FINAL ENVIRONMENTAL AND SOCIAL REVIEW CHECKLIST

Micro-project title:

Micro-project #: TKQ-03

Is the Environmental and Social Management Plan (ESMP) developed?

Yes + No _____

Does ESMP provide a full list of potential impacts and establish adequate measures for their mitigation?

Yes + No _____

Conclusion of the Final Environmental and Social Assessment

<table>
<thead>
<tr>
<th>Conclusion</th>
<th>Micro-project approved (environmental assessment completed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro-project rejected</td>
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<td></td>
<td>+</td>
</tr>
</tbody>
</table>
## PART A: GENERAL PROJECT AND SITE INFORMATION

<table>
<thead>
<tr>
<th>INSTITUTIONAL &amp; ADMINISTRATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Micro-project number and title</strong></td>
</tr>
<tr>
<td><strong>Municipality, community</strong></td>
</tr>
<tr>
<td><strong>Scope of site-specific activity</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Institutional arrangements (WB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task Team Leader:</td>
</tr>
<tr>
<td>Safeguards Specialist:</td>
</tr>
<tr>
<td>Sophia Georgieva - Social</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Implementation arrangements (RoA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementing entity:</td>
</tr>
<tr>
<td>Works Supervisor:</td>
</tr>
<tr>
<td>Works Contractor:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SITE DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name of institution whose premises are to be rehabilitated</strong></td>
</tr>
<tr>
<td><strong>Address and site location</strong></td>
</tr>
<tr>
<td><strong>Who owns the land?</strong></td>
</tr>
<tr>
<td><strong>Description of physical and natural environment around the site (see maps and photo annex 1)</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LEGISLATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>National &amp; local legislation &amp; permits that apply to project activity</strong></td>
</tr>
<tr>
<td>(a) The chemical and bacteriological analysis of the source</td>
</tr>
<tr>
<td>(b) Hydrogeological conclusion</td>
</tr>
<tr>
<td>(c) Land allocation for captations sanitary areas and pipeline construction</td>
</tr>
<tr>
<td>(d) Construction permit</td>
</tr>
</tbody>
</table>

**PUBLIC CONSULTATION**

| When / where the public consultation process will take / took place | Public consultation was carried out in the Marmarik Community on 22 September, 2016. |

**ATTACHMENTS**

- Attachment 1: Photos and plan of the construction site
- Attachment 2: Minutes of Public Consultations on the draft ESMP
- Attachment 3: Copy of an agreement for construction waste disposal
- Attachment 4: Copy of the land allocation document
- Attachment 5. The chemical and bacteriological analysis of the source
- Attachment 6. Hydrological conclusion
- Attachment 7. Copy of the Construction Permit
### PART B: SAFEGUARDS INFORMATION

#### ENVIRONMENTAL /SOCIAL SCREENING

<table>
<thead>
<tr>
<th>Activity/Issue</th>
<th>Status</th>
<th>Triggered Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Reconstruction of the distribution network</td>
<td>[+ Yes [ ] No</td>
<td>See Section A below</td>
</tr>
<tr>
<td>B. New construction (sanitation zone)</td>
<td>[+ Yes [ ] No</td>
<td>See Section A below</td>
</tr>
<tr>
<td>C. Individual wastewater treatment system</td>
<td>[ ] Yes [+ No</td>
<td>See Section B below</td>
</tr>
<tr>
<td>D. Historic building(s) and districts</td>
<td>[ ] Yes [+ No</td>
<td>See Section C below</td>
</tr>
<tr>
<td>E. Acquisition of land(^1)</td>
<td>[ ] Yes [+ No</td>
<td>See Section D below</td>
</tr>
<tr>
<td>F. Hazardous or toxic materials(^2)</td>
<td>[ ] Yes [+ No</td>
<td>See Section E below</td>
</tr>
<tr>
<td>G. Impacts on forests and/or protected areas</td>
<td>[ ] Yes [+ No</td>
<td>See Section F below</td>
</tr>
<tr>
<td>H. Handling / management of medical waste</td>
<td>[ ] Yes [+ No</td>
<td>See Section G below</td>
</tr>
<tr>
<td>I. Traffic and Pedestrian Safety</td>
<td>[ ] Yes [+ No</td>
<td>See Section H below</td>
</tr>
</tbody>
</table>

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1 Land acquisitions includes displacement of people, change of livelihood encroachment on private property this is to land that is purchased/transferred and affects people who are living and/or squatters and/or operate a business (kiosks) on land that is being acquired.

