

Ministry of Economy of the Republic of Armenia



**ENVIRONMENTAL AND SOCIAL MANAGEMENT
FRAMEWORK**

for

Trade Promotion and Quality Infrastructure Project

Yerevan 2014

List of Acronyms

| | |
|---------|--|
| EMP - | Environmental Management Plans |
| ESIA - | Environmental and Social Impact Assessment |
| ESMF - | Environmental and Social Management Framework |
| FFPMC - | Foreign Financial Project Management Centre |
| NIM - | National Institute of Metrology |
| NAB- | National Accreditation Body |
| NIS- | National Institute of Standards |
| ADA- | Armenian Development Agency |
| FDI- | Foreign Direct Investments |
| MoE- | Ministry of Economy |
| TPQIP- | Trade Promotion and Quality Infrastructure Project |
| PCU - | Project Coordination Unit |
| R&D- | Research and Development |
| PDO - | Project Development Objectives |

TABLE OF CONTENTS

| | |
|---|----|
| CHAPTER 1. INTRODUCTION | 3 |
| CHAPTER 2. PROJECT DESCRIPTION | 4 |
| CHAPTER 3. LEGAL AND POLICY FRAMEWORK | 6 |
| CHAPTER 4. TECHNICAL AND ENVIRONMENTAL STANDARDS AND REGULATIONS..... | 9 |
| CHAPTER 5. ENVIRONMENTAL SCREENING | 10 |
| CHAPTER 6. POTENTIAL SENSITIVE RECEPTORS AND POSSIBLE HAZARDS..... | 10 |
| CHAPTER 7. IMPACT MITIGATION | 11 |
| CHAPTER 8. STAKEHOLDER CONSULTATION | 12 |
| CHAPTER 9. SITE-SPECIFIC ENVIRONMENTAL MANAGEMENT PLANNING | 13 |
| ATTACHMENTS..... | 14 |

CHAPTER 1. INTRODUCTION

Armenia is a small, landlocked, lower middle income country with an economy dominated by agriculture and nontradables and a negligible and declining manufacturing sector. The GDP of the country stood at US\$9.9 billion with a population of about 3.0 million in 2012.¹ The top contributors to GDP growth over the last decade were construction and agriculture sectors, which contributed respectively about 3 percent and 16.3 percent to GDP growth between 2000 and 2010. Some 40 percent of the workforce is employed in agriculture - a sector with low productivity and low wages.² Manufacturing experienced a severe decline over the decade falling from 18 percent of GDP in 2000 to 11.2 percent in 2012; with employment in manufacturing falling from 11 percent to 7 percent within the same time period.

Significant reforms have taken place in the National Quality Infrastructure in recent years. Since the adoption of the “Strategy for the Reform of the Republic of Armenia’s Quality Infrastructure (2010-2020) by the government in 2010, several major reforms have taken place; most notably:

- New laws on metrology, standardization, accreditation, and certification were adopted in 2012. This new legislation provides the basis for the development of the elements of the national quality infrastructure with the overall objective of obtaining international recognition.
- In line with the international best practice, an accreditation function was removed from the purview of the Ministry of Economy and an independent Accreditation Center was established earlier in 2014 with an accreditation council represented by public and private sector stakeholders.
- Technical specifications for products and services were divided into mandatory and voluntary categories – a significant milestone which reduces the regulatory burden on firms.

Nevertheless, Armenia’s national quality infrastructure suffers from significant weaknesses that hinder technology upgrading and undermine the competitiveness of its exports. Lack of modern quality infrastructure has severely constrained the ability of Armenian firms to move up the value chain or to find export markets. Most of Armenia’s potential export destinations, including the EU, USA and Russia, often require higher certification standards than those applied domestically. As identified in the report on Quality Infrastructure prepared by the World Bank³, less than half of Armenia’s domestic enterprises have obtained international quality certifications. The most important public institutions that make up Armenia’s quality infrastructure – in particular, the National Institute of Metrology (NIM) and the newly established National Accreditation Body (NAB) – are underfunded and perceived rather as instruments for state control rather than pillars of industrial competitiveness, and as a consequence lack credibility. Updating the management, skills and equipment of the institutes responsible for the national quality infrastructure is a necessary next step to ensure the effective implementation of the reforms.

The NAB is not fully able to fulfil its mandate and needs financial help as well as technical assistance to achieve its goal of International recognition in the future. During consultations

¹ World Development Indicators, The World Bank Group

² National Competitiveness Report of Armenia 2011/12, Economy and Values Research Center, EV Consulting CJSC, 2012

³ Upgrading the National Quality Infrastructure in the Republic of Armenia, World Bank 2011

with the private sector, firms indicated that due to the fact the few private laboratories that exist are not internationally accredited, firms have to send their products abroad to be tested, a prohibitively expensive endeavor that is unaffordable for most SMEs. The NAB has insufficient resources to meet the needs of the institution which includes among other things website design, creating an accreditation database, proficiency training for staff, translation of international regulations into Armenia, office renovations. Experience from other countries in the region shows that with the right amount of resources and support, the NAB may gain international recognition within five years.

