Report and Recommendation of the President to the Board of Directors

Project Number: 52106-001
September 2018

Proposed Grant
Republic of Tajikistan: National Disaster Risk Management Project

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 11 July 2018)

Currency unit	–	somoni (TJS)
TJS1.00	=	$0.1089
$1.00	=	TJS9.1752

ABBREVIATIONS

ADB	–	Asian Development Bank
CESCD	–	Committee of Emergency Situations and Civil Defense
DMIS	–	disaster management information system
DRM	–	disaster risk management
DRR	–	disaster risk reduction
km	–	kilometer
NDRMS	–	National Disaster Risk Management Strategy
NPES	–	National Platform of Emergency Situations
PAM	–	project administration manual
PIG	–	project implementation group

NOTES

(i) The fiscal year (FY) of the Government of Tajikistan ends on 31 December. "FY" before a calendar year denotes the year in which the fiscal year ends, e.g., FY2018 ends on 31 December 2018.

(ii) In this report, "$" refers to United States dollars.

Vice-President	Wencai Zhang, Operations 1
Director General	Werner Liepach, Central and West Asia Department (CWRD)
Director	Pradeep Srivastava, Country Director, Tajikistan Resident Mission (TJRM), CWRD
Team leaders	Raza M. Farrukh, Head Project Administration Unit, TJRM, CWRD Shukhrat Khojaev, Project Officer, TJRM, CWRD
Team members	Ana Paula Araujo, Environment Specialist, CWRD Muhammadi Boboev, Economics Officer, TJRM, CWRD Annalisa Carlota, Counsel, Office of the General Counsel Steven Goldfinch, Disaster Risk Management Specialist, Sustainable Development and Climate Change Department (SDCC) Mufara Hamidova, Operations Assistant, TJRM, CWRD Nana Kvanchiany, Project Analyst, TJRM, CWRD Nathan Rive, Climate Change Specialist, CWRD Thomas Robinson, Procurement Specialist, Procurement, Portfolio and Financial Management Department Mary Alice Rosero, Social Development Specialist (Gender and Development), CWRD Mian Shafi, Senior Project Officer, Pakistan Resident Mission, CWRD Yukihiro Shibuya, Social Development Specialist (Safeguards), CWRD
Peer reviewer	Charlotte Benson, Principal Disaster Risk Management Specialist, SDCC

CONTENTS

PROJECT AT A GLANCE

1. Basic Data — **Project Number:** 52106-001

Project Name	National Disaster Risk Management Project	**Department /Division**	CWRD/TJRM
Country	TAJ	**Executing Agency**	Committee of Emergency Situations and Civil Defense under the Government of Tajikistan
Borrower	Republic of Tajikistan		

✓	**2. Sector**	**Subsector(s)**	**ADB Financing ($ million)**
✓	**Agriculture, natural resources and rural development**	Land-based natural resources management	7.00
		Water-based natural resources management	3.00
		Total	**10.00**

3. Strategic Agenda	**Subcomponents**	**Climate Change Information**	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Climate Change impact on the Project	Low
Environmentally sustainable growth (ESG)	Disaster risk management		

4. Drivers of Change	**Components**	**Gender Equity and Mainstreaming**	
Governance and capacity development (GCD)	Civil society participation Institutional development Organizational development	Effective gender mainstreaming (EGM)	✓
Knowledge solutions (KNS)	Application and use of new knowledge solutions in key operational areas Knowledge sharing activities		
Partnerships (PAR)	Civil society organizations Implementation		

5. Poverty and SDG Targeting		**Location Impact**	
Geographic Targeting	No	Nation-wide	High
Household Targeting	No		
SDG Targeting	Yes		
SDG Goals	SDG9, SDG11, SDG13		

6. Risk Categorization: Low

7. Safeguard Categorization **Environment:** C **Involuntary Resettlement:** C **Indigenous Peoples:** C

8. Financing

Modality and Sources	**Amount ($ million)**
ADB	**10.00**
Sovereign Grant projects: Asian Development Fund	10.00
Cofinancing	**0.00**
None	0.00
Counterpart	**1.00**
Government	1.00
Total	**11.00**

Source: Asian Development Bank

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed grant to the Republic of Tajikistan for the National Disaster Risk Management Project.

2. The proposed project will support the Government of Tajikistan in managing the expected increased severity and frequency of disasters triggered by natural hazards in the country and in reducing the socioeconomic vulnerability of Tajikistan to natural hazards. It will (i) support government efforts to mainstream disaster risk management (DRM) in development planning, and (ii) lay a foundation for establishing a sustainable institutional and financial mechanism that enables Tajikistan to deal effectively with disasters in the long term.

