

**The Republic of Moldova  
Ministry of Education**

**MOLDOVA EDUCATION REFORM PROJECT**

**First Draft**

# Environmental Management Framework



**Developed by  
Project Implementation Unit**

**Chisinau  
March 20, 2015**

*blank page*

DRAFT

# Contents

Acronyms .....	4
Executive Summary .....	5
Introduction .....	7
1. Environmental Impact Assessment Policies, Rules and Procedures .....	9
1.1 National environmental legal framework .....	9
1.2 Environmental Impact Assessment regulations .....	11
1.3 Environmental Impact Assessment procedure .....	12
1.4 Country's environmental management institutional system .....	15
1.4.1 Central public authorities .....	15
1.4.2 Local public authorities .....	16
1.5 World Bank environmental assessment policy, rules and procedure .....	16
1.5.1 Safeguard Policies and their relevance to project .....	16
1.5.2 Screening categories and environmental assessment procedures .....	17
1.5.3 Public consultation and disclosure .....	20
1.6 The comparison of national and WB EA requirements .....	20
2. Analysis of Potential Environmental Impacts .....	22
2.1 Positive environmental impacts .....	22
2.2 Negative environmental impacts .....	22
3. Environmental Guidelines .....	23
3.1 Purpose of Environmental Guidelines .....	23
3.2 Content of Environmental Guidelines .....	23
3.3 Rules and procedures for environmental screening .....	23
3.3.1 Introductory notes .....	23
3.3.2 Environmental Impact Assessment of Category B sub-projects .....	24
3.3.3 Impacts prevention/mitigation .....	24
3.4 Environmental Management Plan (EMP) .....	26
3.5 Environmental Monitoring Plan .....	27
3.6 Sub-projects' EA review and approval .....	28
4. Institutional Arrangements for the EMF Implementation .....	29
4.1 Overall implementing responsibilities .....	29
4.2 Major responsibilities of the PIU .....	29
4.3 PIU Environmental Specialist .....	29
4.4 Construction companies .....	30
5. Budget .....	31
6. EMF's Disclosure and Consultation .....	32
Annexes .....	33
Annex A. Environmental Management Plan Checklist .....	34
Annex B. Terms of Reference for conducting an Environmental Impact Assessment .....	39
Annex C. Environmental Management Plan Content .....	40
Annex D. Impacts, Causes, Consequences and Mitigation measures for Construction activities .....	44
Annex E. Report on consultation on the Draft EMF with interested parties .....	48
Annex F. Reference Documents for World Bank Operational Policies (OP) and Bank Procedures (BP) .....	49

# Acronyms

---

BP	Bank Procedures
DCFTA	Deep and Comprehensive Free Trade Agreement
EA	Environmental Assessment
EG	Environmental Guidelines
EIA	Environmental Impact Assessment
ELV	Emission Limit Values
EMF	Environmental Management Framework
EMP	Environmental Management Plan
ES	Environmental Specialist
EU	European Union
FI	Financial Intermediary
GEF	Global Environmental Facility
GoM	Government of Moldova
IDA	International Development Association
IEC	Important Environmental Component
IFC	International Finance Corporation
IPM	Integrated Pest Management
LOC	Line of Credit
MAC	Maximum Allowable Concentrations
MDL	Moldovan Lei
MEd	Ministry of Education
MEn	Ministry of Environment
MERP	Moldova Education Reform Project
NGO	Non-governmental Organization
OM	Operational Manual
OP	Operational Policy
PDO	Project Development Objective
PFI	Participating Financial Institutions/Intermediaries
PIA	Project Implementing Agency
PIU	Project Implementation Unit
RM	Republic of Moldova
RSF	Risk Sharing Facility
SEE	State Ecological Expertise
SEI	State Ecological Inspectorate
SEIA	Statement on the Environmental Impact Assessment
TA	Technical Assistance
TOR	Terms of Reference
USA	United States of America
WB	World Bank

# Executive Summary

---

1. **Project background.** The Project Development Objective (PDO) is to strengthen the quality of education while supporting the efficiency reforms being implemented in the education sector. The project has three main components:

*Component 1:* Strengthening the Quality of Education (US\$ 30.5 million under a results based approach). The objective of this component is to contribute to the strengthening of the quality of education in the General Education sub sector in Moldova. Support to the strengthening of quality would be provided in four main areas: (i) implementation of quality assurance standards for receiving schools; (ii) establishment of teacher and school directors training and remuneration systems; (iii) improvement in the student assessment systems (both national and international); and (iv) improvement in the quality of data and management information systems.

*Component 2:* Improving the Efficiency of the Education Sector (US\$ 8 million under a results based approach). The objective of this component is to improve the efficiency of the sector by eliminating excess capacity and creating a leaner education system, which would be better equipped to provide education that meets the demands of a modern economy. Through this component the MoE would ensure the implementation of reforms in the area of school network reorganization, including ensuring that selected schools meet quality standards. The component also includes activities to monitor and mitigate school-drop outs resulting from the optimization efforts. The restructuring project would also include supporting a series of civil works described below.

*Component 3:* Improving the Ministry of Education's Capacity to Monitor the Reform (US\$1.5 million under traditional disbursement methods).

2. **Location.** The sub-projects<sup>1</sup> to be supported under the project will be identified and screened during the implementation stage, and will be implemented countrywide based on demand for proposed activities.

3. **Project environmental category.** The project was originally designed as a Category “C” in terms of the World Bank’s environmental safeguards. However, as the first set of schools to undergo rehabilitation were identified, it became clear that the extent of the proposed work is not minor as originally anticipated, and has potential environmental impacts. Thus, in agreement with the Ministry of Education, the World Bank is re-categorizing the project’s environmental category to “B”, thus requiring that an Environmental Management Framework (EMF) be prepared for the whole project, followed by individual Environmental Impact Assessments (EIA) or Environmental Management Plans (EMP) for each site, depending on the proposed work.

4. **Potential environmental implications of the proposed activities.** The restructuring project, if not properly managed, might generate a series of social and environmental impacts, such as: a) Dust and noise due to rehabilitation activities; (b) Dumping of construction wastes, accidental spillage of machine oil, lubricants, paints, and solvents, etc.; (c) Groundwater and surface water contamination; (d) Asbestos which might be a real health concern for the construction workers and general public in the vicinity of the rehabilitated premises, in particular when it is inhaled; (e) Labor & safety impacts; (f) Air pollution. All these potential impacts are site specific, relatively minor and can be managed during project implementation.

5. **Potential social impact.** The project will generate a great number of both direct and indirect positive impacts. Direct positive social impacts will be generated by improved education conditions as a result the educational activities are carried out in well-equipped spaces. Indirect positive impacts will relate to overall improvement of education environment and increased education quality, introduction of advanced technologies and techniques, creating new opportunities for access to quality education, contribution to poverty reduction and improvement of the educational services quality, as well as improvement of

---

<sup>1</sup> Sub-projects refer to projects that will be finance through funds under the MERP

country's socio-economic conditions.

6. **Triggered WB OPs.** As the project activities might generate some environmental and social impacts it triggers the WB OP 4.01 *Environmental Assessment*. At the same time, as all proposed activities are to be implemented within existing settlement boundaries and within land used already for the schools, the project will not have impact on wildlife and natural habitats, and thus OP/BP 4.04 *Natural habitats* are not triggered. No impact is expected on physical cultural resources, and therefore OP/BP 4.11 *Physical Cultural Resources* is not triggered and no schools specified in the national or local physical cultural resources will be included in the project. Additionally, project funds will not support any activities requiring the involuntary displacement of existing occupants or economic users of any plot of land, regardless of its current ownership, or loss of or damage to assets including kiosks, fences and others. The Operational Manual will define a screening procedure to be followed by MERP, and the implementing agency will closely monitor the screening procedure, with the support of the Bank Task Team. With these restrictions in place, the project does not trigger OP/BP 4.12 *Involuntary Resettlement*.

7. **Environmental Management Framework (EMF).** In order to address safeguard issues, the borrower prepared the EMF for the MERP purposes. The EMF outlines the environmental assessment procedure, including criteria and responsibilities for environmental screening, designing Environmental Management Plans (EMPs), EMPs implementation and monitoring of sub-projects. The document also includes Environmental Guidelines for different types of proposed sub-projects. These guidelines provide guidance on potential impacts and generic mitigation measures to be undertaken for sub-projects in *civil works* at all stages – from identification and selection, through the design and implementation phase, to the monitoring and evaluation of results. Furthermore, the EMF provides a monitoring plan format that includes monitoring indicators, timing, methods, and institutional responsibilities.

8. **Environmental screening.** All sub-projects to be supported under the MERP will be subject to environmental screening as per criteria laid down in the project EMF. In cases where sub-projects cause significant impact that may require a full Environmental Impact Assessment (EIA) (Category A projects), such sub-projects will not be financed under the project. Most of the sub-projects will fall under Category B, which will require a simple Environmental Assessment and/or preparation of a simple Environmental Management Plan. It is also expected that many sub-projects, related to refurbishing and rehabilitation activities, will have insignificant environmental impact and will fall under Category C, which will not require any further EA activities.

9. **Integration of the EMF into project design and implementation.** The EMF will be integrated into the Project's Operational Manual, as well as an Environmental Management Plan "Checklist" will be used as part of all contracts involving equipment and works. The Bank is expected to provide a special training to the PMU team, so they can promote compliance with the EMF and EMP. The Bank will also supervise this aspect of implementation. The sub-projects EMP will be also integrated into the construction contracts for individual sites, both into specifications and bills of quantities and the Contractors will be required to include the cost in their financial bids. TVE beneficiary institutions will also receive a copy of the EMF and EMP so, when appropriate, they can oversee their compliance on the part of contractors.

10. **EMF disclosure and consultation.** The Project Implementation Unit (PIU) has disseminated the draft EMF to the Ministry of Education, Ministry of Environment, and other relevant institutions for their review and comments, and also, on **March 20, 2015**, the document was posted on a Public Consultation web-platform ([www.particip.gov.md](http://www.particip.gov.md)) for broad access to the public. On **March 31, 2015**, the PIU organized a consultation on MERP and EMF provisions. After the consultation, the draft EMF document was reviewed to consider inputs from consulted parties. On **April DD, 2015**, the final EMF was posted on the website of the Ministry of Education and submitted to the World Bank for disclosure in the *InfoShop*.

# Introduction

---

1. *Project context.* The Moldova Education Reform Project (MERP) supports the Government's reform program by supporting activities that will strengthen the quality of education and lead to a more efficient education sector. The Project's objectives are consistent with the Country Partnership Strategy for Moldova 2009-2012 (CPS), directly contributing to the implementation of the CPS's second pillar of building human capital. Through this Project, the World Bank will support the GoM in implementing the much-needed reforms. The efficiency measures outlined in this reform action plan are:

- aligning class sizes with commonly accepted international standards;
- adjusting the size of the existing school network and reallocating students to "receiving" schools (i.e., schools that receive students from closed or reorganized schools); and
- implementing per student financing nationwide.

2. *Project scope and objectives.* The PDO is to strengthen the quality of education while supporting the efficiency reforms being implemented in the education sector. The expected results of the proposed Project are the following:

- seventy percent of receiving schools<sup>2</sup> meet the approved school quality assurance standards;
- average scores for receiving schools in Romanian and Math on grade 4 national exams increased as measured by the results of the May 2018 examinations;
- average scores for receiving schools in Romanian and Math on grade 9 national exams increased as measured by the results of the May 2018 examinations; and
- student-teacher ratio for grades 1-12 increased from 10.5:1 to 11.5:1 by end of school year in June 2018.

3. *Project description.* In order to support the efforts of the Government of Moldova in strengthening the quality of education while supporting the efficiency reforms being implemented in the education sector, the Moldova Education Reform Project (MERP) includes three key priority areas of action, organized as components: (i) Strengthening the Quality of Education; (ii) Improving the Efficiency of the Education Sector; and (iii) Improving the Ministry of Education's Capacity to Implement Education Reform. For the first two components, a set of Disbursement Linked Indicators (DLIs) has been established; together they account for US\$38.5 million of the Credit (about 96%). The DLIs have been structured around two of the Government of Moldova's education priorities -- strengthening the quality of education and improving the efficiency of the sector. The third component, which mostly finances technical assistance, operating costs, and training, follows traditional disbursement methods.

*Component 1: **Strengthening the Quality of Education*** (US\$ 30.5 million under a results based approach).

The objective of this component is to contribute to the strengthening of the quality of education in the General Education sub sector in Moldova. Support to the strengthening of quality would be provided in four main areas: (i) implementation of quality assurance standards for receiving schools; (ii) establishment of teacher and school directors training and remuneration systems; (iii) improvement in the student assessment systems (both national and international); and (iv) improvement in the quality of data and management information systems.

*Component 2: **Improving the Efficiency of the Education Sector*** (US\$ 8 million under a results based approach).

The objective of this component is to improve the efficiency of the sector by eliminating excess capacity and creating a leaner education system, which would be better equipped

---

<sup>2</sup> The total number of existing receiving schools to be considered for the purposes of this indicator is 135 (data of October 15, 2012).



to provide education that meets the demands of a modern economy. Through this component the MoE would ensure the implementation of reforms in the area of school network reorganization, including ensuring that selected schools meet quality standards. The component also includes activities to monitor and mitigate school-drop outs resulting from the optimization efforts. The restructuring project would also include supporting a series of civil works including the following: small scale refurbishing activities inside the school premises (e.g. walls repainting, tiling, installation of cable ducts, new water-pipes, new laboratory installations); renovation works involving generation of comparatively large waste quantities (e.g. replacement of floor, exchange of ventilation and or electrical systems, replacement of doors and/or windows); replacement of the asbestos roofs; major refurbishing activities involving removal/reconstruction of walls (especially when containing Asbestos isolations or sheets); refurbishing activities including replacement of ceramics; remodeling of the existing offices; connection of the schools to the water supply and sanitation; construction of toilets inside the school premises as well as of septic tanks. A special group of activities would relate to heating energy conservation and in particular: insulation of walls, basements and attics, repair/replacement of external doors and windows, window optimization; boiler upgrade/replacement; fuel switching mostly from coal to natural gas; installation of biomass boilers, reflective surfacing of walls behind radiators; other energy conservation measures.

