**Afghanistan Independent Land Authority-Arazi (AILA)**

**Project Preparation Grant (PPG)**
**for**
**Support to the Afghanistan Independent Land Authority-Arazi Project**

# Site Specific Environmental Management Plan

# EMP

**For**
**Upgrading and renovation of AILA's office facilities**

**June-2016**

## Table of Contents

**List of Acronyms**

| | |
|---|---|
| AILA-Arazi | Afghanistan Independent Land Authority-Arazi |
| ARCP | Afghanistan Resource Corridor project |
| BoQ | Bill of Quantity |
| CCMP | Contractor Camp Management Plan |
| EHS | Environmental Health and Safety |
| EMP | Environmental Management Plan |
| GOA | Government of (the Islamic Republic of) Afghanistan |
| GRM | Grievance Redress Mechanism |
| IFC | International Finance Corporation |
| LGAF | Land Governance Assessment Framework |
| NCR | Non Compliance Report |
| NEPA | National Environmental Protection Authority (Afghanistan) |
| NGOs | Non-Government Organizations |
| OP/BP | Operation Policy/Bank Policy |
| PDO | Project Development Objective |
| PPE | Personal Protection Equipment |
| PPG | Project Preparation Grant |
| QA | Quality Assurance |
| SFO | Safeguards Focal Point |
| WB | World Bank |

## 1. Support to AILA-ARAZI Project Background

The project is designed as primarily a technical assistance (TA) project that will prepare and strengthen the newly independent Arazi for its tasks as a transparent and responsive service provider in the land sector. Development of policies, regulations and implementation procedures and respective staff capacity will be driven by a gender-sensitive and pro-poor approach, which will facilitate the role of the land sector in equitable economic growth and employment generation. The project will build on the assistance and earlier achievements of land sector support interventions. This particularly includes the assistance to Arazi provided under the Afghanistan Resource Corridor project (ARCP). The Land Governance Assessment Framework (LGAF) study (currently being conducted) will provide further guidance for the detailed project design. Specifically, the proposed project will consist of four components focused on institutional strengthening and capacity building of Arazi through the development of an administrative system of land registration, policy and land access, which are further described below.

### 1.1 Project Objective

The Project Development Objective (PDO) of the operation is to support the Afghan Government to develop the policy and regulatory framework and build capacity to deliver transparent, pro-poor land services. The project aims to support:

a. the establishment of an affordable and accessible land registration system;
b. raising public awareness, knowledge and understanding about laws and regulations governing the land sector;
c. developing processes and service standards for Arazi's core functions;
d. improving the implementation capacity of the Afghan Government to deliver its services;
e. The effective and efficient use of state land for equitable socio-economic development.

### 1.2 Objectives of the PPG

- Support development of implementation of rules and procedures (regulatory framework)
- Support to field testing in Herat Province
- Support formulation of the actual 'Arazi Support Project'; a TA project focusing on institutional development in the land sector
- Support for the formulation of a comprehensive National Priority Program for the land sector (NPP-Land)

### 1.3 Project Components

*Component 1: Development of a Modern Land Registration System*

*Component 2: Strengthening Land Policy and Regulatory Framework*

*Component 3: Land Access*

*Component 4: Project Management*

*Subcomponent 4.1. Project Management*

*Subcomponent 4.2. Monitoring and Evaluation*

## 2. Project Preparation Grant (PPG) for support to the AILA-Arazi Project

### 2.1 Scope of PPG and supported activities

Main activities under the PPG are as following:

- Formulation of bylaws, regulations for implementation of LML/ARAZI Law and Land Acquisition Law (LAL)
- Supporting coordination structures
- Preparation of PAD for Arazi Support Project (with WB Team)
- Formulation of NPP-Land
- Start establishment of PIU

