

PROJECT PREPARATORY TECHNICAL ASSISTANCE

A. Justification

1. The Government of Armenia requested the Asian Development Bank (ADB) for a water and sanitation project on 25 July 2016. This project preparatory technical assistance (PPTA) will prepare the new project.

B. Major Outputs and Activities

2. The PPTA will result in a sector loan ready for Board approval. The major outputs and activities are summarized in Table A3.1.

Table A3.1: Summary of Major Outputs and Activities

	Major Outputs	Completion Date
1	Inception Report	February 2017
2	Socio-Economic Survey, Draft SPRSS	March 2017
3	Social Safeguard Survey	March 2017
4	Sector assessment, subproject selection criteria	March 2017
5	Alternative and cost comparison analysis	March 2017
6	Resettlement Survey, draft LARP, draft EARF, Draft IEE, CRVA	March 2017
7	IEE Final Report	March 2017
8	Interim Report, draft DMF, draft PAM, preliminary engineering design, energy efficiency computation, draft procurement plan, draft risk management plan, draft loan covenants	March 2017
9	Socio Economic Documents, SPRSS (Final), GAP	March 2017
10	Financial Management and Capacity Assessment	March 2017
11	Draft Capacity Building, Institutional Development Program	March 2017
12	Preliminary Financial and Economic Analysis	March 2017
13	Final Financial and Economic Analysis	
14	Draft Final Report	April 2017
15	ADB Fact-finding Mission	April 2017
16	Final Report	May 2017

CRVA = Climate risk and vulnerability assessment, DMF = design and monitoring framework, EARF = environmental assessment review framework, GAP = gender action plan, IEE = initial environmental examination, LARP = land acquisition and resettlement plan, PAM = project administration manual, SPRSS = social poverty reduction and social strategy.

C. Cost Estimate and Proposed Financing Arrangement

3. The TA is estimated to cost \$2.4 million equivalent, of which \$0.4 million will be financed by ADB's Technical Assistance Special Fund (TASF-Others) and \$2.0 million will be financed on a grant basis by the Japan Fund for Poverty Reduction (JFPR) and administered by ADB.¹ ADB's TASF funds will be used to design the sanitation components, JFPR funds will be used for the design of the capacity building component, the water subprojects, and for piloting innovations to be developed under the project. The government will provide in-kind contributions (e.g. counterpart staff, office space and supplies, secretarial assistance, domestic transportation, communication facilities). Detailed cost estimates are presented in Table A3.2.

¹ JFPR financing was approved by the Government of Japan on 20 October 2016. JFPR financing will support preparation of output 1, 2 and 4. A working group with SCWE, the Ministry for Natural Protection, and the State Committee of Real Property Cadaster will be constituted for the GIS and SCADA pilot during project processing.

Table A3.2: Cost Estimates and Financing Plan
(\$'000)

Item	Total Cost
A. Asian Development Bank^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (18.5 person-months)	265.6
b. International and local travel	46.0
c. Reports and communications	22.0
2. Workshops, training, seminars, and conferences ^b	3.0
3. Miscellaneous administration and support costs	38.0
4. Contingencies	25.4
Subtotal (A)	400.0
B. Cofinancier^c	
1. Consultants for GIS and Water Subsector component ^d	
a. Remuneration and per diem	
i. International consultants (53 person-months)	1,055.3
ii. National consultants (46 person-months)	213.4
b. International and local travel	211.2
c. Reports and communications	43.5
2. Equipment (computer, printer, etc.) ^e	5.0
3. Workshops, training, seminars, and conferences ^b	10.0
4. Surveys for GIS component	100.0
5. Miscellaneous administration and support costs	158.0
6. Contingencies	203.6
Subtotal (B)	2,000.0
Total (A + B)^f	2,400.0

^a A request may be made in 2017 for additional funds for project preparation.

^b Workshops, training, seminars, and conferences

Purpose	Venue	
ADB Financing		
Accreditation Institute	Yerevan	\$3,000
Development Agency's financing for GIS component		
Training on GIS	Yerevan	\$5,000
Certification/ Exam	Yerevan	\$5,000

^c Cofinancing by the Japan Fund for Poverty Reduction is limited for preparatory activities for outputs 1, 2 and 4 of the project.

^d This includes expenses for resource persons from a Japanese institute.