2 Toxic / hazardous material includes but is not limited to asbestos, toxic paints, noxious solvents, removal of lead paint, etc.
## PART C: MITIGATION MEASURES

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>PARAMETER</th>
<th>MITIGATION MEASURES (provide costs where applicable)</th>
</tr>
</thead>
</table>
| **0. General Conditions** | Notification and Worker Safety | (a) The local construction and environment inspectorates and communities have been notified of upcoming activities  
(b) The public has been notified of the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works)  
(c) All legally required permits have been acquired for construction  
(d) The Contractor formally agrees that all work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment.  
(e) Workers’ PPE will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots)  
(f) Appropriate signposting of the sites will inform workers of key rules and regulations to follow. |
| **A. General Construction Activities** | Air Quality | (a) During interior demolition debris-chutes shall be used above the first floor  
(b) Demolition debris shall be kept in controlled area and sprayed with water mist to reduce debris dust  
(c) During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site  
(d) The surrounding environment (sidewalks, roads) shall be kept free of debris to minimize dust  
(e) There will be no open burning of construction / waste material at the site  
(f) There will be no excessive idling of construction vehicles at sites |
| | Noise | (a) Construction noise will be limited to restricted times agreed to in the permit  
(b) During operations the engine covers of generators, air compressors and other powered mechanical equipment shall be closed, and equipment placed as far away from residential areas as possible |
| | Water Quality | (a) The site will establish appropriate erosion and sediment control measures such as e.g. hay bales and/or silt fences to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers. |
| | Waste Management | (a) Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities.  
(b) Mineral construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers.  
(c) Construction waste will be collected and disposed properly by licensed collectors  
(d) The records of waste disposal will be maintained as proof for proper management as designed.  
(e) Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos) |
| **B. Individual wastewater treatment system** | Water Quality | (a) The approach to handling sanitary wastes and wastewater from building sites must be approved by the local authorities  
(b) Before being discharged into receiving waters, effluents from individual wastewater systems must be treated in order to meet the minimal quality criteria set out by national guidelines on effluent quality and wastewater treatment  
(c) Monitoring of new wastewater systems (before/after) will be carried out  
(d) Construction vehicles and machinery will be washed only in designated areas where runoff will not pollute natural surface water bodies. |
| **C. Historic building(s)** | Cultural Heritage | (a) If the building is a designated historic structure, very close to such a structure, or located in a designated historic district, notification shall be made and approvals/permits be obtained from local authorities and all construction activities planned and carried out in line with local and national legislation.  
(b) It shall be ensured that provisions are put in place so that artifacts or other possible “chance finds” encountered in excavation or construction are noted and registered, responsible officials contacted, and works activities delayed or modified to account for such finds. |
<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>PARAMETER</th>
<th>MITIGATION MEASURES CHECKLIST</th>
</tr>
</thead>
</table>
| D. Acquisition of land | Land Acquisition Plan/Framework | (a) If expropriation of land was not expected but is required, or if loss of access to income of legal or illegal users of land was not expected but may occur, that the Bank’s Task Team Leader shall be immediately consulted.  
(b) The approved Land Acquisition Plan/Framework (if required by the project) will be implemented. |
| E. Toxic Materials | Asbestos management | (a) If asbestos is located on the project site, it shall be marked clearly as hazardous material  
(b) When possible the asbestos will be appropriately contained and sealed to minimize exposure  
(c) The asbestos prior to removal (if removal is necessary) will be treated with a wetting agent to minimize asbestos dust  
(d) Asbestos will be handled and disposed by skilled & experienced professionals  
(e) If asbestos material is stored temporarily, the wastes should be securely enclosed inside closed containments and marked appropriately. Security measures will be taken against unauthorized removal from the site.  
(f) The removed asbestos will not be reused |
|  | Toxic / hazardous waste management | (a) Temporarily storage on site of all hazardous or toxic substances will be in safe containers labeled with details of composition, properties and handling information  
(b) The containers of hazardous substances shall be placed in a leak-proof container to prevent spillage and leaching  
(c) The wastes shall be transported by specially licensed carriers and disposed in a licensed facility.  
(d) Paints with toxic ingredients or solvents or lead-based paints will not be used. |
| F. Affected forests, wetlands and/or protected areas | Protection | (a) All recognized natural habitats, wetlands and protected areas in the immediate vicinity of the activity will not be damaged or exploited, all staff will be strictly prohibited from hunting, foraging, logging or other damaging activities.  
(b) A survey and an inventory shall be made of large trees in the vicinity of the construction activity, large trees shall be marked and cordoned off with fencing, their root system protected, and any damage to the trees avoided.  
(c) Adjacent wetlands and streams shall be protected from construction site run-off with appropriate erosion and sediment control feature to include by not limited to hay bales and silt fences.  
(d) There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas, especially not in protected areas. |
| G. Disposal of medical waste | Infrastructure for medical waste management | (a) In compliance with national regulations the contractor will insure that newly constructed and/or rehabilitated health care facilities include sufficient infrastructure for medical waste handling and disposal; this includes and not limited to:  
▪ Special facilities for segregated healthcare waste (including soiled instruments “sharps”, and human tissue or fluids) from other waste disposal; and  
▪ Appropriate storage facilities for medical waste are in place; and  
▪ If the activity includes facility-based treatment, appropriate disposal options are in place and operational. |
| H Traffic and Pedestrian Safety | Direct or indirect hazards to public traffic and pedestrians by construction activities | (a) In compliance with national regulations the contractor will insure that the construction site is properly secured and construction related traffic regulated. This includes but is not limited to  
▪ Signposting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards  
▪ Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe passages and crossings for pedestrians where construction traffic interferes.  
▪ Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement  
▪ Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public.  
▪ Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public. |
### Environmental Monitoring Plan for construction and operation phases.

