Environmental Assessment Guidelines

5.1 Introduction

This Annex presents the procedures and implementation arrangements for ensuring full consideration of environmental safeguards, in accordance with the Bank's environmental assessment guidelines and Georgian environmental regulations in the implementation by MDF of investment projects financed under MDDP II. It first describes existing environmental regulations and standards relevant to the project and makes reference to institutions at the local and national levels responsible for issuing permits, licenses, and enforcing compliance of environmental standards. The chapter also provides detailed guidelines for the MDF staff and the sub-project proponents on environmental screening, appraisal, and monitoring. Each MDF project will be individually screened and reviewed by the MDF. The project proposal will incorporate an environmental review checklist, and the project appraisal document will adapt type-specific analysis, costs, and mitigation measures.

5.2 Environmental Permits and Other Environmental Regulations in Georgia

The environmental permitting procedure in Georgia is set out in two laws: (i) The Law on Environmental Permits (EP), and (ii) The Law on State Ecological Review (SEE), both of which came into force in 1997. The Law on Environmental Permits regulates procedures for issuing permits, and covers Environmental permits, EIAs, and public information and participation issues in decision-making procedures. According to the this law, all projects are divided into four categories according to their size, importance and potential impact on the environment. Local government infrastructure and facilities falls into category II. All four categories must undergo State Ecological Review in order to be issued a permit; however, those activities which are considered to be of the first (highest) category will, as part of this process, require an Environmental Impact Assessment (EIA) to be carried out by MDF. Procedures for projects in Categories I and II will require public hearings to be conducted, while for Category III projects, provision of public information will suffice. For Category IV projects, public information is not obligatory. Below is a list illustrating the different categories of relevant projects.

Category I Projects. All the activities listed under this heading are subject to the issue of environmental protection permits: (i) waste processing and disposal projects (includes disposal of municipal and industrial wastes, location and operation of disposal sites and facilities for processing and incineration); (ii) projects for major pipe-lines for any purpose; (iii) plans and projects for protection and utilization of water, forests, land, mineral ore and other natural resources existing within Georgia; and (iv) programs and projects of national, regional and local importance for location of all types of economical and engineering objects with the view to avoid negative effects of natural spontaneous processes anticipated within Georgia. Infrastructure proposals require environmental permits to be issued prior to their adoption, in accordance with the rule specified by the law. The environmental protection permission for these categories of activities must be issued by Ministry of Environment (MOE). Obligatory procedures for the issue of the environmental protection permits for Category I projects comprise: (i) Environmental Impact Assessment (EIA) to be carried out in accordance with Chapter III of the present law; (ii) State Ecological Review procedures shall be carried out as specified by law; (iii) Participation by the community in the decision-making process.

Category II Projects. Category II projects are represented by activities which by their scope, location or content can have a significant impact on human health and the ecology of the region where the activity will be carried out, such as: construction and operation of potable and irrigation water supply systems; and municipal facilities including sewerage. In addition to a formal assessment of a project based on its compliance with criteria set out in the Act, the legal requirements for this category include the encouragement of public participation through advertisement of the project and facilitation of public involvement and debate.

Category III Projects. Category III comprises activities for which the scope, location or content will not bring about any serious adverse impact on the environment. Environmental protection permits for this category of activities shall be issued by the regional offices of MoE as well as by the Ministries of Environment in the Ajarian and Abkhazian Autonomous Republics. Mandatory conditions for the issuing of such permits will include: (i) State ecological expertise procedures carried out as established by the Act; and (ii) Formal notification to the community of the planned activity.

Category IV Projects. Category IV projects are those where the impact on the environment is insignificant.

MDF, in implementing investment projects, will comply with the Laws on State Ecological Expertise (1997) and on Environmental Permits (1997) and obtain the necessary permits and licenses from the Ministry of Environment or the Regional Environmental Inspectorates and/or cause the contractors to obtain such permits and licenses. As presented above, the legislation specifies procedures required for obtaining environmental permit for project implementation, based on the nature of activities implied. The Law of Georgia 'On the Environmental Permits' requires an environmental impact assessment (EIA) and public participation in the decision-making for the activities attributed to categories 1 and 2 (with a tangible environmental and social impact). The Ministry of Environmental shall make the EIA reports publicly available, organizes its discussion with interest groups and receives written feedback and EIA from any legal or physical bodies during a set period of time. The law requires that the public is informed about the proposed activities attributed to Category 3 (with minimal environmental and social impact).