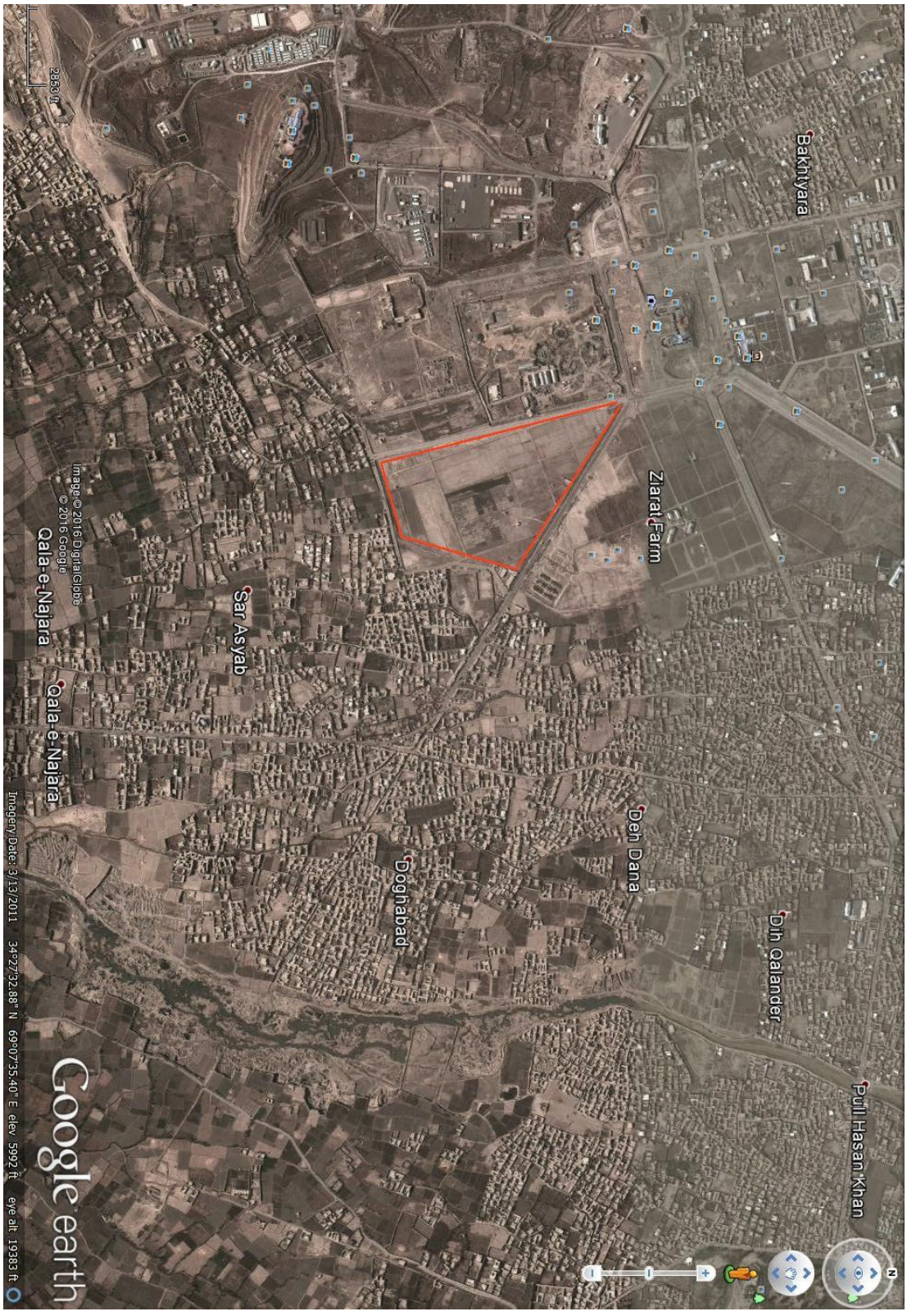
### Subproject Description

Under the sub-component 4.1 (Project Management), one of the planned activities is to provide renovated, security-enhanced office space and office equipment, which will be implemented by the Afghanistan Independent Land Authority- Arazi (AILA).
The planned activities under the PPG involve limited civil work such as: renovation of AILA's office facilities, upgrading security features, erecting new partition walls, installation of pre-made portable offices for customer services and few minor extensions in the existing building. The renovation activities will last for duration of 120 days after the start of physical works.
These renovation activities will be strictly limited to upgradation of existing AILA building, while basics standards comprises a series of requirements such as life safety, prevention of contamination of water and use of buildings by all building users, including access ramp for disabled people, fire alarm and extinguisher system as guided in the WBG EHS Guidelines will be taken into consideration.

### 2.2 Description of site location

Afghanistan Independent Land Authority- (AILA) or Arazi's facilities are located in District-7, opposite to Darul-Aman Palace in Kabul city. The AILA's facilities are located near the agricultural demonstration plot called Pilawari farm and connected through a secondary road. The nearest residential area from the proposed intervention area is over 200 meters away, where a minimum negative impacts from the rehabilitation can be envisaged.

**See below figure-1 location map of AILA's facilities.**



## 3. Environmental Management Plan (EMP)

### 3.1 Introduction

The following site specific Environmental Management Plan (EMP) is prepared to outline the types of control measures that must be implemented to reduce environmental risks during implementation of civil works for upgrading or for renovating AILA's office facilities under the PPG for support to the Arazi project. The potential environmental risks and the mitigation measures are identified under tables 1.2a -1.2b & 1. 2c below and will be implemented during project implementation.

The site specific EMP complies with the World Bank OP/BP 4.01 on environmental assessment and national legislation.

The civil works for renovation and upgrading works of AILA's office facilities will include the EMP and the estimated budget for implementation of the EMP, and that each contract for such civil works include the obligation of the relevant contractor to comply with the EMP applicable to such civil works commissioned/awarded pursuant to said contract.

Arazi will appoint an experienced professional responsible as a focal point for oversight of environmental safeguards management within AILA-Arazi.

The Arazi safeguards focal point will take all measures necessary to regularly collect, compile, and submit to the World Bank, as part of the Project Reports, information on the status of compliance with the EMP.

### 3.2 Purpose

The primary purpose of an EMP is to mitigate/reduce potential environmental impacts of planned activities and to ensure that all identified environmental risks expected to occur during renovation works for AILA's facilities are reduced to an acceptable level.

This will be achieved through engagement of all relevant parties in environmental management. In particular, this will include integrating environmental and social management planning with design, rehabilitation methods and operation planning. The requirements of this plan are applicable to all on-site work carried out. All contractors and suppliers will be bound to comply with the requirements of this plan, in so far as they are applicable to the nature and scope of their work.

The scope of this plan embraces the risks created by the design of the Project, the short-term risks that will arise during the rehabilitation (the works the project is paying for) and any long-term risks that are influenced by the rehabilitation methods.