<table>
<thead>
<tr>
<th>Activity</th>
<th>What (Is the parameter to be monitored?)</th>
<th>Where (Is the parameter to be monitored?)</th>
<th>How (Is the parameter to be monitored?)</th>
<th>When (Define the frequency / or continuous?)</th>
<th>Why (Is the parameter being monitored?)</th>
<th>Who (Is responsible for monitoring?)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONSTRUCTION PHASE</strong></td>
<td></td>
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</tr>
<tr>
<td>1. Supply of construction materials</td>
<td>Purchase of the construction materials from licensed providers</td>
<td>Offices and warehouses of material suppliers, and borrowing sites</td>
<td>Checking documents; Inspection of material quality</td>
<td>In the process of signing the agreements for material provision</td>
<td>Ensure technical quality of construction; Protect human health and environment</td>
<td>ATDF</td>
</tr>
<tr>
<td>2. Transportation of construction materials and waste</td>
<td>Technical condition of construction vehicles and machinery; Adequacy of the loading trucks for transported types of cargo, and canopy coverage of cargo transported in open trucks; Movement of construction vehicles and machinery along pre-defined routes</td>
<td>Routes for transportation of construction materials and construction wastes</td>
<td>Inspection of roads adjacent to the construction site and included in the agreed-upon routes of transportation</td>
<td>Unannounced checks during the working hours</td>
<td>Avoid air and road pollution with dust and solid matter; Reduce traffic disruption</td>
<td>ATDF, Municipality of the Community of Marmarik</td>
</tr>
<tr>
<td>3. Generation of construction waste</td>
<td>Temporary storage of inert and hazardous wastes separately at the designated</td>
<td>Construction site and base (if applicable); Checking documents; Visual observation</td>
<td></td>
<td>Entire period of construction</td>
<td>Avoid pollution of the environment</td>
<td>ATDF, Municipality of the Community of Marmarik</td>
</tr>
<tr>
<td>4. Accumulation of household waste</td>
<td>Provision of waste containers on-site; Agreement with local municipality for regular out-transporting of waste</td>
<td>Construction site and base (if applicable)</td>
<td>Visual inspection</td>
<td>Entire period of construction</td>
<td>Avoid pollution of soil and water with household waste</td>
<td>ATDF, Municipality of the Community of Marmarik</td>
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<tr>
<td>5. Safety of labor</td>
<td>Provision of uniforms and protective gear to the contractor’s personnel and enforcement of their use by contractor; Consistency with the rules of exploitation of the construction equipment and usage of private safety means</td>
<td>Construction site</td>
<td>Inspection of the activities</td>
<td>Entire period of construction</td>
<td>Reduce the probability of accidents</td>
<td>ATDF</td>
</tr>
<tr>
<td>6. Undertaking works within the settlement</td>
<td>Demarkation and fencing of work site; Timely backfilling of soil once pipes are laid in trenches; No parking of construction vehicles and machinery outside work site the way impeding free</td>
<td>Construction site and nearly area</td>
<td>Visual inspection</td>
<td>Entire period of construction</td>
<td>Reduce disruption of movement around the work site and decrease probability of accidents</td>
<td>ATDF, Municipality of the Community of Marmarik</td>
</tr>
</tbody>
</table>
passage of traffic and pedestrians; No piling and no scattering of construction materials and waste outside the work site

