



Armenia: Solid Waste Management Solutions for Remote and Small Communities

Project Name	Solid Waste Management Solutions for Remote and Small Communities		
Project Number	48205-001		
Country / Economy	Armenia		
Project Status	Closed		
Project Type / Modality of Assistance	Technical Assistance		
Source of Funding / Amount	TA 8875-ARM: Solid Waste Management Solutions for Remote and Small Communities Project		
	Japan Fund for Prosperous and Resilient Asia and the Pacific		US\$ 550,000.00
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth Regional integration		
Drivers of Change	Gender Equity and Mainstreaming Governance and capacity development Knowledge solutions Partnerships Private sector development		
Sector / Subsector	Water and other urban infrastructure and services / Water and other urban infrastructure and services		
Gender	Some gender elements		
Description	<p>The focus of the TA is to prepare a diagnostic study on SWM with prefeasibility studies for pilot projects and an indicative investment plan for small and remote communities. The study will focus on key development and policy challenges in small and remote communities related to SWM, and will help identify solutions.</p> <p>Institutional capacity for effective SWM in remote and small communities is completely lacking. Technical parameters guiding SWM are absent. Lack of awareness of proper SWM has led to slow emergence of fee-based solutions and the low prioritization accorded to SWM. This is leading to acute environmental degradation and threats to public health, in turn constraining the future development of the communities.</p> <p>Current practice of SWM in Armenia is simple truck and dump technology implemented by local municipalities. The idea is to shift SWM towards modern management of waste flows such as 3R that should translate into best operational practices, namely a dedicated at-source waste separation, then reuse and recycle, and at the end disposal of the remaining waste at an environmentally sound sanitary landfill.</p> <p>a. Link to Country Partnership Strategy/Regional Cooperation Strategy:</p> <p>ADB's consultation mission for the TA in November 2014 reconfirmed the government support for the TA. The government also expressed interest in attracting grant resources to tackle issues particular to remote and small communities. This proposal will be focused on SWM solutions for small and remote communities to bring them into compliance with the national SWM strategy. The proposed TA is in line with current priorities for ADB assistance in the country. The Armenia country partnership strategy, 2014 -2018 focuses on knowledge solutions in infrastructure, including the urban infrastructure sector. The TA will support policy dialogue with the government regarding SWM sector development. The government concurred with the impact, outcome, outputs, implementation arrangements, cost and financing arrangements, and outline terms of reference for consultants.</p> <p>The selection of the communities subject to the TA will be done in close consultation with the government. A consulting team will further develop the selection criteria. As of now, the targeted communities are defined as small towns with their neighboring villages that are expected to be outside the service territory of any regional landfill, and where small-scale, low-cost options are needed to provide environmentally sound waste management services.</p> <p>The TA will contribute to Armenia's national priorities by (i) supporting critical infrastructure investments that will help improve living conditions, health, and hygiene of the people of small and remote communities in line with the national strategy; and (ii) fostering a decentralized approach while boosting municipal infrastructure development as well as institutional capacity of selected small and remote communities.</p> <p>b. Impact:</p> <p>The impact will be an improved and efficient SWM system in the selected small communities of Armenia. Performance indicator include complete waste management service established and operating in at least two remote communities by 2021.</p> <p>c. Outcome:</p> <p>The outcome will be a practical investment plan and SWM policy, which will guide the government and ADB in SWM investments for small and remote communities. Performance indicator include confirmed financing of the pilot projects in the selected communities by the government and/or interested donors in place by July 2016.</p> <p>d. Outputs:</p> <p>The TA has three outputs. Output 1 involves a diagnostic analysis for small and remote communities, including review of institutional and regulatory frameworks on community-level SWM and its compliance with the national SWM strategy. The TA will support the engagement of a consulting team, which, in close cooperation with the government, will assess areas outside the service territories of regional landfills, and identify small and remote communities in those potentially unserved territories. The team will organize workshops and consult on initial findings with selected communities.</p> <p>Output 2 includes prefeasibility studies for pilot projects in each selected community, an investment program, and related options for small and remote communities, all with due regard to sound financial management of SWM through innovative mechanisms and cost-recovery schemes. The consulting team will conduct prefeasibility studies of pilot projects and define SWM options for sites selected in the initial diagnostic study, and will develop an investment program for each selected community and a complete survey and/or study of proposed SWM solutions. The team will organize workshops and present draft and final reports to the communities and key government stakeholders.</p> <p>Output 3 covers SWM training for communities. The consulting team will train about 30 local government staff (about 80% men and 20% women) to strengthen their knowledge of and skills for SWM-related urban services, innovative mechanisms, and cost recovery schemes. Related training will be arranged for about 15 instructors of community educational institutions (about 75% women and 25% men).</p> <p>Sustainability of the TA will be ensured through trained local government staff (about 30), the investment plan, and recommended policy actions, and through about 15 trained instructors of community educational institutions. Developed community-based investment plans should be included in the national SWM investment program (and may be financed by ADB in future loans).</p> <p>In most Armenian families, women are disproportionately burdened with household management work and may have different priorities with regard to waste management. They also play important roles in educating children and inducing behavioral change. Environmental nongovernment organizations represented by women are particularly active in small communities and can greatly contribute to grassroots outreach and awareness raising, and overall community participation, which is an important precondition for a waste management project to have a continuous impact. The TA will therefore have a participatory approach and a focus on women as well.</p>		

