | • Sown area, all crops, all categories of farms – 5145 ha<br>• Crop prod'n (tonnes): grain 5294, cotton NA, potato 29575<br>• Livestock and poultry production (tones) – 1590 |
| Tavildara city | 6,0 | 20,7 | • Sown area, all crops, all categories of farms – 2809 ha<br>• Crop prod'n (tonnes): grain – 5164, cotton – NA, potato 16052<br>• Livestock and poultry production (tones) – 1071 |
| **Districts of Gorno-Badakhshan Autonomous Province (GBAO)** | | | |
| Shugnon district | 4,6 | 35,4 | • Sown area, all crops, all categories of farms – 2150 ha<br>• Crop prod'n (tonnes): grain 2008, cotton NA, potato 12878<br>• Livestock and poultry production (tones) – 1324 |
| Vanj district | 4,4 | 31,7 | • Sown area, all crops, all categories of farms – 1602 ha<br>• Crop prod'n (tonnes): grain 2440, cotton NA, potato 13577<br>• Livestock and poultry production (tones) –2280 |

Source: TajStat, 2013

### Health

77. Indicators such as infant and maternal mortality rates are among the highest of the former Soviet republics. In the post-Soviet era, life expectancy has decreased as a result of poor nutrition, polluted water supplies, and increased incidence of cholera, malaria, tuberculosis, and typhoid. The leading causes of death are cardiovascular diseases, respiratory disorders, and infectious and parasitic diseases. The health care system has deteriorated badly and receives insufficient funding and sanitation and water supply systems are in declining condition. This has resulted in a high risk of epidemic disease.

78. Health facilities in the selected region include the follow indicators: number of doctors, nursing staff and units of hospital. These indicators are important to obtain information on the health of the population.

79. Table 2 provides data on health facilities in Project districts and cities.

### Education

80. School attendance is mandatory between the ages of 7 and 17, but many children fail to attend because of economic needs and, in some regions, security concerns. Tajikistan's education system suffers from a depleted infrastructure and an acute shortage of teachers at all levels. This will become more acute because of the relatively high birth-rate. The official literacy rate is 98 %%, but the poor quality of education since 1991 has reduced skills in the younger generations.

81. Table 2 provides data on education facilities in Project districts and cities.

*Table 2: Education and health statistics in selected sub-project areas*

| Districts | Health Facilities | Education Facilities |
|---|---|---|
| Dushanbe city | Doctors (persons) - 5982<br>Nursing staff (persons) - 6122<br>Hospitals (units) - 5486 | Schools (units) - 136<br>Teachers (thousand) - 7,2 |
| **Hatlon Region** | | |
| Kulob city | Doctors (persons) - 384<br>Nursing staff (persons) - 1811<br>Hospitals (units) - 1403 | Schools (units) - 54<br>Teachers (thousand) - 1,8 |
| Vose district | Doctors (persons) - 139<br>Nursing staff (persons) - 910<br>Hospitals (units) -366 | Schools (units) - 72<br>Teachers (thousand) - 1,9 |
| Qurghonteppa city | Doctors (persons) - 437<br>Nursing staff (persons) - 973<br>Hospitals (units) -1185 | Schools (units) - 20<br>Teachers (thousand) - 1,0 |
| Vakhsh district | Doctors (persons) - 112<br>Nursing staff (persons) - 490<br>Hospitals (units) - 465 | Schools (units) - 61<br>Teachers (thousand) - 1,8 |
| Shahrtuz district | Doctors (persons) - 110<br>Nursing staff (persons) - 402<br>Hospitals (units) - 435 | Schools (units) - 55<br>Teachers (thousand) - 0,7 |
| Yovon district | Doctors (persons) - 162<br>Nursing staff (persons) - 557<br>Hospitals (units) - 740 | Schools (units) - 79<br>Teachers (thousand) - 0,5 |
| Farkhor district | Doctors (persons) - 166<br>Nursing staff (persons) - 562<br>Hospitals (units) - 531 | Schools (units) - 69<br>Teachers (thousand) - 0,5 |
| Norak city | Doctors (persons) - 69<br>Nursing staff (persons) - 268<br>Hospitals (units) - 221 | Schools (units) - 30<br>Teachers (thousand) - 2,3 |
| **Sugd region** | | |
| Panjikent city | Doctors (persons) - 368<br>Nursing staff (persons) - 1235<br>Hospitals (units) - 1295 | Schools (units) - 134<br>Teachers (thousand) - 2,9 |
| Shahriston district | Doctors (persons) - 48<br>Nursing staff (persons) - 229<br>Hospitals (units) - 165 | Schools (units) - 20<br>Teachers (thousand) - 0,5 |
| Mastchoh district | Doctors (persons) - 161<br>Nursing staff (persons) - 394<br>Hospitals (units) - 100 | Schools (units) - 45<br>Teachers (thousand) - 1,4 |
| Khujand city | Doctors (persons) - 1359<br>Nursing staff (persons) - 2494<br>Hospitals (units) - 4333 | Schools (units) - 48<br>Teachers (thousand) - 2,1 |
| Isfara city | Doctors (persons) - 462<br>Nursing staff (persons) - 1451<br>Hospitals (units) - 1042 | Schools (units) - 83<br>Teachers (thousand) - 3,2 |
| Istaravshan city | Doctors (persons) - 364<br>Nursing staff (persons) - 1149<br>Hospitals (units) - 1182 | Schools (units) - 72<br>Teachers (thousand) - 4,1 |
| Konibodom city | Doctors (persons) - 324<br>Nursing staff (persons) - 1318<br>Hospitals (units) - 877 | Schools (units) - 56<br>Teachers (thousand) - 2,3 |
| Bobojon Gafurov city | Doctors (persons) - 401<br>Nursing staff (persons) - 1427<br>Hospitals (units) - 1078 | Schools (units) - 91<br>Teachers (thousand) - 0,7 |
| **Districts of Republican Subordination** | | |
| Tursunzoda city | Doctors (persons) - 498<br>Nursing staff (persons) - 1264<br>Hospitals (units) - 785 | Schools (units) - 124<br>Teachers (thousand) - 3,8 |
| Shahrinaw district | Doctors (persons) - 145 | Schools (units) - 55 |

| Districts | Health Facilities | Education Facilities |
|---|---|---|
| | Nursing staff (persons) - 470<br>Hospitals (units) - 209 | Teachers (thousand) - 1,5 |
| Tojikobod city | Doctors (persons) - 47<br>Nursing staff (persons) - 143<br>Hospitals (units) - 175 | Schools (units) - 43<br>Teachers (thousand) - 0,5 |
| Tavildara city | Doctors (persons) - 26<br>Nursing staff (persons) - 74<br>Hospitals (units) - 120 | Schools (units) - 59<br>Teachers (thousand) - 0,4 |
| **Districts of GBAO** | | |
| Shugnon district | Doctors (persons) - 29<br>Nursing staff (persons) - 191<br>Hospitals (units) - 185 | Schools (units) - 55<br>Teachers (thousand) - 0,9 |
| Vanj district | Doctors (persons) - 44<br>Nursing staff (persons) - 197<br>Hospitals (units) - 158 | Schools (units) - 50<br>Teachers (thousand) - 0,8 |

Source: National Statistics Committee of the Republic of Tajikistan. 2013

## Gender

82. Gender roles in Tajikistan remain influenced by conditions dating back to Persian and Bukharan rule. During the presence of Soviet state in Tajikistan, some attempts were made to launch a campaign for women's equality. Despite initial opposition by traditional Islamic values-oriented local communities, the campaign had a degree of successful. This was partly achieved by raising women employment during the World War II as female population compensated for the shortage of labour force. Another important factor of on-going women empowerment was encouraging a more active role of female population in social life of the republic.

83. However, with the fall of Soviet Union the problem was unveiled again in 1990s as the popularity of Islamic political forces had grown dramatically during the period of Civil War which ended in 1997. This entailed a prominent raise in reconsideration of family values, which implied, for the most part, a return to traditional Islamic norms and practices in family matters.

84. Due to the traditional customs and societal structures, the role of women is rather weak in Tajikistan. The main gender-related issues being observed in the country are as follows:

- Constraints on access to
  - land
  - credit
  - education
  - health care
  - business opportunities
- Unawareness of their economic and legal rights
- Need for elimination of domestic violence
- Discrimination towards women living with HIV.

85. On the one hand, recently there is a remarkable change being observed in the field of gender relations in Tajikistan. The topic of gender equality is now recognized by the government as one of the most pressing issues and is introduced on the policy-level, namely in the national development and poverty reduction strategies[9]. Two significant instruments to deal with the issues were adopted, such as the Government's National Plan of Action to Improve Women's Position in Society and the State Program on Basic Directions of the State Policy on Providing Equal Rights and Opportunities for Women and Men in the Republic of Tajikistan for 2001–

[9]United Nation Economic Commission for Europe "Country profiles on the housing sector: Tajikistan", 2011

2010. The actions and activities concerning gender issues were coordinated by State Committee on Women's and Family Affairs.

86. Besides, the challenges of gender equality were addressed by some of the international organizations which are active in Tajikistan. One of the most eminent projects was held by the United Nations Development Fund for Women (UNIFEM) and facilitated the broadening of economic opportunities for women living in rural conditions in the context of the State land reform. As a result of this project, seven out of 11 recommendations by UNIFEM were approved by the government and included into the State Program on Basic Directions of the State Policy on Providing Equal Rights and Opportunities for Women and Men in the Republic of Tajikistan for 2001–2010[10]. These recent measures have resulted in a significant increase of women owning family farms proportion: from 2 % in 2002 to 14 % in 2008.

87. There are, however, various challenges faced by female population in rural areas. Overall, women are more likely to meet barriers while accessing land facilities. They also have limited access to legal assistance and economic information. Women in rural areas tend to have lower educational level than those living in urban areas. In general, the number of dehkan farms led by women rose from 2,695 to 5,450 between 2004 and 2010.[11] On the other hand, their proportion had fallen from 13.9% to 10.6% over the same period.

88. Women are generally underrepresented in decision-making processes at all levels of political institutions. In 2012, female representation in all branches of power was less than 30 %. The 2004 fatwa (religious edict) of the Council of Ulema prohibiting women from praying in mosques was still in effect as of 2012. According to World Bank, women and men have equal ownership rights to property; however, in practice women owned significantly less property than men. Besides, extensive number of male migrant workers from Tajikistan to Russia exacerbated economic pressures on women, who were left to earn for living alone until their husbands manage to make remittance payments.

## V. ANTICIPATED IMPACTS AND MITIGATION MEASURES

### A. Safeguards Issues at Existing Facilities[12]

89. Existing TVET facilities slated for rehabilitation have numerous significant safeguards noncompliance issues related to public health and safety: unsanitary open pit toilets lacking hand washing facilities; canteens lacking safe food handling and storage facilities; unsafe space heating units; exposed / worn electrical wiring, sometimes in damp walls; unregulated open garbage dumps and garbage burning on school grounds; and lighting, air quality, noise, and ventilation issues (see Section BVI. B, Public Consultation). Also apparent at TVET schools are energy and water provisioning inadequate to sustain a safe school environment, either because urban grid utility supplies to schools are of inadequate quantity and/or quality, or, for off-grid schools, site-based energy generation and water supply and purification systems are inadequate.

10 Viloyat Mirzoeva "Gender issues in land reform in Tajikistan", Economics and rural development, Vol. 5, No. 2, 2009

11 "In Tajikistan, 'dehkan farms' are midsized peasant farms that are legally and physically distinct from household plots…[regulated under] Law No. 48 on Dehkan Farms, dating from 2002. Dehkan farms cultivate more than 60% of agricultural land in Tajikistan, averaging about 20 hectares in size (compared to less than 2 hectares in household plots). Dehkan farms concentrate in crop production (cotton, wheat, and vegetables) and their share of livestock is minimal." Wikipedia http://en.wikipedia.org/wiki/Dehkan_farm retrieved 12 Mar 2015.

12 See Appendix 4, Sec. F Existing Facilities, para. 12ff, in ADB (2009), and Sec. D.2.3 Existing Facilities, para. 53, in ADB (2013).

90. The physical rehabilitation activities under the project (as shown in Appendix 2) are targeted at mitigating those impacts. Specifically it concerns (i) appropriate toilet and canteen facilities, (ii) safe heating and wiring; (iii) site-appropriate primary and back-up energy and water sources, and (iv) site-appropriate technologies for lighting, heating, water storage, water distribution, toilets, and sanitary and solid waste disposal.

## B. Impacts and Mitigation Measures during Construction

91. The environmental management plan (EMP) is presented in Appendix 6. EMP and monitoring costs appear in Appendix 7.

92. **Removal and disposal of existing asbestos-cement roofing materials from some existing TVET buildings.** To mitigate the occupational and public health risks of inhalation of airborne asbestos fibres, the Project will adhere to the applicable IFC (2007) guidelines for asbestos-containing materials (ACM):[13]

(i) ACM will not be used as a new material in rehabilitation works or new buildings.
(ii) Existing asbestos-cement roofing sheets will be removed and disposed of following the internationally-recognized *Standard Practice for Maintenance, Renovation and Repair of Installed Asbestos Cement Products* (American Society for Testing and Materials [ASTM] E 2394).[14]

93. **Construction-phase impacts of a routine nature.** Management of dust and sound, solid and liquid waste, etc. will be required during construction. Environmental management at each site will follow a construction environmental management plan (CEMP, Appendix 8). The CEMP will be included in the bidding documents for construction work, and each contractor will be required to prepare a contractor's environmental management plan showing how the required CEMP measures will be implemented at each school rehabilitation.

94. **Old equipment.** Old and out-of-order equipment and machinery in classrooms poses an increased occupational health and safety risk, and occupy space. Also obsolete machinery can cause contamination of soils due to leakage of oil, petrol, transmission and brake fluids, battery acids, etc. On the other hand, metal scrap can be considered as a useful resource of ferrous and non-ferrous metals if recycled. Therefore, it is recommended that lyceums and ALCs develop a recycling program that will be implemented after new equipment will be delivered and installed.

## C. Environmental Impact and Mitigation Measures during Operation

95. Operation of rehabilitated facilities and new equipment will involve, for example, handling and disposal of liquid and solid waste (potentially including hazardous waste) associated with the rehabilitated workshops, new equipment, and new water and sanitary systems. The number of courses offered, the number of students enrolled, and the length of the operating day could

[13] International Finance Corporation. Environmental, Health, and Safety Guidelines, 2007. http://www1.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/ifc+sustainability/sustainability+framework/environmental%2C+health%2C+and+safety+guidelines/ehsguidelines

[14] ASTM International. ASTM E2394-11, Standard Practice for Maintenance, Renovation and Repair of Installed Asbestos Cement Products. West Conshohocken, PA, 2011. http://www.astm.org/Standards/E2394.htm. This standard describes work practices that protect worker and community health within the resources available in developing and industrialized countries. As much as possible it relies on readily-available tools, equipment, and supplies, and techniques that require careful and diligent workmanship but not the services of highly-skilled tradesmen. The standard is written for construction workers and tradesmen, for those involved in the preparation of contracts and tenders, and for government officials involved in developing regulations to protect worker and community health.

all increase and would be accompanied by more foot and vehicle traffic to, from, and within rehabilitated sites. Environmental management of these impacts will planned as part of the environmental assessment of each site, which will identify operation-phase activities, their impacts, and include an operation-phase EMP.

### D. Impacts of Market-Responsive and Inclusive Training Program

96. A preliminary identification of potential safeguard concerns for TVET training generally would include occupational health and safety issues (eg provision and wearing of appropriate protective clothing, eye protection; availability of first aid kits), handling and disposal of hazardous materials, noise from equipment, and maintaining access control of hazardous work areas, equipment, tools, and supplies. However, this is only very roughly indicative, as the potential impacts of Market-Responsive and Inclusive Training Program courses will depend on the type of training and training facilities (etc) offered by training providers.

## VI. INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

### A. Legislative Framework for Public Consultation

97. **Aarhus Convention.** International agreements ratified by or to which Tajikistan has acceded have the same force as national legislation (see above, Section 0), thus Tajikistan's legislative framework for public consultation includes the provisions of the Aarhus Convention.[15,16] The Convention has three pillars:

- *Access to environmental information*: Individuals have a right to information on the state of the environment, human health issues, and environmental policies and measures.
- *Public participation in environmental decision making*: Individuals have a right to participate decisions that may have environmental impacts, such as decisions related to planning and environmental licensing. Government agencies responsible for decisions are required to disclose information to the public, including information on participation. Submitted comments must be considered in the decision-making process. *Access to justice in environmental matters*: Individuals and environmental non-governmental organizations may seek reviews of decisions made that may affect the environment. Review procedures must be fair, equitable, timely and not prohibitively expensive, and provide adequate, effective remedies.[17]

98. **National legislation.** The Law on Environment Protection proclaims the right of citizens to live in a favorable environment and to be protected from negative environmental impacts (Article 12); and to have the right to environmental information and to participate in developing, adopting, and implementing decisions related to environmental impacts (Article 13), including through public discussion of drafts of environmentally important decisions and public ecological reviews. Public representative bodies must take into consideration citizens' comments and suggestions. Citizens have the right to conduct a Public Environmental Expertise (Article 7).

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[15] United Nations. n.d. Status of the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, Aarhus, Denmark, 25 June 1998. *Multilateral Treaties Deposited with the Secretary-General,* Chapter XXVII, p. 13. https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-13&chapter=27&lang=en

[16] Tajikistan acceded in 2001.

[17] Citizens Information Board. 2013. Provisions of Aarhus convention, http://www.citizensinformation.ie/en/environment/environmental_law/aarhus_convention.html

### B. Public Consultation

99. Public consultations were undertaken at locations in each of the country's regions, to which stakeholders of each of the Project schools were invited. In total approximately 465 people participated in public consultations including more than 400 from lyceums. The records of these consultations are provided in Appendix 9.

## VII. GRIEVANCE REDRESS MECHANISM

### A. Current Practice in Tajikistan

100. GRM practice is relatively new to Tajikistan. The IEEs of some previous ADB Tajikistan projects describe GRMs, but information is not readily available about how well these GRMs have worked in practice.

### B. Proposed Mechanism

**101. Construction-stage GRM.** Environmental conditions during construction are the responsibility of the contractor. To manage environmental damage risks, civil works contracts will oblige the Contractor to provide third-party insurance in the joint name of MOLME as the Employer. To make a claim, an affected person provides the detailed claim to the Contractor or MOLME Construction Department as soon as possible after the event; the Contractor/MOLME are obliged to notify the insurer, who contact the claimant to investigate causes, assess damages, and determine if the claim is justified. If part or the entire claim is denied, the Contractor or MOLME may accept liability, or the claimant may take legal action. Other environmental concerns may be raised with the Contractor or MOLME Construction Department. The Contractor and MOLME Construction Department will each maintain a registry available for public inspection, that documents each grievance received and all actions taken.

102. **Operation-stage GRM.** Environmental conditions at operational rehabilitated schools are the responsibility of each school's administration and of MOLME. At each rehabilitated school and at MOLME, one or more staff members will be assigned and appropriately trained to take responsibility for health, environment, and safety (HES) matters. At each school, the school and MOLME HES staff names and contact information will be posted in a central location, stating that they are responsible to receive and respond to HES concerns.

### C. Types of Grievances Expected and Eligibility Assessment

103. **Construction stage**. Expected grievances during construction include noise, dust, traffic, waste, and hazards affecting individuals (including construction workers) or their belongings on or near school property.

104. **Operation stage.** Expected grievances during operation include noise or environmental pollution caused by equipment malfunction; improper waste disposal; and hazards affecting individuals or their belongings on or near school property.

105. **Grievance eligibility assessment.** Expected grievances are straightforward in nature therefore no formal arrangements are needed to assess if grievances fall within the GRM mandate or if complainants have standing.

### D. GRM Procedure and Timeframe

106. Up to date information about GRM and GRM contacts will be posted at each school for the duration of construction and operation.

# VIII. ENVIRONMENTAL MANAGEMENT AND MONITORING PLANS

## A. Responsibilities for the EMP implementation

107. The construction contractors will be responsible for implementation on the EMP. The project implementation unit (PIU) will have the overall responsibility for supervising contractors environmental performance, coordinating the public consultations and project grievance redress mechanism (GRM), and reporting to ADB through the periodic project progress reports and annual environment monitoring reports. The PIU will assign an environmental and social safeguards officer (ESO) to supervise the implementation of the EMP. Among responsibilities of the ESO are: (i) reviewing and approval site-specific EMPs, (ii) monitoring of EMPs implementation, (iii) establishing the GRM, (iv) organizing of training in environmental management, and (v) updating the IEE (if necessary) as discussed below.

## B. Site-specific Environmental Management Plans

108. The Site-specific Environmental Management Plans (SEMPs) are based on the Environmental Management Plan attached as Attachment 6. They are prepared by the Contractor for each construction site. The SEMPs must be submitted by the Contractor to the PMU for approval at least 10 days before taking possession of any work site.

## C. Updated Initial Environmental Examination

109. The updated IEE is prepared to assess environmental impacts from the new lyceums and ALC in case if they will be included in the project scope after project's approval by ADB. The updated IEE will be based on this IEE. The responsibility for preparing the IEE rests with the Environmental and Social Safeguards Officer.

## D. Environmental Monitoring

110. Annual environmental monitoring reports (EMR template attached in the Project Administration Manual) will be prepared and submitted to ADB by the PIU within one month of the end of each period covered. The EMR will include a review of progress made on the implementation of the EMP, problems encountered and remedial measures taken. Periodic project progress reports will include a section on environmental and social aspects of the project.

111. Environmental Management and Monitoring Plans are attached in Appendix 6.

# IX. FINDINGS AND RECOMMENDATION

## A. Environmental Assessment Findings

112. The anticipated residual impacts of the Project after application of all mitigation measures are expected to be acceptable.

## B. Conclusion

113. No further environmental impact assessment is warranted, therefore this IEE becomes the final environmental assessment report.