CHAPTER 2. PROJECT DESCRIPTION

The proposed Trade Promotion and Quality Infrastructure (TPQI) Project aims to support the Government of Armenia in the development of a sustainable growth model that increases competitiveness and creates jobs, which is envisioned under “Cluster 1: Supporting Competitiveness and Job Creation” of Country Partnership Strategy (CPS) for FY14-17.

The Project builds on previous and ongoing projects financed by the World Bank, including the First Development Policy Operation which went to the Board in November 2013. TPQI Project is targeting several areas that will advance the objectives of this project including: i) streamlining inspections which will reduce the burden of running a business and rent-seeking opportunities; ii) enhancing access to credit through improved credit reporting, collateral regime, and debt work-out and bankruptcy procedures which will alleviate the biggest constraint on business expansion identified in SME surveys; iii) promoting industrial development and exports through increasing the efficiency and transparency of customs operations which will enhance the competitiveness of Armenian products and promote an expansion of the production of tradables with a high elasticity of employment; and iv) enhancing competition through liberalization of the aviation sector which will improve connectivity and promote the flow of people and ideas, as well as reduce the costs of trade. The Project will directly benefit from the IFC’s technical assistance in supporting the government in its investment policy reforms and also leverage its business environment programs in areas such as licensing and inspections.

The Project Development Objective (PDO) is to strengthen the enabling environment and firm capacity to increase private investments and exports.

The Project’s direct beneficiaries include both existing and potential exporters, including SMEs who will benefit from an improved quality of programs and services provided under a more efficient trade promotion and quality system. The Project beneficiaries will also include foreign-owned firms who exist and are going to invest in Armenia as well as local enterprises who will receive positive spillover effects from inward FDI. Furthermore, relevant government agencies will benefit from training activities implemented as part of the Project by strengthening the institutional capacity to provide their services more effectively. Finally, the Project will benefit universities, research institutions and enterprises by promoting industry-academia collaboration.

The Project will be comprised of four components:

Component 1. Improving the effectiveness of the trade promotion and quality system (result based financing)

Component 2. Promoting investment and export

Component 3. Modernizing the national quality infrastructure

Component 4. Project management and monitoring and evaluation.

Component 1 will promote reforms aimed at improving the Trade Promotion and Quality Infrastructure system, which will play an important role in developing a foundation for providing effective services to increase the competitiveness of firms. This component will include two main sets of activities: (i) Improving the Effectiveness of the Trade Promotion System; and (ii) Improving the Effectiveness of the National Quality Infrastructure System. This component is results-based and will therefore reimburse the government for agreed-upon actions, outputs and outcomes (“Disbursement-Linked Indicators” or DLIs) that result in improvements to the trade and quality activities.

Component 2 will strengthen government’s capacity to actively promote both efficiency seeking FDI and export of local firms through its restructured Investment and Export Promotion agency. Two main instruments will be applied to achieve this goal: (i) Cluster development public-private partnerships (PPPs) which will accelerate the upgrading of industries with export potential by financing the development of facilities that benefit from economies of scale and would be uneconomical if owned by a single company such as design centers, quality / testing laboratories and common logistics infrastructure; and (ii) Research and Development (R&D) PPPs which will be targeted at encouraging efficiency seeking FDI (primarily in high tech i.e., IT and Engineering services) to ramp up their level of engagement in the country by funding joint projects between multinationals and academia to develop enabling infrastructure, such as joint laboratories, innovation centers and R&D centers. Multinationals to be involved in R&D PPPs are not interested to invest in land, real estate or refurbishment or infrastructure. They expect the inviting parties to provide them fully furnished spaces equipped with basic office equipment and utilities. The government of Armenia will undertake public works for delivering premises and other infrastructure for R&D initiatives. Pilot projects for both instruments have been identified with the objective of spurring replication by other industries and multinationals. The project will also fund the PPP administration expenses including the hiring of a PPP expert.

Component 3 has an objective to modernize metrological and accreditation services to strengthen the competitiveness of local manufacturers. This component will have three main sets of activities: (i) Renovation of the industrial metrology building and laboratories, purchase of equipment for the laboratories and capacity building for National Institute of Metrology (NIM) staff, including the hiring of a Resident Advisor; (ii) Refurbishment of National Accreditation body (NAB) offices and capacity building of NAB staff, including the hiring of a Resident Advisor; and (iii) Development of database of catalogue of standards for National Institute of Standards (NIS).

Component 4 will support MoE on project implementation activities by identifying a team that will work on the project full time. This will finance consultants employed as part of the project implementation team including an overall Project Manager. This component will also finance necessary activities for adequate project management, specifically, support technical assistance and incremental operating costs for the MoE’s Project Management Group, ADA, IDF, NIM, NAB as well as FFPMC. This component will finance project audits, as well as any necessary beneficiary audits as per the project implementation plan.