II. THE PROJECT

A. Rationale

3. **Natural hazards risks in Tajikistan**. From 1992 to 2016, economic losses caused by natural hazards in Tajikistan exceeded $1.8 billion and affected almost 7.0 million people.[1] Average annual losses in Tajikistan could reach 1.4% of gross domestic product from earthquakes and 5.0% from floods by 2015.[2] Since 1907, Tajikistan had 13 earthquakes of more than 5.0 magnitude including 8 higher than 6.0 and hundreds of small magnitude. The maximum loss for earthquakes is estimated at $542.0 million (100-year return) to $2.0 billion (1,500-year return).[3]

4. With almost three-quarters of the population living in rural areas, Tajikistan's mountainous topography and hydrological features increase their vulnerability to natural hazards. Communities regularly face low-severity, high-frequency disasters such as earthquakes, avalanches, mudflows, landslides, and flash floods. Many rural households whose male heads are working abroad are rendered vulnerable, especially if the household members left behind have limited mobility, with no exposure to disaster-related information and no participation in community awareness-raising activities and training. The cumulative impact of these disasters erodes development gains, prevents households from attaining economic advancement, and lowers the long-term productivity and growth of the country.

5. **Underlying disaster risk drivers**. The geology, hydrology, morphology, and topography of Tajikistan makes it highly prone to natural hazards. Disaster risks are exacerbated by unsustainable and weak management of natural resources, changing climatic conditions, limited disaster risk information, lack of awareness of disaster risks, weak capacity to deal with disasters, no early warning systems, and lack of community-based DRM. Poverty rates in Tajikistan remain high, with 30.3% of people living below the poverty line. The environment is degrading because

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[1] Centre for Research on the Epidemiology of Disasters. CREDID Database. http://www.emdat.be (accessed on 10 May 2018).

[2] World Bank. 2017. Tajikistan Aims to Better Protect People and Property from Natural Disasters and Climate Change. News release. 10 July. http://www.worldbank.org/en/news/press-release/2017/07/10/tajikistan-aims-to-better-protect-people-and-property-from-natural-disasters-and-climate-change. The average annual loss is the expected loss per annum associated with the occurrence of future disasters, assuming a very long observation time frame. It considers the damage caused on the exposed elements by small, moderate, and extreme events; and results in a useful and robust metric for risk ranking and comparisons.

[3] United Nations Office for Disaster Risk Reduction. 2015. *Global Assessment Report on Disaster Risk Reduction: Tajikistan Country Risk Profile*. Geneva: United Nations. https://www.preventionweb.net/english/hyogo/gar/2015/en/profiles/GAR_Profile_TJK.pdf.

of extensive exploitation of the natural resources and deforestation. Deteriorating and aging infrastructure—including irrigation channels, river embankments, roads, bridges, and dams—is increasing the country's vulnerability to natural hazards. These factors, combined with limited consideration of disaster risk within social and economic sectors, partly because of competing demands on limited financial resources and inadequate capacity, underpin the high disaster risk levels in Tajikistan.

6. Financing for DRM is a key constraint. The United Nations Development Programme, Japan International Cooperation Agency, and the Russian Federation support ongoing projects largely focused on post-disaster response activities and related policy support. The World Bank and the Asian Development Bank (ADB) have ongoing projects to strengthen the climate resilience of critical infrastructure, mainly against floods.[4] A project financed by the Swiss Agency for Development and Cooperation has some elements of pre-disaster risk management, but in a small geographical area. Investments by the government and development partners have been project-based, focusing on post-disaster response. Therefore, a coherent long-term investment plan and sustainable financing mechanism are needed. Integrated disaster risk assessment, a disaster management information system (DMIS), and an early warning system are needed for both pre- and post-disaster management. An early warning system for Sarez Lake, established in 2005, needs to be upgraded.[5] Apart from that, Tajikistan has no other early warning system. The DMIS, with its inventory of assets at risk, could play a pivotal role in informed decision making for DRM. A wide range of equipment would be required for seismic and hydrological monitoring, and communication. Building the capacity of vulnerable communities through nonstructural community-based DRM interventions, and awareness raising of youth on DRM through educational institutions, could play a vital role in reducing losses caused by disasters.