## APPENDIX 1: ENVIRONMENTAL STANDARDS

### A. Emissions to the Atmosphere

| | National Standards / Requirements | Adopted Project Standard | | | Rationale |
|---|---|---|---|---|---|
| **General atmospheric pollutants** | Tajikistan standards for emissions where relevant TAJ standards exist | IFC Environmental, Health, and Safety General Guidelines (or IFC PS) | IFC Environmental, Health, and Safety Guidelines for Onshore Oil and Gas Development | | |
| **Emissions of ozone depleting substances** | No relevant numeric standard | No relevant numeric standard (*Although 'no new systems or processes should be installed using CFCs, halons, 1,1,1-trichloroethane, carbon tetrachloride, methyl bromide or HBFCs'*) | No relevant numeric standard. | Consistent with applicable international conventions apply the principle that the will be no utilisation of ozone depleting substances (halons, PCBs, CFCs, HCFCs) and IFC | Good practice |
| **GHG emissions** | No relevant numeric standard | | No relevant numeric standard | Numeric standards do not apply.<br><br>GHG will be quantified and reported annually if >25,000 tonnes $CO_2$ equivalent per year are expected (as per IFC PS3, 2012) | Most relevant |

### B. Environmental Standards for Ambient Air

| Tajikistan standards[18] (mg/m$^3$) | | IFC/World Bank | IFC EHS GL | Adopted Project Standard (mg/m$^3$) | | Rationale |
|---|---|---|---|---|---|---|
| PM 0.15<br>NO 0.06, $NO_2$ 0.04<br>$SO_2$ 0.05<br>Ammonia 0.06<br>Benzopyrene 0.1<br>Benzene 0.1<br>Acetone 0.35<br>Petrol 1.5<br>$V_2O_5$ 0.002<br>Vinyl acetate 0.15 | $SiO_2$ = 70 % - 20 % 0.1<br>$SiO_2$ < 20 % 0.15<br>Pb & compounds 0.0003<br>PbS 0.001<br>$H_2S$ 0.008<br>Turpentine 1<br>Ethanol 5.0<br>Butanol 0.1<br>Propanol) 0.3<br>Methanol 0.5<br>Styrene 0.003<br>Soot 0.05 | Where set, national air quality standards apply. If no national standards are set then apply WHO standards<br>WHO guidelines, µg/m$^3$:<br>$PM_{2.5}$ 10 (1 | Emission concentrations as per General EHS Guidelines, and:<br>$H_2S$: 5 mg/Nm$^3$ | PM 0.15<br>NO 0.06<br>$NO_2$ 0.04<br>$SO_2$ 0.05<br>CO 3.00<br>Ammonia 0.06<br>Benzopyrene 0.1<br>Benzene 0.1<br>Acetone 0.35<br>Petrol 1.5<br>$V_2O_5$ 0.002<br>Vinyl acetate 0.15 | $SiO_2$ = 70 % - 20 % 0.1<br>$SiO_2$ < 20 % 0.15<br>Pb & its compounds 0.0003<br>PbS 0.001<br>$H_2S$ 0.008<br>Turpentine 1<br>Ethanol 5.0<br>Butanol 0.1<br>Propanol 0.3<br>Methanol 0.5 | Tajikstan standard supple-mented by WHO where needed to achieve most compre-hensive suite[19] |

[18] Annex 3 to Procedure of Environemntal Impact Assessment accepted by Resolution No 464 of the Government of the Republic of Tajikistan dated 3 october 2006

[19] The IFC cites WHO ambient air quality guidelines typically apply only in jurisdictions where there are no national standards in place.

| | | | | | | |
|---|---|---|---|---|---|---|
| HCl 0.2<br>HF 0.005<br>$Fe_2O_3$ 0.04<br>$HNO_3$ 0.4<br>$H_2SO_4$ 0.1<br>Xylol 0.2<br>Mn & its oxides 0.001<br>Copper oxides 0.002<br>Magnesia 0.05<br>Nickel oxide 0.001<br>Inorg dust ($SiO_2$ 70 %) 0.05 | CO 3.0<br>Phenol 0.01<br>Formaldehyde 0.003<br>Fluoride (HF, SiF4) 0/05<br>Freon ( all brands ) 10<br>Chromium trioxide 0.0015<br>Cl 0.03<br>ZnO 0.05<br>Ethylene oxide 0.03 | yr)<br>$PM_{2.5}$ 25 (24 h)<br>$PM_{10}$ 20 (1 yr)<br>$PM_{10}$ 50 (24 h)<br>Ozone 100 (8 h)<br>$NO_2$ 40 (1 yr)<br>$NO_2$ 200 (1 hr)<br>$SO_2$ 20 (24 h)<br>$SO_2$ 500 (10 min) | | HCl 0.2<br>HF 0.005<br>$Fe_2O_3$ 0.04<br>$HNO_3$ 0.4<br>$H_2SO_4$ 0.1<br>Xylol 0.2<br>Mn & its oxides 0.001<br>Cu oxides 0.002<br>Magnesia 0.05<br>Ni oxide 0.001<br>Inorganic dust ($SiO_2$ 70 %) 0.05 | Styrene 0.003<br>Soot 0.05<br>Phenol 0.01<br>Formaldehyde 0.003<br>Fluoride (HF, SiF4) 0/05<br>Freon ( all brands ) 10<br>Chromium trioxide 0.0015<br>Chlorine 0.03<br>ZnO 0.05<br>Ethylene oxide 0.03 | |

Human population protection (at receptors)

## C. Water Quality and Discharges to Water

| Topic | Tajikistan | IFC Environmental, Health, and Safety General Guidelines | Adopted Project Standard | Rationale |
|---|---|---|---|---|
| Effluent water discharged to surface water | List of MPC quality of water at surface water bodies (Requirements to water quality in fishery water bodies)[20]<br>pH 6.5-8.5<br>Aluminium (Al) 0.04<br>Iron (Fe) 0.1<br>Cadmium (Cd) 0.005<br>Copper (Cu) 0.001<br>Nickel (Ni) 0.01<br>Lead (Pb) 0.006<br>Zinc (Zn) 0.01<br>Chromium ($Cr^{+6}$) 0.02<br>Chromium ($Cr^{3+}$) 0.07<br>Oil and petrochemicals 0.05<br>Arsenic (As) 0.05<br>Calcium (Ca) 180<br>Silicon ($SiO_3^{2-}$) 1.0 | Temperature of wastewater prior to discharge does not result in an increase greater than 3°C of ambient temperature at the edge of a scientifically established mixing zone which takes into account ambient water quality, receiving water use and assimilative capacity among other considerations.<br>For treated sanitary wastewater:<br>pH 6-9<br>BOD 30<br>COD 125<br>Total nitrogen 10<br>Total Phosphorus 2<br>Oil and grease 10<br>TSS 50<br>Total coliform bacteria 400/100ml | pH 6.5-8.5<br>*BOD 30*<br>*COD 125*<br>*Total Nitrogen 10*<br>*Total Phosphorus 2*<br>*TSS 50*<br>Total Coliform bacteria 400/100 ml<br>Aluminium (Al) 0.04<br>Iron (Fe) 0.1<br>Cadmium (Cd) 0.005<br>Copper (Cu) 0.001<br>Nickel (Ni) 0.01<br>Lead (Pb) 0.006<br>Zinc (Zn) 0.01<br>Chromium ($Cr^{+6}$) 0.02<br>Chromium ($Cr^{3+}$) 0.07<br>Oil and petrochemicals 0.05<br>Arsenic (As) 0.05<br>Calcium (Ca) 180<br>Silicon ($SiO_3^{2-}$) 1.0 | Tajik MPC as most stringent standard supplemented by IFC where needed for comprehensive suite |

[20] Annex 3 to Procedure of Environemntal Impact Assessment accepted by Resolution No 464 of the Government of the Republic of Tajikistan dated 3 october 2006 ..

| Topic | Tajikistan | IFC Environmental, Health, and Safety General Guidelines | Adopted Project Standard | Rationale |
|---|---|---|---|---|
| | | | | |
| Freshwater water quality | List of MPC above (mg/l) | No numeric standards | Tajik MPC for surface water bodies | Tajik is only relevant standard |

MPC = maximum permissible concentration.
Supplementary adopted project standards are Italicized.

## D. Drinking Water Standards

| DRINKING WATER GENERAL ANALYSIS CONTENT AND LIMITS | | | | | | |
|---|---|---|---|---|---|---|
| **Parameter** | **Units** | **Tajikistan Standard[5)]** | **WHO Standard** | **EU Standard[3]** | **Project Standard [21] (mg/l unless stated otherwise)** | |
| **Physical Quality** | | | | | | |
| pH | --- | 6-9 | 6–9 | 6.5-9.5 | TS | 6-9 |
| Total Dissolved Solids | mg/l | 1000 | --- | | TS | 1000 |
| Hardness | Mg-eqv/l | 7.0 | --- | | TS | 7.0 |
| Turbidity | EMF (formasine) or mg/l (caoline) | 1.5 | --- | Acceptable to consumers and no abnormal change | TS | 1.5 |
| **Inorganic Chemical Quality** | | | | | | |
| Aluminium (Al) | mg/l | 0.5 | --- | 0.2 | EU | 0.2 |
| Ammonium ion ($NH_4$) | mg/l | | --- | 0.5 | EU | 0.5 |
| Antimony (Sb) | mg/l | 0.05 | 0.02 | 0.005 | EU | 0.005 |
| Arsenic (As total) | mg/l | 0.05 | 0.01 | 0.01 | EU | 0.01 |
| Barium (Ba) | mg/l | | 0.7 | --- | TS | 0.7 |
| Beryllium (Be) | mg/l | | --- | --- | TS | |
| Boron (B) | mg/l | | 0.5 | 1.0 | WHO | 0.5 |
| Cadmium (Cd) | mg/l | 0.001 | 0.003 | 0.005 | TS | 0.001 |
| Chloride ion ($Cl^-$) | mg/l | 350 | --- | 250 | EU | 250 |
| Chlorine (Cl) | mg/l | 0.3-0.5 (free) 0.8-1.2 (bounded) | 5 | --- | TS | 0.3-0.5 (free) 0.8-1.2 (bounded) |
| Chromium ($Cr^{+6}$) ($Cr^{+3}$) | mg/l | 0.05 0.5 | 0.05 | 0.05 | TS | 0.05 0.5 |
| Copper (Cu) | mg/l | 1.0 | 2 | 2.0 | TS | 1.0 |
| Cyanide (CN) | mg/l | | 0.07 | 0.05 | EU | 0.05 |
| Fluoride ion ($F^=$) | mg/l | | 1.5 | 1.5 | EU | 1.5 |

[21] Project standard represents most stringent for each parameter

| DRINKING WATER GENERAL ANALYSIS CONTENT AND LIMITS | | | | | | |
|---|---|---|---|---|---|---|
| **Parameter** | **Units** | **Tajikistan Standard[5)]** | **WHO Standard** | **EU Standard[3]** | **Project Standard [21] (mg/l unless stated otherwise)** | |
| Hydrogen Sulphide ($H_2S$) | mg/l | | --- | --- | TS | |
| Iron (Fe) | mg/l | 0.3 | --- | 0.2 | EU | 0.2 |
| Lead (Pb total) | mg/l | 0.03 | 0.02 | 0.01 | EU | 0.01 |
| Manganese (Mn) | mg/l | | 0.4 | 0.05 | EU | 0.05 |
| Mercury (Hg) | mg/l | | 0.001 | 0.001 | EU | 0.001 |
| Molybdenum (Mo) | mg/l | | 0.07 | --- | WHO | 0.07 |
| Nickel (Ni) | mg/l | 0.1 | 0.02 | 0.02 | EU | 0.02 |
| Nitrate ion (as $NO_3^-$) | mg/l | 45 | 50 | 50 | TS | 45 |
| Nitrite ion (as $NO_2^-$) | mg/l | | 3 or 0.2 | --- | TS | 3.0 |
| Phosphate ion ($PO_4^{2+}$) | mg/l | 3.5 | --- | --- | TS | 3.5 |
| Selenium (Se) | mg/l | | 0.01 | 0.01 | TS | 0.01 |
| Silicon (Si) | mg/l | 10 | ---- | ---- | TS | 10 |
| Silver (Ag) | mg/l | | --- | --- | TS | 0.05 |
| Sodium (Na) | mg/l | | --- | 200 | TS | 200 |
| Sulphate ion ($SO_4^{2+}$) | mg/l | 500 | --- | 250 | EU | 250 |
| Strontium (Sr) | mg/l | | --- | --- | TS | --- |
| Uranium (U) | mg/l | | 0.015 | --- | WHO | 0.015 |
| Vinyl Chloride ($C_2H_3Cl$ / $H_2C$) | mg/l | | 0.0003 | 0.0005 | WHO | 0.0003 |
| Zinc (Zn) | mg/l | 5.0 | --- | --- | | 5.0 |
| **Other quality parameters** | | | | | | |
| Petrochemicals | mg/l | 0.1 | | 0.1-5 | TS | 0.1 |
| Sufactants (anionic) | mg/l | 0.5 | | ---- | TS | 0.5 |
| COD | mg/l | ---- | | 150-400 | EU | 150-400 |
| Permanganate oxizability | mg/l | 5 | | ---- | TS | 5 |
| Specific electrical conductivity | $2x10^{-3}$ | | | ---- | TS | $2x10^{-3}$ |

## E. Selected GOST (Russian: ГОСТ) Technical Standards

| |
|---|
| 31431—2011. Protection of nature. Air. Set of Maximum Allowable Emissions (MAE). 29 November 2011 |
| 31434—2011 Protection of nature. Air. Determination of parameters of efficiency of dust collection systems. 29 November 2011 |
| IEC 61241-0—2011 Electrical equipment used at areas containing flammable dust. Part 0. General requirements. 29 November 2011 |

| |
|---|
| GOST 17.0.0.01-76 (ST SEV 1364-78) (in edition of 1987) System of standards for environmental protection and improvement of natural resources usage. General provisions |
| General provisions GOST 17.0.0.04-80 (1998) Protection of nature. Environmental passport (certificate) of industrial facility. General provisions |
| GOST R ISO14001-98 Environmental management systems. Requirements and guidelines. |
| GOST 17.0.0.02-79 (1980) Protection of nature. Provision of metrological control of air, surface water and soils pollution. |
| GOST 17.1.1.01-77 (ST SEV 3544-82) Usage and protection of water. General terms and definitions. |
| GOST 17.2.1.01- 76 Classification of emissions (content). |
| GOST 12.1.014-84 (1996) SSBT. Air at workplace. Methodology of measuring of pollutants concentration using indication tubes. |
| GOST 12.1.005-88 (1991) SSBT. General sanitary and hygiene requirements to air at workplace. |
| GOST 17.2.2.05-97 Norms and methods of emissions measuring containing spent diesel gases, tractors and self-propelled agricultural machines. |
| GOST 21393-75 Diesel motorcars. Exhaust gas opacity. Norms and methods of measurement. |
| GOST 17.2.2.03-77 Concentration of carbon monoxide at exhaust gases of motorcars with gasoline engines. Norms and measurements methodology. |
| GOST 17.2.2.03-87 Norms and methods of measurements of carbon monoxide at exhaust gases of motorcars with gasoline engines. |
| GOST 17.4.2.01-81 Nomenclature of sanitary condition parameters |
| GOST 17.4.1.02-83 Classification of chemical substances for monitoring of contamination. |
| GOST 12.1.003-83 (1991) SSBT. Noise. General safety requirements |
| GOST 12.1.023-80 (1996) SSBT. Noise. Methods of threshold noise levels for stationary machinery. |
| GOST 12.1.029-80 (1996) SSBT. Means and methods of noise protection. Classification. |
| GOST 12.1.036-81 (1996) SSBT. Noise. Allowable levels of noise within residential and public buildings. |
| GOST 12.1.007-76 (1999) SSBT. Harmful substances. Classification and general safety requirements. |
| GOST 12.4.119-82 SSBT. Means of respiratory PPE. Methods of protective features assessment for aerosols. |
| GOST 12.4.125-83 (1985) SSBT. Means of collective protective equipment from mechanical factors. Classification. |
| SanPiN 2.1.4.559-96 Drinking water. Hygienic requirements to the quality of water from centralised systems of drinking water supply. Quality control |
| CH 2.2.4/2.1.8.562-96 Noise at working places, indoors of residential and public buildings and the territories of residential areas |

## APPENDIX 2 – PROPOSED CIVIL WORKS AT SELECTED SCHOOLS



### LYCEUMS

| 1. DUSHANBE TECHNICAL VOCATIONAL TRANSPORT LYCEUM | $, USD |
|---|---|
| Educational building toilets (1st floor) rehabilitation | $6,247 |
| Educational building toilets (2 floors) rehabilitation | $15,436 |
| Construction of new hangar | $286,486 |

| | |
|---|---|
| Total | $308,169 |
| **2. DUSHANBE VOCATIONAL POLYTECHNIC LYCEUM** | |
| Welding classroom rehabilitation | $9 981 |
| Building electrician rehabilitation | $4 775 |
| Electrician classroom rehabilitation | $4 775 |
| Industrial electrician classroom rehabilitation | $15 992 |
| Educational building toilet and laundry (4 floors) rehabilitation | $58 015 |
| Canteen rehabilitation | $5 657 |
| Educational building roof replacement | $22 602 |
| Rehabilitation of classroom for Fitter/Plumber | $ 8 640 |
| Rehabilitation of workshop for Fitter/Plumber | $ 12 860 |
| **Total** | **$143 297** |
| **3. DUSHANBE TECHNICAL VOCATIONAL CONSTRUCTION LYCEUM** | |
| Educational building toilet rehabilitation | $12 195 |
| Education building roof replacement | $29 292 |
| Educational building corridor rehabilitation | $2 348 |
| Math classroom rehabilitation | $6 314 |
| Human rights classroom rehabilitation | $6 172 |
| Deputy director office rehabilitation | $3 101 |
| Mason workshop rehabilitation | $19 624 |
| Mason storage rehabilitation | $7 465 |
| Plumber workshop rehabilitation | $19 119 |
| Dorm canteen rehabilitation | $27 346 |
| Dorm toilet rehabilitation | $16 366 |
| Rooms rehabilitation | $35 584 |
| Corridor and façade rehabilitation | $51 679 |
| Dorm laundry rehabilitation | $14 515 |
| **Total** | **251,120** |
| **4. DUSHANBE TECHNICAL VOCATIONAL SEWING LYCEUM** | |
| Rehabilitation of classroom 1 | $6 391 |
| Rehabilitation of classroom 2 | $6 391 |
| Rehabilitation of classroom 3 | $6 391 |
| Rehabilitation of 3 classrooms | $19173 |
| Rehabilitation of toilets in educat. Building on 4 floors | $14 883 |
| Replacement of the roof of the educ. Building, corps and verandah | $186 240 |
| Rehabilitation of classroom for Appliance Repair & Maintenance Technician | $ 8 640 |
| Rehabilitation of workshop for Appliance Repair & Maintenance Technician | $ 12 860 |
| **Total** | **$241 796** |
| **5. DUSHANBE TECHNICAL VOCATIONAL TOURISM AND SERVICE LYCEUM** | |
| Water tower Installation | 25,384 |
| Well drilling | 3,534 |
| Educational building toilet (4 floors) rehabilitation | 21,825 |
| Educational building façade rehabilitation | 14,498 |
| Canteen rehabilitation | 6,251 |

| | |
|---|---|
| Canteen roof replacement | 9,771 |
| **Total** | **81,263** |
| **6. KULOB TECHNICAL VOCATIONAL AGRICULTURAL LYCEUM, KHATLON** | |
| Rehabilitation of educational building | 59,120 |
| Rehabilitation of the workshop | 109,131 |
| Workshop front side rehabilitation | 5,897 |
| **Total** | **174,148** |
| **7. KULOB TECHNICAL VOCATIONAL CONSTRUCTION LYCEUM, KHATLON** | |
| Classroom x 4 rehabilitation | $16 424 |
| Educational building toilet rehabilitation | $31 956 |
| Two-storey workshop rehabilitation | $87 074 |
| Workshop toilet and shower rooms rehabilitation | $34 504 |
| Workshop roof replacement | $24 739 |
| Workshop façade rehabilitation | $9 850 |
| Dorm rehabilitation | $107 416 |
| Dorm toilet rehabilitation | $53 752 |
| Dorm roof replacement | $13 894 |
| Dorm front rehabilitation | $8 462 |
| Rehabilitation of classroom for Gas & Electric Arc Welding | $ 8 640 |
| Rehabilitation of workshop for Gas & Electric Arc Welding | $ 12 860 |
| **Total** | **409,571** |
| **8. VOSE TECHNICAL VOCATIONAL LYCEUM, KHATLON** | |
| Educational building classrooms rehabilitation | $17 525 |
| Educational buildings corridors rehabilitation | $4 995 |
| Laboratories x 2 rehabilitation | $7 678 |
| Welding workshop rehabilitation | $11 878 |
| External water pipe and sewage system repair | $10,000 |
| Rehabilitation of classroom for Building Electrician | $ 8 640 |
| Rehabilitation of workshop for Building Electrician | $ 12 860 |
| **Total** | **73,576** |
| **9. QURGHONTEPPA TECHNICAL VOCATIONAL LYCEUM, KHATLON** | |
| Welding workshop rehabilitation | $13 285 |
| Teachers room rehabilitation | $2 625 |
| Industrial electrician workshop rehabilitation | $7 128 |
| Teachers room rehabilitation | $757 |
| Classroom rehabilitation | $3 678 |
| 1st corridor rehabilitation | $9 263 |
| 2nd corridor rehabilitation | $9 401 |
| Workshop roof replacement | $21 253 |
| Workshop façade rehabilitation | $7 770 |
| 1st classroom rehabilitation | $3 635 |
| 2nd classroom rehabilitation | $2 818 |
| 3rd classroom rehabilitation | $2 407 |

| | |
|---|---|
| Teachers room x 2 rehabilitation | $2 732 |
| Educational building toilets x 3 floors rehabilitation | $52 503 |
| Rehabilitation of classroom for Fitter/Plumber | $ 8 640 |
| Rehabilitation of workshop for Fitter/Plumber | $ 12 860 |
| **Total** | **$ 160,755** |
| **10. VAKHSH TECHNICAL VOCATIONAL LYCEUM, KHATLON** | |
| Vegetable and fruit processing workshop rehabilitation | $10 363 |
| Agricultural tractor operator workshop rehabilitation | $3 260 |
| Classroom rehabilitation | $19 880 |
| Corridor rehabilitation | $12 810 |
| Dorm toilet rehabilitation | $33 900 |
| Dorm double rooms rehabilitation | $64 878 |
| Dorm quad rooms rehabilitation | $116 994 |
| Dorm corridor rehabilitation | $23 097 |
| Dorm roof replacement | $28 138 |
| Dorm façade rehabilitation | $10 924 |
| External water pipe and sewage system repair | $10 000 |
| **Total** | **$334,244** |
| **11. SHAHRTUZ TECHNICAL VOCATIONAL LYCEUM, KHATLON** | |
| Rehabilitation of the workshop for gas and electric welding | $12 046 |
| Rehabilitation of the room of the master-welder | $1 955 |
| Rehabilitation of the workshop for electrician | $2 402 |
| Rehabilitation of the classroom 1 | $4 679 |
| Rehabilitation of the room for master-electrician | $2 151 |
| Rehabilitation of the corridor of the workshop | $12 057 |
| Replacement of the roof of the workshop | $24 185 |
| Rehabilitation of the front of the workshop | $7 255 |
| Rehabilitation of the classroom 2 | $3 213 |
| Rehabilitation of teachers room 1 | $2 605 |
| Rehabilitation of the classroom 2 | $3 213 |
| Rehabilitation of teachers room 2 | $2 605 |
| Rehabilitation of the educational building | $3 391 |
| External water pipe and sewage system repair | $10,000 |
| Rehabilitation of classroom for Bookkeeper | $ 8 640 |
| Rehabilitation of workshop for Bookkeeper | $ 12 860 |
| **Total** | **$ 113,257** |
| **12. PANJAKENT TECHNICAL VOCATIONAL LYCEUM, SUGHD** | |
| Domestic appliance repair and maintenance technician training room rehabilitation | $14 906 |
| Teacher resource/training room rehabilitation | $11 676 |
| Heating system rehabilitation | $14 162 |
| Canteen rehabilitation | $24 514 |
| Sewing classroom rehabilitation | $12 865 |
| Rehabilitation of classroom for Seller | $ 8 640 |
| Rehabilitation of workshop for Seller | $ 12 860 |
| **Total** | **$ 99,623** |

| 13. SHAHRISTON TECHNICAL VOCATIONAL AGRICULTURAL LYCEUM, SUGHD | |
|---|---|
| Shower room rehabilitation | $10 503 |
| Welding workshop rehabilitation | $40 010 |
| Guard room rehabilitation | $6 018 |
| Fruit and vegetable processing workshop rehabilitation | $30 874 |
| Agricultural tractor operator workshop rehabilitation | $38 273 |
| Farm worker classroom rehabilitation | $12 786 |
| Agricultural tractor operator classroom rehabilitation | $10 049 |
| Bookkeeper classroom rehabilitation | $12 675 |
| Common room rehabilitation | $22 178 |
| Dormitory roof replacement | $89 415 |
| Agricultural tractor operator shed rehabilitation | $18 261 |
| Dorm rehabilitation | $68 410 |
| Canteen rehabilitation | $9 694 |
| Hothouse rehabilitation | $2 020 |
| Educational buildings, toilet and shower rooms rehabilitation | $28 673 |
| Toilets, shower rooms, and teacher resource/training room rehabilitation | $34 859 |
| Toilet rehabilitation | $22 456 |
| **Total** | **$457,154** |
| **14. MASTCHOH TECHNICAL VOCATIONAL AGRICULTURAL LYCEUM, SUGHD** | |
| Fruit and vegetable processing laboratory rehabilitation | $60,000 |
| Fruit and vegetable processing classroom rehabilitation | $13,200 |
| Classrooms rehabilitation | $57,400 |
| Canteen rehabilitation | $10,000 |
| Toilet rehabilitation | $21,000 |
| Shower room rehabilitation | $14,600 |
| Rehabilitation of classroom for Tractor Operator/Mechanic | $ 8 640 |
| Rehabilitation of workshop for Tractor Operator/Mechanic | $ 12 860 |
| **Total** | **$ 197,592** |
| **15. KHUJAND VOCATIONAL POLYTECHNIC LYCEUM, SUGHD** | |
| Heavy equipment mechanic training classroom rehabilitation | $20 143 |
| Educational building passages and staircases rehabilitation | $1 863 |
| Rehabilitation of the passage of the dormitory | $53 147 |
| Appliance repair and maintenance technician training classroom rehabilitation | $7 947 |
| Teacher-training classroom rehabilitation | $7 210 |
| Driver training classroom rehabilitation | $13 618 |
| Gas welding laboratory rehabilitation | $35 130 |
| Laboratory rehabilitation | $7 961 |
| Teacher resource/training room rehabilitation | $3 253 |
| Dorm rehabilitation | $129 567 |
| Welding classroom rehabilitation | $16 327 |
| Summer welding workshop rehabilitation | $27 140 |
| Electrician training classroom rehabilitation | $5 391 |