*Component 3: Improving the Ministry of Education's Capacity to Monitor the Reform* (US\$1.5 million under traditional disbursement methods).

The objective of this component is to finance technical assistance (consulting and non-consulting services, operating costs, and training) for the MoE to support the implementation, monitoring and measurement of the education reform program. This component would provide adequate resources and expertise to finance key activities in the Project in the reaching of its DLIs.

4. *Location.* The sub-projects<sup>3</sup> to be supported under the project will be identified and screened during the implementation stage, and will be implemented countrywide based on demand for proposed activities.

5. *Project environmental category.* The project was originally designed as a Category “C” in terms of the World Bank’s environmental safeguards. However, as the first set of schools to undergo rehabilitation were identified, it became clear that the extent of the proposed work is not minor as originally anticipated, and has potential environmental impacts. Thus, in agreement with the Ministry of Education, the World Bank is re-categorizing the project’s environmental category to “B”, thus requiring that an Environmental Management Framework (EMF) be prepared for the whole project, followed by individual Environmental Impact Assessments (EIA) or Environmental Management Plans (EMP) for each site, depending on the proposed work.

6. *Environmental Management Framework (EMF).* In order to address safeguard issues, the borrower prepared the EMF for the MERP purposes. The EMF outlines the environmental assessment procedure, including criteria and responsibilities for environmental screening, designing Environmental Management Plans (EMPs), EMPs implementation and monitoring of sub-projects. The document also includes Environmental Guidelines for different types of proposed sub-projects. These guidelines provide guidance on potential impacts and generic mitigation measures to be undertaken for sub-projects in *civil works* at all stages – from identification and selection, through the design and implementation phase, to the monitoring and evaluation of results. Furthermore, the EMF provides a monitoring plan format that includes monitoring indicators, timing, methods, and institutional responsibilities.

<sup>3</sup> Sub-projects refer to projects that will be financed through funds under the MERP



# 1. Environmental Impact Assessment Policies, Rules and Procedures

---

## 1.1 National environmental legal framework

This section describes the laws relevant to environmental management of sub-projects to be supported by the MERP:

8. *The Law #1515 on Environmental Protection (1993)*. This law establishes the basic legal framework for drafting special normative acts and instructions in particular issues of environmental protection in order to:

- a) ensure the right of each person to a healthy and aesthetically pleasant environment;
- b) achieve the ultimate responsibility of each generation for environmental protection towards the future generations;
- c) obtain a wider range of using the natural resources without exceeding the allowable limits, avoiding their depletion and degradation, the risk for people's health and other unwanted and unpredictable consequences;
- d) protect the soil and subsoil, water and air from chemical, physical and biological pollution;
- e) maintain the biodiversity and genetic resources, integrity of natural systems, historical and cultural national values;
- f) restore ecosystems and their components affected by human activity or natural disasters.

9. *The Law #272 on Water (2011)*. This law, partially harmonized with European Council directives: no. 91/271 / EEC of May 21, 1991 concerning urban waste water treatment and no. 91/676 EEC of December 12, 1991 on the protection of waters against pollution caused by nitrates from agricultural sources, with the European Parliament and Council Directives: no. 2000/60/EC of October 23, 2000 establishing a framework for the Community action in the field of water policy; no. 2006/7/EC of February 15, 2006 concerning the management of bathing water quality; no. 2007/60/EC of October 23, 2007 on the assessment and management of flood risks; no. 2008/105/EC of December 16, 2008 on environmental quality standards in the field of water policy, establishes the legal framework necessary for the water management, protection and use. This law is aimed at:

- a) establishing a legal framework for the management, protection and efficient use of surface water and groundwater based on the evaluation, planning and participatory decision-making;
- b) establishing the rights on water use and promotion of investments in the water sector;
- c) establishing the mechanisms for water protection, preventing further degradation of water, protecting and restoring the aquatic environment, gradual convergence and systematic protection and their management in line with the European requirements;
- d) providing a sufficient supply of good quality surface water and groundwater, that it is necessary for a sustainable, balanced and equitable water use.

10. *The Law #303 on Public Services of Water Supply and Sewerage (2013)*. The purpose of this law is establishment of the legal framework for creation, organization, management, regulation and monitoring of the public services of supply with drinking water, technological water, the sewerage and treatment of waste household and industrial water in terms of accessibility, availability, reliability, continuity, competitiveness and transparency, with observance of the quality, safety and environmental protection standards. This law regulates:

- a) the activity for provision of public services of water supply and sewerage;
- b) exploitation, maintenance, expansion and functioning of public service of water supply and sewerage;
- c) determination and approval of regulated tariffs for public services of water supply and sewerage;
- d) safety and reliability of water supply to consumers;

- e) protection of consumers' rights on public services of water supply and sewerage;
- f) the guaranteed non-discriminatory access of all individuals and legal entities to public services of water supply and sewerage in accordance with the contractual conditions and legislative and other normative acts in the field.

Concomitantly, this law establishes the competences of the central and local public authorities in the area of public service of water supply and sewerage, and of the regulating central public authority, as well as the rights and obligations of the consumers and operators providing public service of water supply and sewerage in the localities, other provisions concerning functioning of public service of water supply and sewerage.

11. *The Law #1402 on Public Utility Services (2002)*. This law establishes the unified legal framework for creation and organization of public utility services in the territorial administrative units, including monitoring and control of their functioning.

The public utility services ensure the supply / provision of the following services:

- a) water supply;
- b) the supply of heat;
- c) sewerage and wastewater and rainwater treatment;
- d) sanitation, greening of localities;
- e) provision of local public transport;
- f) management of public and private housing fund.

12. *The Law #10 on State Supervision of Public Health (2009)*. This law regulates the organization of the state supervision of public health, establishing the general requirements for public health, the rights and obligations of individuals and legal entities and the modality to organize the public health state supervision system and to ensure the optimal conditions for achieving the health potential of each individual throughout the life by the society's organized effort to prevent diseases, protect and improve people's health and the quality of life.

13. *The Law #1347 on Production and Household Wastes (1997)*. This law regulates, according to the Law on Environmental Protection, the management of production and household waste in order to reduce them, recycle and prevent environmental pollution. Concomitantly, this law regulates the relations appeared from waste management in the process of:

- (a) mining and processing of raw materials;
- (b) manufacturing, transportation and storage of technical articles, consumer goods, energy and energy sources;
- (c) carrying out construction, agricultural, mining and other activities;
- (d) providing services;
- (e) consumption of industrial and consumer goods.

14. *The Law #1422 on Air Protection (1997)*. This law is aimed at maintaining the air purity and improving the air quality - component of the environment, preventing and reducing the adverse effects of physical, chemical, biological, radioactive and other factors on the atmosphere, with adverse consequences for the population and /or the environment, and regulates the activity of individuals and legal entities, irrespective of type of ownership and legal form of organization, when he/she directly or indirectly affects or may affect the air quality.

15. *Land Code (1991)*. The Land Code establishes the relations and rights of land ownership and the basic framework of land use. Art. 5 states that land conservation should be a priority while implementing any kind of activities. Art. 23 is particularly important because it stipulates cases of termination of land rights, including use of the land in ways that result in soil degradation, chemical and other pollution, deterioration and destruction of ecosystems or their components. The obligations of the land owners (art. 29) are: use of land to conform to its intended and planned use, observe conditions of land exploitation, to ensure structure of crop rotation to conform to good agricultural practices, to apply chemical inputs only to recommended levels and to provide protection and improvement of soil fertility.

16. *Law on Quality in Construction (1996)*. This law determines juridical, technical, economic and institutional aspects related to the construction activities and its quality. The Law stipulates that

construction requirements should guarantee resistance and stability, fire, hygiene and environmental safety, etc. Art. 13: construction, modernization, strengthening, repair/ renovation are implemented only in accordance with project documentation worked out by physical and juridical persons authorized for such types of works and verified by authorized specialists in the field; Art 14: design and construction of buildings is implemented by physical and juridical persons licensed for activity in the field.

17. *The Law on Principles of Urbanism and Territorial Improvement (1996)*. This law relates to planning, location and construction of buildings, including any modifications to buildings. Art. 6(3) states that documentation for town-planning and territorial development establishes the location of land zones and rules for their use. Town-planning certificates and permits for construction are issued on the basis of this documentation. For construction purposes based on approved documentation, art. 52 stipulates that local public administration shall provide permits for operations and also for any changes of operation location. Assessment of potential environmental impacts of above activities and developments, and the provision of ecological expertise is to be conducted in accordance with the Laws on Ecological Expertise and EIA.

## 1.2 Environmental Impact Assessment regulations

18. *The Law on Ecological Expertise (1996)*. The law determines goals, objectives and principles of Ecological Expertise and EIA, as well as fundamentals of both procedures. The Law describes in detail EIA procedures, demands the reporting, rules for compliance and submission of documentation on EIA, public involvement, revision of EIA e documentation, rules for conducting the SEE. The State Ecological Expertise is a part of a group of activities working toward environmental protection through which the potential impacts on environment from planned economic activity, compliance of parameters of these activities with legislation and normative acts, norms and standards in force are identified and mitigated.

According to the Law, project documentation for the objects that may adversely affect the environment is a subject of State Ecological Expertise which in turn determines whether it complies or not with environmental protection requirements. Decisions on ecological expertise can be considered as the basis for approval or refusal of the project. Ecological expertise is conducted prior to making decisions on planned economic activities, and it is mandatory for all economic activities that may have a negative impact on the environment regardless of their destination, ownership, investments, location, source of financing etc. In case the objects can affect the environment severely, their planning documentation is a subject of EIA to be conducted prior to State Ecological Expertise.

19. *The Law #86 on Environmental Impact Assessment (2014)*. It establishes the goal of preparing documentation on EIA, its procedure, coordination and approval, and includes the List of objects and types of activities for which EIA prior to their design is compulsory. EIA is carried out to determine the requisite measures to prevent adverse ecological impacts due to realization of certain planned objects and types of activities. The Law describes the requirements for documentation on EIA (materials in which the direct and indirect impacts of planned objects on air, water, soil, landscape, protected areas, fauna, flora, natural resources, cultural and historic monuments, socio-economic situation are establishing, describing and evaluating; comparison of alternative solutions and substantiation of the best one; suggested mitigation activities (on the basis of developed documentation on EIA, the client designs a Statement on EIA in which all materials, calculations and researches are presented and systematized), EIA content (title of the project; character of activity; location; substantiation for location; project duration; technical and technological characteristics of the project; suggested technical solutions; project cost; localities affected by projects; information of direct impacts on the environment (water, soil, etc.); land to be occupied by project; water abstraction; water use, water source; sources of raw materials, transport and other infrastructure, emissions to air, wastes and their utilization, etc.); order of elaboration and submission documentation on EIA, state ecological expertise of EIA documentation, decision on a state ecological expertise of EIA documentation, etc.

20. *Instruction #188 on Order of Organization and Conducting of the State Ecological Expertise (2002)*. The State Ecological Expertise (SEE) is applied for any new construction, its modernization and upgrading. All design documents should be presented to the State Ecological Expertise units (ME for

major projects, headquarters of the State Ecological Inspectorate and territorial ecological inspections). Technical solutions, reflected in the submitted for SEE technical documentation have to be sufficiently substantiated in relation to reduction/mitigation of impact on environment. The instruction is accompanied by a series of annexes, which: (i) describe in detail requirements for project documentation submitted to SEE; (ii) nominate subdivisions of MEN responsible for SEE different types and scales of projects; (iii) establish requirements for every chapter or volume of project documentation, etc.

### 1.3 Environmental Impact Assessment procedure

21. In Moldova, the EIA procedure was established by the Laws #86 on SEE and EIA from 1996 and #86 on *Environmental Impact Assessment* from 2014. EIA procedures are applicable to complex and potentially dangerous (to the environment) projects which could lead to significant impact and aim to prevent and mitigate impact even in the project design stage. The EIA should be conducted at an early stage of the project in case new construction, upgrading, reconstruction, modernization, production profile changes, conservation or liquidation of existing enterprises, or new development planning, is expected to be implemented.

22. *Project Environmental Screening*. Following national environmental approval procedures, all projects may be conventionally divided into three main categories:

(I) *First category* - projects which may have significant impact on the environment (see the list of projects below). They require a full EIA before designing and can be further developed (detailed engineering design) with a positive approval of the EIA findings by the State Ecological Expertise (SEE). The projects of this category mainly correspond to WB Category A projects as well as partly, to Category B projects, e.g., electrical transmission, nature protection projects, some watershed projects (e.g., protection strips along river and water bodies), some rural water supply projects (for grouped water intakes with 1 thousand m<sup>3</sup>/day and more for underground water intake and 10 thousand m<sup>3</sup> per day for surface water intake), etc.

(II) *Second category* - projects not listed in the list of first category projects, which may have less significant impact on environment. They require ecological substantiation of project activities. Such substantiation is described in a special Environmental Chapter of the project documentation, which has to contain information on potentially affected environment as well as outline the main potential environmental impacts and mitigation measures. This Chapter has to be included in the project design documentation and respectively, be passed through the State Ecological Expertise before project implementation – this Category mainly corresponds to WB Category B projects. Based on the proposed project activities it is clear that most of subproject would fall under this Category.