The EMP:

- Draws together the measures proposed to mitigate negative, and to maximize positive, environmental impacts, and groups them logically into components with common themes;

- Define a proposed institutional structure to govern the implementation of the EMP;
- Defines the specific actions required, roles and responsibilities for these actions, timetables for implementation, and associated costs; and
- Describes capacity building and training requirements for the implementation of the EMP.

### 3.3 Legislative and Policy Considerations

Legislation and policies that are relevant to renovation of AILA's facilities are summarized in Table 1.1.

Table 1.1: Summary of relevant legislation and policies

| **Jurisdiction** | **Legislation or Policy** | **Relevance** |
|---|---|---|
| World Bank | Operational Policy 4.01 | Environmental assessment |
| Govt. of Afghanistan | Environmental Law (2006)<br><br>WBG EHS Guideline www.ifc.org/ehsguidelines | Environmental impact assessment and management<br>Environmental health and safety |
| | NEPA Pollution Control and Management in Afghanistan | Policy discussion |
| | Afghanistan Labor Law | |

### 3.4 Summary of Environmental Impacts

#### 3.4.1 Potential Negative Environmental impacts

The environmental impacts associated with the civil works include managing removal of construction wastes. Other impacts are noises and dust. These impacts are low to medium level and thus readily reversed or effectively managed with mitigation measures outlined in the relevant table.

- **Erosion:** No land erosion has been sought during building renovation.
- **Dust and Noise:** These impacts will be from low-to-high in intensity are reversible and can be easily managed. Most of rehabilitation work will be minor and will be done manually and renovation work will be conducted only during daylight timeframe, therefore the envisaged noise and dust pollution would be from minimal to modest.
- **Construction Waste:** No huge waste will be generated from building reconstruction, while the wastes and debris will be either recycled or will be disposed-off in coordination with Kabul Municipality.
- **Vibration and Fuel:** No vibration and fuel will be used during building renovation.

- **Traffic Flow:** The site is located outside of the city with adequate distance from residential area. The site is been connected with distinct road and no negative impacts from the traffic is foreseen.

### 3.4.2 Potential Negative Social impacts

No social safeguards impacts are expected under the planned civil work for renovation of AILA's facilities because the work will be implemented in the premise of Arazi facilities. However, there might be workplace complaints arising during renovation activities, for which the GRM procedures as outlined in the EMP will be followed.

## 4. Environmental Management

AILA-Arazi team identified environmental and social risks and recommended adoption of specific mitigation measures to either:

- Reduce risks assessed as high or medium to low, or
- Ensure that risks assessed as low do not increase.

The following sections provides guidance to relevant parties for implementation of the environmental mitigation measures:

I. Management of Asbestos: In the event of finding asbestos in the main building the physical renovation/rehabilitation works will be stopped by contractor and referred to WBG EHS guidelines *Good Practice Note: Asbestos: Occupational and Community Health Issues* [1]

II. Construction Waste Management: In coordination with Kabul Municipality, the Contractor is obliged to dispose the construction waste in the pre-identified area, and recorded in a logbook to ensure proper and effective day to day debris management.

### 4.1 General Guidelines for Contractor

The contractor is responsible to strictly follow-up the reporting, compliance/non-compliance aspects of the guidelines for contractor, annexe 2- in order to avoid use of burrow pits, clearing of vegetation including cutting of trees and other activities which may not be expected during rehabilitation activities. The contractor will work closely in coordination with the project Safeguard Focal Point.

### 4.2 EMP Cost

The EMP matrix includes estimated cost of various activities under the PPG for Support to Arazi project. The costs are based on the estimations of the AILA-Arazi team which could vary based on the specific mitigation activities and the contractor financial estimate, which will be submitted during bidding process.

[1] https://siteresources.worldbank.org/EXTPOPS/Resources/AsbestosGuidanceNoteFinal.pdf

### 4.2 Environmental Management Plan

#### 4.2.1 Pre Rehabilitation Phase

Table 1.2a – Implementation of Tendering Phase Mitigation Measures

| Activities/ Concerns | Potential impacts | Assessed Risk level | Mitigation measures | Monitoring Indicators | Institutional Responsibilities | | Estimated Cost $ |
|---|---|---|---|---|---|---|---|
| | | | | | Implementation | Supervision | |
| Pre-bidding | -Submission of tenders that fail to address environmental issues.<br><br>- contractor failure to attend pre bid meeting and<br>-contractor failure to understand environmental issues relating to bid preparation | medium | Introduce requirement for mandatory attendance at pre-bid meetings as a requirement for submission of a conforming tender<br>- Include site inspection on pre-bid meeting agenda<br>- Provide details of environmental and social requirements to Contractors in the bidding | Potential bidders advised in writing of mandatory attendance at pre-bidding meetings as a requirement of tender.<br><br>Site inspection included as part of pre-bid meeting<br><br>EMP included in bidding documents | AILA-Arazi PPG support to Arazi project Manager and AILA-Arazi Procurement Manager | AILA-Arazi Safeguards Focal Officer (SFO) | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | documents | | | | |
| Bid evaluation | -Selection of Contractor with little or no understanding of environmental requirements,<br>- Selection of Contractor that has made no allowance for environmental requirements in determining bid price<br>- Limited implementation of environmental requirements<br>- failure to take environmental requirements into account during bid evaluation | medium | -Include environmental requirements in BOQ<br>- Provide recognition of contractor costing of environmental and social items in bid evaluation<br>- Include environmental expertise on the bid evaluation committee. | Modified BOQs include environmental mitigation measures<br><br>Bid evaluations include assessment of contractors' costs for implementing environmental mitigation measures.<br><br>AILA- Arazi safeguards focal point sits on the bid evaluation panel | AILA-Arazi PPG support to Arazi project Manager and AILA Procurement Manager | AILA-Arazi | |