Project Rationale and Linkage to Country/Regional Strategy	<p>The proposed TA project will contribute to Armenia's national priorities by (i) supporting critical infrastructure investments that will help improve living conditions and health and hygiene of the people of small and remote communities in line with the national strategy; (ii) fostering a decentralized approach whilst boosting municipal infrastructure development as well as institutional capacity of selected small and remote communities; and (iii) fully complying with international standards (3R- Reduce, Reuse, Recycle based: waste reduction, material recycling and reuse) through modern solid waste management (SWM) operational practices adapted to suit the conditions of small and remote communities. The Ministry of Territorial Administration and Emergency Situations (MTAES) requested the Asian Development Bank (ADB) to assist in developing solutions for solid waste management (SWM) to serve as a basis for future pilot investment projects for small and remote communities. The request came in addition to ongoing project preparatory technical assistance (PPTA) for the Solid Waste Management Improvement Investment Program, which is aiming to develop a national strategy for SWM.</p> <p>The purpose of TA 7991-ARM was to prepare a national strategy for SWM and an investment plan. The national strategy aims for a unified approach and standards for SWM for the country. Armenia is a mountainous country and there are communities which are geographically separated from the main urban areas, so a tailored approach is needed for small and remote communities.</p> <p>Supporting remote communities is fully aligned with the national strategy. The proposed areas will be selected in discussion with the government. They are mainly located in mountainous terrain separated from main roads and urban centers where it is not economically efficient to transfer waste to the main landfills. There is a need to find local solutions for those areas. The connection between TA 7991-ARM and this proposed TA is that those local solutions should be under the framework of the national SWM strategy following the same principals of reducing, reuse and recycling of waste.</p> <p>SWM has been a generally neglected aspect of urban management in Armenia. Since SWM is the responsibility of the local communities and municipalities, the central government has not been prioritizing SWM. However, the local governments do not have enough capacity and resources to handle SWM properly. The situation is even worse in remote and small communities. While typically about 60% of solid waste is collected in Armenian cities, only 30% is collected in remote rural areas. Most of the municipal waste is deposited in gorges or on open ground in poorly designed dump sites. In general, waste handling and separation are rudimentary, processing and transformation of waste are not pursued, and disposal in most cases is tantamount to open dumping.</p> <p>Development has now reached a point where municipal SWM is increasingly recognized as a top priority. There is a universal desire to replace the old _truck and dump_ method of the past with modern, 3R-based SWM systems that comply with international standards, and are reflective of and in pace with advancements being achieved in other infrastructure sectors nationwide.</p>
Impact	Improved and efficient solid waste management in small and remote communities
Project Outcome	
Description of Outcome	Practical investment plan and SWM policy, which will guides government and ADB in SWM investments for small and remote communities
Progress Toward Outcome	Preparation of two pilot projects were completed: (i) site selection for sanitary landfill, and (ii) solid waste collection logistics and final reports were sent to the Ministry of Territorial Administration and Development in June 2017.
Implementation Progress	
Description of Project Outputs	<ol style="list-style-type: none"> 1. Diagnostic analysis completed for small and remote communities, including review of institutional and regulatory frameworks on community-level SWM and its compliance with the national SWM strategy 2. Prefeasibility studies for pilot projects in each selected community, an investment program, and related options for small and remote communities, with due regard to sound financial management of SWM through innovative mechanisms and cost-recovery schemes 3. SWM training of communities
Status of Implementation Progress (Outputs, Activities, and Issues)	<ol style="list-style-type: none"> 1. Diagnostic study for Syunik marz (region of Armenia) has been completed and endorsed by the government (Ministry of Territorial Administration and Development) on 12 August 2016. Four workshops were conducted per one in four cities of the marz Meghri, Kapan, Goris and Sisian from 3-5 May 2016.2. Two pilot projects were prepared and presented to the government and communities: (i) site selection for the sanitary landfill for Syunik; (ii) detailed calculation of logistics and transportation schemes for waste collection and disposal for surrounding communities.3. SWM training program were completed in July 2017. Four training sessions were conducted: two for self-governments' staff in Kapan and Goris and two for staff of local educational institutions in Kapan and Goris.
Geographical Location	Nation-wide
Summary of Environmental and Social Aspects	
Environmental Aspects	
Involuntary Resettlement	
Indigenous Peoples	
Stakeholder Communication, Participation, and Consultation	
During Project Design	<p>During project design ADB conducted a consultation with all stakeholders involved in the solid waste management sector. ADB is in close cooperation with the European Bank for Reconstruction and Development (EBRD), German Development Bank (KfW), European Union (EU), United Nations Development Programs (UNDP), and World Bank (WB), who are involved in SWM development in Armenia. In October 2009, WB financed a TA (\$750,000) for an _Advisory Study on the Municipal Solid Waste Management in Yerevan City_. As the city government approached a decision-making point for tendering long-term arrangements for municipal SWM in Yerevan, the Armenian Ministry of Economy requested WB's advice and assistance in supporting the process. WB responded by tendering a study funded by a grant from the Public-Private Infrastructure Advisory Facility (PPIAF). Fichtner GmbH & Co. was selected as the consultant. The study was focused on Yerevan and provided recommendations for improving collection and upgrading the current city dumpsite to a sanitary landfill. In April 2012, EBRD funded a feasibility study (EUR 350,000) for the Kotayk region of Armenia and considered providing a EUR 3.5 million sovereign loan for the construction of the first EU-compliant regional landfill and relevant infrastructure in the country. In addition, the EU Neighborhood Investment Facility (NIF) has approved a grant in the amount of EUR 3.5 million to provide co-financing for the project. The landfill will be located in Hrazdan, capital of Kotayk region in the central part of Armenia, and will be used by eight municipalities in the nearby region: Hrazdan, Abovian, Charentsavan, Yeghvard, Nor Hachn, Tsakhadzor, Byureghavan and Sevan (participating municipalities). The project will require the tendering of waste collection to the private sector and the creation of a fully commercial solid waste management company. The project will also include the acquisition of vehicles, bins, and equipment for waste management. In February 2013, KfW financed (EUR 300,000) a study on technological options of SWM in Lori region focused on Vanadzor (capital of Lori region). The landfill should serve Vanadzor and 17 surrounding communities. In 2010-2013, a public-private partnership project for recycling of polyethylene terephthalate (PET) bottles in Armenia was funded by UNDP (\$90,000) and USAID (\$450,000) with Eco-Engineering Company, one of the first private recycling initiatives in Armenia. The project's purpose is to support the implementation of an efficient and economically-viable PET recycling program in Armenia and, in the long-term, improve access to clean, safe, and reliable water. The project aims to reach the level of 70% collection of PET in Armenia, or 3,500 tons of PET per year. In 2009, the EU financed a regional project to improve waste governance in eastern region countries (ENPI) (Armenia, Azerbaijan, Belarus, Georgia, Moldova, Russia, and Ukraine). Under this project, a consultant team has prepared a SWM strategy for the Lori region of Armenia. The Armenian Environmental Network (AEN) in partnership with Green Lane, the Urban Foundation for Sustainable Development (UFSD), the Government of Norway, Jinishian Foundation, and others, endeavor to create Armenia's first appropriate technology sanitary landfill. _Appropriate technology_ refers to embracing a technology and application that is low-tech, locally sustained, small-scale, less expensive, environmentally sound, and more labor-intensive than typical western-style mechanized operations.</p>
During Project Implementation	<p>During project implementation ADB will continue its close cooperation with the European Bank for Reconstruction and Development (EBRD), German Development Bank (KfW), European Union (EU), United Nations Development Programs (UNDP), and World Bank (WB), who are involved in SWM development in Armenia.</p>
Business Opportunities	