(III) *Third category* - projects which are expected to have minor impact on the environment and therefore do not need to be passed through the formal procedures of EIA and SEE. This Category fully corresponds to WB Category C projects. It is expected many of sub-projects which would support only minor rehabilitation civil works will fall under this Category.

23. *EIA review and approval process*. According to the Law on State Ecological Expertise (1996), project documentation for the projects that may adversely affect environment is a subject of a *State Ecological Expertise*. The main goal of the SEE is to determine whether the project documentation complies with environmental protection requirements and to check whether all environmental standards/principles are adhered, and the environmental protection measures are addressed. Ecological Expertise should be conducted prior to making decisions on planned economic activity, and is compulsory for project and planning documentation with regard to planned economic objectives and activities that affect or may affect environmental conditions and/or envisage use of natural resources, regardless of destination, placement, type of ownership and subordination of these objectives, the amount of capital investments, source of funding and method of execution of construction works.

The decision of the ecological expertise is the basis for further approval or refusal of the project documentation. In the case of projects which may severely affect the environment (specified in the relevant list attached to the Law #86 on EIA), their documentation is a subject of EIA to be

conducted prior to Ecological Expertise. The purpose of the EIA is to identify impact effects that these projects may have on the environment and to provide solutions to mitigate any significant effects that could occur as a result of project implementation.

All EIA conclusions, including list of mitigation measures and environmental management plan should be outlined in the chapter on “Environment Protection” of the Design Document. The SEE can be conducted either by the central office of the MEn (Division for Pollution Reduction Prevention), or by the State Ecological Inspectorate headquarter, or territorial ecological inspections/agencies, in dependence on scale of the project and significance of potential environmental impacts.

The list of objects, buildings and installations which has to be presented to the relevant sub-divisions of the Ministry of Environment for conducting of the State Ecological Expertise is presented the in *Table 1* below.

According to the Law, the central environmental authority is compelled to inform the public about the results of the ecological expertise on the EIA. This must be done no more than 10 days after a positive or negative decision is made on EIA documentation.

**Table 1.** List of objects, buildings, installations documentation which has to be presented to the relevant sub-divisions of the Ministry of Environment (extract)

№	Title of branch and object	Authorities		
		ME Division for Pollution Reduction	SEI Direction of the Ecological Expertise and Environmental Authorisation	SEI territorial Ecological Agencies and Inspections
<b>A</b>	<b>PROJECT OF THE SOCIO-CULTURAL AND COMMUNAL DESTINATION</b>			<b>X</b>
<b>B</b>	<b>PROJECTS OF THE INDUSTRIAL, COMMUNAL, TRANSPORTATION, ENERGY, COMMUNICATION, WAREHOUSE AND OTHER</b>			
<b>II</b>	<b>Projects of communal destination</b>			
1	Water intakes and waste water treatment plants, sewage		X	
2	Water supply systems; industrial, municipal and storm sewage, heating, sanitary treatment, transport: - on the national level - towns, cities, district centers, rural localities	X	X	
3	Municipal solid waste incineration plants, polygons on treatment and disposal of industrial, municipal and toxic wastes: - for municipalities Chisinau, Balti, Tiraspol, Bender - for other localities.	X	X	
<b>C</b>	<b>LINEAR PROJECTS AND FACILITIES</b>			
<b>I</b>	<b>Transport, energy, communication</b>			
7	Heating networks:			
a	From municipal and district heating houses		X	
b	From local heating houses		X	
8	Communication lines on pylons and underground:			
a	Main (magisterial)		X	
b	Between localities and inside them			X
9	Gas pipelines:			
a	Main of high and medium pressure, international and inter-district, gas distribution stations		X	
b	Gas pipelines from gas distribution points to customers in rural and urban areas		X	
10	Water supply and waste water collection systems in bounds of localities (without installations)			X
<b>D</b>	<b>DOCUMENTATION ON TOWN BUILDING AND URBAN DEVELOPMENT</b>			
<b>X</b>	<b>Documentation on EIA</b>	<b>X</b>		
<b>XI</b>	<b>Other documents and materials not listed in items A, B, C &amp; D</b>		<b>X</b>	

**Notes:**

(1) Volume, content and composition of the project documentation on construction, re-construction, technical



modernization, re-profiling of enterprise should correspond to requirements of normative, methodical, instruction and directive documents and environmental legislation in force.

(2) Ecological Expertise of the projects, materials and documents related to development and adoption of new technologies, equipment and materials, including foreign ones, is being implemented by the Institute of Ecology and Geography of the Academy of Sciences at the initial stage of the elaboration of project documentation.

24. *EIA disclosure and consultation.* Public consultations for the projects which require a full EIA (listed above) are compulsory at the initial stage of the project before conducting EIA (at the scoping stage) and at a later stage, when the Statement on EIA is disclosed to the public prior to reviewing of the final (corrected) documentation by the SEE and thus, the existing national public consultation procedure for first category fully complies with the Bank's (for Category A). For projects not listed in the Law, public consultation is not compulsory, issue which doesn't comply with WB requirements concerning second category projects (WB Category B).

Based on the results of the SEE of the EIA documentation and consideration of results of public consultations, the opinion letter is being compiled. A positive opinion letter/decision of SEE on the EIA documentation serves as official basis to proceed with further project design.

Obviously, the EIA procedure is a complex one, and consists of subsequent steps of documentation submission and approval. The developer (initiator of the planned activity) is responsible for the organization of the EIA study, conducting consultations, presentation of EIA documentation and SEIA to the SEE, including its financing.

25. *Projects that require SEE of design documentation.* All projects, which may have a negative impact on the environment, but not listed in Regulation on EIA (Second category), will require SEE before construction. The SEE procedures are usually applied after feasibility and engineering design stages. The design documentation for these projects usually linked with construction, reconstruction and enlargement, is being developed in line with technical documentation.

Sections "Environment Protection" and "Environment Protection during Construction" in the project documentation should be developed only by specialists in the fields. Technical solutions, reflected in the technical documentation submitted to SEE have to be sufficiently substantiated in relation to mitigation of impact on the environment.

26. *Projects that not require EIA and SEE of the design documentation.* Projects that do not need an EIA study and/or SEE of design documentation normally relate to activities when no (re)construction takes place, e.g., small scale refurbishing civil works. In these cases for project approvals the following steps are to be followed:

*Step 1.* Sub-project applicant presents a project description (location and intention) to relevant local (rayon or municipal) authorities where it is going to be located to get its approval to proceed.

*Step 2.* Applicant submits the sub-project business plan to the district authority (often, in order to review the business plan, a commission is being established, and one member of the commission should be a representative of environmental authority) to receive its approval. The commission determines whether an EIA is required. If the commission disagrees on approval of the plan, the applicant may have to provide additional information and/or the commission may request input from other interested parties.

*Notes:*

- a) If it is confirmed that no EIA is required (as per list provided in the Instruction on the Order of Organization and Implementation of the State Ecological Expertise) the applicant can proceed with the implementation of sub-project in case he/she received all other needed approval and permits.
- b) If the commission requires some EIA, then the applicant shall hire an authorized body to conduct the EIA on his/her behalf.

*Step 3.* Once the EIA is conducted, the applicant submits it to the central or local (as per Instruction's guidance) environmental authorities for EIA approval. The EIA is submitted to the Division of Ecological Expertise and Environmental Authorizations for its review and comments. Comments may be followed by the: (i) approval, (ii) approval under certain condition(s) to be met, or (iii) outright rejection of EIA, and hence, the sub-project.

*Step 4.* Upon approval from environmental authorities and obtaining permits issued by all concerned institutions (the officers of entities visited by applicants to get an approval determine what kind of special permits on maximum admissible discharges of wastewater, maximum admissible emissions to air - both are calculated for each particular case; water use; construction certificate as well as license on other than water natural resources use should be obtained from specialized institutions), the sub-project implementation is allowed to commence.

*Note:* The institutions issuing relevant permits might be: State Ecological Inspectorate (wastewater discharge volumes, pollutants in effluent and emissions to air), State Agency for Geology and Mineral Resources (AGeOM) (use of underground water resources), State Agency "Apele Moldovei" (use of surface water resources), local public authorities/mayoralties (construction certificates), etc.

## **1.4 Country's environmental management institutional system**

### **1.4.1 Central public authorities**

27. *Ministry of the Environment (MEN).* This is the central authority, responsible for the development and promotion of the state policy in the field of environment and natural resources. It performs: state control over the natural resources use; coordination and control over the implementation of environmental laws and policies; initiating and drafting laws and regulations and issuing relevant instructions/decisions; issuing permits on natural resources uses and licenses for polluting emissions; elaboration, approval and introduction of environmental standards and normative documents in the field of its competence; environmental monitoring; imposing economic sanctions in case of violations of I environmental legislation; supervises territorial development and its infrastructure, town-planning, architecture, industry of construction materials and introduction of new techniques and technologies in the sphere of its competence; drinking water supply and waste water treatment in urban areas, etc. The following institutions sub-ordinate to the Ministry: State Ecological Inspectorate; State Hydrometeorological Service, State Agency for Geology (AGeOM), State Agency "Apele Moldovei", Institute of Ecology and Geography.

28. *State Ecological Inspectorate (SEI).* The SEI is an environmental protection regulatory and enforcement agency which performs the state control over the rational use and protection/conservation of natural resources. Its role is to control implementation of environmental legislation. The SEI through its country-wide network of Territorial Agencies and Raion Inspections monitors industrial facilities which generate impacts on environment. The SEI issues permits on use of natural resources and environmental pollution in admissible limits; supervises the level of respecting ecological norms and requirements, instructions, recommendations, norms on use of natural resources, dangerous products and substances, and wastes; evaluates EIA applications for new developments; provides ecological expertise; regulates and establishes Emission Limit Values (ELVs) and Maximum Allowable Concentrations (MACs) and regulates the emission of dangerous substances into the environment as well as the storage limits of industrial, domestic, hazardous and other wastes; performs environmental pollution monitoring; carries out enforcement of the permits by inspection visits, monitors, and levies fines in cases of non-compliance, initiates legal processing, ceases the activity in case of non-compliance with environmental protection requirements, etc.

29. *State Hydrometeorological Service (SHS).* Through the Monitoring Centre on Environmental Quality, the SHS performs regular monitoring of the air, water and soil quality as well as atmospheric radiation background level. Among other responsibilities are monitoring of meteorological conditions, Prut and Dniester Rivers' water flow, hydrological forecast, weather forecast, agro-meteorological monitoring and forecast, etc.



30. *State Agency for Geology and Mineral Resources (AGeoM)*. The AGeoM is responsible for promoting of state policy in the field of management and monitoring of underground resources in Moldova and provides an overall umbrella for state organizations and enterprises specialized in field of underground water use; administrations at district and regional level, as well as organizations specialized in the design and investigation of underground water objects. It performs management of underground water resources and their protection; counting of groundwater resources and monitoring of groundwater quality and regime.

31. *State Agency “Apele Moldovei”*. Agency “Apele Moldovei” is subordinated to the Ministry of Environment. It is the central technical and administrative organization dealing with surface water resources, and is responsible for management of water resources used for irrigation, domestic and industrial water supply purposes as follows: development of long-term programs concerning river basins and water administration works throughout the country, including centralized water supply facilities, irrigation and drainage, protection against floods or other damage, coordinating of construction, design, and operation activities in the field of water.

#### 1.4.2 Local public authorities

32. Among responsibilities of local public authorities on local (settlement) level are: approval and supervision of local programs in the field of environmental protection; protection and conservation of historical and natural monuments; natural parks and protected areas, and approval of admissible limit values of emissions and discharges (admissible level of environmental pollution) and limits of natural resources (water) use.

### 1.5 World Bank environmental assessment policy, rules and procedure

#### 1.5.1 Safeguard Policies and their relevance to project

33. There are 10 key Environmental and Social World Bank Safeguard Policies which are intended to ensure that potentially adverse environmental and social consequences of projects financed by Bank are identified, minimized and mitigated. World Bank Safeguard Policies have a three-part format: *Operational Policies (OP)* - statement of policy objectives and operational principles including the roles and obligations of the Borrower and the Bank; *Bank Procedures (BP)* - mandatory procedures to be followed by the Borrower and the Bank, and *Good Practice (GP)* - non-mandatory advisory material. World Bank’s Safeguard Policies and their relevance to sub-projects to be funded under the MERP are indicated in the *Table 2* below.

**Table 2.** World Bank’s Safeguard Policies and their relevance to MERP sub-projects

Safeguard Policies	Relevance
<b>Environmental Assessment (OP/BP 4.01)</b> This Policy aims at ensuring that projects proposed for Bank financing are environmentally and socially sound and sustainable; to inform decision makers of the nature of environmental and social risks; to increase transparency and participation of stakeholders in the decision-making process	<b>Yes</b> (refer to the description below)
<b>Natural Habitats (OP/BP 4.04)</b> This Policy aims at safeguarding natural habitats and their biodiversity; avoid significant conversion or degradation of critical natural habitats, and to ensure sustainability of services and products which natural habitats provide to human society	<b>No.</b> As all proposed activities are to be implemented within existing locations and settlement boundaries, the sub-projects to be supported under the MERP will not have impacts on wildlife and natural habitats, and thus, this OP is not triggered.
<b>Forestry (OP/BP 4.36)</b> This Policy is to ensure that forests are managed in a sustainable manner; significant areas of forest are not encroached upon; the rights of communities to use their traditional forest areas in a sustainable manner are not compromised	<b>No.</b> No wood harvesting activities or those that would impact the health of the existing forests will be not supported.