7. **Climate change.** Tajikistan is ranked 22nd globally and highest among Central Asian states for climate change vulnerability.[6] The impacts of climate change are largely present through increases in the intensity and frequency of extreme weather events, unpredictability of precipitation, and changes to water regimes and peak seasonal runoff, caused in part by rapid snowmelt and glacier retreat owing to rising temperatures. Average annual temperatures have increased since 1950s by as much as 0.2 degrees Celsius per decade. An even larger increase has been recorded in winter, up to 3ºC, over the same period. Annual precipitation in Tajikistan has increased by 8% since 1940, but with much larger increases in terms of percentage change, in the dry seasons of summer and autumn. These impacts are aggravated by lack of adaptive capacity. Floods, droughts, and mudflows are expected to increase in both frequency and severity because of climate change.

8. **Legal and policy framework for disaster risk management**. The National Development Strategy 2030[7] identifies disaster risk as one of the main challenges to Tajikistan's development aspirations. The government has set out a people-centered preventive approach to reducing and managing disasters in line with international commitments, i.e., the Sustainable Development

[4] ADB. 2013. *Report and Recommendation of the President to the Board of Directors: Proposed Grant to the Republic of Tajikistan for the Building Climate Resilience in Pyanj River Basin Project*. Manila.

[5] Sarez Lake is a 60-kilometer (km) long, about 1.5 km wide, and 557-meter deep very large reservoir of freshwater created by an earthquake in 1911. It contains about 16,000 cubic kilometers (km^3) of water and is in a scale 9.0 seismic zone. Hailstorms are common in Tajikistan and damage standing crops. Since 1985, an anti-hale unit has been monitoring the clouds through Doppler radars and uses missile technology to disintegrate the hail-carrying clouds.

[6] German Watch. 2016. *Global Climate Risk Index 2017*. Bonn.

[7] http://nafaka.tj/images/zakoni/new/strategiya_2030_en.pdf

Goals, Hyogo Framework, and the Sendai Framework for Disaster Risk Reduction. The National Disaster Management Strategy (NDMS) 2010–2015,[8] and the draft NDRMS 2018–2030, emphasize the integration of disaster risk reduction (DRR) into all development activities. However, the focus of government regulations and laws has been on disaster preparedness and emergency response.[9] Although prevention is clearly articulated as a role to be performed by the Committee of Emergency Situations and Civil Defense (CESCD) in the revised 2017 regulations, its facilitating role in pre-disaster risk management and its relationship with sector ministries and departments, which lead sector efforts, is not clearly articulated.

9. **Institutional setup for disaster risk management**. An enabling legal and policy environment is in place for improving the institutional setup for DRM. Multiple government agencies deal with DRM directly or indirectly. The revised government decree issued in 2017 entrusted the CESCD with pre- and post-disaster management. The CESCD has 1,456 staff with a national, regional, and district presence. However, most of the existing makeup and resources of the CESCD focus on preparedness and post-disaster response. The CESCD executes its responsibilities directly and in cooperation with other government entities in the event of an emergency. As proposed in the NDMS, 2010–2015, the government took initial steps to restructure the institutional arrangement to mainstream DRM in development planning, such as the establishment of the high-level National Platform of Emergency Situations (NPES) headed by the deputy prime minister of Tajikistan with representation from all relevant sector ministries and departments. However, in practice, the focus of activities undertaken by the NPES is mainly on post-disaster response.

10. The existing institutional makeup for DRM mainstreaming is complex. Risk governance, capacity, and funding limitations have meant that DRM mainstreaming efforts have not been fully embedded in core sectors related to disasters. Early warning, including the monitoring and management of data and risk information, is fragmented. While the CESCD is responsible for both the Sarez Lake risk monitoring and anti-hail units, the Agency of Hydrometeorology under the Committee for Environmental Protection is responsible for hydrology and climate and the Institute of Earthquake Engineering and Seismology monitors earthquakes, without an integrated national system linking them to the CESCD. Similarly, the Information Management and Analytical Centre, which collects and manages disaster-related information, is part of the CESCD, but information from specific sectors (e.g., energy and water resources) and other data centers (including hydrometeorology and the anti-hail unit) is not fed into the center. The role of the Agency for Land Reclamation and Irrigation, which is responsible for flood protection infrastructure, is not clearly articulated with regard to DRM.

11. Under the existing governance structure, the CESCD is generally well placed to support DRM across various government ministries and agencies through its coordination and facilitation mandate. However, to play its role in DRM, protocols for relationships and links between the CESCD and other agencies that produce and analyze DRM data and information (paragraph 10), and the sector ministries and agencies, need to be developed with clearly defined roles for each institution. The CESCD's existing information management capacity needs to be expanded and integrated with all relevant data sources. Capacity for analysis, planning, and evidence-based investment decisions needs to be strengthened. This should include considering options to

[8] https://www.preventionweb.net/files/27582_tajikstrategyenglishbjedits19sep11b.pdf

[9] The legal framework governing DRM includes the Regulation of the Committee of Emergency Situations and Civil Defense (CESCD), 2017, and the Decree on the establishment of the State Commission for Emergency Situations, 2002 (amended in 2007), underpinned by the Law on Protection of Population and Territories from Natural and Man-Made Emergency Situations, 2004; the Law on Emergency Rescue Services and the Status of Rescuers, 2005; and the Law on the Fund for Mitigation of Emergency Situations, 1993.

develop a data analyzing and clearinghouse function within the CESCD to ensure the free flow of information to and from all relevant entities.

