

# Draft Project Administration Manual

Project Number: 52106-001

Grant Number: XXXX

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Republic of Tajikistan: National Disaster Risk  
Management Project



## ABBREVIATIONS

|       |   |   |
|-------|---|---|
| ADB   | – | Asian Development Bank                              |
| ADF   | – | Asian Development Fund                              |
| AFS   | – | audited financial statements                        |
| APFS  | – | audited project financial statements                |
| CBO   | – | community-based organization                        |
| CESCD | – | Committee of Emergency Situations and Civil Defense |
| CBDRM | – | community-based disaster risk management            |
| CWRD  | – | Central and West Asia Department                    |
| DMF   | – | design and monitoring framework                     |
| DMC   | – | developing member country                           |
| DMIS  | – | disaster management information system              |
| DRM   | – | disaster risk management                            |
| EA    | – | executive agency                                    |
| ESG   | – | environmentally sustainable growth                  |
| GAP   | – | gender action plan                                  |
| GCD   | – | governance and capacity development                 |
| GDP   | – | gross domestic product                              |
| GIS   | – | geographic information system                       |
| GLOF  | – | glacial lakes outburst flooding                     |
| IA    | – | implementing agency                                 |
| IEG   | – | inclusive economic growth                           |
| IMAC  | – | Information Management and Analytical Center        |
| JICA  | – | Japan International Cooperation Agency              |
| MHVRA | – | multi-hazard vulnerability and risk assessment      |
| MOF   | – | Ministry of Finance                                 |
| NPES  | – | national platform of emergency situations           |
| NCES  | – | national commission on emergency situations         |
| PAI   | – | project administration instructions                 |
| PCR   | – | project completion report                           |
| PIG   | – | project implementation group                        |
| PSC   | – | project steering committee                          |
| QPRs  | – | quarterly progress reports                          |
| REACT | – | rapid emergency assessment and coordination team    |
| SDC   | – | Swiss Agency for Development and Cooperation        |
| SDCD  | – | Sustainable Development Climate Change and Disaster |
| SOE   | – | statement of expenditure                            |
| SOP   | – | standard operating procedures                       |
| TJS   | – | Tajik somoni  |
| UNDP  | – | United Nations Development Programme                |
| WA    | – | withdrawal application                              |

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### **Project Administration Manual Purpose and Process**

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with the policies and procedures of the government and Asian Development Bank (ADB). The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The executing agency, Committee of Emergency Situations and Civil Defense under the Government of Tajikistan (CESCD); and the implementing agency - project implementation group (PIG) are wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation including compliance by the CESCD and PIG of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At grant negotiations, the borrower and ADB shall agree to the PAM and ensure consistency with the grant agreements.<sup>1</sup> Such agreement shall be reflected in the minutes of the grant negotiations. In the event of any discrepancy or contradiction between the PAM and the grant agreement, the provisions of the grant agreement shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP), changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval, they will be subsequently incorporated in the PAM.

<sup>1</sup> These include the loan, grant, and TA Agreements, and the Project Agreement.



## I. PROJECT DESCRIPTION

### A. Rationale

1. The Government of the Republic of Tajikistan has requested ADB assistance for a long term and sustainable solution to effectively manage the expected increased severity and frequency of disasters triggered by natural hazards in Tajikistan. The project will (i) support efforts of the government in mainstreaming disaster risk management (DRM) in development planning, and (ii) lay a foundation for establishing a sustainable institutional and financial mechanism that enables Tajikistan to effectively deal with disasters in the long-term.

### B. Impact and Outcome

2. The impact of the project will be Tajikistan's resilience to disasters enhanced, aligned with (i) National Development Strategy 2016–2030 and Midterm Development Program 2016–2020<sup>2</sup>; (ii) ADB's Country Partnership Strategy for Tajikistan 2016–2020<sup>3</sup>; and (iii) National Disaster Management Strategy.<sup>4</sup> The project will have following outcome: reduced economic losses of Tajikistan due to natural hazards.

### C. Outputs

3. **Output 1: DRM mainstreamed in government institutions.** The project will prepare and implement an institutional strengthening plan for the CESC. The plan will clearly articulate the roles of various departments and divisions of the CESC 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 CESC 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 CESC. The project will also provide training to the staff from the core sectors and CESC on institutional aspects of DRM.

4. **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

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<sup>2</sup> Ministry of Economic Development and Trade. 2016. *National Development Strategy and Midterm Development Plan*. Dushanbe.

<sup>3</sup> ADB. 2016. *Country Partnership Strategy: Tajikistan, 2016–2020*. Manila Source: <https://www.adb.org/sites/default/files/institutional-document/190300/cps-taj-2016-2020.pdf>

<sup>4</sup> Government of Tajikistan. 2010. *National Disaster Management Strategy, 2010–2015*. Dushanbe; and Government of Tajikistan. 2018. *Draft National Disaster Management Strategy, 2018 – 2030*. Dushanbe.

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 CESC, 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 CESC 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 CESC and key sector ministries and agencies 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.

5. **Output 3: Road map for investments and sustainable financing developed.** The project will prepare A 9-year investment plan (2022–2030) for DRM.<sup>5</sup> 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.

## II. IMPLEMENTATION PLANS

### A. Project Readiness Activities

6. The project will be prepared by using staff resources. The procurement under the project will comprise consulting services and goods/equipment including high-level technologies. Advance actions will be completed for recruitment of consulting services during the processing phase to ensure mobilization of the consultants immediately after the grant is declared effective. The main project readiness activities and their expected completion dates are shown in **Table 1**.

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<sup>5</sup> The investment plan period is aligned with the end year of the National Disaster Management Strategy, 2018–2030.



**Table 1: Project Readiness Activities**

| Indicative Activities                                      | 2018 |     |     |     |     |     |     | 2019 | Responsible Individual/Unit/Agency/Government |
|--|------|-----|-----|-----|-----|-----|-----|------|---|
|  | Jun  | Jul | Aug | Sep | Oct | Nov | Dec | Jan  |   |
| Readiness support consultants mobilized                    | X    |     |     |     |     |     |     |      | ADB   |
| Advance contracting actions <sup>a</sup>                   | X    |     |     |     |     |     |     |      | EA  |
| Establish project implementation arrangements <sup>b</sup> |      |     |     |     |     | X   |     |      | PIG   |
| Grant negotiations   |      | X   |     |     |     |     |     |      | ADB/GoT                                       |
| ADB Board approval   |      |     |     | X   |     |     |     |      | ADB   |
| Grant signing  |      |     |     |     | X   |     |     |      | ADB/MOF                                       |
| Government legal opinion provided                          |      |     |     |     |     | X   |     |      | GoT   |
| Government budget inclusion                                |      |     |     |     |     | X   |     |      | GoT   |
| Grant effectiveness  |      |     |     |     |     |     |     | X    | ADB/ MOF                                      |

ADB = Asian Development Bank; GoT = Government of Tajikistan; MOF = Ministry of Finance.

<sup>a</sup> Recruitment of consulting services.

<sup>b</sup> A project implementation group (PIG) will be established in the EA for implementing the project. The PIG will have full time dedicated staff from the CESC, headed by the Project Director.

Sources: ADB and GoT.

## **B. Overall Project Implementation Plan**

7. The project implementation schedule is shown in **Table 2**. A detailed version will be prepared during the Inception Mission as part of annual work planning exercise. Implementation of activities will start from January 2019 after grant effectiveness, and the project's completion and grant financial closings are expected in 31 December 2023 and 30 June 2024, respectively.

Table 2: Overall Project Implementation Plan

| Indicative Activity  | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |    | 2022 |    |    |    | 2023 |    |    |    |
|--|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|
|  | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 |
| A. Design and Monitoring Framework   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| Output 1. Disaster Risk Management mainstreamed in government institutions   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 1.1 Recruitment of consultants by Q1 2019  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 1.2 Institutional strengthening/re-organization plan and legal requirements  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 1.3 5 year business/operational plan for the CESC and its restructured departments and divisions                               |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 1.4 Staff appointment and procurement of equipment, furniture and vehicles for restructured institutional setup                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 1.5 Revise sector strategies   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 1.6 Revise and approve plans of core sectors   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| Output 2. Capacity to manage natural hazards and minimize losses strengthened  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 2.1 Recruitment of consultants by Q1 2019  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 2.2 Surveys and data collection for multi-hazard vulnerability assessment and preparing hazard maps                            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 2.3 Selection of educational institutions, design and implementation of awareness raising program                              |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 2.4 Selection of districts, cities, communities, design and implementation of community-based disaster risk management program |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 2.5 Dam-break studies and flood modeling of Sarez lake   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 2.6 Inventory of glaciers  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 2.7 Staff training for CESC and other sector departments and ministries (20% women)  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| Output 3. Roadmap for investments and sustainable financing developed  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 3.1 Recruitment of consultants   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 3.2 Draft investment plan  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 3.3 Study for financing options  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 3.4 Recommendations for financing mechanism  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| B. Management Activities   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| Procurement of office equipment, furniture, and vehicles for PIG   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| Procurement of equipment and machinery   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| Gender Action Plan   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| Quarterly Progress Reports   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| Project completion report  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |

Sources: ADB, PIG and GoT.

### III. PROJECT MANAGEMENT ARRANGEMENTS

#### A. Project Implementation Organizations: Roles and Responsibilities

8. The project implementation period will be January 2019 – December 2023. The CESC will be the executing agency (EA). A PIG will be established in the EA for implementing the project, which will be supported by two packages of the project implementation consultants. The EA will be responsible for (i) overseeing the project implementation group (PIG) for the day-to-day implementation of the project, and (ii) being the party to sign all contracts with consultants and contractors employed by the project. The PIG will have full time dedicated staff from the EA, headed by a Project Director. The PIG tasks will include, among others, the procurement, accounting, monitoring, and supervision of the project, as well as the necessary liaison with the EA, contractors, suppliers, and ADB. The EA/PIG will also be responsible for compliance with grant covenants. Other relevant agencies will designate focal persons for the project who shall be responsible for coordination of activities related to their respective agencies with the EA/PIG during implementation.

9. The borrower will: (i) sign a grant agreement; (ii) provide support for grant effectiveness requirements; (iii) allocate and release counterpart funds in a timely manner; (iv) process and submit to ADB any request, when required, for reallocating the grant proceeds; (v) monitor project implementation and provide respective coordination and facilitation; (vi) endorse to ADB the authorized staff with approved signatures for withdrawal applications processing; and (vii) provide support for the project's suppliers and consultants for local tax-free implementation.

10. The Project Steering Committee (PSC): The high-level National Platform of Emergency Situations (NPES)<sup>6</sup> will carry out the responsibilities of the PCS, which will provide the EA and PIG with the overall strategic guidance to the project, discuss and resolve any implementation issues, and coordinate with other stakeholders, such as other relevant ministries, non-governmental organizations as well as private sector entities. The NPES will meet at least once a year to review the project progress.

11. The detailed roles and responsibilities of each organization are provided in **Table 3**, and **Figure 3** shows an overview of the structure.

**Table 3: Project Implementation Organizations: Summary of Roles and Responsibilities**

| Project Implementation Organizations | Management Roles and Responsibilities  |
|--------------------------------------|--|
| Ministry of Finance (MOF), Borrower  | <ul style="list-style-type: none"> <li>• Sign a grant agreement</li> <li>• Provide support for grant effectiveness requirements</li> <li>• Allocate and release counterpart funds in a timely manner</li> <li>• Process and submit to ADB any request, when required, for reallocating the grant proceeds</li> <li>• Monitor project implementation and providing respective coordination and facilitation</li> <li>• Endorse to ADB the authorized staff with approved signatures for withdrawal applications processing</li> <li>• Support for the project's suppliers and consultants for local tax-free implementation.</li> </ul> |

<sup>6</sup> Headed by the Deputy Prime Minister of Tajikistan with representation of all relevant sector ministries and agencies.

| Project Implementation Organizations          | Management Roles and Responsibilities   |
|---|---|
| Project implementation group (PIG) in the EA. | <p>PIG will be responsible for implementing the project.</p> <ul style="list-style-type: none"> <li>• Coordinate with other government agencies, departments and units, local governments, district offices, <i>jamoats</i><sup>7</sup>, communities as necessary</li> <li>• Establish advance account for PIG staff</li> <li>• Maintain project accounts and accurate records of both financial and physical progress</li> <li>• Procure goods</li> <li>• Recruit and supervise project implementation consultants</li> <li>• Guide the plans, surveys, studies, detailed designs, capacity development activities, workshops to be prepared or implemented by the consultants</li> <li>• Payments to consultants/suppliers</li> <li>• Monitor and supervise consulting services and PIG operations;</li> <li>• Implement gender action plan;</li> <li>• Provide quarterly progress reports</li> <li>• Disseminate project progress (e.g., planned and completed project activities including procurement) through the EA's or project's website</li> <li>• Provide audited financial statements duly audited as per Grant agreement</li> <li>• Ensure compliance with social and environmental safeguards as per ADB's Safeguards Policy Statement (SPS) 2009 (amended from time to time)</li> </ul>  |
| Project Implementation Consultants (PIC)      | <ul style="list-style-type: none"> <li>• Carry out activities to deliver the envisaged outputs</li> <li>• Prepare design specifications of the goods and machinery to be procured</li> <li>• Assist PIG in procurement of equipment and machinery by preparing bidding documents, bid evaluation reports, contract documents</li> <li>• Assist PIG in implementing gender action plan</li> <li>• Support PIG and EA in complying with grant covenants</li> <li>• Carry out training need assessment of staff of EA and other relevant ministries, design training program and organize/arrange training</li> <li>• Contract NGO(s) for community-based disaster risk management training program and awareness raising at educational institutions, design training and awareness program with them, and supervise implementation</li> <li>• Develop project progress and performance monitoring system, collect data, and prepare quarterly progress reports</li> <li>• Help PIG in maintaining project accounts</li> <li>• Prepare the EA's project completion report</li> <li>• Coordinate with other government agencies, departments and units, local governments, district office, <i>jamoat</i>, communities as necessary</li> <li>• Ensure compliance with social and environmental safeguards as per ADB's SPS 2009 (amended from time to time)</li> </ul> |

<sup>7</sup> Jamoat is the third-level administrative divisions, like communes or municipalities, in Tajikistan.

| Project Implementation Organizations    | Management Roles and Responsibilities   |
|---|---|
| Project Steering Committee through NPES | <ul style="list-style-type: none"> <li>• Provide the overall strategic guidance to the project</li> <li>• Discuss and resolve any implementation issues</li> <li>• Coordinate with other stakeholders and</li> <li>• Meet at least once a year to review the project progress.</li> </ul>   |
| Relevant Ministries and Agencies        | <ul style="list-style-type: none"> <li>• Designate focal persons for the project who shall be responsible for coordination of activities related to their respective agencies with the EA/PIG during implementation.</li> <li>• Revise respective sector strategies for mainstreaming DRM with support of CESC and consultants, and get those approved from the designated government authorities.</li> <li>• Provide required inputs for preparing sectoral DRM plans and 9-year investment plan (2022-2030).</li> <li>• Nominate staff for training to be provided under the project in consultation with the CESC.</li> <li>• Transmit all disasters related data collected by different agencies to CESC for integrating in the DMIS.</li> <li>• Participate in the project activities as needed during implementation of the project</li> </ul>  |
| ADB                                     | <ul style="list-style-type: none"> <li>• Provide financing for the project cost through an ADF Grant</li> <li>• Monitor project implementation progress</li> <li>• Assist the EA and PIG in providing timely guidance at each stage of the project for smooth implementation</li> <li>• Review all the documents that require ADB approval upon the submission by the PIG</li> <li>• Conduct periodic project review missions, a midterm review, and a completion mission jointly with Government</li> <li>• Monitor project arrangements, disbursement, procurement, consultant selection, and reporting</li> <li>• Monitor schedules of activities, including funds flow</li> <li>• Review compliance with agreed procurement procedures</li> <li>• Review compliance with grant covenants</li> <li>• Monitor conformance with safeguards procedures</li> <li>• Monitor project conformity with ADB's anti-corruption policies</li> <li>• Regularly post on ADB website the updated project information documents for public disclosure, and the safeguards documents as per disclosure provision of the ADB SPS (2009, amended from time to time), and ADB Public Communications Policy (2011, (amended from time to time).</li> </ul> |

ADB = Asian Development Bank, CESC = Committee of Emergency Situations and Civil Defense, MOF = Ministry of Finance, NPES = National Platform of Emergency Situations, PIG = project implementation group  
Source: Asian Development Bank.

## B. Key Persons Involved in Implementation

### Executing Agency

Committee of Emergency  
Situations and Civil Defense

Mr. Rustam Nazarzoda  
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under the Government of  
Tajikistan

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Office Address: 45 Sovetskaya St., Dushanbe, Tajikistan

### C. Project Implementation Group

12. The EA is responsible for identifying PIG staff to accomplish implementation of outputs for the project. Proposed key PIG staff requires ADBs review and approval. The roles and tasks of key PIG staffs are tabulated in **Table 4**.

**Table 4: Roles and Responsibilities of Key PIG staff**

|              |   |
|--------------|---|
| PIG Director | <ul style="list-style-type: none"> <li>(i) Supervise, manage and coordinate implementation of the project;</li> <li>(ii) Ensure timely approval of all required documents within the government systems;</li> <li>(iii) Ensure smooth coordination between the EA, ADB and other relevant ministries</li> <li>(iv) Guide and collaborate with the relevant staff to monitor output implementation in accordance with the agreed work program;</li> <li>(v) Ensure compliance with ADB's Guidelines and procedures;</li> <li>(vi) Recruit the project support/implementation consultants as per ADB's Guidelines and procedures;</li> <li>(vii) Procure goods/equipment as per ADB's Guidelines and procedures;</li> <li>(viii) Supervise project support/implementation consultants and ensure deliveries of the outputs with quality and in time;</li> <li>(ix) Support PIG staff in the overall project management and preparation of reports for the government and its relevant agencies;</li> <li>(x) Supervise organization and management of seminars, workshops, media events etc. to represent the project;</li> <li>(xi) Ensure timely resolution of the issues arising during implementation;</li> <li>(xii) Manage all staff directly working on the project;</li> <li>(xiii) Coordinate with relevant key staff to maintain an overview of the day-to-day operations of the project;</li> <li>(xiv) Provide operational support to key staff members in the implementation of their responsibilities;</li> <li>(xv) Ensure timely submission of progress reports;</li> <li>(xvi) Liaise with local government administrations participating in the project to ensure successful implementation of project activities;</li> </ul> |
|--------------|---|

|                      |  |
|----------------------|--|
|                      | <ul style="list-style-type: none"> <li>(xvii) Liaise with ADB staff and supervision missions to ensure successful completion of missions and ongoing project monitoring; and</li> <li>(xviii) Implement recommendations of ADB supervision missions and associated aide-memoires; and</li> <li>(xix) Assist the ADB Missions, and provide inputs as required.</li> </ul>   |
| Financial Accountant | <ul style="list-style-type: none"> <li>(i) Responsible for taking care of financing, funds flow arrangements, payments, recording, and monitoring of both ADB and government funds;</li> <li>(ii) Deal with the verification of the payment supporting documentation from the suppliers and consultants</li> <li>(iii) Prepare the withdrawal applications (WAs) and submit them for approval of Project Director of the project implementation group (PIG), and upload them for ADB;</li> <li>(iv) Be responsible for accounting transactions of PIG staff salaries, per diem etc.;</li> <li>(v) Submit the monthly reports of PIG expenses to PIG Director;</li> <li>(vi) prepare the project financial statements according to cash-based International Public-Sector Accounting Standards;</li> <li>(vii) Meet all requests and requirements for Internal Audit from the CESC and external audit as designated by ADB;</li> <li>(viii) Take care of financing, funds flow arrangements, payments, recording, and monitoring of both ADB and government funds;</li> <li>(ix) Ensure timely preparation of the annual audited project accounts and submission to ADB within 6 months of fiscal year end;</li> <li>(x) Cooperate with the Project Director and the PIG staff to develop a strategy for guiding and supporting purchase operations made by the PIG in regard to project components;</li> <li>(xi) report of any requirements as requested by Tax Committee under the government;</li> <li>(xii) Maintain information on ADB disbursement guidelines, and other resources needed by staff in carrying out disbursements, account operation;</li> <li>(xiii) Coordinate with the specialists of the PIG, to develop and implement payment mechanisms and procedures to support purchases of goods;</li> <li>(xiv) Communicate through the Project Director information and/or documentation to the government or ADB for their inspection, obtaining comments and/or for commencement of funding;</li> <li>(xv) Assist in providing key inputs for preparation of project preparation plans, project strategic assessments, institutional roadmaps and process reviews;</li> <li>(xvi) Assist in preparation of 9-year investment plan; (vi) carry out study on sustainable financing options for DRM; and</li> <li>(xvii) Assist the ADB Missions, and provide inputs as required.</li> </ul> |
| Procurement Officer  | <ul style="list-style-type: none"> <li>(i) Carry out procurement activities with support of project implementation consultants in line with ADB's procurement guidelines;</li> <li>(ii) Maintain records/database of all procurements;</li> <li>(iii) Prepare bidding documents, bid evaluation reports with support of project implementation consultants;</li> <li>(iv) Provide support to Project Director for entering into procurement contracts, oversee delivery, issue invoices, inspect/test procured items, and make payments to suppliers;</li> <li>(v) Establish a monitoring system for overseeing project procurement actions and coordinating necessary approvals or correcting shortcomings in procedures;</li> </ul>  |