Table 1.2b – Implementation of Pre- rehabilitation Phase Mitigation Measures

| **Activities** | **Potential impacts** | **Assessed Risk level** | **Mitigation measures** | **Monitoring Indicators** | **Institutional Responsibilities** | | **Estimated costs $** |
|---|---|---|---|---|---|---|---|
| | | | | | Implementation | Supervision | |
| Preparation of Contractor Camp Management Plan (CCMP) | - Increased risk of workforce injury;<br>- Increased risk of damage to built environment;<br>-failure of contractor to prepare an acceptable CCM | medium | - Include requirement for CCMP in specifications<br>- Apply QA principles to CCMP acceptance<br>-Discuss contractor proposals with AILA-Arazi | Acceptable CCMP drawing included in specifications<br><br>Written confirmation of CCMP acceptance by SFO+ consultant prior to works on site | Contractor | AILA-Arazi SFO | 2,000 |
| Erection of contractor construction camp | Location in unsuitable site | low | -Identify suitable camp site in consultation with Arazi<br>- Obtain relevant approvals for camp location | Suitable camp site identified<br><br>Relevant approvals obtained for camp site. | contractor | AILA-Arazi | 5,000 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Contractor provide evidence of key staff qualifications | Low quality \ unacceptable work;<br>- failure of Contractor to provide evidence of key staff qualifications | medium | -Include requirements for key staff qualifications in bidding documents;<br>- Non-acceptance of Contractor work plan until evidence is provided | Bidding documents include requirement for contractors to provide documentary evidence of key staff qualifications | AILA-Arazi Team | AILA-Arazi SFO | |

### 4.2.2 Renovation Phase

Table 1.2c – Implementation of Renovation Phase Mitigation Measures

| **Activities** | **Potential impacts** | **Assessed Risk level** | **Mitigation measures** | **Monitoring Indicators** | **Institutional Responsibilities** | | **Estimated Costs S** |
|---|---|---|---|---|---|---|---|
| | | | | | **Implementation** | **Supervision** | |
| Operation of contractor construction camp | Increased levels of PM10 in the Power plant site especially during summer<br>- Community inconvenienc | medium | Undertake watering of camp site<br>-Implement approved work plan<br>-Submit regular monitoring reports | Existing of proper ventilation<br><br>Regular measurement of PM10 | -Include requirement for regular watering of camp site and construction sites during summer in bidding documents<br>- During summer Contractor to undertake water | AILA-Arazi<br><br>Contractor | 4,000 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | e from uncontrolled dust generated from operation of Contractor camp | | | | spraying each day before start of work and regularly throughout the day thereafter and as otherwise directed by the site supervisor<br>- Implement approved work plan<br>- Monitor and submit monthly reports on contractor implementation of approved work plan and mitigation measures | Contractor<br><br>Consultant firm | |
| Operation of contractor construction camp | - Contamination of soil, surface and groundwater; From:<br>- pollution and nuisance to the community from lack of | medium | Include requirement for implementation of mitigation measures in the bidding documents;<br>- Provide workers with appropriate facilities;<br>-Undertake | Check of data collection and log book for leakage<br><br>Number of sanitation facilities in the site | Bidding documents to include requirements for workers to be provided with the following facilities:<br>− Adequate numbers of functional | AILA-Arazi<br><br>Contractor<br><br>Contractor | 3,000 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | latrines, Bath rooms, potable water and medical equipment. | | regular monitoring;<br>- Implement QA requirements | Quality and quantity of water point in the site | bathrooms and latrines (latrines may be portable)<br>− Covered rubbish bins for scraps<br>− Adequately stocked first aid medical kit<br>− Trained person to provide first aid assistance if required<br>- Bidding documents to include requirement for provision of facilities for collection and regular disposal of solid and liquid wastes<br>- Undertake regular disposal of solid & liquid wastes<br>- Undertake regular monitoring to ensure compliance with | Contractor<br><br>AILA-Arazi<br><br>Contractor<br><br>AILA-Arazi - consultant firm | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | requirements<br>- Issue NCR and CAR for non-compliances<br>- CAR not to be released until non-compliance is addressed | | |
| Management of spills and construction debris | - Contamination of soil, surface water and groundwater;<br>- Increased risk of injury;<br>From:<br>- failure to promptly attend to spills;<br>- failure to appropriately dispose of construction debris/ spare parts | medium | Include requirements relating to spill management and debris- in bidding documents;<br>- Include debris/waste removal in Contractor work plan;<br>- Collect and dispose of construction debris in designated locations<br>- Monitor performance in accordance with QA provisions | Existing of the primary and secondary collection point<br><br>Availability of First Aid kit<br><br>Availability of trained First Aid provider in the work force | -Ensure that requirements relating to spill management and debris are included in bidding documents;<br>- Ensure that the Contractor addresses debris removal as inclusions in acceptable Contractor work plan;<br>- Include requirement for<br>-<br>- Ensure Contractor collects and disposes of construction debris in designated | AILA-Arazi<br><br>Consultant firm with SFO from AILA-Arazi<br><br>AILA-Arazi<br><br>Contractor | 5,000 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | locations<br>- Monitor Contractor performance in accordance with QA requirements | Consultant firm with SFO from AILA-Arazi | |
| **Total Cost $** | | | | | | | **19,000** |

### 4.2.3 Operational and Maintenance Phase

There are no environmental impacts expected after completion of the construction/renovation works.