B. Impact and Outcome

12. The project is aligned with the following impact: Tajikistan's resilience to disasters enhanced, in line with the National Development Strategy, 2016–2030[10] and the Midterm Development Program, 2016–2020.[11] The project will have the following outcome: Tajikistan's economic losses due to natural hazards reduced.[12]

C. Outputs

13. **Output 1: Disaster risk management mainstreamed in government institutions.** The project will prepare and implement an institutional strengthening plan for the CESCD. The plan will clearly articulate the roles of various departments and divisions of the CESCD in pre- and post-disaster information management, planning and implementation, and their relationship with sector and geographic, provincial, and district agencies—preventing overlap or duplication. The plan will incorporate capacity building for gender-responsive DRM. The project will review the legal framework including all existing DRM-related legislation and will prepare new draft legislation to provide a single, comprehensive law on DRM, if required. The project will also prepare a 5-year business/operational plan (2021–2025) for the CESCD for disaster risk reduction and post-disaster management, including the monitoring framework and facilitation to be extended to the sector ministries and agencies. The project will support establishing dedicated units/focal points in core sectors (water, energy, transport, health, education, environment, and agriculture) to integrate and mainstream DRM and climate change in the respective sector strategies under the overall guidance of the CESCD. The project will also provide training to the staff from the core sectors and CESCD on institutional aspects of DRM.

14. **Output 2: Capacity to manage natural hazards and minimize losses strengthened.** The project will do disaster risk modeling and prepare hazard and disaster risk maps of different return periods and a digital atlas, inventory of assets at risk, and comprehensive national risk profile by carrying out a multi-hazard vulnerability and risk assessment leading to identification of areas of high, medium, low, and no risk. It shall carry out assessment of existing hazard and disaster modeling, mapping, exposure database/registers, and vulnerability analyses (including from an engineering basis), followed by (i) analyses needed to fill existing gaps and their intended purposes; (ii) steps to engage and train national and local stakeholders in these analyses, modeling, and assessments, establishing a sustainable disaster risk information system; and (iii) the establishment of accessible, sustainable data platforms, supporting use of the data by all relevant stakeholders in the form of a national DMIS to be developed in the CESCD, with an appropriate data recording, transmittal, collection, analysis, and dissemination mechanism. The DMIS will also include gender and other social indicators such as sex, age, ability, and income and poverty levels. The project will establish an early warning system to enable the CESCD to issue timely warnings to local authorities, communities, and other stakeholders covering disasters such as floods, droughts, avalanches, and mudflows. It shall prepare national, regional, district, and sectoral DRM plans. The plans will also outline the implementation mechanism and standard operating procedures, focusing on women, children, and people with disabilities. The project will provide DRM-related training to officials of the CESCD and key sector ministries and agencies

[10] http://nafaka.tj/images/zakoni/new/strategiya_2030_en.pdf
[11] Government of Tajikistan. 2016. *National Development Strategy and Midterm Development Plan.* Dushanbe.
[12] The design and monitoring framework is in Appendix 1.

responsible for social and economic infrastructure and natural resource management. It shall also prepare and implement a capacity building plan for community-based DRM in the districts and cities at high risk, with a focus on women, children, and people with disabilities. A DRM awareness-raising program for educational institutions will also be designed and implemented in the districts and cities at high risk. The project will also carry out dam-break analysis and flood modeling of Sarez Lake to identify the areas, population, and public and private properties and assets at risk; estimate the magnitude of potential damages; and identify structural measures to address the issues identified by the analysis. Based on the analysis, upgrading and expanding of monitoring and early warning facilities at Sarez Lake and in the areas at risk will be done. An inventory of glaciers will be prepared to identify areas at risk of glacial lake outburst flooding.

15. **Output 3: Road map for investments and sustainable financing developed**. The project will prepare A 9-year investment plan (2022–2030) for DRM.[13] The risk modeling work supported under output 2 will be used for risk-informed identification and prioritization of investments in the plan. A study will be carried out to explore sustainable financing options for DRR, preparedness, and response; and propose recommendations for establishing a sustainable financing mechanism.