|  |  |
|--|--|
|  | <ul style="list-style-type: none"> <li>(vi) Communicate through the Project Director information and/or documentation to the Government or ADB for their inspection, obtaining comments and/or for commencement of funding; and</li> <li>(vii) Assist the ADB Missions, and provide inputs as required.</li> <li>(viii) Provide oversight and advise on procurement and contract management;</li> <li>(ix) Assist the ADB Missions, and provide inputs as required.</li> </ul>   |
| Monitoring and Evaluation (M&E) Specialist | <ul style="list-style-type: none"> <li>(i) Establish project progress and performance monitoring system based on design and monitoring framework of the project with support of project implementation consultants;</li> <li>(ii) Supervise data collection, analysis and reporting on quarterly basis;</li> <li>(iii) Monitor implementation of gender action plan and ensure progress updates in QPRs</li> <li>(iv) Ensure that baseline, intermediate and end-of project socio-economic surveys and impact assessment in each output of the project are planned and conducted;</li> <li>(v) Assist the ADB Missions, and provide inputs as required.</li> </ul>   |
| Gender and Social Development Specialist   | <ul style="list-style-type: none"> <li>(i) Ensure that capacity building programs, demonstration activities, any activities for outputs include all requirement to implement GAP;</li> <li>(ii) Undertake gender monitoring activities and prepare gender reports to be submitted to ADB.</li> <li>(iii) Ensure that GAP is updated as and when required;</li> <li>(iv) Provide technical inputs and advice to the PIG on relevant aspects of gender mainstreaming and women's empowerment;</li> <li>(v) Ensure that activities and assessments adequately take account of gender issues and support inclusion;</li> <li>(vi) Ensure adherence to ADB's operational plan for gender equality and women's empowerment, and related policies;</li> <li>(vii) Support delivery of training; and</li> <li>(viii) Assist the ADB Missions, and provide inputs as required.</li> </ul> |
| Secretary/Translator                       | <ul style="list-style-type: none"> <li>(i) Provide professional translation and interpretation services (English/Russian/Tajik);</li> <li>(ii) Translate documents, ensuring completeness, accuracy and stylistic acceptability of translations produced;</li> <li>(iii) Conduct necessary research for each document being translated to ensure that the meaning is interpreted correctly and in full, and that appropriate specialized terminology is employed;</li> <li>(iv) Provide secretarial support to Project Director;</li> <li>(v) Assist the ADB Missions, and provide inputs as required.</li> </ul>  |

Source: Asian Development Bank.

13. The detailed staffing requirements and estimated salaries of PIG are provided in **Table 5**



**Table 5: Staffing Requirement for PIG**

| No | Position <sup>1</sup>                 | Monthly Salary (\$) including all local taxes <sup>2</sup> |
|----|---------------------------------------|--|
| 1  | PIG Director                          | 1300.00  |
| 2  | Financial Accountant                  | 750.00   |
| 3  | Procurement Officer                   | 750.00   |
| 4  | Monitoring and Evaluation Officer     | 750.00   |
| 5  | Gender and Social Development Officer | 750.00   |
| 6  | Secretary/Translator                  | 600.00   |
| 7  | Drivers (two)                         | 400.00   |

<sup>1</sup> 1 January 2019 to 31 December 2023.

<sup>2</sup> Salaries will be increased by 10% annually.

Source: Asian Development Bank.

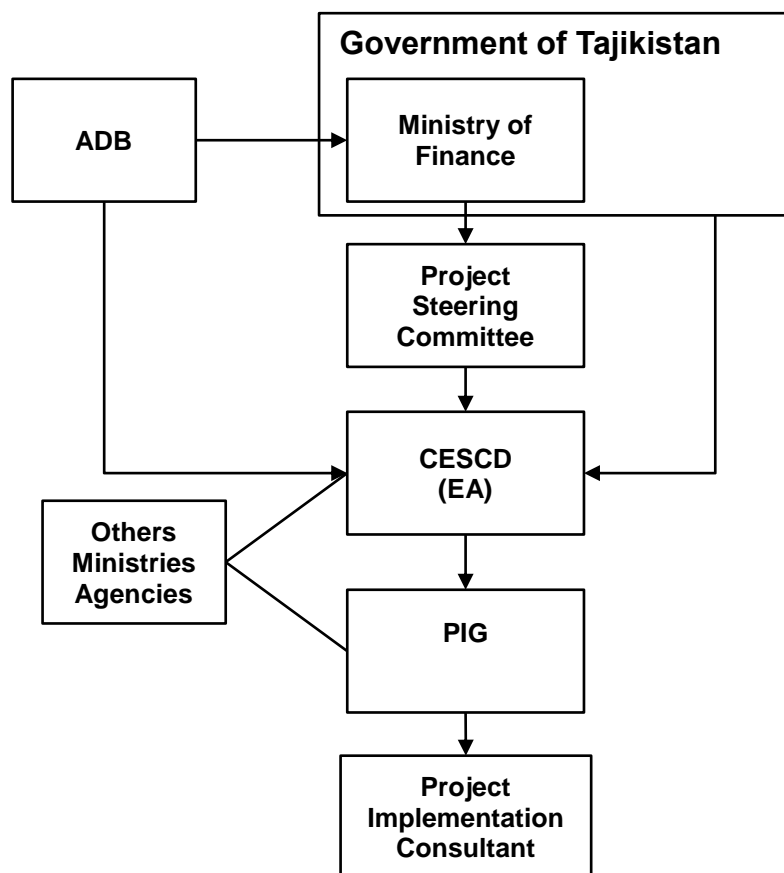
#### **D. Other Ministries/Agencies**

14. Ministry of Transport, Energy and Water Resources, Health, Education, Agriculture, and State Committee of Environment Protection will appoint focal persons to coordinate with the EA and PIG during implementation of the project. These sector ministries/agencies will participate in the trainings on DRM, work with the EA/PIG and PIC for revising strategies and plans to incorporate DRM. The Agency of Hydrometeorology under the SCEP will be linked with CESC for to and from data communications through DMIS. Required climatic and hydrological data collected by the Agency for Hydrometeorology will be transmitted to DMIS. Similarly, seismic data from the Institute of Seismologic Construction and Seismology under the Academy of Science, Department of Geology will be relayed to DMIS. Data from Sarez lake unit and Anti hail unit will also be linked with the DMIS and would be made accessible to the Agency for Hydrometeorology. The DMIS and Early Warning System will be able to disseminate the processed data/information to relevant ministries, and government agencies at central, regional, district, and local level. Arrangements for issuing warnings to the communities and local government institutions, responsible for pre and post disaster activities, will be carefully laid out.

#### **E. Project Organization Structure**

15. Organization structure for project implementation is given in **Figure 1**.

**Figure 1: Project Organization Structure**

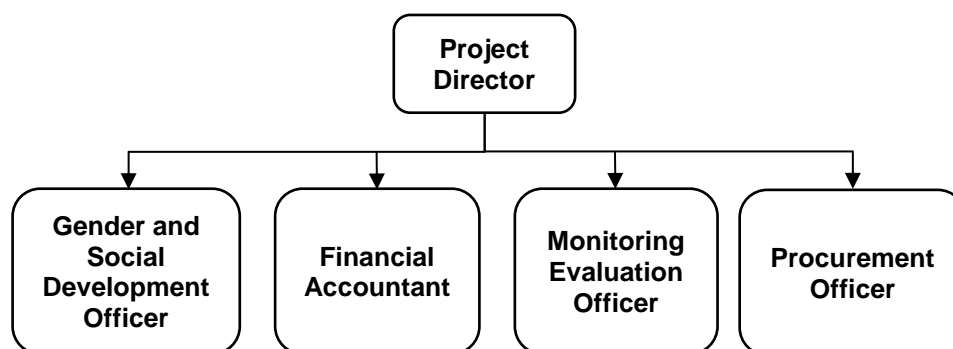


ADB = Asian Development Bank; CESCD = Committee of Emergency Situations and Civil Defense; EA = Executing Agency; IA = Implementing Agency; and PIG = Project Implementation Group.  
Source: Asian Development Bank.

#### **F. Project Implementation Group Organizational Chart**

16. Figure 2 shows the organizational structure of the project.

**Figure 2: Project Implementation Group Organizational Chart**



## G. Implementation Procedures

### IV. COSTS AND FINANCING

17. The project modality is stand-alone grant project. The current ADB allocation for the project is \$10.0 million grant from ADB's Special Funds resources (Asian Development Fund) under the disaster risk reduction financing mechanism.<sup>8</sup> The government will finance taxes and duties initially estimated at \$1.0 million. Initial estimate of climate change adaptation is \$3.0 million. ADB will finance 100% of the adaptation cost. The financing plan is in **Table 6**. Detailed cost by expenditures, project investment and financing plans are provided in following tables.

**Table 6: Financing Plan**

| Source                             | Amount<br>(\$ million) | Share of Total<br>(%) |
|------------------------------------|------------------------|-----------------------|
| Asian Development Bank             |                        |                       |
| Special Fund resources (ADF grant) | 10.0                   | 90.9                  |
| Government                         | 1.0                    | 9.1                   |
| <b>Total</b>                       | <b>11.0</b>            | <b>100.0</b>          |

Source: Asian Development Bank

#### A. Cost Estimates Preparation and Revisions

18. The cost estimates and financing plan of the project have been prepared during ADB's Fact-Finding Mission in May 2018. The cost estimates are in **Table 8** and shall be reviewed and updated (if necessary) during the inception, review and midterm review missions.

#### B. Key Assumptions

19. The following key assumptions underpin the cost estimates and financing plan:

- (i) Exchange rate: \$1 = TJS 8.98<sup>9</sup>
- (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows in **Table 7**:

**Table 7: Escalation Rates for Price Contingency Calculation**

| Item                             | 2019 | 2020 | 2021 | 2022 | 2023 | Average |
|----------------------------------|------|------|------|------|------|---------|
| Foreign rate of price inflation  | 1.5% | 1.5% | 1.5% | 1.5% | 1.5% | 1.5%    |
| Domestic rate of price inflation | 7.0% | 7.0% | 7.0% | 7.0% | 7.0% | 7.0%    |

Source: Asian Development Bank estimates.

#### C. Detailed Cost Estimates by Expenditure Category

20. Expenditure accounts project cost summary is given in **Table 8** below.

<sup>8</sup> ADB. 2016. *Concessional Assistance Policy 2016*. Manila.

<sup>9</sup> ADB Forex as of 25 May 2018.

**Table 8: Cost Estimates by Expenditure Category**

|   | TJS million      |                |              | \$ million       |                |              | % of Total Base Cost |
|---|------------------|----------------|--------------|------------------|----------------|--------------|----------------------|
|   | Foreign Exchange | Local Currency | Total Cost   | Foreign Exchange | Local Currency | Total Cost   |                      |
| <b>A. Investment Costs</b>                        |                  |                |              |                  |                |              |                      |
| Consulting Services                               | 45.79            | 0.00           | 45.79        | 5.15             | 0.00           | 5.15         | 50%                  |
| Equipment and Machinery                           | 0.00             | 38.33          | 38.33        | 0.00             | 4.31           | 4.31         | 42%                  |
| <b>Subtotal (A)</b>                               | <b>45.79</b>     | <b>38.33</b>   | <b>84.12</b> | <b>5.15</b>      | <b>4.31</b>    | <b>9.45</b>  | <b>92%</b>           |
| <b>B. Recurrent Costs</b>                         |                  |                |              |                  |                |              |                      |
| PIG Office Establishment                          | 0.00             | 2.67           | 2.67         | 0.00             | 0.30           | 0.30         | 3%                   |
| PIG Incremental Staff Cost                        | 0.00             | 4.63           | 4.63         | 0.00             | 0.52           | 0.52         | 5%                   |
| <b>Subtotal (B)</b>                               | <b>0.00</b>      | <b>7.30</b>    | <b>7.30</b>  | <b>0.00</b>      | <b>0.82</b>    | <b>0.82</b>  | <b>8%</b>            |
| <b>Total Base Cost (A+B)</b>                      | <b>45.79</b>     | <b>45.63</b>   | <b>91.42</b> | <b>5.15</b>      | <b>5.13</b>    | <b>10.27</b> | <b>100%</b>          |
| <b>C. Contingencies</b>                           |                  |                |              |                  |                |              |                      |
| Physical  | 0.00             | 2.67           | 2.67         | 0.00             | 0.30           | 0.30         | 3%                   |
| Price   | 2.07             | 1.76           | 3.83         | 0.23             | 0.20           | 0.43         | 4%                   |
| <b>Subtotal (C)</b>                               | <b>2.07</b>      | <b>4.43</b>    | <b>6.50</b>  | <b>0.23</b>      | <b>0.50</b>    | <b>0.73</b>  | <b>7%</b>            |
| <b>D. Financing Charges During Implementation</b> | <b>0.00</b>      | <b>0.00</b>    | <b>0.00</b>  | <b>0.00</b>      | <b>0.00</b>    | <b>0.00</b>  | <b>0%</b>            |
| <b>Total Project Cost (A+B+C+D)</b>               | <b>47.86</b>     | <b>50.06</b>   | <b>97.92</b> | <b>5.38</b>      | <b>5.62</b>    | <b>11.00</b> | <b>107%</b>          |

Notes: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank .

#### **D. Allocation and Withdrawal of Grant Proceeds**

21. For the proposed project, the government has requested a grant not exceeding \$10m. The current ADB allocation for the project is \$10.0 million comprising Asian Development Fund (ADF) grant under the disaster risk reduction (DRR) financing mechanism.<sup>10</sup> The government will finance taxes and duties initially estimated at \$1.0 million. Initial estimate of climate change adaptation is \$3.0 million. ADB will finance 100% of the adaptation cost.

**Table 9: Allocation and Withdrawal of Grant Proceeds**

| CATEGORY |                            |   |   |
|----------|----------------------------|---|---|
| Number   | Item                       | Total Amount Allocated for ADB Financing (\$ million) | Basis for Withdrawal from the Grant Account |
| 1        | Consulting Services        | 5.2   | 100% of total expenditure claimed*          |
| 2        | Equipment and Machinery    | 3.3   | 100% of total expenditure claimed*          |
| 3        | PIG Office Establishment   | 0.3   | 100% of total expenditure claimed           |
| 4        | PIG Incremental Staff Cost | 0.5   | 100% of total expenditure claimed           |
| 5        | Unallocated                | 0.7   | 100% of total expenditure claimed           |
|          | <b>Total</b>               | <b>10.0</b>   |   |

\* Exclusive of Taxes and Duties.

<sup>10</sup> ADB. 2016. *Concessional Assistance Policy*. 2016. Manila.

## E. Detailed Cost Estimates by Financier

22. Detailed Cost Estimates by Financier is in **Table 10**.

**Table 10: Cost Estimates by Financier  
(\$ million)**

| Item                                 | ADB Grant    |             |                    | Government Counterpart |             |                    | Total Cost   |             |
|--------------------------------------|--------------|-------------|--------------------|------------------------|-------------|--------------------|--------------|-------------|
|                                      | Amount       | (Taxes)     | % of Cost Category | Amount                 | (Taxes)     | % of Cost Category | Amount       | (Taxes)     |
| <b>A. Investment Costs</b>           |              |             |                    |                        |             |                    |              |             |
| Consulting Services                  | 5.15         | 0.00        | 100%               | 0.00                   | 0.00        | 0.00               | 5.15         | 0.00        |
| Equipment and Machinery              | 3.31         | 0.00        | 76.7%              | 0.00                   | 1.00        | 23.3%              | 3.31         | 1.00        |
| <b>Subtotal (A)</b>                  | <b>8.45</b>  | <b>0.00</b> | <b>100%</b>        | <b>0.00</b>            | <b>1.00</b> | <b>0.00</b>        | <b>8.45</b>  | <b>1.00</b> |
| <b>B. Recurrent Costs</b>            |              |             |                    |                        |             |                    |              |             |
| PIG Office Establishment             | 0.30         | 0.00        | 100%               | 0.00                   | 0.00        | 0.00               | 0.30         | 0.00        |
| PIG Incremental Staff Cost           | 0.52         | 0.00        | 100%               | 0.00                   | 0.00        | 0.00               | 0.52         | 0.00        |
| <b>Subtotal (B)</b>                  | <b>0.82</b>  | <b>0.00</b> | <b>100%</b>        | <b>0.00</b>            | <b>0.00</b> | <b>0.00</b>        | <b>0.82</b>  | <b>0.00</b> |
| <b>C. Contingencies</b>              | <b>0.73</b>  | <b>0.00</b> | <b>100%</b>        | <b>0.00</b>            | <b>0.00</b> | <b>0.00</b>        | <b>0.73</b>  | <b>0.00</b> |
| <b>D. Financing</b>                  |              |             |                    |                        |             |                    |              |             |
| <b>Charges During Implementation</b> | <b>0.00</b>  | <b>0.00</b> | <b>0.0%</b>        | <b>0.00</b>            | <b>0.00</b> | <b>0.0%</b>        | <b>0.00</b>  | <b>0.00</b> |
| <b>Total Project Cost (A+B+C+D)</b>  | <b>10.00</b> | <b>0.00</b> | <b>90.9%</b>       | <b>0.00</b>            | <b>1.00</b> | <b>9.1%</b>        | <b>10.00</b> | <b>1.00</b> |
| <b>% of Total Project Cost</b>       |              |             | <b>90.9%</b>       |                        |             |                    |              | <b>9.1%</b> |

## F. Detailed Cost Estimates by Outputs and/or Components

23. Detailed Cost Estimated by Outputs/Components is in **Table 11**.

**Table 11: Detailed Cost Estimates by Outputs and/or Components  
(\$ million)**

|                            | Total Cost  | Output 1    |                    | Output 2    |                    | Output 3    |                    |
|----------------------------|-------------|-------------|--------------------|-------------|--------------------|-------------|--------------------|
|                            |             | Amount      | % of Cost Category | Amount      | % of Cost Category | Amount      | % of Cost Category |
| <b>A. Investment Costs</b> |             |             |                    |             |                    |             |                    |
| Consulting Services        | 5.15        | 1.79        | 35%                | 3.02        | 59%                | 0.34        | 7%                 |
| Equipment and Machinery    | 4.31        | 0.00        | 0%                 | 4.31        | 100%               | 0.00        | 0%                 |
| <b>Subtotal (A)</b>        | <b>9.45</b> | <b>1.79</b> | <b>19%</b>         | <b>7.32</b> | <b>77%</b>         | <b>0.34</b> | <b>4%</b>          |
| <b>B. Recurrent Costs</b>  |             |             |                    |             |                    |             |                    |

|           |  |              |             |            |             |            |             |            |
|-----------|--|--------------|-------------|------------|-------------|------------|-------------|------------|
|           | PIG Office Establishment                       | 0.30         | 0.10        | 33%        | 0.10        | 33%        | 0.10        | 33%        |
|           | PIG Incremental Staff Cost                     | 0.52         | 0.17        | 33%        | 0.17        | 33%        | 0.17        | 33%        |
|           | <b>Subtotal (B)</b>                            | <b>0.82</b>  | <b>0.27</b> | <b>33%</b> | <b>0.27</b> | <b>33%</b> | <b>0.27</b> | <b>33%</b> |
|           | <b>Total Base Cost (A+B)</b>                   | <b>10.27</b> | <b>2.06</b> | <b>20%</b> | <b>7.60</b> | <b>74%</b> | <b>0.62</b> | <b>6%</b>  |
| <b>C.</b> | <b>Contingencies</b>                           |              |             |            |             |            |             |            |
|           | Physical                                       | 0.30         | 0.10        | 35%        | 0.18        | 59%        | 0.02        | 7%         |
|           | Price  | 0.43         | 0.09        | 20%        | 0.32        | 74%        | 0.03        | 6%         |
|           | <b>Subtotal (C)</b>                            | <b>0.73</b>  | <b>0.19</b> | <b>26%</b> | <b>0.49</b> | <b>68%</b> | <b>0.05</b> | <b>6%</b>  |
| <b>D.</b> | <b>Financing Charges During Implementation</b> | <b>0.00</b>  | <b>0.00</b> | <b>0%</b>  | <b>0.00</b> | <b>0%</b>  | <b>0.00</b> | <b>0%</b>  |
|           | <b>Total Project Cost (A+B+C+D)</b>            | <b>11.00</b> | <b>2.25</b> | <b>20%</b> | <b>8.09</b> | <b>74%</b> | <b>0.66</b> | <b>6%</b>  |

Notes: Numbers may not sum precisely because of rounding.