Physical Investments under the Project

Component 3 will finance physical works for rehabilitation of premises of NIM and NAB to modernize metrological and accreditation services and strengthen the competitiveness of local manufacturers. Component 2 will support PPPs aimed at stimulation of DFI which would imply physical works to be undertaken by the Government of Armenia for the

provision of premises, other infrastructure and utilities for R&D initiatives picked by multilaterals for investment.

Works to be undertaken include renovation of a former building of the Optical Physics Institute to house the industrial metrology laboratories of NIM.

The building to be refurbished for NIM is situated to the west of the city center of Yerevan in A. Sargsyan Street (land register no. 01-001). The land plot allocated for the building makes 1,757.7 m² that includes the main building - 388.1 m², annex - 72.9 m² and garages - 75.6 m². The main building is classified for earthquake protection at “Class 7”. According to the regulations of the national Armenian authorities, buildings in the whole of Yerevan have to be upgraded to “Class 9”.

Due to sensitivity of NIM’s laboratory equipment to in-door climate, thermal insulation of external walls of the building will be required. For the same reason, some window openings will be sealed and remaining frames will be replaced. Roof reconstruction and insulation is also required. Planned works also include re-arrangement of interior walls and their equipment with thermal and noise insulation. All interior doors and laboratory flooring is to be replaced. Suspended ceilings will be installed. One of the staircases will be removed to install a lift, supply shafts and equipment servicing chambers. Refurbishment of NIM building will include also (a) sewage, water and gas installations; (b) provision of heat supply facilities; (c) installation of room ventilation systems; (d) installation of low-temperature systems; (e) electric power installations (f) provision of communication and information technology systems; (g) building automation and control systems.

The land plot allocated for the NIM building carries an old garage, which will be demolished. Instead, a new one-story building of about 60 m² will be built to house a boiler of the heating system, the emergency power supply device, and the electrical main distribution frame. This ancillary building would also provide some space of parking vehicles.

Refurbishment of premises for the NAB office within a large building shared by several institutions

Rehabilitation of the 466.5 m² office space for NAB will imply renovation of interior in a number of rooms to be used by the core staff and external consultants of NAB to be hired upon demand; arrangement of a meeting room, a storage room for keeping archives, and a kitchenette. Flooring, and plastering on ceilings and walls will be replaced, as well as window frames and internal doors. Internal piping will also be replaced.

Construction of premises and provision of utilities for R&D PPPs

At least one of the already identified PPP sub-projects will imply new construction for the provision of an “engineering city”, where multinationals interested in the investment into R&D initiatives will be provided with all needed basic infrastructure including office space, and utilities. The Government of Armenia will provide such infrastructure as the public elements of the PPP arrangement.

CHAPTER 3. LEGAL AND POLICY FRAMEWORK

3.1. National Legislation

The 10th Article of the Constitution of the Republic of Armenia (adopted in 1995 and amended in 2005) states the State responsibility for environmental protection, reproduction, and wise use of natural resources. Since 1991, more than 25 codes and laws as well as numerous by-laws and regulations have been adopted to protect the environment.

- Land Code (2001)

The Land Code defines the main directives for management use of the State lands, included those allocated for various purposes, such as agriculture, urban construction, industry and mining, energy production, transmission and communication lines, transport and other purposes. The Code defines the lands under the specially protected areas as well as other reserved lands. It also establishes the measures aimed to the lands protection, as well as the rights of State bodies, local authorities and citizens towards the land.

- Water Code (2002)

The main purpose of the Water Code is to provide the legal basis for the protection of the country's water resources, the satisfaction of water needs of citizens and economic sectors through effective management of water resources, and safeguarding the protection of water resources for future generations. The Water Code addresses the following key issues: responsibilities of state/local authorities and public, development of the National Water Policy (2005) and National Water Program (2006), water cadastre and monitoring system, public access to the relevant information, water use and water system use permitting systems, trans-boundary water resources use, water quality standards, hydraulic structures operation safety issues, protection of water resources and the State supervision.

- Mining Code (2011)

The code defines principles and rules of mining in the RA, the relations related to preservation and use of the deposits, conditions and requirements of efficient use, complex use and preservation of deposits, security of mining and protecting the environment from its negative impacts, as well as protection of rights of the state, citizens and users of deposits. According to the Code, natural deposits areas under the exclusive ownership of the state. They may be given out for use for a certain period of time, and cannot be privatized. The law also determines conditions, requirements and peculiarities of the natural resources and deposits. It also establishes payment principles, compensation, monitoring, and limitation for mining activities.

- Law on Environmental Impact Assessment (1995)

The Law on Environmental Impact Assessment (EIA), passed in 1995, provides legal basis for implementation and introduction of State expertise of planned activities and concept frameworks as well as presents the standard steps of the EIA process. The Law establishes general legal, economic, and organizational principles for conducting mandatory State EIA of various types of projects and concepts of sectorial development. Construction of the AOC premises fall under the category of activities requiring EIA and the Government's positive conclusion on its outcomes.