### 4.2.4 Safety of workers during construction

Safety is one of the major concern during construction work the project officer should insure that workers are working in a safe place and use the personal protective equipment during working hours, in a confined and confidence area. The first aids kit is available in the construction sites and safety training are given to workers. Similarly, it needs to be ensured that Personal Protection equipment (PPE) is available to avoid possible fatal injuries.

## 5 Implementation of the EMP

AILA-Arazi team will be responsible for ensuring implementation of the EMP. Other key parties in the EMP implementation will be the Contractor.

The AILA-Arazi - Safeguards Focal Officer will be responsible for ensuring appropriate corrective action is taken by the Contractor for any failure to implement required mitigation measures during AILA's renovation work. Where contractual agreements are entered into for work associated with renovation work under PPG, Arazi will:

- include the EMP in contract documents for all work to be undertaken by the contractors
- ensure that the contractor comply with the requirements of the EMP

## 5. Grievance Handling Procedure

All complaints about rehabilitation works under PPG will be directed to and recorded by the AILA- Arazi safeguard focal officer. The safeguards focal officer will maintain a complaints register that records details of all complaints received, the action taken in response, where necessary, and any corrective actions or procedural changes implemented to prevent recurrence. The initiator of the complaint will be advised of the results of all investigations and actions taken. The register will be regularly audited by the PPG support to the AILA-Arazi Project Manager (PM) to ensure timely response to complaints.

The safeguards focal officer will review the register daily and advise PM of any relevant complaints. The Project Manager will then investigate the complaint and instigate any corrective action required.

In case of an appeal, the appellant will have the option to approach the AILA-Arazi CEO.

### 6.1 AILA-Arazi Grievance Redress Mechanism GRM)

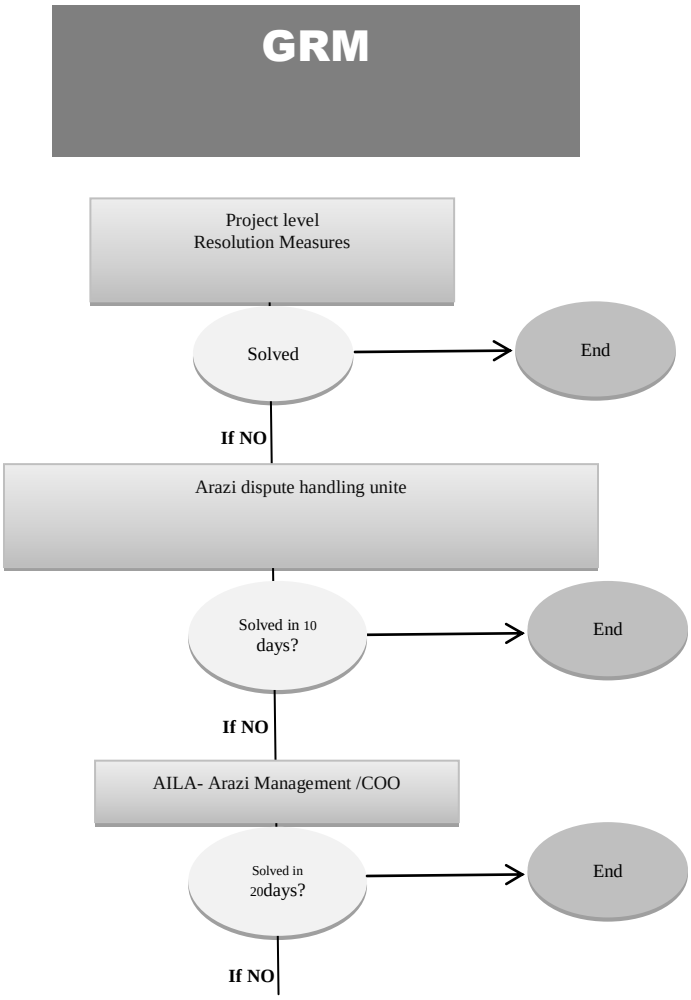
The GRM covers grievances related to both safeguards concerns, and workplace complaints. The elements of the project's GRM conducted or accessed at three different levels are:

- Efforts made to resolve issues at project level
- A Grievance Redress Committee at project level
- Appeal mechanism to AILA-Arazi management

Where an individual has a grievance she or he should, in the first instance be encouraged to make use of existing local-level structures (e.g. project level) to try to resolve quickly any concerns or grievances related to project development and implementation. The GRM structure that outlines the grievance handling process is shown below. It is worth mentioning the activities under PPG will be happing within the premise of the existing AILA's facilities only, where the project level GRM will act to address grievances at all levels.

Please refer to annex-2 GRM form, to be used by complainants.

GRM process outlined in Figure 1.1 below



## 6. Monitoring and Auditing

### 7.1 Introduction

Monitoring and auditing will be undertaken to determine the impact as a consequence of the civil work for renovating of AILA's facilities. General monitoring and auditing will be conducted weekly throughout the implementation stage and annually during the operation and maintenance phase.