Safeguard Policies	Relevance
<p><b>Pest Management (OP 4.09).</b> This policy is to ensure pest management activities follow an Integrated Pest Management (IPM) approach, to minimize environmental and health hazards due to pesticide use, and to contribute to developing national capacity to implement IPM, and to regulate and monitor the distribution and use of pesticides</p>	<p><b>No.</b> The project will not support purchasing and using of pesticides.</p>
<p><b>Physical Cultural Resources (OP/BP 4.11)</b> This policy is to ensure that: Physical Cultural Resources (PCR) are identified and protected in World Bank financed projects; national laws governing the protection of physical cultural property are complied with; PCR includes archaeological and historical sites, historic urban areas, sacred sites, graveyards, burial sites, unique natural values; implemented as an element of the EA</p>	<p><b>No.</b> The EMF specifies there will be no impact on physical cultural resources, and therefore OP/BP 4.11 “<i>Physical Cultural Resources</i>” is not triggered. All proposed sub-projects will be screened in this regard and in the case there might be such impacts those projects will be not supported under the project. No schools included in the national/local list of Physical Cultural Resources will be included in the project.</p>
<p><b>Indigenous Peoples (OP/BP 4.10)</b> IP – distinct, vulnerable, social and cultural group attached to geographically distinct habitats or historical territories, with separate culture than the project area, and usually different language. The Policy aims to foster full respect for human rights, economies, and cultures of IP, and to avoid adverse effects on IP during the project development.</p>	<p><b>No.</b> This Policy is not applicable for Moldova.</p>
<p><b>Involuntary Resettlement (OP/BP 4.12)</b> This policy aims to minimize displacement; treat resettlement as a development program; provide affected people with opportunities for participation; assist displaced persons in their efforts to improve their incomes and standards of living, or at least to restore them; assist displaced people regardless of legality of tenure; pay compensation for affected assets at replacement cost; the OP Annexes include descriptions of Resettlement Plans and Resettlement Policy Frameworks</p>	<p><b>No.</b> Sub-projects will be eligible to become project beneficiaries under the condition that they have not acquired and/or would not acquire land for the needs of activities to be supported with the project proceeds through a process which involved and/or would involve officially supported expropriation. The project Operational Manual (OM) will define a screening procedure to be filled by sub-project implementers, and the MERP Implementing Agency will closely monitor the screening procedure, with the support of the WB Task Team.</p>
<p><b>Safety of Dams (OP/BP 4.37)</b> This Policy is to ensure due consideration is given to the safety of dams in projects involving construction of new dams, or that may be affected by the safety or performance of an existing dam or dams under construction; important considerations are dam height &amp; reservoir capacity</p>	<p><b>No.</b> The project will not support any activities which might have impact on dam safety.</p>
<p><b>Projects on International Waterways (OP/BP 7.50)</b> The Policy aims to ensure that projects will neither affect the efficient utilization and protection of international waterways, nor adversely affect relations between the Bank and its Borrowers and between riparian states</p>	<p><b>No.</b> The project not finance any sub-projects which may affect international waterways and in particular: projects involving discharging waste waters directly in the international waterways; abstraction or diversion of international waters; projects related to discharging waste materials in a location that could impact on international waters;. These requirements represent screening criteria to be applied by the MERP Implementing Agency.</p>
<p><b>Disputed Areas (OP/BP 7.60)</b> The Bank may support a project in a disputed area if governments concerned agree that, pending the settlement of the dispute, the project proposed for one country should go forward without prejudice to the claims of the other country</p>	<p><b>No.</b> The project will not support any activities in disputed areas.</p>
<p><b>Disclosure Policy (BP 17.50)</b> supports decision making by the borrower and Bank by allowing the public access to information on environmental and social aspects of projects and has specific requirements for disclosure</p>	<p><b>Yes.</b> The EMF will be disclosed and consulted in the country before appraisal and in the WB Info Shop.</p>

**Note:** Reference Documents on World Bank’s Operational Policies (OP) and Bank Procedures (BP) are presented in Annex F.

### 1.5.2 Screening categories and environmental assessment procedures

34. *Environmental Screening* is a Mandatory Procedure for the OP/BP 4.01 *Environmental Assessment*. The Bank undertakes environmental screening of each proposed project for which it will provide funding in order to determine the appropriate extent and type of the Environmental Assessment to be conducted.

The Bank classifies a proposed project into one of four categories, depending on the type, location, sensitivity and scale of the project and the nature and magnitude of its potential environmental impacts<sup>4</sup>. These four Categories are A, B, C, and FI.

35. **Category A** projects are likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. These impacts may be sensitive, irreversible, and diverse, with attributes such as direct pollutant discharges large enough to cause degradation of air, water, or soil; large-scale physical disturbances of the site and/or surroundings; extraction, consumption, or conversion of substantial amounts of forest and other natural resources; measurable modifications of hydrological cycles; hazardous materials in more than incidental quantities; and involuntary displacement of people and other significant social disturbances. The impacts are likely to be comprehensive, broad, sector-wide, or precedent-setting. Impacts generally result from a major component of the project and affect the area as a whole or an entire sector. They may affect an area broader than the sites or facilities subject to physical works. The EA for a Category A project examines the project's potential negative and positive environmental impacts, compares them with those of feasible alternatives (including the "without project" scenario), and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance. For a Category A project, the borrower is responsible for preparing a report, normally a full EIA (or a suitably comprehensive regional or sectoral EIA).

To the Category A projects correspond activities listed in the Law on EIA (2014) and in the Order of Organization and Conducting of the State Ecological Expertise (2002) in case they attribute to newly planned activities/enterprises.

36. **Category B** projects have potential adverse environmental impacts on human populations or environmentally important areas - including wetlands, forests, grasslands, and other natural habitats - which are less adverse than those of Category A projects. These impacts are site-specific; few if any of them are irreversible; in most cases mitigating measures can be designed more readily than for Category A projects. The scope of EA for a Category B project may vary from project to project, but it is narrower than that of Category A assessment. Like Category A, a Category B environmental assessment examines the project's potential negative and positive environmental impacts and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance. The findings and results of EIA for Category B projects are described in the project documentation (Project Appraisal Document and Project Information Document).

To the Category B projects may be attributed all activities not listed in the Law on EIA (2014) and in the Order of Organization and Conducting of the State Ecological Expertise (2002) as well as those listed in above documents activities which attribute to already working enterprises which already passed through the procedures of EIA and SEE, e.g., to those, which according to the national procedure, require EIA *only* for their newly developing parts (construction, reconstruction, rehabilitation, expansion of industrial facilities, etc.).

37. **Category C**. An EIA or environmental analysis is normally not required for Category C projects because the project is unlikely to have adverse impacts; normally, they have negligible or minimal direct disturbances on the physical setting. Professional judgment finds the project to have negligible, insignificant, or minimal environmental impacts. Beyond screening, no further EA action is required.

To the Category C projects mainly correspond activities related to the convention III<sup>rd</sup> Category of projects which are expected to have minor impacts on environment and therefore do not need to be passed through the formal procedures of EIA and SEE.

38. **Category FI**. A Category FI project involves investment of Bank funds through a financial intermediary, in sub-projects that may result in adverse environmental impacts.

---

<sup>4</sup> See: Environmental Assessment Update Sourcebook, Environmental Department, April 1993. The World Bank

39. The Bank reviews the findings and recommendations of the EIA to determine whether they provide an adequate basis for processing the project for Bank financing. When the borrower has completed or partially completed EA work prior to the Bank's involvement in a project, the Bank reviews the EA to ensure its consistency with this policy. The Bank may, if appropriate, require additional EA work, including public consultation and disclosure.

40. *Examples of projects* that fall under Categories A, B, and C are provided in *Table 3* below. However, this list is just a good starting point and framework for the screening decision. Because of other factors involved such as project sitting, the nature of impacts, and the need for the EIA process to be flexible enough to accommodate them, the lists should not be used as the sole basis for screening.

Projects with multiple components are classified accordingly to the component that with the most significant adverse impact; if there is a Category A component, the project is classified as A, and, respectively, requires a full EIA.

**Table 3.** Types of projects under the World Bank's Categories A, B, and C

<b>Category A</b> <i>Projects/project components which may have diverse and significant impacts – normally require EIA</i>	<b>Category B</b> <i>Projects/project components which may have diverse and significant impacts – more limited EIA is appropriate</i>	<b>Category C</b> <i>Projects which are unlikely to have direct adverse impacts – no EIA is required</i>
<ul style="list-style-type: none"> <li>• Dams and reservoirs;</li> <li>• Forestry production projects;</li> <li>• Irrigation, drainage and flood control (large scale);</li> <li>• Industrial plants (large scale*) and industrial estates, incl. major expansion, rehabilitation or modification;</li> <li>• Aquaculture and marine culture (large scale);</li> <li>• Land clearance and leveling;</li> <li>• Mineral development</li> <li>• Port and harbor development;</li> <li>• Reclamation, new land development;</li> <li>• Resettlement and all projects with potentially major impacts on people;</li> <li>• River basin development;</li> <li>• Thermal and hydropower development;</li> <li>• Manufacture, transportation, and use of pesticides or other hazardous and/or toxic materials</li> </ul>	<ul style="list-style-type: none"> <li>• Agro-industries (small scale);</li> <li>• Electrical; transmission;</li> <li>• Irrigation and drainage (small scale);</li> <li>• Renewable energy;</li> <li>• Rural electrification;</li> <li>• Tourism;</li> <li>• Rural water supply and sanitation;</li> <li>• Watershed projects (management or rehabilitation);</li> <li>• Rehabilitation, maintenance, and upgrading projects (small-scale);</li> <li>• Protected areas and biodiversity conservation;</li> <li>• Rehabilitation or modification of existing industrial facilities (small scale);</li> <li>• Rehabilitation of highways or rural roads;</li> <li>• Energy efficiency and energy conservation</li> </ul>	<ul style="list-style-type: none"> <li>• Education;</li> <li>• Family planning;</li> <li>• Health;</li> <li>• Nutrition;</li> <li>• Institutional development;</li> <li>• Technical assistance;</li> <li>• Most human resource projects</li> </ul>

**Note:** \*Large scale here is defined as enterprises with annual sales of US\$ 3 million or more equivalent

41. *The selection of the category* should be based on professional judgment and information available at the time of project identification. If the project is modified or new information becomes available, Bank EA policy permits to reclassify a project. For example, a Category B project might become Category A if new information reveals that it may have diverse and significant environmental impacts when they were originally thought to be limited to one aspect of the environment. Conversely, a Category A project might be reclassified as B if a component with significant impacts is dropped or altered. The option to reclassify projects relieves some of the pressure to make the initial decision the correct and final one.

42. Projects in Category B often differ from “A” projects of the same type only in scale. In fact, large irrigation and drainage projects are usually Category A, however, small-scale projects of the same type may fall into Category B, the same relates to aquaculture projects and many others. Projects entailing rehabilitation, maintenance or upgrading rather than new construction will usually be in Category B. A project with any of these characteristics may have impacts, but they are less likely to be “significant”.

However, each case must be judged on its own merits. Many rehabilitation, maintenance and upgrading projects as well as privatization projects may require attention to existing environmental problems at the site rather than potential new impacts. Therefore, an environmental audit may be more useful than an impact assessment in fulfilling the EA needs for such projects.

43. *The selection of a screening category* often depends also substantially on the project setting, while the “significance” of potential impacts is partly a function of the natural and socio-cultural surroundings. There are a number of locations which should cause to consider an “A” Category:

- in or near sensitive and valuable ecosystems - wetlands, natural areas, habitat of endangered species;
- in or near areas with archaeological and/or historical sites or existing cultural and social institutions;
- in densely populated areas, where resettlement may be required or potential pollution impacts and other disturbances may significantly affect communities;
- in regions subject to heavy development activities or where there are conflicts in natural resource allocation;
- along watercourses, in aquifer recharge areas or in reservoir catchments used for drinking water supply; and
- on lands or waters containing valuable resources (such as fisheries, minerals, medicinal plants, agricultural soils).

### **1.5.3 Public consultation and disclosure**

44. *The World Bank Public Consultation Procedure.* For all Category A and B projects proposed for WB financing, during the EIA process, the borrower consults all involved parties, including project-affected groups and local non-governmental organizations (NGOs) about the project's environmental aspects and takes their views into account. The borrower initiates such consultations as early as possible. For Category A projects, the borrower consults these groups at least twice: (a) shortly after environmental screening and before the terms of reference for the EA are finalized; and (b) once a draft EA report is prepared. In addition, the borrower consults with such groups throughout project implementation as necessary to address EA-related issues that affect them.

45. *The World Bank Disclosure Procedure.* For meaningful consultations between the borrower and project-affected groups and local NGOs on all Category A and B projects proposed for IDA financing, the borrower provides relevant material in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted.

For a Category A project, the borrower provides for the initial consultation a summary of the proposed project's objectives, description, and potential impacts; for consultation after the draft EA report is prepared, the borrower provides a summary of the EA's conclusions. In addition, for a Category A project, the borrower makes the draft EA report available at a public place accessible to project-affected groups and local NGOs.

Any Category B EIA report for a project proposed for WB financing is made available to project-affected groups and local NGOs. Public availability in the borrowing country and official receipt by the Bank of Category A reports for projects proposed for WB financing, and of any Category B EA report for projects proposed for WB funding, are prerequisites to Bank appraisal of these projects.