| | |
|---|---|
| **Total** | **$328 697** |
| **16. KHUJAND TECHNICAL VOCATIONAL CONSTRUCTION LYCEUM, SUGHD** | |
| Rehabilitation of canteen | $19 362 |
| Rehabilitation of passages, classrooms and labs | $12 595 |
| Rehabilitation of passages (classrooms) | $13 396 |
| Rehabilitation of classrooms and laboratories | $34 869 |
| Rehabilitation of classrooms | $67 788 |
| Rehabilitation of toilet, shower room (wash basin) | $65 186 |
| Rehabilitation of classroom for Fitter/Plumber | $ 8 640 |
| Rehabilitation of workshop for Fitter/Plumber | $ 12 860 |
| **Total** | **$ 234,696** |
| **17. ISFARA TECHNICAL VOCATIONAL OIL AND GAS LYCEUM, SUGHD** | |
| Canteen rehabilitation | $22 750 |
| Classrooms rehabilitation | $57 290 |
| Electric welding laboratory rehabilitation | $35 491 |
| Front side rehabilitation | $19 279 |
| Septic system installation | $8 623 |
| Rehabilitation of classroom for Fitter/Plumber | $ 8 640 |
| Rehabilitation of workshop for Fitter/Plumber | $ 12 860 |
| **Total** | **$164,933** |
| **18. ISTARAVSHAN TECHNICAL VOCATIONAL LYCEUM, SUGHD** | |
| Welding workshop rehabilitation | $29 569 |
| Gas welding workshop rehabilitation | $35 503 |
| Rehabilitation of the passage (classrooms) | $25 413 |
| Cook-confectioner training room rehabilitation | $26 916 |
| Classrooms rehabilitation | $25 622 |
| Toilet rehabilitation | $50 249 |
| **Total** | **$193 272** |
| **19. SHAHRINAW TECHNICAL VOCATIONAL LYCEUM, DISTRICTS OF REPUBLICAN SUBORDINATION** | |
| Farm worker workshop rehabilitation | $24 167 |
| Fruit and vegetable processing workshop rehabilitation | $10 422 |
| Bookkeeper classroom rehabilitation | $7 899 |
| Classroom 1 rehabilitation | $5 120 |
| Classroom 2 rehabilitation | $8 215 |
| Classroom 3 rehabilitation | $7 550 |
| Classroom rehabilitation | $4 603 |
| Educational building corridor and façade rehabilitation | $19 130 |
| Educational building roof x 2 replacement | $39 953 |
| Toilet rehabilitation | $14 179 |
| Canteen rehabilitation | $24 961 |
| Canteen roof x 3 replacement | $16 044 |
| Dorm rooms rehabilitation | $56 957 |
| Dorm corridor and façade rehabilitation | $33 802 |

| | |
|---|---|
| Dorm toilet and laundry rehabilitation | $30 886 |
| Dorm roof replacement | $16 906 |
| Septic system repair | $14 248 |
| Rehabilitation of classroom for Tractor Operator/Mechanic | $ 8 640 |
| Rehabilitation of workshop for Tractor Operator/Mechanic | $ 12 860 |
| **Total** | **$356,542** |
| **20. TOJIKOBOD TECHNICAL VOCATIONAL LYCEUM, DISTRICTS OF REPUBLICAN SUBORDINATION** | |
| Farm worker classroom rehabilitation | $8 672 |
| Gardeners classroom rehabilitation | $7 407 |
| Sewing classroom rehabilitation | $11 912 |
| Fruit and vegetable processing classroom rehabilitation | $9 151 |
| Educational building toilets (4 floors) rehabilitation | $28 093 |
| Canteen rehabilitation | $26 084 |
| Canteen roof replacement | $11 803 |
| Canteen façade rehabilitation | $7 598 |
| Septic system repair | $11 616 |
| Well drilling | $3 534 |
| Water tower installation | $25 384 |
| Rehabilitation of classroom for Appliance Repair & Maintenance Technician | $ 8 640 |
| Rehabilitation of workshop for Appliance Repair & Maintenance Technician | $ 12 860 |
| **Total** | **$172,754** |
| **21. SHUGHNON TECHNICAL VOCATIONAL LYCEUM, GBAO** | |
| Rehabilitation of classroom for Sewer | $ 8 640 |
| Rehabilitation of workshop for Sewer | $ 12 860 |
| Rehabilitation of workshop | $ 102,500 |
| **Total** | **$124,000** |

## ADULT LEARNING CENTRES (ALCs)

| | |
|---|---|
| **22. YOVON ALC, KHATLON** | |
| Rehabilitation of classroom for Seller | $ 8 640 |
| Rehabilitation of workshop for Seller | $ 12 860 |
| Rehabilitation of workshop | $ 35,460 |
| **Total** | **$56, 960** |

| | |
|---|---|
| **23. FARKHOR ALC, KHATLON** | |
| Rehabilitation of classroom for Seller | $ 8 640 |
| Rehabilitation of workshop for Seller | $ 12 860 |
| Rehabilitation of workshop | **$74,000** |
| **Total** | **$95,500** |

| | |
|---|---|
| **24. NORAK ALC, KHATLON** | |

| | |
|---|---|
| **Total** | **$32,810** |

| **25. KONIBODOM ALC, SUGHD** | |
|---|---|
| Canteen rehabilitation | $17 345 |
| Toilet (4 cabins) rehabilitation | $8 538 |
| Gas welding workshop rehabilitation | $19 368 |
| Passage rehabilitation | $12 436 |
| Classrooms rehabilitation | $78 460 |
| Toilet, shower room (wash basin) rehabilitation | $15 439 |
| Rehabilitation of classroom for Seller | $ 8 640 |
| Rehabilitation of workshop for Seller | $ 12 860 |
| **Total** | **$173,086** |

| **26. BOBOJON GHAFUROV ALC, SUGHD** | |
|---|---|
| Toilet (6 cabins) rehabilitation | $17 857 |
| Passages rehabilitation | $7 591 |
| Classrooms rehabilitation | $21 252 |
| Educational building façade rehabilitation | $7 298 |
| Welding workshop shed rehabilitation | $19 214 |
| Septic system installation | $8 372 |
| Rehabilitation of classroom for Hairdresser/Stylist | $ 8 640 |
| Rehabilitation of workshop for Hairdresser/Stylist | $ 12 860 |
| **Total** | **$103,084** |

| **27. TAVILDARA ALC, DISTRICTS OF REPUBLICAN SUBORDINATION** | |
|---|---|
| Computer classroom rehabilitation | $4 497 |
| Sewing classroom rehabilitation | $4 497 |
| Electrician classroom rehabilitation | $4 497 |
| Foreign language classroom rehabilitation | $4 252 |
| Educational building façade and toilet rehabilitation | $5 476 |
| Toilet rehabilitation | $3 745 |
| Educational building roof replacement | $2 244 |
| English language classroom rehabilitation | $4 720 |
| Computer classroom rehabilitation | $4 788 |
| Sewing classroom rehabilitation | $4 788 |
| Rehabilitation of corridor rehabilitation | $3 193 |
| Roof replacement | $8 317 |
| **Total** | **$55 014** |
| **28. VANJ ALC, GBAO** | |
| Rehabilitation of classroom for Bookkeeper | $ 8 640 |
| Rehabilitation of workshop for Bookkeeper | $ 12 860 |
| Rehabilitation of workshop | **$71,500** |
| **Total** | **$93,000** |

## APPENDIX 3: ASBESTOS HEALTH RISKS OVERVIEW

Source: ASTM E2394-11, Standard Practice for Maintenance, Renovation and Repair of Installed Asbestos Cement Products. http://www.astm.org/Standards/E2394.htm

1. The inhalation of airborne asbestos fibers has been shown to cause asbestosis, lung cancer, and mesothelioma.

2. The U.S. Environmental Protection Agency reports that "Effects on the lung are a major health concern from asbestos, as chronic (long-term) exposure to asbestos in humans via inhalation can result in a lung disease termed asbestosis. Asbestosis is characterized by shortness of breath and cough and may lead to severe impairment of respiratory function. Cancer is also a major concern from asbestos exposure, as inhalation exposure can cause lung cancer and mesothelioma (a rare cancer of the thin membranes lining the abdominal cavity and surrounding internal organs), and possibly gastrointestinal cancers in humans. EPA has classified asbestos as a Group A, known human carcinogen".

3. The World Health Organization states: "Exposure to asbestos occurs through inhalation of fibres primarily from contaminated air in the working environment, as well as from ambient air in the vicinity of point sources, or indoor air in housing and buildings containing friable asbestos materials. The highest levels of exposure occur during repackaging of asbestos containers, mixing with other raw materials and dry cutting of asbestos-containing products with abrasive tools".

4. The World Bank states: "Health hazards from breathing asbestos dust include asbestosis, a lung scarring disease, and various forms of cancer (including lung cancer and mesothelioma of the pleura and peritoneum). These diseases usually arise decades after the onset of asbestos exposure. Mesothelioma, a signal tumor for asbestos exposure, occurs among workers' family members from dust on the workers' clothes and among neighbors of asbestos air pollution point sources".

5. Extensive litigation has occurred worldwide as a result of the health effects of asbestos over the past century, resulting in considerable economic consequences. The regulatory response to asbestos hazards has resulted in civil sanctions and criminal prosecution of violators.

6. The World Health Organization also states: "Bearing in mind that there is no evidence for a threshold for the carcinogenic effect of asbestos and the increased cancer risks have been observed in populations exposed to very low levels, the most efficient way to eliminate asbestos-related diseases is to stop using all types of asbestos. Continued use of asbestos-cement in the construction industry is of particular concern, because the workforce is large, it is difficult to control exposure, and in-place materials have the potential to deteriorate and pose a risk to those carrying out alterations, maintenance, and demolition".

7. The persons who are most at risk of exposure to airborne asbestos fibers are those who perform work on asbestos-cement products during maintenance, renovation, and repair operations. This practice places its primary emphasis on the protection of their health. However, other members of the community, other workers and individuals in a building being renovated, residents of a house undergoing repairs, and unsuspecting by standers are at risk to a lesser degree. By minimizing the risk to the worker performing the maintenance, renovation, and repair operations, the potential exposure of others is reduced as well.

# APPENDIX 4 COMPLETE LIST OF TVET LYCEUMS

**APPENDIX A: COMPLETE LIST OF TVET LYCEUMS AND ADULT LEARNING CENTRES**

**таҳсилоти ибтидоии касбии** | **Lyceum / Primary technical school (PTS)**

| No | School code | | School name | | Region | | | | District and/or town | | | | School type | | UID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | *Name* | | *Code* | | *Name* | | *Code* | | | | |
| | *TJ* | *EN* | *TJ* | *EN* | *TJ* | *EN* | *TJ* | *EN* | *TJ* | *EN* | *TJ* | *EN* | *Name* | *Code* | |
| **Душанбе - Dushanbe** | | | | | | | | | | | | | | | |
| 1 | ДУ-Душ-L1 | DU-Dus-L1 Transport | МДТ «Литсейи касбии техникии нақлиёти автомобили шаҳри Душанбе» | Transport Technical Lyceum | Душанбе | Dushanbe | ДУ | DU | Душанбе | Dushanbe | Душ | Dus | Lyceum | L | 01 |
| 2 | ДУ-Душ-L2 | DU-Dus-L2 Tourism | МДТ "Литсейи касбии хизмат ва туризми шаҳри Душанбе" | Tourism Service Lyceum | Душанбе | Dushanbe | ДУ | DU | Душанбе | Dushanbe | Душ | Dus | Lyceum | L | 02 |
| 3 | ДУ-Душ-L3 | DU-Dus-L3 Sewing | МДТ "Литсейи касбии дӯзандагии шаҳри Душанбе" | Sewing Lyceum | Душанбе | Dushanbe | ДУ | DU | Душанбе | Dushanbe | Душ | Dus | Lyceum | L | 03 |
| 4 | ДУ-Душ-L4 | DU-Dus-L4 Textile | МДТ «Литсейи касбии техникии нассоҷии шаҳри Душанбе» | Textile Lyceum | Душанбе | Dushanbe | ДУ | DU | Душанбе | Dushanbe | Душ | Dus | Lyceum | L | 04 |
| 5 | ДУ-Душ-L5 | DU-Dus-L5 Railway | МДТ «Литсейи касбии техники нақлиёти роҳи оҳани шаҳри Душанбе» | Railway Transport Lyceum | Душанбе | Dushanbe | ДУ | DU | Душанбе | Dushanbe | Душ | Dus | Lyceum | L | 05 |
| 6 | ДУ-Душ-L6 | DU-Dus-L6 Technical | МДТ «Литсейи касбии техникии махсуси шаҳри Душанбе» | Technical Lyceum | Душанбе | Dushanbe | ДУ | DU | Душанбе | Dushanbe | Душ | Dus | Lyceum | L | 06 |
| 7 | ДУ-Душ-L7 | DU-Dus-L7 Part-Time | МДТ «Литсейи касбии техникии шабонаи шаҳри Душанбе» | Part-Time Technical Lyceum | Душанбе | Dushanbe | ДУ | DU | Душанбе | Dushanbe | Душ | Dus | Lyceum | L | 07 |
| 8 | ДУ-Душ-L8 | DU-Dus-L8 Communication | МДТ «Литсейи касбии алоқаи шаҳри Душанбе» | Communication Information | Душанбе | Dushanbe | ДУ | DU | Душанбе | Dushanbe | Душ | Dus | Lyceum | L | 08 |
| 9 | ДУ-Душ-L9 | DU-Dus-L9 Construction | МДТ «Литсейи касбии техникии сохтмони шаҳри Душанбе» | Construction Lyceum | Душанбе | Dushanbe | ДУ | DU | Душанбе | Dushanbe | Душ | Dus | Lyceum | L | 09 |
| 10 | ДУ-Душ-L10 | DU-Dus-L10 Polytechnical | МДТ «Литсейи касбии политехникии шаҳри Душанбе» | Polytechnical Lyceum | Душанбе | Dushanbe | ДУ | DU | Душанбе | Dushanbe | Душ | Dus | Lyceum | L | 10 |
| 11 | ДУ-Душ-L11 | DU-Dus-L11 Disabled | МДТ «Литсейи касбии махсуси маъюбон» | Disabled Students Lyceum | Душанбе | Dushanbe | ДУ | DU | Душанбе | Dushanbe | Душ | Dus | Lyceum | L | 11 |
| 12 | ДУ-Душ-L12 | DU-Dus-L12 Engineering | МДТ «Колеҷи муҳандисию омӯзгории шаҳри Душанбе» | Engineering Lyceum | Душанбе | Dushanbe | ДУ | DU | Душанбе | Dushanbe | Душ | Dus | Lyceum | L | 12 |
| **Ноҳияҳои тобеи ҷумҳурӣ - Districts of Republican Subordination** | | | | | | | | | | | | | | | |
| 13 | ТҶ-Шаҳ-L1 | RS-Sha-L1 Technical | МДТ «Литсейи касбии техникии ноҳияи Шаҳринав» | Technical Lyceum | Ноҳияҳои тобеи ҷумҳурӣ | Districts of Republican Subordination | ТҶ | RS | Шаҳринав | Shahrinaw | Шаҳ | Sha | Lyceum | L | 01 |
| 14 | ТҶ-Ҷир-L1 | RS-Jir-L1 Technical | МДТ «Литсейи касбии техникии ноҳияи ҷиргатол» | Technical Lyceum | Ноҳияҳои тобеи ҷумҳурӣ | Districts of Republican Subordination | ТҶ | RS | ҷиргатол | Jirgatol | Ҷир | Jir | Lyceum | L | 01 |
| 15 | ТҶ-Раш-L1 | RS-Ras-L1 Technical | МДТ «Литсейи касбии техникии ноҳияи Рашт» | Technical Lyceum | Ноҳияҳои тобеи | Districts of Republican | ТҶ | RS | Рашт | Rasht | Раш | Ras | Lyceum | L | 01 |
| 16 | ТҶ-Ҳис-L1 | RS-His-L1 Technical | МДТ «Литсейи касбии техникии ноҳияи ҳисор» | Technical Lyceum | Ноҳияҳои тобеи | Districts of Republican | ТҶ | RS | ҳисор | Hisor | Ҳис | His | Lyceum | L | 01 |
| 17 | ТҶ-Ваҳ-L1 | RS-Vah-L1 Technical | МДТ «Литсейи касбии техникии шаҳри Ваҳдат» | Technical Lyceum | Ноҳияҳои тобеи | Districts of Republican | ТҶ | RS | Ваҳдат | Vahdat | Ваҳ | Vah | Lyceum | L | 01 |
| 18 | ТҶ-Тоҷ-L1 | RS-Toj-L1 Technical | МДТ «Литсейи касбии техникии ноҳияи Тоҷикобод» | Technical Lyceum | Ноҳияҳои тобеи ҷумҳурӣ | Districts of Republican Subordination | ТҶ | RS | Тоҷикобод | Tojikobod | Тоҷ | Toj | Lyceum | L | 01 |
| 19 | ТҶ-Фай-L1 | RS-Fai-L1 Technical | МДТ «Литсейи касбии техникии ноҳияи Файзобод» | Technical Lyceum | Ноҳияҳои тобеи ҷумҳурӣ | Districts of Republican Subordination | ТҶ | RS | Файзобод | Faizobod | Фай | Fai | Lyceum | L | 01 |
| 20 | ТҶ-Тав-L1 | RS-Tav-L1 Technical | МДТ «Литсейи касбии техникии ноҳияи Тавилдара» | Technical Lyceum | Ноҳияҳои тобеи ҷумҳурӣ | Districts of Republican Subordination | ТҶ | RS | Тавилдара | Tavildara | Тав | Tav | Lyceum | L | 01 |
| 21 | ТҶ-Тур-L1 | RS-Tur-L1 Technical | МДТ «Литсейи касбии металлургии шаҳри Турсунзода» | Technical Lyceum | Ноҳияҳои тобеи ҷумҳурӣ | Districts of Republican Subordination | ТҶ | RS | Турсунзода | Tursunzoda | Тур | Tur | Lyceum | L | 01 |
| 22 | ТҶ-Ваҳ-L2 | RS-Vah-L2 Part-Time | МДТ «Литсейи касбии техникии шабонаи шаҳри Ваҳдат» | Part-Time Technical Lyceum | Ноҳияҳои тобеи ҷумҳурӣ | Districts of Republican Subordination | ТҶ | RS | Ваҳдат | Vahdat | Ваҳ | Vah | Lyceum | L | 02 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Вилояти Хатлон - Khatlon Region | | | | | | | | | | | | | | | |
| 23 | ХТ-Пан-L1 | KT-Pan-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи Панҷ» | Technical Lyceum | Вилояти Хатлон | Khatlon Region | ХТ | КТ | Панҷ | Panj | Пан | Pan | Lyceum | L | 01 |
| 24 | ХТ-Ёво-L1 | KT-Yov-L1 Agricultural | Муассисаи давлатии таълимии «Литсейи касбии техникии кишоварзии ноҳияи Ёвон» | Agricultural Lyceum | Вилояти Хатлон | Khatlon Region | ХТ | КТ | Ёвон | Yovon | Ёво | Yov | Lyceum | L | 01 |
| 25 | ХТ-Қур-L1 | KT-Qur-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии шаҳри Қурғонтеппа» | Technical Lyceum | Вилояти Хатлон | Khatlon Region | ХТ | КТ | Қурғонтеппа | Qurghonteppa | Қур | Qur | Lyceum | L | 01 |
| 26 | ХТ-Сар-L1 | KT-Sar-L1 Chemistry | Муассисаи давлатии таълимии «Литсейи касбии саноати кимиёи шаҳри Сарбанд» | Chemistry Lyceum | Вилояти Хатлон | Khatlon Region | ХТ | КТ | Сарбанд | Sarband | Сар | Sar | Lyceum | L | 01 |
| 27 | ХТ-Хов-L1 | KT-Kho-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи Ховалинг» | Technical Lyceum | Вилояти Хатлон | Khatlon Region | ХТ | КТ | Ховалинг | Khovaling | Хов | Kho | Lyceum | L | 01 |
| 28 | ХТ-Вах-L1 | KT-Vak-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи Вахш» | Technical Lyceum | Вилояти Хатлон | Khatlon Region | ХТ | КТ | Вахш | Vakhsh | Вах | Vak | Lyceum | L | 01 |
| 29 | ХТ-Чом-L1 | KT-Jom-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи А.Чомӣ» | Technical Lyceum | Вилояти Хатлон | Khatlon Region | ХТ | КТ | А.Чомӣ | Jomi | Чом | Jom | Lyceum | L | 01 |
| 30 | ХТ-Кӯл-L1 | KT-Kul-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии сохтмони шаҳри Кӯлоб» | Technical Lyceum | Вилояти Хатлон | Khatlon Region | ХТ | КТ | Кӯлоб | Kulob | Кӯл | Kul | Lyceum | L | 01 |
| 31 | ХТ-Ҷил-L1 | KT-Jil-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи ҷиликул» | Technical Lyceum | Вилояти Хатлон | Khatlon Region | ХТ | КТ | ҷиликул | Jilikul | Ҷил | Jil | Lyceum | L | 01 |
| 32 | ХТ-Кӯл-L2 | KT-Kul-L2 Agricultural | Муассисаи давлатии таълимии «Литсейи касбии техникии саноати | Agricultural Lyceum | Вилояти Хатлон | Khatlon Region | ХТ | КТ | Кӯлоб | Kulob | Кӯл | Kul | Lyceum | L | 02 |
| 33 | ХТ-Ҳам-L1 | KT-Ham-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи | Technical Lyceum | Вилояти Хатлон | Khatlon Region | ХТ | КТ | ҳамадонӣ | Hamadoni | Ҳам | Ham | Lyceum | L | 01 |
| 34 | ХТ-Вос-L1 | KT-Vos-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи Восеъ» | Technical Lyceum | Вилояти Хатлон | Khatlon Region | ХТ | КТ | Восеъ | Vose | Вос | Vos | Lyceum | L | 01 |
| 35 | ХТ-Фар-L1 | KT-Far-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи Фархор» | Technical Lyceum | Вилояти Хатлон | Khatlon Region | ХТ | КТ | Фархор | Farkhor | Фар | Far | Lyceum | L | 01 |
| 36 | ХТ-Ёво-L2 | KT-Yov-L2 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи Ёвон» | Technical Lyceum | Вилояти Хатлон | Khatlon Region | ХТ | КТ | Ёвон | Yovon | Ёво | Yov | Lyceum | L | 02 |
| 37 | ХТ-Қуб-L1 | KT-Qab-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи Қубодиён» | Technical Lyceum | Вилояти Хатлон | Khatlon Region | ХТ | КТ | Қубодиён | Qabodiyon | Қуб | Qab | Lyceum | L | 01 |
| 38 | ХТ-Қум-L1 | KT-Qum-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи Қумсангир» | Technical Lyceum | Вилояти Хатлон | Khatlon Region | ХТ | КТ | Қумсангир | Qumsangir | Қум | Qum | Lyceum | L | 01 |
| 39 | ХТ-Шаҳ-L1 | KT-Sha-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи Шаҳритус» | Technical Lyceum | Вилояти Хатлон | Khatlon Region | ХТ | КТ | Шаҳритус | Shahrtuz | Шаҳ | Sha | Lyceum | L | 01 |
| Вилояти Суғд - Sughd Region | | | | | | | | | | | | | | | |
| 40 | СУ-Заф-L1 | SU-Zaf-L1 Agricultural | Муассисаи давлатии таълимии «Литсейи касбии техникии саноати кишоварзии ноҳияи Зафаробод» | Agricultural Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Зафаробод | Zafarobod | Заф | Zaf | Lyceum | L | 01 |
| 41 | СУ-Хуҷ-L1 | SU-Khu-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии хизмати шаҳри Хуҷанд» | Technical Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Хуҷанд | Khujand | Хуҷ | Khu | Lyceum | L | 01 |
| 42 | СУ-Кон-L1 | SU-Kon-L1 Sewing | Муассисаи давлатии таълимии «Литсейи касбии саноати дӯзандагии шаҳри Конибодом» | Sewing Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Конибодом | Konibodom | Кон | Kon | Lyceum | L | 01 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 43 | СУ-Исф-L1 | SU-Isf-L1 Oil | Муассисаи давлатии таълимии «Литсейи касбии техникии нефт ва гази шаҳри Исфара» | Oil Technical Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Исфара | Isfara | Исф | Isf | Lyceum | L | 01 |
| 44 | СУ-Пан-L1 | SU-Pan-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии шаҳри Панҷакент» | Technical Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Панҷакент | Panjakent | Пан | Pan | Lyceum | L | 01 |
| 45 | СУ-Айн-L1 | SU-Ayn-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи Айнӣ» | Technical Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Айнӣ | Ayni | Айн | Ayn | Lyceum | L | 01 |
| 46 | СУ-Исқ-L1 | SU-Isk-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии шаҳри ИстиҚлол» | Technical Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Истиқлол (Истиклол?) | Istiklol | Иск | Isk | Lyceum | L | 01 |
| 47 | СУ-Мас-L1 | SU-Mas-L1 Agricultural | Муассисаи давлатии таълимии «Литсейи касбии саноати кишоварзии ноҳияи Мастчоҳ» | Agricultural Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Мастчоҳ | Mastchoh | Мас | Mas | Lyceum | L | 01 |
| 48 | СУ-Хуҷ-L2 | SU-Khu-L2 Polytechnical | Муассисаи давлатии таълимии «Литсейи касбии политехникии шаҳри Хуҷанд» | Polytechnical Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Хуҷанд | Khujand | Хуҷ | Khu | Lyceum | L | 02 |
| 49 | СУ-Ғаф-L1 | SU-Gha-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи Бобоҷон Ғафуров» | Technical Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Бобоҷон Ғафуров | Ghafurov | Ғаф | Gha | Lyceum | L | 01 |
| 50 | СУ-Заф-L2 | SU-Zaf-L2 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи | Technical Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Зафаробод | Zafarobod | Заф | Zaf | Lyceum | L | 02 |
| 51 | СУ-Кон-L2 | SU-Kon-L2 Agricultural | Муассисаи давлатии таълимии «Литсейи касбии саноати | Agricultural Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Конибодом | Konibodom | Кон | Kon | Lyceum | L | 02 |
| 52 | СУ-Шаҳ-L1 | SU-Sha-L1 Agricultural | Муассисаи давлатии таълимии «Литсейи касбии саноати | Agricultural Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Шаҳристон | Shahriston | Шаҳ | Sha | Lyceum | L | 01 |
| 53 | СУ-Ғон-L1 | SU-Gho-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи | Technical Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Ғончӣ | Ghonchi | Ғон | Gho | Lyceum | L | 01 |
| 54 | СУ-Спи-L1 | SU-Spi-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи | Technical Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Спитамен | Spitamen | Спи | Spi | Lyceum | L | 01 |
| 55 | СУ-Ғон-L2 | SU-Gho-L2 Agricultural | Муассисаи давлатии таълимии «Литсейи касбии техникии саноати | Agricultural Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Ғончӣ | Ghonchi | Ғон | Gho | Lyceum | L | 02 |
| 56 | СУ-Исф-L2 | SU-Isf-L2 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии саноати | Technical Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Исфара | Isfara | Исф | Isf | Lyceum | L | 02 |
| 57 | СУ-Ашт-L1 | SU-Ash-L1 Agricultural | Муассисаи давлатии таълимии «Литсейи касбии техникии саноати | Agricultural Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Ашт | Asht | Ашт | Ash | Lyceum | L | 01 |
| 58 | СУ-Ашт-L2 | SU-Ash-L2 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи | Technical Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Ашт | Asht | Ашт | Ash | Lyceum | L | 02 |
| 59 | СУ-Хуҷ-L3 | SU-Khu-L3 Engineering | Муассисаи давлатии таълимии «Литсейи касбии техникии сохтмони шаҳри Хуҷанд» | Engineering Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Хуҷанд | Khujand | Хуҷ | Khu | Lyceum | L | 03 |
| 60 | СУ-Иср-L1 | SU-Isr-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии шаҳри Истаравшан» | Technical Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | Истаравшан | Istaravshan | Иср | Isr | Lyceum | L | 01 |
| 61 | СУ-Ҷаб-L1 | SU-Ras-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи ҷаббор Расулов» | Technical Lyceum | Вилояти Суғд | Sughd Region | СУ | SU | ҷаббор Расулов | Rasulov | Ҷаб | Ras | Lyceum | L | 01 |
| Вилояти Мухтори Кӯҳистони Бадахшон - Gorno-Badakhshan Autonomous Region | | | | | | | | | | | | | | | |
| 62 | МК-Шуғ-L1 | GB-Shu-L1 Technical | Муассисаи давлатии таълимии «Литсейи касбии техникии ноҳияи Шуғнон» | Technical Lyceum | Вилояти Мухтори Кӯҳистони Бадахшон | Gorno-Badakhshan Autonomous Region | МК | GB | Шуғнон | Shughnon | Шуғ | Shu | Lyceum | L | 01 |