Routine monitoring and reporting will be undertaken by the Contractor. AILA- Arazi will develop an auditing schedule and undertake audits in accordance with the schedule.
AILA-Arazi staff will be responsible for undertaking environmental audits. AILA- Arazi will maintain all audit records and will be responsible for scheduling follow up inspections to ensure that corrective actions are implemented for any identified non-compliances.

AILA-Arazi will be responsible for determining severity of non-compliance and may instruct works to cease until the non-compliance is rectified. A non-compliance register will be established and maintained by AILA-Arazi and all non-compliances recorded there-in.

### 7.2 Reporting Procedure

The Contractor will be required to report any environmental incidents to the AILA's Safeguards Focal Officer . If there are complaints from the public during the construction phase, the AILA-Arazi Manager is to be notified immediately. The following information should be recorded by the contractor:

- Time, date and nature of the incident / report;
- Type of communication (e.g. telephone, personal meeting);
- Contact details with telephone number of person making the complaint. If this person wishes to remain anonymous then "not identified" is to be recorded;
- Details of response and investigation undertaken as a result of the incident / complaint;
- Name of person undertaking investigation of the incident / complaint;
- Corrective action taken as a result of the incident / complaint.

The AILA-Arazi safeguards focal officer will prepare and submit weekly monitoring reports to the PPG for support to the AILA-Arazi Project Manager.

## 7. Disclosure

This Environmental Management Plan (EMP) for the PPG has been prepared by the AILA-Arazi on the basis of the national environmental legislation and WB requirements. Prior to approval of the grant agreement for the PPG for support to AILA-Arazi project, the EMP was disclosed in-country on July 31, 2016 by AILA-Arazi in local languages and English on AILA-Arazi website. The English version of the EMP was disclosed at the World Bank's InfoShop on August 1, 2016.

## 8. Training

The Table 3 outlines the proposed training for AILA-Arazi staff as well as employees of the Contractor. The training is aimed at the practical aspects of environmental monitoring and management.

**Table 1.3- training plan**

| No | Training Recipients | Mode of Training | Environmental Aspect to be covered | Training Conducting Agency |
|---|---|---|---|---|
| 1 | Arazi Environmental Safeguards Team | Lecture, workshop Group Discussion Site Visit | • Environmental Overview<br>• Laws and Regulation/standards and Acts<br>• EMP overview<br>• EHS guidelines and pros and cons | Consulting firm-Arazi |
| 3 | Contractor staff | Seminar Workshop Lecture | • Environmental Overview<br>• Laws and Regulation/standards and Acts<br>• EMP overview<br>• EHS guidelines | contractor/AILA-Arazi Safeguards Focal Officer |

**Annex 1: Arazi Sample Grievance Registration Form**

**(Refer** to EMF)

| |
|---|
| Grievance Number: _____<br>LOCATION : District: _____ Village: _____<br>CDC Name: _____<br>NAME OF COMPLAINANT: _____ Tazkira number: _____<br>ADDRESS:_____Telephone #: _____<br>DATE RECEIVED: |
| Classification of the grievance (Check boxes)<br>☐ Water Use ☐ Dispute with contractors<br>☐CDC formation ☐ Inter-community dispute<br>☐Land acquisition and Compensation ☐ Technical/operational coordination<br>☐ Financial ☐ Process delays<br>☐ Water Quality ☐ Noise<br>☐ Sanitation ☐ Water Use<br><br>☐ Other (specify)_____ |
| Brief description of the grievance: |
| What is the perceived cause? |
| Suggested action (by complainant) to address grievance: |

## ANNEX 2: General Environmental Management Guidelines for Contractor

### General

In addition to these general conditions, the Contractor shall comply with any specific Environmental
Management Plan (EMP) or Environmental and Management Plan (EMP) for the works he is responsible for. The Contractor shall inform himself about such an EMP, and prepare his work strategy and plan to fully take into account relevant provisions of that Plan. If the
Notwithstanding the Contractor's obligation under the above clause, the Contractor shall implement all measures necessary to avoid undesirable adverse environmental and social impacts wherever possible, restore work sites to acceptable standards, and abide by any environmental performance requirements specified in an EMP. In general these measures shall include but not be limited to:

a) Minimize the effect of dust on the surrounding environment resulting from earth mixing sites, vibrating equipment, temporary access roads, etc. to ensure safety, health and the protection of workers and communities living in the vicinity dust producing activities.
b) Ensure that noise levels emanating from machinery, vehicles and noisy construction activities (e.g. excavation, blasting) are kept at a minimum for the safety, health and protection of workers within the vicinity of high noise levels and nearby communities.
c) Ensure that existing water flow regimes in rivers, streams and other natural or irrigation channels is maintained and/or re-established where they are disrupted due to works being carried out.
d) Prevent oils, lubricants and waste water used or produced during the execution of works from entering into rivers, streams, irrigation channels and other natural water bodies/reservoirs, and also ensure that stagnant water in uncovered borrow pits is treated in the best way to avoid creating possible breeding grounds for mosquitoes.
e) Prevent and minimize the impacts of quarrying, earth borrowing, piling and building of temporary construction camps and access roads on the biophysical environment including protected areas and arable lands; local communities and their settlements. In as much as possible restore/rehabilitate all sites to acceptable standards.
f) Upon discovery of ancient heritage, relics or anything that might or believed to be of archeological or historical importance during the execution of works, immediately report such findings to the SE so that the appropriate authorities may be expeditiously contacted for fulfillment of the measures aimed at protecting such historical or archaeological resources.
g) Discourage construction workers from engaging in the exploitation of natural resources such as hunting, fishing, and collection of forest products or any other activity that might have a negative impact on the social and economic welfare of the local communities.
h) Implement soil erosion control measures in order to avoid surface run off and prevents siltation, etc.

i) Ensure that garbage, sanitation and drinking water facilities are provided in construction workers camps.
j) Ensure that, in as much as possible, local materials are used to avoid importation of foreign material and long distance transportation.
k) Ensure public safety, and meet traffic safety requirements for the operation of work to avoid accidents.