- Law on Ensuring Sanitary-epidemiological Security of the RA Population (1992)

The Law "On Ensuring Sanitary-Epidemiological Security of the RA Population" was adopted in 1992, which sets legal, economic and institutional bases for ensured sanitary and epidemiological safety of the population, as well as other guaranties provided for by the

State to exclude influence of adverse and hazardous factors on human organism and ensure favourable conditions for vital capacity of the present and future generations.

- Law on Atmospheric Air Protection (1994)

The objective of the Law is to provide the cleanness of the atmospheric air, elimination and prevention of the negative impact on the atmospheric air, as well as regulation of public relations in this field. The Law defines norms of permissible amount of concentrations and physical negative impact as well as norms of permissible pollution from movable and immovable sources.

- Law on Environmental and Nature Use Charges (1998)

This Law regulates calculation of payments for various types of nature protection and nature utilization activities (hereinafter payments), the order of their processing, liability in case of violation of the law, and other relations.

- Law on Rates of Nature Protection Payments (2006)

This Law sets rates for nature protection payments and the mechanism of their calculation. The law specifies the rates of the payments for emission of harmful substances to the air from the cars, tracks used and owned by RA individuals and legal entities. Higher rates are set for Yerevan and specially protected areas. The law defines the rates of the payments for emission of harmful substances and combinations to the water basin.

- Law on Wastes (2004)

The law regulates legal and economic relations connected to the collection, transfer, maintenance, development, reduction of volumes, prevention of negative impact on human health and environment. The law defines objects of waste usage, the main principles and directions of state policy, the principles of state standardization, inventory, and introduction of statistical data, the implementation of their requirements and mechanisms, the principles of wastes processing, the requirements for presenting wastes for the state monitoring, activities to decrease the amount of the wastes, including nature utilization payments, as well as the compensation for the damages caused to the human health and environment by the legal entities and individuals, using the wastes, as well as requirements for state monitoring and legal violations.

- Law on Environmental Oversight (2005)

This Law regulates the issues of organization and enforcement of oversight over the implementation of environmental legislation of the Republic of Armenia, and defines the legal and economic bases underlying the specifics of oversight, the relevant procedures, conditions and relations, as well as environmental oversight in the Republic of Armenia.

The main difference between the national environmental legislation and the World Bank environmental policy is that the national law only distinguishes between the types of activities that require environmental impact assessment and those that do not require any environmental procedure. There is no classification of activities by the extent of their environmental risks into categories A, B, and C. Furthermore, the national law on Environmental Impact Assessment (EIA) uses the term "EIA" to describe expert review of a project performed by the State environmental authority, while the conventional international understanding of EIA is that this is a process of studying and exploring environmental impact of a proposed project by the project proponent or by a third party engaged. The EIA law of the Republic of Armenia does not specify a format of an EIA report and does not refer to an EMP either.

3.2. Licenses and permits to be obtained by the project proponent and by works contractor to carry out project activities

- Civil license in the area of designing and engineering urban development and capital construction to be held by a design company providing consultant services.
- Civil license in the area of capital construction to be held by a construction company providing works.
- Conclusion on seismic stability to be issued by a licensed organization that proves that a building meets the established level of earthquake resistance.
- Agreements from the local municipalities for disposal of excavated materials and construction wastes in the approved dump sites to be obtained by construction contractors prior to transportation and disposal of construction waste.

3.3. World Bank Safeguard Policies Triggered

The TPQI Project will finance physical works for the reconstruction of buildings, which may have certain negative environmental and social impacts. Therefore the Project triggers World Bank's OP/BP 4.01 *Environmental Assessment*. Because the environmental and social risks associated with the physical investments to be undertaken under the Project are moderate, confined to the Project sites, and limited to the construction period, the TPQI Project is classified as environmental Category B. According to the national legislation, works to be financed from the proceeds of the TPQI do not require EIA and the State ecological examination, however OP/BP 4.01 calls for application of the environmental and social due diligence, including environmental management planning.

By the time of TPQI Project appraisal, detailed designs of works are not available for all investments included into the Project's work plan however the environmental and social risks related to all individual activities are well known ahead, pretty similar and insignificant. Because of the above, the present Environmental and Social Management Framework (ESMF) is developed, which describes the main types of expected environmental and social impacts of the expected Project investments, and provides a generic set of their mitigation measures. ESMF also provides guidance for screening upcoming investment proposals, so that no activity gets supported if, by chance, it is associated with higher risks than a Category B project should finance. Site-specific EMPs will be prepared for individual investments once detailed designs get ready for them. Present ESMF carries a suggested template of an EMP Checklist for Small Construction and Rehabilitation Activities (attachment I).