## **1.6 The comparison of national and WB EA requirements**

46. While the basic provisions of the National EA rules and procedures are to some extent similar to the WB requirements, there are several important differences. These differences are related primarily to the following: (a) project environmental screening categories; (b) Environmental Management Plan; and (c) EA disclosure and public consultation.



47. *Differences in screening categories.* In the existing EIA legal framework there is formal EIA categorization system and the SEE requires all projects with a potential environmental impact should have in the project design an assessment of the potential impacts as well as a set of mitigation measures. Thus, as the project will sub-projects with some environmental impacts, all of them would require environmental assessment and respectively - ecological expertise. These would include in most cases large renovation of the buildings, including replacement of the roofs; construction of new boilers; construction of toilets and connection to water supply and sanitation). The projects which do not require an EA mainly correspond activities which are expected to have minor impacts on environment and therefore do not need to be passed through the formal procedures of EIA and SEE (sub-projects that propose refurbishing and small scale construction or reconstruction activities; small scale energy conservation activities (replacement of the windows and doors; walls insulation). The scale of the project EA is decided in each concrete case by the SEE/Ecological Inspectors during the preliminary approval of the project location and of its technical specifications. In the case where World Bank and national categorization/EIA requirements differ, the more stringent requirement will apply. This refers mostly in the case of deciding about Category C sub-projects - the national EIA legislation doesn't refer to small scale activities, including construction and rehabilitation of various buildings. In these cases the client will apply the WB criteria.

48. *Differences concerning EMP.* While the national legislation requires for all projects with potential environmental impacts to have relevant mitigation measures in place, it doesn't require a special EMP which should specify, along with the proposed mitigation activities a monitoring plan and reporting requirements, institutional arrangements for EMPs implementation. Neither does the national legislation require needed capacity building activities and necessary expenses in this regard. Similarly, in the case of Category B sub-projects, the beneficiaries will be required to apply WB rules and prepare not a list of mitigation measures but EMPs.

49. *Differences with regard to disclosure and public consultation.* Conducted analysis shows there is no harmonization between World Bank and national requirements in this regard. According to national legislation, the EIA disclosure and public consultation is mandatory only for large projects (WB Category A projects). At the same time, per the Law on SEE the public might organize at its own initiative a public ecological expertise. Public expertise is being conducted on the basis of NGO's written request toward local public authority. While organizing such expertise, within 7 days, the local public authorities should inform public association about taken decision concerning permission to do so. Public associations conducting Ecological Expertise are obliged to inform broad local public about beginning of expertise and its results. These associations have the right to obtain planned and project documentation as well as documentation on EIA and get acquainted with normative-technical documentation on conducting of the State Ecological Expertise. The results of public Ecological Expertise are delivering to the bodies conducting the State Ecological Expertise and to the bodies which make decision of implementation of activity – the subject of Expertise. The results and conclusion of public Ecological Expertise have recommendation character and can have the juridical power only after their approval by the responsible state body in field of Ecological Expertise. The results of public Ecological Expertise can be published in mass-media, deliver to the local public authority, other stakeholders. In the case of World Bank EA policy, the Beneficiary is responsible for conducting at least one public consultation for all Category B projects to discuss the issues to be addressed in the EMP or to discuss the draft EMP itself. Therefore, for the sub-project, the PIU will review any documentation of the public consultation conducted in the preparation of any national EA documentation to determine if it is consistent with World Bank requirements. If the national public consultation is satisfactory, there would be no further consultation requirement. However, if no public consultation was conducted or the PIU determines that the public consultation documentation is not adequate, the Beneficiary will be required to perform at least one public consultation to discuss the environmental issues of concern to the locally affected communities and include these issues in the content of the EMP. Documentation for the consultation should be submitted to the PIU as part of the sub-project file. Romanian language version of the EMP and the record of the public consultation should be located at in public location near the project site and, if available - on the Beneficiary website. Category B EIA sub-project would be made available to project-affected groups and local NGOs in an easily accessible PIU website.

## 2. Analysis of Potential Environmental Impacts

---

### 2.1 Positive environmental impacts

50. Sub-projects to be implemented under the MERP will generate a great number of both direct and indirect positive impacts. *Direct positive social impacts* will be generated by improved education conditions as a result the educational activities are carried out in well-equipped spaces. *Indirect positive impacts* will relate to overall improvement of education environment and increased education quality, introduction of advanced technologies and techniques, creating new opportunities for access to quality education, contribution to poverty reduction and improvement of the educational services quality, as well as improvement of country's socio-economic conditions and others. Furthermore, the project would bring positive impacts in terms of energy conservation and reduction of air pollutants.

### 2.2 Negative environmental impacts

51. *Negative impacts* mainly relate to physical and biological environmental components and are linked to water, air and soil pollution, soil erosion, loss of biodiversity and habitats, energy and water consumption, health and occupational hazards. During construction activities which may have a relevance to MERP sub-projects, the main negative impacts are generated during renovation works and relate to soil erosion, soil and water pollution through waste generation, air pollution, acoustic and aesthetics. The most common potential negative impacts from the proposed *civil (re)construction* activities and their significance are summarized below:

- (a) *Dust and noise*: To avoid these impacts it is needed to follow up the existing best construction practices which are well known and applied in the country and set up in the EMP;
- (b) *Waste handling and spill response*: (re)construction activities will generate solid and liquid wastes including drywall, machine oil, paints, and solvents. Minor spills of fuel and other materials are likely to occur during the course of rehabilitation activities. Improper handling of on-site wastes and response to spills could result in adverse effects on the local environment including groundwater and students;
- (c) *Asbestos*: at this stage it is not known if asbestos has been used in premises to be proposed for rehabilitation, but taking into account its large usage in the past it is possible to find such material used as an insulation material and/or roofing material. In the case of inappropriate handling of asbestos this material might be a real health concern for the construction workers, and the general public in the vicinity of the rehabilitated premises in particular when it is inhaled;
- (d) *Health impacts* associated with indoor construction activities in the case of the usage of noxious/toxic solvents and glues and of lead-based paints; and
- (e) *Pollutant air emissions* from the boilers.



## 3. Environmental Guidelines

---

### 3.1 Purpose of Environmental Guidelines

52. The purpose of the project Environmental Guidelines is to assist the project implementation staff in determining the potential environmental impacts of sub-projects. The Guidelines provide potential environmental impacts of sub-project-activities and generic mitigation measures to minimize or prevent them. In particular, the PIU will use the table presented in the *Annex D*, which will assist them in determining of environmental impacts that can be expected from different types of supported sub-projects. Based on this information, the sub-project beneficiary can define the required mitigation measures to meet the MERP condition. The Guidelines provide criteria and procedures for sub-project screening and EIA to be applied by the PIU. The Guidelines also provide recommendations for improving environmental performances of sub-project proposals to promote sound environmental practices. These Guidelines will be also be used for the purpose of environmental monitoring of sub-projects.

53. Since these are only guidelines and the information contained within is generalized, in some instances, the PIU would be advised to seek local professional opinion (e.g., Ministry of Environment, researchers, designers, etc.) for more specific information and advices.

### 3.2 Content of Environmental Guidelines

54. *The Environmental Guidelines* provide the following:

- (a) MERP environmental screening and recommendations for improving environmental performance in sub-project proposals;
- (b) Rules and Procedures for sub-projects environmental screening to be funded under MERP;
- (c) Environmental Management Plan Checklist (presented in the *Annex A*);
- (d) Content and format for the Environmental Management Plan to be designed for sub-projects and format for an Environmental Monitoring Plan to be follow to achieve environmental protection requirements under the MERP (*Annex C*); as well as,
- (e) Tables that describe potential environmental impacts that may occur as a result of school rehabilitation activities as well as needed mitigation and monitoring measures during sub-projects implementation (*Annex D*).

### 3.3 Rules and procedures for environmental screening

#### 3.3.1 Introductory notes

55. *Screening* of each proposed project for funding is to be undertaken in order to determine the appropriate extent and type of Environmental Impact Assessment as well as which one of ten World Bank's Policies will be triggered. The attribution of the project type to WB's EA category and respectively, environmental risk that might be generated (i.e., high risk – by the Category A sub-projects; from moderate to low risk – by the Category B sub-projects, and from low to no risk - by the Category C sub-projects) is to some extent, an expert judgment.

56. Generally the significance of impacts and the selection of screening category accordingly, depend on the *type* and *scale* of the sub-project, the *location* and *sensitivity* of environmental issues, and the *nature* and *magnitude* of the potential impacts.

57. Examples of sub-projects that fall under Categories B, and C are provided in the *Table 4* below. However, this list is just a starting point and framework for the screening decision. Because of other

factors involved such as project sub-sitting, the nature of impacts, and the need for the EIA process to be flexible enough to accommodate them, the lists should not be used as the sole basis for screening.

**Table 4.** Examples of sub-project activities types

Types of activities	Category C	Category B	Suggested type of EA document
Small scale refurbishing activities inside the school premises (e.g. walls repainting, tiling, installation of cable ducts, new water-pipes, new laboratory installations)	X		-
Replacement of the asbestos roofs		X	Simple EMP
Major refurbishing activities involving removal/reconstruction of walls (especially when containing asbestos isolations or sheets)		X	Simple EMP
Renovation works involving generation of comparatively large waste quantities (e.g. replacement of floor, exchange of ventilation and or electrical systems, replacement of doors and/or windows)		X	Simple EMP
Refurbishing activities including replacement of ceramics; remodeling of the existing offices involving potentially hazardous materials like residues from paints, solvents, enamels, and the replacement of larger quantities (several 10's) of windows and doors		X	Simple EMP
Water supply networks		X	EIA and simple EMP
Public toilets		X	Simple EMP
Construction of new small scale boilers		X	EIA and EMP
Replacement of old boilers' equipment and installing new ones		X	EMP
Insulation of walls, basements and attics	X		-
Repair/replacement of external doors and windows, window optimization	X		-
Fuel switching		X	EMP
Reflective surfacing of walls behind radiators	X		-
Pipe insulation	X		-
Solar water heating	X		-

58. For Category C sub-projects beyond screening, no further EIA action is required. If the MERP implementers meet difficulties with WB categorization of sub-projects it should consult the State Ecological Inspectorate.

### 3.3.2 Environmental Impact Assessment of Category B sub-projects

59. After the initial environmental screening of sub-project proposal, for the Category B sub-projects – the implementers should initiate a site specific EIA and EMP and/or prepare a simple EMP and/or a EMP Checklist in order to identify, evaluate and prevent potential environmental impacts and identify mitigation measures that may be incorporated into the project design. *Table 4* specifies in which case what type of EA instrument should be applied.

The purpose of the EIA and/or EMP is to predict potential effects and improve the environmental aspects of sub-projects by minimizing, mitigating or compensating for negative effects. The *Terms of Reference for an Environmental Impact Assessment* and an *Environmental Management Plan* are attached as *Annexes B and C* of the EMF. The project's applicant is responsible for conducting this study.

### 3.3.3 Impacts prevention/mitigation

60. Based on the existing WB and national EIA rules and procedures, all potential impacts from planned school rehabilitation and energy conservation activities have to be identified and the set of mitigation measures has to be outlined. Furthermore, since preventive measures are favored over mitigating or compensatory measures, the MERP will provide capacity building to all involved parties and especially to the PIU, to avoid or minimize potential environmental impacts through applying a set of good practices directed to implementing enterprises through providing guidance on environmental sustainability matters when advising on (re)construction activities.

61. **The proposed impact mitigation measures for civil works** include the following:

*Organizational measures.* Before starting the rehabilitation activities it is necessary to inform the local construction and environment inspectorates and communities about upcoming activities in the media and/or at publicly accessible sites (including the site of the works). Furthermore, it is necessary to have in place all legally required permits. All works should be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment. Construction workers should be properly dressed, having when necessary respirators and safety glasses, harnesses and safety boots.

*Protection of air quality and dust minimization.* During rehabilitation activities it is necessary to use debris-chutes above the first floor and to keep demolition debris in controlled area, spraying with water mist to reduce debris dust. It is also necessary to suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site. It is strictly prohibited burning of construction/waste material at the site. For the transportation of any other dusty material to the rehabilitation site watering or covering of the cargo should be implemented. Reduction of dust on rehabilitation site during dry season of the year can be accomplished by watering the ground surface. Workers that perform the works should be introduced with protective clothes and respirators.

*Noise reduction.* Before any beginning of the work it is recommended to inform all potentially affected parties and especially the neighbors either directly or through local billboards or newspapers on the rehabilitation activities. The noise should be limited by using good management practice and limiting works on regular daily shift (during the vacation time) and or after the school classes. The construction equipment and machinery used should be calibrated according to the Noise Standards.

*Construction wastes and spills.* As a general requirement is that the existing building elements to be rehabilitated (walls, ground cement slabs etc.) should be carefully rehabilitated and the construction wastes should be sorted and removed in an organized way and disposed on an authorized land filled. All valuable materials (doors, windows, sanitary fixtures, etc) should be carefully dismantled and transported to the storage area assigned for the purpose. Valuable materials should be recycled within the project or sold. Wastes where ever possible should be minimized, separated and handled accordingly. When wastes are separated they are more manageable. Some materials like doors or ceramics sinks might be usable on the site again. Non-usable materials should be taken to appropriate place for recycling. For non recyclable wastes, in agreement with municipality the wastes will be deposited on city landfill. Open burning and illegal dumping of any waste is strictly prohibited. In addition to solid wastes, some amounts of hazardous wastes will be produced on the site: like the remaining from paints, enamels, oiled packaging, oils, material contaminated with oil, insulation material, etc, – based on the provisions of the Environment Code - all wastes have to be collected and handed over to the local self-government body authorized for collection and transportation of hazardous waste.