<table>
<thead>
<tr>
<th>OPERATION PHASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ensuring smooth operation of water intakes, DDRs and pipeline</td>
</tr>
<tr>
<td>2. Ensuring quality of potable water supplied to the village</td>
</tr>
</tbody>
</table>
Attachment 1: Photos and plan of the construction site
A stakeholder consultation meeting on the draft Environmental and Social Management Plan (ESMP) for the Micro-project of the Reconstruction of the Distribution Network and Construction of a New Sanitation Zone in Marmarik Community was held at Marmarik Community Administration Office, Kotayq Marz on 22 September, 2016.

The announcement for the meeting in Armenian and English languages, including its date and time, was disclosed on the ATDF web page (www.atdf.am) on 13 Sep, 2016. Information on the meeting day and time was posted on information boards of Mamarik Community Administration Office; in addition the Administration conducted telephone calls to ensure participants’ attendance.

The public consultation was carried out by ATDF Social Specialist Sonya Msryan and ATDF Environmental Specialist Lusine Gevorgyan. 18 participants were present at the meeting, among which 6 women (about 33%).

S. Msryan introduced the main purpose of the consultation, the key features of the Micro-project, including reconstruction of distribution network, construction of sanitation zone and partial reconstruction of DRR. S. Msryan briefly introduced World Bank requirements and Armenian legislation on conducting environmental and social assessment and reasoned the need to develop ESMP for water supply reconstruction projects as in case of Marmarik Micro-project.

L. Grigoryan described baseline environmental conditions and outlined likely negative environmental impacts related to the Micro-project implementation. She specified that no tree removal is intended, the site does not involve endemic species and plants, as well as subterranean networks. Physical-geological conditions are favorable for construction. The key environmental adverse impacts include pollution of air, generation of construction waste, disruption of natural landscape. She specified key environmental measures aimed at reduction of negative impacts and emphasized that natural relief and landscape will be recovered after construction works. As the surrounding area next to the route of the pipelines do not include private lands or traffic roads direct or indirect hazards to public traffic and pedestrians by construction activities are not anticipated. L. Grigoryan explained what measures ATDF will apply to enhance effectiveness of construction waste management. She highlighted that safety measures for community members and workers will be applied.

L. Grigoryan outlined that technical supervisors on monthly basis will keep under control the fulfillment of all the environmental mitigation measures included in ESMP, and report the deviations to ATDF.
S. Msryan presented the main provisions of the ESMF concerning to the social aspects of the Project. She emphasized that the project does not involve any resettlement as proposed area of the construction is public property and land allocation document is available.

Ms. Msryan explained mechanisms of public engagement and grievance redress mechanism (GRM) to be applied during project implementation. Elected grievance focal point at the community level Barseghyan Rubik was introduced to the community members. S. Msryan explained the purpose of Focal points at local level and welcomed participants to apply to Rubik in case of questions/feedback or grievances concerning to the project implementation. S. Msryan talked also about main socio-economic challenges including engagement of women, youth and vulnerable groups in distribution of benefits. She outlined that these groups should have equal opportunities to be engaged in project benefits.

