

RISK ASSESSMENT AND RISK MANAGEMENT PLAN

Risk Description	Rating	Mitigation Measures	Responsibility
A. Financial			
1. Scholarship payments that will be paid in cash will lead to weaker controls and associated inherent risks.	S	The project will pay scholarships by bank transfer and shall be documented in the project operation manual or financial management manual.	MOES, PAG, FM consultants
2. The project lacks an adequate number of government finance staff to provide necessary support.	M	PAG will be established as implementing agency by hiring an FM Specialist and a Disbursement Specialist to oversee and manage the FM-related aspects of the ADB-financed project. Individual FM consultants will also be engaged for assisting PAG.	MOES, PAG, FM consultants
3. The finance staff lacks the necessary knowledge and experience in implementing ADB projects particularly the ADB Loan Disbursement Handbook and FM practices.	S	MOES staff to take self-training using ADB e-Learning for Disbursement and IPSAS. Virtual training on FM requirements during inception mission.	MOES, PAG, FM consultants
4. Due to the lack of experience among MOES staff with ADB projects and their limited familiarity with ADB financial reporting requirements, there is a potential for unreliable reports to be generated due to errors and noncompliance to national accounting policies. These factors could lead to errors or inconsistencies in the reports.	S	A financial management manual will be developed by the FM Specialist that will elaborate on the policies and procedures, including sections on internal controls, approval levels, finance staff responsibilities, accounting, financial reporting, funds flow, banking, payments, and asset management, among others, together with procedures for some specific activities such as scholarships selection and payments approved for the project. The financial management manual will be approved by ADB and the PAG Director, including updates and revisions.	MOES, PAG, FM consultants
5. The manual preparation of finance reports in the project is both inefficient and prone to a higher risk of errors.	M	The project will prepare formats for finance statements and set up automated reports in the accounting software, including monthly, quarterly, and annual report formats.	MOES, PAG, FM consultants
6. There is a risk that the project may not utilize suitable accounting software capable of handling project accounting, or that the chosen software may not have the capability to generate the necessary financial reports as required by the project.	M	The project will set up a new accounting software database/company for the project (in 1C or another adequate software). The software will be set up with coding and reporting formats to meet the needs of the project, and finance staff will be trained to use and maintain the software.	MOES, PAG, FM consultants
B. Procurement			
7. MOES and/or PAG unfamiliar and inexperienced in implementing ADB-funded procurements resulting to potential delays in ADB's review and No-Objection.	S	ADB to facilitate start-up workshop/training on the latest ADB procurement rules, regulations and procedures, including the bidding process. Engage National or International Procurement Specialist experienced with ADB-financed projects. ADB's prior review of all procurements.	MOES, PAG, TA consultants, ADB
8. Roles and responsibilities of SCISPM, MOES and PAG in implementing project procurements not clearly defined/ understood between parties resulting in	M	PAG is established as the project implementing agency. SCISPM is only directly responsible for arranging external audit of the project through its block audit arrangement for all ADB-financed projects in	SCISPM, MOES, PAG, ADB

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misunderstanding that can potentially delay implementation of procurement activities.		the country. Specific duties and responsibilities between SCISPM, MOES and PAG for implementing procurement activities under the ensuing project are clearly defined and agreed upon under the project. The establishment of PAG and the ADB TA's support for MOES initiate appropriate action to address and resolve this risk prior to project implementation.	
9. Delays in procurement of civil works due to low capacity and lack of MOES experience with ADB-funded civil works and its requirements such as in managing and preparing civil works plans, designs/drawings for building construction and rehabilitation, including preparation of BOQ, and executing agency's costing estimates and bidding documents preparation.	S	Engage design and construction supervision consulting firm to assist with the overall civil works such as preparing designs/drawings and BOQ; and recruitment of highly qualified procurement specialist to assist with the bidding documents. ¹ Consultants to be engaged will be highly experienced in similar projects and have the appropriate government license to review and approve civil works plans and designs for approval by concerned government authorities. MOES and PAG will be trained by ADB on procurement, including the tendering process, preparation of bid evaluation reports and contract management.	MOES, PAG, TA consultants, ADB
10. Delays in engagement of consultants due to limited experience of MOES with ADB policies/ procedures in procuring consulting services such as in preparation and submission of requests for Expression of Interest, Request for Proposal and evaluation.	S	Recruitment of international procurement specialist to assist in recruiting consultants. The consultant will be highly experienced in procuring consulting services, goods and works, including preparation of bidding documents.	MOES, TA consultants, PAG, ADB
11. Limited capacity of national bidders/contractors in bid preparation due to lack of understanding of ADB's bidding document requirements.	S	Conduct seminar/workshop for prospective bidders on bid preparation particularly the technical and financial aspects of bids and bid submission, including during pre-bid meetings.	MOES, PAG, procurement consultants, ADB
12. Abnormally low bids against executing agency's cost estimates will most likely compel contractors to use sub-standard and poor-quality construction materials, hire cheap labor with very low skills or workers are given low salaries; in worst case scenario, the contractor will abandon and not complete the contract.	S	Apply ADB's Abnormally Low Bids Guidance Note on Procurement (2018). Open competitive bidding is to be advertised internationally for major works packages.	MOES, PAG, procurement consultants, ADB
13. Fraudulent behavior in procurement process; civil works contractors and suppliers of goods collude to determine winner of a bidding process; bidders coordinate and undermine the bidding process and can result in a rigged price that is higher than what might have resulted from free market competitive bidding.	S	Provide capacity building training on ADB's Anticorruption Policy (every year, including e-learning); conduct adequate due diligence during bid/proposal evaluation to identify any irregularities, inconsistencies, and/or potential misrepresentations (including indicators of collusion) on the bids/proposals; require project officials and tender committee members to sign disclosure of conflict-of-interest statement and to observe high	MOES, PAG, ADB