^e Equipment includes 5 computers and 1 printer and will be handed over to the implementing agency once the TA is completed.

^f The value of government contribution is estimated to account for 2% of the total TA cost.

ADB = Asian Development Bank; GIS = geographic information system.

Source: ADB estimates.

D. Consulting Services

4. Individual consultants will be recruited for preparation of the project including 12 international, providing a total of 28.5 person-month (p-m) inputs, and 4 national providing 10 p-m inputs. A firm will be recruited for the geographic information system (GIS) pilot (43 p-m of international experts and 36 p-m of national experts) using quality- and cost-based selection. With a quality-cost ratio of 90:10, shortlisted firms will be required to submit full technical proposals. All consultants will be recruited in accordance with the ADB *Guidelines on the Use of Consultants* (2013, as amended from time to time). All equipment will be procured in accordance with the ADB *Procurement Guidelines* (2015, as amended from time to time).

Table A3.3: Summary of Consulting Services Requirement

Positions	Person-Months Required
International	
1 Team Leader Specialist	5.0
2 Institutional Specialist/Policy Specialist	2.5
3 Ground Water Specialist	2.0
4 Financial Management Specialist/Financial Analysis Specialist	2.0
5 Energy Efficiency Specialist	2.0
6 Design Engineer	5.0
7 Procurement specialist	3.0
8 Economist	1.5
9 Safeguard Environment	2.0
10 Safeguard Resettlement	2.0
11 Social Development and Gender Specialist	1.0
12 Climate Change Specialist	0.5
13 Geographic Information System Specialist/Team Leader (firm)	12.0
14 Satellite Infrastructure Specialist (firm)	4.0
15 Satellite Integrated Water Resource Specialist (firm)	4.0
16 Institutional/ Capacity (firm)	4.0
17 Telecommunication Specialist (firm)	1.0
18 Mobile Application Specialist (firm)	3.0
19 Website Technical Specialist (firm)	3.0
20 Legal Regulatory Expert (firm)	2.0
21 Japanese Resource Persons	10.0
Subtotal	71.5
National	
1 Economist	3.0
2 Safeguard Environment	4.0
3 Safeguard Resettlement	2.0
4 Social Development and Gender Specialist	1.0
5 Geographic Information System Specialist (firm)	9.0
6 Website Designer (firm)	3.0
7 Data Entry (firm)	4.0
8 Digitization (firm)	4.0
9 Trainer (firm)	1.0
10 System Maintenance (firm)	12.0
11 Translator (firm)	3.0
Subtotal	46.0

Source: Asian Development Bank.

5. Please refer to para. 11 in the due diligence section in the concept paper for details on the areas covered by individual consultants. The terms of reference (TOR) will be posted in the consultant management system by December 2016 and by the same time for the firm. Detailed TORs are available upon request.

6. A firm will be recruited for piloting actions aiming at: (i) reducing water pollution, reusing treated wastewater, managing ground water resources, and assisting associated regulatory reforms; (ii) improving the capacity of the State Committee for Water Economy (SCWE) and State Committee of the Real Property Cadaster in using remote sensing technology, GIS, and SCADA system to monitor ground water and provide data for river basin management; (iii) piloting new WSS system approaches in geographical areas vulnerable to drought; and (iv) reducing cost of services through energy efficiency improvement and non-revenue water reduction.

E. Implementation Arrangements

7. The TA will be implemented from December 2016 to March 2018 (individual consultants to prepare the TA will be hired in December 2016 and will complete work by August 2017; the firm hired for the pilot will commence work in March 2017 and will complete the pilot by December 2018). The executing agency is the Ministry of Energy and Natural Resources and the implementing agency is SCWE. All TA proceeds will be disbursed in accordance with the ADB *Technical Assistance Disbursement Handbook* (May 2010, as amended from time to time).

Table A3.4: Technical Assistance Processing and Implementation Schedule

Major Milestones	Expected Completion Date
Approval of Project Concept and Fund Registration	November 2016
Recruitment of Individual Consultants and commencement of services	January 2017
Recruitment of firm for pilot and commencement of services	March 2017
Individual Consultants and Preparatory Work/ Firm and Preparedness Work	
Inception Report	March 2017
Draft Final Report (with all final project preparatory inputs)	April 2017-August 2017
Final Report (the pilot)	December 2017
Financial Closure of technical assistance	March 2018

Source: Asian Development Bank.