Sources: Asian Development Bank estimate.

## G. Detailed Cost Estimates by Year

24. Detailed Cost Estimates by Year is in **Table 12**.

**Table 12: Detailed Cost Estimates by Year**  
(\$ million)

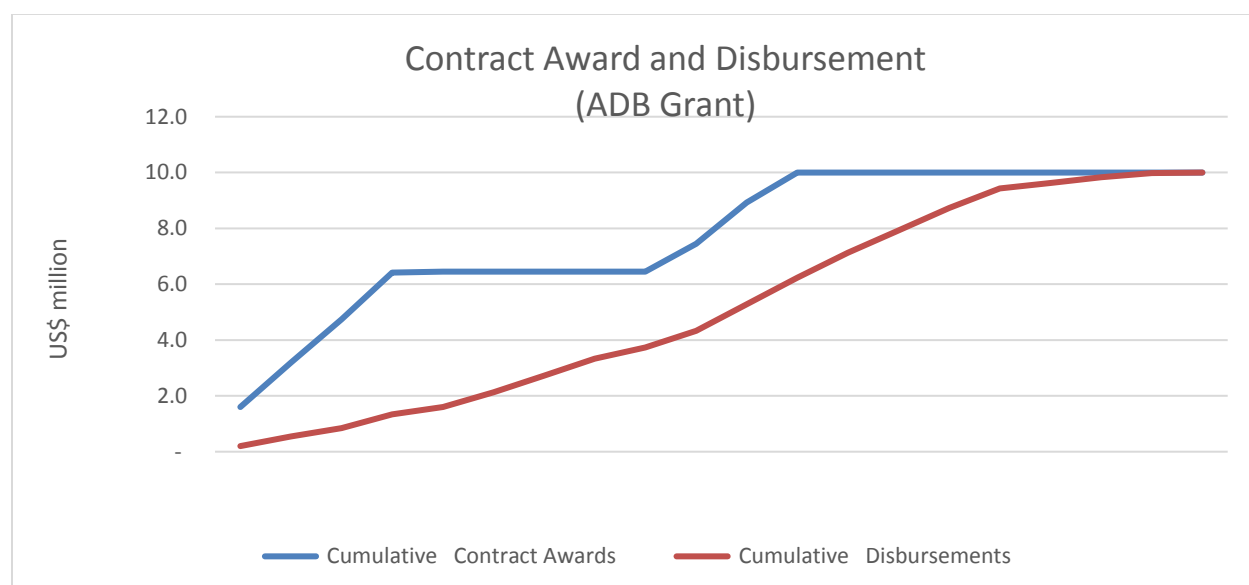
|           | Item   | Total Cost    | 2019         | 2020         | 2021         | 2022         | 2023         |
|-----------|--|---------------|--------------|--------------|--------------|--------------|--------------|
| <b>A.</b> | <b>Investment Costs</b>                        |               |              |              |              |              |              |
|           | Consulting Services                            | 5.15          | 0.87         | 0.93         | 1.03         | 1.29         | 1.03         |
|           | Equipment and Machinery                        | 4.31          | 0.00         | 0.00         | 0.86         | 3.01         | 0.43         |
|           | <b>Subtotal (A)</b>                            | <b>9.45</b>   | <b>0.87</b>  | <b>0.93</b>  | <b>1.89</b>  | <b>4.30</b>  | <b>1.46</b>  |
| <b>B.</b> | <b>Recurrent Costs</b>                         |               |              |              |              |              |              |
|           | PIG Office Establishment                       | 0.30          | 0.30         | 0.00         | 0.00         | 0.00         | 0.00         |
|           | PIG Incremental Staff Cost                     | 0.52          | 0.10         | 0.10         | 0.10         | 0.10         | 0.10         |
|           | <b>Subtotal (B)</b>                            | <b>0.82</b>   | <b>0.40</b>  | <b>0.10</b>  | <b>0.10</b>  | <b>0.10</b>  | <b>0.10</b>  |
| <b>C.</b> | <b>Contingencies</b>                           | <b>0.73</b>   | <b>0.12</b>  | <b>0.13</b>  | <b>0.15</b>  | <b>0.18</b>  | <b>0.15</b>  |
| <b>D.</b> | <b>Financing Charges During Implementation</b> | <b>0.00</b>   | <b>0.00</b>  | <b>0.00</b>  | <b>0.00</b>  | <b>0.00</b>  | <b>0.00</b>  |
|           | <b>Total Project Cost (A+B+C+D)</b>            | <b>11.0</b>   | <b>1.40</b>  | <b>1.16</b>  | <b>2.14</b>  | <b>4.59</b>  | <b>1.71</b>  |
|           | <b>% of Total Project Cost</b>                 | <b>100.0%</b> | <b>12.8%</b> | <b>10.6%</b> | <b>19.5%</b> | <b>41.7%</b> | <b>15.5%</b> |

Notes: Numbers may not sum precisely because of rounding.

Sources: Asian Development Bank estimate.

## H. Contract and Disbursement S-Curve

25. The forecasted contract award and disbursement profile as of May 2018 for the project financing is shown below.

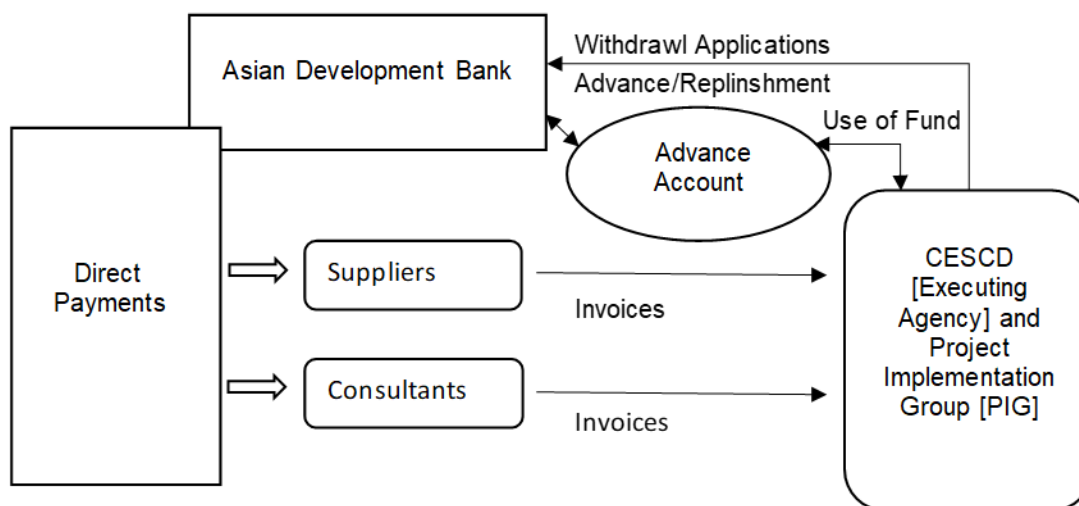


| Period  | Cumulative      |               | Quarterly       |               |
|---------|-----------------|---------------|-----------------|---------------|
|         | Contract Awards | Disbursements | Contract Awards | Disbursements |
| Q1 2019 | 1.60            | 0.20          | 1.60            | 0.20          |
| Q2 2019 | 3.20            | 0.55          | 1.60            | 0.35          |
| Q3 2019 | 4.74            | 0.84          | 1.54            | 0.29          |
| Q4 2019 | 6.42            | 1.34          | 1.68            | 0.50          |
| Q1 2020 | 6.45            | 1.54          | 0.03            | 0.20          |
| Q2 2020 | 6.45            | 1.78          |                 | 0.24          |
| Q3 2020 | 6.45            | 2.13          |                 | 0.35          |
| Q4 2020 | 6.45            | 2.45          |                 | 0.32          |
| Q1 2021 | 6.45            | 2.61          |                 | 0.16          |
| Q2 2021 | 7.45            | 2.98          | 1.00            | 0.37          |
| Q3 2021 | 8.93            | 3.62          | 1.48            | 0.64          |
| Q4 2021 | 10.00           | 4.40          | 1.07            | 0.78          |
| Q1 2022 | 10.00           | 5.80          |                 | 1.40          |
| Q2 2022 | 10.00           | 6.70          |                 | 0.90          |
| Q3 2022 | 10.00           | 7.65          |                 | 0.95          |
| Q4 2022 | 10.00           | 8.45          |                 | 0.80          |
| Q1 2023 | 10.00           | 8.76          |                 | 0.31          |
| Q2 2023 | 10.00           | 9.09          |                 | 0.33          |
| Q3 2023 | 10.00           | 9.32          |                 | 0.23          |
| Q4 2023 | 10.00           | 9.50          |                 | 0.18          |
| Q1 2024 | 10.00           | 9.66          |                 | 0.16          |
| Q2 2024 | 10.00           | 9.81          |                 | 0.15          |
| Q3 2024 | 10.00           | 10.00         |                 | 0.19          |

## I. Fund Flow Diagram

26. Fund flow arrangements for the project are depicted in **Figure 3**.

**Figure 3: Fund Flow Diagram**



## V. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

27. The country public financial management (PFM) system was assessed by reviewing a public expenditure and financial accountability (PEFA) assessment completed in November 2012. This financial management assessment (FMA) report has been conducted in May 2018 with reference to the *Guidelines for the Financial Management and Analysis of Projects*<sup>11</sup>, *Financial Due Diligence: A Methodology Note*<sup>12</sup>, and *Financial Management Technical Guidance Note*<sup>13</sup>. It incorporates the financial management internal control and risk management assessment required by the ADB's *Guidelines* and may need to be amended further to reflect subsequent developments and agreements during the project implementation. This FMA preparatory activities included reviewing documents, interviewing staff of government agency and other stakeholders, and completed with inputs from other references through desk studies completed in May 2018.

28. This FMA focus on accountability, transparency and the capacity of the CESC and covers (i) financial information systems, and internal and external auditing arrangements; (ii) funds-flow arrangements; (iii) staffing; (iv) accounting and financial reporting; and (v) independent audit. Based on the assessment, the key financial management risks identified are lack of experience of EA in implementing ADB assisted projects, setting up of PIG with qualified staff and need for extensive training to be given to PIG on ADB's *Loan Disbursement Handbook* (2017, amended from time to time)<sup>14</sup>. It is concluded that the overall pre-mitigation financial management

<sup>11</sup> ADB. 2005. *Guidelines for the Financial Management and Analysis of Projects*. Manila.

<sup>12</sup> ADB. 2009. *Financial Due Diligence: A Methodology Note*. Manila.

<sup>13</sup> ADB. 2015. *Financial Management Technical Guidance Note*. Manila.

<sup>14</sup> The handbook is available electronically from the ADB website (<http://www.adb.org/documents/loan-disbursement-handbook>).



risk of the EA is 'moderate'. The use of advance fund and Statement of Expenditures (SOE) procedures are proposed, the EA has adequate capacity and power to manage advance fund and SOE procedures although some improvements and capacity building will be needed. The EA has agreed to implement an action plan as key measures to address the deficiencies. The financial management action plan is provided in **Table 13**.

**Table 13: Time-Bound Action Plan**

| <b>Weakness</b>  | <b>Mitigation Action</b>  | <b>Responsibility</b> | <b>Target Date</b> |
|--|---|-----------------------|--------------------|
| The EA has no experience in implementing ADB financed projects. However, PIG has not been formed yet and the experience and skills of PIG staff needs to be assured.   | The EA needs to timely set up PIG with qualified staff before grant effectiveness.  | EA                    | September 2018     |
| The EA's Financial Accountant is experienced and familiar with the Financial Management Procedure. However, he has not yet received any training on ADB Financial Management procedure and ADB's <i>Loan Disbursement Handbook</i> (2017, as amended from time to time). | Provide training on ADB's <i>Loan Disbursement Handbook</i> and Financial Management procedure for the Financial Accountant as part of the PIG consultancy package. All PIG expenses will route through advance account and other funds will flow through ADB direct payments to suppliers and consultants. | ADB/EA                | December 2018      |

ADB = Asian Development Bank, EA = Executing Agency, PIG = Project Implementation Group.

Source: Asian Development Bank.

## **B. Disbursement**

### **Disbursement Arrangements for ADB {and ADB-administered cofinancier} Funds**

29. The grant proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* and detailed arrangements agreed upon between the government and ADB. The Loan Disbursement Handbook describes the procedures and provides standard forms for withdrawal of funds. Online training for project staff on disbursement policies and procedures is available at: [http://wpqr4.adb.org/disbursement\\_e-learning](http://wpqr4.adb.org/disbursement_e-learning). The project staffs are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

30. **Direct payments.** Payments for goods, the project implementation consultants, and other payments, which either are in large amount or should be made in US dollars, will be made by direct payment from ADB to the contractors, upon receipt of PIG's withdrawal application / direct payment request, along with necessary supporting documents. Payments for goods suppliers may be made either by direct payment from ADB. Withdrawal applications will be prepared by the PIG. PIG, assisted by project implementation consultants, will prepare contract awards and disbursement projections, request budgetary allocations for counterpart funds, collect supporting documents, and prepare and send withdrawal applications to ADB.

31. **Advance account.** The EA will establish an advance account promptly after grant effectiveness at a commercial bank acceptable to ADB<sup>15</sup>. The currency of the advance account is the US dollar. The advance account is to be used exclusively for the ADB's share of eligible

<sup>15</sup> The bank charges incurred in the operation of the advance account may be financed from the grant proceeds.

expenditures. The EA and its PIG who administers the advance account is accountable and responsible for proper use of advances to the advance account. The EA through its PIG will manage the advance account, which have a sufficient capacity to administer it. The initial and additional advances to the advance account may be requested based on 6 months estimated expenditures to be financed through the advance account. The advance account will be established, managed, and liquidated in accordance with ADB's *Loan Disbursement Handbook* and detailed arrangements agreed by the government and ADB. ADB's *Loan Disbursement Handbook* describes what supporting documents should be submitted to ADB and which should be retained by the government for liquidation and replenishment of an advance account.

32. The total outstanding advance to the advance account should not exceed the estimate of ADB's share of expenditures to be paid through the advance account for the forthcoming 6 months. The EA may request for initial and additional advances to the advance account based on an Estimate of Expenditure Sheet<sup>16</sup> setting out the estimated expenditures to be financed through the account for the forthcoming 6 months. Supporting documents should be submitted to ADB or retained by the CESC in accordance with ADB's *Loan Disbursement Handbook* when liquidating or replenishing the advance account.

33. **Statement of expenditure procedure.**<sup>17</sup> The statement of expenditure (SOE) procedure will be used for reimbursement of eligible expenditures or liquidation of advances to the advance account.<sup>18</sup> The ceiling of the SOE procedure is the equivalent of \$100,000 per individual payment. Supporting documents and records for the expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and review missions, upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit. Reimbursement and liquidation of individual payments in excess of the SOE ceiling should be supported by full documentation when submitting the withdrawal application to ADB.

34. **Authorized signatories.** Before the submission of the first withdrawal application (WA), the EA should submit to ADB sufficient evidence of the authority of the person(s) who will sign the WAs on behalf of the government, together with the authenticated specimen signatures of each authorized person. The minimum value per WA is stipulated in the *Loan Disbursement Handbook*. Individual payments below such amount should be paid (i) by the EA and subsequently claimed to ADB through reimbursement, or (ii) through the advance fund procedure, unless otherwise accepted by ADB. The borrower should ensure sufficient category and contract balances before requesting disbursements. Use of ADB's Client Portal for Disbursements (CPD)<sup>19</sup> system is encouraged for submission of WAs to ADB. For direct payments, the contractors and consultants will submit their invoices or interim payment certificates as appropriate to EA who will process them and send with the required withdrawal applications to ADB. The EA will be responsible for (i) preparing disbursement projections, (ii) collecting supporting documents, and (iii) preparing and sending WAs to ADB.

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<sup>16</sup> Estimate of expenditure sheet is available in Appendix 8A of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

<sup>17</sup> SOE forms are available in Appendix 7B and 7D of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

<sup>18</sup> The EA has adequate capacity and suitable to manage SOE procedure.

<sup>19</sup> The CPD facilitates online submission of WA to ADB, resulting in faster disbursement. The forms to be completed by the Borrower are available online at <https://www.adb.org/documents/client-portal-disbursements-guide>.

35. Following to ADB's *Safeguard Policy Statement* (2009) (SPS),<sup>20</sup> ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS. All financial institutions will ensure that their investments are following applicable national laws and regulations and will apply the prohibited investment activities list (Appendix 5) to subprojects financed by ADB.

36. No withdrawal shall be made from the grant account until an appropriate legislation has been passed to provide exemption from taxes and duties on project expenditures or the government has made budgetary allocation to the EA for the costs of such taxes and duties.

### **C. Accounting**

37. The EA through PIG will maintain separate books and records by funding source for all expenditures incurred on the project. The EA will prepare consolidated project financial statements in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices.

### **D. Auditing and Public Disclosure**

38. The EA through PIG will cause the detailed consolidated project financial statements to be audited in accordance with International Standards on Auditing and with the government's audit regulations, by an independent auditor acceptable to ADB. The audited project financial statements will be submitted in the English language to ADB within six months of the end of the fiscal year by the PIG.

39. The annual audit report for the project accounts will include an audit management letter and audit opinions which cover (i) whether the project financial statements present a true and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting framework; (ii) whether loan and grant proceeds were used only for the purposes of the project or not; (iii) the level of compliance for each financial covenant contained in the legal agreements for the project; (iv) use of the advance fund procedure; and (v) the use of the statement of expenditure procedure certifying to the eligibility of those expenditures claimed under SOE procedures, and proper use of the SOE and advance procedures in accordance with ADB's *Loan Disbursement Handbook* and the project documents.

40. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.

41. The EA and its PIG have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.<sup>21</sup> ADB reserves the right to require a change in the auditor (in a manner consistent

<sup>20</sup> Available at: <http://www.adb.org/documents/safeguard-policy-statement?ref=site/safeguards/main>.

<sup>21</sup> ADB approach and procedures regarding delayed submission of audited project financial statements:

- When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (i) the audit documents are overdue; and (ii) if they are not received within the next six months, requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- When audited project financial statements have not been received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (i) inform the

with the constitution of the borrower), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

42. Public disclosure of the project financial statements, including the audit report on the project financial statements, will be guided by ADB's *Public Communications Policy* (2011)<sup>22</sup>. After review, ADB will disclose the project financial statements for the project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website. The audit management letter will not be disclosed.