¹ Advance actions will be undertaken in the recruitment of the design and supervision consulting firm and the international procurement specialist.

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		ethical standards before their involvement in any procurement process.	
14. Bidders implementing several contracts may overstretch their limited financial resources	M	Open competitive bidding is to be advertised internationally for major works packages. Ensure contractors are not awarded too many contracts. Assess contractor financial capacity to implement multiple contracts to be included as one of the qualification criteria to be evaluated.	MOES, PAG
15. Civil works are not sufficiently supervised due to dispersed location of project sites	M	The procurement plan of works has been well packed according to adjacency of locations of project sites. Provide training and deputize School Project Steering Committees to assist MOES and PAG in the supervision and monitoring of civil works in their respective school with defined duties and responsibilities.	MOES, PAG, design and supervision firms
C. Social and environmental			
16. Risk of impact on land acquisition and community assets such as from loss of community assets and damage to properties	L	Construction on state- owned land, existing buildings in place. Access roads will be designed to the minimum necessary width within the right-of-way when feasible.	MOES, PAG, safeguards consultants
17. Risk of conflict and/or SEAH between local residents and outside workers who may enjoy an enhanced economic status in comparison to the local residents.	S	Workers from the local communities will be preferentially offered employment as unskilled labor. Workers will also be required to undergo regular check-up to minimize the risk of contracting and spreading of HIV and STI's. Workers will be housed on-site to avoid social conflicts. Workers to be provided with cultural awareness and SEAH training if they are from outside region.	PAG, gender consultants, Contractors
18. Provision of inadequate living conditions within project site. Loss of worker productivity may result from the absence of appropriate living conditions within the project site.	M	Workers will be provided with adequate living sanitation and recreational facilities. Contractor will provide potable water, sanitation and washing facilities, kitchen and adequate cooking facilities, nutritionally adequate food rations to either meet requirements of the relevant labor regulations of Republic of Tajikistan or an acceptable international standard whichever is the higher.	PAG, Contractors
19. Loss of cultural values due to digging of foundations, trenches, etc.	M	Chance discoveries are to be notified to the PAG who will advise the relevant Republic of Tajikistan agency. Ground workers to be advised on low risk of presence of below ground artifacts and instructed on procedures to follow if any artifacts/remains are found.	PAG, safeguards consultants, Contractors
20. Contamination of the soil and nearby water courses may result from the utilization of hazardous materials. Improper handling, storage or utilization of hazardous materials poses a significant health risk to the workers and residents of nearby settlement areas;	M	Ensure that safe storage of fuel and other hazardous substances consistent with national and local regulations to prevent soil and water contamination. Fuel storage tanks to be on impervious surface with bund to catch spills, bund shall have holding capacity of 110% of tank capacity. Fuel tanks etc. shall not be located within 50 meters of a water course.	PAG, safeguards consultants, Contractor