The Contractor shall indicate the period within which he/she shall maintain status on site after completion of civil works to ensure that significant adverse impacts arising from such works have been appropriately addressed.

The Contractor shall adhere to the proposed activity implementation schedule and the monitoring plan / strategy to ensure effective feedback of monitoring information to project management so that impact management can be implemented properly, and if necessary, adapt to changing and unforeseen conditions.

Besides the regular inspection of the sites by the SE for adherence to the contract conditions and specifications, the Owner may appoint an Inspector to oversee the compliance with these environmental conditions and any proposed mitigation measures. State environmental authorities may carry out similar inspection duties. In all cases, as directed by the SE, the Contractor shall comply with directives from such inspectors to implement measures required to ensure the adequacy rehabilitation measures carried out on the bio-physical environment and compensation for socio-economic disruption resulting from implementation of any works.

**Worksite/Campsite Waste Management**

All vessels (drums, containers, bags, etc.) containing oil/fuel/construction materials and other hazardous chemicals shall be bonded in order to contain spillage. All waste containers, litter and any other waste generated during the construction shall be collected and disposed-off at designated disposal sites in line with applicable government waste management regulations.

All drainage and effluent from storage areas, workshops and camp sites shall be captured and treated before being discharged into the drainage system in line with applicable government water pollution control regulations.

Used oil from maintenance shall be collected and disposed-off appropriately at designated sites or be re-used or sold for re-use locally.

9. Entry of runoff to the site shall be restricted by constructing diversion channels or holding structures such as banks, drains, dams, etc. to reduce the potential of soil erosion and water pollution.

10. Construction waste shall not be left in stockpiles along the road, but removed and reused or disposed of on a daily basis.

11. If disposal sites for clean spoil are necessary, they shall be located in areas, approved by the SE, of low land use value and where they will not result in material being easily washed into drainage channels. Whenever possible, spoil materials should be placed in low-lying areas and should be compacted and planted with species indigenous to the locality.

**Material Excavation and Deposit**

The Contractor shall obtain appropriate licenses/permits from relevant authorities to operate quarries or borrow areas.
The location of quarries and borrow areas shall be subject to approval by relevant local and national authorities, including traditional authorities if the land on which the quarry or borrow areas fall in traditional land.
New extraction sites:

a) Shall not be located in the vicinity of settlement areas, cultural sites, wetlands or any other valued ecosystem component, or on high or steep ground or in areas of high scenic value, and shall not be located less than 1km from such areas.
b) Shall not be located adjacent to stream channels wherever possible to avoid siltation of river channels. Where they are located near water sources, borrow pits and perimeter drains shall surround quarry sites.
c) Shall not be located in archaeological areas. Excavations in the vicinity of such areas shall proceed with great care and shall be done in the presence of government authorities having a mandate for their protection.
d) Shall not be located in forest reserves. However, where there are no other alternatives, permission shall be obtained from the appropriate authorities and an environmental impact study shall be conducted.
e) Shall be easily rehabilitated. Areas with minimal vegetation cover such as flat and bare ground, or areas covered with grass only or covered with shrubs less than 1.5m in height, are preferred.
f) Shall have clearly demarcated and marked boundaries to minimize vegetation clearing.

Vegetation clearing shall be restricted to the area required for safe operation of construction work. Vegetation clearing shall not be done more than two months in advance of operations.
Stockpile areas shall be located in areas where trees can act as buffers to prevent dust pollution. Perimeter drains shall be built around stockpile areas. Sediment and other pollutant traps shall be located at drainage exits from workings.
The Contractor shall deposit any excess material in accordance with the principles of these general conditions, and any applicable EMP, in areas approved by local authorities and/or the SE.

**Rehabilitation and Soil Erosion Prevention**

To the extent practicable, the Contractor shall rehabilitate the site progressively so that the rate of rehabilitation is similar to the rate of construction.
Always remove and retain topsoil for subsequent rehabilitation. Soils shall not be stripped when they are wet as this can lead to soil compaction and loss of structure.
Topsoil shall not be stored in large heaps. Low mounds of no more than 1 to 2m high are recommended.
Re-vegetate stockpiles to protect the soil from erosion, discourage weeds and maintain an active population of beneficial soil microbes.
Locate stockpiles where they will not be disturbed by future construction activities.
To the extent practicable, reinstate natural drainage patterns where they have been altered or impaired.

Remove toxic materials and dispose of them in designated sites. Backfill excavated areas with soils or overburden that is free of foreign material that could pollute groundwater and soil.
Identify potentially toxic overburden and screen with suitable material to prevent mobilization of toxins.
Ensure reshaped land is formed so as to be inherently stable, adequately drained and suitable for the desired long-term land use, and allow natural regeneration of vegetation.
Minimize the long-term visual impact by creating landforms that are compatible with the adjacent landscape.
Minimize erosion by wind and water both during and after the process of reinstatement.
Compacted surfaces shall be deep ripped to relieve compaction unless subsurface conditions dictate otherwise.
Re-vegetate with plant species that will control erosion, provide vegetative diversity and, through succession, contribute to a resilient ecosystem. The choice of plant species for rehabilitation shall be done in consultation with local research institutions, forest department and the local people.