## VI. PROCUREMENT AND CONSULTING SERVICES

### A. Advance Contracting and Retroactive Financing

43. All advance contracting will be undertaken in conformity with ADB's *Procurement Policy and Procurement Regulations for ADB Borrowers: Goods, Works, Nonconsulting and Consulting Services* (2017, amended from time to time)<sup>23</sup>. The issuance of invitations to bid under advance contracting will be subject to ADB approval. The borrower, EA and PIG have been advised that approval of advance contracting does not commit ADB to finance the project. Advance contracting actions will be completed before approval of the project for recruitment of PIC services to mobilize them immediately after the grant is declared effective, to avoid start up implementation delays. The government has been advised that (i) approval of advance contracting does not commit ADB to finance the project; and (ii) the issuance of invitations to bid under advance contracting will be subject to ADB approval.

44. **Retroactive financing.** Will not be used.

45. The consulting services will be required for carrying out required assessments and studies, and support implementation of the activities to deliver the designed outputs. The project implementation consultants (PIC) will also support in financial management, implementation of gender action plan, procurement of goods/equipment and machinery, and monitoring of the project.

### B. Procurement of Goods, Works, and Consulting Services

46. All procurement of goods will be undertaken in accordance with ADB's *Procurement Policy and Procurement Regulations for ADB Borrowers: Goods, Works, Nonconsulting and Consulting Services*.

47. Open competitive bidding (OCB) procurement method will apply to (i) goods contracts valued at least \$2.0 million with international advertisements; (ii) goods contracts valued from \$100,001 and \$1,999,999 with national advertisements (Box 1 below); and (iii) services — the project implementation consultants will be advertised internationally. OCB for goods will use the

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executing agency of ADB's actions; and (ii) advise that the loan may be suspended if the audit documents are not received within the next six months.

• When audited project financial statements have not been received within 12 months after the due date, ADB may suspend the loan.

<sup>22</sup> Available at <https://www.adb.org/documents/pcp-2011>.

<sup>23</sup> The document is available electronically from the ADB website (<https://www.adb.org/sites/default/files/procurement-regulations-adb-borrowers.pdf>).

single-stage, one-envelope bidding procedure. Requests for quotations will be sought for goods and services valued up to \$100,000. The bidding documents will be prepared for all procurement packages and request for proposals (RFPs) for the two consultancy packages.

48. All consultants and nongovernment organizations (NGOs) will be recruited according to *Procurement Policy and Procurement Regulations for ADB Borrowers: Goods, Works, Nonconsulting and Consulting Services*. The terms of reference for all consulting services are detailed in **Appendix 1**.

49. The PIG will be directly responsible for procuring goods and services. The PIG will recruit the construction supervision consultants through quality-and cost-based selection method (90:10).

50. ADB and the government reviewed the public procurement laws of the government to ensure consistency with the ADB's *Procurement Policy and Procurement Regulations for ADB's Borrowers: Goods, Works, Nonconsulting and Consulting Services*. The additional requirements for OCB with national advertisement are described in **Box 1**.

#### **Box 1. Open Competitive Bidding – National Advertisement**

##### **A. Regulation and Reference Documents**

1. The procedures to be followed for national competitive bidding shall conform to the provisions prescribed in the national legislation, with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the ADB Procurement Guidelines.

##### **B. Procurement Procedures**

2. **Eligibility.** The eligibility of bidders shall be as defined under Section I of ADB's *Procurement Guidelines* (2015, as amended from time to time) (the "Guidelines"); accordingly, no bidder or potential bidder should be declared ineligible for reasons other than those provided in Section I of the Guidelines.

3. **Registration and Sanctioning.** Registration is acceptable under the following conditions:  
 (i) Bidding shall not be restricted to pre-registered firms under the national registration system, and such registrations shall not be a condition for the submission of bids in the bidding process.  
 (ii) National sanction lists or blacklists may be applied only with prior approval of ADB.

4. **Prequalification.** Prequalification is discouraged for OCB-National. When used, particularly for goods contracts, an individual prequalification exercise is acceptable for each contract as is the use of a registration system (or approved standing list) of contractors based on criteria such as experience, financial capacity, and technical capacity. Foreign bidders from eligible countries must, however, be allowed to register and to bid without unreasonable cost or additional requirements.

5. **Advertising.** The posting of OCB-National specific notices for contracts valued at less than \$1 million on ADB's website is not required but is highly recommended.

6. **Preferences.** The following shall be observed: (i) No preference of any kind shall be given to domestic bidders or for domestically manufactured goods; and (ii) foreign suppliers and contractors from ADB member countries shall be allowed to bid, without registration, licensing, and other government authorizations, leaving compliance with these requirements for after award and before signing of contract.

7. **Participation by Government-Owned Enterprises.** Government-owned enterprises in Republic of Tajikistan shall be eligible to participate only if they can establish that they are legally and financially

autonomous, operate under commercial law, and are not a dependent agency of the procuring entity, or the EA or PIG.

8. **Rejection of Bids and Rebidding.** Bids shall not be subjected to a test for unrealistic rates. No lowest evaluated and substantially responsive bid shall be rejected on the basis of comparison to rates, including but not limited to market, historical, or agency established rates, without prior approval of ADB.

9. Bids shall not be rejected, and new bids solicited without the ADB's prior concurrence.

10. **Price Negotiations.** Price negotiation shall be allowed only where the price offered by the lowest evaluated and substantially responsive bidder substantially exceeds costs estimates. Approval of ADB is required prior to any negotiation of prices.

### C. Bidding Documents

11. **Acceptable Bidding Documents.** Procuring entities shall use standard bidding documents acceptable to ADB for the Procurement of Goods, Works and Consulting Services, based ideally on the standard bidding documents issued by ADB.

12. **Bid Security.** Where required, bid security shall be in the form of a certified cheque, a letter of credit or a bank guarantee from a reputable bank.

13. **ADB Policy Clauses.** A provision shall be included in all OCB-National works and goods contracts financed by ADB requiring suppliers and contractors to permit ADB to inspect their accounts and records and other documents relating to the bid submission and the performance of the contract, and to have them audited by auditors appointed by ADB.

14. A provision shall be included in all bidding documents for OCB-National works and goods contracts financed by ADB stating that the Borrower shall reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question.

15. A provision shall be included in all bidding documents for OCB-National works and goods contracts financed by ADB stating that ADB will declare a firm or individual ineligible, either indefinitely or for a stated period, to be awarded a contract financed by ADB, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices or any integrity violation in competing for, or in executing, ADB-financed contract.

### C. Procurement Plan

51. An 18-month procurement plan indicating thresholds and review procedures, goods and consulting service contract packages is in **Table 14**, which will be updated with the approval of EA/PIG, in agreement with ADB, as part of the annual planning process or as required during the implementation. The procurement plan also includes (i) goods contracts for equipment and furniture (for the PIG office and vehicles for the PIG and PIC); and (ii) services.

**Table 14: Procurement Plan**

| Basic Data  |                      |
|---|----------------------|
| Project Name: National Disaster Risk Management Project |                      |
| Project Number: 52106-001                               | Approval Number: xxx |

|   |   |
|---|---|
| <b>Country:</b> Tajikistan  | <b>Executing Agency:</b> Committee of Emergency Situations and Civil Defense under the Government of Tajikistan   |
| <b>Project Procurement Classification:</b> Category B   | <b>Implementing Agency:</b> Project Implementation Group under the Committee of Emergency Situations and Civil Defense under the Government of Tajikistan |
| <b>Project Procurement Risk:</b> Medium   |   |
| <b>Project Financing Amount:</b> US\$ 11,000,000<br><b>ADB Financing:</b> US\$ 10,000,000<br><b>Cofinancing (ADB Administered):</b><br><b>Non-ADB Financing:</b> US\$ 1,000,000 | <b>Project Closing Date:</b> 30 June 2024   |
| <b>Date of First Procurement Plan:</b> 25 June 2018   | <b>Date of this Procurement Plan:</b> 25 June 2018  |
| <b>Procurement Plan Duration (in months):</b> 18  | <b>Advance Contracting:</b> Yes <b>e-GP:</b> No   |

| Procurement of Goods and Works   |                                   |  |
|--|-----------------------------------|--|
| Method   | Applicability                     | Comments   |
| Open Competitive Bidding (OCB) for Works – International Advertisement | \$3,000,000 and above             | All contracts OCB (International) works will be reviewed using prior review procedure. |
| Open Competitive Bidding (OCB) for Works – National Advertisement      | Between \$100,001 and \$2,999,999 | All OCB (National) packages will be subject to prior review.                           |
| Open Competitive Bidding (OCB) for Goods – International Advertisement | \$2,000,000 and above             | All contracts OCB (International) goods will be reviewed using prior review procedure. |
| Open Competitive Bidding (OCB) for Goods – National Advertisement      | Between \$100,001 and \$1,999,999 | All contracts OCB (National) goods will be reviewed using prior review procedure.      |
| Request for Quotation for Goods  | Up to \$100,000                   | Prior review.  |

#### A. Methods, Review and Procurement Plan

52. Except as the ADB may otherwise agree, the following methods shall apply to procurement of goods, works, and consulting services.

| Consulting Services                                   |                                 |
|---|---------------------------------|
| Method  | Comments                        |
| Quality- and Cost-Based Selection for Consulting Firm | Prior review of all contracts   |
| Quality-Based Selection for Consulting Firm           | Prior review of all contracts   |
| Least-Cost Selection for Consulting Firm              | Prior review for the 1st tender |
| Fixed-Budget Selection for Consulting Firm            | Prior review of all contracts   |

#### B. Lists of Active Procurement Packages (Contracts)

53. The following table lists goods, works, and consulting services contracts for which the procurement activity is either ongoing or expected to commence within the procurement plan duration.

| <b>Goods and Works</b> |                            |                                  |                           |               |                          |  |   |
|------------------------|----------------------------|----------------------------------|---------------------------|---------------|--------------------------|--|---|
| <b>Package Number</b>  | <b>General Description</b> | <b>Estimated Value (in US\$)</b> | <b>Procurement Method</b> | <b>Review</b> | <b>Bidding Procedure</b> | <b>Advertisement Date (quarter/year)</b> | <b>Comments</b>   |
| NDRMP-Goods-PIG-01     | Vehicles for PIG           | 80,000.00                        | RFQ                       | Prior         |                          | Q4 / 2018                                | No. Of Contracts: 1<br><br>Advance Contracting: Y<br><br>Comments: PIG to procure |
| NDRMP-Goods-PIG-02     | Office Equipment for PIG   | 20,000.00                        | RFQ                       | Prior         |                          | Q4 / 2018                                | No. Of Contracts: 1<br><br>Advance Contracting: Y<br><br>Comments: PIG to procure |
| NDRMP-Goods-PIG-03     | Office Furniture for PIG   | 100,000.00                       | RFQ                       | Prior         |                          | Q4 / 2018                                | No. Of Contracts: 1<br><br>Advance Contracting: Y<br><br>Comments: PIG to procure |
| NDRMP-Goods-PIG-04     | Office Repairs for PIG     | 100,000.00                       | RFQ                       | Prior         |                          | Q4 / 2018                                | No. Of Contracts: 1<br><br>Advance Contracting: Y<br><br>Comments: PIG to procure |

| <b>Consulting Services</b> |   |                                  |                         |               |                         |  |  |
|----------------------------|---|----------------------------------|-------------------------|---------------|-------------------------|--|--|
| <b>Package Number</b>      | <b>General Description</b>  | <b>Estimated Value (in US\$)</b> | <b>Selection Method</b> | <b>Review</b> | <b>Type of Proposal</b> | <b>Advertisement Date (quarter/year)</b> | <b>Comments</b>  |
| NDRMP-Cons-01              | Mainstreaming Disaster Risk Management in Government Institutions | 2,030,000.00                     | QCBS                    | Prior         | FTP                     | Q2 / 2018                                | Type: Firm<br><br>Assignment: International<br><br>Quality-Cost Ratio: 90:10<br><br>Advance Contracting: Y<br><br>Comments: To |



|               |  |              |      |       |     |           |  |
|---------------|--|--------------|------|-------|-----|-----------|--|
|               |  |              |      |       |     |           | ensure increased VFM. PIG to procure.  |
| NDRMP-Cons-02 | Strengthening Capacity to Manage Natural Hazards and Minimize Losses | 3,550,000.00 | QCBS | Prior | FTP | Q2 / 2018 | Type: Firm<br><br>Assignment: International<br><br>Quality-Cost Ratio: 90:10<br><br>Advance Contracting: Y<br><br>Comments: To ensure increased VFM. PIG to procure. |
| TBD           | Project auditing   | 50,000.00    | LCS  | Prior | BTP | Q4 / 2019 | Type: Firm<br><br>Assignment: International<br><br>Advance Contracting: N<br><br>Comments: Under TAJ Block Audit Scheme.   |

### C. List of Indicative Packages (Contracts) Required Under the Project

54. The following table lists goods, works, and consulting services contracts for which procurement activity is expected to commence beyond the procurement plan duration and over the life of the project (i.e., those expected beyond the current procurement plan duration).

| Goods and Works |  |                           |                    |        |                   |  |
|-----------------|--|---------------------------|--------------------|--------|-------------------|--|
| Package Number  | General Description  | Estimated Value (in US\$) | Procurement Method | Review | Bidding Procedure | Comments   |
| NDRMP-Goods-01  | Package 1: Supply and installation of equipment for Sarez Lake, anti-hail unit, DMIS and EWS | 2,200,000.00              | OCB                | Prior  | 1S1E              | Type: International<br><br>No. Of Contracts: 1<br><br>Prequalification of Bidders: N<br><br>Domestic Preference Applicable: N<br><br>Bidding Document: Goods<br><br>Comments: Estimated Advertisement Date: Q2/2021. PIG to procure. |

|                |  |              |     |       |      |   |
|----------------|--|--------------|-----|-------|------|---|
| NDRMP-Goods-02 | Package 2: Supply of Machinery for field offices of CESC | 1,350,000.00 | OCB | Prior | 1S1E | Advertising Type: National<br>No. Of Contracts: 1<br>Prequalification of Bidders: N<br>Domestic Preference Applicable: N<br>Bidding Document: Goods<br>Comments: Estimated Advertisement Date: Q3/2021. PIG to procure. |
|----------------|--|--------------|-----|-------|------|---|

| Consulting Services |                     |                           |                  |        |                  |          |
|---------------------|---------------------|---------------------------|------------------|--------|------------------|----------|
| Package Number      | General Description | Estimated Value (in US\$) | Selection Method | Review | Type of Proposal | Comments |
| None                |                     |                           |                  |        |                  |          |

#### D. Consultant's Terms of References

55. Detailed terms of reference of consulting services Package 1 and 2 are provided in Appendix 1.

### VII. SAFEGUARDS

56. **Social.** The project is classified as category C under ADB's *Safeguard Policy Statement* (2009, as amended to date) for indigenous peoples and involuntary resettlement as no civil works or economic displacements (no indigenous peoples living in the project area) are envisaged. Therefore, no negative social impacts on involuntary resettlement and indigenous peoples are expected.

57. **Environmental aspect.** The project remains as category C for environmental impacts as no adverse impacts and environmental risks are anticipated due to absence of civil works under the project.

58. **Poverty and Social:** The outputs of the project include early warning system, so will strengthen disaster resilience across Tajikistan, particularly in high risk areas and among vulnerable population. The mainstreaming work on DRM and related strategies will include components targeting poor and vulnerable people in disaster prone areas. The project will benefit all segments of the society.

59. **Prohibited investment activities.** Pursuant to ADB's *Safeguard Policy Statement* (2009), ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the *Safeguard Policy Statement* (2009).

### VIII. GENDER AND SOCIAL DIMENSIONS

60. The project is categorized as "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 CESC as well as sectoral strategies; (ii) developing gender-inclusive DMIS that includes gender and other social indicators; (iii) integration of social factor as sex, age, ability, and income/poverty level into hazard maps and inventory of assets at risk, national risk profile, multi-hazard vulnerability and risk assessments; (iv) increasing the awareness of girls on disaster risk management; (v) capacity-building of female staff of the CESC and other sector departments and ministries/agencies on risk-informed development training. The gender action plan (GAP) of the project is in Table 16. The cost for implementing the GAP is incorporated in the cost allocation for each output. The PIG will monitor and report GAP implementation with support of a gender consultants.

**Table 16: Gender Action Plan**

| Activity   | Performance Targets/ Indicators   | Responsibility                           | Time Frame    |
|--|---|--|---------------|
| <b>Output 1. Disaster risk management (DRM) mainstreamed in government institutions</b>  |   |  |               |
| 1.1. Incorporate gender concerns in all Committee of Emergency Situations and Civil Defense (CESC) DRM-related plans                               | 1.1.1 Approved institutional plan contains provisions to strengthen the capacity of CESC to consider gender issues in their ex ante and ex post disaster risk management programs and actions   | CESC, Project Implementation Consultants | December 2020 |
| 1.2. Ensure that disaster risk management sector strategies of key departments and ministries are social and gender-inclusive (Baseline 2018 = No) | 1.1.2 CESC 5-year business/operational plan includes gender-related actions, such as those that improve women's participation in DRM  | CESC, Project Implementation Consultants | December 2021 |
|  | 1.2.1 At least 3 of the 7 core sector strategies (education, health, and water) with mainstreamed DRM provisions, have also integrated actions that address specific needs of women, children, elderly, and people with disabilities.           | CESC, Project Implementation Consultants | June 2021     |
| <b>Output 2. Capacity to manage natural hazards and minimize losses strengthened</b>   |   |  |               |
| 2.1. Assess the impact of specific social factors in national risk profiles and multi-hazard vulnerability and risk assessments                    | 2.1.1 National risk profile and results of the multi-hazard vulnerability and risk assessments include an analysis of how the social factors of sex, age, ability, and income/poverty level exacerbate vulnerability of the population at risk. | CESC, Project Implementation Consultants | December 2020 |
| 2.2 Incorporate social and gender indicators in the national disaster management information system  | 2.2.1 National disaster management information system includes gender and other social indicators and regularly populated with data disaggregated by sex, age, ability, and poverty level   | CESC, Project Implementation Consultants | December 2021 |

|  |  |   |                   |
|--|--|---|-------------------|
| 2.3 Include specific provisions to address the specific needs of women, children, and persons with disability in DRM plans.                              | 2.3.1 National, regional, district and sectoral DRM and emergency response plans have provisions to address the specific needs of women, children and people with disabilities | CESCD, Project Implementation Consultants   | December 2021     |
| 2.4 Ensure women's participation in community-based disaster risk management and DRM awareness seminars and trainings in high risk districts and cities. | 2.4.1 Of the total participants in all community-based DRM-related seminars and trainings, at least 40% are women.   | CESCD, Project Implementation Consultants, Ministry of Education and Science, NGO | June 2023         |
| 2.5 Ensure representation of female staff of CESCD <sup>24</sup> and other sector departments and ministries in development trainings.                   | 2.5.1 All women staff participate in trainings relevant to their line of work  | CESCD, Project Implementation Consultant, NGO                                     | December 2023     |
| <b>Efficient and effective project management system</b>   |  |   |                   |
| • Engage women in PIG technical positions  | • At least 20% of PIG staff are women  | CESCD   | Q1 - 2019         |
| • Gender expertise available to the project and PIG  | • Gender & Development consultant recruited for project, plus PIG staff member named as gender focal point   | CESCD, Project Implementation Consultants   | Q1 - 2019         |
| • Include gender indicators in the project monitoring system   | • Project's MIS includes gender indicators and regularly populated with sex-disaggregated data.  | CESCD/PIG Staff   | Q1 – Q3 2019      |
| • Ensure reporting of gender equality results  | • Quarterly progress reports and annual reports, as well as completion reports include progress of GAP implementation  | Gender & Development consultants of PIG/PIC                                       | Q2 2019 - Q4 2023 |

61. The project's summary poverty reduction and social strategy<sup>25</sup> includes support to promote disaster risk reduction in substantial risk areas and among vulnerable population. The mainstreaming work on DRM and related strategies will include components targeting poor and vulnerable people in disaster prone areas.

<sup>24</sup> Currently, there are 137 female staff out of a total of 1,456 CESCD staff (9%). No new staff will be hired by CESCD for this project.

<sup>25</sup> The summary poverty reduction and social strategy is linked document 9 of the RRP.