16. **Value added by ADB assistance.** ADB is the leading development partner of the Government of Tajikistan. It has a diverse portfolio of investments including transport, energy, water resources, education, climate finance, and climate resilience. ADB has provided support to Tajikistan for strengthening the climate resilience of irrigation and water supply infrastructure and constructing flood embankments in the Pyanj river basin. It also supported a climate change strategy for Tajikistan in 2016. The project will harness ADB's DRR experience in other countries to put in place appropriate institutional mechanisms, strengthen capacities, and provide the basis for a long-term solution to deal with DRM. Although other development partners are also investing in disaster management, the focus of their investments is mainly on post-disaster response, except some investments on climate proofing infrastructure and watershed management. The project will be the first initiative to implement three of the five core elements of the National Disaster Management Strategy, 2018–2030, building capacities for DRR, and mainstreaming DRM in development planning. The 9-year investment plan and recommendations for a financing mechanism will provide sustainable options for long-term engagement of the government and development partners in addressing DRM challenges. ADB's support to the Agency for Hydrometeorology, to produce timely and accurate forecasting of climate-related extreme weather events, provides an opportunity to leverage its engagement in early warning. [14]

D. Summary Cost Estimates and Financing Plan

17. The project is estimated to cost $11.0 million (Table 1).

18. Detailed cost estimates by expenditure category and financier are included in the project administration manual (PAM).[15] The major cost items are consulting services and equipment.

[13] The investment plan period is aligned with the end year of the National Disaster Management Strategy, 2018–2030.
[14] ADB. Tajikistan: Water Resources Management in Pyanj River Basin Project. https://www.adb.org/projects/47181-002/main#project-overview.
[15] Project Administration Manual (accessible from the list of linked documents in Appendix 2).

Table 1: Summary Cost Estimates
($ million)

Item	Amount[a]
A. Base Cost[b]	
1. Output 1: Disaster risk management mainstreamed in government institutions	2.1
2. Output 2: Capacity to manage natural hazards and minimize losses strengthened	7.6
3. Output 3: Road map for investments and sustainable financing developed	0.6
Subtotal (A)	**10.3**
B. Contingencies[c]	**0.8**
Total (A+B)	**11.0**

Note: Numbers may not sum precisely because of rounding.
[a] Includes taxes and duties of $1.0 million to be financed from government resources.
[b] In mid-2018 prices as of May 2018.
[c] Physical contingencies computed at 5% of the base cost for consulting and project implementation group expenses. Price contingencies computed at average of 7.0% on local currency costs and 1.5% on foreign currency costs from 2019 onward; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.
Source: Asian Development Bank estimates.

19. The government has requested a grant not exceeding $10.0 million from ADB's Special Funds resources (Asian Development Fund) under the disaster risk reduction financing mechanism to help finance the project.[16] The government will finance taxes and duties estimated at $1.0 million.[17]

20. The summary financing plan is in Table 2. ADB will finance the expenditures in relation to consulting services, equipment, and recurrent administrative cost.

Table 2: Summary Financing Plan

Source	Amount ($ million)	Share of Total (%)
Asian Development Bank		
Special Funds resources (Asian Development Fund grant)	10.0	90.9
Government	1.0	9.1
Total	**11.0**	**100.0**

Source: Asian Development Bank estimates.

21. Climate adaptation is estimated to cost $3.0 million for DMIS, early warning system, anti-hale system, inventory of glaciers, mapping of areas at risk, incorporating climate adaptation in sector development plans, and training government officials and communities. ADB will finance 100% of adaptation costs.

E. Implementation Arrangements

22. A project implementation group (PIG) will be established in the CESCD (executing agency) to implement the project. The PIG will have six full-time dedicated staff, headed by a project director. Other relevant agencies will designate focal persons for the project who will be responsible for the coordination of activities related to their respective agencies with the executing agency and PIG during implementation. The PIG will be responsible for project implementation,

[16] ADB. 2016. *Concessional Assistance Policy*. Manila.
[17] The government contribution will not include income tax and social tax of the project implementation group (PIG) staff. These taxes will be financed by grant proceeds, in accordance with ADB's *Loan Disbursement Handbook* (2017, amended from time to time), Appendix 4C, p. 3, para. (ii).

monitoring, and reporting. It will be supported by two packages of the project implementation consultants, for which the expressions of interest were invited before the staff review meeting. The recruitment process will be completed before the grant is declared effective, and contracts will be signed immediately after effectiveness. The project has high readiness in terms of consultant recruitment. The NPES, chaired by the deputy prime minister, will be the steering committee to provide strategic and policy guidance to the project. The implementation arrangements are summarized in Table 3 and described in detail in the PAM (footnote 15).