CHAPTER 4. TECHNICAL AND ENVIRONMENTAL STANDARDS AND REGULATIONS

National Technical Standards

According to the norms defined in No 24-N of the Minister of Urban Development dated February 3, 2006, buildings resistant to earthquakes of 8 point magnitude and above are acceptable in the Republic of Armenia. If a new building is to be constructed with the project support, then the design should conform to the above mentioned norms. Buildings suggested

for rehabilitation under TPQI Project will be checked for the existence of a structural damage and for seismic stability. An existing building may be approved for rehabilitation under the condition that it is reinforced in the manner sufficient to address incurred structural damage and achieve the established standard of seismic stability.

Construction of new buildings is subject to environmental impact assessment (EIA) and ecological expertise by the national authority. According to the Armenian legislation, EIA is a procedure carried out by the State authority and results in the issuance of a positive or a negative conclusion, based on which the proposed construction would be either cleared to proceed or banned.

World Bank Regulations

The TPQI Project triggers the World Bank OP/BP 4.01 *Environmental Assessment* and OP/BP 4.12 *Involuntary Resettlement*. The present ESMF is developed in conformity with the guiding principles of the OP/BP 4.01. Following the requirements of this policy and the outline provided in the present ESMF, site-specific Environmental Management Plans (EMPs) will be prepared, disclosed, and opened for comments from stakeholders prior to tendering of works. Requirements of OP/BP 4.12 are met by producing of a separate Resettlement Policy Framework document, which provides guidance on the identification of possible needs of resettlement and on the development of resettlement action plans as required.

CHAPTER 5. ENVIRONMENTAL SCREENING

The TPQI Project will finance refurbishment and construction of NIM and NAB under the Component 3 of TPQI project. Small construction and rehabilitation works may be undertaken as part of the PPP sub-projects to be financed under the Component 2. The envisaged civil works will have modest local environmental and social impacts, which would be easy to mitigate by ensuring that works providers adhere to the conventional good construction and environmental practices. The Project triggers OP/BP 4.01 and, based on the principles of this Policy, is classified as environmental Category B. All individual investments to be financed under the TPQIP must fall under environmental Category B, and no Category A activities will be eligible for the Project support.

CHAPTER 6. POTENTIAL SENSITIVE RECEPTORS AND POSSIBLE HAZARDS

NIM and office space of NAB are located in Arabkir district of the capital city of Yerevan. NAB space is a part of a larger building, other parts of which are used by other institutions. Therefore, works to be undertaken for refurbishment of the NAB premises may cause nuisance to institutions which will have to continue functioning during works.

NIM building is located not in very densely populated district and has good vehicle access from all sides. On-site storage of materials and waste is not challenging either. The building does not meet the national standards of seismic stability. Although the administration of NIM did not request addressing this matter, the building needs to be structurally reinforced. Cost estimation for its refurbishment was carried out in January 2014 by the experts of German TÜV Rheinland Industrie Service GmbH (technical report no. 124328142 dated 22.01.2014).

This report includes evaluation of the structural condition of the construction and lays out a blueprint of action to upgrading its stability to an acceptable level.

The building of NIM for rehabilitation has significant structural damage and is seismically not stable. Upgrading the building for resisting earthquakes of Class 9 is a national standard requirement and the design will include all works necessary for reinforcement of the building. Conclusion on its seismic stability will be obtained after reconstruction works prior to commissioning of the building.

Rehabilitation works within settlements always carry a set of common risks of generating dust, vibration and noise; polluting soil and groundwater from oil and lubricant leakages; polluting surroundings with construction waste and improper final disposal of construction waste; deteriorating of landscape and its aesthetic value in case of new construction.

One additional risk is associated with new construction sub-projects, which is their potential impact on the private land and other property, and its use.

Operation phase impacts are also conventional and are limited to poorly organized collection of household waste; improper maintenance of the land plot area around the buildings, poor drainage of storm water and delayed removal of snow; leaking roofs and water pipes due to irregular checking and repair.

CHAPTER 7. IMPACT MITIGATION

Prior to commencement of works and at the early stage of construction, the Project implementing entity should ensure that all required licenses and permits are in place, including those to be obtained by the project implementing entity and by the construction contractor.

Work sites should be properly demarcated and fenced; warning signs installed; and safe pedestrian and traffic movement allowed around work sites.

Working hours should be observed; machinery should be kept in good working condition and idling of engines should be prohibited to reduce noise. Watering of construction sites in dry weather and during operations that generate excessive dust should be required. Construction machinery and equipment should be serviced and fueled outside construction sites and no hazardous waste from machinery, such as used tires, oils and filters should be scattered on site.

Construction materials and waste should be piled in especially allocated spots of the construction site and be periodically out-transported to avoid excessive accumulation.

Construction materials and waste should be transported under covered hoods of trucks.

Construction workers and personnel should have access to safe drinking water and toilets. First aid medical kits should be available on site, as well as fire extinguishing kits. Workers and personnel should be supplied with uniforms and relevant personal safety gear. Use of safety equipment must be enforced.