## IX. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION

62. The EA and PIG will be responsible for monitoring project progress and evaluating project outputs. Monitoring and evaluation shall be in accordance with the design and monitoring framework (DMF).

### A. Project 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) <sup>a</sup> |  |  |  |
| Results Chain  | Performance Indicators with Targets and Baselines  | Data Sources and Reporting   | Risks  |
| <b>Outcome</b><br>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 |

|  |   |   |   |
|--|---|---|---|
| <b>Outputs</b><br>1. DRM mainstreamed in government institutions       | 1a. CESC D institutional plan with capacity building for gender-responsive DRM implemented by December 2020 (2018 baseline: not applicable)<br><br>1b. CESC D 5-year business/operational plan (2021–2025) with gender-specific actions developed by June 2021 (2018 baseline: not applicable)<br><br>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)<br><br>1d. Draft legislation providing a single, comprehensive law on DRM prepared by December 2020 (2018 baseline: not applicable) | 1a.–d. QPRs of executing agency, EA's PCR | A major low-frequency and high-intensity (one in 100 years) event happens during implementation of the project. |
| <b>Results Chain</b>   | <b>Performance Indicators with Targets and Baselines</b>  | <b>Data Sources and Reporting</b>         | <b>Risks</b>  |
| 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)<br><br>2b. National disaster management information   | 2a.–f. QPRs of executing agency, EA's PCR |   |

|   |  |                                    |  |
|---|--|------------------------------------|--|
|   | <p>system established by December 2021 (2018 baseline: 0)</p> <p>2c. Early warning system established by December 2022 (2018 baseline: 0)</p> <p>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)</p> <p>2e. National, regional, district, and sector DRM plans prepared by December 2021 (2018 baseline: 0)</p> <p>2f. Sarez Lake early warning system updated by June 2023 (2018 baseline: not applicable)</p> |                                    |  |
| 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, EA's PCR |  |

|  |
|--|
| <p><b>Key Activities with Milestones</b></p> <p><b>1. Disaster risk management mainstreamed in government institutions</b></p> <p>1.1 Issue RFP by Q3 2018 and complete recruitment of consultants by Q1 2019.</p> <p>1.2 Develop institutional strengthening and reorganization plan and complete legal requirements by Q2 2020.</p> <p>1.3 Complete consultations for developing 5-year business/operational plan for the CESC and its restructured departments and divisions by Q2 2021.</p> <p>1.4 Appoint staff and procure equipment, furniture, and vehicles for restructured institutional setup by Q2 2021.</p> <p>1.5 Revise sector strategies by Q1 2021.</p> <p><b>2. Capacity to manage natural hazards and minimize losses strengthened</b></p> <p>2.1 Issue RFP by Q3 2018 and complete recruitment of consultants by Q1 2019.</p> <p>2.2 Complete surveys and data collection for multi-hazard vulnerability assessment and preparing hazard maps by Q2 2020.</p> <p>2.3 Select educational institutions and design awareness-raising program by Q2 2021.</p> <p>2.4 Select districts, cities, and communities and design community-based DRM program by Q2 2022.</p> <p>2.5 Complete dam-break studies and flood modeling of Sarez Lake by Q4 2020.</p> <p>2.6 Prepare inventory of glaciers by Q2 2023.</p> <p>2.7 Complete staff training for CESC and other sector departments and ministries, including at least 20% women, by Q2 2023.</p> <p><b>3. Road map for investments and sustainable financing developed</b></p> <p>3.1 Issue RFP by Q3 2018 and complete recruitment of consultants by Q1 2019.</p> <p>3.2 Prepare draft investment plan by Q3 2021.</p> <p>3.3 Complete study for financing options after consultations with development partners by Q3 2021.</p> <p>3.4 Prepare recommendations for financing mechanism by Q4 2021.</p> |
| <p><b>Inputs</b></p> <p>ADB: \$10.0 million (Asian Development Fund grant)</p> <p>Government: \$1.0 million</p>  |
| <p><b>Assumptions for Partner Financing</b></p> <p>Not applicable</p>  |

ADB = Asian Development Bank, CESC = 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

<sup>a</sup> Government of Tajikistan. 2016. *National Development Strategy and Midterm Development Plan*. Dushanbe.

Source: Asian Development Bank.

## B. Monitoring

**63. Project performance monitoring.** The EA will review overall project performance against the project outcome and output indicators in the DMF as well as financial and physical progress. The quarterly progress reports (QPRs) will be submitted to ADB by 20 April, 20 July, 20 October, 20 January, every year during the project implementation. The QPRs will provide progress of activities and outputs (against indicators) as outlined in the DMF, narrative description of progress made during the period, changes in the implementation schedule, problems or difficulties encountered, performance of the project implementation consultants, status of compliance with grant covenants, and works to be carried out in the next period. The progress reports will also include a summary financial account for the project, consisting of project expenditures for the year to date and total expenditure to date.



64. **Compliance monitoring.** Several assurances have been given by the government to ensure smooth implementation of the project. Those are subject to the grant covenants (Grant Agreement – Schedule 5). ADB will monitor compliance with those covenants during the project implementation through regular review missions, quarterly progress reports submitted by the PIG, and review of project accounts and procurement procedures.

65. **Safeguards monitoring.** Not applicable.

66. **Gender and social dimensions monitoring.** The progress in GAP implementation will also be included in the quarterly progress reports with consultant support.

## C. Evaluation

67. **Inception mission.** ADB will field an inception mission after grant effectiveness to mainly (i) re-establish the working relationships among ADB, EA and PIG; (ii) reconfirm the project implementation schedule, and contract awards and disbursement projections; and (iii) finalize the detailed disbursement arrangements, particularly with regards to the PIG's advance account.

68. **Review missions.** ADB will field semi-annual review missions to check overall project implementation, including the progress against the project outcome and outputs, covenant compliance, safeguards, gender and social dimensions, and utilization of both ADB and counterpart funds. The project implementation schedule will also be updated as necessary.

69. **Midterm review mission.** ADB will field a midterm review mission within three years after grant effectiveness to primarily assess whether the project outcome is still likely to be achieved, as well as the contract awards and disbursement projections.

70. **Project completion review mission.** ADB, with the borrower, EA, PIC and PIG, will field a project completion review mission to primarily evaluate whether the project outcome was achieved, and assess the performance of ADB, borrower, EA, PIG, PIC and suppliers. The PIG will submit its project completion report to ADB within six months of project completion. ADB will also prepare and disclose its own project completion report.

## D. Reporting

71. The PIG will provide ADB with (i) quarterly progress reports in a format agreed with ADB; (ii) consolidated annual reports including (a) progress achieved by outputs as measured against the performance indicators in the DMF, (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for the next 12 months; and (iii) a project completion report within 6 months of physical completion of the project. Project accounts and the executing agency audited financial statement together with the associated auditor's report, would be submitted within six months of the end of the fiscal year.

## E. Stakeholder Communication Strategy

72. The project information will be disseminated through website of the EA and media at the main milestones including grant agreement signing, contract awards, workshops and seminar events, and project completion. Project information documents will also be quarterly updated on ADB website. Following table outlines the framework of communication strategy will be adopted for the project:

| <b>Project Documents</b>                    | <b>Means of Communication</b> | <b>Responsible Party</b> | <b>Frequency</b>   | <b>Audience(s)</b>                            |
|---|-------------------------------|--------------------------|--|---|
| Project Information Documents (PID)         | ADB's website                 | ADB                      | Initial PID no later than 30 calendar days of approval of the concept paper, quarterly afterwards. | Public  |
| Design and Monitoring Framework (DMF)       | ADB's website                 | ADB                      | After Board consideration  | Public  |
| Report and Recommendations of the President | ADB's website                 | ADB                      | Within 2 weeks after Board consideration of the grant  | Public  |
| Legal Agreements                            | ADB's website                 | ADB                      | Within 2 weeks after Board consideration of the grant  | Public  |
| Initial Poverty and Social Assessment       | ADB's website                 | ADB                      | Within 2 weeks of completion   | Public  |
| Project Administration Memorandum           | ADB's website                 | ADB                      | Within 2 weeks after Board consideration of the grant  | Public, project-affected people in particular |
| Major Change in Scope                       | ADB's website                 | ADB                      | Within 2 weeks of approval of the change   | Public  |
| Progress Reports                            | ADB's website                 | ADB                      | Quarterly  | Public  |
| Completion Report                           | ADB's website                 | ADB                      | Within 2 weeks of circulation to Board for information   | Public  |

73. The main stakeholders of the project are categorized into government, beneficiary communities, civil society organizations and NGOs, the private sector and the development partners. The stakeholders' communication strategy is explained as follows:

| <b>Stakeholders</b>  | <b>Information Required</b>  | <b>Who will provide</b> | <b>Strategy/Means</b>                                    |
|--|--|-------------------------|--|
| Government<br>Key Stakeholders <ul style="list-style-type: none"> <li>• CESC</li> <li>• Ministries of Finance, Transport, Energy and Water Resources, Health, Education, Agriculture, State Committee of Environment Protection, Agency of Hydrometeorology</li> </ul> | Full access to all information on all aspects of project planning and implementation | PIG, ADB                | QPRs, EA website<br>ADB website, ADB mission aid memoirs |
| Beneficiaries <ul style="list-style-type: none"> <li>• Communities</li> </ul>  | Information on project planning, design, implementation, and expected contributions  |                         | Consultations with beneficiaries, Workshops, Seminars,   |

| Stakeholders                         | Information Required                                     | Who will provide | Strategy/Means   |
|--------------------------------------|--|------------------|--|
|                                      |  |                  | Training events, QPRs, ADB website, ADB mission aid memoirs  |
| Civil Society Organizations and NGOs | Project plans and activities and impact on target groups | PIC, PIG ADB     | Sub-contracting by PIC for CBDRM capacity building and awareness raising in educational institutions |
| International Development Partners   | Project progress and performance                         | ADB PIG          | EA website, QPRs, ADB review missions, ADB website   |

## **X. ANTICORRUPTION POLICY**

74. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.<sup>26</sup> All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants, and other service providers. Individuals and/or entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the project.<sup>27</sup>

75. To support these efforts, relevant provisions are included in the loan agreement, project agreement and the bidding documents for the project. In particular, all contracts financed by ADB in connection with the project will include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all contractors, suppliers, consultants, and other service providers as they relate to the project.

## **XI. ACCOUNTABILITY MECHANISM**

76. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make an effort in good faith to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.<sup>28</sup>

## **XII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL**

77. All revisions/updates during the course of implementation will be retained in this section to provide a chronological history of changes to implementation arrangements recorded in the PAM.

<sup>26</sup> Anticorruption Policy: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>.

<sup>27</sup> ADB's Integrity Office web site: <http://www.adb.org/integrity/unit.asp>.

<sup>28</sup> Accountability Mechanism: <http://www.adb.org/Accountability-Mechanism/default.asp>.



## **APPENDIX 1: TERMS OF REFERENCE FOR CONSULTING SERVICES**

### **PACKAGE 1: DISASTER RISK MANAGEMENT MAINSTREAMED IN GOVERNMENT INSTITUTIONS**

#### **I. INTRODUCTION**

1. These Terms of Reference (ToR) provide specific details of the project which are relevant to the assignment, implementation arrangements, and objectives of the consultancy. The ToR also provides specific details on the scope of the consultancy and the composition, roles and responsibilities of the consulting team.

##### **A. BACKGROUND**

2. The Asian Development Bank (ADB) is providing support to the Government of the Republic of Tajikistan for a long term and sustainable solution to effectively manage the expected increased severity and frequency of disasters caused by natural hazards in Tajikistan.

3. The project will enhance the institutional capacity of ministries and line agencies for coping with natural hazards, such as earthquakes, landslides, mud flows, avalanches, floods and droughts to minimize the loss to human, property, and social and economic infrastructure. The project will carry out multi-hazard vulnerability and risk assessment across the country; prepare hazard maps; identify areas of high risk; prepare national, regional, and sector wise DRM plans; strengthen the CESC and other ministries/agencies through provision of capacity building measures, trainings, and equipment.

##### **B. OBJECTIVES AND SCOPE OF THE PROJECT**

4. The project's outcome and impact are aligned with ADB's programs for Tajikistan and the government's development strategy and its strategic objectives. The project impact will be Tajikistan's resilience to disasters enhanced, and the outcome will be reduced socio-economic vulnerability of Tajikistan to natural hazards.

5. The project has been designed to: (i) support efforts of the government in mainstreaming disaster risk management (DRM) in development planning, and (ii) lay a foundation for establishing a sustainable institutional and financial mechanism that enables Tajikistan to effectively deal with disasters in the long-term. The project has three interrelated outputs: (i) DRM mainstreamed in government institutions; (ii) strengthened capacity to manage natural hazards and minimize losses; and (iii) road map for investments and sustainable financing developed. The outputs will be implemented at the national level with specific interventions covering Sarez lake and communities downstream. More information on the project is available at URL.

#### **II. DETAILED TERMS OF REFERENCE**

6. The aim of this assignment is to support the first output of the project to mainstream disaster risk management in government institutions that includes the following key activities: Institutional strengthening plan for CESC will be prepared and implemented. The plan will have clearly articulated role of various departments and divisions of CESC in pre and post disaster

information management, planning and implementation, and their relationship with sectoral and geographic, provincial and district agencies, ensuring there is no overlap and duplication. The plan will incorporate capacity building for gender-responsive DRM. A review of the legal framework including all existing DRM-related legislation will be undertaken and new draft legislation providing a single, comprehensive law on disaster risk management will be prepared, if required. A 5-year business/operational plan (2021–2025) for the CESC D for pre-disaster risk management and post-disaster risk management will be prepared, including the monitoring framework and facilitation to be extended to the sectoral ministries/institutions. Dedicated units/focal points in core sectors (water, energy, transport, health, education, environment and agriculture) will be established to integrate and mainstream DRM and climate change in the respective sector strategies under overall guidance of CESC D.

7. In this context, the executing agency of the project, the Committee of Emergency Situation and Civil Defence (CESC D) intends to hire services of a consultancy firm or joint ventures for a period of 30 months to undertake the assignment in Tajikistan on three levels, i.e., national, regional and district level. The assignment is expected to achieve the following sub-outputs;

- i. Carry out a national, provincial/regional and district level diagnosis of how DRM and climate change is institutionally anchored in country system, to identify broad gaps in the institutional arrangement required for effective pre and post-disaster risk management. This includes review and consultations to undertake the institutional analysis of the CESC D and based on this clearly articulate the optimal role of the CESC D in pre and post disaster information management, planning and implementation. This should include clearly defining optimal mandate and role of the CESC D including all its departments and divisions in pre and post- disaster risk management and their relationship with sectoral and geographic (provincial and district) entities in pre and post disaster situations. Based on this develop a restructuring proposal and a proposal to enhance capacity of the CESC D and its regional and district level committees in Tajikistan in line with the restructuring. The proposal for capacity development will include training in line with their proposed roles in the restructuring plans and revised roles and related processes (including revision of planning, approval, monitoring and reporting process), including support for revising and improving these processes;
- ii. In-depth review of the legal framework underpinning DRM and to identify and propose changes in the legal frameworks and decrees of the government according to the revised mandate and role of the CESC D and related restructuring proposal, if required;
- iii. Develop strategic 5-year business plan of DRM for the CESC D for its restructured departments and divisions for pre- risk reduction (including preparedness) and ex-post disaster response and planning, including the related monitoring framework and the facilitation that the CESC D will extend to the sectoral departments;
- iv. Review the current role of sector departments in DRM and develop a proposal for institutionally-anchoring DRM and climate change in the sectoral ministries by defining sectoral department's optimal roles in pre- and post DRM and related to

this develop a proposal to establish dedicated nodes (focal points) in all core sectors (water, energy, transport, health, education, forestry and agricultures) impacted by disasters and climate change along with staff capacities and resource requirements;

- v. Develop a proposal for strengthening and capacity building of sectoral nodes (focal points) and their respective departments for DRM mainstreaming. The proposal for capacity development will include training in line with their proposed roles in the restructuring plans and revised roles and related processes (including revision of planning, approval, monitoring and reporting process). The consultants will also facilitate and guide the implementation of the sector strengthening proposal (capacity building) and related revisions in the policy, strategies, systems and procedures of the respective sectors.
- vi. The consultants will also organize international and in-country trainings for staff of CESC and focals of relevant ministries on technical aspects of DRM with support of Package-2 consultants. Budget for trainings is provided in provisional sums.

### **III. DETAILED TASKS**

8. The detailed scope of work with anticipated deliverables are provided below;

- i. Overall analysis:
  - a. Review the mandates and roles of all key organizations at the national, regional and district level dealing with DRM and climate change and assess if their mandates are in line with their capacities and resources. Identify comparative strengths and weakness of each organization in performing their mandated roles in DRM (both pre and post-disaster management). Identify redundancies and overlaps in mandates and propose restructuring of mandates that allow effective use of resources and capacities for optimal DRM in both pre and post disaster situations, including the required coordination and monitoring mechanism. The organization that will be reviewed include national DRM focal ministries (their local units), other concerned sectoral ministries, research organizations and/or non-governmental organizations (NGOs) and civil society organizations (CSOs);
  - b. Assess the availability, appropriateness and effectiveness of key DRM instruments, procedures and systems in place for DRM mainstreaming in key DRM entities and core sectors dealing with DRM. The degree to which these systems are used, their effectiveness in DRM mainstreaming including research systems, monitoring and data collection and information flow, investment planning, project design and approval procedures, and DRM monitoring and coordination mechanism;

- c. Identify specific gaps in institutional structures, coordination gaps, roles and capacities in order to design measures to strengthen the existing DRM system at the provincial/regional level, improve vertical and horizontal linkages with core/vulnerable sectors (e.g. water, energy, transport, health, education, environment and agricultures) for DRR mainstreaming, and analyze how to reinforce vertical and horizontal coordination among different actors effectively;
- d. Understand and reflect in the overall assessment the local perceptions of risk and risk coping strategies as well as the institutional requirements for increasing resilience that the community considers important;
- e. Identify the different types of institutions and organizations present at the community level, assess their roles in and their core competencies and capacities for CBDRM, and identify possible gaps in addressing their roles integration into an inclusive DRM country system.

ii. DRM linkages and coordination (among and between institutions):

- a. Identify the several types of essential linkages and coordination requirements for effective DRM mainstreaming within and across different key institutions;
- b. Analyses sectors-specific linkages and coordination by assessing linkages of DRM systems with core sectors e.g. water, energy, transport, health, education, and agriculture at various levels; assess existing operational and technical practices in sector-specific DRM integration/mainstreaming, identify institutions that are best placed to act on and coordinate specific aspects of DRM;
- c. Identify mechanisms to ensure effective formal and informal communication within and between the concerned ministries and departments at all levels and the involvement of stakeholder groups in decision-making processes that address DRM concerns;
- d. Identify gaps in the policy, planning and implementation processes within and across different levels of government and NGOs, CSOs/CBOs;
- e. Review processes for communication of data and information especially for forecasting, early warning, contingency plans for disaster preparedness, damage and loss assessment, and recovery and rehabilitation;
- f. Review coordination mechanism of operational activities before, during and after disasters among the different levels of the DRM institutions;



- g. Incorporation of DRM concerns into sector-specific development planning and/or the development of hazard risk mitigation plans; and
- h. Assess the need for centralize data warehouse and clearing operation as a planning and monitoring tool for DRM mainstreaming across the core sectors.

iii. Review of legal framework underpinning DRM:

- a. Review current policies and legal frameworks (desk review and consultations);
- b. Analyze the strengths, weaknesses, overlaps and redundancies of the existing entities engaged in DRM, conduct consultations with concerned agencies to obtain their consent on the expected legal reforms; and
- c. Identify changes in the legal frameworks and decrees of the government to support the proposed restructuring plan.

9. **Key deliverables.** The lower level outputs that will feed into the key outputs include: (1) identification and mapping of institutions and stakeholders and their roles DRM as they relate to each other; (2) DRM mainstreaming flowcharts for key pre- and post functions (planning, coordination, fund management, etc) as analysed and as proposed within and across (geographic and sectoral); and (3) DRM information and data management process capturing pre (linkage with development planning) and post (preparedness and response), requirements as it exists and as proposed.