Table 3: Implementation Arrangements

Aspects	**Arrangements**		
Implementation period	January 2019–December 2023		
Estimated completion date	31 December 2023		
Estimated grant closing date	30 June 2024		
Management			
(i) Executing agency	CESCD		
(ii) Implementation unit	Project implementation group in CESCD, Dushanbe		
Procurement	Open competitive bidding for goods – international advertisement	1 contract	$2.20 million
	Open competitive bidding for goods – national advertisement	1 contract	$1.35 million
	Request for quotation for goods	4 contracts	$0.30 million
Consulting services	Quality- and cost-based selection	459 person-months	$5.58 million
	Least-cost selection	5 person-months	$0.05 million
Advance contracting	Advance contracting, with recruitment of project implementation consultants during the processing phase to ensure the mobilization of consultants immediately after the grant is declared effective, as well as procurement of equipment, furniture, and vehicles for project implementation group.		
Disbursement	The grant proceeds will be disbursed following ADB's *Loan Disbursement Handbook* (2017, as amended from time to time) and detailed arrangements agreed between the government and ADB.		

ADB = Asian Development Bank, CESCD = Committee of Emergency Situations and Civil Defense.
Note: Cost estimates exclude government contributions in the form of exemptions to taxes and duties.
Source: Asian Development Bank.

III. DUE DILIGENCE

A. Technical

23. Technical due diligence included a comprehensive review of existing policies, strategies, plans, and ongoing projects for DRM. An assessment of the collection and dissemination mechanisms of disaster-related data was conducted to determine the measures to integrate those into DMIS and to link with the early warning system. A preliminary assessment of equipment required for forecasting and early warning was also done by the project preparatory team that includes gauges, sensors, radios, radar, VSAT trans receivers, resistivity meters, geophysical loggers, GPS instruments, and software, among others. Project preparation considered (i) the rationale for the proposed design, outcome, and outputs; and (ii) options to maximize the benefits

to communities; and (iii) experience in ADB projects to make the project implementation arrangements robust.

B. Economic and Financial

24. The economic assessment of the project is based on ADB's Guidelines for the Economic Analysis of Projects.[18] It was carried out by comparing the with- and without-project scenarios. The project is assessed viable, as it has an economic internal rate of return of 20.5% and an economic net present value of $9.52 million at a discount rate of 9%. The 10-year annual average of total economic losses caused by disasters in 2014 was equal to $111.9 million, or 1.2% of gross domestic product. In the with-project scenario, it is expected that the annual average of economic losses will be reduced by 3.1%, and the economic costs of capital expenditures are estimated at about $9.3 million. The project capital costs include the costs of consulting services, equipment, machinery, office establishment, and staff expenditures. The capital cost of the without-project scenario is estimated at zero. For the purpose of modeling, annual maintenance expenditures related to the project's capital investments are carried out over 15 years (2024–2038). The sensitivity analysis shows that the project's rate of return and economic viability is robust in the case of (i) an increase in capital cost by 10% and (ii) a decrease in benefits by 10%. An unlikely combination of the two scenarios reduces the economic internal rate of return to 17%, which is well above the 9% threshold and remains high.

25. Financial analysis considered the projection of incremental recurrent costs, including operation and maintenance expenditures, required to ensure the sustainability of the project; and assessment of the capacity of the CESCD to fund recurrent costs. Increasing understanding and awareness of pre-disaster mitigation have resulted in an increase in the FY2018 budget allocation to the CESCD to about $3.3 million equivalent. This is enough to cover the expected $220,000 annual operation and maintenance cost for the project.

C. Governance

26. The financial management risk is *moderate* mainly because the executing agency has adequate capacity, internal control systems, and financial reporting arrangements. Financial management assessment was carried out that includes the accountability, transparency, and capacity of the executing agency; and covers the (i) financial information systems, (ii) funds flow arrangements, (iii) staffing, (iv) accounting and financial reporting, (v) internal audit, and (vi) external audit. Mitigation measures to address the identified risks have been incorporated into the project design, including (i) recruiting experienced and qualified financial accounting staff for the PIG; (ii) providing training in ADB procedures related to audit, disbursement, and project management; and (iii) providing financial management support and training with the support of project implementation consultants.

27. The procurement capacity assessment concluded that the procurement risk of the project is moderate because of (i) the availability of qualified procurement staff, (ii) adequate technical skills of the executing agency to procure goods and recruit consulting services, and (iii) adequate integrity and anticorruption measures in place. Mitigation measures to address the identified gaps are incorporated in the project design, including (i) experienced procurement staff for the PIG, (ii) support of international and national consultants, (iii) training in ADB procurement procedures and use of ADB standard bidding documents, and (iv) use of prior review procedures.