Construction waste should be disposed in especially allocated locations agreed with the municipality of Yerevan.

Sub-projects implying new construction will be carefully screened for a potential need for private land take, temporary or permanent restriction of land/property use, and for the existence of any informal land use in the State-owned plots allocated for construction. Depending on the outcome of screening, Resettlement Action Plans may have to be developed following the guidance of Construction contractor will be instructed to take activity on hold in case of chance finds during earth works, to immediately notify the client, and to resume works only upon receiving formal notification from the client.

Upon completion of physical activity on site, area should be cleared from any remaining materials and waste, and harmonized with the surroundings.

Under the TPQI Project, the renovation managers will be hired to support institutional changes in NIM and NAB. Administrations of NIM and NAB, together with the renovation managers will be responsible for proper maintenance of the rehabilitated premises and the businesses housed in the buildings provided by the Government through the public-private partnership arrangements will carry out operation and maintenance of their offices in the operation phase. This would include servicing of internal communications, removal of household waste, and timely repair of possible minor damages.

CHAPTER 8. ENVIRONMENTAL AND SOCIAL MONITORING

The Ministry of Economy (MoE) is the implementing entity for TPQI Project and will carry overall responsibility for its environmental and social compliance. MoE, through the Project Management Group (PMG) comprised of the ministerial staff designated to work on the TPQI Project and the hired consultants, will conduct day to day safeguards work, including development of site-specific EMPs, and field supervision of works. A licensed consultant company will be hired for the technical supervision of work, which will include environmental and social monitoring of sub-projects. Supervisor will produce monthly field monitoring reports using the checklist attached to this ESMF. The PMG will ensure quality of supervising company's work by review of their reports and by verification of information through spot-checking field visits of PMG's own staff. PMG will also be responsible for reacting on any issues reported by the supervision company and organizing remedial actions as required. Based on the information provided by the supervision company on monthly basis, PMG will produce periodic overviews of the status of environmental and social compliance of civil works to be included into the regular TPQI Project progress reports and furnished to the World Bank.

CHAPTER 9. STAKEHOLDER CONSULTATION

The present ESMF will be disclosed through the web page of MoE in Armenian and English languages and a public consultation meeting will be held to discuss it with stakeholders. The ESMF will then be finalized, and the minutes of the consultation meeting will be attached. The finalized document will be re-disclosed in-country and through the World Bank's electronic database.

(Minutes of such meeting will be attached at the end of the present ESMF)

Consultation on the Site-Specific EMPs

All draft site-specific EMPs, once developed, will be disclosed through the web page of MoE in Armenian and English languages and several hard copies in Armenian language will be placed in the offices of local governments for convenient access by the project-affected communities. MoE will consult with implementing agencies on the most convenient and adequate format and medium for engaging affected communities into commenting on the EMPs. Received feedback will be incorporated into the final versions of EMPs and the EMPs will then be re-disclosed.

CHAPTER 9. SITE-SPECIFIC ENVIRONMENTAL MANAGEMENT PLANNING

The PMG will carry out environmental and social screening of the proposed investments. Once a building is confirmed for rehabilitation under the Project, or a land plot is identified for construction, PMG will inspect the area in order to identify environmental and social risks associated with the proposed works in the given location. At this stage, the environmental classification of the proposed sub-project will be undertaken and in an unlikely case of a sub-project falling under environment Category A, it will be rejected. Assessment of structural integrity and seismic stability of buildings suggested for rehabilitation will also take place at this stage of sub-projects' screening.

For the sub-projects approved by MoE and the World Bank for further elaboration, the detailed design will be developed and site-specific EMP will be produced. The PMG will use consultant services for the design of works and for the environmental management planning. Construction of new buildings is subject to the environmental impact assessment and issuance of a positive conclusion of environmental expertise by the State authority, and the PMG will be responsible for the compliance with these requirements of the national legislation. MoE will authorize tendering of works for each such sub-project upon receipt of a positive conclusion of the ecological expertise. The PMG will include EMPs into tender packages and will attach EMPs to works contracts, making their implementation mandatory for works contractors. In case a works provider violates requirements of EMP or otherwise causes environmental damage, then the PMG, through its environmental consultant, will work out a time-bound plan for damage liquidation and the contractor will be obligated to implement it. Works contracts shall, therefore, carry adequate provisions for imposing environmental damage liquidation upon contractors.

The PMG will hire a licensed technical supervisor of works, and will include environmental supervision into the terms of reference of such supervisor. The supervision consultant will be obligated to produce monthly environmental supervision reports of all active sub-projects. Overall responsibility for the environmental and social compliance under TPQI Project will rest with the MoE and the PMG under it. Therefore, the in-house environmental consultant of the PMG will be mandated to assure quality of environmental and social monitoring of works undertaken by the technical supervisor. This would imply verification of information provided by the technical supervisor through occasional spot-checks on site. Environmental consultant to the PMG will also be expected to inform the PMG management and MoE on any outstanding issues that may arise in the course of civil works, and to propose relevant course of corrective action.