10. Key output of this work will be:

- i. Institutional strengthening and restructuring plan (with timelines and responsibilities) including policy changes, revision in organizational mandates and structures, changes in organizational guidelines for DRM mainstreaming, and the improvement of supporting instruments and systems such as financing, budgeting, monitoring, information management, coordination, logistical support, technologies etc. The institutional restructuring plan will cover the CESC, all its related organizations at regional and district level;
- ii. For the core sector ministries, the proposal for DRM strengthening and capacity building will include sectoral nodes (focal points) and their respective departments. The proposal for capacity development will include training in line with their proposed roles in the restructuring plans and related process revision in the respective sector (including revision of planning, approval, monitoring and reporting process);
- iii. Based on country situation and best international practices, propose the changes and revision in legal framework of the government covering DRM to support the

restructuring plan. Prepare a plan which cover all the steps and endorsement procedures in legal framework;

- iv. Revised country DRM strategy both at national and regional level;
- v. Training need assessment, training plan, and training implementation monitoring;
- vi. Develop a 5-year business plan: for the CESC D to deliver the restructuring and strengthening plan and proposed legal framework. The business plan will include:
  - a. Well defined vision, and objectives of the CESC D in line with its role in DRM at all levels in supporting the national commitments and the country's overall development agenda;
  - b. Timelines for each step of the restructuring plan;
  - c. Activities and resources required to undertake the activities under the restructured mandate and role of the CESC D and it allied regional district set-up;
  - d. Sequence all action and prioritization of activities, along with mechanism for prioritizing future investments in the DRM based of sound economic and social criteria;
  - e. Identify the research and data requirements to inform policy decision and project design; and
  - f. Outline key targets and results to be achieved by the CESC D and its allied regional and district agencies during the next five years and what actions will be undertaken to achieve these targets (results framework – DMF).

11. The consultants will also facilitate and guide the implementation of a business plan and sector strengthening proposal (capacity building) and related revisions in the policy, strategies, systems and procedures of the respective sectors.

### **C. Schedule and Personnel**

12. The services will be carried out by an international firm(s) in accordance with ADB's *Procurement Policy and Procurement Regulations for ADB Borrowers* (2017, amended from time to time).

13. The services will be provided in Tajikistan.

14. The contract will be for a period of 30 months. The estimated person-months of key and non-key international and national consultant inputs are shown below. The international firm(s) is requested to propose the assignment of experts in accordance with the objectives, scope of services, and deliverables.

|           | Key Expertise  | No | Total Input (PM) |
|-----------|--|----|------------------|
| <b>A.</b> | <b>International Consultants</b>                         |    |                  |
| 1.        | Disaster risk management specialist / team leader        | 1  | 15               |
| 2.        | DRM / climate change adaptation planning specialist      | 1  | 6                |
| 3.        | DRR institutional assessment and development specialist  | 1  | 6                |
| 4.        | Climate change specialist                                | 1  | 6                |
| 5.        | Economist  | 1  | 3                |
|           | <b>Subtotal (A): International Consultants</b>           |    | <b>36</b>        |
| <b>B</b>  | <b>National Consultants</b>                              |    |                  |
| 1.        | Disaster risk management specialist / deputy team leader | 1  | 30               |
| 2.        | DRR institutional assessment and development specialist  | 1  | 18               |
| 3.        | Information management specialist                        | 1  | 6                |
| 4.        | Legal specialist   | 1  | 6                |
| 5.        | Gender and social development specialist                 | 1  | 6                |
|           | <b>Non-Key Experts</b>                                   |    |                  |
| 6.        | Sectoral specialist (water resources)                    | 1  | 6                |
| 7.        | Sectoral specialist (energy)                             | 1  | 6                |
| 8.        | Sectoral specialist (transport)                          | 1  | 3                |
| 9.        | Sectoral specialist (health)                             | 1  | 3                |
| 10.       | Sectoral specialist (education)                          | 1  | 3                |
| 11.       | Sectoral specialist (environment)                        | 1  | 6                |
| 12.       | Sectoral specialist (agriculture)                        | 1  | 3                |
|           | <b>Subtotal (B): National Consultants</b>                |    | <b>96</b>        |
|           | <b>TOTAL (A+B)</b>                                       |    | <b>132</b>       |

15. The Consultant shall nominate any support staff positions they require in their Personnel Schedule.

#### **D. Qualification Requirements and Responsibilities of Key Personnel**

16. All team members, both international and national, must be proficient in written and spoken English. The required qualifications and responsibilities of the key personnel are provided below:

17. **Disaster risk management specialist / team leader** (1 international consultant, 15 person-months). The specialist will preferably hold a postgraduate degree in management sciences, DRR/DRM, development planning or related field with 10 years of relevant work experience in DRM, DRR, disaster risk financing and project management. The DRM specialist will act as team leader and will perform the following tasks: (i) take the lead and collaborate with all technical consultants on methodological design, planning and implementation of the assignment; (ii) defined vision, and objectives of plan to provide the strategic directions and advisory services to the project team; (iii) prepare the overall framework of the assignment to unify the individual outputs and results for each sub output of the study; (iv) check and monitor the quality of the research work and authenticity of the information; (v) prepare work plan, communication plan and stakeholder's engagements/participation plan; (vi) lead the development/consolidation of a 5-year business plan, annual operational plans, restructuring proposal, institutional strengthening and restructuring plan (with timelines and responsibilities) and all other key deliverables.

18. **Disaster risk management specialist / deputy team leader** (1 national consultant, 30 person-months), the specialist will preferably hold a postgraduate degree in disaster management, business management, international development studies or any other relevant discipline and at least 8 years of professional experience to carry out the following tasks: (i) DRM stakeholder analysis and mapping in the context of Tajikistan with support of the team leader; (ii) formulate and implement stakeholder's coordination, communication and engagements/participation plan; (iii) arrange coordination meetings, lead consultation process and generate follow up actions for the desired results; (iv) prepare meeting briefs and agenda in order to facilitate the technical team members; (v) identify essential linkages and coordination requirements for effective DRM mainstreaming within and across different key institutions; (vi) assist the team on issues related to coordination and communication in the situational analysis and planning of DRM.

19. **DRR institutional assessment and development specialist** (1 international consultant for 6 person-months, and 1 national consultants for 18 person-months each), The specialist will preferably hold a postgraduate degree in DRR, engineering, development studies, emergency response, social sciences or any other relevant discipline with at least 8 years of professional experience and extensive knowledge. He /she will review legal framework underpinning DRM and will guide for policy reforms, tasks include: (i) review of existing policies, legal frameworks, codes of conduct, institutional structures and the coordination mechanisms among the national DRM focal point ministries and sectors, and to analyse gaps in sector specific policies protocols along with overlapping domains of departments related to DRM and climate change (ii) will guide the team leader and the team on policies, strategies reforms and restructuring plan related to DRM and CCA mainstreaming, (iii) will analyse the level of consistency in the policy, planning and implementation processes within and across different levels of government, NGOs, CSOs/CBOs, private sector and community-based institutions, (iv) assist the team leader in consolidation of development of institutional restructuring proposal, 5-year business plan and annual operational plans for its restructured departments and divisions, (v) undertake more in-depth assessments of technical and other capacities of the organizations which can be utilized for long-term disaster risk prevention, mitigation and preparedness programs, (vi) obtain a snapshot of the 'real live' risk situation of the country and to acquire an understanding of what is actually done for DRM as compared to what could be done, (vii) will analyse communication of data, risk information especially the warning, contingency plans for disaster preparedness, damage and loss assessment, and recovery and rehabilitation, (viii) draw guiding steps for the apex authorities to endorse the restructuring plan and (ix) proposal for DRM strengthening and capacity building will include sectorial nodes (focal points) and their respective departments.

20. **DRM / CCA planning specialist** (1 international consultant, 6 person-months, intermittent), the specialist will preferably hold a postgraduate degree in disaster response engineering, development studies or any other relevant discipline and preferably at least 8 years of professional experience in DRM/CCA and will be responsible for: (i) take lead in the utilization of the findings of the individual consultants as bench mark (base line) for the CESC 5-year business plan and sectorial DRM mainstreaming plans, (ii) conduct and facilitate all the necessary consultation workshops or meetings for the development of the different plans, (iii) strategically defined actions with priorities based on the national or local needs, (iv) understand and reflect in the overall assessment the local perceptions of risk and risk coping strategies as well as the institutional requirements for increasing resilience that the community considers important, (v) define steps and time lines for each step of the restructuring in business plans for CESC and annual operational plans for its restructured departments and divisions.

21. **Change specialist** (1 international consultant, 6 person-months, intermittent), the specialist will preferably hold a postgraduate degree in water resources, natural sciences, environmental management or any other relevant discipline and at least 8 years of professional experience. The specialist will: (i) carry out a contextual analysis of climate change situation of Tajikistan including the futuristic scenario based on available GCM and RCMs, (ii) assess the country climate change framework and process of the country including policy and planning, (iii) assess the main issues related to climate changes, better informed policy choices, mitigation policy challenges including carbon pricing, adoption of low-carbon technologies, public investment and private sector, (iv) analyse climate change prospects and practices in short to long term planning process at country, regions, district or at community level, (v) propose integration of the climate change into development planning process on each level.

22. **Economist** (1 international consultant, 3 person-months), the specialist will preferably hold a postgraduate degree in economics, education policy or actuarial sciences or any other relevant discipline and at least 8 years of professional experience in economics, DRR and climate change expenditures and will perform: (i) analyse the high and rising economic costs of disasters and climate change implication in the country by estimating the economic costs of disasters, (ii) give an analysis of the economic benefits of disaster risk reduction practices carried out by the formal and informal sectors in the country and to assess climate public expenditure, (iii) analyse and specify the costs of disaster risk reduction and climate change adaptation activities, (iv) will review and summarize the sources of government climate change funding, private sector (including community and climate change expenditure through UN, NGOs and other bilateral and multilateral organizations in the 5-year business plan.

23. **Information management specialist** (1 national consultant, 6 person-months, intermittent), the specialist will preferably hold a postgraduate degree in GIS/MIS, social policy research and analysis, development research, or development planning or any other relevant discipline and at least 8 years experience. The specialist will: (i) lead the functions of knowledge management during the course of assignment pertaining to the DRM and CCA in Tajikistan, (ii) mapping of the existing DRM data and information sources, with specific institutional roles and responsibilities, and systems and processes for collecting, managing, and sharing data and information with all related stakeholders, (iii) create a mechanism for capturing and documenting key information of DRM and CCA and work out knowledge products, (iv) help the research team in better presentation of data and compilation of all the required reports, (v) propose a knowledge management system (Data clearing house) of DRM/CCA in which information on hazards, disasters, vulnerabilities and disaster risk management system of the country and issues pertaining to the governance, (vi) oversee capacity building plan of sectoral focal points and support for internal knowledge acquisition, management and sharing.

24. **Legal specialist** (1 national consultant, 6 person-months, intermittent), the legal specialist will preferably hold a postgraduate degree in law or any other equivalent qualification and at least 8 years of experience of similar tasks. The specialist's responsibilities include: (i) advise the project team, management and expert consultants on legal issues on policy and institutional level restructuring, (ii) advise the team leader on legal issues during implementation of the project, (iii) define and assist the team in proposing amendments, modifications to regulations in relation to DRM/CCA, (iv) coordinate with other lead specialists to achieve the desire project objectives.

25. **Gender and social development specialist** (1 national consultant, 6 person-months, intermittent), the gender specialist will preferably hold a postgraduate degree in gender, development, anthropology, sociology, or social science or any other related field and preferably 8 years experience. The specialist will: (i) identify opportunities and entry points for mainstreaming

gender into the relevant policies and programs, (ii) assist project staff in upgrading gender policies/guidelines in DRM-related legal framework(s), (iii) review gender toolkit/criteria to be used for gender mainstreaming in the components of the project, (iv) assess gender-mainstreaming in all the review, surveys, including sex-disaggregated data, and any other assessment carried out under the project.

26. **Sectoral specialist (water resources)**, (1 national consultant, 6 person-months, intermittent). The sectoral specialist (water resources) should have at least a postgraduate degree in water resources management or any other related field and at least 8 years of relevant professional experience in water sector. The specialist will: (i) assist the CESC to establish, notify and build the capacities of the water sector focal point for mainstreaming DRR into their sectoral policies and plans, (ii) help in providing a framework to the water sector focal point to review and update their own water management plans, (iii) conduct capacity building activities for the water sector personnel on the successful and resilient approaches of the water management focusing on replicable models.

27. **Sectoral specialist (energy)**, (1 national consultant, 6 person-months, intermittent), the sectoral specialist (energy) should have at least a postgraduate degree in science, business management, engineering, finance, economics, or any other related field with at least 8 years of relevant professional experience in energy sector. The specialist will: (i) assist the CESC to established and notify the energy sector focal point for mainstreaming DRR in to their sectoral policies and plans, (ii) assist the CESC to build the capacity of energy sector in the country for integration DRR in their business and operational plans. (iii) His/her work will help in setting up a baseline information on policy, legal/regulatory, and institutional frameworks and barriers to the energy sector to integrate DRR, (iii) provide a framework to the energy sector focal point to review and update their sectoral plans, (iv) conduct capacity building activities for the energy sector personnel on the successful and resilient approaches of the energy sector focusing on replicable models.

28. **Sectoral specialist (transport)**, (1 national consultant, 3 person-months, intermittent). The sectoral specialist should have at least a postgraduate degree in engineering, transport management, urban development, or a related field and at least 8 years of relevant professional experience. The specialist will: (i) assist the CESC to established and notify the energy sector focal point for mainstreaming DRR in to their sectoral policies and plans (business and operational plans), (ii), help in providing short-term technical assistance to improve resilience in Tajikistan transport sector by utilizing prior experience in transport infrastructure of the government ministries and agencies, (iii) setting a baseline information on policy, legal/regulatory, and institutional frameworks and barriers to the transport sector to integrate DRR and climate change adaptation, (iv) providing a framework to the transport sector focal point to review and update their sectoral plans.

29. **Sectoral specialist (health)**, (1 national consultant, 3 person-months, intermittent), the sectoral specialist should have at least a postgraduate degree in health science, public health, management or any related field and at least 8 years of relevant professional experience. The specialist will: (i) assist the CESC to establish health sector focal point for mainstreaming DRR into their sectoral policies and plans, (ii) help in identifying critical gaps in knowledge and identifies opportunities to address these gaps especially on epidemics, endemics, malnutrition, emergencies and mass casualty management, health financing and health systems planning with the lenses of DRR, (iii) provides policy advice to the sectoral focal point on areas of health systems reform; recommends policy options and implementation strategies, (iv) conduct capacity

building activities for the health sector personnel on the successful and resilient approaches of the transport infrastructure focusing on successful replicable models.

30. **Sectoral specialist (education)**, (1 national consultant, 3 person-months, intermittent, the sectoral specialist should have at least a postgraduate degree in education, education management, social sciences, public policy or any other related field and at least 5 years of relevant professional experience. The specialist will: (i) established health sector focal point for mainstreaming DRR in to their sectoral policies and plans, (iii) his/her work will help in the policy dialogue and contributes to the review of the sector policy; makes recommendations on strategies and policy options for sector focal point, (iv) conduct capacity building activities for the education sector personnel on successful and resilient approaches of the replicable models.

31. **Sectoral specialist (environment)**, (1 national consultant, 6 person-months, intermittent), the sectoral specialist should have at least a postgraduate degree in engineering, environmental science, environmental engineering or any other related field with at least 5 years of relevant professional experience. The specialist will: (i) establish the environment sector focal point for mainstreaming DRR in their sectoral policies and plans, (ii) his/her work will help in the policy dialogue and contributes to the review of the environment sector policy; makes recommendations on strategies and policy options for the sector focal point. (iii) conduct capacity building activities for the environment sector personnel on successful and resilient approaches of the replicable models.

32. **Sectoral specialist (agriculture)**, (1 national consultant, 3 person-months, intermittent), the sectoral specialist should have at least a postgraduate degree in in agriculture, agricultural science, agronomy, nutrition or any other related field and at least 5 years of relevant professional experience. The specialist will: (i) assist the CESC to establish the agriculture sector focal point for mainstreaming DRR in to their sectoral policies and plans, (ii) help focal point in formulating and implementing the agriculture sector strategy, and in particular its contribution to the national development targets by enhancing food security, the sustainable and efficient use of land and water resources, and (iii) plan and conduct capacity building activities for the agriculture sector personnel on successful and resilient approaches of the replicable models.

33. **Support** staff will include at least a translator and interpreter for the full duration of the assignment.

34. **Translator and interpreter** (1 national, full-time), the translator and interpreter will hold a degree in English and Russian language or any other related field and preferably 5 years' experience in providing professional translation and interpretation services. The translator and interpreter will; (i) provide high quality translation services from English to Russian and vice versa as required by the project team, (ii) facilitated events such as workshops, seminars and roundtables by offering simultaneous interpretation from English to Russian and vice versa, (iii) translates documents, ensuring completeness, accuracy and stylistic acceptability of translations produced, (iv) conduct necessary research for each document being translated in order to ensure that the meaning is interpreted correctly and in full, and that appropriate specialized terminology is employed.

#### IV. DATA, LOCAL SERVICES, PERSONNEL, AND FACILITIES TO BE PROVIDED BY THE CLIENT

35. The government via the CESC/ project implementation group will provide the consultants with: (i) adequate office accommodation in Dushanbe; (ii) will assist with coordination with other government agencies and with obtaining all data.

## V. REPORTING & TIMELINES

36. In the course of assignment, the consultants must submit the following reports and materials:

| <b>Deliverables</b>  | <b>Timeframe</b>   |
|--|--|
| Inception Report   | Within 3 months from signing of contract (or after commencement of assignment)   |
| Progress Reports   | Every 6 months from signing of contract (4 reports)  |
| Interim Report   | Shall be submitted in the middle of the assignment which shall include preliminary outcomes and results achieved within the project, shortages and proposals to address them.  |
| Draft Final Report   | Within 29 months from signing of contract. It shall cover analysis of the achievements and progress made under the project, project impact on beneficiaries etc. Draft final report shall be submitted to all stakeholders for comments and notes. |
| Final Report   | Within 4 weeks after receiving comments on draft final report from the Government, ADB, PIG, and stakeholders.   |
| <b>Sub Output 1</b>  |  |
| Detail Report on Institutional review that incorporates capacity building for gender-responsiveness DRM, along with comprehensive restructuring and strengthening plan | Within 12 months from signing of contract  |
| <b>Sub Output 2</b>  |  |
| Detail report on review of legal frameworks along with key findings, institutional reforms and procedural guiding steps for restructuring                              | Within 12 months from signing of contract  |
| <b>Sub Output 3</b>  |  |
| 5-year detail business plan  | Within 24 months from signing of contract  |
| <b>Sub Output 4</b>  |  |
| DRM integrated sector strategies for transport, energy, education, health, water, irrigation, environment, and agriculture departments and ministries drafted          | Within 24 months from signing of contract  |
| <b>Sub Output 5</b>  |  |
| Training plan implemented  | Within 24 months from signing of contract  |

In delivery of activities, the consulting firm will:



- i. Ensure close synergy with similar ongoing initiatives of the government and other development partners, such as the World Bank, UNDP, France, Germany, Japan, the Russian Federation and Switzerland;
  - ii. Create close linkages with Consultancy Package 2 of the project, other ongoing ADB initiatives, where relevant;
  - iii. Ensure that gender inclusive approach must be adapted; and
  - iv. Facilitate government engagement and ownership throughout the process. Work closely with relevant officials to support their understanding and integrate the approaches, tools and systems within existing government policies, frameworks and processes.
37. All reports to ADB shall be produced in English. Reports shall be provided in both printed and electronic form. The consulting firm shall provide 2 copies of each report in Russian and 1 copy in English. The consulting firm shall provide to ADB with electronic versions of the reports and associated outputs/deliverables/analysis. All handouts, slide presentations, and related material for meetings and workshops must be in both English and Russian. The consulting firm will be expected to procure all interpretation and translation services.