The screening of project proposals and the assessment of their environmental impact and proposed mitigation measures will be carried out by MDF staff. A simple screening of project proposals will determine what type of environmental assessment is required, based on a project typology. Most projects are likely to require no environmental assessment or only a simple environmental review based on a checklist that identifies the environmental impacts and proposes mitigation measures. The checklist will be completed by MDF, (Attachment 1). Even those projects, which are designed in an environmentally satisfactory manner, may cause damage or have adverse effects if civil works are carried neglecting possible environmental and social impacts. This could imply generation of dust, noise and construction waste at the project sites, traffic congestion due to movement of heavy construction machinery, degradation of land and its vegetal cover, etc. To avoid the above, the attached environmental management guidelines (Attachment 2) should be provided to contractors engaged in civil works under MDF financed projects. For enforcing these guidelines, they should be made an integral part of contracts. The client local government, and MDF (and, if applicable, MOE staff) must monitor construction sites for ensuring that contractors comply with their contractual obligations, including those relating environmental safety. In case of non-compliance, the penalties and sanctions stipulated in a contract must be applied to contractors including, if no other remedy exists, the suspension of the contract until alternatives to environmentally harmful practices are identified.

5.3 Environmental Assessment at Different Stages of the Project Cycle

There are three stages of the environmental assessment during the project cycle are:

- Identification Stage
- Appraisal Stage
- Implementation Stage

5.3.1 Preliminary Environmental Assessment at Identification Stage

The main objective of the preliminary environmental screening of projects proposed for MDF financing is to ensure that proposals for projects with potentially adverse effects on the environment are excluded from funding. During this stage, the following steps are carried out:

- carry out desk environmental assessment using available documentation for the project (;
- visit project site and carry out preliminary environmental assessment;
- collect evidence that the proposed project does not violate existing environmental regulations;
- evaluate possible adverse environmental impacts, explore possible design alternatives and mitigation measures and, if such alternatives are unavailable or deemed unfeasible at a reasonable cost within the limits set by the local government's borrowing capacity, declare the project ineligible and/or direct local government to other possible concessional funding sources. .

As part of its preliminary review of the proposed project, MDF is expected to:

- assess the affected environment
- investigate land use and resources use restrictions in the project area
- check that the project proposal complies with other environmental laws and regulations
- estimate range and scale of potentially harmful environmental impacts;
- assess the need for specific prevention and/or mitigation measures;
- make recommendations on the type of environmental assessment required for project feasibility studies and appraisal, including possible involvement of environmental specialist/consultants

The results of Environmental Screening/Assessment should be summarized as per Attachments 1 and 3. Possible statements: no significant environmental impacts are anticipated, possible adverse environmental impacts, proposed sub-project violates existing environmental regulations, project will lead to positive environmental impacts. Evaluation is complemented by written comments and recommendations, including: brief description of affected environment; brief description of potential impacts; recommendations on: (i) involving environmental consultant(s), (ii) desirability of considering alternative technical, siting and other solutions, (iii) the need of specific prevention and/or mitigation measures, and (iv) the desired level of environmental assessment and public involvement at further stages.

5.3.2 Environmental Assessment at Final Appraisal Stage

The objective of the environmental assessment at Appraisal Stage are to:

- ascertain that the project has obtained and/or will be able obtain prior to commencement of works all the necessary permits and approvals and does not violate existing environmental regulations;

- in case of environmental impacts that can be mitigated , check that appropriate prevention and mitigation measures have been planned and necessary budgetary and/or technical resources have been allocated to implement them;
- make recommendations on the level and mechanisms of environmental monitoring at further stages of the project.