The PMG will be responsible for reporting on TPQI Project progress to MoE and the World Bank. Providing information on the environmental and social compliance will be an integral part of the project progress reporting. The PMG reports will contain analytical information

on the overall status of environmental and social compliance of works within the report period, will flash out issues encountered and remedial measures applied. Monthly field environmental monitoring checklists provided by technical supervisor to the PMG will be attached to PMG's progress reports.

ATTACHMENTS

Attachment I: Environmental Management Checklist for Small Construction and Rehabilitation Activities

Attachment II: Field Monitoring Checklist for Environmental Supervision of Works

Attachment III: Minutes of Public Consultation Meeting(s)

Attachment I

Environmental Management Checklist for Small Construction and Rehabilitation Activities

General Guidelines for use of EMP checklist:

For low-risk topologies, such as school and hospital rehabilitation activities, the ECA safeguards team developed an alternative to the current EMP format to provide an opportunity for a more streamlined approach to preparing EMPs for minor rehabilitation or small-scale works in building construction, in the health, education and public services sectors. The checklist-type format has been developed to provide “example good practices” and designed to be user friendly and compatible with safeguard requirements.

The EMP checklist-type format attempts to cover typical core mitigation approaches to civil works contracts with small, localized impacts. It is accepted that this format provides the key elements of an EMP or Environmental Management Framework (EMF) to meet World Bank Environmental Assessment requirements under OP 4.01. The intention of this checklist is that it would be applicable as guidelines for the small works contractors and constitute an integral part of bidding documents for contractors carrying out small civil works under Bank-financed projects.

The checklist has three sections:

Part 1 includes a descriptive part that characterizes the project and specifies in terms the institutional and legislative aspects, the technical project content, the potential need for capacity building program and description of the public consultation process. This section could be up to two pages long. Attachments for additional information can be supplemented when needed.

Part 2 includes an environmental and social screening checklist, where activities and potential environmental issues can be checked in a simple Yes/No format. If any given activity/issue is triggered by checking “yes”, a reference is made to the appropriate section in the following table, which contains clearly formulated management and mitigation measures.

Part 3 represents the monitoring plan for activities during project construction and implementation. It retains the same format required for EMPs proposed under normal Bank requirements for Category B projects. It is the intent of this checklist that Part 2 and Part 3 be included into the bidding documents for contractors, priced during the bidding process and diligent implementation supervised during works execution.

CONTENTS

- A) General Project and Site Information**
- B) Safeguards Information**
- C) Mitigation Measures**
- D) Monitoring Plan**

PART A: GENERAL PROJECT AND SITE INFORMATION

| INSTITUTIONAL & ADMINISTRATIVE | | | |
|---|---|---|----------------------------|
| Country | | | |
| Project title | | | |
| Scope of site-specific activity | | | |
| Institutional arrangements (WB) | Task Team Leader: Feyi Boroffice | Safeguards Specialist: Darejan Kapanadze | |
| Implementation arrangements (RoA) | Implementing entity: Ministry of Economy | Works supervisor: (tbd) | Works contractor: (tbd) |
| SITE DESCRIPTION | | | |
| Name of institution whose premises are to be rehabilitated | | | |
| Address and site location of institution whose premises are to be rehabilitated | | | |
| Who owns the land? Who uses the land (formal/informal)? | | | |
| Description of physical and natural environment around the site | | | |
| Locations and distance for material sourcing, especially aggregates, water, stones? | | | |
| LEGISLATION | | | |
| National & local legislation & permits that apply to project activity | | | |
| PUBLIC CONSULTATION | | | |
| When / where the public consultation process will take /took place | | | |
| ATTACHMENTS | | | |
| Attachment 1: Site map/photo | | | |
| Attachment 2: Construction permit (as required) | | | |
| Attachment 3: Agreement for construction waste disposal | | | |
| Others – as required | | | |

Information on works supervisor, works provider (contractor), and the attachments will be provided later, prior to mobilization of a selected works provider to a work site

PART B: SAFEGUARDS INFORMATION

| ENVIRONMENTAL /SOCIAL SCREENING | | | |
|--|--|--|----------------------------|
| | Activity/Issue | Status | Triggered Actions |
| Will the site activity include/involve any of the following? | A. Building rehabilitation | <input type="checkbox"/> Yes <input type="checkbox"/> No | See Section A below |
| | B. New construction | <input type="checkbox"/> Yes <input type="checkbox"/> No | See Section A below |
| | C. Individual wastewater treatment system | <input type="checkbox"/> Yes <input type="checkbox"/> No | See Section B below |
| | D. Historic building(s) and districts | <input type="checkbox"/> Yes <input type="checkbox"/> No | See Section C below |
| | E. Acquisition of land ⁴ | <input type="checkbox"/> Yes <input type="checkbox"/> No | See Section D below |
| | F. Hazardous or toxic materials ⁵ | <input type="checkbox"/> Yes <input type="checkbox"/> No | See Section E below |
| | G. Impacts on forests and/or protected areas | <input type="checkbox"/> Yes <input type="checkbox"/> No | See Section F below |
| | H. Handling / management of medical waste | <input type="checkbox"/> Yes <input type="checkbox"/> No | See Section G below |
| | I. Traffic and Pedestrian Safety | <input type="checkbox"/> Yes <input type="checkbox"/> No | See Section H below |

⁴ 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.