## **TERMS OF REFERENCE FOR PACKAGE 2: STRENGTHENING CAPACITY TO MANAGE NATURAL HAZARDS AND MINIMIZE LOSSES**

### **I. INTRODUCTION**

1. These Terms of Reference (TOR) provide specific details of the project which are relevant to the assignment, implementation arrangements, and objectives of the consultancy. The TOR also provides specific details on the scope of the consultancy and the composition, roles and responsibilities of the consulting team.

#### **A. BACKGROUND**

2. ADB is providing an assistance to the Government of Tajikistan in the generation and application of risk information, including a national disaster management information system; an integrated multi-hazard early warning system; and training of officials from the CESCD, and key sector ministries/institutions responsible for social and economic infrastructure and natural resource management. Community-based DRM and awareness raising through educational institutions will also be supported under the project.

#### **B. OBJECTIVE**

3. The project's outcome and impact are aligned with ADB's programs for Tajikistan and the Government's development strategy and its strategic objectives.<sup>29</sup> The project impact will

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<sup>29</sup> One of the stated objectives of the National Disaster Risk Management Strategy (2010 – 2015) is the “integration of disaster risk reduction into all development activities of the Republic of Tajikistan.” This national strategy also clearly articulates the need and priority for pre-disaster risk reduction and preparedness, also articulating what needs to be done but not explicitly how or with what resources.

be Tajikistan's resilience to disasters enhanced, and the outcome will be reduced socio-economic vulnerability of Tajikistan to natural hazards.

4. The project has been designed to: (i) support efforts of the government in mainstreaming disaster risk management (DRM) in development planning, and (ii) lay a foundation for establishing a sustainable institutional and financial mechanism that enables Tajikistan to effectively deal with disasters in the long-term. The project has three interrelated outputs: (i) DRM mainstreamed in government institutions; (ii) strengthened capacity to manage natural hazards and minimize losses; and (iii) road map for investments and sustainable financing developed. The outputs will be implemented at the national level with specific interventions covering Sarez lake and communities downstream. More information on the project is available at URL.

5. The primary objective of the services to be provided by an international firm(s) are to strengthen the capacity of CESC and selected entities to manage natural hazards and minimize losses.

## II. DETAILED TERMS OF REFERENCE AND SCOPE OF WORK

6. The international firm(s) will be responsible for implementing outputs 2 and 3 of the project, outlined below:

- i. **Output 2: Strengthened capacity to manage natural hazards and minimize losses.** Hazard and disaster risk maps of different return periods and digital ATLAS, inventory of assets at risk, and a comprehensive national risk profile will be prepared by carrying out multi-hazard vulnerability and risk assessment and using probabilistic disaster modelling approach. Areas of high, medium, low, and no risk will be identified. An assessment of existing hazard and disaster modelling, mapping, exposure database/registers and vulnerability analyses (including from an engineering basis) will be done, 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/modelling/assessments, leaving behind 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 national disaster management information system (DMIS) that will be developed within CESC with appropriate data recording, transmittal, collection, analysis and dissemination mechanism. DMIS will also include gender and other social indicators such as sex, age, ability, and income/poverty levels. An early warning system will be established to enable CESC to issue timely warnings to the local authorities, communities and other stakeholders covering preferably all kind of disasters such as floods, droughts, avalanches, mudflows and earthquakes. National, regional, district, and sectoral DRM plans will be prepared. The plans will also outline implementation mechanism and standard operating procedures, specifically focusing on women, children and people with special needs. DRM related training will be provided to the officials of CESC and key sector ministries/institutions that are responsible for social and economic infrastructure and natural resource management. A capacity building plan for community-based DRM will be prepared and implemented in the districts and cities at high risk, with specific focus on women, children and people with special needs. A DRM awareness raising program for educational institutions will also be designed and implemented in the districts and cities at high risk. Dam-break analysis and flood modeling of Sarez lake will be done to identify the areas, population, and

public and private properties/assets at risk, estimate 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 lakes outburst flooding.

ii. **Output 3: Roadmap for investments and sustainable financing developed.**

An investment plan for 9-year (2022 – 2030) for DRM will be prepared.<sup>30</sup> It shall also carry out a study for sustainable financing options for disaster risk reduction, preparedness and response; and propose recommendations for establishing a sustainable financing mechanism.

7. The work should begin with an assessment of existing hazard and disaster modelling, mapping, exposure database/register and vulnerability analyses (including from an engineering bases) and to then develop and implement a masterplan focusing on (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/assessments, leaving behind a sustainable disaster risk information system; and (iii) the establishment of accessible, sustainable data [platforms, supporting use of data by all relevant stakeholders. The scope is arranged in the following four sets of activities:

- i. **Set 1 – risk information:** a comprehensive national risk profile comprising multi-hazard vulnerability and risk assessments and hazard maps, identifying areas of high, medium and low risk; a national disaster management information system; national, regional and sector-based disaster response plans; inventory of assets at risk; and inventory of glaciers and areas at risk of glacial lakes outburst flooding.
- ii. **Set 2 – early warning:** an integrated multi-hazard early warning system; dam break analysis of Sarez lake with flood modeling and updated/expanded early warning system.
- iii. **Set 3 – training and awareness raising:** a community-based DRM program designed and implemented for selected districts/cities at high risk; training for officials from the CESC and selected sectors, based on a training need assessment; and awareness raising through educational institutions in selected districts and cities. Building up of local capacity (technical and institutional) for disaster risk assessment/modelling to enable national entities to sustain and update the work.
- iv. **Set 4 – investment plan:** an investment plan for 9 years (2022-2030) prioritizing the nature of interventions and investments in various sectors, geographic locations, resources required, and implementation strategies; a study on financing options for disaster risk reduction, preparedness and response; and recommendations for establishing a financing mechanism.

8. To implement the above-mentioned activities, the international firm(s) will:

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<sup>30</sup> Investment plan period is aligned with the ending year of the national disaster management strategy 2018-2030.

- i. Set 1: develop a comprehensive **national risk profile** by assessing existing (climate/hazard) risk information; standardizing risk information visualization; and designing a set of core products to support risk-informed decision making in both development planning and disaster planning. The scope of the profile will include:

#### Hazard Information

- Hazard-prone areas
- (Hazard) event scenarios
- Hazard and event intensity maps
- Hazard zonation maps

#### Climate Information

- Climate change & variability scenarios
- Impacts on environment & resources
- Changes in hazard patterns & extreme events
- Sectoral vulnerability

#### Risk Information

- Relative risk index
- Exposure profiles
- Vulnerability profiles
- Risk profiles
- Risk portfolios

#### Disaster Information

- Historic disaster losses & impacts
- Disaster scenarios & situation
- Emergency evacuation route & shelters
- Stockpiles & warehouses maps

9. The methodology used will include hazard profiling and mapping, characterizing the hazards in terms of its spatial distribution, frequency and intensity by using probabilistic disaster modelling approach. Seven major hazards prevalent in Tajikistan, namely, floods, earthquakes, droughts, landslides, avalanches, hailstorms, and glacial lake outburst flood (GLOF) will be covered. Specific hazard intensity maps are to be produced per hazard. The hazard maps will identify the hazard-prone areas, describe the physical characteristics of the hazards and characterize the hazards in terms of:

- Description
- Severity (intensity)
- Magnitude (potential size of impact area)
- Probability/frequency of occurrence
- Hazard zone (location/extent of impact area)

10. The proposed mapping parameters are: scale 1:100,000 or 1: 200,000; return period classes: low, medium, high (5, 10, 25, 50, 100, 250, 500, 1,000, 2,500, 5,000 years); and hazard intensity classification (to be determined).

11. Plausible scenarios for each hazard will be prepared, considering the intensity of the hazardous event, the vulnerability of elements at risk to that event intensity, and the time frame of risk assessment. Accurate estimations of potentially at-risk populations and sub-populations will be undertaken as part of the exposure analysis (quantification of risk) in a GIS environment, and vulnerability assessments based on the targeted elements at risk and context. A vulnerability Index will also be set.

12. An integrated national **disaster management information system** that systematically collects, manages, analyzes and disseminates disaster information will be designed, based on an assessment of users' needs and requirements for hazard and risk

information, including a review of existing data and information available across relevant entities. The system will include hazard event data (magnitude, intensity, chain of events); damage, loss, impact data (by location, event, sector and element); exposure data (population, infrastructure, economic); and thematic data (poverty, gender, etc.). The system will have the capacity to support modeling and dynamic risk analysis and mapping.

13. National, regional and sector-based **disaster risk management plans** will be developed based on the requirements of relevant users and availability of data. The planning methodology will align to the existing planning processes at national, regional and sector levels in Tajikistan. The plans will not be standalone, but rather integrated within the existing planning and budgeting architecture.

14. An **inventory of glaciers** will be undertaken following a desk review of existing contributions in this field. The dynamic inventory parameters will include geographic location, area, length, orientation, elevation, and classification. The imagery, maps and datasets will be included in the disaster management information system. Consider use of ICIMOD glacier lake database and methodology, which includes part of Amu Darya river basin.

15. An inventory of the **assets at risk** will be prepared based on the nature, severity and spatial distribution of hazards across the country. The consultants will develop the methodology and scope of the inventory and seek approval of that from the CESC. The sustainability of the inventory will be considered.

- ii. Set 2: design an integrated multi-hazard early warning system based on a thorough review of existing early warning systems and approaches, and the policy and institutional context. Previous initiatives no longer operational, if any, and good practices, gaps, challenges and lessons will be assessed. An analysis of operational, financial, and capacity limitations and gaps at administrative (national and sub-national) and community levels is to be undertaken and will include an assessment of potential limitations in the utilization and maintenance of core technologies. The system will identify opportunities to build on existing investments, domestically and regionally. The development of an integrated early warning system will include identifying the focus hazard(s), early warning of products, broad overview of disaster monitoring mechanisms and warning dissemination mechanisms, key government and other partners and their roles, funding requirements, and measures to address potential technical and institutional challenges to its development and operation will be outlined, with linkages to the national risk profile and disaster management information system. The system will identify immediate, medium and long-term actions needed and will be linked to the investment plan (set 4), where appropriate.

16. A **dam break analysis** of Sarez lake with revised flood modeling and updated early warning system will be undertaken. The 2005 World Bank supported assessment will be the baseline of this work. Three-dimensional dam-break and river flow simulation models will be used for evaluation of safety of population and assets from Sarez dam break. All possible seismic and climatic scenarios will be tested to optimize the needed early warning system. Digital and hard copies of flood-plain maps (1:50,000 scale) will be prepared for various scenarios and return periods. For each scenario/return period inventory of the assets and population will be prepared. Subsequently, upgradation/extension of lake monitoring system

and early warning system will be designed by identifying the equipments/instruments and their specifications. Cost estimates will be done and bidding document will be prepared. Client will be supported in procurement of the supply and installation contract.

- iii. Set 3: design and implement a **community-based DRM (CBDRM) program** for selected districts/cities at high risk, and develop **training and awareness** materials, based on the comprehensive national risk profile and drawing on the risk information emanating from the disaster management information system, in consultation with non-governmental organizations (NGOs). Training and awareness materials will be developed for selected localities (high risk district and cities) to support CBDRM and educational institutions and implemented in a phased manner. CBDRM and awareness raising in educational institutions will be outsourced to NGO(s). Selected consulting firm(s) will recruit NGO(s) for CBDRM and awareness raising campaign in educational institutions in high risk districts and cities in accordance with ADB's *Procurement Policy and Procurement Regulations for ADB Borrowers: Goods, Works, Nonconsulting and Consulting Services* (2017, amended from time to time), budget for that is in Provisional Sums. Training of staff from CESC and other sector ministries/agencies will be also be conducted to transfer the expertise related to the work carried out by consultants. Training will cover disaster risk in the context of Tajikistan, risk-informed planning and budgeting, disaster management and emergency planning, use of DMIS and early warning system, and related topics etc.
  - iv. Set 4: design a detailed 9-year investment plan (2022-2030) with the government to identify priority interventions and investments across key sectors and geographic locations in relation to DRM and resilience building. The plan will include indicative costings and be supported by a corresponding implementation strategy. The plan will draw on a study to be undertaken on financing options, in consultation with government and development partners. Recommendations on a financing mechanism will also be prepared.
17. Throughout the delivery of these activities, the international firm(s) will:
- i. Ensure close synergy with similar ongoing initiatives of the government (e.g. various GIS-related initiatives in different government agencies) and other development partners, such as the World Bank (e.g. Strengthening Critical Infrastructure against Natural Hazards and Central Asia Hydrometeorology Modernization projects); UNDP (Strengthening Disaster Risk Reduction & Response Capacities project); France, Germany, Japan, Russia and Switzerland.
  - ii. Establish close linkages with the findings and deliverables of the institutional review and strengthening work being supported under output 1 of this project, especially, in the context of developing disaster management plans.
  - iii. Create close linkages with ongoing ADB projects, where relevant, such as the project on Water Resources Management in the Pyanj River Basin.

- iv. Use advanced technology, such as geographical information system (GIS) and earth-observation satellite images, where appropriate, to collect data, strengthen government capacity in undertaking analysis.
- v. Ensure that all community level activities have a special focus on women and vulnerable population.
- vi. Facilitate government engagement and ownership throughout the process. Work closely with relevant officials to support their understanding and integrate the approaches, tools and systems within existing government frameworks and processes.

### III. REPORTING

18. In the course of assignment, the international firm(s) must submit the following reports and materials: The broad timelines of delivery by the international firm(s) is outlined below:

| Deliverables  | Timeframe (tentative)  |
|---|--|
| <i>Reporting</i>  |  |
| Inception report  | Within 3 months from signing of contract (or after commencement of assignment)   |
| Progress reports  | Every 12 months from signing of contract (4 reports)   |
| Interim report  | Shall be submitted in the middle of the assignment which shall include preliminary outcomes and results achieved within the project, shortages and proposals to address them.  |
| Draft final report  | Within 57 months from signing of contract. It shall cover analysis of the achievements and progress made under the project, project impact on beneficiaries etc. Draft final report shall be submitted to all stakeholders for comments and notes. |
| Final report  | Within 4 weeks after receiving comments on draft final report from the Government, ADB, PIG, and stakeholders.   |
| Project completion report   | Within 58 months from signing of contract.   |
| <b>Set 1 – Risk information</b>   |  |
| National risk profile   | Within 24 months from signing of contract  |
| National, regional, district, and sectoral (transport, energy, education, health, water, irrigation, and agriculture) DRM plans, addressing gender-based concerns | Within 36 months from signing of contract  |
| National disaster management information system that includes gender and other social indicators  | Within 36 months from signing of contract  |
| Inventory of glaciers   | Within 12 months from signing of contract  |

|  |   |
|--|---|
| <b>Set 2 – Early warning</b>   |   |
| Integrated multi-hazard early warning system   | Within 48 months from signing of contract |
| Dam break analysis of Sarez Lake   | Within 24 months from signing of contract |
| Upgrading of Sarez lake water monitoring system and EWS  | Within 54 months from signing of contract |
| <b>Set 3 – Training and awareness raising</b>  |   |
| Implementing community-based DRM, at least 30% women   | Within 54 months from signing of contract |
| Staff of CESC and transport, energy, education, health, water, irrigation, environment, and agriculture departments and ministries trained, at least 20% women | Within 58 months from signing of contract |
| DRM awareness in educational institutions, at least 30% women  | Within 58 months from signing of contract |
| <b>Set 4 – investment plan</b>   |   |
| 9-year DRM investment plan with implementation strategy  | Within 36 months from signing of contract |
| Study on DRM financing options   | Within 30 months from signing of contract |
| Recommendations for financing mechanism  | Within 36 months from signing of contract |
| <b>Set 4 – Procurement of equipment and machinery</b>  |   |
| Design, specification and cost estimates of two packages of equipment and machinery completed  | Within 30 months from signing of contract |
| Bidding documents and bid evaluation reports prepared, contracts signed, and execution of contracts completed for two packages of equipment and machinery      | Within 54 months from signing of contract |

19. All reports to ADB shall be produced in English. Reports shall be provided in both printed and electronic form. The international firm(s) shall provide 2 copies of each report in Russian and 1 copy in English. The international firm(s) shall provide to ADB with electronic versions of the reports and associated outputs/deliverables/analysis. All handouts, slide presentations, and related material for meetings and workshops must be in both English and Russian. The international firm(s) will be expected to procure all interpretation and translation services.

### C. Schedule and Personnel

20. The services will be carried out by an international firm(s) in accordance with ADB's Procurement Policy and Procurement Regulations for ADB Borrowers (2017, amended from time to time).

21. The services will be provided in Tajikistan.



22. The contract will be for a period of 58 months. The estimated person-months of key international and national consultant inputs are shown below. The international firm(s) is requested to propose the assignment of experts in accordance with the objectives, scope of services, and deliverables.

|     | Key Expertise  | No | Total Input (PM) |
|-----|--|----|------------------|
| A.  | International Consultants                                |    |                  |
| 1.  | Disaster risk management specialist / team leader        | 1  | 30               |
| 2.  | Disaster risk assessment specialist                      | 1  | 12               |
| 3.  | Early warning specialist                                 | 1  | 9                |
| 4.  | Hydraulic modeling and flood forecasting specialist      | 1  | 12               |
| 5.  | Hydrologist  | 1  | 9                |
| 6.  | Knowledge management specialist                          | 1  | 9                |
| 7.  | Climate change adaptation specialist                     | 1  | 9                |
| 8.  | Glaciologist   | 1  | 3                |
| 9.  | Geologist / seismologist                                 | 1  | 3                |
| 10. | Natural resource management specialist                   | 1  | 3                |
| 11. | Gender and Social development specialist                 | 1  | 6                |
| 12. | Infrastructure specialist                                | 1  | 6                |
| 13. | GIS specialist   | 1  | 12               |
| 14. | Procurement / contract management specialist             | 1  | 3                |
| 15. | Finance specialist                                       | 1  | 6                |
| 16. | Avalanche specialist                                     | 1  | 3                |
|     | Subtotal (A): International Consultants                  |    | 135              |
| B   | National Consultants                                     |    |                  |
| 1.  | Disaster risk management specialist / deputy team leader | 1  | 48               |
| 2.  | Capacity building specialist                             | 1  | 12               |
| 3.  | Hydrologist  | 1  | 18               |
| 4.  | Hydraulic modeling and flood forecasting specialist      | 1  | 18               |
| 5.  | Gender and social development specialist                 | 1  | 24               |
| 6.  | Natural resource management specialist                   | 1  | 9                |
| 7.  | Infrastructure specialist                                | 1  | 9                |
| 8.  | Finance specialist                                       | 1  | 12               |
| 9.  | Procurement / contract management specialist             | 1  | 12               |
| 10. | Geologist / seismologist                                 | 1  | 12               |
| 11. | GIS specialist   | 1  | 18               |
|     | Subtotal (B): National Consultants                       |    | 192              |
|     | TOTAL (A+B)  |    | 327              |

23. The international firm(s) shall nominate any support staff positions they require in their Personnel Schedule.

#### **D. Qualification Requirements and Responsibilities of Key Personnel**

24. All team members, both international and national, must be proficient in written and spoken English. The required qualifications and responsibilities of the key personnel are provided below:

- i. **Disaster risk management specialist / team leader** (1 international, 30 person-months, intermittent). The consultant should have a postgraduate degree in climate change, water resource management, DRM, meteorological sciences or related fields. The consultant must have at least 10 years of relevant work experience. Experience in scoping, designing, and/or implementing similar projects, preferably in Central Asian countries, and in managing the development of meteorological and hydrological systems in an international context. In depth knowledge of the operation and management of national meteorological and hydrological services and of the World Meteorological Organization's standards and procedures; operation of hydro-meteorological networks, early warning systems, information communication and technology, and the delivery of meteorological and hydrological services for DRM is essential. The team leader should have demonstrable skill in program management including development of hazard risk assessment methodology; development of hazard risk and vulnerability parameters; hazard analysis. The consultant will perform the following tasks: (i) lead the overall implementation of the 4 sets of deliverables in close coordination with relevant government entities; (ii) in consultation with relevant government entities involved, identify specifications of services and equipment and support ADB in its procurement following ADB procurement guidelines; (iii) undertake a quality assurance role; (iv) coordinate and communicate routinely with the executing agency and implementing agencies for output 1 and 2, and ADB project officer on project progress; (v) supervise the team of consultants under consulting services package 2; and (vi) oversee periodic and final project reports.
- ii. **Disaster risk assessment specialist** (1 international, 12 person-months, intermittent). The consultant should have a postgraduate degree in geology, earth sciences or related field; and with training on disaster risk modeling. The consultant must have at least 8 years of relevant work experience in quantitative disaster risk modelling and good understanding of geophysical hazards in Tajikistan and/or Central Asia. Experience in undertaking climate change and disaster risk assessment in Tajikistan and other countries in Central Asia is preferred. Detailed tasks include: (i) leading the work on disaster risk assessment for the national risk profile, including developing the scope of the assessment addressing key indicators of hazard exposure; physical and economic vulnerability; and estimates of potential losses and combining results of the hazard assessment, exposure assessment, and vulnerability into comprehensive risk profile, including developing outputs in the form of probable maximum loss curves and maps; (ii) liaising with relevant government agencies and development partners to ensure access to existing data and institutionalization of data being collected under the project; (iii) organizing consultations with decision makers to present the key findings of the disaster risk assessment; (iv) leading the development and delivery of climate change and disaster risk assessment related component of training courses; (v) support roll-out of disaster information system; (vi) develop methodology, tools and training for risk-informed planning; (ix) based on an assessment, identify equipment, specification and costings to support the procurement specialist, as required, (x) input into periodic and final project reports.
- iii. **Early warning specialist** (1 international, 9 person-months, intermittent). The consultant should have a postgraduate degree in meteorology, climate sciences, geography or related field with experience in designing and supporting the roll-out of multi-hazard early warning systems. The consultant must have at least 8 years of relevant work experience. Experience in assessing, designing, and implementing similar projects in Central Asian countries, including a good understanding of

agriculture, and rural development-related issues in Central Asia, is an advantage. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) develop a methodology for the multi-hazard early warning scoping study, assess existing early warning systems and approaches, identifying good practices, limitations and gaps; (ii) analyze operational, financial, and capacity limitations and gaps at administrative (national and sub-national) and community levels; (iii) identify opportunities to build on existing investments, domestically and regionally; (iv) prepare a proposed process for the development of an early warning system, identifying the focus hazard(s), early warning products, broad outline of disaster monitoring mechanisms and warning dissemination mechanisms, key government and other partners and their roles, funding requirements, and measures to address potential technical and institutional challenges to its development and operation; (v) consult with relevant government and other stakeholders; (vi) based on an assessment, identify equipment, specification and costings to support the procurement specialist, as required, (vii) lead the preparation of the scoping study report; (viii) present recommendations; (ix) supervise consultant(s); and (x) input into periodic and final project reports.