As part of the appraisal the MDF environmental specialists/consultants must:

- visit the project site and carry out final field assessment, including participation in a public meeting(s).
- compare results and recommendations of the Preliminary Environmental Assessment with final project documentation; ascertain that necessary environmental permits (including land use, resource use, dumping of debris, and sanitary inspection) and approvals are in place or can be obtained;
- prepare relevant appraisal document (see sample text below);
- if required, prepare the EMP (Examples of potential environmental issues and corresponding mitigation measures are provided in sample EMP included in Attachment 4);
- examine the project documentation to check that: (i) environmental assessment was performed in accordance with regulations and that it followed the recommendations of the preliminary environmental assessment; (ii) the documentation includes all the necessary permits and approvals required at appraisal stage; (iii) appropriate prevention and mitigation measures have been planned and necessary resources have been allocated, or an alternative decision was made (and supported with necessary documents) that makes such measures unnecessary; (iv) the project documentation and findings of the final site visit have been presented to public and that the project does not create public objections;
- make recommendations on the level and mechanisms of environmental monitoring during construction and subsequent use/operation of investments.

Findings of the Final Environmental Assessment are summarized in "Conclusions on the Results of Environmental Assessment" as per sample below.

Main conclusion of Environmental Assessment

- Improvement of environment
- No significant environmental impacts
- Potential adverse environmental impacts, adequate mitigation measures, confirmed by positive decisions of environmental authorities
- Adverse environmental impacts, project in compliance with regulations, but mitigation measures are insufficient, unrealistic and/or very expensive
- Negative decision of a competent environmental protection authority

Brief description of potential adverse environmental impacts, as appropriate

- Incorporation of necessary prevention and mitigation measures
- Conclusion that all necessary approvals and permits are in place.
- Conclusion on the necessity/desirability of environmental monitoring by MDF at construction/operational stages
- Conclusion on implementation of the project, or recommendation to consider other alternatives, or recommendation to conduct further environmental investigations.

5.3.4 Environmental Monitoring at the Implementation Stage

During the construction, the main goal of the consultants to be hired by the MDF is to monitor proper implementation of environmental protection and mitigation measures prescribed by the project design documents, as well as to monitor solution or mitigation of unexpected adverse environmental impacts. Training on environmental management matters will be provided to the MDF staff during the first year of project implementation. Between two and three 2-day training sessions on environmental assessment will be organized during the life of the project for the staff of the Regional Environmental Inspectorates Offices, who will responsible for issuing environmental permits and for supervising implementation of EMPs.

Attachment 1

ENVIRONMENT IMPACT ASSESSMENT FORM FOR MUNICIPAL INVESTMENT PROJECTS

PROJECT TITLE:	.....
REGION:	.....
CITY:	.....
PROJECT SITE:	.....
FINANCING:	.....
BENEFICIARY:	.....
PROJECT DESCRIPTION:	....

(A) CHECKLIST

A. SOLID WASTE Does the project	(i) generate (ii) collect (iii) dispose (iv) non of the above	□ □ □ □	- ve + ve + ve n
B. WASTEWATER/ LIQUID WASTE Does the project	(i) generate (ii) collect (iii) dispose (iv) non of the above	□ □ □ □	- ve + ve + ve n
C. DRAINAGE Does the project (surface water)	(i) generate (ii) collect (iii) dispose (iv) non of the above	□ □ □ □	- ve + ve + ve n
D. SANITATION Does the project	(i) generate (ii) collect (iii) dispose (iv) non of the above	□ □ □ □	- ve + ve + ve n
E. WATER RESOURCES Does the project	(i) reduce recharge (ii) enhance recharge (iii) pollute (iv) non of the above	□ □ □ □	- ve + ve + ve n
F. LAND RESOURCES Does the project	(i) use up agric land (ii) use up green areas (iii) erode a beach	□ □ □	- ve - ve - ve

	(iv) enhance land use	☐	+ ve
	(v) create green areas	☐	+ve
	(vi) non of the above	☐	n

G. TRAFFIC Does the project?	(i) increase traffic	☐	- ve
	(ii) reduce traffic	☐	+ ve
	(iii) manage traffic	☐	+ ve
	(iv) non of the above	☐	n

	Number of negatives: - ve =		
	Number of positives: + ve =		
	Number of neutrals: n =		
	NET		

IMPACT IDENTIFICATION

Has the project a tangible impact on the environment?	
What are the significant beneficial and adverse environmental effects of the project?	
Does the project have any significant potential impact on the local or affected communities?	
What impact has the project on the human health?	