S. Msryan informed the beneficiaries that they also have the option to contact ATDF directly to communicate their grievance if they are unable to, or do not wish to, go through the PIC grievance focal point. S. Msryan explained all the cannel of grievance submission involving e-mail address, hot line telephone number, postal address and web-site link and outlined that ATDF contact information is reflected on the booklets delivered to the participants, as well as on the information desk to be posted in public visible places in the Community, including Community Administrative Office building. S. Msryan introduced that information on Micro-project details permanently will be available on the information desks, as well as on going announcements and references. She outlined that these will support in raising public awareness and early identification, assessment and resolution of complaints on Project activities.

The participants were welcomed to raise questions regarding to the discussed questions. Following questions were raised by the participants:

**Armen Petrosyan:** We would like to welcome the Project and outline that this project is very important for the Community as it will enable us to have regular and clean potable water at our houses. Besides, I would like to outline that the Community also has issue regarding to irrigation water supply system which is very unfavorable in terms of agricultural development.

**Artak Petrosyan:** The other issues of the Community involve lack of kindergarten and bad conditions of inter-community roads.

**Grigoryan Sophia:** In many cases people are not sure where to apply having grievances. I am very happy to hear that ATDF cares about the Communities. The established grievance mechanism is very important as it will enable to quickly raise the voice of community members.

**Khachik Tonoyan:** We welcome the idea that you encourage involvement of community members at work activities. It will be very important for community members to have opportunity to be employed at project-related jobs as many households in our community depend on agricultural works which in many cases are not profitable.

There were raised technical questions on the next procedures of the Micro-project and start date which were answered by the Specialists.

The list of participants and photos are attached.
List of Participants

1. Mr. Roberts
2. Mr. Jacobs
3. Mr. Johnson
4. Mr. Smith
5. Mr. Brown
6. Mr. Davis
7. Mr. Wilson
8. Mr. Miller
9. Mr. Thomas
10. Mr. Green
11. Mr. White
12. Mr. Black
13. Mr. Brown
14. Mr. Jackson
15. Mr. Parker
16. Mr. Davis
17. Mr. Smith
18. Mr. Johnson
Non-official translation of the above attached document:

Reference

The generated construction waste will be transported to the waste dump - "Marmarik" located 2 km far from the site.

Head of Community (signed) A. Petrosyan
Attachment 4: Copy of the land allocation document

Community Council of Marmarik Community RA
Decree
08 July, 2016 N-22

On land allocation of the purpose of potable water pipeline construction by Armenian Territorial development fund

According to the 11th point of 5th part of 20th article of law on Local Self-Government and 16th point of 1st part of 20th article of Land Code of the Republic of Armenia, and support by the Head of the Community, the Community Council of Marmarik Community

Made a decision

1. Allocate 500 sq.m land plot which is Community property to carry out the reconstruction of the Marmarik distribution network and sanitation zone in Marmarik Community within the framework of Social Investment and Local Development Project implemented by Armenian Territorial Development Fund.

Vote for - 3, against - 0, abstain from voting - 0

Signed by
1. G. Torosyan
2. D. Barsegyan
3. K. Petrosyan
Head of Community (signed) A. Petrosyan
Attachment 5. The chemical and bacteriological analysis of the source

PROTOCOL 68
UPON SANITARY-BACTERIOLOGICAL SURVEY OF DRINKING WATER SAMPLE
Kotayq region, village Marmarik

1. Indicators of bacteriological survey of water are compliant with norms.

2. Indicators of bacteriological survey of water are compliant with all norms, including requirements of appendix 4.
Non-official translation of the above attached document

To: Community Head of Marmarik

Mr. A.Petrosyan

According to the agreement No 963/16 signed on April 1 between “Hydrogeological Monitoring Center” SNCO and you, I present you the passport and hydrogeological information upon ‘’Source of Marmarik’’ which is used with the purpose of drinking water supply.
Attachment 7. Copy of a Construction Permit

Non-official translation of the above attached document
Republic of Armenia
Kotayk Region, Community Marmarik
Construction Permit N 31, 14.10.2016
This is given for the Construction Project of the Reconstruction of the distribution network and construction of a new sanitation zone in Marmarik Community

The design documents are
1. developed by “GAS” LTD

A. Petrosyan Sealed/Signed