*Asbestos issues.* The general approach while handling this material is that constructors avoided crushing/destruction of asbestos plates from the roofs and or from the walls insulation and deposited them in an organized manner on the construction sites. Also the constructors should avoid releasing asbestos fibers into the air from being crushed. It is also imperative while working with asbestos plates the workers have to wear special clothing, gloves and respirators. If the use of asbestos-containing materials (ACM) it is anticipated for the roof renovation, it is necessary to provide brief information about alternative non-asbestos materials, their availability and the rationale for the material choice made. Once the presence of ACM in the existing infrastructure has been presumed or confirmed and their disturbance is shown to be unavoidable, incorporate the following requirements in the EMP for construction works:

- Provide the host country laws and regulations for controlling worker and environmental exposure to asbestos in construction work and waste disposal where ACM are present;
- Determine if licensing and permitting of the work by authorities is required;

- Develop a plan for doing works involving removal, repair and disposal of ACM in a way that minimizes worker and community asbestos exposure. The plan should include: (i) Containment of interior areas where removal will occur in a negative pressure enclosure; (ii) Protection of walls, floors and other surfaces with plastic sheeting; (iii) Construction of decontamination facilities for workers and equipment; (iv) Removal of the ACM using wet methods and promptly placing the material in impermeable containers; (v) Final clean-up with vacuum equipment and dismantling of the enclosure and decontamination facilities; (vi) Disposal of the removed ACM and contaminated materials in an approved landfill; (vii) Inspection and air monitoring as the work progresses, as well as final air sampling for clearance, by an entity independent of the contractor removing the ACM;
- Require that the construction firms/and or individuals employed during the construction have received training in relevant health and safety issues;
- Provide for all construction workers with personal protection means, including respirators and disposable clothing;
- Require that the beneficiary or the selected contractor notifies authorities of the removal and disposal according to applicable regulations and cooperates fully with representatives of the cognizant agency during all inspections and inquiries.

*Temporary storage of materials (including hazardous).* Stockpiling of construction material should be avoided if possible. If not, construction material should be stored on the construction site, and protected from weathering. Hazardous materials like paints, oils, enamels and others should be kept on impermeable surface, and adsorbents like sand or sawdust should be kept for handling small spillage.

*Ensuring workers health and safety.* The personal should have protective equipment, rubber gloves, respirators, goggles and breathing mask with filter, as well as helmets. Prior starting civil works, all workers have to pass labor safety training course. In addition, it is necessary to carry out the routine inspection of the machinery and equipment for purpose of the trouble shooting and observance of the time of repair, training and instruction of the workers engaged in maintenance of the machinery, tools and equipment on safe methods and techniques of work. Special attention should be paid to welding operations. It is prohibited to distribute the faulty or unchecked tools for work performance as well as to leave off hand the mechanical tools connected to the electrical supply network or compressed air pipelines; to pull up and bend the cables and air hose pipes; to lay cables and hose pipes with their intersection by wire ropes, electric cables, to handle the rotating elements of power driven hand tools.

*Good housekeeping.* This related to general good practice of keeping the sites tidy and organized, including environmentally relevant activities such as the storage of hazardous materials, access restrictions to non-personnel and workplace health and safety.

### **3.4 Environmental Management Plan (EMP)**

62. *The scope and objective of an EMP.* A project's environmental management plan consists of the set of mitigation, monitoring, and institutional measures to be taken during implementation and operation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. An EMP is a key element of an EA report for all Category B sub-projects.

63. *EMP Checklists.* In the case when the project would involve typical small scale (re)construction activities it is proposed to be used a generic EMP checklist-type format ("EMP Checklist"), developed by the World Bank to provide "pragmatic good practice" and designed to be user friendly and compatible with safeguard requirements (see it presented in the *Annex A*). The checklist-type format attempts to cover typical preventive and mitigation approaches to common civil works contracts with localized impacts. It is anticipated that this format provides the key elements of an Environmental Management Plan to meet Environmental Assessment requirements of the World Bank (under OP/BP/GP 4.01).

64. *EMP Checklist structure.* The EMP Checklist (see *Annex A*) has four sections:

- (a) *Part 1* constitutes a descriptive part (“site passport”) that describes the project specifics in terms of physical location, the project description and list of permitting or notification procedures with reference to relevant regulations. Attachments for additional information can be supplemented if needed;
- (b) *Part 2* includes safeguards information;
- (c) *Part 3* includes the environmental and social screening and mitigation measures in a simple Yes/No EMS format; and
- (c) *Part 4* is a site-specific monitoring plan for activities carried out during the rehabilitation activities.

65. *EMP disclosure and consultation.* In case of Category B sub-projects which involve new constructions, pasture improvement activities and/or alternative energy subprojects it is necessary to disclose the EIA/EMP document and to conduct public consultations with key stakeholders, including local population. The purpose of the public consultation is to inform locally affected groups about the sub-project and offer them the opportunity to voice their views of any adverse environmental issues they feel may develop during sub-project implementation. Any legitimate issue raised at the public consultation should be included in the EMP. In this way, “*the voice of the people*” will be heard and reflected in the sub-project implementation. In the case of reconstruction activities, although no need for a special public hearing the project beneficiary should provide information to all interested parties about the construction by installing a notice plate placed at the rehabilitation. Additionally all sub-project’s specific information will be also publicly available on-line on the PIU webpage. Documentation of the public consultation outcome is critical and is included in the EMP.

66. *Integration of the EMP into project documents.* The EMP provisions would be used for the following:

- (a) inclusion of the EMP requirements in the Project Operational Manual;
  - (b) inclusion of Environmental Guidelines in construction contracts for individual sub-projects, both into specifications and bills of quantities, and the Contractors will be required to include the cost in their financial bids;
  - (c) highlighting of EMP follow-up responsibility within the PIU;
  - (d) specifying mitigation and avoidance measures during the implementation of the proposed activities; and
  - (e) monitoring and evaluation of mitigation/avoidance measures identified in the site-specific review and in the EMP. The necessary mitigating measures would constitute integral part of the subproject implementation including the contracts binding the contractors to carry out the environmental obligations during construction works.
- All contractors will be required to use environmentally acceptable technical standards and procedures during carrying out of works. Additionally, contract clauses shall include requirements towards compliance with all national construction, health protection, safeguard laws and rules as well as on environmental protection.

### 3.5 Environmental Monitoring Plan

67. *Environmental monitoring* during the project implementation has to provide information about key environmental aspects of the project, particularly the project environmental impacts and the effectiveness of taken mitigation measures. Such information enables to evaluate the success of mitigation as part of project supervision, and allows corrective action(s) to be implemented, when needed. The EMF identifies monitoring objectives and specifies the type of monitoring, and their link to impacts and mitigation measures. Specifically, the monitoring section of the EMP provides: (a) a specific description, and technical details of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and, (b) monitoring and reporting procedures to: (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.



68. If approved, during the sub-project's *operation phase*, PIU along with the territorial representative of the SEI and other authorities, when required (in the cases prior informed of non-compliance), perform environmental supervision and monitoring to identify the level of compliance with agreed design and mitigation measures to ensure that the sub-projects will be implemented in full compliance with the Environmental Management Plan or making sure the necessary corrective measures have been implemented. The proposed format of Environmental Monitoring Plan is presented in *Annex C*.

69. The status of compliance with agreed environmental mitigation measures is to be reported by the PIU in their regular (semiannually) reports on project implementation. In the case of non-compliance, the PIU officers with representatives of SEI investigate the nature and reason(s) for non-compliance, and a decision has to be made on what is needed to bring a sub-project into compliance, or whether financing should be suspended.

70. The PIU makes available information on monitoring of environmental management activities and mitigation measures in its routine reporting on sub-project implementation to the World Bank and during periodic Bank supervision missions.

### **3.6 Sub-projects' EA review and approval**

71. *EA Review and Approval*. PIU will submit the sub-project EMPs to the territorial State Ecological Inspection for Ecological Expertise. No sub-project will be permitted to start (re)construction until a favorable official written response is received. Documentation of successful State Ecological Expertise should be placed in the sub-project file.

72. *Supervision and monitoring activities*. During sub-project implementation PIU will have overall supervision responsibility for assuring that the measures indicated in the EMP are being properly performed. In collaboration with the local authorities and the SEI, the PIU will perform the sub-project environmental monitoring during both construction and operation phases as specified in the monitoring plan of the EMP.

73. *Reporting*. Regular sub-project progress reports should include a section entitled "Environmental Management". The section should be as brief as possible: providing a condensed description of the monitoring activities, any issues identified and how they were or are planned to be resolved.

### **3.7 Disclosure and consultation**

74. *Disclosure of the EIA documents* for Category B sub-projects is mandatory, and is to be done at a public place accessible to project-affected groups. This might be at the beneficiary web site, project site, office, local authority offices and/or the central State Ecological Inspectorate or its territorial units. Furthermore, the Beneficiary provides a forum or hearing for consultation and comment by project-affected groups ensuring balanced representation and voice for both women and men and local non-governmental organizations during the environmental assessment process and takes their views into account before finalizing project design and submission of the sub-project to the PIU for final approval. The Beneficiary provides any relevant materials (facility/process descriptions, maps, building plans, etc.) to participants in a timely manner and in a form and language that are understandable to the group being consulted and records and describes details of consultations held in the project screening form.

75. In the case of Category B sub-projects the consultation can be done at the stage when the draft EIA report is ready.

76. However, in case of new small construction, insignificant reconstruction, change of machinery and equipment on a new, more ecological one, and some others which will not significantly affect the environment, there will be no need for a special public hearing, but the project proponent should provide information to all interested parties about these activities. **In the case of (re)construction activities the sub-project beneficiaries should install a notice plate placed in the site of project implementation.**

## 4. Institutional Arrangements for the EMF Implementation

---

### 4.1 Overall implementing responsibilities

77. The Ministry of Education (MEd) is in charge of carrying out the education reform program and the project will be implemented over a period of five years, between 2013 and 2018. The MoE will be the main implementing agency for the project. Project implementation will rely primarily on the existing structures of the MoE and the activities proposed under the Project will be part of the everyday work of its staff. A group of local consultants (MERP staff) was hired for the implementation of the Project and would constitute the Project Implementation Unit (PIU).

78. The PIU monitors the compliance with the credit agreement regarding the EA process, including conducting periodic monitoring of the screening process of applications for EA requirements.

### 4.2 Major responsibilities of the PIU

79. The PIU will ensure that the project activities are being assessed from environmental point of view and that the EMP are adequately implemented. In this regard this body will be responsible for:

- (a) coordination of environmental and EA related issues;
- (b) monitoring of the environmental impacts within the overall monitoring of the sub-projects implementation;
- (c) communication with an EIA competent authority (State Committee for Environmental Protection); and
- (d) ensuring the links between an EIA and the subprojects i.e. to support the proper implementation of the conditions given by an EIA within the sub-project realization.

In particular the PMU will conduct the following: (i) sub-projects environmental screening; (ii) carry out the evaluation of the subproject's eligibility from the environmental point of view; (iii) provide necessary information on the environmental issues to the subprojects applicants (especially inform them about the environmental criteria to be used, explain all obligations regarding the EIA procedure etc.).

Additionally the PMU will be also responsible for supervising independently or jointly with the State Ecological Inspectorate the mitigation and environmental protection measures stipulated in Environmental Management Plan.

### 4.3 PIU Environmental Specialist

80. For the purpose of implementing environmental safeguards and monitoring social safeguards, a part-time *Environmental Specialist* (ES) will be hired by the MoE during the first year of project implementation. Thereafter, ES would be hired on a part-time basis, based on periodic assessment of project environmental arrangements, and the associated level of effort required to sustain them, by World Bank supervision team. The ES's main responsibility will be to coordinate all Environmental Assessment activities and ensure adequate implementation of EMF requirements. The role of the PIU environmental specialist will be following: i) to provide assistance to the project beneficiaries to determine the exact impacts that can be generated by proposed activities for which loans are being sought as well as prescribing in specific terms the required mitigation actions to be taken; ii) to conduct screening and ensure EA for the proposed investments; and, iii) to monitor and report on a regular basis the effects on



the environment that financed activities may provoke and to ensure that mitigation is carried out. The PIU Environmental Specialist will also have to selectively visit sub-loans, screen those submitted for a prior review, and ensure proper monitoring for all Cat B - both sub-loans. The ES will also be responsible for monitoring any land acquisition issues under MERP sub-projects in order to make sure that OP 4.12 is not triggered.

81. *Training for the PIU Environmental Specialist.* In order to ensure successful implementation of the EMF requirements it is necessary to provide a series of capacity building activities. In particular, it is proposed the PIU environmental specialist should have training course on EA techniques and procedures. For that purpose he/she might visit a similar WB project in other countries in the region or to hire a local consultant who will provide assistance.

#### **4.4 Construction companies**

82. All (re)construction and installation activities will be provided by authorized companies. They are responsible for full and qualitative implementation of the EMP provisions.

DRAFT

## 5. Budget

---

83. At the project design stage, the amount of funds to be spent for preparing sub-projects EIAs, obtaining of necessary permits and other relevant activities are the responsibilities of MERP beneficiaries. They will depend on the nature of project proposal, its complexity, scale, etc. At the construction and operation stages, the funds to be spent for installations and other activities to ensure mitigation measures against the environmental impacts from sectoral activities is also the responsibility of MERP beneficiaries. These funds will depend on particular techniques and technologies used for implementing mitigation measures as well as on their scale, number, variety and other factors. At the same time, in order to ensure successful EMF implementation, a series of capacity building activities are necessary for which the MERP has to provide adequate funding.