# APPENDIX 5. COMPLETE LIST OF TVET LEARNING CENTERS

**APPENDIX B: COMPLETE LIST OF TVET ADULT LEARNING CENTRES**

**таҳсилоти ибтидоии касбии** **Adult Learning Centres (ALCs)**

| No | School code | | School name | | Region | | | | District and/or town | | | | School type | | UID | Multiple ALCs in a district | Plotted on Google Maps | ALCs, region subtotals | Districts w ALCs, region subtotals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Name | | Code | | Name | | Code | | | | | | | | |
| | TJ | EN | TJ | EN | TJ | EN | TJ | EN | TJ | EN | TJ | EN | Name | Code | | | | | |
| **Душанбе - Dushanbe** | | | | | | | | | | | | | | | | | | | |
| 1 | ДУ-Душ-А1 | DU-Dus-A1 A. | , Кучаи А.Навои 5/1 | A. Navoi St. 5/1 | Душанбе | Dushanbe | ДУ | DU | Душанбе | Dushanbe | Душ | Dus | ALC | A | 01 | | 1 | | |
| 2 | ДУ-Душ-А2 | DU-Dus-A2 Shohmansur, | нохияи Шохмансур, кучаи Айни 22 | Shohmansur, Aini 22 str. | Душанбе | Dushanbe | ДУ | DU | Душанбе | Dushanbe | Душ | Dus | ALC | A | 02 | 1 | | | |
| **Ноҳияҳои тобеи ҷумҳурӣ - Districts of Republican Subordination** | | | | | | | | | | | | | | | | | | 2 | 1 |
| 3 | ТҶ-Шаҳ-А1 | RS-Sha-A1 Faizabad, | Файзобод, ҷамоати Мискинобод | Faizabad, Miskinabad village | Ноҳияҳои тобеи ҷумҳурӣ | Districts of Republican Subordination | ТҶ | RS | Шаҳринав | Shahrinaw | Шаҳ | Sha | ALC | A | 01 | | 1 | | |
| 4 | | RS-Jir-A1 Rasht, | Рашт, кучаи И. Сомони 52 | Rasht, I. Somoni 52 str. | Ноҳияҳои тобеи ҷумҳурӣ | Districts of Republican Subordination | ТҶ | RS | ҷиргатол | Jirgatol | Ҷир | Jir | ALC | A | 01 | | 1 | | |
| 5 | ТҶ-Раш-А1 | RS-Ras-A1 Hissar, | Хисор, кучаи Ф. Абдуллоев 10/2 | Hissar, F. Abdulloev 10/2 str. | Ноҳияҳои тобеи ҷумҳурӣ | Districts of Republican Subordination | ТҶ | RS | Рашт | Rasht | Раш | Ras | ALC | A | 01 | | 1 | | |
| 6 | ТҶ-Ҳис-А1 | RS-His-A1 Vahdat, | Ваҳдат, кучаи Гайрат | Vahdat, Ghairat str. | Ноҳияҳои тобеи ҷумҳурӣ | Districts of Republican Subordination | ТҶ | RS | ҳисор | Hisor | Ҳис | His | ALC | A | 01 | | 1 | | |
| 7 | ТҶ-Ваҳ-А1 | RS-Vah-A1 Tojikobod, | Точикобод, кучаи М. Идиев | Tojikobod, M. Idiev str. | Ноҳияҳои тобеи ҷумҳурӣ | Districts of Republican Subordination | ТҶ | RS | Ваҳдат | Vahdat | Ваҳ | Vah | ALC | A | 01 | | 1 | | |
| **Вилояти Хатлон - Khatlon Region** | | | | | | | | | | | | | | | | | | 5 | 5 |
| 8 | ХТ-Пан-А1 | KT-Pan-A1 Kulob, | Кулоб, кучаи 1 май | Kulob, may 1 str. | Вилояти Хатлон | Khatlon Region | ХТ | KT | Панҷ | Panj | Пан | Pan | ALC | A | 01 | | 1 | | |
| 9 | ХТ-Ёво-А1 | KT-Yov-A1 Kurgan-Tube, | Курган-Тюбе, кучаи Ф. Саидов 3/1 | Kurgan-Tube, F. Saidov 3/1 | Вилояти Хатлон | Khatlon Region | ХТ | KT | Ёвон | Yovon | Ёво | Yov | ALC | A | 01 | | 1 | | |
| 10 | ХТ-Қур-А1 | KT-Qur-A1 Yavan, | Яван, кучаи Ленин 34 | Yavan, Lenin 34 str. | Вилояти Хатлон | Khatlon Region | ХТ | KT | Қурғонтеппа | Qurghonteppa | Қур | Qur | ALC | A | 01 | | 1 | | |
| 11 | ХТ-Сар-А1 | KT-Sar-A1 Farhor, | Фархор, кучаи Ф. Мухаммадиев 8 | Farhor, F. Muhammadiev 8 str. | Вилояти Хатлон | Khatlon Region | ХТ | KT | Сарбанд | Sarband | Сар | Sar | ALC | A | 01 | | 1 | | |
| 12 | ХТ-Хов-А1 | KT-Kho-A1 Kubodien, | Кубодиен, джамоати Н. Хисрав | Kubodien, N. Hisrav village | Вилояти Хатлон | Khatlon Region | ХТ | KT | Ховалинг | Khovaling | Хов | Kho | ALC | A | 01 | | 1 | | |
| 13 | ХТ-Вах-А1 | KT-Vak-A1 Shurobod, | Шуробод, махаллаи Шуробод 10 | Shurobod, Shurobod 10 vill. | Вилояти Хатлон | Khatlon Region | ХТ | KT | Вахш | Vakhsh | Вах | Vak | ALC | A | 01 | | 1 | | |
| **Вилояти Суғд - Sughd Region** | | | | | | | | | | | | | | | | | | 6 | 6 |
| 14 | СУ-Заф-А1 | SU-Zaf-A1 Aini, | Айни, кучаи Рудаки 15 | Aini, Rudaki 15 str. | Вилояти Суғд | Sughd Region | СУ | SU | Зафаробод | Zafarobod | Заф | Zaf | ALC | A | 01 | | 1 | | |
| 15 | СУ-Хуҷ-А1 | SU-Khu-A1 J. | Дж. Расулов, кучаи Даврон | J. Rasulov, Davron str. | Вилояти Суғд | Sughd Region | СУ | SU | Хуҷанд | Khujand | Хуҷ | Khu | ALC | A | 01 | | 1 | | |
| 16 | СУ-Кон-А1 | SU-Kon-A1 Istaravshan, | Истаравшан, кучаи Ленин 137 | Istaravshan, Lenin 137 str. | Вилояти Суғд | Sughd Region | СУ | SU | Конибодом | Konibodom | Кон | Kon | ALC | A | 01 | | 1 | | |
| 17 | СУ-Исф-А1 | SU-Isf-A1 B. | Бобочон Гафуров, кучаи Хуҷанди 62 | B. Ghafurov, Hujandi 62 str. | Вилояти Суғд | Sughd Region | СУ | SU | Исфара | Isfara | Исф | Isf | ALC | A | 01 | | 1 | | |
| 18 | СУ-Пан-А1 | SU-Pan-A1 Isfara, | Исфара, кучаи А Азимов 86 | Isfara, A Azimov 86 str. | Вилояти Суғд | Sughd Region | СУ | SU | Панҷакент | Panjakent | Пан | Pan | ALC | A | 01 | | 1 | | |
| 19 | СУ-Айн-А1 | SU-Ayn-A1 Panjakent, | Панчакент, кучаи Д. Боборачабов 40А | Panjakent, D. Boborajabov 40A | Вилояти Суғд | Sughd Region | СУ | SU | Айнӣ | Ayni | Айн | Ayn | ALC | A | 01 | | 1 | | |
| 20 | СУ-Исқ-А1 | SU-Isk-A1 Konibodom, | Конибодом, кучаи Х. Алиев 1 | Konibodom, H. Aliev 1 str. | Вилояти Суғд | Sughd Region | СУ | SU | Истиқлол (Истиклол?) | Istiklol | Исқ | Isk | ALC | A | 01 | | 1 | | |
| 21 | СУ-Мас-А1 | SU-Mas-A1 Matchoh, | Матчох, хиебони И. Сомони 31 | Matchoh, I. Somoni 31 prospect | Вилояти Суғд | Sughd Region | СУ | SU | Мастчоҳ | Mastchoh | Мас | Mas | ALC | A | 01 | | 1 | | |
| **Вилояти Мухтори Кӯҳистони Бадахшон - Gorno-Badakhshan Autonomous Region** | | | | | | | | | | | | | | | | | | 8 | 8 |
| 22 | МК-Шуғ-А1 | GB-Shu-A1 | Хоруг, кучаи Ленин 26 | Horog, Lenin 26 str. | Вилояти Мухтори Кӯҳистони Бадахшон | Gorno-Badakhshan Autonomous Region | МК | GB | Шуғнон | Shughnon | Шуғ | Shu | ALC | A | 01 | | 1 | | |
| 23 | МК-Дар-А1 | GB-Dar-A1 | Дарвоз, кучаи Шохмансур | Darvaz, Shohmansur str. | Вилояти Мухтори Кӯҳистони Бадахшон | Gorno-Badakhshan Autonomous Region | МК | GB | Дарвоз | Darvoz | Дар | Dar | ALC | A | 01 | | | | |
| 24 | МК-Ван-А1 | GB-Van-A1 | Ванч, махаллаи Пуни Чугони | Vanj, Puni Chugoni vill. | Вилояти Мухтори Кӯҳистони Бадахшон | Gorno-Badakhshan Autonomous Region | МК | GB | Ванч | Vanj | Ван | Van | ALC | A | 01 | | | | |
| | | | | | | | | | | | | | | | | 61 | 21 | 1 | 1 |

**APPENDIX 6: ENVIRONMENTAL MANAGEMENT AND MONITORING PLANS**

# ENVIRONMENTAL MANAGEMENT PLAN

| **PRE-CONSTRUCTION PHASE** | | | | | | |
|---|---|---|---|---|---|---|
| **Activity** | **Environmental Aspect (EA) and Impact (I)** | **Mitigation Measures** | **Location** | **Responsibility** | | **Costs / Budget** |
| | | | | **Implementation** | **Supervision** | |
| Preparation of bid documents | EA: Bid documents<br><br>I: Environmental aspects are not taken into account during implementation | No bid documents will be prepared without a (Tajik/Russian) copy of the mitigation and monitoring plans, which shall be included in the safeguard clauses of the Technical Specifications in the contracts. | For all lyceums and ACLs | Project implementation consultants | PMU | PMU budget |
| Preparation to construction works | EA: Outdated Initial Environmental Examination<br><br>I: Environmental assessment completed not for all the sites. | Initial Environmental Examination should be updated and disclosed. All new facilities included since project approval should be included in the IEE. | For all new lyceums and ACLs | Project implementation consultants | PMU | PMU budget |
| Preparation to construction works | EA: Site-specific Environmental Management Plan<br><br>I: Environmental aspects are not taken into account during implementation | Site-specific Environmental Plans should be submitted to the PMU for approval at least 10 days before taking possession of any work site | For all lyceums and ACLs | Contractor | PMU | Contractor's budget |

| | | | | | | |
|---|---|---|---|---|---|---|
| Preparation to construction works | EA: Current condition of the educational facilities and dorms<br><br>I: Health and Safety Issues on the Existing Facilities | Administration of lyceums and ALCs maintains the buildings | All facilities | Administration of lyceums and ALCs | PMU | Current budget of Administration of lyceums and ALCs |

| **CONSTRUCTION PHASE** | | | | | | |
|---|---|---|---|---|---|---|
| **Activity** | **Environmental Aspect (EA) and Impact (I)** | **Mitigation Measures** | **Location** | **Responsibility** | | **Costs / Budget** |
| | | | | **Implementation** | **Supervision** | |
| Repair of classrooms, rooms of dorms, canteens, toilets, and other facilities | EA: Noise and Vibration<br><br>I: Nuisance and disturbance of education process | (i) Construction works will be scheduled for students holidays<br>(ii) Timely public announcements of works<br>(iii) Providing the construction workers with suitable personal protective equipment | All facilities | Contractor | PMU, Environmental Consultant | to be included in the Project Costs |
| | EA: Dust, and emissions of Volatile Organic Compounds and thinners<br><br>I: Impact to health of workers and students | (i) Construction works will be scheduled for students holidays<br>(ii) Timely public announcements of works<br>(iii) Providing the construction workers with suitable personal protective equipment (respirators) | All facilities | Contractor | PMU, Environmental Consultant | to be included in the Project Costs |
| | EA: constriction waste<br><br>I: Impact to health of | (i) Timely disposal of construction waste | All facilities | Contractor | PMU, Environmental Consultant | to be included in the Project Costs |

| | | | | | | |
|---|---|---|---|---|---|---|
| | workers and students | | | | | |
| Removal and disposal of existing asbestos-cement roofing materials from some existing TVET buildings | EA: Emissions of Asbestos Containing Material<br><br>I: Impact to health of workers and students | (i) ACM will not be used as a new material in rehabilitation works or new buildings.<br>(ii) Existing asbestos-cement roofing sheets will be removed and disposed of following the internationally-recognized Standard Practice for Maintenance, Renovation and Repair of Installed Asbestos Cement Products (American Society for Testing and Materials [ASTM] E 2394).<br>(iii) Removal of ACM will be scheduled for student vacation time | All buildings with ACM roofing | Contractor | PMU, Environmental Consultant | to be included in the Project Costs |
| Replacement of TVET old equipment | EA: Scrap metal<br><br>I: No recycling | (i) Development of obsolete equipment recycling program<br>(ii) Old metal equipment, cars and scrap metal will be sent to scrap collection points | Old | Lyceums and ALCs | PMU, Environmental Consultant | Environmental benefits |

| **OPERATION PHASE** | | | | | | |
|---|---|---|---|---|---|---|
| **Activity** | **Environmental Aspect (EA) and Impact (I)** | **Mitigation Measures** | **Location** | **Responsibility** | | **Costs / Budget** |
| | | | | **Implementation** | **Supervision** | |
| Operation of rehabilitated facilities and new equipment | EA: Environmental impacts related to the education process<br><br>I: Impact on the environment and health of students | (i) Procurement of TVET equipment enabling minimal impacts on the environment and health<br>(ii) Preparation of Environmental Management Plans for operations | For all lyceums and ACLs | PMU | ADB | to be included in the Project Costs |

## Environmental Monitoring Plan

| PRE-CONSTRUCTION PERIOD | | | | |
|---|---|---|---|---|
| **Monitoring Aspect** | **Monitoring Activity / Details / Outputs** | **Timing** | **Executing Unit** | **Reporting Responsibility** |
| Bid documents | Confirm that bid documents contain environmental clauses tailored to the project conditions as well as this EMP | Preparing the bid documents | PMU | PMU |
| Initial Environmental Examination | Confirm that the IEE covers all the lyceums and ALCs | Project implementation | Environmental consultant | PMU |
| SEMP | Confirm that contractors prepared and submitted for approval the SEMP | At least 10 days before taking possession of any work site | Contractor | Environmental consultant / PMU |
| Environment and Health Status of lyceums and ALCs | Ensure that administration of lyceums and ALCs continue to maintain project buildings and facilities | Before project implementation | PMU | PMU |

| CONSTRUCTION PERIOD | | | | |
|---|---|---|---|---|
| **Monitoring Aspect** | **Monitoring Activity / Details / Outputs** | **Timing** | **Executing Unit** | **Reporting Responsibility** |
| Noise and Vibration | Ensure that maximum and equivalent noise levels on the sites are in compliance with the Sanitary Norms and Rules (weekly instrumental measurements).<br>Ensure that there is no complaints about noise levels | During project implementation | Contractor PMU/Env consultant | Contractor |
| Dust and VOC | Ensure that air quality on the sites is in compliance with the Sanitary Norms and Rules (weekly instrumental measurements).<br>Ensure that there is no complaints about dust/VOC and other pollutants | During project implementation | Contractor PMU/Env consultant | Contractor |
| Construction waste | Confirm that solid construction waste is regularly transferred to approved disposal sites. | During project implementation | Contractor PMU/Env consultant | Contractor |

| | | | | |
|---|---|---|---|---|
| ACM | Ensure that Standard Practice for Maintenance, Renovation and Repair of Installed Asbestos Cement Products is used during removal and disposal of asbestos – concrete roofing. | During project implementation | Contractor PMU/Env consultant | Contractor |
| Old equipment | Ensure that metal scrap to be sent to collection stations | During project implementation | Administration of lyceums & ALCs | Administration of lyceums & ALCs |

| **OPERATION PERIOD** | | | | |
|---|---|---|---|---|
| **Monitoring Aspect** | **Monitoring Activity / Details / Outputs** | **Timing** | **Executing Unit** | **Reporting Responsibility** |
| Environmental impacts related to the education process | | Operation stage | Lyceums | NA |

### Abbreviations used in the EMP:

ACM - Asbestos Containing Material
ALC - Adult Learning Centers
SEMP - Site-specific Environmental Management Plan
PMU - Projects Management Unit
t.b.d. - to be determined

## APPENDIX 1: STANDARD CONSTRUCTION CONTRACT ENVIRONMENTAL SAFEGUARD CLAUSES

### A. Environmental Protection and Control of Pollution

#### 1. General

1. The Contractor shall observe and comply with all National Laws, Government Regulations, Presidential Decrees, and Ministerial Regulations pertaining to environmental protection, pollution control, waste management, and biodiversity protection. In conducting his/her construction activities, the Contractor shall take all necessary precautions to minimize environmental disturbance to the project area and surroundings and to prevent the escape of polluting substances into streams, water courses, and ground water. The Contractor shall also utilize all necessary practicable methods and devices as are available to prevent and otherwise minimize atmospheric emissions or discharges of air contaminants.

2. Except where otherwise agreed or provided for by the Employer or expressly stipulated in Particular Specifications or Technical Specifications forming part of the Contract Documents, no separate payment will be made for complying with the provisions of this Clause and attendant sub-clauses; and all costs shall be deemed to be included in the prices for the Contractor's mobilisation for construction, and the various rates and lump sum items for the works included in the priced Bill of Quantities.

#### 2. Pollution of Water Courses and Streams

3. The emission of polluting liquids or other waste into drains, water courses, or ground water shall not be permitted.

4. No concrete or cement washings from the works or drainage from the Contractor's concrete batching and mixing areas, asphalt (hot mix) plants, or other manufacturing or production facilities shall be allowed to discharge into streams or drains without passing through an adequate system of settling ponds.

5. Storage of fuels, fuelling and maintenance of plant and vehicles, etc. shall take place only on sites and under conditions that that do not allow spilt fuels to be discharged to water bodies. Fuel storage and fuelling areas shall be equipped with adequate protective measures to confine and retain accidental spillages. No drainage from fuel store and plant maintenance depots shall be allowed to be discharged without passing through an adequate arrangement of oil traps and separators.

6. Washing of vehicles shall not be permitted in streams but only in specially designated and equipped areas.

7. Operations in quarries and borrow areas shall be carried out in such a way as to minimize any possible pollution from particulate matter entering the streams. Adequate sanitary waste control facilities shall be provided in site offices and workers camps, and sewage waste shall be collected regularly and disposed in accordance with relevant environmental legislation.

8. The Contractor shall accordingly be responsible for the installation, operation and maintenance of a comprehensive drainage system to all areas of the Works. The system shall be constructed such that no discharges of oil, cement, silt or other liquid or solid waste matter can enter the streams and water courses at the site; and it shall have all necessary solid waste and sediment traps, settling ponds, oil separators, etc., required to ensure that pollution of streams watercourses and natural bodies of water does not occur. The Contractor shall be responsible for maintaining the system to the satisfaction of the Employer's Construction Supervisor and all costs of providing the system shall be deemed to be included in the various rates and lump sum items for the works included in the priced Bill of Quantities.