MITIGATION MEASURES

What mitigation measures are proposed and what	

alternative sites have been considered?	
What lessons from the previous similar projects have been incorporated into the project design?	
Have concerned communities been involved and have their interests and knowledge been adequately taken into consideration in project preparation?	

RANKING

Based on the impact identification, can the project be ranked as:

a) Environmentally positive

b) Neutral

c) Negative

d) Requires redesign

Attachment 2

ENVIRONMENTAL MANAGEMENT GUIDELINES FOR CONTRACTORS

PURPOSE

The purpose of these environmental management guidelines for contractors is to define minimum standards of construction practice acceptable to the Municipal Development Fund (MDF).

ROADS AND FOOTPATHS

In order to carry out the rehabilitation works, it may be necessary to close or divert certain specified highways and footpaths, either permanently or temporarily during the construction period. The contractor should arrange diversions for providing alternative route for transport and/or pedestrians.

After breaking up, closing or otherwise interfering with any street or footpath to which the public has access, the Contractor shall make such arrangements as may be reasonably necessary so as to cause as little interference with the traffic in that street or footpath during construction of the rehabilitation works as shall be reasonably practicable.

Wherever the rehabilitation works interfere with existing public or private roads or other ways over which there is a public or private right of way for any traffic, the Contractor shall construct diversion ways wherever possible. The standard of construction and lighting shall be suitable in all respects for any class of traffic using the existing ways, and the widths of the diversions shall not be less than that of the existing way wherever possible. Diversion ways shall be constructed in advance of any interference with the existing ways and shall be maintained to provide adequately for the traffic flows.

The Contractor shall be responsible for supplying, erecting and maintaining for the requisite periods all statutory and public information notices.

MOVEMENT OF TRUCKS AND CONSTRUCTION MACHINERY

The Contractor moving solid or liquid construction materials and waist shall take strict measures to minimize littering of roads by ensuring that vehicles are loaded in such a manner as to prevent falling off or spilling of construction materials and by sheeting the sides and tops of all vehicles carrying mud, sand, other materials and debris.

The Contractor shall also take all reasonable measures to avoid to the extent possible that delivery vehicles park on the highways prior to entering the construction site.

TRAFFIC SAFETY MEASURES

The Contractor shall provide, erect and maintain such traffic signs, road markings, lamps, barriers and traffic control signals and such other measures as may be necessary for ensuring traffic safety around the rehabilitation site. The Contractor shall not commence any work that affects the public motor roads and highways until all traffic safety measures necessitated by the work are fully operational.

ACCESS ACROSS THE CONSTRUCTION SITE AND TO FRONTAGES

In carrying out the rehabilitation works, the Contractor shall take all reasonable precautions to prevent or reduce any disturbance or inconvenience to the owners, tenants or occupiers of the adjacent properties, and to the public generally. The Contractor shall maintain any existing right of way across the whole or part of the rehabilitation site and public and private access to adjoining frontages in a safe condition and to a standard not less than that pertaining at the commencement of the contract. If required, the Contractor shall provide acceptable alternative means of passage or access to the satisfaction of the persons affected.

PROTECTION OF THE EXISTING INSTALLATIONS

The Contractor shall properly safeguard all buildings, structures, works, services or installations from harm, disturbance or deterioration during the concession period. The Contractor shall take all necessary measures required for the support and protection of all buildings, structures, pipes, cables, sewers, railways and other apparatus during the concession period.

USE OF THE EXISTING STRUCTURES

The Contractor shall not locate stockpiles for materials, stores, plant or temporary works upon or adjacent to or under existing structures such as bridges, viaducts, towpaths, walls and embankments in such a way as to endanger these structures.