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		<p>Ensure all storage containers are in good condition with proper labeling.</p> <p>Used oil and other residual toxic and hazardous materials shall be disposed of in an authorized facility off-site.</p> <p>Ensure availability of spill clean-up materials (e.g., absorbent pads, etc.) specifically designed for petroleum products and other hazardous substances where such materials are being stored.</p> <p>Spillage, if any, will be immediately cleared with utmost caution to leave no traces, Spillage waste will be disposed at approved disposal sites.</p>	
21. Generation of construction waste such as excavated soil	L	Surplus excavated material/cut soil from construction will be used as backfill material for low-lying portions per site development plan.	PAG, safeguards consultants, Contractors
22. Generation of construction wastes such as solid wastes, inert construction wastes, during construction will result in the pollution of land and receiving water bodies.	L	<p>Contractor to develop and implement Waste Management Plan</p> <p>Surplus excavated material/cut soil from construction will be used as backfill material for low-lying portions per site development plan.</p>	PAG, safeguards consultants, Contractors
23. Impacts on community health and safety such as from accidents risks to surrounding communities from vehicles transiting the main highway	M	<p>Contractor to develop a Traffic Management Plan.</p> <p>Signage and appropriate speed limits</p> <p>Requiring suppliers that delivery vehicles transporting construction materials are maintained in a safe operating condition, loads are to be secured and all loads with fugitive materials (e.g., excavated soil and sand) are to be covered with tarpaulins.</p> <p>All drivers and machinery operators act responsibly.</p>	PAG, safeguards consultants, Contractors
24. Occupational health and safety hazards from operating and using heavy machinery, refueling hazards, traffic accident hazards	M	<p>The contractor will be required to implement the construction health and safety plan in accordance with the World Bank EHS Guidelines (http://www.ifc.org/ehsguidelines) as a minimum standard.</p> <p>The contractor will appoint an EHS officer to ensure implementation of the plan.</p> <p>Workers will be provided with a safe working environment including conduct of safety induction, safety equipment appropriate for the task in which they are employed, medical and first aid facilities provided together with a person qualified in first aid.</p>	PAG, Contractors
25. Impact on community health and safety from access and intrusion of unauthorized personnel.	M	Watchmen/security personnel will be hired to secure the facilities on a 24-hour basis. This will minimize the safety risks to the community.	PAG, Contractors
26. Chemical or biological wastes from science classes	M	To mitigate these impacts, it is crucial to handle and dispose of chemical wastes properly. Schools should implement proper waste management practices, including appropriate storage, labeling, and disposal methods. Additionally, schools can promote the use of safer alternatives and encourage	PAG, schools, TSPU, DPC, safeguards consultants

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		recycling or proper treatment of chemical wastes to minimize their environmental and health impacts.	
D. Policy			
27. Qualified STEM specialized teacher candidates may not choose to serve as teachers due to higher compensations in other jobs.	M	The project will enhance the status of women teachers in particular and promote their elevation to positions of leadership within the education system. The government is committed to raising teacher salaries and has been doing so every few years. Knowledge and practical training on blocks of STEM subjects will be provided in the project for teachers and teacher candidates to fill in the gap of lacking teachers on specific STEM subjects. Recipients of teacher candidate scholarships are required by the government to serve for years at schools as teachers upon their graduation.	MOES, PAG
28. The current trend of fewer pupils choosing to select STEM subjects continues unabated	M	Awareness-raising for parents and CEG for students mitigate the downward trend by showing the opportunities really available for STEM students.	MOES, PAG, schools
29. Government is unable to extend broadband services to educational institutions to support online teaching and learning	S	The project design for education technology makes use of innovative approaches to off-line delivery of digital format materials.	MOES, PAG, TSPU, DPC
30. Climate change poses risks of disasters triggered by natural hazards that may affect communities and the delivery education	M	The schools targeted under the project were selected based on criteria including safe location from disaster risks in line with the government's "safe school" policy. The project will initiate climate change education to promote mitigation and adaptation and disaster preparedness activities at school and community levels. The project will also build in the school information system the dynamic disaster profiles of the areas where the schools are located.	MOES, PAG, schools, TSPU, DPC, COESCD
31. Government's potential institutional reform under the establishment of a new technical and vocational education and training committee might influence the ownership of project-targeted institution(s) or project assets.	M	The existing local consultative group for the general secondary education sector, chaired by MOES with development partners as co-chair and members (including ADB), actively serves as the platform for strategic and policy dialogue. The project's inter-agency steering committee coordinates at strategic level for the project implementation. Grant agreement includes a clause on change in ownership.	MOES, ADB

ADB = Asian Development Bank, BOQ = bills of quantities, CEG = careers education and guidance, COESCD = Committee on Emergency Situation and Civil Defense, DPC = Dushanbe Pedagogical College, EHS = environmental, health, and safety; FM = financial management, H = high, IPSAS = International Public Sector Accounting Standards, L = low, M = moderate, MOES = Ministry of Education and Science, PAG = project administration group, S = substantial, SCISPM = State Committee of Investments and State Property Management, SEAH = sexual exploitation, abuse and harassment, STEM = science, technology, engineering, and mathematics, STI = sexually transmitted infection, TSPU = Tajik State Pedagogical University.

Source: ADB.