Consulting
Services

Project due diligence, its institutional and capacity building, and project implementation components require a consulting company with a team of nine consultants: three international (10 person-months) and six national (26 person-months). Resource persons will also be engaged for the workshops and seminars. The outline terms of reference for consultants are in Appendix 3. All consulting services under the TA will be engaged on output-based (lump sum) contracts to reduce the administrative burden and improve economy, efficiency, and value for money.

In hiring the consultants, ADB will use the quality- and cost-based selection method with a quality cost ratio of 90:10 and a simplified technical proposal, in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). Disbursement will be in accordance with ADB's Technical Assistance Disbursement Handbook (2010, as amended from time to time). ADB will also provide workshops, local training, seminars, and conferences with invited experts, including experts from Japan, as resource persons. The TA will be implemented from July 2015 to July 2016.

Monitoring and evaluation. The resident mission will monitor through project review missions and project progress reports. A TA completion report will be prepared after all works are completed.

Responsible ADB Officer	Barseghyan, Areg Arcady
Responsible ADB Department	Central and West Asia Department
Responsible ADB Division	Armenia Resident Mission
Executing Agencies	Ministry of Territorial Administration and Emergency Situations Government Building 2, Republic Square, Yerevan 0010 Armenia

Timetable	
Concept Clearance	28 Aug 2014
Fact Finding	-
MRM	-
Approval	28 Jan 2015
Last Review Mission	-
Last PDS Update	03 Jul 2019

TA 8875-ARM

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
28 Jan 2015	13 Mar 2015	13 Mar 2015	31 Jul 2016	01 Nov 2017	11 Dec 2017

Financing Plan/TA Utilization							Cumulative Disbursements	
ADB	Cofinancing	Counterpart				Total	Date	Amount
		Gov	Beneficiaries	Project Sponsor	Others			
0.00	550,000.00	0.00	0.00	0.00	0.00	550,000.00	17 Jun 2022	549,600.00

Project Page	https://www.adb.org/projects/48205-001/main
Request for Information	http://www.adb.org/forms/request-information-form?subject=48205-001
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