NOISE AND DUST CONTROL

The Contractor shall take all practicable measures to minimize nuisance from dust and noise from the rehabilitation sites. This includes:

- Respecting normal working hours in or close to residential areas;
- Maintaining equipment in a good working order to minimize extraneous noise from mechanical vibration, creaking and squeaking, as well as emissions or fumes from the machinery;
- Shutting down equipment when it is not directly in use.

WATER SUPPLY CONFLICTS

The Contractor must ensure that the workforce have adequate access to a safe water supply, which is not provided to the detriment of services to the local population. If there is a risk of competition for limited water resources, then the Contractor must ensure that the local supply is not affected, and that workforce is provided with an alternative source if necessary (e.g. tankered and stored water).

WASTE DISPOSAL

The Contractor must agree with the client municipality about arrangements for construction waste disposal. The municipality shall designate a dumping site or landfill for the disposal of solid waste. Should any hazardous waste be involved and unexpectedly encountered, the Contractor must inform the client municipality on the above and strictly follow the client's guidance for disposal of such waste.

SOIL PROTECTION

The Contractor must take all practicable measures to avoid degradation and erosion of soil. The use of heavy machinery must be limited to the extent possible for avoiding land compaction. Soil erosion and slope instability should be addressed through hillside terracing, tree planting and construction of check dams.

PROTECTION OF TREES AND OTHER VEGETATION

The Contractor shall avoid loss of trees and damage to other vegetation wherever possible. Adverse effects on green cover within or in the vicinity of the rehabilitation site shall be minimized by adequate selection of access routs, piling and storage locations for construction materials and parking lots for heavy machinery.

EMERGENCY CONTACTS AND PROCEDURES

The Contractor shall prepare and maintain an emergency contact information for each rehabilitation site which shall be displayed prominently and accessible for all personnel. Emergency contact information shall contain phone numbers and the method of notifying local authorities/services for action in case of fire, health emergencies, disorder in communications, emergency release of hazardous materials, etc.

CLEARANCE OF REHABILITATION SITE ON COMPLETION

The Contractor shall clear up all working areas both within and outside the rehabilitation site and accesses as work proceeds and when no longer required for the carrying out of the Rehabilitation works. All surplus soil and materials, temporary roads, plant, sheds, offices and temporary fencing shall be removed, post holes filled and the surface of the ground restored as near as practicable to its original condition.

Attachment 3

ENVIRONMENTAL REVIEW CHECKLIST

Sub-project_____
Municipality_____

Environmental Component	Present Impacts	Description of impacts	Necessary mitigation measures	Does the project contain the necessary mitigation measures?
1. Soil Implementation phase	Yes___ No ___			Yes___ No ___
Exploitation phase	Yes___ No ___			Yes___ No ___
2. Water Implementation phase	Yes___ No ___			Yes___ No ___
Exploitation phase	Yes___ No ___			Yes___ No ___
2. Air Implementation phase	Yes___ No ___			Yes___ No ___
Exploitation phase	Yes___ No ___			Yes___ No ___
4. Flora and Fauna Implementation phase	Yes___ No ___			Yes___ No ___
Exploitation phase	Yes___ No ___			Yes___ No ___
5. Esthetics and landscape Implementation phase	Yes___ No ___			Yes___ No ___
Exploitation phase	Yes___ No ___			Yes___ No ___
6. Human health Implementation phase	Yes___ No ___			Yes___ No ___
Exploitation phase	Yes___ No ___			Yes___ No ___
7. Human settlements Implementation phase	Yes___ No ___			Yes___ No ___
Exploitation phase	Yes___ No ___			Yes___ No ___

CONCLUSIONS OF THE APPRAISAL ENGINEER with regards to:
1. Scale of impacts on the environment caused by the proposed sub-project;
2. Incorporation of obligatory mitigation measures, which were not primarily included in the proposed sub-project;
3. Realistic possibility of mitigating the negative impacts;
4. Necessity of applying Limited Environmental Assessment for the sub-project;
5. Transfer of sub-project to the second phase of appraisal.