[18] Economic Analysis (accessible from the list of linked documents in Appendix 2); and ADB. 2017. *Guidelines for the Economic Analysis of Projects.* Manila.

28. ADB's Anticorruption Policy (1998, as amended to date) and ADB's Integrity Principles and Guidelines were explained to and discussed with the government and the CESCD. The specific policy requirements and supplementary measures are described in the PAM (footnote 15).[19]

D. Poverty, Social, and Gender

29. The outputs of the project include an early warning system that will strengthen disaster resilience across Tajikistan, particularly in high-risk areas and among the vulnerable population. The mainstreaming work on DRM and related strategies will include components targeting the poor and vulnerable people in disaster-prone areas. The project will benefit all segments of the society. It is classified *effective gender mainstreaming*. The key gender impacts of the project will include (i) institutionalizing women's participation in the institutional plan and business plan for the CESCD as well as sectoral strategies and plans; (ii) developing a gender-inclusive DMIS that includes gender and other social indicators; (iii) integrating social factors like sex, age, ability, and income and poverty level into the hazard maps, inventory of assets at risk, national risk profile, and multi-hazard vulnerability and risk assessment; (iv) increasing girls' awareness of DRM throughout educational institutions; (v) capacity building of female staff of the CESCD and other sector departments and ministries and agencies on DRM; and (vi) capacity building in DRR for women in high-risk districts and cities.

E. Safeguards

30. In compliance with ADB's Safeguard Policy Statement (2009), the project's safeguard categories are as follows.[20]

31. **Environment (category C).** The project remains *category C* for environmental impacts as no adverse impacts or environmental risks are anticipated because the project is not financing civil works.

32. **Involuntary resettlement (category C).** The project is classified *category C* under ADB's Safeguard Policy Statement as no civil works or economic displacements are envisaged. Therefore, no negative social impacts on involuntary resettlement are expected.

33. **Indigenous peoples (category C).** No indigenous peoples are present in the project area according to ADB's Safeguard Policy Statement definition.

F. Summary of Risk Assessment and Risk Management Plan

34. The existing institutional arrangements and capacities required for mainstreaming DRM in development planning are considered high risk. The CESCD's finance specialists are experienced and familiar with the financial management procedures, but this is assessed a substantial risk since they do not have experience of ADB-financed projects. Significant risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.[21]

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[19] ADB. 2015. *Integrity Principles and Guidelines.* Manila.
[20] ADB. Safeguard Categories. https://www.adb.org/site/safeguards/safeguard-categories.
[21] Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

Table 4: Summary of Risks and Mitigating Measures

Risks	Mitigation Measures
Existing institutional arrangements and capacities are not designed for mainstreaming disaster risk management in development planning.	Improve the institutional arrangements and build capacity of the executing agency and core ministries to facilitate and guide mainstreaming of disaster risk management in strategies and development plans of core sectors.
The executing agency's finance and accounting staff do not have experience of ADB-financed projects.	Provide training on ADB's *Loan Disbursement Handbook* (2017, as amended from time to time) through the project implementation consultant.

ADB = Asian Development Bank.
Source: Asian Development Bank.

IV. ASSURANCES

35. The government and the CESCD have assured ADB that implementation of the project shall conform to all applicable ADB policies, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and grant documents.

36. The government and the CESCD have agreed with ADB on certain covenants for the project, which are set forth in the draft grant agreement.

V. RECOMMENDATION

37. I am satisfied that the proposed grant would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the grant not exceeding $10,000,000 to the Republic of Tajikistan from ADB's Special Funds resources (Asian Development Fund) for the National Disaster Risk Management Project, on terms and conditions that are substantially in accordance with those set forth in the draft grant agreement presented to the Board.