DRAFT

## 6. EMF's Disclosure and Consultation

---

84. Draft Environmental Management Framework disclosure occurred on **March 20, 2015** by its posting for consultation on national public web-platform (particip.gov.md), as well as on websites of the Ministry of Education (www.mec.gov.md) and Regional Environmental Center (REC) Moldova (www.rec.md). REC has further forwarded electronically the EMF summary to all national and local environmental NGO's, and PIU - to the Ministry of Environment, Ministry of Education, and others interested stakeholders.

85. Consultation on draft EMF took place on **March 31, 2015** at premises of Ministry of Education in Chisinau with participation of representatives of MERP PIU, beneficiaries, national environmental authorities and NGO's.

86. During the consultation, the Client has presented a summary of a draft EMF to public. Particularly, the audience was informed about screening procedures of the sub-projects, types of EIA for sub-projects, potential impacts which may be generated by sector activities as well as measures to be taken to prevent/mitigate potential impacts. The consultation meeting's attendees actively participated in discussions which were mainly focused on proposed environmental screening procedures and capability of financial intermediaries and implementing agencies to perform environmental management and monitoring of sub-projects.

87. After the meeting, on the basis of input from participants as well as received comments on draft EMF posted two weeks earlier for consultation, there were made relevant corrections both in the main text of EMF and annexes to EMF to better meet stakeholders' concern. The Report on Consultation on the Draft EMF with interested parties is presented in *Annex E*.

88. Final version of the Environmental Management Framework approved by World Bank is to be posted on World Bank's InfoShop for its disclosure as well as on MERP page of the website of the Ministry of Education.

# Annexes

---

DRAFT

**Annex A. Environmental Management Plan Checklist**

**ENVIRONMENTAL MANAGEMENT PLAN CHECKLIST**  
*for small scale construction and rehabilitation activities*

**Part 1**  
**Project Information**

<b>INSTITUTIONAL &amp; ADMINISTRATIVE ARRANGEMENTS</b>				
Country				
Project title				
Scope of project and activity				
Institutional arrangements (names and contacts)	WB (Project Team Leader)	Project Management	Local Counterpart and/or Recipient	
Implementation arrangements (Name and contacts)	Safeguard Supervision	Local Counterpart Supervision	Local Inspectorate Supervision	Contactior
<b>SITE DESCRIPTION</b>				
Name of site				
Describe site location	Attachment 1: Site Map [ ]Y / [ ]N			
Who owns the land?				
Geographic description				
<b>LEGISLATION</b>				
Identify national & local legislation & permits that apply to project activity				
<b>PUBLIC CONSULTATION</b>				
Identify when / where the public consultation process took place				
<b>INSTITUTIONAL CAPACITY BUILDING</b>				
Will there be any capacity building? (Yes/No)	[ ], if Yes, Attachment 2 includes the capacity building program			

**Beneficiary:****Signature:****Date:**

**ENVIRONMENTAL MANAGEMENT PLAN CHECKLIST**  
*for small scale construction and rehabilitation activities*

**Part 2**  
*Safeguards Information*

<b>ENVIRONMENTAL /SOCIAL SCREENING</b>			
<b>Will the site activity include/involve any of the following:</b>	<b>Activity</b>	<b>Status</b>	<b>Additional references</b>
	A. Building rehabilitation	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section <b>B</b> below
	B. New construction	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section <b>B</b> below
	C. Individual wastewater treatment system	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section <b>C</b> below
	D. Historic building(s) and districts	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section <b>D</b> below
	E. Acquisition of land <sup>5</sup>	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section <b>E</b> below
	F. Hazardous or toxic materials <sup>6</sup>	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section <b>F</b> below
	G. Impacts on forests and/or protected areas	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section <b>G</b> below
	H. Handling / management of medical waste	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section <b>H</b> below
	I. Traffic and Pedestrian Safety	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section <b>I</b> below

  

<b>ACTIVITY</b>	<b>PARAMETER</b>	<b>MITIGATION MEASURES CHECKLIST</b>
<b>A. General Conditions</b>	Notification and Worker Safety	(a) The local construction and environment inspectorates and communities have been notified of upcoming activities (b) The public has been notified of the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works) (c) All legally required permits have been acquired for construction and/or rehabilitation (d) All work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment. (e) Workers 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.
<b>B. General Rehabilitation and /or Construction Activities</b>	Air Quality	(a) During interior demolition use debris-chutes above the first floor (b) Keep demolition debris in controlled area and spray with water mist to reduce debris dust (c) Suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site (d) Keep surrounding environment (side walks, roads) free of debris to minimize dust

<sup>5</sup> The project will support construction of new buildings only in the case when land acquisition is not necessary and there are no any resettlement issues; for such cases the investor should have the landownership title as well as has to prove the land at the moment of sub-projects application is not occupied or used even illegally

<sup>6</sup> Toxic / hazardous material includes and is not limited to asbestos, toxic paints, removal of lead paint, etc.

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
		(e) There will be no open burning of construction / waste material at the site (f) There will be no excessive idling of construction vehicles at sites
	Noise	(a) Construction noise will be limited to restricted times agreed to in the permit (b) During operations the engine covers of generators, air compressors and other powered mechanical equipment should be closed, and equipment placed as far away from residential areas as possible
	Water Quality	(a) The site will establish appropriate erosion and sediment control measures such as e.g. hay bales and / or silt fences to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers.
	Waste management	(a) Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities. (b) Mineral construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers. (c) Construction waste will be collected and disposed properly by licensed collectors (d) The records of waste disposal will be maintained as proof for proper management as designed. (e) Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos)
C. Individual wastewater treatment system	Water Quality	(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. Historic building(s)	Cultural Heritage	(a) If the building is a designated historic structure, very close to such a structure, or located in a designated historic district, notify and obtain approval/permits from local authorities and address all construction activities in line with local and national legislation (b) Ensure that provisions are put in place so that artifacts or other possible “chance finds” encountered in excavation or construction are noted, officials contacted, and works activities delayed or modified to account for such finds.
E. Acquisition of land	Land Acquisition Plan/Framework	(a) If expropriation of land was not expected and is required, or if loss of access to income or damage to assets of legal or illegal users of land was not expected but may occur, that the bank Task Team Leader is consulted. (b) The approved by the Bank Land Acquisition Plan (if required by the project) will be implemented prior to start of project works.
F. Toxic Materials	Asbestos management	(a) If asbestos is located on the project site, mark 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 be stored temporarily, the wastes should be securely enclosed inside closed



ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
	Toxic / hazardous waste management	containments and marked appropriately (f) The removed asbestos will not be reused (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 should be placed in an leak-proof container to prevent spillage and leaching (c) The wastes are 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
G. Affects forests and/or protected areas	Protection	(a) All recognized natural habitats 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) For large trees in the vicinity of the activity, mark and cordon off with a fence large trees and protect root system and avoid any damage to the trees (c) Adjacent wetlands and streams will be protected, from construction site run-off, with appropriate erosion and sediment control feature to include by not limited to hay bales, silt fences (d) There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas, especially not in protected areas.
H. 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"> <li>▪ Special facilities for segregated healthcare waste (including soiled instruments “sharps”, and human tissue or fluids) from other waste disposal; and</li> <li>▪ Appropriate storage facilities for medical waste are in place; and</li> <li>▪ If the activity includes facility-based treatment, appropriate disposal options are in place and operational</li> </ul>
I Traffic and Pedestrian Safety	Direct or indirect hazards to public traffic and pedestrians by construction activities	(b) 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"> <li>▪ Signposting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards</li> <li>▪ 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.</li> <li>▪ Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement</li> <li>▪ Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public.</li> <li>▪ Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public.</li> </ul>

**ENVIRONMENTAL MANAGEMENT PLAN CHECKLIST**  
*for small scale construction and rehabilitation activities*

**Part 3**

*(to be completed by sub-borrower)*

1. **Sub-project name:**

2. **Brief description of sub-project** (to include: nature of the project, project cost, physical size, site area, location)

3. **Proposed rehabilitation activities** (in Yes/No terms)

Types of activities	Yes	No
Small scale refurbishing activities inside the school premises (e.g. walls repainting, tiling, installation of cable ducts, new water-pipes, new laboratory installations)		
Replacement of the asbestos roofs		
Major refurbishing activities involving removal/reconstruction of walls (especially when containing asbestos isolations or sheets);		
Renovation works involving generation of comparatively large waste quantities (e.g. replacement of floor, exchange of ventilation and or electrical systems, replacement of doors and/or windows);		
Refurbishing activities including replacement of ceramics; remodeling of the existing offices involving potentially hazardous materials like residues from paints, solvents, enamels, and the replacement of larger quantities (several 10's) of windows and doors.		
Water supply networks		
Public toilets		
Construction of new small scale boilers		
Replacement of old boilers' equipment and installing new ones		
Insulation of walls, basements and attics,		
Repair/replacement of external doors and windows, window optimization,		
Fuel switching,		
Reflective surfacing of walls behind radiators,		
Pipe insulation,		
Solar water heating.		

**Beneficiary:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Part 4**

*(to be completed by the PIU)*

1. Project Environmental Category (B or C)	
2. EMP Checklist is required (Yes or No)	
3. What are the specific issues to be addressed in the EMP Checklist?	

**Environmental Screener:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## **Annex B. Terms of Reference for conducting an Environmental Impact Assessment**

An *Environmental Impact Assessment (EIA)* report Categories A and B sub-projects focuses on the significant environmental issues raised by a sub-project. Its primary purpose is to identify environmental impacts and those measures that, if incorporated into the design and implementation of a project can assure that the negative environmental effects will be minimized. The scope and level of detail required in the analysis depend on the magnitude and severity of potential impacts.

The Environmental Impact Assessment Report should include the following elements:

- a. *Executive Summary*. This summarizes the significant findings and recommended actions.
- b. *Policy, legal and administrative framework*. This section summarizes the legal and regulatory framework that applies to environmental management in the jurisdiction where the study is done.
- c. *Project Description*. Describes the nature and scope of the project and the geographic, ecological, temporal and socioeconomic context in which the project will be carried out. The description should identify social groups that will be affected, include a map of the project site, and identify any off-site or support facilities that will be required for the project.
- d. *Baseline data*. Describe relevant physical, biological and social condition including any significant changes anticipated before the project begins. Data should be relevant to project design, location, operation or mitigation measures.
- e. *Environmental impacts*. Describe the likely or expected positive and negative impacts in quantitative terms to the extent possible. Identify mitigation measures and estimate residual impacts after mitigation. Describe the limits of available data and uncertainties related to the estimation of impacts and the results of proposed mitigation.
- f. *Analysis of Alternatives*. Systematically compare feasible alternatives to the proposed project location, design and operation including the "without project" alternative in terms of their relative impacts, costs and suitability to local conditions. For each of the alternatives quantify and compare the environmental impacts and costs relative to the proposed plan.
- g. *Environmental Management Plan (EMP)*. If significant impacts requiring mitigation are identified, the EMP defines the mitigation that will be done, identifies key monitoring indicators and any needs for institutional strengthening for effective mitigation and monitoring to be carried out.
- h. *Appendices*.

This section should include:

- i. The list of EIA preparers;
- ii. References used in study preparation;
- iii. A chronological record of interagency meetings and consultations with NGOs and effected constituents;
- iv. Tables reporting relevant data discussed in the main text, and;
- v. A list of associated reports such as resettlement plans or social assessments that were prepared for the project.

**Annex C. Environmental Management Plan Content****ENVIRONMENTAL MANAGEMENT PLAN CONTENT****Part 1*****General Remarks***

*Environmental Management Plan (EMP)* for the Category A projects should outline the mitigation, monitoring and administrative measures to be taken during project implementation to avoid or eliminate negative environmental impacts. For projects of intermediate environmental risk (Category B sub-projects), EMP may also be an effective way of summarizing the activities needed to achieve effective mitigation of negative environmental impacts (*description of the Environmental Management Plan* is provided in *Part 2* below).

*The EMP format* is provided in *Part 3* below. It represents a model for development of an EMP. The model divides the project cycle into three phases: construction, operation and decommissioning. For each phase, the preparation team identifies any significant environmental impacts that are anticipated based on the analysis done in the context of preparing an environmental assessment. For each impact, mitigation measures are to be identified and listed. Estimates are made of the cost of mitigation actions broken down by estimates for installation (investment cost) and operation (recurrent cost). The EMP format also provides for the identification of institutional responsibilities for "installation" and operation of mitigation devices and methods.

To keep track of the requirements, responsibilities and costs for monitoring the implementation of environmental mitigation identified in the analysis included in an environmental assessment for Category A or B projects, a monitoring plan may be useful. A *Monitoring Plan format* is provided in *Part 4* below. Like the EMP the project cycle is broken down into three phases (construction, operation and decommissioning). The format also includes a row for baseline information that is critical to achieving reliable and credible monitoring. The key elements of the matrix are:

- What is being monitored?
- Where is monitoring done?
- How is the parameter to be monitored to ensure meaningful comparisons?
- When or how frequently is monitoring necessary or most effective?
- Why is the parameter being monitored (what does it tell us about environmental impact)?

In addition to these questions, it is useful to identify the costs associated with monitoring (both investment and recurrent) and the institutional responsibilities.

When a monitoring plan is developed and put in place in the context of project implementation, the PIU will request reports at appropriate intervals and include the findings in its periodic reporting to the World Bank and make the findings available to Bank staff during supervision missions.