**Water Resources Management**
The Contractor shall at all costs avoid conflicting with water demands of local communities.
Abstraction of both surface and underground water shall only be done with the consultation of the local community and after obtaining a permit from the relevant Water Authority.
Abstraction of water from wetlands shall be avoided. Where necessary, authority has to be obtained from relevant authorities.
Temporary damming of streams and rivers shall be done in such a way avoids disrupting water supplies to communities downstream, and maintains the ecological balance of the river system.
No construction water containing spoils or site effluent, especially cement and oil, shall be allowed to flow into natural water drainage courses.
Wash water from washing out of equipment shall not be discharged into water courses or road drains.
Site spoils and temporary stockpiles shall be located away from the drainage system, and surface run off shall be directed away from stockpiles to prevent erosion.

**Disposal of Unusable Elements**
Unusable materials and construction elements such as electro-mechanical equipment, pipes, accessories and demolished structures will be disposed of in a manner approved by the SFO. The Contractor has to agree with the SFO which elements are to be surrendered to the Client's premises, which will be recycled or reused, and which will be disposed of at approved landfill sites.
As far as possible, abandoned pipelines shall remain in place. Where for any reason no alternative alignment for the new pipeline is possible, the old pipes shall be safely removed and stored at a safe place to be agreed upon with the SFO and the local authorities concerned.

AC-pipes as well as broken parts thereof have to be treated as hazardous material and disposed of as specified above.
Unsuitable and demolished elements shall be dismantled to a size fitting on ordinary trucks for transport.

**Health and Safety**
In advance of the construction work, the Contractor shall mount an awareness and hygiene campaign.
Adequate road signs to warn pedestrians and motorists of construction activities, diversions, etc. shall be provided at appropriate points.

**Repair of Private and Public Property**
Should the Contractor, deliberately or accidentally, damage private property, he shall repair the property to the owner's satisfaction and at his own cost. For each repair, the Contractor shall obtain from the owner a certificate that the damage has been made good satisfactorily in order to indemnify the Client from subsequent claims.
In cases where compensation for inconveniences, damage of assets etc. are claimed by the owner, the Client has to be informed by the Contractor through the SFO. This compensation is in general settled under the responsibility of the Client before signing the Contract. In unforeseeable cases, the respective administrative entities of the Client will take care of compensation.

**Example Format: EHS Report**

**Contract:** (Name and No./Specification)
**Period of reporting:**
**EHS management actions/measures:**

[Summarize EHS management actions/measures taken during period of reporting, including planning and management activities (e.g. risk and impact assessments), EHS training, specific design and work measures taken, etc.]

**EHS incidents:**
[Report on any problems encountered in relation to EHS aspects, including its consequences (delays, costs) and corrective measures taken. Include relevant incident reports.]

**EHS compliance:**
[Report on compliance with Contract EHS conditions, including any cases of non-compliance.]

**Changes:**
[Report on any changes of assumptions, conditions, measures, designs and actual works in relation to EHS aspects.]

**Concerns and observations:**

[Report on any observations, concerns raised and/or decisions taken with regard to EHS management during site meetings and visits.]

**Signature (Name, Title Date):**
Contractor Representative

**Example Format: EHS Incident Notification**
Provide within 24 hrs. to the Supervising Engineer

**Originators Reference No:**
**Date of Incident: Time:**
**Location of incident:**
**Name of Person(s) involved:**
**Employing Company:**

**Type of Incident:** [write type of the incidence]

**Description of Incident:**
Where, when, what, how, who, operation in progress at the time (only factual)

**Immediate Action:**
Immediate remedial action and actions taken to prevent reoccurrence or escalation

**Signature (Name, Title, Date):**
Contractor Representative

**Annex 3: Monitoring Plan**

| Environmental Component | Parameter | Standard | Location | Frequency | Duration | Implementation | Supervision |
|---|---|---|---|---|---|---|---|
| **Pre-Construction** | | | | | | | |
| Provision of the Safety (EHS) compliances and GRM mechanism | Ensure that all the required provisions are in place | Safety plan, Trainings and awareness raising | Electromechanical rehabilitation site/s | Number of inspection | For how long | Arazi and Contractor | AILA-Arazi SFO |
| **Construction/Rehabilitation Phase** | | | | | | | |
| Noise level | Noise level B (A) Scale | Environmental Law (NEPA) | Noise level meter kept at a distance of 15m from the source. | As directed by Expert | Reading should be taken every 15m and then average of an hour | Contractor | AILA-Arazi |
| | | | | | | | |
| Accidents | Safety Training | EMP/Safety Plan | At the work area | Monthly | To be set | Contractor | Arazi |
| Health and safety | Singe, posters displayed, health awareness lectures, are being provided to each | EMP | At Work Site | Monthly | | Contractor | Arazi |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | worker and health check. | | | | | | |
| Route of access | Ample rout signaling has been done? Indication of risks + voltage risk indication | Safety Guidelines and EMP | At work Sites | Monthly | Daily | Contractor | Arzi |