Takehiko Nakao
President

5 September 2018

DESIGN AND MONITORING FRAMEWORK

Impact the Project is Aligned with Tajikistan's resilience to disasters enhanced (National Development Strategy, 2016–2030; and Midterm Development Program 2016–2020)[a]			
Results Chain	**Performance Indicators with Targets and Baselines**	**Data Sources and Reporting**	**Risks**
Outcome Tajikistan's economic losses due to natural hazards reduced	a. 10-year rolling average annual total economic losses due to disaster reduced by 3.1% by 2024 (2014 baseline: $111.9 million)	a. Damage and loss reports of the Government of Tajikistan, report(s) of development partners and third-party entities	Political instability and deterioration of security situation in the country
Outputs 1. DRM mainstreamed in government institutions	1a. CESCD institutional plan with capacity building for gender-responsive DRM implemented by December 2020 (2018 baseline: not applicable) 1b. CESCD 5-year business/operational plan (2021–2025) with gender-specific actions developed by June 2021 (2018 baseline: not applicable) 1c. DRM-integrated sector strategies, with actions that address specific needs of women, children, elderly, and people with disabilities, approved by June 2021 (2018 baseline: not applicable) 1d. Draft legislation providing a single, comprehensive law on DRM prepared by December 2020 (2018 baseline: not applicable)	1a.–d. QPRs of executing agency, executing agency's PCR	A major low-frequency and high-intensity (one in 100 years) event happens during implementation of the project.

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
2. Capacity to manage natural hazards and minimize losses strengthened	2a. Hazard maps and inventory of assets at risk based on a detailed assessment, national risk profile, multi-hazard vulnerability, and risk assessments that consider social factors such as sex, age, ability, and income and poverty levels prepared by December 2020 (2018 baseline: not applicable) 2b. National disaster management information system established by December 2021 (2018 baseline: 0) 2c. Early warning system established by December 2022 (2018 baseline: 0) 2d. Community-based DRM and DRM awareness in educational institutions in high-risk districts and cities implemented by June 2023, including at least 40% women (2018 baseline: not applicable) 2e. National, regional, district, and sector DRM plans prepared by December 2021 (2018 baseline: 0) 2f. Sarez Lake early warning system updated by June 2023 (2018 baseline: not applicable)	2a.–f. QPRs of executing agency, executing agency's PCR	
3. Road map for investments and sustainable financing developed	3a. 9-year DRM investment plan (2022–2030) prepared by December 2021 (2018 baseline: not applicable)	QPRs of executing agency, executing agency's PCR	

Key Activities with Milestones

1. Disaster risk management mainstreamed in government institutions

1.1 Issue RFP by Q3 2018 and complete recruitment of consultants by Q1 2019.
1.2 Develop institutional strengthening and reorganization plan and complete legal requirements by Q2 2020.
1.3 Complete consultations for developing 5-year business/operational plan for the CESCD and its restructured departments and divisions by Q2 2021.
1.4 Appoint staff and procure equipment, furniture, and vehicles for restructured institutional setup by Q2 2021.
1.5 Revise sector strategies by Q1 2021.

2. Capacity to manage natural hazards and minimize losses strengthened

2.1 Issue RFP by Q3 2018 and complete recruitment of consultants by Q1 2019.
2.2 Complete surveys and data collection for multi-hazard vulnerability assessment and preparing hazard maps by Q2 2020.
2.3 Select educational institutions and design awareness-raising program by Q2 2021.
2.4 Select districts, cities, and communities and design community-based DRM program by Q2 2022.
2.5 Complete dam-break studies and flood modeling of Sarez Lake by Q4 2020.
2.6 Prepare inventory of glaciers by Q2 2023.
2.7 Complete staff training for CESCD and other sector departments and ministries, including at least 20% women, by Q2 2023.

3. Road map for investments and sustainable financing developed

3.1 Issue RFP by Q3 2018 and complete recruitment of consultants by Q1 2019.
3.2 Prepare draft investment plan by Q3 2021.
3.3 Complete study for financing options after consultations with development partners by Q3 2021.
3.4 Prepare recommendations for financing mechanism by Q4 2021.

Inputs

ADB: $10.0 million (Asian Development Fund grant)

Government: $1.0 million

Assumptions for Partner Financing

Not applicable.

ADB = Asian Development Bank, CESCD = Committee of Emergency Situations and Civil Defense, DRM = disaster risk management, PCR = project completion report, Q = quarter, QPR = quarterly progress report, RFP = request for proposal.

[a] Government of Tajikistan. 2016. *National Development Strategy and Midterm Development Plan.* Dushanbe.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

http://www.adb.org/Documents/RRPs/?id=52106-001-2

1. Grant Agreement
2. Sector Assessment (Summary): Disaster Risk Management
3. Project Administration Manual
4. Contribution to the ADB Results Framework
5. Development Coordination
6. Economic Analysis
7. Financial Analysis
8. Country Economic Indicators
9. Summary Poverty Reduction and Social Strategy
10. Risk Assessment and Risk Management Plan
11. Gender Action Plan

Supplementary Documents

12. Financial Management Assessment
13. Procurement Risk Assessment
14. Stakeholder Analyses, Risks, and Participation Strategy
15. Poverty and Socioeconomic Conditions
16. Indicative List of Equipment