- iv. **Hydraulic modeling and flood forecasting specialist** (1 international, 12 person-months, intermittent). The consultant should have a postgraduate degree in hydrology, water resources management or related fields. The consultant must have at least 8 years of relevant work experience. Experience in hydrological forecasting is required including knowledge of flood and flash flood forecasting and warnings, the translation and interpretation of forecasts into impact forecasts, and hydro-meteorological risk modelling and flood hazard risk assessment. Knowledge of Tajikistan and/or Central Asia with special attention to water resource management is an advantage. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) lead the revision of a risk assessment for Sarez lake; (ii) revise flood modeling; (iii) updated early warning system for at-risk communities; (iv) consult with relevant government and other stakeholders; (v) based on an assessment, identify equipment, specification and costings to support the procurement specialist, as required, (vi) lead the preparation of the report; (vii) present recommendations; (viii) supervise consultant(s); and (ix) input into periodic and final project reports.
- v. **Hydrologist** (1 international, 9 person-months, intermittent). The consultant should have a graduate or postgraduate degree in hydrology, water resources management, or related field. The consultant must have at least 8 years of relevant work experience in flood risk assessment. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) work with the international hydraulic modeling and flood forecasting consultant in revising flood modeling; (ii) collect and analyze flood hazard and other relevant data to support the disaster information system and early warning system; (iii) communicate key findings in a form that is useful for decision making; (iv) consult with relevant government and other stakeholders; (v) based on an assessment, identify equipment, specification and costings to support the procurement specialist, as required; (vi) lead the preparation of the report; (vii) present recommendations; (viii) supervise consultant(s); and (ix) input into periodic and final project reports.
- vi. **Climate change adaptation specialist** (1 international, 9 person-months, intermittent). The consultant should have a postgraduate degree in climate change

modeling, disaster risk reduction, water resource management, engineering, or environmental sciences with specialization in down-scaling of climate data, data management. Knowledge of Tajikistan and/or Central Asia is an advantage. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) undertake a comprehensive climate analysis; (ii) support the disaster risk assessment, profile and mapping by providing climate-related inputs, including modelling; (iii) consult with relevant government and other stakeholders; (iv) develop and present recommendations in support of the output; (v) supervise/support consultant(s); and (vi) input into periodic and final project reports.

- vii. **Knowledge management specialist** (1 international, 9 person-months, intermittent). The consultant should have a postgraduate degree in development and/or public policy related field. The consultant must have at least 8 years of relevant work experience. Experience in DRM, development planning and budgeting, sector planning and awareness raising is required. Knowledge of Tajikistan and/or Central Asia is an advantage. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) develop training packages to support community-based DRM; integrating DRM into sectors; and awareness raising in educational institutions for vulnerable districts and cities; (ii) deliver training to community leaders / training of trainers, government officials and community mobilisers and educators; (iii) lead the preparation of the report; (iv) present recommendations; (v) supervise consultant(s); and (vi) input into periodic and final project reports.
- viii. **Glaciologist** (1 international, 3 person-months, intermittent). The consultant should have a postgraduate degree in geology, physics, and climatology or related field. The consultant must have at least 8 years of relevant work experience in glaciology, including assessments and inventories. Experience in similar projects in Tajikistan and/or other countries in Central Asia is preferred. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) determine the scope of inventory; (ii) gather the key indicators / parameters; (iii) undertake the assessment; (iv) ensure the maps are accessible through the disaster management information system; and (v) contribute to specific sections of the output on disaster risk assessment; (vi) based on an assessment, identify equipment, specification and costings to support the procurement specialist, as required.
- ix. **Geologist / seismologist** (1 international, 3 person-months, intermittent). The consultant should have a graduate or postgraduate degree in geology, seismology or related field. The consultant must have at least 8 years of relevant work experience and good understanding of geophysical hazards – earthquake and landslides issues in Tajikistan and/or Central Asia. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) lead technical aspects related to geophysical hazard identification, assessment and modeling in support of the risk assessment, disaster management information system, and early warning; (ii) collect hazard and other relevant data; (iii) communicate key findings in a form that is useful for decision making; (iv) consult with relevant government and other stakeholders; (v) based on an assessment, identify equipment, specification and costings to support the procurement specialist, as required, (vi) lead the preparation of the report; (vii) present recommendations; (viii) supervise consultant(s); and (ix) input into periodic and final project reports.

- x. **Natural resource management specialist** (1 international, 3 person-months, intermittent). The consultant should have a postgraduate degree in environmental science or related fields. The consultant must have at least 8 years of relevant work experience. Experience in Tajikistan and/or Central Asia is an advantage. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) ensure the inclusion of natural resource management aspects across the package of deliverables; (ii) consult with relevant government and other stakeholders; (iii) contribute to specific sections of the output on disaster risk assessment; (iv) present recommendations; (v) supervise consultant(s); and (vi) input into periodic and final project reports.
- xi. **Gender and social development specialist** (1 international, 6 person-months, intermittent). The consultant should have a postgraduate degree in social science, gender studies, development or related fields. The consultant must have at least 8 years of relevant work experience. Experience in Tajikistan and/or Central Asia is an advantage. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) ensure the inclusion of gender and social development aspects across the package of deliverables; (ii) consult with relevant government and other stakeholders; (iii) contribute to specific sections of the output on disaster risk assessment; (iv) present recommendations; (v) supervise consultant(s); and (vi) input into periodic and final project reports.
- xii. **Infrastructure specialist** (1 international, 6 person-months, intermittent). The consultant should have a postgraduate degree in engineering or related fields. The consultant must have at least 8 years of relevant work experience, including in the context of risk assessments. Experience in Tajikistan and/or Central Asia is an advantage. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) undertake detailed assessments and analysis; (ii) provide technical inputs into the national disaster profile; (iii) contribute to specific sections of the output on disaster risk assessment; (iv) consult with relevant government and other stakeholders; (v) lead the preparation of the report; (vi) present recommendations; (vii) supervise consultant(s); and (ix) input into periodic and final project reports.
- xiii. **GIS specialist** (1 international, 12 person-months, intermittent). The consultant should have graduate or postgraduate degree in geography, information technology, or related field and with at least 8 years of relevant work experience, including in the context of risk assessments and the development of DRM related products. Experience in Tajikistan and/or Central Asia is an advantage. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) support detailed assessments and analysis on selected risks; (ii) lead the development of GIS-related aspects of the national disaster profile and early warning system; (iii) consult with relevant government and other stakeholders; (iv) undertake consultation with national agencies and development partners involved in databases, including related software and platforms, and secure access; (v) collect exposure data and developing exposure maps (using GIS) to feed into the disaster risk assessment; (vi) ensure the exposure maps are accessible through the disaster management information system; (vii) contribute to specific sections of the output on disaster risk assessment, (viii) based on an assessment, identify equipment, specification and costings to support the procurement specialist, as required, (ix) lead the preparation of reports; (x) present recommendations; (xi) supervise consultant(s); and (xii) input into periodic and final project reports.

- xiv. **Procurement/contract management specialist** (1 international, 3 person-months, intermittent). The consultant should have graduate or postgraduate degree in business administration, economics, engineering, public procurement, public policy, or other related fields, with at least 8 years of relevant work experience. Experience in Tajikistan and/or Central Asia is an advantage. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) provide assistance, technical guidance and capacity development to ensure compliance with ADB's procurement (goods, works, and consulting services) policies and procedures; (ii) support improvements in the implementation performance of the grant; (iii) provide oversight and advise on procurement and contract management; (iv) supervise consultant(s); and (v) input into periodic and final project reports.
- xv. **Finance specialist** (1 international, 6 person-months). The consultant should have a degree in accounting, finance or a related field, and will have a recognized professional accountancy qualification with at least 7 years of relevant work experience. Experience in Tajikistan and/or Central Asia is an advantage. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) advise the CESC on developing a financing mechanism of suitable financing options for sustainable financial arrangements; (ii) provide key inputs or lead the preparation of project preparation plans, project strategic assessments, institutional roadmaps and process reviews, as directed by the CESC; (iv) develop financial plans for the project portfolio and the facility itself; (v) prepare a 9-year investment plan (2020-2030); (vi) carry out study on sustainable financing options for DRM; (vii) prepare recommendations for establishing sustainable financing mechanism; (viii) train PIG staff in ADB's financial management procedures and develop FM manual; and (ix) provide key inputs in all of the Team's tasks, as directed by the team leader, such as preparation of terms of reference, monitoring progress of project preparation, among others.
- xvi. **Avalanche specialist** (1 international, 3 person-months, intermittent). The consultant should have a postgraduate degree in environmental engineering, geology, geophysics or related field. The consultant must have at least 8 years of relevant work experience in avalanche and glacial lake outburst flood (GLOF) assessments. Consultants with experience of working on similar projects in Tajikistan and/or other countries in Central Asia will be preferred. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) undertake detailed assessments and analysis on avalanche and GLOF risk; (ii) provide technical inputs into the national disaster profile and early warning system; (iii) ensure the maps are accessible through the disaster management information system; and (iv) contribute to specific sections of the output on disaster risk assessment (v) based on an assessment, identify equipment, specification and costings to support the procurement specialist, as required.
- xvii. **Disaster risk reduction specialist / deputy team leader** (1 national, 48 person-months, full-time). The consultant should have a graduate or postgraduate degree in civil engineering, hydrology, geology or related field. The consultant must have at least 5 years of work experience in disaster risk reduction projects in Tajikistan. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) lead day-to-day coordination with relevant government agencies and development partners; (ii) support the team leader in overall management of the project and supervising the national consultants; and (iii) contribute to the development and

delivery of training courses, (iv) based on an assessment, identify equipment, specification and costings to support the procurement specialist, as required.

- xviii. **Capacity building specialist** (1 national, 12 person-months, full-time). The consultant should have a graduate or postgraduate degree in civil engineering, hydrology, geology or related field. The consultant must have at least 5 years of work experience in capacity building projects in Tajikistan. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) support the team leader in undertaking training needs assessment of relevant stakeholders; (ii) lead the delivery of training course on integrating disaster and climate risk consideration in planning; (iii) support the supervision of NGO(s) engaged to deliver community-based DRM aspects; and (iv) communicate the key findings in a form that is useful for decision making.
- xix. **Hydrologist** (1 national, 18 person-months, full-time). The consultant should have a graduate or postgraduate degree in hydrology, water resources management, or related field. The consultant must have at least 5 years of relevant work experience in flood risk assessment. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) support the international disaster risk assessment consultant in the day-to-day coordination with relevant government agencies; (ii) collect flood hazard and other relevant data; (iii) support in flood risk modeling and communicating the key findings in a form that is useful for decision making; and (iv) support the project supervision consultant team to factor the results of flood risk modeling in the risk profile and training materials (v) based on an assessment, identify equipment, specification and costings to support the procurement specialist, as required.
- xx. **Hydraulic modeling and flood forecasting specialist** (1 national, 18 person-months, full-time). The consultant should have a postgraduate degree in hydrology, water resources management or related fields. The consultant must have at least 5 years of relevant work experience. Experience in hydrological forecasting is required including knowledge of flood and flash flood forecasting and warnings, the translation and interpretation of forecasts into impact forecasts, and hydro-meteorological risk modelling and flood hazard risk assessment. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) support the international hydraulic modeling and flood forecasting consultant in the day-to-day coordination with relevant government agencies; (ii) collect analysis hazard and other relevant data; (iii) support the development of the disaster risk assessment and early warning system; (iv) communicate the key findings in a form that is useful for decision making; and (v) support delivery of training, (vi) based on an assessment, identify equipment, specification and costings to support the procurement specialist, as required.
- xxi. **Gender and social development specialist** (1 national, 24 person-months, full-time). The consultant should have a graduate or postgraduate degree in gender studies, social science or related field. The consultant must have at least 5 years of relevant work experience and good understanding of gender issues in Tajikistan. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) identify opportunities and entry points for mainstreaming gender into the relevant policies and programs; (ii) provide technical inputs and advice to the team leader and all members of the team on relevant aspects of gender mainstreaming and women's empowerment; (iii) ensure that activities and assessment adequately take account of gender issues and supports inclusion; (iv) ensure adherence to ADB's operational plan

for gender equality and women's empowerment, and related policies; (v) act as a reference point on gender issues; and (vi) support delivery of training.

- xxii. **Natural resource management specialist** (1 national, 9 person-months, full-time). The consultant should have a postgraduate degree in environmental science or related fields. The consultant must have at least 5 years of relevant work experience and good understanding of natural resource management issues in Tajikistan. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) support the international natural resource management consultant in day-to-day activities and coordination with relevant government agencies; (ii) support the inclusion of natural resource management aspects across the package of deliverables; (iii) consult with relevant government and other stakeholders; (iv) support the delivery of training.
  
- xxiii. **Infrastructure specialist** (1 national, 9 person-months, full-time). The consultant should have a postgraduate degree in engineering or related fields. The consultant must have at least 5 years of relevant work experience, including in the context of risk assessments in Tajikistan. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) support the international infrastructure consultant in day-to-day activities and coordination with relevant government agencies; (ii) providing technical inputs into the national disaster profile; (iii) contribute to specific sections of the outputs on disaster risk assessment and early warning system (iv) consult with relevant government and other stakeholders; (v) support the delivery of training (vi) based on an assessment, identify equipment, specification and costings to support the procurement specialist, as required.
  
- xxiv. **Finance specialist** (1 national, 12 person-months, full-time). The consultant should have graduate or postgraduate degree in business administration, economics, finance, public policy, or other related fields, with at least 7 years of relevant work experience. Experience in Tajikistan and/or Central Asia is an advantage. Working under the supervision of the team leader for consulting services package 2 and in close collaboration with the international finance specialist, the consultant will: (i) advise the CESC on developing a financing mechanism of suitable financing options for sustainable financial arrangements; (ii) provide key inputs or lead the preparation of project preparation plans, project strategic assessments, institutional roadmaps and process reviews, as directed by the CESC; (iv) support development of financial plans for the project portfolio and the facility itself; (v) support preparation of a 9-year investment plan; (vi) carry out study on sustainable financing options for DRM; (vii) support preparation of recommendations for establishing sustainable financing mechanism; (viii) train PIG staff and ADB's financial management procedures and develop FM manual; and (ix) provide key inputs in all of the team's tasks, as directed by the team leader and international finance specialist, such as preparation of terms of reference, monitoring progress of project preparation, among others.
  
- xxv. **Procurement / contract management specialist** (1 national, 12 person-months, full-time). The consultant should have graduate or postgraduate degree in business administration, economics, engineering, public procurement, public policy, or other related fields, with at least 5 years of relevant work experience. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) support the international procurement / contract management consultant in day-to-day activities and coordination with relevant government agencies; (ii) provide assistance, technical guidance and capacity development to ensure compliance with ADB's



procurement (goods, works, and consulting services) policies and procedures; (ii) support improvements in the implementation performance of the grant; (iii) provide oversight and advise on procurement and contract management.

- xxvi. **Geologist / seismologist** (1 national, 12 person-months, full-time). The consultant should have a graduate or postgraduate degree in geology, seismology or related field. The consultant must have at least 5 years of relevant work experience and good understanding of geophysical hazards – earthquake and landslides issues in Tajikistan. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) support the international geologist / seismologist in day-to-day activities and coordination with relevant government agencies; (ii) collecting hazard and other relevant data; (iii) supporting in disaster risk assessment and communicating the key findings in a form that is useful for decision making; and (iv) support the delivery of training (v) based on an assessment, identify equipment, specification and costings to support the procurement specialist, as required.
  - xxvii. **GIS specialist** (1 national, 18 person-months, full-time). The consultant should have graduate or postgraduate degree in geography, information technology, or related field and with at least 5 years of relevant work experience. Good expertise on GIS is required. Working under the supervision of the team leader for consulting services package 2, the consultant will: (i) support the international GIS consultant in day-to-day coordination with relevant government agencies; (ii) consult national agencies on existing national asset databases, including related software and platforms, and secure access; and (iii) support the development of the disaster management information system, (iv) based on an assessment, identify equipment, specification and costings to support the procurement specialist, as required.
25. **Support staff** will include at least following two persons for the full duration of the assignment.
- i. **Finance and accounts assistant** (1 national, full-time). The person should have a graduate degree in accounting, business administration, finance or a related field. Working under the supervision of the team leader for consulting services package 2 and working in the Project Implementation Group at CESC, the consultant will: (i) support financial transactions, monitoring and reporting; (ii) undertake expenditure analysis; (iii) maintain proper quality control over vendor payment submissions; (iv) respond to inquiries from internal users on transaction status or with issues about how transactions were processed; (v) analyze / research / act on requests for accounting adjustments related to accounts payable from internal users, engaging in discussion as needed to understand and determine action required; (vi) other related finance and accounting tasks.
  - ii. **Translator and interpreter** (1 national, full-time), the translator and interpreter will hold a degree in English and Russian language or any other related field and preferably 5 years' experience in providing professional translation and interpretation services. The translator and interpreter will; (i) provide high quality translation services from English to Russian and vice versa as required by the project team, (ii) facilitate events such as workshops, seminars and roundtables by offering simultaneous interpretation from English to Russian and vice versa, (iii) translate documents, ensuring completeness, accuracy and stylistic acceptability of translations produced, (iv) conduct necessary research for each document being translated in order to ensure that the meaning is

interpreted correctly and in full, and that appropriate specialized terminology is employed.

#### **IV. DATA, LOCAL SERVICES, PERSONNEL, AND FACILITIES TO BE PROVIDED BY THE CLIENT**

26. The government via the CESC/ project implementation group will provide the international firm(s) with: (i) adequate office accommodation in Dushanbe; (ii) will assist with coordination with other government agencies and with obtaining all data.