Appraisal engineer _____

Date _____ Signature_____

Attachment 4

Sample Environmental Management and Monitoring Plan
Rehabilitation of Water Supply System

Activity	Potential Negative Impact or Concern	Mitigation Opportunities	Responsible Party for Implementing Mitigation	Monitoring Requirements	Responsible Agency for Monitoring and Enforcement (in order of involvement)
A. Construction					
Rehabilitation of water production facilities and distribution network	Soil and water contamination by water treatment sludge	Use only approved, appropriate disposal sites; follow construction standards.	Utility operator, works contractors	Periodic inspection of plant rehabilitation activities	MDF; Municipal Dept. for the Environment; Ministry of Environment and Natural Resources Protection (MOENRP)
	Groundwater pollution by construction run-offs	Provide adequate runoff and drainage control; replace all vegetation destroyed and restore all trench surfaces; follow active construction norms and regulations	Utility operator; Small works contractors	Periodic inspection of construction activities	MDF; Administration of Geology
	Soil and water contamination by improper disposal of demolition debris and waste	Use only approved, appropriate disposal sites; remove debris directly and promptly; properly store and protect salvaged material; collect, separate and properly dispose waste; follow construction standards.	Utility operator; Small works contractors	Periodic inspection of construction activities	MDF; Municipal Dept. for the Environment; MOENRP
	Spillage of fuel and oil	Store tanks and drums on 110% capacity bases; forbid pouring into soils or drains; enforce adequate equipment maintenance procedures; follow local regulations.	Utility operator; Small works contractors	Periodic inspection of construction activities	MDF; Municipal Dept. for the Environment; MOENRP
	Damage to trees and vegetative cover	Replace all vegetation destroyed; use authorized wood sources only.	Utility operator; Small works contractors	Periodic inspection of construction activities; monitoring of wood sources	MDF; Municipal Dept. for the Environment

Activity	Impact or Concern	Mitigation Opportunities	Responsible Party for Implementing Mitigation	Monitoring Requirements	Responsible Agency for Monitoring and Enforcement
Rehabilitation of water production facilities and distribution network	Noise and vibration disturbances to residents and businesses	Establish schedule and other specific restrictions; limit work to daylight hours as possible; equipment to have noise suppression devices and proper maintenance; limit excessive vibration in built-up areas; follow local standards.	Utility operator; Small works contractors	Periodic inspection of construction activities	MDF; Municipal Dept. for the Environment; municipal agency for construction supervision
	Dust generation	Dust suppression measures: water sprinkling, removal of excess materials, cleaning of sites upon completion of activities.	Utility operator; Small works contractors	Periodic inspection of construction activities	MDF; Municipal Dept. for the Environment; municipal agency for construction supervision
	Reduced pedestrian and vehicle access to residences and businesses	Establish work sequence and methods (trench-to-truck, steel plates) to minimize access disruption; provide alternative safe access as possible; implement detours and walkways.	Utility operator; Small works contractors, Traffic police	Periodic inspection of construction activities	MDF; municipal agency for construction supervision
	Temporary water supply interruptions	Establish coordination procedures for cut-offs; minimize time for replacement operations; use nighttime scheduling as necessary.	Utility operator	Monitor coordination of cut-offs	MDF; State Sanitary Inspection
	Increased traffic inconvenience (emissions, congestions, longer travel times)	Use traffic routing; ensure coordination with local authorities; routine control and maintenance of equipment.	Utility operator; Traffic Police; Small works contractors	Periodic inspection; monitor coordination of traffic routing	MDF; Municipal Dept. for the Environment; traffic police
B. Operation					
Operation of rehabilitated water production facilities	Soil and water contamination by water treatment sludge	Use only approved, appropriate disposal sites; authorisation by MoENRP, follow Georgian standards.	Utility operator	Periodic inspection	MDF; Municipal Dept. for the Environment; MoENRP
Operation of rehabilitated water production facilities	Safety hazards from chlorination process	Specify vacuum-operated corrosion-resistant systems; install chlorine leak detectors; require protection and emergency response equipment for operators.	Utility operator	Periodic inspection	MDF; Municipal Dept. for the Environment; State Sanitary Inspection