### 3. Air Pollution

9. The Contractor shall take all necessary steps to minimize air pollution resulting from his/her operations.

10. Except where stipulated in these Specifications for the disposal of natural vegetation and organic materials from clearing operations, the burning of waste materials for disposal, particularly oil and petroleum wastes, rubber, plastics and similar materials will not be permitted.

11. During the performance of the work required under the Contract or of any operations appurtenant thereto, whether on the Project Site or elsewhere, the Contractor shall take all steps necessary, and shall furnish all labor, equipment, materials and means, required to reduce dust nuisance from the Works, and to prevent dust originating from his/her operations from damaging crops, orchards, cultivated fields, and dwellings; or causing a nuisance to persons. The Contractor shall be held liable for any damage resulting from dust originating from his operations including on Government roads, rights-of-way or elsewhere.

12. The emission of dust into the atmosphere shall not be permitted during the manufacture, handling and storage and handling of cement and of concrete aggregates, and the Contractor shall use such methods and equipment as are necessary for the prevention, or the collection and disposal, of dust during such operations. All truckloads of loose materials shall be covered during transportation

13. Concrete batching and mixing areas, asphalt (hot mix) plants, or other manufacturing or production facilities shall be sited at least 500m from the nearest habitation. Emission outlets shall be fitted with pollution control devices in compliance with relevant current Government emission control legislation.

14. The cost of spraying water on haul roads, access roads, government roads, aggregate stockpiles, etc.; or of any other methods of reducing the formation of dust; and the cost of furnishing and applying materials to maintain the works areas, adjacent areas, and roads, in a dustless condition, shall be deemed to be included in the various rates and lump sum items for the works included in the priced Bill of Quantities.

### 4. Noise Pollution

15. The Contractor shall take all necessary precautions to minimize the amount of noise and vibrations coming from construction activities.

16. The Contractor shall ensure that all plant and equipment is properly maintained in good operating condition, and that noisy construction activities shall be effectively sound reduced by means of silencers, mufflers, acoustic linings or shields, acoustic sheds or screens or other means, to avoid disturbance to any nearby noise sensitive receivers. All plant and equipment shall comply with relevant Government legislation covering sound emissions.

17. Quarry operations and blasting shall be undertaken so as to minimize blasting and disturbance during the night and, insofar as possible, noise, vibration and dust. Operation of trucks and heavy vehicles and machinery shall be restricted to the hours of 06:30 to 19:00.

18. All necessary measures shall be undertaken to protect schools, hospitals and other adjacent noise sensitive receptors, including the use of noise barriers.

### 5. Damage to Property, Crops, and Vegetation

19. The Contractor shall limit the movement of his/her employees and equipment within the project area and on adjacent land, including access routes approved by the Employer's Construction Supervisor, so as to minimize damage to natural vegetation, crops and property, and shall endeavor to avoid any damage to land.

20. The Contractor shall strictly ensure employees and equipment do not enter any sensitive environmental areas that are demarcated as "no-entry" zones.

21. The Contractor shall preserve existing trees, plants and other vegetation that are to remain within or adjacent to the Works and shall use every precaution necessary to prevent damage or injury thereto. Trees or shrubs shall only be felled or removed where such impinge directly on the permanent works or necessary temporary works areas; and where such is approved by the Employer's Construction Supervisor.

22. On completion of the Works all areas disturbed by the Contractor's construction activities shall be restored by the Contractor to their original condition, or as may be acceptable to the Employer.

23. The Contractor shall be responsible directly to the Employer for any excessive or unnecessary damage to crops or lands arising from his/her operations, whether within the project area, on lands adjacent thereto, or adjacent to approved access roads: and deductions will be made from the payment due to the Contractor to cover the cost of such excessive or unnecessary damage, as determined by the Employer.

## B. Reporting

24. The Contractor shall maintain a record of all emissions and spills of liquid, solid and gaseous matter which occur at the site, whether into water courses, streams, on land, or into the air. This record shall be compiled daily and shall include details of date, time and nature of the event, along with details of the remedial and clean-up measures carried out.

25. Copies of these records shall be given to the Employer monthly.

26. The Contractor shall also maintain a record of any complaints made by any Governmental or Community Organization or by the public, regarding his/her operations. This record shall contain the date and time of receipt of the complaint, the name and address of the complainant and the action taken to remedy the situation. Copies of these records shall be given to the Employer monthly.

## C. Environmental Management Plan

27. The requirements of this clause and attendant sub-clauses on Environmental Protection and Pollution Control notwithstanding; the Contractor shall observe and comply with all relevant environmental protection and mitigation, monitoring, and reporting requirements in the Environmental Management Plan (EMP) as stipulated in the Particular Specification. In the event of any conflict between the foregoing sub-clauses and the environmental protection and mitigation measures and pollution control requirements of the EMP, the EMP shall take precedence.

28. The Contractor shall prepare and submit to the Employer's Construction Supervisor a Construction Environmental Management and Monitoring Plan (CEMP) demonstrating the manner in which the Contractor will comply with the requirements of the foregoing sub-clauses on Environmental Protection and Pollution Control, the EMP, and any particular environmental mitigation measures as stipulated in the Particular Specifications or Technical Specifications forming part of the Contract Documents.

29. The CEMP shall be submitted within 15 working days of the Contractor receiving the Notice to Proceed with the Works, and shall include a waste management plan detailing procedures for waste management for the site covering all solid, liquid and gaseous waste materials and emissions. The waste management plan shall include procedures for the collection and disposal of all waste materials in such a way as to ensure that no damage is caused to the environment. Training shall be provided to workers about the appropriate implementation of the CEMP and waste management plan measures.

30. Where stipulated in the Particular Specifications or Technical Specifications forming part of the Contract Documents, and provision has been made in the Bill of Quantities; payment for the implementation of the CEMP will be made in accordance with the Unit Rates, Lump Sum or Provisional Sum Items included in the Priced Bill of Quantities.

**APPENDIX 8 - PUBLIC CONSULTATION RECORDS**

*Notes:*

1. Project will provide requested civil works / equipment (Y)

2. Project will not provide requested civil works / equipment (N)

3. Immediate response to stakeholders or Project references EMP (X)

4. Stakeholders expressed concern about environmental health and safety issues: solid waste disposal (D); electricity supply (E); heating (H); lighting (L); external noise-air pollution (P); roofing (R); water disposal / sewage treatment (S); ventilation (V); water supply (W)

5. Stakeholders expressed concern about specific areas and items: canteen (c); grounds/landscaping/drainage etc (g); dormitories (m); roofing (r)