**Part 2*****Description of the Environmental Management Plan***

*The Environmental Management Plan (EMP)* identifies feasible and cost-effective measures that may reduce potentially significant adverse environmental impacts to acceptable levels. The plan includes compensatory measures if mitigation measures are not feasible, cost-effective, or sufficient. Specifically, the EMP (a) identifies and summarizes all anticipated significant adverse environmental impacts (including those involving indigenous people or involuntary resettlement); (b) describes--with technical details--each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate; (c) estimates any potential environmental impacts

of these measures; and (d) provides linkage with any other mitigation plans (e.g., for involuntary resettlement, indigenous peoples, or cultural property) required for the project.

**Monitoring.** Environmental monitoring during project implementation provides information about key environmental aspects of the project, particularly the environmental impacts of the project and the effectiveness of mitigation measures. Such information enables the borrower and the Bank to evaluate the success of mitigation as part of project supervision, and allows corrective action to be taken when needed. Therefore, the EMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the EA report and the mitigation measures described in the EMP. Specifically, the monitoring section of the EMP provides (a) a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

**Capacity Development and Training.** To support timely and effective implementation of environmental project components and mitigation measures, the EMP draws on the EA's assessment of the existence, role, and capability of environmental units on site or at the agency and ministry level.<sup>3</sup> If necessary, the EMP recommends the establishment or expansion of such units, and the training of staff, to allow implementation of EA recommendations. Specifically, the EMP provides a specific description of institutional arrangements that is responsible for carrying out the mitigatory and monitoring measures (e.g., for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training). To strengthen environmental management capability in the agencies responsible for implementation, most EMPs cover one or more of the following additional topics: (a) technical assistance programs, (b) procurement of equipment and supplies, and (c) organizational changes.

**Implementation Schedule and Cost Estimates.** For all three aspects (mitigation, monitoring, and capacity development), the EMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the EMP. These figures are also integrated into the total project cost tables.

**Integration of EMP with Project.** The borrower's decision to proceed with a project, and the Bank's decision to support it, are predicated in part on the expectation that the EMP will be executed effectively. Consequently, the Bank expects the plan to be specific in its description of the individual mitigation and monitoring measures and its assignment of institutional responsibilities, and it must be integrated into the project's overall planning, design, budget, and implementation. Such integration is achieved by establishing the EMP within the project so that the plan will receive funding and supervision along with the other components.

Resource: OP 4.01, Annex C - Environmental Management Plan.  
<http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTOPMANUAL>

**ENVIRONMENTAL MANAGEMENT PLAN CONTENT**

**Part 3**

*Environmental Management Plan Format*

Phase	Environmental Impact	Mitigating Measure(s)	Cost		Institutional Responsibility		Remarks
			Install	Operate	Install	Operate	
Construction	• • • •	• • • •					
Operation	• • • •	• • • •					
Decommissioning	• • • •	• • • •					

DRAFT



**ENVIRONMENTAL MANAGEMENT PLAN CONTENT**

**Part 4**

*Environmental Monitoring Plan Format*

Phase	What parameter is to be monitored?	Where will the parameter be monitored?	How will the parameter be monitored?	When will the parameter be monitored?	Why is the parameter being monitored?	Cost		Institutional Responsibility	
						<i>Install</i>	<i>Operate</i>	<i>Install</i>	<i>Operate</i>
Baseline									
Construction									
Operation									
De-commissioning									

DRAFT

**Annex D. Impacts, Causes, Consequences and Mitigation measures for Construction activities**

Potential Impacts	Causes	Consequences	Mitigation Required	Remarks
<b>Planning Phase:</b>				
Loss of biodiversity	Poor location analysis not taking into account important biophysical values.	Loss of flora and fauna.	Location in areas that are not high priority for biodiversity protection.	Coordonarea activităților cu societatea civilă, de mediu și sănătate în vederea menținerii biodiversității în segmentul planificat pentru construcții constituie o necesitate legală în procesul de planificare.
Loss of cultural features	Poor location analysis not providing consideration to cultural values.	Loss of important cultural sites and structures.	Location in areas of little or no cultural significance.	Public participation is a requirement for all EIAs and if properly conducted during EIA will ensure input required to select appropriate alternative sites.
Socially unacceptable	Poor location analysis not taking into consideration local communities' lifestyle, movement patterns and values.	Nuisance factor to local communities; loss of peace and quiet; loss of access to other areas or sites (e.g. school children may have to walk greater distances due to loss of direct route to school.	Location in areas where noise, odor or aesthetics will not be a problem; location to be selected which doesn't interfere with important access (e.g. to schools).	Public participation is a requirement for all EIAs and if properly conducted during EIA will ensure input required to select appropriate alternative sites (and <i>modus operandi</i> ) for enterprise.
<b>Construction Phase :</b>				
Soil erosion	Vegetation and topsoil is removed for initial construction and access, exposing bare soil that is vulnerable to erosion, particularly in rainy periods.	Further soil erosion off-site and downstream; increased sediment loads in receiving streams resulting in aquatic habitat changes.	Ensure awareness by workers; adopt appropriate soil protection techniques; ensure exposed soil surfaces are kept to a minimum and for short periods of time; conserve topsoil, recover and replant when construction is completed.	If possible construction should occur in dry periods or seasons, particularly in situations where soil erosion could be a problem. Depozitarea solului în locuri autorizate și utilizarea lui pentru amenajarea teritoriului școlii.
Soil pollution	Spilled and dumped fuels, and other chemicals. Ineffective on-site sewage	Loss of soil productivity. Contaminated groundwater.	Environmental awareness; training in handling and storage of fuels, lubricants and	Ca măsuri de diminuare a impactului pot servi: îndepărtarea solului impurificat în momentul în

Potential Impacts	Causes	Consequences	Mitigation Required	Remarks
	treatment during construction phase.		chemicals; provision of proper on-site storage facilities.	care se identifică deversării accidentale de produse petroliere sau alte substanțe periculoase, folosirea materialelor absorbante, lichidarea urgentă a scurgerilor de ape uzate. Evacuarea acestora
Water pollution	Spilled and dumped fuels and other chemicals.	Contaminated groundwater and surface water resulting in contaminated drinking water and in the case of surface water, damaged aquatic ecosystem.	Same as above. Provision of waste containing toilets which waste can be transferred to a municipal treatment facility.	Asigurarea scurgerilor apelor pluviale în sistemul unitar existent, alimentarea cu combustibil a utilajelor schimbul de ulei și reparațiile curente de efectuat numai în zonele special amenajate, respectarea strict a sistemului de gestionare a deșeurilor pot conduce la diminuarea contaminării apelor de suprafață și subterane .
Noise and dust	Vehicles and construction machinery; dirt access roads.	Nuisance factor to neighboring communities.	Operations during normal working hours only; access roads to be watered during dry periods.	Informarea populației din regiune și respectarea proceselor tehnologice de întreținere și folosire a tehnicilor și utilajelor performante pot conduce la minimalizarea impactului asupra mediului și sănătății cetățenilor.
Loss of habitats and biodiversity	Construction activities	Noise pollution, disturbance on natural ecosystems, etc.	<ul style="list-style-type: none"> <li>– To avoid or minimize construction and operational activities during breeding and migration periods</li> <li>– Consideration of alternative locations, where possible</li> <li>– Careful timing of works and work seasonally, as appropriate: no construction during breeding season</li> <li>– Where possible, to fence the area under construction to</li> </ul>	Spațiile verzi trebuie păstrate la maximum sa-u transplantate. Este obligatoriu de obținut autorizarea defrișărilor arborilor de la autoritățile de mediu. Întreținerea teritoriului în stare sanitaro-ecologică, plantarea arborilor și arbuștilor, crearea condițiilor de trai a habitatelor din teritoriul construcțiilor sunt cerințe obligatorii pentru respectare și realizare.

Potential Impacts	Causes	Consequences	Mitigation Required	Remarks
			lessen even occasional disturbance on habitats and biodiversity – Inform personnel about importance of adjacent environmentally important area, if any	
Solid waste	Littering of unused construction materials and workers personal garbage.	Unightly and remnant construction materials could pose a safety hazard.	Effective disposal of materials and garbage in designated waste disposal sites.	Minimalizarea procesului de producere a deșeurilor menaje solide, muncitorii angajați la lucrărilor șantierului asigurați cu instalații sanitare în funcție de caracteristicile procesului și locului de muncă. Depozitarea și evacuarea deșeurilor acumulate la depozitele autorizate din vecinătatea construcțiilor.
Loss of access	Construction site may have formerly been used as an access for local population (and vehicles) for various sections of the community.	Nuisance and possibly economic hardship.	During planning phase ensure that local people are aware of restrictions during construction and alternative arrangements for access are provided.	Public participation during planning phase should identify this and similar conflicts.
Injuries	Inadequate safety procedures for workers; inadequate signage and construction activities exposed where public can interface with such.	Injury / death resulting in lost work days (for construction workers and general public; lost income.	Ensure construction workers are given safety instruction; ensure safety officers on site; ensure effective signage for the public and ensure that all exposed construction areas are barricaded from public access.	Elaborarea și familiarizarea angajaților, populației din regiune cu orarul și regimul de lucru, cadrul legal normativ de utilizare a resurselor și protecției mediului în procesele tehnologice de construcție, respectarea cerințelor și normativelor sanitaro-ecologice și tehnice conduc la minimalizarea posibelor pagube condiționate
Decommissioning Phase: (it is unlikely that any of the enterprises will undergo decommissioning in a 25-50 period from initial start up or refurbishment but if such should occur then the listed impacts should be considered).				
Same as above for construction	See above	See above	See above	

Potential Impacts	Causes	Consequences	Mitigation Required	Remarks
plus:				
Waste	Concrete, blocks, steel, glass will result from demolition; old equipment will be dismantled.	Public safety hazard. Waste of resources.	Removal and recycling or effective disposal of all toxic materials; complete demolition after recycling useful materials; removal to a designated and environmentally safe disposal site and burial of clean and inert materials.	Întreținerea și exploatarea construcțiilor conform proiectelor de execuție, reparațiile curente și capitale necesare pot minimaliza formarea deșeurilor pe parcursul funcționării construcțiilor
Aesthetics		Unightly site (as are many industrial sites from former Soviet times).	Following removal of all materials (see above), site to be formed (topsoil where relevant and feasible) and landscaped, where appropriate, to suit surrounding areas.	Amenajarea și întreținerea teritoriului în stare sanitaro-ecologică, plantarea și întreținerea spațiilor verzi asigură aspectul estetic plăcut.
Soil erosion	As for construction phase above.			
Safety	As for construction phase above.			

**Annex E. Report on consultation on the Draft EMF with interested parties**

**Date:** March 31, 2015

**Venue:** Ministry of Education, Chisinau

Objective	Invitees	Participants	Summary, conclusions and comments
<p>To introduce the MERP project and its components, including EMF and Environmental Guidelines, and solicit feedback</p>	<p>There were not sent personal invitations. The invitation to participate in Consultation was sent electronically to the following institutions:</p> <ul style="list-style-type: none"> <li>' Ministry of Education</li> <li>' Ministry of Environment</li> <li>' State Ecological Inspectorate</li> <li>' Institute of Ecology and Geography</li> <li>' Regional Environmental Center (REC) Moldova (NGO)</li> <li>' National Environmental Center (NGO)</li> </ul>	<p style="text-align: center; color: lightcoral; font-size: 48px; opacity: 0.5;">DRAFT</p>	



**Annex F. Reference Documents for World Bank Operational Policies (OP) and Bank Procedures (BP)**

OP 4.01 Environmental Assessment

<http://wbln0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/9367A2A9D9DAEED38525672C007D0972?OpenDocument>

BP 4.01 Environmental Assessment

<http://wbln0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/C4241D657823FD818525672C007D096E?OpenDocument>

OP 4.04 Natural Habitats

<http://wbln0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/71432937FA0B753F8525672C007D07AA?OpenDocument>

BP. 4.04 Natural Habitats

<http://wbln0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/62B0042EF3FBA64D8525672C007D0773?OpenDocument>

OP 4.09 Pest Management

<http://wbln0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/665DA6CA847982168525672C007D07A3?OpenDocument>

OP 4.11 Cultural Property

<http://wbln0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/55FA484A98BC2E688525672C005BCBDB?OpenDocument>

OP 4.12 Involuntary Resettlement

<http://wbln0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/CA2D01A4D1BDF58085256B19008197F6?OpenDocument>

BP 4.12 Involuntary Resettlement

<http://wbln0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/19036F316CAFA52685256B190080B90A?OpenDocument>

OD 4.20 Indigenous Peoples

<http://wbln0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/0F7D6F3F04DD70398525672C007D08ED?OpenDocument>

OP 4.36 Forests

<http://wbln0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/C972D5438F4D1FB78525672C007D077A?OpenDocument>

BP 4.36 Forests

<http://wbln0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/0AE075DC916559D985256C79000BDEF0?OpenDocument>

OP 4.37 Safety of Dams

<http://wbln0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/C12766B6C9D109548525672C007D07B9?OpenDocument>

BP 4.37 Safety of Dams

<http://wbln0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/D3448207C94C92628525672C007D0733?OpenDocument>

OP 4.76 Tobacco

<http://wbIn0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/DBE1A283D3BF9D078525672C007D075E?OpenDocument>

OP 7.50 Projects on International Waterways

<http://wbIn0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/5F511C57E7F3A3DD8525672C007D07A2?OpenDocument>

BP 7.50 Projects on International Waterways

<http://wbIn0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/47D35C1186367F338525672C007D07AE?OpenDocument>

OP 7.60 Projects in Disputed Areas

<http://wbIn0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/72CC6840FC533D508525672C007D076B?OpenDocument>

BP 7.60 Projects in Disputed Areas

<http://wbIn0018.worldbank.org/Institutional/Manuals/OpManual.nsf/toc2/5DB8B30312AD33108525672C007D0788?OpenDocument>

DRAFT