⁵ Toxic / hazardous material includes but is not limited to asbestos, toxic paints, noxious solvents, removal of lead paint, etc.

PART C: MITIGATION MEASURES

| ACTIVITY | PARAMETER | MITIGATION MEASURES CHECKLIST |
|---|--------------------------------|--|
| 0. General Conditions | Notification and Worker Safety | <ul style="list-style-type: none"> (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 and/or rehabilitation (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 Rehabilitation and /or Construction Activities | Air Quality | <ul style="list-style-type: none"> (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 | <ul style="list-style-type: none"> (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 | <ul style="list-style-type: none"> (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 | <ul style="list-style-type: none"> (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 | <ul style="list-style-type: none"> (a) The approach to handling sanitary wastes and wastewater from building sites (installation or reconstruction) 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 | <ul style="list-style-type: none"> (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. |

| ACTIVITY | PARAMETER | MITIGATION MEASURES CHECKLIST |
|---|---|---|
| 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 an 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: <ul style="list-style-type: none"> ▪ 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 <ul style="list-style-type: none"> ▪ 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. |

PART D: MONITORING PLAN

| Activity | What (Is the parameter to be monitored?) | Where (Is the parameter to be monitored?) | How (Is the parameter to be monitored?) | When (Define the frequency / or continuous?) | Why (Is the parameter being monitored?) | Who (Is responsible for monitoring?) |
|---------------------------|--|---|---|--|---|--|
| CONSTRUCTION PHASE | | | | | | |
| 1. | | | | | | |
| 2. | | | | | | |
| ... | | | | | | |
| n. | | | | | | |
| OPERATION PHASE | | | | | | |
| 1. | | | | | | |
| 2. | | | | | | |
| ... | | | | | | |
| n. | | | | | | |

Attachment II

Monthly Field Environmental Monitoring Checklist

| | | | | | |
|--|--------|-----------|----|-----|----------|
| Site location | | | | | |
| Name of contractor | | | | | |
| Name of supervisor | | | | | |
| Date of site visit | | | | | |
| Status of civil works | | | | | |
| Documents and activities to be examined | Status | | | | Comments |
| | Yes | Partially | No | N/A | |
| Contractor holds license for extraction of natural resources | | | | | |
| Contractor holds permit for operating concrete/asphalt plant | | | | | |
| Contractor holds agreement for final disposal of waste | | | | | |
| Contractor holds agreement with service provider for removal of household waste from site | | | | | |
| Work site is fenced and warning signs installed | | | | | |
| Works do not impede pedestrian access and motor traffic, or temporary alternative access is provided | | | | | |
| Working hours are observed | | | | | |
| Construction machinery and equipment is in standard technical condition (no excessive exhaust and noise, no leakage of fuels and lubricants) | | | | | |

| | | | | | |
|---|--|--|--|--|--|
| Construction materials and waste are transported under the covered hood | | | | | |
| Construction site is watered in case of excessively dusty works | | | | | |
| Contractor's camp or work base is fenced; sites for temporary storage of waste and for vehicle/equipment servicing are designated | | | | | |
| Contractor's camp is supplied with water and sanitation is provided | | | | | |
| Contractor's camp or work base is equipped with first medical aid and fire fighting kits | | | | | |
| Workers wear uniforms and protective gear adequate for technological processes (gloves, helmets, respirators, eye-glasses, etc.) | | | | | |
| Servicing and fuelling of vehicles and machinery is undertaken on an impermeable surface in a confined space which can contain operational and emergency spills | | | | | |
| Vehicles and machinery are washed away from natural water bodies in the way preventing direct discharge of runoff into the water bodies | | | | | |
| Construction waste is being disposed exclusively in the designated locations | | | | | |
| Extraction of natural construction material takes place strictly under conditions specified in the license | | | | | |

| | | | | | |
|---|--|--|--|--|--|
| Excess material and topsoil generated from soil excavation are stored separately and used for backfilling / site reinstatement as required | | | | | |
| Works taken on hold if chance find encountered and communication made to the State agencies responsible for cultural heritage preservation | | | | | |
| Upon completion of physical activity on site, the site and contractor's camp/base cleared of any remaining left-over from works and harmonized with surrounding landscape | | | | | |

Attachment II
Minutes of Public Consultation Meeting