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
|---|---|---|---|---|---|---|---|---|
| **1.** | **DUSHANBE TECHNICAL VOCATIONAL TRANSPORT LYCEUM, 27 JANUARY 2015** | | | | | | | |
| 1 | According to the General Plan of Dushanbe city the lyceum's building is to be demolished. How the ADB project will consider this? | Don't know | As we were informed by representatives of local authorities the demolition of the building is not foreseen, at least in nearest 5 years. Planned civil works comprise toilet rehabilitation and construction of a new auto repair workshop | | | | | |
| 2 | During the civil war the lyceum hostel was transferred to the balance of Railway | Don't know | New dormitory construction is not | | N | | | m |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
|---|---|---|---|---|---|---|---|---|
| | administration of Tajikistan. In the absence of a hostel, our students are forced to rent apartments. How will this problem be solved in the framework of the ADB project? | | included in planned civil works | | | | | |
| 3 | We have replaced 20 % of asbestos roofs with tin roofs at our own expense. When will the remaining roofs be changed? | Don't know; if roofs replaced, replacement will be non-asbestos | Roof replacement is not included in planned civil works | | N | | | r |
| 4 | There is a national road at the distance of 30 meters from the lyceum, there is a truck fleet near the building, plenty of heavy trucks; it is very noisy there. How to protect students from the noise? | Noted. EMP will include measures to reduce noise and dust | Noise abatement measures (eg improved windows and doors) in existing buildings are not included in planned civil works. Design of new auto repair workshop will take noise abatement into account. It's not obvious what EMP measures could further ameliorate this situation, but the issue can be followed up during Project implementation | | N | X | P | |
| 5 | As for workshops lighting - tubular fluorescent lamps are going out, they need to be changed. Classrooms are equipped with mercury lamps, do they influence blurred vision? | Noted. LED lamps, though more expensive, are safer, longer lasting, and less harmful to eyes | Appropriate light fixtures will be chosen by project architects and procurement experts for installation in new and rehabilitated buildings | Y | | | L | |
| 6 | The lyceum's sewage system does not work since 1991. Lavatory inside the building does not work; | Noted | Planned civil works include rehabilitation of 1st and 2nd story toilets | Y | | | S | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
|---|---|---|---|---|---|---|---|---|
| | there is only one lavatory - in the courtyard. It is necessary to restore canalization and repair the lavatory. | | in the educational building | | | | | |
| 7 | Old wiring passes through the damp wall and ceiling, there is a risk of short circuits, a replacement is needed. | Noted | Planned civil works do not include rehabilitation of electrical wiring. | | N | | E | |
| 8 | The lyceum wastes such as cloth, sawdust, food waste are disposed by the lyceum employees. Rubbish and mercury lamps are piled up in the yard. A rubbish truck comes once a quarter and charges 450-600 TJS. | Mercury lamps must be collected in special boxes and then delivered to the city Department of Ecology. | Planned civil works do not include construction of solid waste collection/storage facilities. Planned equipment purchases do not include bins sized to store accumulated waste between collections. EMP will include developing and operating appropriate waste / hazardous waste disposal arrangements | | N | X | D | g |
| 9 | Dining roof and air ventilation need to be repaired. There wastewater system is not working properly, no relevant treatment | Noted; EMP will address | Planned civil works do not include canteen rehabilitation, roof repairs, or ventilation upgrading | | N | X | V S P | cr |
| **2.** | **DUSHANBE VOCATIONAL POLYTECHNIC LYCEUM, 30 JANUARY 2015** | | | | | | | |
| 1 | The lyceum is connected to the main water system. The system does not work inside the building and needs to be repaired. Only one pipe is functioning in the yard so the water pressure is low. The water supply system needs repair, to fix the water pressure. Additional pipes need to be installed in the yard and in the classrooms | Noted | Provision of reliable, safe water supplies to the building areas planned for rehabilitation (classrooms, toilets, laundry, and canteen) is an integral part of the rehabilitation of those areas | Y | | | W | |
| 2 | Building toilets do not work. The water purification and water supply systems are broken. Toilets must | Noted | Planned civil works include toilet rehabilitation. Water supply, see #1 | Y | | | S | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
|---|---|---|---|---|---|---|---|---|
| | be connected to drainage and water supply | | above | | | | W | |
| 3 | The lyceum has a continuous electricity supply. However, electric wiring needs to be repaired and replaced with larger-diameter wires | Noted | Provision of reliable, safe electrical power to the building areas listed in #1 above is an integral part of the rehabilitation of those areas | Y | | | E | |
| 4 | There's no heat in the winter. Connection to the central heating and additional heat sources are essential | Noted | Provision of appropriate heating facilities to the building areas listed in #1 above is an integral part of the rehabilitation of those areas | Y | | | H | |
| 5 | Ventilation system is broken in the lyceum workshops and dining room. It needs to be repaired. | Noted | Provision of appropriate ventilation facilities is an integral part of the planned rehabilitation of the workshops and canteen | Y | | | V | c |
| 6 | The lyceum grounds groundwater level is high. The drainage system needs to be improved | Noted | Planned civil works do not include drainage improvements | | N | | | g |
| 7 | Lyceum staff and students are negatively impacted by poor air quality from nearby major air polluters – construction plant, car repair factory, and Ministry of Health parking lot. Appeals to the District Committee of Ecology have not yielded any results. Can the Project help with lowering pollutant emissions from these plants? | Noted | Planned building area rehabilitation will include improved windows and doors that should result in some degree of improvement in indoor air quality. It's not obvious what EMP measures could further ameliorate this situation, but the issue can be followed up during Project implementation | Y | | X | P | |
| 8 | Garbage is thrown in a landfill on the lyceum grounds. Mercury lamps are collected in boxes and stored in a warehouse. It would be helpful to have | Noted | Planned civil works do not include construction of on-site solid waste collection/storage facilities. Planned equipment purchases currently do not | | N | X | D | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
|---|---|---|---|---|---|---|---|---|
| | additional garbage bins | | include bins of adequate size for on-site storage of waste that accumulates between collections. EMP will include developing and operating appropriate waste / hazardous waste disposal arrangements | | | | | |
| **3.** | **DUSHANBE TECHNICAL VOCATIONAL CONSTRUCTION LYCEUM, 28 JANUARY 2015** | | | | | | | |
| 1 | The water supply network inside the building is broken. There are only two working water towers in the courtyard of the lyceum so the water pressure is low. An additional tower next to the workshops is needed to increase the water pressure | Noted | Planned civil works do not include construction of additional water towers | | N | | W | |
| 2 | There is only one working toilet inside the building, on the 2nd floor, toilet for men. Female toilet on the 1st floor does not work. A dorm toilet also does not work properly. Complete renovation is needed | Noted | Planned civil works include rehabilitation of toilets in the educational building and dorm | Y | | | S | m |
| 3 | The wiring is partly worn, especially in the dining room and dormitory; the existing wiring is needed to be replaced with thicker wires. | Noted | Provision of reliable, safe electrical power to rehabilitated building areas (classrooms, mason and plumber workshops, corridors, office, and dorm canteen, toilet, and laundry) is an integral part of the rehabilitation. Planned civil works do not include rehabilitation of dorm rooms | Y | N | | E | m c |
| 4 | Ventilation system does not work properly, especially in the dining room and welding rooms, cars repair and painting workshops | Noted | Provision of adequate ventilation to rehabilitated building areas (see #3 above) is an integral part of the rehabilitation. Planned civil works do not include rehabilitation auto repair | Y | N | | V | C |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
|---|---|---|---|---|---|---|---|---|
| | | | and painting workshops | | | | | |
| 5 | 157 persons live in the dormitory, 24 of them are unauthorized persons, 13 persons will be evicted in March 2015, ten persons will be evicted a bit later. The building of the hostel is in the critical condition. Will these facts affect the decision of dormitories repairing? | Noted | There are no illegal persons living in dormitory. The construction works will be implemented in summer time during the holidays when all persons will be not in the building | | | | | M |
| 6 | At one time, the lyceum had an athletic field here, but it was taken over by a driver training center. The athletic field should be restored to the lyceum, as it is important for students' health. Last year we planted seedlings in the lyceum courtyard, and then we wanted transplant these seedlings to other areas and convert the courtyard to an athletic field, but the District Department of Ecology has not allowed us to move the trees. Could you please advise us how to fulfill our plans? | Noted; EMP will address | Landscaping is out of scope for the Project. It would be better to solve the problem by the Executing agency in cooperation with Committee of sport, tourism and youngth. It's not obvious what EMP measures could ameliorate this situation, but the issue can be followed up during Project implementation | | N | X | | G |
| 7 | Mercury-vapor lamps are thrown into the garbage located outside the building | Noted | EMP will include developing and operating appropriate waste / hazardous waste disposal arrangements | | | X | D | g |
| 8 | The transformer on the lyceum grounds often breaks down and needs to be repaired. A backup transformer is needed to ensure continuous electricity supply | Noted | Provision of reliable, safe electrical power to rehabilitated building areas (selected toilets, classrooms, workshops, etc) is an integral part of the rehabilitation | Y | | | E | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
|---|---|---|---|---|---|---|---|---|
| 9 | It is cold in lyceum building and dorm in winter, especially in the workshops. Heating is needed | Noted | Provision of appropriate heating facilities to rehabilitated building areas is an integral part of the rehabilitation | Y | | | H | |
| **4.** | **DUSHANBE TECHNICAL VOCATIONAL SEWING LYCEUM, 4 DECEMBER 2014** | | | | | | | |
| 1 | What's planned in the project of your lyceum? When will it be done? | Don't know | See list of planned civil works | | | | | |
| 2 | In 2015 the lyceum will celebrate its seventieth anniversary. For all these years, the lyceum had no major repairs. Are these kind of works planned? | Decision on repair works will be taken later | Planned civil works consist of rehabilitation of classrooms, dorms, and the education building | | | | | m |
| 3 | With our own funds, we replaced 20 % of asbestos roofing with tin. What will other roofs be replaced with? | Replacement roofing must be non-asbestos material chosen by professionals | Planned civil works include replacing the educational building asbestos roof with a non-asbestos roofing. The material will be determined by the architect/engineer | Y | | | | r |
| 4 | Adjacent to the lyceum (30 m away) there is a general government ("Republican") highway travelled by large trucks and vans. There is also a motor-transport depot nearby. The noise from these activities affects the lyceum grounds, with negative effects on the educational process and health of students and staff | Noted; some measures would be offered in EMP | Improved windows and doors in rehabilitated areas should reduce indoor noise levels. It's not obvious what EMP measures could ameliorate this situation, but the issue can be followed up during Project implementation | Y | | X | P | |
| 5 | Workshops are lit with fluorescent tubes that burn out working and need to be replaced. Lecture halls are lit with mercury lamps. Do they have a bad | Noted. LED lamps, though more expensive, are | Appropriate light fixtures will be chosen by project architects and procurement experts for installation in new and | Y | | | L | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
|---|---|---|---|---|---|---|---|---|
| | influence on eyesight? | safer, longer lasting, and less harmful to eyes | rehabilitated buildings | | | | | |
| 6 | Sewage system hasn't been working since 1991. An inside lavatory is out of order. There is one outside lavatory. Sewage system and lavatories have to be reconstructed and repaired | Noted | Planned civil works include rehabilitation of education building and dorm toilets | Y | | | S | |
| 7 | Electric wiring is old and walls and ceiling are damp, so there is a danger of short circuits. Old wiring needs to be replaced | Noted | Provision of reliable, safe electrical power to rehabilitated building areas (selected toilets, classrooms, workshops etc) is an integral part of the rehabilitation | Y | | | E | |
| 8 | Lyceum waste – fabrics, filings, food wastes – are utilized by lyceum' personnel. Garbage and mercury lamps are collected in the courtyard. A garbage collection vehicle comes once a quarter. Removal of garbage costs 450-600 TJS | Mercury lamps have to be collected in special closed boxes and have to be handed over to the city ecology services | Planned civil works do not include construction of solid waste collection/storage facilities. Planned equipment purchases do not include bins of adequate size to store waste that accumulates between collections. EMP will include developing and operating appropriate waste / hazardous waste disposal arrangements | | | X | D | g |
| 9 | Dining hall generally, including roof and ventilation system, needs to be repaired;<br><br>there is no proper treatment of wastewater | Noted; EMP will address issue | Planned physical works include dorm and canteen rehabilitation, including ventilation, wastewater disposal, and dorm and educational building roof replacement. It's not obvious what EMP | Y | | X | S<br>V | r<br>c |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| | | | measures would be relevant | | | | | |
| **5.** | **DUSHANBE TECHNICAL VOCATIONAL TOURISM AND SERVICE LYCEUM, 29 JANUARY 2015** | | | | | | | |
| 1 | Water supply pipe network inside the building is broken and water pressure is low. Only one pipe operates in the yard. Repairs are needed to the water supply system, including installation of additional pipes in the lyceum courtyard. | Noted | Planned physical works include water tower Installation and well drilling | Y | | | W | |
| 2 | The three toilets inside the building lack flushing water and do not work. Toilets need to be connected to the sewer system | Noted | Planned physical works include toilet rehabilitation. | Y | | | S | |
| 3 | During the spring and autumn rainy seasons, the lyceum grounds fill with water flowing down from the nearby hills. Perhaps the project would help address this problem | | Landscaping is out of scope for the Project | | N | | | g |
| 4 | Two years ago, the city mayor allowed the Institute of Economics and Finance to seize the lyceum building (in Giprozem), forcing the lyceum to move to its current location. The dorm remains in Giprozem. Students accommodated in the dorm must travel between dorm and lyceum by public transport. The dorm on the current lyceum grounds needs to be repaired | Noted; some measures would be offered in EMP | Planned civil works do not include repairs to the lyceum dorm | | N | X | | m |
| 5 | Workshops and cafeteria ventilation does not work and needs to be fixed | Noted; some measures would be offered in EMP | Planned civil works do not include repairs to canteen and workshop areas. It's not obvious what EMP measures could ameliorate inadequate ventilation | | N | X | V | c |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| 6 | Among the 110 people living in the hostel, 20 people are the lyceum staff, and 5 families of strangers who will be evicted in May 2015. Would this impact the implementation of the dormitory renovation project? The dorm needs major repairs ғ здесӣ все законно | Noted | Planned civil works do not include dorm rehabilitation | | N | | | m |
| 7 | Lyceum staff and students are suffering from poor air quality. Next to the lyceum there are major air polluters – privately-owned beer and wine factories that burn waste, emitting soot and other toxic pollutants. Our appeals to the District Committee of Ecology have not yielded any results. We request the Project to protect us from these toxic and harmful health and environmental emissions | Noted. Suggest lyceum apply to Dushanbe city administration | It's not obvious what EMP measures could ameliorate this situation, but the issue can be followed up during Project implementation | | | X | P | |
| 8 | Waste is buried outside the lyceum building. Mercury lamps are stored in boxes the basement. Please place a trash can in the lyceum courtyard | Noted | Planned civil works do not include construction of solid waste collection/storage facilities. Planned equipment purchases do not include bins of adequate size to store waste that accumulates between collections. EMP will include developing and operating appropriate waste / hazardous waste disposal arrangements | | N | X | D | g |
| 9 | Canteen sewage system does not work and wastewater drains into the yard | Noted; some measures would be offered in EMP | Planned civil works do not include rehabilitation of sewage system | | N | X | S | c |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| 10 | Currently students travel to the lyceum by various means at their own expense. We want assistance to purchase trucks to transport students to internships | Noted | Out of scope for the Project | | | | | |
| **6.** | **KULOB TECHNICAL VOCATIONAL AGRICULTURAL LYCEUM, KHATLON – 6 FEBRUARY, 2015** | | | | | | | |
| 1 | The lyceum, which is located 18 km from the nearest town, the village Dahan, occupies a large area of seven hectares plus a nearby subsidiary farm of 22 hectares plus 142 hectares of irrigated fields that pasture 60 cattle in Muminabad. The agricultural products of these areas contribute to healthy student meals three times per day | Noted | No Project action required | | | | | |
| 2 | Water supply is intermittent and insufficient. The well in the lyceum courtyard should be deepened to supply more water and to improve water quality. The lyceum has water pipes and tanks used for local water storage; these need to be repaired | Noted | Planned civil works do not include rehabilitation of water supply system | | N | | W | |
| 3 | Electricity s supplied eight to ten hours per day. Workshop and canteen wiring is in bad condition and needs repaired / replaced with larger wires | Noted | Provision of reliable, safe electrical power to rehabilitated building areas (educational building, workshop) is an integral part of the rehabilitation | Y | | | E | c |
| 4 | Winter heating is provided by small coal and wood burning stoves. Coal is purchased. Wood comes from harvesting tress growing on the lyceum farm | Noted | Provision of appropriate heating facilities, that utilize reliable and environmentally sustainable energy sources, to the building areas listed in #3 above is an integral part of the rehabilitation of those areas | | | | H | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| 5 | The workshop and canteen ventilation system is not working and needs to be fixed. The canteen lacks waste water disposal arrangements. Due to the electricity shortage, students' food is prepared on an open fire in cast iron pots | Noted; some measures would be offered in EMP | Provision of ventilation to the workshop is an integral part of its rehabilitation. Planned civil works do not include canteen rehabilitation | Y | N | X | V | c |
| 6 | Toilets are only available in the yard. Additional toilets must be built | Noted | Educational building rehabilitation includes toilet rehabilitation | Y | | | S | |
| **7.** | **KULOB TECHNICAL VOCATIONAL CONSTRUCTION LYCEUM, KHATLON – 6 FEBRUARY 2015** | | | | | | | |
| 1 | The lyceum grounds have been reduced from five to three hectares. During 1992-2000, the lyceum was used by opposition forces as a military base, and buildings were severely damaged. Lyceum staff have partially repaired them but help is needed with further repairs to buildings and workshops | Noted | Planned civil works include rehabilitation of educational buildings and dorms | Y | | | | |
| 2 | Water supply is intermittent. Water is stored in a tank, but it is too small to meet the demand. There are three water pipes are in a poor condition, additional pipe is needed for repair | Noted | Provision of reliable, safe water supply to rehabilitated building areas (educational building, workshops, dorms) is an integral part of the rehabilitation | Y | | | W | |
| 3 | To improve the water supply, the water tower next to the lyceum should be repaired | Noted | See #2 | Y | | | W | |
| 4 | The sewage system of the lyceum does not work; its pipes have been destroyed. The courtyard well should be connected to the buildings and canteen | Noted | See #2 | Y | | | W | c |
| 5 | The workshop and canteen ventilation system is | Noted | Provision of ventilation to rehabilitated workshops is an integral part of the | Y | N | | V | c |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| | not working and needs to be fixed | | rehabilitation. Planned civil works do not include canteen rehabilitation | | | | | |
| 6 | Electricity is supplied intermittently and the current is weak. The electric wiring, circuits, and wiring box need to be repaired / replaced. Larger wires should be provided, 4-10 square millimeters. A new transformer should be installed. | Noted; some measures would be offered in EMP | Provision of reliable, safe water supply to rehabilitated building areas (educational building, workshops, dorms) is an integral part of the rehabilitation | Y | | X | E | |
| 7 | Lyceum building and dorm toilets are shut down due to the lack of water and sewer. Pit toilet in the yard of the lyceum is in an awful condition | Noted | Planned civil works include rehabilitation of toilets in educational building, workshops, dorms | Y | | | S | m |
| 8 | Renovation of the lyceum gym, including provision of a shower room, is needed | Noted | Planned civil works do not include gym renovation | | N | | | |
| **8.** | **VOSE TECHNICAL VOCATIONAL LYCEUM, KHATLON – 6 FEBRUARY 2015** | | | | | | | |
| 1 | The lyceum water supply is intermittent, from 8-10 in the morning and 16-22 in the evening, which does not suit the lyceum operating schedule. Water is supplied from a canal bringing groundwater from artesian wells. Water is stored in a water tank in the lyceum courtyard. Both the lyceum and residents use this water, and demand exceeds supply. The lyceum building does not have a water supply system. Water is collected through two water cranes in the yard, one of which is not working properly | Noted; some measures would be offered in EMP | Planned civil works include “external water pipe…repair” (only). Not obvious what EMP measures would be helpful | Y | N | X | W | |
| 2 | The lyceum does not connect to a centralized sewage system because the city does not currently have one –it hopes to install one in the coming | Noted | Planned civil works include “sewage system repair” | Y | | | S | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| | years | | | | | | | |
| 3 | Toilets and showers do not work and need to be fixed | Noted | Planned civil works do not include rehabilitation of toilets or showers | | N | | W | |
| 4 | The lyceum canteen does not have a sewer connection or ventilation system. Canteen waterwaster drains to the yard | Noted | Planned civil works include “sewage system repair.” They do not include rehabilitation of the canteen | Y | N | | W V | c |
| 5 | Electricity supply is intermittent and the current is weak, which disrupts classes and canteen operations. A transformer is needed to normalize the voltage | Noted | Provision of reliable electric supply to rehabilitated building areas (educational building, welding workshop, labs) is an integral part of the rehabilitation; however, not clear if canteen and classrooms are included in “educational building” rehabilitation | Y | N | | E | |
| 6 | Building and workshop wiring is not working properly and needs to be fixed | Noted | See #5 above | Y | N | | E | |
| 7 | The sewing shop needs task lighting fixtures next to the machines to protect students’ eyesight and enhance output quality | Noted | Not clear if rehabilitated area includes sewing shop | ? | ? | | L | |
| 8 | The lyceum courtyard has a large empty pond that used to be a swimming pool. If the pool given a roof could be used as a student gym in the winter | Suggest lyceum apply to the Department of Sport, Dushanbe | Planned civil works do not include rehabilitation of pool | | N | | | g |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| **9.** | **QURGHONTEPPA TECHNICAL VOCATIONAL LYCEUM, KHATLON – 6 DECEMBER, 2014** | | | | | | | |
| 1 | What's planned in the project of your lyceum? When will it be done? | Don't know | See list of planned civil works | | | | | |
| 2 | Lyceum is situated very close to the road. Road noise and dust interfere with studying | Noted. Lyceum can take measures to reduce noise and dust. EMP will address | Planned civil works include rehabilitation of classrooms and workshops. This will include improved windows and doors that should result in some degree of improvement in indoor noise levels and air quality. It's not obvious what EMP measures would further ameliorate but this can be looked at during Project implementation | Y | | X | P | |
| 3 | The lyceum used to have an automotive workshop until its grounds were reduced from 2.3 to 1.7 thousand square meters (city administration gave lyceum land for a two-story shop) | Noted | Noted | | | | | |
| 4 | For two years (1992-1993), when opposition forces occupied parts of the lyceum grounds, one of the lyceum buildings was burned down during a battle. Will it ever be restored? | Noted; civil works not yet determined | See list of planned civil works | | | | | |
| 5 | Inside lavatories are not working because sewage and plumbing systems are out of order. They need to be fixed | Noted | Planned civil works include rehabilitation of educational building toilets | Y | | | S W | |
| 6 | Outside lavatories need repair and restoration | Noted | Planned civil works do not include rehabilitation of outside toilets | | N | | S W | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| 7 | The lyceum courtyard anymore has been turned into a city dump. Educational buildings and in student dorms are affected by smoke from burning and strong odors | Green plantations may lessen effects on lyceum of odors and smoke, and may attract the attention of the city ecology services to the lyceum's needs | Planned civil works do not include construction of on-site solid waste collection/storage facilities. Planned equipment purchases do not currently include bins of adequate size for on-site storage of waste that accumulates between collections. EMP will include developing and operating appropriate waste / hazardous waste disposal arrangements | | N | X | D P | m g |
| 8 | Some discarded energy-efficient mercury lamps are dumped and burned in the lyceum courtyard | Mercury lamps should be collected and delivered to city ecology services | See #7 above | | | X | D Q | g |
| 9 | Dining hall is for 611 people, there are 80 seats. Wastewater disposal arrangements are absent as the sewage system is ruined, and there is no ventilating system | Noted; EMP will address | Planned civil works do not include rehabilitation of canteen | | N | X | V S | |
| 10 | Workshop and dining hall ventilation systems do not work | Noted EMP will address | Provision of ventilation to rehabilitated workshops is an integral part of the rehabilitation. Planned civil works do not include canteen rehabilitation | Y | N | X | V | c |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| **10.** | **VAKHSH TECHNICAL VOCATIONAL LYCEUM, KHATLON – 3 FEBRUARY 2015** | | | | | | | |
| 1 | Lyceum was at the center of fighting during the civil war, so most of the buildings need major repairs | Noted | | | | | | |
| 2 | 20 students and 32 outsiders live in the lyceum dorm. The outsiders are expected to be evicted this spring. Will Project work still take place if the evicted is delayed? | Don't know | There are two dorm buildings. People are living in first building. Only second dorm which is empty now will be rehabilitated | | | | | m |
| 3 | The lyceum sewage system does not work. The lyceum should be connected to the sewage system that is 300 m away from the nearby district hospital. | Noted | Planned civil works include sewage system repair | Y | | | S | |
| 4 | The building and farm have four inside toilets, but they do not work and have been turned into storage space. There is also one outside toilet in poor condition | Noted | Planned civil works include dorm toilet rehabilitation (only) | Y | N | | S | |
| 5 | Workshop and canteen ventilation is not working. A motor needs to be replaced. | Noted | Provision of ventilation to rehabilitated workshops is an integral part of the rehabilitation. Planned civil works do not include canteen rehabilitation | Y | N | | V | c |
| 6 | In the winter season, the building and dorm are heated with 20 coal and wood stoves. Coal is purchased, and wood comes from felling of trees on the lyceum grounds, whose size is five hectares. | Noted; some measures would be offered in EMP | Provision of appropriate heating facilities, utilizing a reliable, environmentally-sustainable energy source, to rehabilitated building areas (workshops, classroom, and dorm) is an integral part of the rehabilitation. Not clear what EMP measures would be | Y | | X | H | m |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| | | | relevant here | | | | | |
| 7 | The lyceum is connected to the city water supply. Water pressure is so low that floors above ground level are not supplied. There are two water tanks in the lyceum courtyard. A new well and water purification system are needed | Noted; some measures would be offered in EMP | Planned civil works (rehabilitation of workshops, classroom, and dorm) include provision of safe, reliable water supply, and "external water pipe repair" – this will include the works mentioned ("construct a well and install a water purification system") if necessary to achieve this objective. Not clear what EMP measures are relevant here | Y | | X | W | m |
| 8 | The canteen's electric stoves are old and in poor condition. Canteen food is often prepared on an open fire in the yard in cast iron pots using wood and coal. Water for drinking is boiled using furnaces. Canteen wastewater is dumped in the lyceum yard | Noted | Planned civil works do not include canteen rehabilitation | | N | | E<br>W | c |
| 9 | Lyceum electric wiring is outdated and does not meet demand. New wiring is needed | Noted | Provision of safe and reliable electric supply to rehabilitated workshops, classroom, and dorm areas is an integral part of the rehabilitation | Y | | | E | |
| **11. SHAHRTUZ TECHNICAL VOCATIONAL LYCEUM, KHATLON – 3 FEBRUARY 2015** | | | | | | | | |
| 1 | Since the lyceum was built in 1959 there have been no major renovations. What repairs will be implemented by the ADB project? | Don't know | See list of planned civil works | | | | | |
| 2 | The building has toilets on every floor, but they do not work and are used for storage. The water purification and water supply systems are destroyed. Building toilets need to be connected to | Noted | Planned civil works include "external water pipe and sewage system repair." Not clear if this includes rehabilitation of toilets and water purification and | Y | N | | S<br>W | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| | sewage and water supply. The lyceum courtyard has three outside toilets that are in poor condition | | supply systems | | | | | |
| 3 | The lyceum electricity supply from the red line is inconsistent. The lyceum has a back-up generator. An additional constant electricity source is needed | Noted | Provision of safe and reliable electric supply to rehabilitated workshops, classroom, and dorm areas is an integral part of the rehabilitation. Electrical supply will not be provided to other non-rehabilitated areas | Y | | | E | |
| 4 | Building heat is provided by 14 coal and wood stoves. Coal and wood are purchased, the latter from a subsidiary farm of the lyceum | Noted | Provision of appropriate heating arrangements to rehabilitated workshops is an integral part of the rehabilitation. Heating will not be provided to other non-rehabilitated areas | Y | N | | H | |
| 5 | Workshop and cafeteria ventilation is not working. A motor needs to be replaced | Noted | Ventilation will be provided to rehabilitated workshops. Canteen will not be rehabilitated | Y | N | | V | c |
| 6 | The lyceum is connected to the city sewer but the sewage system does not work; its pipes are old and rusty. The pipes should be replaced | Noted | Planned civil works include sewage system repair | Y | | | S | |
| 7 | The lyceum is connected to the city water supply system through two pumping stations. These stations need partial renovation | Noted | Planned civil works do not include renovation of pumping stations | | N | | W | |
| 8 | Canteen waste water is collected in buckets and poured onto courtyard vegetation. Appropriate wastewater containers are lacking | Noted; EMP will address | Planned civil works include sewage system repair. It's not obvious what EMP measures are relevant here, but the issue can be followed up during | Y | | X | W | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| | | | Project implementation | | | | | |
| 9 | There are 80 people living in a dorm, 40 of whom are outsiders. These residents are expected to be evicted in spring. Due to the poor condition of the dorm, 20 students are being accommodated in lyceum academic buildings | Noted | Planned civil works do not include rehabilitation of the dorm | | N | | | m |
| **12.** | **PANJAKENT TECHNICAL VOCATIONAL LYCEUM, SUGHD – 12 FEBRUARY 2015** | | | | | | | |
| 1 | The lyceum is connected to the red unlimited line and has its own transformer. The lyceum has a subsidiary farming on 23 hectares | Noted | Noted | | | | E | |
| 2 | The lyceum sewage system has problems. The lyceum is not connected to city sewage. Panjakent town waste flows into the river | Noted | Planned civil works do not include sewage system rehabilitation | | N | | S | |
| 3 | Lyceum building water supply system does not work. The water utility delivers water to the lyceum grounds (ie up to the property line). Water taps are in need of repair. Fire hydrant lacks water | Noted | Planned civil works do not include water supply rehabilitation other than that associated with canteen | Y | N | | W | |
| 4 | Dorm and all floors of lyceum building have toilets but they are not working. Three outside toilets are not cleaned as currently there is no toilet cleaning service that visits. When an outside toilet fills up, students cover it and dig a new hole | Noted | Planned civil works do not include toilet rehabilitation | | N | | W | m |
| 5 | Workshops and canteen ventilation systems do not work and require repairs. Canteen wastewater drains to a dug hole that is full and overflows to the lyceum yard. Food is prepared on old plates that | Noted | Planned civil works include canteen rehabilitation, which would involve ventilation and waste water disposal. Other sewage system rehabilitation is | Y | N | | V<br>W | c |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| | need to be replaced | | not included | | | | | |
| 6 | Winter heating is provided by fireplaces and by a boiler that heats the building and dorm.<br><br>There is a heating system which is not functioning without boiler house. Boiler house needs to be repaired to allow proper functioning of heating system. | Noted; some measures would be offered in EMP | Provision of appropriate heating facilities to rehabilitated building areas (training rooms, canteen, classroom) is integral to the rehabilitation. Dorms are not slated for rehabilitation. Not clear what EMP measures would be relevant | Y | N | X | H | m |
| 7 | Lyceum electrical wiring needs to be repaired | Noted | Provision of safe, reliable electric power to rehabilitated building areas (training rooms, canteen, classroom) is integral to the rehabilitation | Y | | | E | |
| 8 | Lyceum garbage is collected and stored in a dump on the lyceum grounds until taken to the city dump in lyceum transport. A dumpster is needed. Mercury lamps are collected separately and taken to the housing and communal services and to the city dump | Noted | Planned civil works do not include construction of on-site solid waste collection/storage facilities. Planned equipment purchases do not currently include bins of adequate size for on-site storage of waste that accumulates between collections. EMP will include developing and operating appropriate waste / hazardous waste disposal arrangements | | N | | D | g |
| **13.** | **SHAHRISTON TECHNICAL VOCATIONAL AGRICULTURAL LYCEUM, SUGHD – 12 FEBRUARY 2015** | | | | | | | |
| 1 | The local climate is cold and wet with frequent foggy days so consistent provision of heat and light is essential, but electricity is switched off 9am to 5pm during the sessions. The lyceum should be connected to the red line, or to other heat and | State has decreed that red line connection is required for all educational | | | | | E | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| | electricity sources | institutions – contact local government about this issue | | | | | | |
| 2 | The lyceum transformer is worn out, low power, and needs repair. It should be replaced with higher-power unit | Noted | | | | | E | |
| 3 | Meals are often undercooked due to the low power of the transformer; sometimes cooking is done using firewood. Kitchen stoves need to be replaced | Noted. EMP measures will be offered | | | | | E | c |
| 4 | The lyceum building and dorm water supply system does not work. Toilets and showers have not worked since 1992. Water comes from the Vodokanal. The lyceum courtyard has two functioning taps but there do not meet the water demand. The fire hydrant is empty | Noted | | | | | W S | |
| 5 | There are two functioning outside toilets. These are insufficient and new ones should be constructed. Toilets are cleaned as needed by a commercial mobile service that cots US50 per visit | Noted | | | | | S | |
| 6 | Workshop and canteen ventilation units do not work. They need to be repaired and the engine replaced by a 10 kW unit | Noted | | | | | V | c |
| 7 | Until 1992, all lyceum rooms were heated by a fuel oil boiler. The boiler and heating networks need to | Noted. EMP measures will | | | | | H | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| | be restored. An option would be construction of two mini-boilers for the academic building and dorm. Currently heat is provided by coal and wood stoves | be offered | | | | | | |
| 8 | Lyceum electrical wiring needs to be repaired | Noted | | | | | E | |
| 9 | Contract student numbers are decreasing every year due to the poor hygienic and sanitary conditions and high transport costs from other districts | Noted | | | | | | |
| **14.** | **MASTCHOH TECHNICAL VOCATIONAL AGRICULTURAL LYCEUM, SUGHD – 11 FEBRUARY 2015** | | | | | | | |
| 1 | The lyceum area is about 8.5 hectares, including a subsidiary farm. Irrigation water flows from the channel and drinking water - from artesian wells served by Vodokanal five hours per day. Drinking water is of poor quality (salty, mineralized) and not safe for drinking. A non-functioning 60 m deep well is located on the lyceum grounds. It should be deepened to the clean water horizon of 120-150 m deep to gain access to safe drinking water | Noted | Provision of reliable, safe water supplies to the building areas planned for rehabilitation (classrooms, toilets, labs, and showers) is an integral part of the rehabilitation of those areas | Y | | | W | |
| 2 | The lyceum water distribution system is broken. There are four water taps on the lyceum grounds. Water pressure is low. Water is salty and corrodes the pipes. Students find it difficult to wash as there are no showers or toilets, and the water is salty. Pipes need to be replaced, possibly with plastic. | Noted | See #2 | Y | | | W | |
| 3 | The sewage system is blocked. Canteen wastewater is disposed into a container in the yard. Fire prevention water reservoir does not work | Noted | Provision of reliable, safe water supplies and wastewater disposal to the building areas planned for | Y | N | | S W | c |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| | as water taps are out of order. The fire services are not supportive and only impose fines | | rehabilitation (classrooms, toilets, labs, and showers) is an integral part of the rehabilitation of those areas. Planned civil works do not include rehabilitation of firefighting water supplies | | | | | |
| 4 | The dormitory and all four floors of buildings have toilets but they are not functioning. The courtyard has two outside toilets, one for students, one for teachers. There is a need for more toilets. | Noted | Planned civil works include toilet rehabilitation | Y | | | S | m |
| 5 | Workshop and canteen ventilation systems are out of order. Repair and replacement of the engine is needed | Noted | Planned civil works include the canteen, a lab, and a classroom (but no workshops). Provision of appropriate ventilation is integral to rehabilitation of these areas | Y | | | V | c |
| 6 | There is a landfill on the lyceum grounds to which other nearby organizations and residents bring their garbage. From there, it is taken to the general landfill. Garbage containers are needed. Discarded energy-saving lamps are being separated out and are accumulating in the warehouse, but no one knows to whom they should be given | Noted; some measures would be offered in EMP | Planned civil works do not include construction of on-site solid waste collection/storage facilities. Planned equipment purchases do not currently include bins of adequate size for on-site storage of waste that accumulates between collections. EMP will include developing and operating appropriate waste / hazardous waste disposal arrangements | | | X | D | g |
| 7 | The lyceum is connected to a centralized sewage system that has not functioned consistently since 2000, though every year some cleaning is done that improves it for the short term. Complete | Noted | Provision of wastewater disposal to the building areas planned for rehabilitation (classrooms, toilets, labs, and showers) is an integral part of the rehabilitation of those areas. Planned civil works do not | Y | N | | S | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| | renovation of the sewage system is needed | | include complete renovation of the sewage system | | | | | |
| 8 | The electrical wiring is partially destroyed and needs repair, especially in the lyceum workshops and dormitory | Noted | Provision of safe, reliable electricity supply to the building areas planned for rehabilitation (classrooms, toilets, labs, and showers) is an integral part of the rehabilitation of those areas. Workshops and dormitories are not however included in the rehabilitation | | N | | E | m |
| 9 | The lyceum fuel boiler has been out of services since 1994. Restoration of the boiler house is needed. | Noted | Provision of safe, reliable heating to the building areas planned for rehabilitation (classrooms, toilets, labs, and showers) is an integral part of the rehabilitation of those areas. Boiler restoration will be evaluated against other options | Y | | | H | |
| 10 | Mastchoh district belongs to the zone with constant strong winds of 10-15 m/sec, and wind set should be installed on the lyceum grounds. | Noted; some measures would be offered in EMP | Rehabilitation designers will select the most feasible electricity supply option from all available alternatives (urban grid and on-site wind / natural gas / liquid fuel / solid fuel generation). Not clear what EMP measures would be relevant | Y | | X | E | |
| **15. KHUJAND VOCATIONAL POLYTECHNIC LYCEUM, SUGHD – 13 FEBRUARY 2015** | | | | | | | | |
| 1 | The main lyceum building was constructed in 1933. The workshops, academic building, and dorm were constructed later. No major repairs have been carried out | noted | | | | | | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| 2 | The water supply system previously reached all areas of the lyceum. Now it is damaged and needs repair | noted | Noted | | | | W | |
| 3 | The lyceum is connected to the town sewage system. Currently the sewer and water systems function in the academic building 1st floor but not in other areas (workshops, canteen, and norm). It needs to be repaired | | | | | | S | |
| 4 | The lyceum courtyard has three water taps that work but have low water pressure | noted | Noted | | | | W | |
| 5 | Electricity is supplied to campus. Electrical wiring is damaged in places. The ventilating unit is impaired and needs to be repaired, especially in the workshops | noted | Noted | | | | V | |
| 6 | Central heating used to be supplied from the lyceum boiler room, but it is out of service now. A new boiler is needed, and radiators should be replaced. In winter rooms are heated by coal and wood stoves | | | | | | H | |
| 7 | There is a garbage dump on the lyceum grounds. Four dumpsters are needed. Burnt bulbs are collected in boxes. | noted | Noted | | | | | |
| **16.** | **KHUJAND TECHNICAL VOCATIONAL CONSTRUCTION LYCEUM, SUGHD – 10 DECEMBER 2014** | | | | | | | |
| 1 | What's planned in the project of our lyceum? When will it be done? | Don't know | See list of planned civil works and Project implementation schedule | | | | | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| 2 | The lyceum is located on a busy road with high levels of car and bus traffic. A car wash is located nearby. The noise, dust, and exhaust fumes interfere with educational activities and pose a public health hazard | Noted. The measures against noise pollution (road signs, traffic lights etc.) and dust will be included in EMP | Improved windows and doors in rehabilitated areas (canteen, classrooms, passages, labs, dorm, toilet and shower rooms) should reduce indoor noise levels. It's not obvious what EMP measures could further ameliorate this situation, but the issue can be followed up during Project implementation | Y | | X | P | |
| 3 | Every year professors and students plant young trees in the lyceum territory, but they don't survive because of rocky soil and lack of water | Noted | Landscaping is out of scope for the Project | | N | | | g |
| 4 | Heating does not work well. There are no radiators. Heating must be increased in lecture halls, workshops, laboratories etc. | Noted | Provision of safe, reliable heating to the building areas planned for rehabilitation is an integral part of the rehabilitation of those areas | Y | | | H | |
| 5 | The water supply system is in poor condition. The water pipe was dismantled a long time ago. There are only two standpipes in the courtyard. Water pressure is low | Noted. Concern will be included in EMP recommendation | Provision of safe, reliable water supply to the building areas planned for rehabilitation is an integral part of the rehabilitation of those areas. It's not obvious what EMP measures would help with this | Y | | X | W | |
| 6 | Lyceum is not connected to the central sewage system even though its pipes go right through lyceum grounds. The lyceum should be connected to this system | Noted. Concern will be included in EMP recommendation | Provision of appropriate wastewater disposal to the building areas planned for rehabilitation is an integral part of the rehabilitation of those areas. It's not obvious what EMP measures would help with this | Y | | X | S | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| 7 | Canteen wastewater is not being utilized. They drain to the basement and are absorbed by the soil. The canteen has no ventilation system | Noted. Concern will be included in EMP recommendation | Planned civil works include rehabilitation of canteen, including ventilation and wastewater disposal. It's not obvious what EMP measures would help with this | Y | | X | WV | c |
| 8 | The lyceum grounds include a garbage dump. Mercury lamps are being dumped there | Waste can be dumped on the lyceum grounds. Lamps must be collected. An agreement about waste removal and mercury lamps is needed with the city ecology administration. | Planned civil works do not include relocation/improvement of existing waste dump on the lyceum grounds, and planned equipment purchases do not include bins sized to store accumulated waste between collections. EMP will include developing and operating appropriate waste / hazardous waste disposal arrangements | | N | X | D | g |
| 9 | Lyceum buildings and workshops lack ventilation systems | Noted | Provision of adequate ventilation to the building areas planned for rehabilitation (canteen, classrooms, passages, labs, dorm, toilet and shower rooms) is an integral part of the rehabilitation. Workshops are not including in the rehabilitation | Y | N | | V | |
| 10 | Electric wiring is partially destroyed. Some of the walls are wet. To prevent accidents, existing electrical wires (0.25 mm diameter) should be | Noted. Concern will be included in | Provision of reliable, safe electrical power to rehabilitated building areas is an integral part of the rehabilitation. It's | Y | | X | E | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| | replaced with larger wires (0.8mm diameter) | EMP recommendation | not obvious what EMP measures would help with this | | | | | |
| 11 | Building toilets are out of order and used as storerooms. The courtyard has two working outside toilets; more are needed. We are digging another cesspool | Noted. Concern will be included in EMP recommendation | Planned civil works include rehabilitation of toilet and shower rooms; integral to this work is the provision of appropriate wastewater disposal arrangements. | Y | | X | S | |
| **17.** | **ISFARA TECHNICAL VOCATIONAL OIL AND GAS LYCEUM, SUGHD – 10 FEBRUARY 2015** | | | | | | | |
| 1 | The lyceum area is about 6 hectares. There is a subsidiary farm, which helps to enhance nutrition of students. However, the sanitary and hygienic conditions of staff and students of the lyceum are not satisfactory | Noted | Noted | | | | | |
| 2 | The lyceum water tower stopped functioning in 1995. The water tower should be restored, or, alternatively, water should be supplied from an artesian well | Noted | Provision of safe, reliable water supply to rehabilitated school areas (canteen, classrooms, lab, boiler room) is integral to the rehabilitation | Y | | | W | |
| 3 | Buildings, workshops, and dorm water supply systems are broken and need rehabilitation | Noted | See #2 above | | | | W | m |
| 4 | Toilets on each floor of the building and the dorm are out of order. Three outdoor toilets in the courtyard also require rehabilitation | Noted | Planned civil works do not include rehabilitation of toilets | | N | | S | m |
| 5 | Workshop and canteen ventilation systems are out of order and need to be repaired. Motors need to | Noted | Canteen ventilation is included in the canteen rehabilitation. Planned civil works do not include rehabilitation of | Y | N | | V | c |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| | be replaced | | workshops | | | | | |
| 6 | The lyceum could be connected to the sewage system of the Neftyaniki (oil workers) settlement | Noted | Rehabilitation designers will consider this option for the septic system installation that is included in the list of planned civil works | | | | S | |
| 7 | Canteen wastewater is not utilized but drains out into the lyceum grounds, creating unhygienic conditions for students and staff | Noted | Appropriate wastewater disposal is included in the canteen rehabilitation | Y | | | S | c |
| 8 | The electoral network is partially destroyed and needs repair, especially in workshops and dorm | Noted | Provision of reliable, safe electrical power to rehabilitated building areas (canteen, classrooms, lab, boiler room) is an integral part of the rehabilitation. However, planned civil works do not include the workshops and dormitory | | N | | E | m |
| 9 | Garbage is collected and accumulated on the lyceum grounds, and then transported to the landfill by lyceum personnel | Noted | Planned civil works do not include construction of on-site solid waste collection/storage facilities. Planned equipment purchases do not currently include bins of adequate size for on-site storage of waste that accumulates between collections. EMP will include developing and operating appropriate waste / hazardous waste disposal arrangements | | N | | D | g |
| **18. ISTRAVSHAN TECHNICAL VOCATIONAL LYCEUM, SUGHD – 12 FEBRUARY 2015** | | | | | | | | |
| 1 | The lyceum is connected to the central water supply, but it cuts out during school hours. There are taps in the courtyard. The water supply system | noted | Following works are foreseen here: Rehabilitation of the workshop for welding, Rehabilitation of the workshop | | | | W | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| | needs to be repaired | | for gas welding, Rehabilitation of the passage (classrooms), Rehabilitation of classroom for cook-confectioner, Rehabilitation of classrooms | | | | | |
| 2 | The lyceum is connected to town sewer system but the sewage network within the lyceum is damaged. About 700 m of pipe needs to be replaced | noted | -“ - | | | | S | |
| 3 | The lyceum canteen is occupied by a college so food is prepared in another building. Transfer of the college to another building is planned for 2015. Will the project repair the canteen? | noted | -“ - | | | | | C |
| 4 | Lyceum sewers and toilets do not work. There are three taps in the lyceum courtyard. The toilets, laundry, showers, and construct a new toilet in the courtyard of the Lyceum | noted | -“ - | | | | S<br>W | |
| 5 | Ventilation unit in the workshops and canteen of the Lyceum does not work, there are no pipes, and support is needed for restoration of the ventilation unit | noted | -“ - | | | | V | |
| 6 | The electricity is supplied to the limit; in some places the electrical wiring is damaged. There is a transformer that needs to be repaired or replaced | noted | -“ - | | | | E | |
| 7 | There is a garbage dump in the territory of the Lyceum, garbage is thrown there. Burned bulbs are collected in a separate room | noted | | | | | D | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| **19.** | **SHAHRINAW TECHNICAL VOCATIONAL LYCEUM, DISTRICTS OF REPUBLICAN SUBORDINATION – 26 FEBRUARY 2015** | | | | | | | |
| 1 | At one time, the lyceum had a sewer system and showers/toilets inside the building and a separate bathhouse in the yard. All of these facilities are now out of order. Toilets/showers are used as storage facilities. Sewage water drains to canals and ditches and then to the Qaratag River. Perhaps the Project supports construction of an autonomous sewer system with a wastewater treatment pond in lyceum courtyard? | Noted | Planned civil works include septic system repair | Y | | | S | m |
| 2 | Winter heating winter was supplied from an independent boiler that is now out of order. The boiler is likely not repairable. Two autonomous mini-boilers for the dorm and other buildings is probably a better option | Noted | Provision of appropriate heating facilities to rehabilitated building areas (selected workshops and classrooms, canteen, and dorm) is an integral part of the rehabilitation | Y | | | H | m |
| 3 | The lyceum is connected to a central water supply, that is fed by artesian water. However, the pump is too small to meet demand and needs replacement. The lyceum grounds (about six hectares) have six water taps, four in poor condition. Water pressure is low. There is no competent plumber avalable. The fire hydrant is always dry | Noted | Provision of safe, reliable water supply to rehabilitated building areas (selected workshops and classrooms, canteen, and dorm) is an integral part of the rehabilitation. Unclear if rehabilitation of plumbing to fire hydrant is included in planned civil works | Y | N | | W | |
| 4 | Toilets on all floors of buildings of the lyceum and the dormitory are out of work and need for restoration. There are 4 earth toilets, they are not cleaned, and the system of cleaning the toilets which was provided by special trucks is not working. As toilets are filling out they close them | Noted | Planned civil works include toilet rehabilitation | Y | | | S | m |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| | and dig new ones | | | | | | | |
| 5 | There is a large unorganized landfill in the courtyard of the lyceum, it occupies a large area, and there is a need for dumpsters. Mercury lamps are collected and kept separately and are not taken out | Noted | Planned civil works do not include construction of on-site solid waste collection/storage facilities. Planned equipment purchases do not currently include bins of adequate size for on-site storage of waste that accumulates between collections. EMP will include developing and operating appropriate waste / hazardous waste disposal arrangements | | N | | D | g |
| 6 | The lyceum has a large subsidiary farm about 46 hectares; the garden occupies an area of seven hectares. There is a lot of waste of fruits, is it possible to build a shop for processing of fruits and vegetables? | Noted | Planned civil works include fruit and vegetable processing workshop rehabilitation | Y | | | | |
| 7 | The lyceum's electric wiring in need of repair | Noted | Provision of safe, reliable water supply to rehabilitated building areas (selected workshops and classrooms, canteen, and dorm) is an integral part of the rehabilitation | Y | | | E | |
| 8 | The canteen's equipment does not work; the food is prepared in the courtyard using firewood from the subsidiary farm of the lyceum. | Noted | Planned civil works include canteen rehabilitation | | | | | c |
| **20.** | **TOJIKOBOD TECHNICAL VOCATIONAL LYCEUM, DISTRICTS OF REPUBLICAN SUBORDINATION – 28 FEBRUARY 2015** | | | | | | | |
| 1 | The lyceum moved to a new building in 2008. The total area of the lyceum is about five hectares; | Noted | Planned civil works include well drilling and water tower installation. Provision | Y | N | | W | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| | there is subsistence farming in three hectares, where they grow fruit trees, potatoes, corn, beans, etc. Water is supplied from the water utility; the lyceum water feeds with the pipes of 13 km length. On the way to the lyceum water is taken by 36 other private farms. The population is growing, as the lyceum is located at the end of the pipe, feels deficiency of water. To resolve problems with water supply it is appropriate to dig a well with depth of 50m in the territory of the lyceum. For irrigation water needs be supplied from the river Surkhob (1 km away from the lyceum). | | of irrigation water is outside the scope of the Project | | | | | |
| 2 | Sewage system is not existed in the lyceum; toilets in the buildings are not functioning. It is advisable to build the sewage system in the lyceum grounds along with sewage collection and disposal facilities. The canteen should also be connected to the system; currently canteen wastewater is thrown out into the lyceum courtyard | Noted | Planned civil works include rehabilitation of toilets on four floors of the education building, septic system repair, and canteen rehabilitation | Y | | | S | c |
| 3 | Lyceum workshops (welders, drivers, electricians) and canteen need to be equipped with fume extraction hoods. The canteen electric stoves are old and need to be replaced | Noted | Planned civil works include canteen rehabilitation; do not include welder / driver / electrician workshop rehabilitation | Y | N | | V | C |
| 4 | There are two earth toilets, as they fill up they are closed and new ones dug | Noted | Planned civil works include rehabilitation of toilets on four floors of the education building | Y | | | S | |
| 5 | There is a large landfill in the lyceum courtyard where garbage is burnt. Dumpsters are needed. Mercury lamps are collected and kept separately | Noted | Planned civil works do not include construction of on-site solid waste collection/storage facilities. Planned | | | | D | G |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| | and are not taken out. | | equipment purchases do not currently include bins of adequate size for on-site storage of waste that accumulates between collections. EMP will include developing and operating appropriate waste / hazardous waste disposal arrangements | | | | | |
| 6 | The lyceum grounds are open and need to be fenced. | Noted | Landscaping / grounds improvements are outside the scope of the project | | N | | | G |
| **21.** | **SHUGHNON TECHNICAL VOCATIONAL LYCEUM, GBAO – 16 OCTOBER 2014** | | | | | | | |
| | There is no relevant equipment to have proper and quality vocational education | noted | purchase of special equipment in accordance with request of lyceum administration will be provided by the Project | Y | | | | |
| | Rooms for teaching welding, electricity works, roof and toilets need to be repaired. Is it possible to do in frame of projects works | noted | Rehabilitation works in accordance with request of lyceum administration will be provided by the Project | | Y | | S | R |
| **22.** | **YOVON ADULT LEARNING CENTRE (ALC) – 4 FEBRUARY 2015** | | | | | | | |
| 1 | Yovon ALC moved to a new location in 2012. There is no toilet on site, so people use a toilet in the yard of a nearby private house. An inside toilet connected to city sewage should be built in the ALC building | Noted | Planned civil works not itemized, unknown if toilet rehabilitation is included | | N | | S | |
| 2 | The ALC building is without a water supply connection. Water is brought in buckets from private water tanks | Noted | Planned civil works not itemized, unknown if water supply rehabilitation is included | | N | | W | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| 3 | Power outages are frequent. The ALC has a small generator used for computer training, 20 electric sewing machines for sewing lessons, and space heating. Power generation is very expensive as gasoline costs TJS 7 per liter. The ALC should be connected external supply of constant power | Noted. Issue will be addressed in EMP | Planned civil works not itemized, unknown if electric supply rehabilitation is included. Not obvious what EMP measures would be helpful | | N | X | E | |
| 4 | Wiring is damaged due to over use. It needs to be repaired or replaced | Noted | Planned civil works not itemized, unknown if electric supply rehabilitation is included | | N | | E | |
| 5 | ALC courtyard has a garbage dump. Mercury lamps are thrown in the trash. Garbage containers are needed. Lamps should be recycled by the municipal services | ALC could apply to local service providers | Planned civil works not itemized, unknown if solid waste disposal rehabilitation is included | | N | | D | |
| 6 | ALC is located near a busy highway. Carbon monoxide emissions and noise pollution from the vehicles are a problem | Noted | Planned civil works not itemized, unknown if rehabilitation includes window/door replacement to improve indoor air quality and reduce noise | | N | | P | |
| **23. FARKHOR ADULT LEARNING CENTRE (ALC) – 7 FEBRUARY 2015** | | | | | | | | |
| 1 | Farkhor ALC has representatives in Panj and Hamadoni districts, Khatlon region. It offers a large selection of courses and frequently introduces new specialty courses. Electricity is supplied continuously, but wiring needs to be repaired and replaced | Noted | Planned civil works not itemized, unknown if electric wiring rehabilitation is included | | N | | E | |
| 2 | ALC water supply is insufficient. Courtyard has two water tanks. The water supply network and tanks need to be repaired | Noted | Planned civil works not itemized, unknown if water supply rehabilitation is included | | N | | W | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| 3 | The ALC building is located on a campus with 18 other organizations. There is a garbage dump on-site, that is in poor condition. Garbage dumped there includes mercury lamps, syringes, bandages, expired medicines, etc. The ALC takes responsibility for garbage removal out of its own resources, given that the sanitary and epidemiological authorities do not. The campus needs a new trash container | Noted | Planned civil works not itemized, unknown if solid waste disposal rehabilitation is included | | N | | D | |
| 4 | All the campus organizations share one toilet, which is cleaned by ALC staff. No-one removes trash from the toilet. New separate toilets for men and women are needed | | Planned civil works not itemized, unknown if toilet rehabilitation is included | | N | | S<br>D | |
| 5 | The ALC ventilation system does not work. It needs to be repaired | Noted | Planned civil works not itemized, unknown if ventilation rehabilitation is included | | | | V | |
| **24. NORAK ADULT LEARNING CENTRE (ALC) – 4 FEBRUARY 2015** | | | | | | | | |
| 1 | Part of the ALC is located in the partially-destroyed second floor of a building where the fire escape is used to enter the building. The Education Center moved to a new building in 2014 and has done repair works on its own. Would a complete renovation be done and would the lyceum be furnished using the project funds? | Noted | Planned civil works are not itemized. Scope of proposed rehabilitation is unknown | | | | | |
| 2 | Water is supplied to the 1st floor. It is necessary to raise the water pressure, provide access to the sewer, electricity and construct toilets on the 2nd floor | Noted | Planned civil works not itemized, unknown if water supply rehabilitation is included | | N | | W | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| 3 | In the courtyard of the lyceum (5 hectares) there are other organizations, old buildings which can be repaired and used as workshops, provided there's access to water, electricity, and sewage system. At the present, students' practicum training takes place outside of the lyceum | Noted | Planned civil works are not itemized. Scope of proposed rehabilitation is unknown | | N | | W<br>E<br>S | |
| 4 | There's no area for trash disposal, hence, it's required to provision for a large trash container | Noted | Planned civil works not itemized, unknown if solid waste disposal rehabilitation is included | | N | | D | |
| **25. KONIBODOM ADULT LEARNING CENTRE (ALC) – 10 FEBRUARY 2015** | | | | | | | | |
| 1 | The lyceum water supply system is inadequate. During summer water is drawn from the Fergana Canal 200 m away to fill the pool. Water quality is poor – it is muddy and unsafe for drinking. It is mostly used for irrigation. In recent years, canal water is used less | Noted | Planned civil works do not include water supply system rehabilitation | | N | | W | |
| 2 | Drinking water comes from an artesian well, which is used to fill a large covered pool in the lyceum courtyard. Residents of nearby houses also use this water in the summer. The volume of water available to the lyceum needs to be increased, either by deepening the artesian water well to 80-100 meters or by restoring the nearby water tower | Noted | Planned civil works do not include water supply system rehabilitation | | N | | W | |
| 3 | Lyceum toilets and showers are in good condition but do not work as they are not supplied with water. The lyceum water supply system is in poor condition. Additional water taps need to be installed in the courtyard | Noted | Planned civil works include toilet rehabilitation | Y | | | S | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| 4 | The lyceum has no canteen. A canteen should be constructed for teachers and students, including Tajik students coming from Kyrgyzstan | Noted | Planned civil works include canteen rehabilitation | Y | | | | c |
| 5 | There is a garbage dump on the lyceum grounds. It receives the solid and liquid waste of a nursing home that occupies one of the lyceum buildings. A wheeled bin is needed. They have recently begun collecting energy-saving lamps in a box | Noted | Planned civil works do not include solid waste disposal rehabilitation | | N | | | D |
| 6 | There is only one toilet in the courtyard It needs to be recovered. Separate toilets for men and women are needed | Noted | Planned civil works include toilet rehabilitation | Y | | | | S |
| 7 | The boiler building in the courtyard is old and abandoned. Is it possible to restore the boiler by the project funds? | Noted | Planned civil works do not include heating system rehabilitation | | | | H | |
| **26. BOBOJON GHAFUROV ADULT LEARNING CENTRE (ALC) – 11 FEBRUARY 2015** | | | | | | | | |
| 1 | The branch of Adult Education Centre is located in a Finnish style building and located in the same area with the District Employment Agency. The Centre has its representatives in other districts of Sughd region. There is an idea of moving the Lyceum to another building in future. Whether the project considers this factor? | Noted | According the information we have currently no any changing of Lyceum building is foreseen. No any official confirmation | | | | | |
| 2 | Electric power supply of the Lyceum - is limited, there is a need for additional source of electricity. The area is exposed to strong winds during all seasons except summer. Is it possible to use wind power as an additional source of electricity? | Noted | | | | | E | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
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| 3 | Half part of the Center's roof - are made of asbestos. Is there a plan to change the roofing on new one and what type of brand? | All asbestos roofs will be changed - metal-tiled roofs will be installed | | | | | | r |
| 4 | Toilet in the building of the Centre does not work, several organizations and local population are using earth pit latrine. There is a need to build the new toilet. | Noted | | | | | S | |
| 5 | The Center's Work shops are located in other places, they need for water supply and repair of ventilation system, particularly for conducting the practical training sessions on electric welding and confectionery products business, etc. | Noted | | | | | W<br>V | |
| 6 | Garbage is collected in bags; there is a need for the garbage container as the mercury lamps are thrown with household waste. | | | | | | D | |
| **27.** | **TAVILDARA ADULT LEARNING CENTRE (ALC) – 27 FEBRUARY 2015** | | | | | | | |
| 1 | By the decision of the Hukumat, branch of the Learning Center moved from the center of Tavildara district to another building at a distance of 5 km from the center, in 2009. The road from the center to the school is in a poor state, there is no traffic, and it affects the number of pupils to be covered. The Lyceum does not have own vehicle. Perhaps, project supports provision of the vehicle for transportation of pupils and teachers to school | Noted | | | | | | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
|---|---|---|---|---|---|---|---|---|
| | and other training activities? | | | | | | | |
| 2 | The Lyceum has a big problem with water supply to school buildings, workshops and dormitories. Drinking water at the expense of the Lyceum was supplied by a hose with a diameter of 15 mm from the springs in the mountains at a distance of 1 km from the Lyceum. To meet the water needs it is necessary to replace the hose by another 50 mm one. There are 2 water taps, on the territory of the Lyceum one of which is in poor condition; the water pressure is low in both taps. | Noted | | | | | W | |
| 3 | For watering of green plants students have to bring water from the river Obikhingou at 500m from the Lyceum. A pump is requires to lift water from the river and a hose with a diameter of 100mm to the needs of irrigation and household purpose. | Noted | | | | | W | |
| 4 | The buildings of the Lyceum are located in 54 hectares 8 meters and consist of educational building, dormitory, canteen and warehouses. The Lyceum renovated part of the roof, there is a need to repair the remaining part. (120 units of tin coatings). The Lyceum has not yet been examined by the engineers of the project, please, include roof repair in the project budget. Construction of a separate building for the dormitory of the students should also be included (currently instead of 181 students, only 35 students live in dormitory) | Noted | | | | | | r |
| 5 | Electricity is available about five hours per day. Winter heating is provided by ten wood stoves. | Noted. EMP measures will | | | | | E | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
|---|---|---|---|---|---|---|---|---|
| | Firewood is purchased from the forestry department for TJS 80 per cubic metre. Coal costs TJS 300 per tonne. Local coal from Mienadu is poor quality and people prefer firewood. Winters in Gharm are long. Total firewood and coal consumption are about 70 cubic meters and 20 tons respectively. The lyceum boiler is completely out of service. We recommend construction of a new mini-boiler | be offered | | | | | H | |
| 6 | Lyceum grounds are about 4.6 hectares. There is a road close to the lyceum that brings people and cattle onto the grounds, which makes it impossible have gardens or plantings. The Lyceum needs a 1.5km enclosure fence | | Landscaping is out of scope of the Projecct | | | | | |
| 7 | Lyceum lacks workshop equipment used by maintenance persons, welders, electricians, tractor drivers. The number of pupils is decreasing every year due to poor living conditions and limited opportunity for practical training. Food is prepared under shed using the firewood. | Noted | | | | | | C |
| 8 | Courtyard has three outside toilets. Two of them are in poor condition | | | | | | S | |
| **28. VANJ ADULT LEARNING CENTRE (ALC) – 18 OCTOBER** | | | | | | | | |
| 1 | There is no relevant equipment to have proper and quality vocational education | noted | purchase of special equipment in accordance with request of lyceum administration will be provided by the Project | Y | | | | |

| # | *Stakeholder questions / comments* | *Immediate response to stakeholders* | *Project action* *Notes:* | *1* | *2* | *3* | *4* | *5* |
|---|---|---|---|---|---|---|---|---|
| 2 | Rooms for teaching welding, electricity works, roof and toilets need to be repaired. Is it possible to do in frame of projects works | noted | Rehabilitation works in accordance with request of lyceum administration will be provided by the Project | Y | | | | |

## APPENDIX 9. PUBLIC CONSULTATION PARTICIPANTS



### LYCEUMS

**Participants 1: Dushanbe Technical Vocational Transport Lyceum, 27 January 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Azimov Kh. | Teacher | 907802827 |
| Ismoilov T. | Teacher | 904639640 |
| Kaumov A. | Teacher | 915308182 |
| Khushbakhtova Z. | Teacher | 902667285 |
| Kurbonaseynov K. | Teacher | 935568325 |
| Makhmudov K. | Teacher | 919431084 |
| Mirsanginova S. | Teacher | 938455654 |
| Nazarov A. | Teacher | 985078075 |
| Rakhimov Z. | Deputy Director | 907943505 |
| Saidova Sh. | Deputy director | 907979017 |
| Sangov I. | Teacher | 918965239 |
| Shoeva T. | Teacher | 2240122 |
| Usupova G. | Librarian | 988548754 |
| Zokirova P. | Pedagogy teacher | 987373873 |

**Participants 2: Dushanbe Vocational Polytechnic Lyceum, 30 January 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Bobosherov O. | Master production division | Rudaki region |
| Erakhmedov R. | Master production division | Dushanbe |
| Ganiev D. | Consultant | Dushanbe |

| Name | Title | Tel / Email |
|---|---|---|
| Gulomova Sh. | Master production division | Dushanbe |
| Isoev S. | Master production division | Dushanbe |
| Kalandarova M. | Master production division | Dushanbe |
| Kaumov A. | Security guard | 919171242 |
| Kaysarova F. | Master production division | Dushanbe |
| Kiborov Kh. | Master production division | Dushanbe |
| Nazarova B. | Librarian | Dushanbe |
| Rakhimova Kh. | Master production division | Dushanbe |
| Rakhimova M. | Master production division | Dushanbe |
| Ruziev N. | Teacher | Dushanbe |
| Saidkhujaev B. | Master production division | Ayni region |
| Sainurova S. | Master production division | Dushanbe |
| Sanginova M. | Deputy director, Education | Dushanbe |
| Sanginova M. | Deputy director | 919624240 |
| Shamsiev S. | Master production division | Dushanbe |
| Shodieva M. | Master production division | Rudaki region |
| Sultonov A. | Master production division | Dushanbe |

**Participants 3: Dushanbe Technical Vocational Construction Lyceum, 28 January 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Kholov M. | Master | |

| Name | Title | Tel / Email |
|---|---|---|
| Kurbonov M. | Teacher | |
| Dilovarov M. | Master | |
| Khotamov R. | Master | |
| Nomolov Sh. | Teacher | |
| Saidvaliev S. | Teacher | |
| Khaknazarov B. | Head teacher | |
| Kamolov Sh. | Teacher | |
| Dodikudoeva G. | Deputy director | |
| Gadoaliev K. | Teacher | |
| Gulomova F. | Master | |
| Salomova M. | Teacher | |
| Kenjaev S. | Master | |
| Oshurov O. | Master | |
| Majidov B. | Master | |
| Salomov S. | Master | |
| Umarov M. | Master | |
| Saidov N. | Teacher | |
| Umarov F. | Master | |
| Rajabov M. | Instructor | |
| Zievuddinova Kh. | Master | |

| Name | Title | Tel / Email |
|---|---|---|
| Sayorova M. | Teacher | |
| Sharipova Kh. | Teacher | |
| Dovutova S. | Teacher | |
| Kamolov Sh. | Director | 917517555 |

**Participants 4: Dushanbe Technical Vocational Sewing Lyceum, 4 December 2014**

| Name | Title | Tel / Email |
|---|---|---|
| Abdulloeva J. | Tajik language and literature teacher | 985688847 |
| Akhrorova Kh. | In-service training master | 919022692 |
| Akramova M. | History teacher | 919179193 |
| Azizova G. | Teacher technology | 900570900 |
| Bakhbuba Sharipovna | Information technology master | 985618775 |
| Chakalova B. | In-service training master | 917057170 |
| Ermatova S. | Algebra and geometry teacher | 919294193, 501929353 |
| Gaforov S. | Accountant | 915717870 |
| Junaydova N. | In-service training master | 934172504 |
| Kabirova A. | Teacher | 919986622 |
| Khisorieva Z. | Senior foreman | 919320361 |
| Khuseynova G. | Director | 907633011 durandagi@mail.ru |
| Kodirova M. | Teacher | 909883131 |
| Malikova M. | In-service training master | |

| Name | Title | Tel / Email |
|---|---|---|
| Muminova S. | Biology and chemistry teacher | 900696940 |
| Muzafarova J. | Teacher | 988790985 |
| Niyazova Z. | Production head teacher | 917946471 |
| Rakhmonova B. | Tajik language and literature teacher | 985844040 |
| Rukhshonai Nurali | In-service training master | 988504155 |
| Sadiev Kh. | Science teacher | 918421705 |
| Sadikova M. | Russian language and literature teacher | 934290806 |
| Saidova M. | Head teacher | 917084000 |
| Shakhobova L. | Teacher | 919803239 |
| Sharifova M. | In-service training master | 917189581 |
| Sharipova M. | In-service training master | 985703255 |
| Shukurova J. | Geography teacher | 907633636 |
| Shurshieva Z. | Deputy director, economic affairs | 919554183 |
| Soledov M. | Head teacher | 909718715 |
| Turaeva F. | In-service training master | 987339766 |
| Zorakova Sh. | In-service training master | 501869073 |

**Participants 5: Dushanbe Technical Vocational Tourism and Service Lyceum, 29 January 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Emomov B. | Deputy director, social affairs | 904565560 |
| Fayzieva Z. | Senior foreman | 934220782 |

| | | |
|---|---|---|
| Mukhamadshina N. | Senior foreman | 985920020 |
| Rakhmonov U. | Teacher | 907304473 |
| Sarvarova Z. | Senior foreman | 907911802 |
| Shukurova S. | Deputy director, apprenticeship training | 907979489, 2273075 |
| Unusova Sh. | Russian language and literature teacher | 939424946 |
| Vaysedini Abdulmajidzoda | Teacher | 918361314 |
| Zarifov M. | Information technology master | 935868697 |

**Participants 6: Kulob Technical Vocational Agricultural Lyceum, Khatlon, 6 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Bobonazarov A. | Teacher | 918417530 |
| Davlatov R. | Teacher | 987414944 |
| Davlatov Sh. | Teacher | 985332665 |
| Gafforov Kh. | Teacher | 985985171 |
| Isroilov N. | Teacher | 951785838 |
| Karimov A. | Teacher | 918240288 |
| Karimov R. | Deputy director | 988683742 |
| Kosimov Kh. | Teacher | 988312537 |
| Makhsidinov Kh. | Teacher | 981038577 |
| Navruzov A. | Teacher | 98035709 |
| Nozimov K. | Teacher | 988720150 |

| Name | Title | Tel / Email |
|---|---|---|
| Nurakhmadova | Cook | 985874546 |
| Rafiev S. | Teacher | 918730732 |
| Rajabov Kh. | Teacher | 987690913 |
| Saidov J. | Teacher | 988460097 |
| Sharipov M. | Teacher | 988866310 |
| Valieva M. | Teacher | |

**Participants 7: Kulob Technical Vocational Construction Lyceum, Khatlon, 6 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Abdulloev T. | Teacher | 985766861 |
| Aminov M. | Teacher | |
| Amirshoev Sh. | Teacher | 987234400 |
| Azimova J. | librarian | |
| Boboev Z. | Teacher | |
| Bobokhonova L. | Teacher | 985902610 |
| Boymatova M. | Deputy director | 919157261 |
| Ibrokhimov N. | Teacher | |
| Imomov B. | Teacher | |
| Islomova U. | Teacher | 987698807 |
| Khushvakhtova G. | Teacher | |
| Kurbonova M. | Teacher | 985683949 |

| Name | Title | Tel / Email |
|---|---|---|
| Mirzoeva O. | Teacher | 985439501 |
| Navruzov M. | Teacher | 951852121 |
| Nazirov A. | Teacher | 937779430 |
| Nozimov B. | Teacher | |
| Pirov M. | Deputy director | 985651245 |
| Pirov M. | Deputy director | |
| Rakhmonov A. | Teacher | 905903077 |
| Rasulov A. | Teacher | 918354751 |
| Samadov J. | Personnel department | 931272324 |
| Sharipov J. | Deputy director | 919194060 |
| Sharipov M. | Teacher | |
| Sharipova Sh. | Teacher | 987338478 |
| Sultonov P. | Master production division | 985646468 |

**Participants 8: Vose Technical Vocational Lyceum, Khatlon, 6 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Akhmedov Kh. | Grand master | |
| Amakiev Kh. | Master production division | 917814096 |
| Ashurov Sh. | Teacher | 981016435 |
| Boboev S/ | Deputy director, production | 935632828 |
| Davlatov Sh. | Deputy director, education | 989146271 |

| Name | Title | Tel / Email |
|---|---|---|
| Davlatov U. | Chief accountant | |
| Erakov B. | Teacher | |
| Ismoilov S. | Teacher | 985577767 |
| Izatova S. | Teacher | |
| Khayrulloi N. | Master production division | 985512747 |
| Mirzoev N. | Steward | 988502091 |
| Navruzov B. | Master production division | 23236 |
| Nazarov M. | Master production division | 905778708 |
| Nazarov R. | Master production division | 918241034 |
| Nazarova G. | Teacher | 917474302 |
| Odinaev A. | Director | 985585207 |
| Odinaeva S. | Deputy director, education | 988687838 |
| Pirkhonova A. | Teacher | 985310046 |
| Safarova S. | Teacher | 907511705 |
| Sattorov K. | Master production division | 985567770 |
| Sattorov K. | Teacher | 985567770 |
| Shoev S. | Master production division | |
| Zokirova G. | Teacher | 988137071 |

**Participants 9: Qurghonteppa Technical Vocational Lyceum, Khatlon, 6 December 2014**

| Name | Title | Tel / Email |
|---|---|---|
| Adilov E. | Master of inservice training | 919848118 |
| Adilova M. | Teacher | 919848118 |
| Avzalov A. | Main group | 919060201 |
| Azomova M. | Teacher | 901337975 |
| Boboeva M. | Master of inservice training | 919474447 |
| Ermatov T. | Master of inservice training | |
| Giyosov Sh. | Head, correspondence department | 905044548 |
| Jalilov I. | Master of inservice training | 985052855 |
| Kazieva T. | Teacher | 917439976 |
| Khasanov A. | Teacher | |
| Khotamov I. | Master of inservice training | 918872129 |
| Makhsidinov D. | Teacher | 987256409 |
| Mirzoeva U. | Teacher | 558059949 |
| Nasridinov S. | Teacher | |
| Nozimov M. | Master of inservice training | 919315027 |
| Olimova K. | Teacher | 915417142 |
| Rakhimov A. | Master of inservice training | 917100207 |
| Rakhimov A. | Master of inservice training | 987551801 |
| Safarova R. | Teacher | 919608345 |
| Saidov Sh. | Master of inservice training | 907727200 |

| Name | Title | Tel / Email |
|---|---|---|
| Saidova Z. | Commandant | 901912292 |
| Umurzakova S. | Teacher | 915417142 |
| Unusov M. | Deputy director | 918157869 |

**Participants 10: Vakhsh Technical Vocational Lyceum, Khatlon, 27 January 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Abdurakhmonov S. | Electrician | |
| Fayzulloev A. | Master production division | 937048282 |
| Ganiev B. | Teacher | 904018885 |
| Jamshedi Bobojonzoda | Teacher | 918130333 |
| Kalandarov M. | Master production division | |
| Karimova M. | Deputy director, education | |
| Khakimov M | Master production division | 935225265 |
| Khakimov T. | Teacher | |
| Kulobiev S. | Teacher | 934728797 |
| Mirzoev A. | Master production division | 501085658 |
| Mirzoev K. | Master production division | 935117077 |
| Mirzoev T. | Director | 933457818 |
| Murodov T. | Deputy director, education | 919575850 |
| Nuraliev Sh. | Employee | |
| Rajabov I. | Master production division | |

| Name | Title | Tel / Email |
|---|---|---|
| Rakhmonov K. | Master production division | 931980573 |
| Safarova Z. | Teacher | 904018885 |
| Salimova R. | Master production division | 903434016 |
| Saydaliev B. | Teacher | 939182064 |
| Shobudinov I. | Master production division | |
| Teshaev B. | Teacher | 909930333 |
| Zoirov M. | Master production division | 937048282 |
| Zoirova B. | Master production division | 937048282 |

**Participants 11: Shahrtuz Technical Vocational Lyceum, Khatlon, 3 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Barotov I. | Master production division | 988544353 |
| Ekubi Mukhtori | Director | 934289464 |
| Genjimova E. | Master production division | 939776262 |
| Isakhonov Sh. | Chief accountant | 937452772 |
| Khakimov M. | Student | 935025595 |
| Khomirova N. | Master production division | 938393430 |
| Komilov S. | Deputy director | 918968311 |
| Kurbonzoda L. | Student | 937136514 |
| Madaminova F. | Student | 938336424 |
| Munavarov A. | Deputy director | 938862552 |

| Name | Title | Tel / Email |
|---|---|---|
| Saydaliev Sh. | Deputy director | 938168656 |
| Uldosheva Sh. | Student | 935199291 |
| Yarkulov N. | Teacher | 934719419 |
| Zubaydullaev I. | Master production division | 931684411 |

**Participants 12: Panjakent Technical Vocational Lyceum, Sughd, 12 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Bobokhojiev T. | Teacher | 922244403 |
| Bukhonov D. | Teacher | 928376410 |
| Erkaeva Z. | Teacher | |
| Eshonjonova Sh. | Teacher | 927284849 |
| Khalimova G. | Teacher | 926117658 |
| Khasanov A. | Teacher | |
| Khujamov A. | Teacher | 927063403 |
| Melikov R. | Teacher | 92900491425 |
| Mutakharova M. | Teacher | 927372121 |
| Norov S. | Teacher | |
| Samadov S. | Teacher | 927227062 |
| Sirojev Kh. | Teacher | 927036628 |
| Utarova F. | Teacher | 927676868 |

**Participants 13: Shahriston Vocational Agricultural Lyceum, Sughd, 12 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Abdulloev G. | Teacher | 928719549 |
| Dodobaeva G. | Master production division | 985665346 |
| Emonkulov V. | Teacher | 985323482 |
| Gafurov A. | Director | |
| Goibova Z. | Teacher | 918116178 |
| Kholmurzoeva M. | Teacher | 988910547 |
| Mamarakhimova | Assistant director | 902422642 |
| Nazarov S. | | |
| Nazorov | Steward | 927375902 |
| Rustamov O. | Deputy director, education | 918889664 |
| Salimova T. | Personnel department | 987993103 |
| Sobirova M. | Head teacher | 985008418 |

**Participants 14: Mastchoh Vocational Agricultural Lyceum, Sughd, 11 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Aliev Sh. | Teacher | 8773054 |
| Aminov A. | Master production division | 935588131 |
| Ashurov B. | Teacher | 8170163 |
| Avezov M. | Teacher | 8246658 |
| Boboev A. | Teacher | 7233677 |

| Name | Title | Tel / Email |
|---|---|---|
| Fatkhuloev M. | Mechanic | 7591218 |
| Gafurova B. | Librarian | 928431175 |
| Imomnazarova O. | Teacher | 927287292 |
| Karimov K. | Master production division | 927634383, inmanam@mail.ru |
| Khojimatov L. | Cashier | 7916785 |
| Kholov S. | Master production division | 7680529 |
| Kurbonov F. | Master production division | 927859496 |
| Mirvaysov S. | Teacher | 7599870 |
| Mirzobekov N. | Teacher | 9041732 |
| Mukhamadiev M. | Grand master | 7693845 |
| Mulojonova L. | Master production division | 929044001 |
| Nazirova M. | Teacher | 927331742 |
| Niezbadalov A. | Teacher | 7031286 |
| Niezbadalov R. | Teacher | 7004066 |
| Nurov A. | Teacher | 7388806 |
| Olimov A. | Deputy director | 928808927 |
| Safarova G. | Teacher | 7222708 |
| Toshev K. | Teacher | 7426284 |
| Ustoev F. | Master production division | 7098138 |

**Participants 15: Khujand Vocational Polytechnic Lyceum, Sughd, 13 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Abbosjonova | Nurse | |
| Abdullaeva M. | Deputy director | 928810582 |
| Aminov A. | Teacher | 929307200 |
| Boltueva M. | Cleaning woman | |
| Ermurodov Kh. | Teacher | 928331221 |
| Ikromidinov | Steward | 927072980 |
| Kalonov J. | Master production division | 927712992 |
| Khabibuloeva | Teacher | |
| Khoshimov J. | Master production division | 927566480 |
| Kodirov K. | Teacher | 927759587 |
| Kurbonova M. | Teacher | 928900902 |
| Mansurov M. | Teacher | 927000324 |
| Naimov M. | Director | 927400134 |
| Parmonov E. | Master production division | |
| Poshokhujaev Kh. | Master | 928130922 |
| Rustamova | Teacher | 928344445 |
| Samadova Kh. | Cleaner | |
| Sharipov F. | Teacher | 928150220 |
| Shukurov | Master production division | 951838640 |
| Solieva | Cleaner | 929115037 |

| Name | Title | Tel / Email |
|---|---|---|
| Turaeva M. | Steward | 927022992 |
| Usufkhojaeva | Cleaner | |
| Vokhidov A. | Grand master | 927662295 |

**Participants 16: Khujand Technical Vocational Construction Lyceum, Sughd, 10 December 2014**

| Name | Title | Tel / Email |
|---|---|---|
| Abdukodirova Z. | Teacher | |
| Ashurov A. | Carpenter | |
| Buzrukova Kh. | Director | 927582349 |
| Ekubova M. | Director, education studies | |
| Ibrokhimov I. | Teacher | 927712503 |
| Khakimova D. | Director, education studies | |
| Khomidova N. | Teacher | 981010127 |
| Khoshimova S. | Teacher | 927486688 |
| Madinai Khafizi | Teacher | 935031986 |
| Makhmudova Kh. | Russian language and literature teacher | 928062555 |
| Makhmudova L. | Teacher | 934229070 |
| Marofieva T. | Teacher | |
| Negmatjonov U. | Teacher | |
| Numonov D. | Deputy director, construction | 928352000 |
| Rajabov | Carpenter | |

| Name | Title | Tel / Email |
|---|---|---|
| Sufiev K. | Teacher | 20742 |
| Valiev M. | Teacher | 927010175 |
| Zakhidov S. | Chief master | 929248141 |

**Participants 17: Isfara Technical Vocational Oil and Gas Lyceum, Sughd, 10 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Akhmedov A. | Director | 987664444 |
| Ashurov A. | Teacher | 929195758 |
| Boboev A. | Master production division | 927509496 |
| Bobotavarova G. | Teacher | 918755786 |
| Dokhidov A. | Teacher | 927846083 |
| Fayzulloeva M. | Teacher | |
| Jalonov M. | Deputy director | 987779102 |
| Khashimov A. | Master production division | |
| Kholmatova L. | Teacher | 929069042 |
| Kosimova B. | Teacher | 928762275 |
| Mamasalieva M. | Master production division | 92729270 |
| Mukhidinov R. | Master production division | 92345678 |
| Muydinova R. | Master production division | 928147022 |
| Rakhimov A. | Master production division | 928485804 |
| Salomov R. | Master production division | 928232700 |

| Name | Title | Tel / Email |
|---|---|---|
| Sharipov Z. | Teacher | 987716021 |
| Shokirov A. | Teacher | 929581214 |
| Shukurova G. | Teacher | 928341165 |
| Uzakova F. | Teacher | 989190071 |
| Vokhidov S. | Teacher | 985678361 |
| Yarmatova A. | Teacher | 929756157 |

**Participants 18: Istaravshan Technical Vocational Lyceum, Sughd, 12 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Aslonov | Teacher | 918920844 |
| Asrorov | Teacher | 987014223 |
| Fuzaylov | Chief accountant | 988750875 |
| Gulmatov B. | Deputy director | 927231499 |
| Inomova | Personnel department | 918850980 |
| Iskandarova | Deputy director | 988672662 |
| Jumaev Kh. | Deputy director | 918599710 |
| Khofiev | Teacher | 918943825 |
| Rakhmonova | Accountant | 985689255 |
| Rofiev | Teacher | 985206040 |
| Tuychiev N. | Director | 927676608 |

**Participants 19: Shahrinaw Technical Vocational Lyceum, Districts of Republican Subordination, 26 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| | | |
| | | |
| Abduganiev A. | Deputy director, economic | |
| Abduganiev A. | Director, economic | 937212462 |
| Azizkhonov | Teacher | |
| Azizmamadova M. | Master production division | |
| Boboev N. | Cashier | |
| Burieva M. | Master production division | |
| Denisova N. | Personnel department | |
| Farmonova | Nurse | |
| Gafurov I. | Driver | |
| Gafurov Sh. | Teacher | |
| Jumaeva Kh. | Teacher | |
| Juraeva | Master production division | |
| Juraeva | Cleaner | |
| Karimova M. | Master production division | |
| Khadisai S. | Cleaner | |
| Khaitova M. | Secretary | |
| Khojaeva L. | Teacher | |
| Khojamurodov | Teacher | |

| Name | Title | Tel / Email |
|---|---|---|
| Kholdorova N. | Teacher | |
| Kholdorova Z. | Teacher | |
| Kholmurodov | Master production division | |
| Khotamov | Teacher | |
| Kurbonov A. | Driver | |
| Mirzoev N. | Teacher | |
| Nazarov Kh. | Driver | |
| Nazarov R. | Deputy director | 988298300 |
| Obidova G. | Laborer | |
| Odinaev A. | Deputy director, education | |
| Omonov Sh. | Master production division | |
| Rajabova | Teacher | |
| Rakhmatulloev | Master production division | |
| Satorova M. | Teacher | |
| Sharipov S. | Teacher | |
| Shokheva M. | Teacher | |
| Sobirov | Master production division | |
| Ubaydulloeva | Cook | |
| Zayniddinova T. | Teacher | |

**Participants 20: Tojikobod Technical Vocational Lyceum, Districts of Republican Subordination, 28 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Bodakov A. | Master production division | |
| Davlatkhojaev R. | Kamendant | |
| Khojaev U. | Master production division | |
| Mukhmadoeva Sh. | Teacher | |
| Mukhtadoev Z. | Master production division | 931078684 |
| Rajabov M. | Director | sadaiumed@mail.ru |
| Rustamov A. | Accountant | |
| Saduloev Sh. | Deputy director, production | 935334353 |
| Shabununova A. | Teacher | |
| Sharifova S. | Teacher | |
| Tavakalov T. | Teacher | |
| Usmonova R. | Secretarial | |

**Participants 21: Shughnon Technical Vocational Lyceum, GBAO– missing**

| Name | Title | Tel / Email |
|---|---|---|
| | | |
| | | |

## ADULT LEARNING CENTRES (ALCs)

**Participants 22: Yovon Adult Learning Centre (ALC), Khatlon, 4 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Khaknazarov Kh. | Teacher | 933774346 |
| Khalikov A. | Teacher | 903536364 |
| Kodirova S. | Seamstress | 905668282 |
| Navruzshoev A. | Director | 931029337 |
| Pirov I. | Accountant | 934542828 |
| Rakhimberdieva Z. | Teacher | 938684292 |
| Rozikov D. | Teacher | 900109409 |

**Participants 23: Farkhor Adult Learning Centre (ALC), Khatlon, 7 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Amiadova B. | Student | |
| Bakhtirova S. | Teacher | |
| Burkhonova | Teacher | |
| Davlatova A. | Student | |
| Fayzuloeva S. | Clinic | |
| Ismoilov Kh. | Chief accountant | 907705328, xurshed@gmail.com |
| Loikov A. | Teacher | |
| Safaraliev I. | Director | 904500145, 8331622883 |
| Saydalieva M. | Student | |

| Name | Title | Tel / Email |
|---|---|---|
| Saydalieva Sh. | Clinic | |
| Sharipov A. | Teacher | 907901590, alijon-farkhor@mail.ru |

**Participants 24: Norak Adult Learning Centre (ALC), Khatlon, 4 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Azizov A. | Commandant | 907311023 |
| Davlatova S. | Teacher | 933217733 |
| Doshieva R. | Teacher | 919226373 |
| Karimov Kh. | Teacher | 938201343 |
| Kurbonov U. | Teacher | 935490924 |
| Saidov G. | Teacher | 935299763 |
| Sumami Ubaydullo | Teacher | 937511454 |

**Participants 25: Konibodom Adult Learning Centre (ALC), Sughd, 10 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Bobokalonova O. | Teacher | 929150016, alisher-65@mail.ru |
| Bobokalonova R. | Teacher | 927625742 |
| Buriev S. | Director | 929040001 |
| Juraeva R. | Cleaner | 32307 |
| Khalikova Z. | Teacher | 927624367 |
| Khomidova A. | Chief expert | 989078292 |
| Mansurov N. | Chief accountant | 927764750 |

| Name | Title | Tel / Email |
|---|---|---|
| Mirsoatova Z. | Cleaner | 985971069 |
| Mukhamedova Sh. | Expert | 927505049 |
| Rakhmatov A. | Chief expert | 928770300 |
| Ruzieva M. | Chief expert | 928628835, mavjvda.80@mail.ru |
| Salimov T. | Security guard | 987736801 |
| Sotiboldieva F. | Teacher | |
| Uldoshev O. | Expert | 928582706 |
| Vakhobova A. | Teacher | 918434270 |

**Participants 26: Bobojon Ghafurov Adult Learning Centre (ALC), Sughd, 11 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Bakhofaddinova S. | Director, Department of Labor and Social Protection of Population | 927664484 |
| Iskandarov F. | Department of Labour and Social Welfare | 927954007 |
| Kenjaev Sh. | Ghafurov ALC staff | 927152054 |
| Numidinov Sh. | Ghafurov ALC | 918829971 |
| Odinaev Sh. | Ghafurov ALC | 928554630 |
| Oripov D. | Deputy Director, Department of Labor and Social Protection of Population | 928150110 |
| Rakhimov R. | Ghafurov ALC | 928594962 |
| Rozokov K. | Expert | 928315006 |
| Sodikova G | Engineer | 927770278 |

| Name | Title | Tel / Email |
|---|---|---|
| Usmonalieva B. | Ghafurov ALC | 927781757 |

**Participants 27: Tavildara Adult Learning Centre (ALC), Districts of Republican Subordination, 27 February 2015**

| Name | Title | Tel / Email |
|---|---|---|
| Alieva D. | Teacher | 985532192 |
| Avazov S. | Master production division | 988005313 |
| Mangetov Sh. | Teacher | 918240844 |
| Nazarov A. | Steward | 988799920 |
| Nosirov J. | Master production division | 981083871 |
| Rajabzoda Ozar | Deputy director | 987391839 |
| Rakhmonov T. | Deputy director | 985365155 |
| Rasulov S. | Chief master | 988519676 |
| Rozikov Kh. | Director | 998213629 |
| Samadov M. | Teacher | 918116850 |
| Sidirov T. | Master production division | 918361317 |

**Participants 28: Vanj Adult Learning Centre (ALC), GBAO**

| Name | Title | Tel / Email |
|---|---|---|
| | | |
| | | |